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Reducing Hunger and Undernutrition

The Hunger And Nutrition Commitment Index (HANCI 2012)

Measuring the Political Commitment to Reduce Hunger and
Undernutrition in Developing Countries

Dolf J.H. te Lintelo, Lawrence J. Haddad, Rajith Lakshman and Karine Gatellier

September 2013

The IDS programme on Strengthening Evidence-based Policy works across seven key themes. Each theme works with partner institutions to co-construct policy-relevant knowledge and engage in policy-influencing processes. This material has been developed under the Reducing Hunger and Undernutrition theme.

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THE HUNGER AND NUTRITION COMMITMENT INDEX (HANCI 2012): MEASURING THE POLITICAL COMMITMENT TO REDUCE HUNGER AND UNDERNUTRITION IN DEVELOPING COUNTRIES

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Abbreviations

AAB	ActionAid Bangladesh
ADMARC	Agricultural Development and Marketing Corporation
BINP	Bangladesh Integrated Nutrition Project
BRIICS	Brazil, Russia, India, Indonesia, China, South Africa
CAADP	Comprehensive Africa Agriculture Development Programme
DHS	Demographic and Health Survey
DNHA	Department of Nutrition, HIV and AIDS (Malawi)
FGD	Focus group discussion
FISP	Farm Input Subsidy Programme
FSP	Food Security Pack
GoB	Government of Bangladesh
GoM	Government of Malawi
GoZ	Government of Zambia
HANCI	Hunger And Nutrition Commitment Index
HDI	Human Development Index
HRCI	Hunger Reduction Commitment Index
ICMBS	International Code of Marketing of Breastmilk Substitutes
IFAD	International Fund for Agricultural Development
IFPRI	International Food Policy Research Institute
MICS	Multiple Indicator Cluster Survey
MoHFW	Ministry of Health and Family Welfare (Bangladesh)
MVAC	Malawi Vulnerability Assessment Committee
PCA	Principal Components Analysis
PUSH	Programme for Urban Self Help
rtf	Right to food
SUN	Scaling Up Nutrition
UNDP	United Nations Development Programme
VGD	Vulnerable Group Distribution
VGF	Vulnerable Group Feeding

Executive summary

What is the HANCI?

The Hunger And Nutrition Commitment Index (HANCI) was launched in April 2013 to:

1. Rank governments on their political commitment to tackling hunger and undernutrition;
2. Measure what governments achieve and where they fail in addressing hunger and undernutrition – providing greater transparency and public accountability;
3. Praise governments where due, and highlight areas for improvement;
4. Support civil society to reinforce and stimulate additional commitment towards accelerating the reduction of hunger and undernutrition;
5. Assess whether improving commitment levels lead to a reduction in hunger and undernutrition.

Why measure political commitment to reduce hunger and undernutrition?

Globally, levels of hunger and undernutrition remain unacceptably high.

Hunger and undernutrition are among the most persistent global development challenges. At the global level, insufficient progress has been made towards achieving Millennium Development Goal 1. Global numbers of undernourished people have been static at 870 million for the past five years and the prevalence of stunting has remained high in South Asia and sub-Saharan Africa at around 40 per cent (FAO 2012). One in eight people do not get enough food to be healthy and lead an active life. Undernutrition contributes to 2.6 million deaths of children under five each year – one-third of the global total.

Progress towards reducing hunger and undernutrition has been highly variable.

Many developing countries have benefited from substantial economic growth during the last two decades. For growth to have maximum impact, the poor must benefit from the growth process, enabling them to use additional income for improving the quantity and quality of their diets, and for accessing health and sanitation services, whereas governments need to use additional resources for public goods and services to benefit the poor and hungry. Thus, *'economic growth is necessary but not sufficient to rapidly accelerate reduction of hunger and malnutrition unless it is equitable'* (FAO 2012).

A high level of political commitment is essential to prioritise the fight against hunger and malnutrition (FAO 2012).

There are many reasons for insufficient progress in reducing hunger and undernutrition. One of these is a 'lack of political will' or political prioritisation (FAO 2012: 22). Political commitment to reduce hunger and undernutrition would be shown by purposeful and decisive public action, through public policies and programmes, public spending and legislation that are designed to tackle these twin problems, drawing on newly gained wealth.

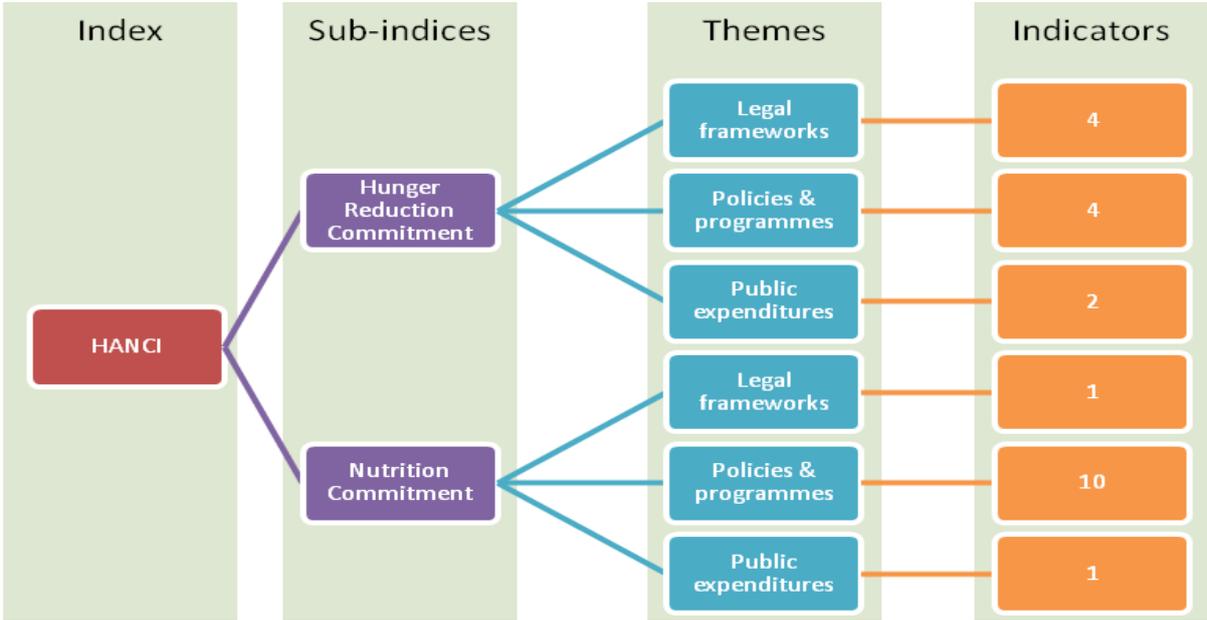
The research methodology

The HANCI compares **45 developing countries** for their performance on **22 indicators of political commitment to reduce hunger and undernutrition**. It looks at three areas of government action:

1. Legal frameworks
2. Policies and programmes
3. Public expenditures

Figure ES.1 shows the structure of the HANCI.

Figure ES.1 Structure of the HANCI



The HANCI separately measures commitment to reduce hunger and commitment to reduce undernutrition, because *hunger and undernutrition are not the same thing*. Hunger is the result of an empty stomach and is caused by people having insufficient income or social and economic entitlements to access food. Hunger makes people more susceptible to disease and thus leads to increased illness and death. Hunger strongly undermines development. To ‘cope’ with hunger families can be forced to sell vital assets, such as farming tools, often perpetuating their vulnerability to hunger. Hunger can mean that children (particularly girls) are taken out of school so they can work; it causes communities to migrate away from their homes and, at worst, leads to permanent destitution, prostitution and child trafficking. Hunger also contributes to the onset of armed conflict (Foresight Project 2011: 3).

Undernutrition is related to, though subtly different from, hunger. Undernutrition is not only a consequence of hunger, but can also exist in the absence of hunger, and can be caused by non-food factors. Undernutrition results from both a critical lack of nutrients in people’s diets and a weakened immune system. In a vicious cycle, poor nutritional intake can make people more susceptible to infectious diseases while exposure to disease can lower people’s appetite and nutrient absorption. Undernutrition in the first 1,000 days of a child’s life (from conception until the age of two) has lifelong and largely irreversible impacts because it impairs a child’s physical and mental development. Undernutrition increases the risk of chronic diseases and premature death in adulthood, and negatively affects people’s lifelong ability to learn, be economically productive, earn income and sustain their livelihoods, and thus perpetuates poverty. In short, undernutrition undermines all aspects of development.

Because hunger and nutrition are not the same thing, we investigate both hunger reduction commitment and undernutrition reduction commitment using distinct measures. For instance, governments can support child care and feeding practices and take measures to improve sanitation: such measures are critical for improving nutrition, though less clearly related to hunger. Conversely, emergency food aid, or subsidised food in ration shops can help to reduce hunger, but are often not aimed at achieving a balanced diet. By separately analysing nutrition commitment and hunger reduction commitment we identify how governments prioritise action on hunger and/or undernutrition.

The Hunger And Nutrition Commitment Index draws on secondary data (owned by governments) and complements this with primary data on expert and community perspectives on political commitment in Bangladesh, Malawi and Zambia.

We situate levels of political commitment within specific country contexts, such as their levels of wealth and economic growth, government effectiveness and, not least, their hunger and undernutrition statuses.

Key findings

Guatemala claims top spot and Guinea Bissau is the worst performing country in 2012

Guatemala is a resounding number one on our list. When compared to the other 44 countries that were assessed, Guatemala performs best for *both* hunger and nutrition commitment. It does especially well in terms of nutrition commitment. This is very encouraging as undernutrition in particular constitutes a major challenge for Guatemala. The country has one of the world's highest child stunting rates (48 per cent), and annually loses over US\$300 million in GDP to vitamin and mineral deficiencies (World Bank 2010). The Global Hunger Index considers the situation in Guatemala to be 'alarming' (WHH, IFPRI and Concern 2012). While much remains to be done, and substantial social inequities persist between indigenous and other communities, hunger and nutrition outcomes in Guatemala are gradually improving. This is partially thanks to substantial political commitment expressed through a range of efforts by the Government of Guatemala:

1. Ensuring high level of access to drinking water (92 per cent of the population);
2. Ensuring good levels of access to improved sanitation (78 per cent);
3. Promoting complementary feeding practices, and ensuring over nine out of ten pregnant women are visited by a skilled health personnel at least once before delivery;
4. Investing substantially in health and having a separate nutrition budget line to make its spending accountable to all;
5. Putting in place a Zero Hunger Plan that aims to reduce chronic malnutrition in children less than five years of age by 10 per cent in 2016;
6. Ensuring that public policy is informed by robust and up-to-date evidence on nutrition statuses;
7. Establishing a multi-sectoral and multi-stakeholder coordination mechanism that is regionally recognised as an example of good practice.

Guinea Bissau shows the lowest level of political commitment to reduce hunger and undernutrition. This is very worrying, because the country faces very serious hunger and nutrition challenges. The Global Hunger Index considers the situation in Guinea Bissau to be 'alarming'. Child stunting rates are fairly high (28 per cent), though not as high as in Guatemala (48 per cent), but the contrast in government commitment levels is very sharp.

Guinea Bissau fails to invest in agriculture, despite a commitment to invest 10 per cent of its budgets in agriculture (as part of the African Union's Maputo Declaration). Access to agricultural extension services is weak. While Guinea Bissau makes modest investments in health, it is not yet setting aside budgets for nutrition. Its nutrition policies, while not altogether lacking, need substantial strengthening, for instance by instituting coordination mechanisms and by establishing time-bound nutrition targets. Guinea Bissau needs to strengthen people's right to social security and enhance very weak economic rights for women. While this leaves women especially vulnerable to hunger and destitution, there are yet no effective safety nets to protect them and other vulnerable groups.

Economic growth has not necessarily led to a commitment from governments to tackle hunger and undernutrition

Sub-Saharan Africa and South Asia are global hotspots of hunger and undernutrition. Here, not only is hunger and undernutrition prevalence high, this is also where hunger is increasing most rapidly. Many countries within these regions have achieved substantial and sustained economic growth over the last decade. This makes it possible for governments to more effectively address hunger and undernutrition. Yet, progress on reducing hunger and undernutrition is either too slow (e.g. South Asia) or stagnating (e.g. sub-Saharan Africa).

Low wealth or slow economic growth in a country does not necessarily imply low levels of political commitment

Our data shows that in cases where there are serious hunger and nutrition challenges, low aggregate and per capita wealth in a country does not mean that governments are simply unable to act on hunger and undernutrition. For instance, Angola and Malawi both have an 'alarming' and Guinea Bissau a 'serious' hunger status (WHH/IFPRI/Concern 2012). Out of these three countries, Malawi has by far the lowest Gross National Income per capita (\$870) as compared to Guinea Bissau (\$1,240) and Angola (\$5,230), and relatively slower economic growth. Yet, Malawi ranks 2nd on the HANCI, while Angola and Guinea Bissau languish at the bottom of the league table. Similarly, India's child stunting rates are on a par with Guatemala's. The latter's somewhat higher GNI per head (\$4,390 compared to \$3,590), however, seems insufficient to explain the divergence in political commitment levels.

Significantly, within areas of high and growing hunger and undernutrition prevalence, some countries are clearly showing much greater political commitment to address these problems than others

Thus, the political commitment levels of the global rising economic powers (BRIICS) vary substantially. South Africa performs strongly on hunger commitment, and relatively poorly on nutrition commitment. Brazil and Indonesia perform well overall. China does well in terms of hunger commitment, though less strongly on nutrition commitment. India's commitment ranking is lowest within the group of BRIICS, even though its hunger and nutrition situation is the most serious.

Within sub-Saharan Africa, there are some success stories to be told. Some of the smaller economic powers (Malawi, Madagascar, The Gambia) are now leading the charge against hunger and undernutrition, leaving traditional powerhouses (South Africa, Ethiopia, Nigeria, Kenya, Angola) in their wake.

The relative commitment to hunger reduction does not predict the relative commitment to nutrition

In fact, we found a low correlation between the two. This is demonstrated by the divergent performance of countries such as Nepal, South Africa and Mali on the two sub-indices.

- Nepal ranks number three for nutrition commitment, but ranks only 34th (out of 45 countries) for hunger reduction commitment.
- Peru ranks 2nd highest for hunger reduction commitment, 11th for nutrition commitment.
- The Gambia ranks 24th for hunger commitment, 2nd for nutrition commitment.
- Mali ranks 5th on hunger commitment and 29th on nutrition commitment.
- South Africa shows 2nd highest commitment levels for hunger reduction, though ranks 36th for nutrition commitment.

1 Introduction

Hunger and undernutrition are among the most persistent global development challenges. At the global level, insufficient progress has been made towards achieving Millennium Development Goal 1. At the global level the numbers of undernourished people have been static at 870 million for the past five years and the prevalence of stunting has remained high in South Asia and sub-Saharan Africa at around 40 per cent (FAO 2012).

There are many reasons¹ for insufficient progress in reducing hunger and undernutrition. One of these is a 'lack of political will' or political prioritisation (FAO 2012: 22). Political commitment to reduce hunger and undernutrition would be shown by purposeful and decisive public action, through legislation, public policies and programmes and public spending that are designed to tackle these twin problems.

Hunger and undernutrition reduction are currently on donor agendas. In April 2013, the Irish government inaugurates its Presidency of the European Union with the hosting of a conference on Hunger, Nutrition and Climate Justice. In June 2013, the British government led by the Prime Minister David Cameron will host the G-8 summit seeking to persuade donor as well as developing countries to make new commitments aiming to address hunger and undernutrition and to be accountable for doing so. In May 2012, health leaders worldwide adopted the Maternal, Infant and Young Child Nutrition Plan at the 65th World Health Assembly, agreeing to commit to reducing the number of stunted children in the world by 40 per cent by 2025. Underpinning much of this is the Scaling Up Nutrition (SUN) movement, which seeks to galvanise and guide public and private action towards improved nutrition outcomes, especially for the worst off.

How will we know whether commitments like these are being made, if they will be met, and if all countries are pulling their weight?

This report presents the first Hunger And Nutrition Commitment Index (HANCI). The HANCI presents a new tool to assess the extent of government commitment to reduce hunger and undernutrition.

The HANCI's objective is to develop a credible measure of the commitment to reduce hunger and undernutrition to help focus support and pressure for change. The measurement of hunger and nutrition outcomes alone is not a sufficiently strong accountability mechanism, largely because attribution is difficult. There are many factors contributing to hunger and undernutrition outcomes, many of which governments cannot control. Moreover, in the absence of transparency and better information on what governments are doing to address the situation, it is very difficult to link outcomes with government action or inaction. When the outcomes trend positively, governments can claim credit (perhaps falsely), and when they trend badly, governments get the blame (perhaps unfairly). We thus need to be able to track a government's commitment.

How might the measurement of political commitment change anything? The theory of change behind the HANCI is that: (a) by credibly measuring commitment it will strengthen our ability to hold governments to account for their efforts in reducing undernutrition and hunger; (b) if

¹ The Global Strategic Framework for Food Security and Nutrition (cited in FAO 2012) identifies the following causes of hunger and malnutrition: 'lack of good governance to ensure transparency, accountability and rule of law, which underpin access to food and higher living standards; lack of high-level political commitment and prioritization of the fight against hunger and malnutrition, including failure to fully implement past pledges and commitments and lack of accountability; lack of coherence in policymaking within countries, but also globally and regionally; lack of prioritization of policies, plans, programmes and funding to tackle hunger, malnutrition and food insecurity, focusing in particular on the most vulnerable and food insecure populations; war, conflict, lack of security, political instability and weak institutions; and weak international governance of food security and nutrition'.

civil society is better able to hold governments to account, it can apply pressure and ensure that hunger and undernutrition are put high on development agendas; (c) governments can hold themselves to account in their efforts to keep hunger and undernutrition high on the agenda: the index can help them to track and prioritise their efforts because the index is constructed on the basis of performance in different areas (legal, policy and expenditure); and (d) commitment can be linked to outcomes, to allow all to assess the 'value added' of different commitments and effort.

The HANCI is unique in three respects. First, its methodological insistence on decoupling the measurement of political commitment from outcomes (levels of hunger and undernutrition) distinguishes it from other food security metrics and scorecards, such as the Global Hunger Index (WHH, IFPRI and Concern 2012), the Global Food Security Index (EIU 2012); SUN country analyses (SUN 2012b) and WHO's Global Landscape Analyses (WHO 2012a). Second, the HANCI presents composite as well as separate analyses of the political commitment to hunger reduction (using ten distinct indicators) and undernutrition reduction (12 indicators). Third, while the HANCI is calculated using secondary (government-owned) data, primary research is employed to deepen analysis of political commitment for selected countries in order to further support in-country advocacy by partner organisations.

This report focuses on political commitment in developing countries; an accompanying report interrogating the commitment of donor countries will be launched ahead of the G-8 2013 summit.

1.1 HANCI: what's new?

We end this introductory chapter by setting out what is new about the HANCI. The HANCI substantially builds on (and replaces) the Hunger Reduction Commitment Index (HRCI) (te Lintelo, Haddad, Leavy and Stanley 2011), drawing on its theory of change and methodology.

The HANCI also presents a substantial range of innovations (Table 1.1). Thus, the HANCI:

- Establishes a set of nutrition commitment indicators;
- Separately analyses political commitment for improved nutrition and political commitment to reduce hunger;
- Introduces a new set of indicators, across the familiar themes of expenditures, legal frameworks and policies and programmes;
- Covers a greater range of countries in its rankings;
- Covers a greater range of countries in which primary research is conducted;
- Presents community perspectives on political commitment within selected countries.

1.1.1 HANCI dissemination

If the HANCI is to add value by highlighting success and deficits in commitment to ending hunger and undernutrition, it has to be well known and easy to access. We have begun the first phase of setting up mechanisms and channels for outreach and developed a communications plan.

A new website has been launched (www.hancindex.org) to coincide with the publication of the first index. It will be regularly updated to provide latest information on the project and to provide access to relevant background papers, presentations and the latest data. Users interested in the project can subscribe to receive updates.

Table 1.1 Overview of features of HANCI and HRCI for developing countries

Features	HANCI 2012	HRCI 2011
Focus	Hunger commitment + Nutrition commitment	Hunger commitment
Themes	Legal frameworks Policies and programmes Public expenditures	
Secondary data		
Countries	45	21
Indicators	22	9
Index construction		
Indicator values aggregated	Normalised values, at theme level	Normalised values, at theme level
Ranking scheme	Borda	Borda
Primary data		
Countries	Bangladesh (this report) Ethiopia (in process) India (in process) Malawi (this report) Nepal (in process) Tanzania (in process) Zambia (this report)	Bangladesh Zambia
Experts interviewed	133	72
Community sites	16	0
Communications products and awareness raising	2 reports 3 audio slideshows 1 animated film on HANCI (under development) 2 blogs 1 IDS seminar External presentations: • FAO (December 2012); • Irish Aid (September 2012); • IDS Nutrition Training Course (June 2012) Workshops: • India (May 2012; December 2012) • Bangladesh (May 2012; August 2012) Consultations: • ONE Campaign; • Save the Children, Oxfam	1 report 3 external presentations 1 blog 1 HRCI workshop 1 IDS seminar
Website	www.hancindex.org	www.hrcindex.org

The website includes a number of interactive data visualisation applications. These present HANCI findings in a number of ways and allow users to interact with and explore the underlying data.

Multimedia products such as an animated film, photo-slideshows and interviews are being developed to explain the HANCI and reflect the views and experiences of communities most affected by hunger and undernutrition. These will also be available on the HANCI website.

The HANCI approach has been developed and shared with practitioners in key countries. Three HANCI workshops were run in India and Bangladesh in 2012. A launch event in Bangladesh scheduled for March 2013 had to be postponed due to political instability.

The HANCI approach has also had exposure at high-level development events. The HANCI was presented to the UK Global Hunger Event in August 2012, to Irish Aid officials in September 2012 and at a Food and Agriculture Organization (FAO) consultation in Rome on 'New metrics to measure and monitor performance in agriculture and food security' in December 2012. Further attention was brought to the HANCI at the launch events of the Global Hunger Index 2012 and the Ibrahim Index for African Governance in October 2012.

HANCI findings will be presented in a pod-casted IDS seminar in April 2013. Awareness-raising workshops are planned to take place in Zambia, Tanzania, Nigeria and possibly Nepal in the coming months. A launch event will be organised in Bangladesh.

In addition, discussions were held on multiple occasions with policy directors of the ONE Campaign and with Save the Children on HANCI indicators and country selection and to identify possible outreach avenues using ONE and Save the Children's global and in-country networks.

HANCI blogs were written on the IDS Povertics blog (November 2012), as well as the Development Horizons blog by Lawrence Haddad and the Povertics site (April 2013).

The project was covered as a news item on the IDS website (April 2013).

In order to assess the impact of the HANCI, an outcome mapping exercise was undertaken to identify stakeholders, boundary partners and 'expect to see', 'like to see' and 'love to see' results. In coming years, the project will seek to establish evidence of impact using the outcome map. It is presented in Annex 6.

The remainder of the report is structured as follows. Chapter 2 focuses on the HANCI methodology, discussing both secondary and primary data collection and use. Chapter 3 presents the HANCI country rankings, based on secondary data analysis. Chapter 4 discusses the empirical functioning of the index and the findings from a sensitivity analysis. Chapter 5 presents findings from primary research for three case study countries (Bangladesh, Malawi and Zambia). It is followed by a brief set of conclusions in Chapter 6.

2 Methodology

This chapter sets out a conceptualisation of key terms, followed by a first section discussing the methodological choices involved in developing the index based on secondary data. A second section reflects on the research methodology for the collection and use of primary data, drawing on expert and community perceptions of political commitment in Bangladesh, Malawi and Zambia.

2.1 Building the HANCI using secondary data

Index construction involves decisions about what indicators to include and how to weight each. Indices need to be critically evaluated on the following aspects (Ravallion 2010):

- Conceptual clarity;
- Transparency about trade-offs within the index;
- Robustness tests; openness on the quality of data and on the weights used;
- A critical perspective on policy relevance.

The following sections reflect on these aspects.

2.1.1 Conceptualising political commitment, hunger and undernutrition

The concept of political commitment can be broken down into components of government action and intention (te Lintelo *et al.* 2011). The difficulty of identifying and measuring intention leads us to focus on government action² towards hunger reduction and improved nutrition. Actions of particular interest concern sustained material, legal and financial efforts (POLICY Project 2000). Government action addressing social problems typically takes the form of a combination of legislation and policy or programmatic action, with both underpinned by public spending. Consequently, we identify three domains or themes under which government action is compared across a selected group of developing countries: (a) Legal frameworks, (b) Policies and programmes, and (c) Public expenditures. For each theme, we identify several indicators for which secondary (existing) data can be used to measure political commitment.

How do we apply these themes to hunger and undernutrition? We choose to relate the index to the term hunger because hunger resonates with non-experts, and the index is designed to help those who want to motivate non-experts to put pressure on their governments to act. Hunger is the body's way of signalling that it is running short of food and needs to eat something. Hunger can lead to malnutrition (SUN 2010). Nevertheless, hunger, undernutrition and food insecurity are not the same thing (Foresight Project 2011). For example, an individual can be food insecure and suffering from undernutrition, but not hungry because although the quality of his or her diet is poor, the bulk is sufficient to satiate.

The operationalisation of the HANCI is informed by definitions of food security and nutrition security. 'Food security exists when all people at all times have physical, social and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life' (CFS 2009). A broad interpretation of this definition recognises that individuals' access to adequate food that fully satisfies nutritional needs must be understood in conjunction with non-food factors that enable a person to metabolise their

² For the purpose of building an index that compares across countries, this project focuses on national-level governments. This aggregates political will at a high level and is thus not suitable for identifying differences in commitment at a lower level of aggregation, e.g. across departments, or between levels of administration.

food and use the nutrients to support growth, to maintain the body and to carry out basic life functions (CFS 2012). The concept of nutrition security makes such aspects more explicit. Thus, nutrition security is achieved when secure access to an appropriately nutritious diet is coupled with a sanitary environment and adequate health services and care, to ensure a healthy and active life for all household members (SUN 2010).³ Accordingly, the HANCI references key dimensions of food availability, access, stability and utilisation emphasised in the food security definition, and also actively seeks to address food, care-related and other non-food aspects of nutrition more explicitly identified in the nutrition security definition.

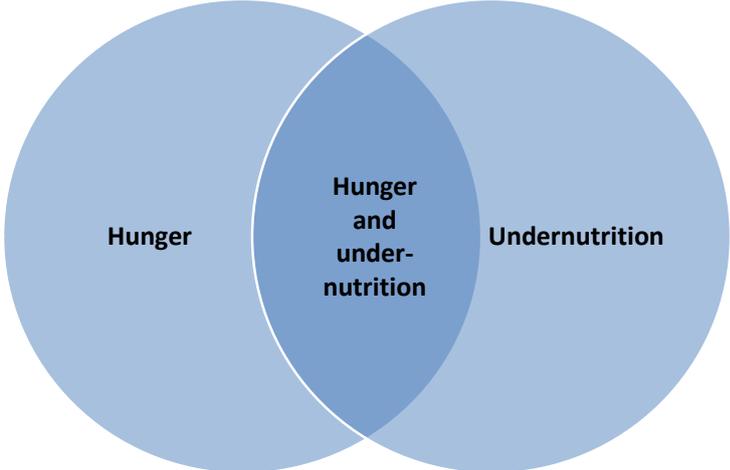
2.1.2 Indicator and country selection criteria

Malnutrition is often misperceived by policymakers as a basic food problem, rather than a complex multisectoral problem. Welcome efforts to raise awareness of the problem mostly focus on outcomes – such as the Global Hunger Index – but more emphasis is needed on inputs... as well as better tracking of more specific nutrition policies. (Headey 2011: 30)

The HANCI distinguishes (levels of) political commitment to reduce hunger and undernutrition from actual hunger and nutrition outcomes. While political commitment should drive such lagged outcomes and outcomes should affect commitment in turn, there are many other factors that drive hunger and undernutrition. Commitment should therefore not be confused with outcomes, and should be measured separately. Hence, the HANCI is calculated using political commitment indicators only. Yet, commitment must be understood within context. Chapter 3 accordingly presents how commitment levels compare to critical context variables such as hunger and undernutrition levels, wealth and governance effectiveness.

Hunger, undernutrition and the commitment to fighting hunger and undernutrition are imprecise concepts and need to be approximated by several variables. We use a theory-based approach to the selection of the index items and are guided by three general principles.

Figure 2.1 Aspects covered by HANCI indicators



³ At the global level, undernutrition, especially among children, increasingly coexists with overweight and diet-related chronic diseases and micronutrient malnutrition. While this double burden of malnutrition is growing (FAO 2012), the HANCI focuses on undernutrition because we are unable to find suitable indicators of political commitment to address overnutrition for which data is available across a wide range of countries.

First, indicators should cover the major aspects of efforts to reduce hunger and to enhance nutrition: food availability (production and market availability), food access (the ability to access and purchase food) and food utilisation (including non-food factors affecting individuals' ability to use food to build and maintain nutrition status and to carry out basic life functions). We include a variety of indicators that (a) address only hunger; (b) address both hunger and nutrition; and (c) focus only on nutrition (Figure 2.1). For instance, governments can promote exclusive breastfeeding or improve sanitation; these are important nutrition interventions (c) but they rarely aim to address hunger *per se*. Conversely, emergency food aid or subsidised food in ration shops can help to reduce hunger, but are often not aimed at achieving a balanced diet. Annex 3 shows which HANCI indicators fall under the three categories.

Second, we looked for indicators representing different types of nutrition interventions.

- *Nutrition-specific or direct* interventions (e.g. complementary feeding).
- *Nutrition-sensitive or indirect* nutrition interventions (e.g. skilled health attendance for pregnant women).
- Indicators referring to wider political and financial *enabling environments* (FAO 2012) necessary to sustain progress in tackling global undernutrition. Gillespie, Haddad, Mannar, Menon and Nisbett (forthcoming) define an 'enabling environment' as the 'wider political and policy processes which build and sustain momentum for the effective implementation of actions that reduce undernutrition' (Gillespie *et al.* 2013).

Third, we select indicators that are simple and transparent in order to be easily understood by all stakeholders.

The process of identifying indicators started with a brief review of literature on hunger and nutrition commitment drawing on sources such as the WHO Nutrition Landscape Information System (Chopra, Pelletier, Witten and Dieterich 2009; Engesveen, Nishida, Prudhon and Shrimpton 2009; REACH 2012); Scaling Up Nutrition country documents and reflections on the SUN process (SUN 2010, 2011; ACF 2012; Mannar 2012; SUN 2012a, 2012b); work at IDS on nutrition governance (Mejia-Acosta and Fanzo 2012) and the Hunger Reduction Commitment Index (te Lintelo *et al.* 2011; STC and WVI 2012). We further reflected on how governments could contribute towards achieving highly effective nutrition interventions identified in the 2008 Lancet series on nutrition (Bhutta, Ahmed, Black *et al.* 2008). We also drew on the work of Gillespie *et al.* (2013) in the Lancet series on nutrition.

Having drafted a list of tentative indicators, we operationalised these and consulted hunger and nutrition specialists at IDS about the suitability of indicators. We also benefited from academic peer reviews of an article submitted for publication regarding the HRCI. Having identified indicators that we would have liked to be included in the HANCI, we conducted a desk review to identify data sources, drawing on international databases, academic and grey literature and web-based materials.

Countries included in the HANCI (Table 2.1) were selected on one or more of the following grounds:

- Being part of the 'high burden' countries for undernutrition identified in the Lancet Series 2008;
- Being focus countries of the Scaling Up Nutrition Movement;
- Having been included in HRCI 2011;
- Being countries in which partners such as the ONE Campaign and Save the Children operate to optimise use of the HANCI in hunger and nutrition advocacy.

Table 2.1 HANCI 2012 countries, in alphabetical order

Afghanistan	China	Indonesia	Myanmar	Sierra Leone
Angola	Congo, DR	Kenya	Nepal	South Africa
Bangladesh	Côte d'Ivoire	Lesotho	Niger	Sudan
Benin	Ethiopia	Liberia	Nigeria	Tanzania
Brazil	Gambia	Madagascar	Pakistan	Togo
Burkina Faso	Ghana	Malawi	Peru	Uganda
Burundi	Guatemala	Mali	Philippines	Vietnam
Cambodia	Guinea Bissau	Mauritania	Rwanda	Yemen
Cameroon	India	Mozambique	Senegal	Zambia

We were also mindful of the quality of the data as reported by other analysts (Ravallion 2010) and whether there was sufficient variation in indicator scores across countries to be able to distinguish between countries. For reasons of data unavailability, several countries were excluded from the HANCI, notably Cape Verde, Iraq and Turkey. Annex 1 shows the indicators that we considered including but were unable to, and explain why they could not be included (chiefly because of data unavailability and lack of variation from year to year).

2.2 HANCI indicators

This section first provides an overview of selected HANCI indicators (Table 2.2). It is followed by a brief discussion of the logic behind each indicator's selection.

Table 2.2 HANCI indicators by theme and by type of intervention

	Legal frameworks	Policies and programmes	Public expenditures
Direct interventions	ICMBS in domestic law* Constitutional right to food [‡]	Vitamin A coverage* Complementary feeding*	Nutrition budget*
Indirect interventions	Women's access to agricultural land [‡]	Access to improved drinking water* Access to sanitation* Skilled birth attendance*	Public expenditures on agriculture [†]
Enabling environment	Constitutional right to social security [‡] Women's economic rights [‡]	Civil registration of live births [‡] Status of safety nets [‡] Security of access to land [†] Access to agricultural extension services [†] Nutrition in national development policies/strategies* National nutrition plan or strategy* Multi-sectoral and multi-stakeholder coordination mechanism* Time-bound nutrition targets* National nutrition survey [‡]	Public expenditures on health [†]

ICMBS, International Code of Marketing of Breastmilk Substitutes.

*Nutrition indicators, [†]Hunger reduction indicators, [‡]Hunger and nutrition indicators.

2.2.1 Hunger reduction commitment indicators

The index assesses political commitment to reduce hunger and undernutrition and increase food security, all of which are multifaceted. We deliberately include indicators that allow the index to assess 'curative' action (efforts that seek to address immediate needs) as well as 'preventive' action (efforts to avert future hunger and undernutrition incidence, to reduce food insecurity and to prevent people from becoming malnourished). Consequently, some of our

proxy indicators measure interventions that are not primarily instituted to combat hunger or undernutrition (e.g. civil registration of births or investments in public health). Nevertheless, governments recognise that these efforts do contribute to hunger reduction and improved nutrition statuses in the short, medium and long term, and are therefore included in the index.

The discussion below refers to key data sources. Complete data sources can be made available upon request to the authors.

The HANCI's ten indicators for hunger reduction commitment draw substantially on the HRCI (te Lintelo *et al.* 2011) albeit with some modifications.⁴

Legal framework

For the Legal framework theme, the four hunger reduction commitment indicators are:

Women's access to agricultural land

Women are vital players in food production systems yet often lack equal legal status in respect of access to productive agricultural land. Even in cases where women have *de jure* equal status to men, this often does not translate into *de facto* equality of access. This enhances women's vulnerability to hunger. If women in rural areas had the same access to land, technology, financial services, education and markets as men, agricultural production could be increased and the number of hungry people reduced by 100–150 million (FAO 2011). The data are derived from the OECD Social Institutions and Gender Index (OECD undated).

Women's economic rights

This indicator is based on the Cingranelli-Richards Human Rights Index (CIRI 2010). It assesses the extent to which women have equal economic rights, legally and in practice. It assesses whether systematic gender discrimination is built into law, and the extent to which governments effectively enforce equal rights legislation. Gender discrimination, in law and in practice reduces the economic opportunities for women to gain income and support their livelihoods, and accordingly renders them more vulnerable to hunger.

Constitutional right to social security

The constitutional right to social security signals a clear willingness and strong legal duty for governments to protect their citizens from destitution and attendant hunger. Our data are derived from (Vidar 2006; Knuth and Vidar 2011) and a manual update.

Constitutional right to food

A constitutional right to food provides a very clear signal of government commitment to reduce hunger. This indicator recognises the various ways in which such a right may be more or less explicitly incorporated in the highest body of law. Data are derived from Vidar (2006) and Knuth and Vidar (2011) and a manual update.

Policies and programmes

For the Policies and programmes theme, the following four indicators were selected:

⁴ The indicators on the 'Implementation of FAO national programmes for food security' and 'Public expenditure on education' were dropped following expert consultations and peer review because they were considered to be weak commitment indicators for governments. We added three new indicators: 'Security of access to agricultural land', 'Access to agricultural extension services' and 'Status of social safety nets'.

Civil registration of births

Public acknowledgement of an individual's existence from birth (to death) is vital for the effective realisation of various legal and civil rights enshrined in constitutional declarations and socio-economic provisions granted by states (Szreter 2007: 67–68). It enhances access to a range of government services, including health and social protection, which can assist in combating hunger. Moreover, an identity registration system, in conjunction with collective social security provision, can be of fundamental importance for the stimulation of economic growth, even in impoverished agrarian economies (Szreter 2007: 69). This indicator assesses the share of children under five years of age that were registered at birth. Data on this indicator are derived from the annually published World Health Statistics of the World Health Organisation and UNICEF (2012b).

Security of access to land

This indicator draws on International Fund for Agricultural Development (IFAD) expert assessments (<http://info.worldbank.org/governance/wgi/pdf/IFD.xlsx>) of the extent to which countries' legal, institutional and market frameworks provide a basis for the poor to have secure access to land, in the form of individual title and as common property resources. Access to land critically enables people to produce food for self-consumption and for markets. Security of access is important as it enables people to take entrepreneurial risks and to invest in the productivity of land.

Access to agricultural extension services

This indicator assesses the extent to which agricultural research and extension services are accessible for poor farmers, including women farmers, and is responsive to their needs and priorities. Greater access to these services will allow farmers to produce food and other crops more productively to enhance access to food and income. The data are based on IFAD expert assessments (<http://info.worldbank.org/governance/wgi/pdf/IFD.xlsx>).

Status of safety nets

This indicator assesses the overall provision of social safety nets for protecting vulnerable people from a variety of economic and life cycle associated risks such as retirement, workplace injury, unemployment and extreme poverty. Social safety nets and social protection is a critical policy instrument for protecting poor people from hunger and is therefore included in the HANCI. The data are sourced from expert assessments made as part of the Transformation Index (Bertelsmann Foundation 2012). While the data include provision by non-state actors, they are largely driven by state provisioning of social assistance and social insurance.

Public expenditures

For the Public expenditures theme, the two selected indicators are:

Public expenditures on health

This indicator expresses the relative share of public spending going to health. It acknowledges the importance of a well-financed public health system for the prevention of hunger and malnutrition. Where women have access to adequate health services, their children are less likely to be malnourished (van de Poel, Hosseinpoor, Jehu-Appiah, Vega and Speybroeck 2007). The WHO World Health Statistics 2012 (with data pertaining to 2010) provides the data.

Public expenditures on agriculture

Public investment in agricultural systems is critical for total food production, as promoted, for example, by the Global Fund for Food Security and Agriculture and by the African Union's Maputo Declaration (2003), which commits member states to spend at least 10 per cent of government budgets on agriculture. This indicator measures the relative share of public spending going to agriculture. Data on this indicator are derived from a wide range of sources, including the Comprehensive Africa Agriculture Development Programme (CAADP), FAO, International Food Policy Research Institute (IFPRI), and Fan, Omilola and Lambert (2009).

2.2.2 Nutrition commitment indicators

Legal framework

For the Legal framework theme, the following nutrition commitment indicator is selected:

Enshrining ICMBS in domestic law

The World Health Organisation (WHO) and the United Nations Children's Fund (UNICEF) have for many years emphasised the importance of breastfeeding as a way to improve the nutritional and health status of infants and young children. The promotion of manufactured breast-milk substitutes risks being detrimental to nutrition and maternal and child health programmes that promote breastfeeding. The International Code of Marketing of Breastmilk Substitutes (ICMBS) aims to regulate inappropriate sales promotion of infant foods that can be used to replace breast milk (WHO 1981). This indicator assesses the extent of the adoption of ICMBS in domestic law of countries. Adoption can be done in various ways, from voluntary non-binding approaches to fully fledged incorporation in statutory law. Data are sourced from the World Breastfeeding Trends Initiative (2012) and UNICEF (2011).

Policies and programmes

For the Policies and programmes theme ten indicators were selected. These reflect:

- Governance mechanisms (multi-sectoral and multi-stakeholder coordination; generation of credible evidence for policymakers using nutrition surveys);
- Output measures regarding essential nutrition services (Vitamin A coverage; access to water; access to sanitation; skilled health attendance);
- The existence of key nutrition policies and programmes (complementary feeding; national nutrition strategies/policies; time-bound nutrition targets);
- The extent to which nutrition features in national development plans and economic growth strategies.

Multi-sectoral and multi-stakeholder coordination mechanisms

Nutrition is often said to be no one's responsibility but everyone's business. Within governments, typically, multiple departments and agencies (including Health, Finance, Agriculture, etc.) carry out policies and programmes that affect nutrition outcomes. This indicator assesses whether governments have instituted multi-sectoral and multi-stakeholder coordination mechanisms to enhance coherent and effective action on nutrition. Data for this indicator are sourced from SUN (2011), EIU (2012) and STC and WVI (2012).

Recent national nutrition survey

Regular surveys using nationally representative sampling techniques are essential for providing policymakers with up-to-date relevant data on nutrition. Such data help to guide policy interventions and to monitor and evaluate policy impacts. This indicator assesses whether governments have conducted a Demographic and Health Survey (DHS), a Multiple Indicator Cluster Survey (MICS) or a comparable national nutrition survey in the past three years. It draws on data from UNICEF (2012b), <http://www.measuredhs.com> and various other sources.

Skilled birth attendance

Skilled health personnel have the required skills to provide life-saving care, including giving the necessary supervision, care and nutrition advice to women during pregnancy, labour and the postpartum period. They also care for newborns (WHO 2011). Providing skilled birth attendance services is therefore a measure of a health system's ability to provide adequate health and nutritional care for pregnant women during labour and delivery, and for their newborns. The indicator assesses the percentage of women aged 15–49 years attended at least once during pregnancy by skilled health personnel (doctor, nurse or midwife). Government action can affect this outcome indicator by various means, including through adequate provision of public health systems, and by supporting people to access adequate private health care provisioning where appropriate.

Access to clean water

Nutrition security can be achieved when secure access to food is combined with access to clean water, a sanitary environment, adequate health services and knowledgeable care nutrition (World Bank 2006: 66). Water supply, given its direct impact on infectious disease, especially diarrhoea, is important for preventing undernutrition. Especially among children in developing countries, repeated or persistent diarrhoea has major effects on undernutrition, and undernutrition itself will lead to greater susceptibility to infectious diarrhoea, thus forming a vicious circle. This indicator considers that committed governments ensure universal access to clean drinking water. It draws on data from the WHO Nutrition Landscape Information System (WHO 2012a), expressed as the percentage of persons with access to an improved water source as a share of the total population.

Access to sanitation

High levels of access to sanitation are critical for preventing undernutrition given sanitation's impact on limiting infectious disease, especially diarrhoea. This indicator considers that highly committed governments ensure universal access to sanitation. It draws on World Bank data assessing the percentage of persons with access to an improved sanitation source as a share of the total population.

Vitamin A coverage

Globally, it is estimated that 140–250 million children under five years of age are affected by vitamin A deficiency. These children suffer a dramatically increased risk of death, blindness and illness, especially from measles and diarrhoea. In areas where the intake of vitamin A is inadequate, vitamin A supplementation is critical for addressing this problem (in combination with other sources such as breastfeeding, dietary improvement, food fortification etc.). Provision of vitamin A supplements every four to six months is an inexpensive, quick and effective way to improve vitamin A status and save children's lives (WHO 2012b). Consequently, this indicator assesses the number of children aged 6–59 months who received two high doses of vitamin A supplements within the last year, as a share of the total

number of children aged 6–59 months x 100. The data draws on MICS4 Indicators (UNICEF 2012a), DHS data (MEASURE DHS 2012), WHO World Health Statistics and Countdown to 2015 (2012).

National nutrition policy, plan or strategy

The existence of national nutrition policies, plans and strategies signals a government's recognition of nutrition as a social problem that needs addressing, and is often a prerequisite for further government action, in terms of programming and at lower levels of administration. Data on this indicator are derived from EIU (2012), STC and WVI (2012) and web searches.

Numeric time-bound nutrition targets

Numeric, time-bound nutrition targets are important for focused nutrition interventions, and for enhancing government accountability regarding its performance towards reducing undernutrition. This indicator assesses whether such targets exist. Data are drawn from SUN country reports (including SUN 2011) and STC and WVI (2012).

Complementary feeding

When breast milk is no longer enough to meet the nutritional needs of an infant, complementary foods should be added to the diet in a timely and adequate manner. The transition from exclusive breastfeeding to family foods (i.e. complementary feeding) typically covers the period from 6 to 18–24 months of age. Globally, infant growth often falters at 6 months of age (stunting) when weaning foods are introduced that lack sufficient nutrients. Continued breastfeeding can help prevent such stunting. This indicator accordingly considers whether governments promote complementary feeding in conjunction with breastfeeding for children between 6 and 24 months. The data are sourced from SUN reports and World Breastfeeding Trends Initiative (2012).

Nutrition in national development plans and economic growth strategies

The last policy indicator assesses to what extent nutrition features in key multi-year national development and economic growth strategies, such as Five Year Plans, Poverty Reduction Strategy Papers, Vision 2020/2030 documents etc. Data on this indicator have been collected through content analysis of such documents (one per country, see Annex 8), by counting the presence of key search terms regarding nutrition.⁵ The total count of search terms is expressed relative to the page length of the document. The documents were collated using web-based searches.

Public expenditures

For the Public expenditures theme, in the absence of cross-country databases showing nutrition spending or budget allocations, we selected the following indicator:

Nutrition budgets

Funding on nutrition is often difficult to track but deemed severely inadequate (SUN 2012a). Governments with budget lines for nutrition or for specific sectoral nutrition programmes clearly signal financial commitments to address nutrition challenges. Moreover, budget lines

⁵ The full list of search terms included: nutritio*.*; undernutrition/under-nutrition; malnutrition/mal-nutrition; nutrient; diet*.*; stunt*.*; wasting/wasted; short-for-age; short for age; height-for-age; height for age; weight-for-age; weight for age; weight for height; weight-for-height; underweight; under-weight; low birth weight; thinness; micro-nutrient; micronutrient; 1000 days; one thousand days; breastfeed*.*; behaviour change; behaviour change; iron deficiency anaemi/anemi; zinc; deworm; de-worm; vitamin A; supplementary feed; complementary feed.

provide a level of transparency of investment, enabling critical scrutiny and further advocacy by various nutrition stakeholders. Data are drawn from SUN 2011; STC and WVI 2012; SUN 2012a; 2012b.

Following this detailed exposition, Table 2.3 presents the HANCI indicators by sector and dimension of food and nutrition security. Several indicators are not shown in the table because they are cross-cutting ('national nutrition policy or strategy'; 'nutrition in national development policies/strategies'; 'multi-sectoral and multi-stakeholder coordination mechanism'; 'time-bound nutrition targets'; and 'regular national nutrition survey').

Table 2.3 Political commitment indicators by sector and dimension of food and nutrition security

	Food and agriculture	Women's empowerment	Social protection	Health and nutrition environment
Availability of food and key nutrients	Public expenditures on agriculture [†]	Women's access to agricultural land [‡]		Nutrition budget*
Access to food and key nutrients	Security of access to land [†] Access to agricultural extension services [†]	Women's economic rights [‡]	Constitutional right to social security [‡] Constitutional right to food [‡] Status of safety nets [‡]	Civil registration of live births [‡] Vitamin A coverage* Complementary feeding* Skilled birth attendance*
Utilisation of food and key nutrients				Public expenditures on health [†] Access to water* Access to sanitation* ICBMS in domestic law*

*Nutrition indicators, [†]Hunger reduction indicators, [‡]Hunger and nutrition indicators.

Finally, it should be noted that HANCI indicators share a common limitation: they weakly express the *quality* of government efforts. Arguably, real commitment should be reflected in thorough implementation of policies and laws, and in spending that reflects value for money. Typically, such data do not exist to allow for comparisons between countries. This is a problem across this whole class of commitment and governance indicators. At best, secondary data such as provided by the World Governance Indicators tell us something about the general quality of public administration in a country; accordingly, in Chapter 3 we show how countries' commitment compares to governance effectiveness. Moreover, the primary data explore the quality of implementation.

Having set out the selected indicators, the following section will reflect on the structure and technical design choices underpinning the HANCI.

2.3 Index design

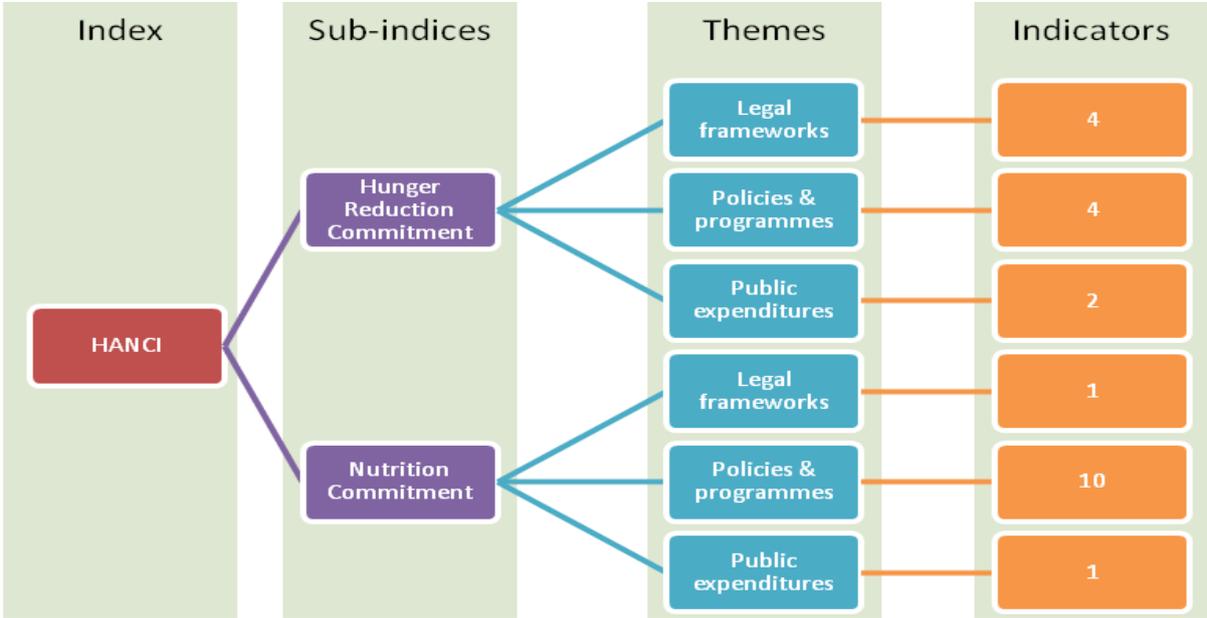
The HANCI is constructed using secondary data.⁶ It is composed of two sub-indices on:

- Hunger reduction commitment;
- Nutrition commitment.

⁶ STATA datasets and syntax files are available on request.

Each sub-index is composed of three main themes: (a) Legal frameworks, (b) Policies and programmes and (c) Public expenditures. Each theme contains one or more indicators (Figure 2.2).

Figure 2.2 The structure of the HANCI for developing countries



Having identified indicators, we use a theoretical rather than a data-driven approach (e.g. factor analysis, principal components analysis etc.) to constructing the index because (a) we want users of the index to understand the rationale for indicator choice; (b) we want the weighting to be easy to understand; and (c) we feel that the theory behind hunger and nutrition measurement and commitment is sufficiently well developed to guide choices.

Nevertheless, as part of a sensitivity analysis to assess the robustness of the HANCI, we do compare HANCI rankings with an index driven by a principal components analysis and a factor analysis (Chapter 3). Furthermore, to ensure different dimensions of commitment are captured, indicators *within* our sub-indices should be highly correlated, but less strongly correlated with indicators in other sub-indices.

The index structure is influenced by various technical decisions about normalisation, weighting schemes and scoring techniques. Table 2.4 provides an overview of actual versus some alternative design choices for the HANCI. In the following paragraphs we set out design choices underpinning the HANCI. The sensitivity analysis in Chapter 3 shows how alternative design choices affect HANCI outcomes.

Table 2.4 Actual and alternative design choices for the HANCI

	HANCI	Alternative options
Normalisation	Re-scaling using HDI methodology	Standardisation (Z-score)
Weighting schemes	Equal weighting by theme	Equal weighting by indicator Factor analysis/PCA
Aggregation and scoring	Borda scores only (for themes; sub-indices; HANCI)	Additive values only Additive values and Borda scores Borda scores only (for indicators, and themes)

2.3.1 Aggregation, normalisation and scoring

Indicators need to be normalised before being aggregated. Normalisation prevents an indicator from having greater weight in the determination of an index simply because of its unit of measurement. For example, adding infant mortality rate (absolutely low) and undernutrition rate (absolutely large) without normalising, implicitly attributes higher weight to the item that is absolutely larger (assuming they have similar variances). The normalisation procedure we use is the one adopted by the United Nations Development Programme (UNDP) Human Development Index (HDI), which re-scales indicators based on the following formula:

$$\text{normalised value of } x_i = \tilde{x}_i = \frac{x_i - x_{\min}}{x_{\max} - x_{\min}}$$

This normalises the value of all indicators to [0,1] range. Going back to the earlier example of infant mortality versus undernutrition, both variables will lie in the [0,1] range after this re-scaling. Some indicators (e.g. the dichotomous variables) in the HANCI are already in the [0,1] range, hence this re-scaling is redundant for them. Having all indicators in a uniform range is of particular value to the HANCI as it mitigates unequal weight being given to indicators as a result of their scale. Other normalising methods such as standardisation and distance to a reference country, while useful under other circumstances, do not constrain the normalised indicators within a uniform range.⁷ This was the main reason why we did not use them in the HANCI. However, a robust or ‘meaningful’ index would produce a ranking that is invariant to these choices (Ebert and Welsch 2004). The sensitivity analysis in Chapter 3 accordingly assesses whether the HANCI rankings are robust to alternative design choices.

After normalisation, indicator scores were aggregated to form the HANCI. This was done in two steps: (1) Aggregation of indicators to form composite indicators formed around the three themes; and (2) Aggregation of thematic composite indicators (CI_T) to form the overall composite indicator (CI) which is the HANCI. Both of these aggregations were done using additive methods. Aggregation of indicators at thematic level was done as the summation of weighted and normalised indicators:

$$CI_T = \sum w_i \tilde{x}_i$$

where $\sum w_i = 1$ and $0 \leq w_i \leq 1$ for all i . In the case of the HANCI the indicator weights were equal within each theme, *i.e.* $w_i = w_j$ for all i and j within each theme. The next round of aggregation was done at the theme level. This too was an equally weighted aggregation but using the Borda rule instead of a summation. The Borda rule used here is:

$$CI = HANCI = \sum w_T Rank(CI_T)$$

where $\sum w_T = 1$ and $0 \leq w_T \leq 1$ for all $T = \text{expenditure, policy, and legal themes}$. Again, equal weights were selected in this aggregation, such that each theme was equally weighted in the HANCI. However, this means that individual normalised indicators (\tilde{x}_i) are not equally weighted in the HANCI even though they are equally weighted within themes.

Various ranking schemes can be employed once indicator scores are calculated, before and/or after aggregation. One disadvantage of ranking is that it leads to a loss of information.

⁷ Not all normalisation methods can be applied to the HANCI. For a fuller list see Nardo, Saisana Saltelli, Tarantola, Hoffman and Giovannini (2005).

Table 2.5 illustrates that the ranking scheme employed can have impacts on the overall ranks for countries. The cardinal ranking scheme adds up absolute values across legal framework; policies and programmes and public expenditure themes for each of the three countries. Consequently, outlier (very high or low) values on any of the themes can dominate the aggregated values. The Borda method overcomes this by adding up the ranks achieved for each of the themes, and the country with the overall lowest sum of ranks is shown to perform strongest overall.

Table 2.5 Hypothetical Cardinal and Borda ranking schemes compared

Country	Legal framework (a)		Policies and programmes (b)		Public expenditures (c)		Cardinal ranking		Borda ranking	
	Value	Rank	Value	Rank	Value	Rank	Add up values	Overall ranks	Add up ranks	Overall ranks
One	0.6	2	0.5	3	0.9	1	2.0	First	6	Second
Two	0.3	3	0.6	2	0.5	2	1.4	Third	7	Third
Three	0.8	1	0.8	1	0.1	3	1.7	Second	5	First

Note: Indicator scores between 0 and 1, with 1 as best.

One major advantage of Borda ranking is that it allows for easy comparison of indicators expressed on different scales. HANCI indicators are measured on both cardinal, continuous and ordinal, dichotomous scales.⁸ We thus use a Borda scheme to preserve the ordinal nature of the index. In other words, rather than ranking the values of the indicators across themes we rank the sum of the rankings across themes (Dasgupta 2001 and Masset 2011) The Borda method thus only provides a rank, not an absolute commitment value.

2.3.2 Weighting schemes

This section draws substantially on a recent review of the literature on weighting schemes by Decancq and Lugo (2010). These authors identify various approaches that use information that is very different in nature, leading to diverse weighting schemes. Any weighting scheme involves trade-offs between the dimensions of the index. As there is no widely accepted theoretical framework on how to set these trade-offs, researchers need to consider the reasonability of implied trade-offs between the dimensions and exercise common sense and caution (Decancq and Lugo 2010).

⁸E.g. the relative share of agricultural spending in overall public spending expressed as a percentage is measured on a continuous, cardinal scale. The indicator assessing whether or not a government uses a nutrition budget line is measured on an ordinal, dichotomous scale.

Normative, equal weighting

The HANCI applies a subjective, theory-driven weighting scheme that allocates equal weights to:

1. Each of the two sub-indices, such that the hunger reduction commitment and nutrition commitment sub-indices each contribute 50 per cent to overall HANCI scores;
2. Each of the three policy, legal and expenditure themes (within the sub-indices and consequently in the overall HANCI).

Although equal weighting schemes are often defended from an agnostic perspective, they are not uncontroversial. Like any other weighting scheme, equal weighting involves value choices regarding the substitutability of various dimensions of the index, without specifying the normative attractiveness of such choices (Decancq and Lugo 2010).

For the HANCI, we assume full substitutability of sub-indices and themes. Given that the HANCI uses uneven numbers of indicators for its themes, and for its two sub-indices, any weighting scheme applied at sub-index and thematic level implicitly affects the weightings attributed to the individual indicators (Table 2.6). This approach is also adopted, for instance, by the UNDP's Human Development Index and by the Women's Empowerment in Agriculture Index (Alkire, Meinzen-Dick, Peterman, Quisumbing, Seymour and Vaz 2012). While we suggest a trade-off between legal frameworks, policies and programmes and public expenditures, we cannot reasonably uphold this position at the indicator level. The unequal weighting of indicators means that for instance, putting the ICBMS into law, or having a nutrition budget is weighted ten times more than coverage of access to sanitation; clearly this is contestable. Nevertheless, we decided to privilege comprehensiveness over equality of weighting for indicators. That is, we do not want equal indicator weighting to drive down the number of indicators to the lowest common denominator, as we want to capture the multi-dimensional nature of political commitment to reduce hunger and undernutrition.

Normative weights identified by experts and communities

In order to compare our subjective allocation of equal weights to themes with alternative preferences, we devised a simple exercise that allows others such as in-country experts, hunger- and undernutrition-affected communities, and third parties to set their own subjective weights. This exercise thus avoids imposing the weighting preference of a group of researchers at IDS. In our primary research, we requested both experts involved in the perception surveys and community members involved in the focus group discussions (FGDs) to propose their own preferential sets of weights. A web-based tool allows HANCI website visitors (www.hancindex.org) to apply their own subjective weighting schemes to the three themes, and see how these affect country rankings.⁹

We employed a questionnaire to identify the importance that hunger and nutrition experts gave to the three themes. In rural and urban hunger and undernutrition-affected communities in Bangladesh, Malawi and Zambia, we conducted the same question using a more visual approach (Figure 2.3). Here community groups of men and women allocated 100 marbles between 'policies and programmes', 'public spending' and 'laws'. This approach facilitated the inclusion of less literate and numerate community members in setting weights (see the Box at the end of Chapter 2 for the protocol for using this method). Final weights were determined by computing the mean of the distribution of responses (standardised to sum to 100).

⁹ Our web-based tool (<http://www.hancindex.org>) shows how website visitor-determined weighting schemes compare to (a) expert, (b) community, and (c) equal weighting schemes, and instantaneously demonstrate how such schemes produce divergent country rankings.

Table 2.6 Weightings in the HANCI

Index	Sub-index	Theme	Indicator	Weight	
HANCI	Hunger Reduction Commitment (1/2)	Legal frameworks (1/6)	Constitutional protection right to food	1/24	
			Women's access to agricultural land	1/24	
			Constitutional right to social security	1/24	
			Women's economic rights	1/24	
		Policies and programmes (1/6)	Access to land	1/24	
			Access to agricultural extension	1/24	
			Civil registration	1/24	
			Status of safety nets	1/24	
		Public expenditures (1/6)	Agriculture expenditure	2/24	
			Health expenditure	2/24	
		Nutrition Commitment (1/2)	Legal frameworks (1/6)	Incorporation ICMBMS in law	1/6
			Policies and programmes (1/6)	Vitamin A coverage	1/60
	Complementary feeding			1/60	
	Access to water			1/60	
	Access to sanitation			1/60	
	Skilled birth attendance			1/60	
	Nutrition in development policy			1/60	
	National nutrition plan/strategy			1/60	
	Multi-sectoral stakeholder coordination mechanisms			1/60	
	Time-bound nutrition targets			1/60	
National nutrition surveys	1/60				
Public expenditures (1/6)	Nutrition budget	1/6			

Figure 2.3 Communities selecting weights, Bangladesh



The expert- or community-selected weights need to be interpreted with a little caution. We aimed to avoid bias in the selection of experts by seeking a balanced representation of actors from diverse sectors. The community weighting is specific to the community and members involved in the process. The HANCI project continues to conduct this exercise in additional communities in new countries. In case this shows a high level of convergence in weighting schemes, we may decide to use this to replace our equal weighting scheme.

Data-driven weighting

Various statistical devices can be used in data-driven approaches to identify weighting schemes.¹⁰ We can distinguish descriptive and explanatory models.

Explanatory models (such as factor analysis) assume that some observed indicators are dependent on a certain number of unobserved latent variables (Decancq and Lugo 2010). Descriptive statistical models such as Principal Components Analysis (PCA) or cluster analysis aim to minimise double counting, as indicators within the model may be strongly correlated and thus capture the same latent dimension. PCA has been widely used to build indices of 'wealth' or 'intelligence' (Filmer and Pritchett 2001; Hunt 2007). It assigns weights to indicators based on their correlations in order to find the 'principal component' that best represents the available data. In PCA, the set of indicators is transformed into an equal number of mutually uncorrelated (orthogonal) linear combinations of indicators, each explaining a proportion of the variance in the data (Decancq and Lugo 2010).

Data-driven approaches have the advantage of being 'objective' and seemingly avoid value judgements. They also have several limitations: PCA, factor analysis and other multi-variate

¹⁰ Other data-driven approaches use frequency-based weights or most favourable weights.

statistical approaches to determine weights are atheoretical and non-transparent. They do not offer clear explanatory narratives for their findings and therefore do not speak easily to policymakers and non-specialist audiences. Moreover, weights based on data-driven approaches can change between different editions of the same index, so that comparability over time is lost (this is a critical objective of the HANCI). Furthermore, PCA assigns lower weights to dimensions that are poorly correlated. This procedure may not be suitable, because the HANCI needs to capture multiple underlying dimensions of political commitment, which may *not* necessarily be strongly correlated (see Somarriba and Pena 2009, in Decancq and Lugo 2010).

Keeping in mind these limitations, in the sensitivity analysis presented in Chapter 3 we compare the implications that equal weighting and data-driven weighting approaches have for HANCI outcomes.

2.4 Primary research on political commitment in Bangladesh, Malawi and Zambia

Secondary government-owned data stored in various databases impose substantial limitations for measuring political commitment. They do not capture many indicators of political commitment identified in the literature, or allow for including community perspectives on political commitment that could support in-country advocacy on hunger and undernutrition. This section of the report sets out the methods employed to capture and analyse primary data on political commitment. It first discusses perception surveys conducted with experts based in Bangladesh, Malawi and Zambia, and then explores community voices expressing local perspectives on political commitment.

2.4.1 Expert perception surveys

This research developed an expert perceptions survey to capture contemporary perspectives on political commitment. The survey employed a structured questionnaire posing over 30 questions (plus additional sub-questions) to a variety of experts on hunger and nutrition in Bangladesh, Malawi and Zambia.¹¹ The surveys were conducted in August–September 2011.

Respondents were identified by in-country partner organisations working on hunger and nutrition issues, and aimed to cover a spread of experts from government, academia, private sector, international donors and civil society organisations to avoid bias of any particular group and to ensure that divergent opinions are represented (Table 2.7).¹²

Table 2.7 Summary of respondent types, expert interviews

	Bangladesh	Malawi	Zambia	Total
Government	7	24	11	42
NGO/civil society	15	11	11	37
Academia/research	8	11	2	21
Development partners	5	7	12	24
Other	5	-	4	9
Total	40	53	40	133

¹¹ Research in India was successfully completed in 2012, but cannot be presented in this report. Research in Ethiopia commenced, but was not successfully completed. Research in Tanzania commenced in April 2013; in Nepal in April/May 2013.

¹² Prior to the survey, respondents were given a one-page summary outlining the objectives, and setting out our procedure regarding confidentiality and anonymity.

The survey questionnaire employs five-point Likert scales, where respondents are asked to indicate their level of agreement with statements and questions, with low scores corresponding to high levels of government commitment to reduce hunger (1 = very strongly, 2 = strongly, 3 = moderately, 4 = weakly, 5 = very weakly). The survey included questions aimed to address the following political commitment indicators (see Brinkerhoff 2000):

- The *institutionalisation of credible incentives* for individuals in, and between, government agencies (e.g. is poor performance on hunger objectives sanctioned, and is success rewarded, with, say, promotions and extra resources?).
- Institutions' *coordinating policy* (e.g. do the various ministries of agriculture, health and social protection effectively coordinate?).
- *Locus of policy origin* (e.g. is the body in charge of implementing policies also the one that designed it, having strong ownership?).
- *Learning and adaptation* mechanisms and practices (e.g. is there regular monitoring and evaluation?).
- The marshalling of scientific *evidence* in decision-making processes (e.g. is policy informed by new insights on how to address hunger?).
- *Mobilisation of stakeholders* (e.g. do government agencies actively aim to get widespread support for their interventions?).
- *Public commitment* (e.g. are decision-makers' policy preferences revealed, and resources assigned to achieve these open to public scrutiny?).
- *Resource allocation and expenditures* (e.g. what is the strength, relevance and sufficiency of expenditures on hunger reduction policies and programmes?).
- *Continuity of effort* (e.g. are efforts strong and sustained, or episodic, one-shot efforts?).
- *Political leadership* (e.g. to what extent political leaders and political party manifestos speak out against hunger and undernutrition; how convincing are statements by political leaders; how knowledgeable are politicians about status, causal factors and solutions; how strong is top-level leadership?).

All questionnaire questions for each of the indicators above are listed in Annex 2.¹³

2.4.2 Community perspectives on political commitment

The research on community voices aimed to examine individual and collective accounts and perceptions of existing government actions and intentions to reduce hunger and undernutrition. The research focused on affected communities at a limited number of localities, to complement desk-based research and expert surveys, to help interpretation of index scores and to explore opportunities for greater involvement of affected communities in policy advocacy work following publication of the Index.

Local grassroots NGOs as well as district-level government officials assisted the research team in identifying the communities (Table 2.8). Communities were selected on the basis of proposals by in-country partners, keeping in mind (a) the need for inclusion of communities that have experienced varying levels of government action to reduce hunger and malnutrition; (b) inclusion of urban and rural locations; and (c) incorporation of different groups known to be vulnerable to hunger and undernutrition, including small-scale farmers, landless labourers, urban informal sector workers, indigenous communities and slum dwellers.

¹³ Building on the HRCI 2011 questionnaire, the HANCI questionnaire includes new questions concerning: political leadership, budget lines, financial mechanisms and vertical coordination. Revised answer categories were introduced such that answers are given for hunger and nutrition not as combined but as separate categories, to allow for greater analytical specificity.

Table 2.8 Community voices: focus group discussion locations

Country	Locations	Number of communities	Total FGDs
Bangladesh	Dhaka (urban)	2	8
	Nilphamari District (north)	2	
	Patuakhali District (south)	2	
	Bandarban District (south-east)	2	
Malawi	Balaka District	2	4
	Kasungu District	2	
Zambia	Lusaka (urban): Kamanga; Mutendere	2	4
	Luangwa District: Kavalamanja; Chitope	2	
Total			16

Within chosen communities, local partners conducted focus group discussions with men and women, where possible in separate groups. Participants included older and younger (adolescent) members. Group sizes varied between 7 and 20 participants, depending on location. Focus group discussions followed a non-restrictive pre-identified scenario of topics, which included questions about the nature of hunger and malnutrition in the community and government intentions and actions to reduce hunger and malnutrition in the community.

Furthermore, a simple exercise was conducted through which community members allocated weightings to three dimensions of political commitment: legal frameworks; policies and programmes; and public expenditures.

In addition to the research, community perspectives were captured in audio-visual materials, using photographs, videos and audio-recordings, for subsequent transcription, production and dissemination.¹⁴ In Bangladesh, a video was produced by Action Aid. Materials for Malawi were produced by IDS. Materials for Zambia were of insufficient quality and could not be used.

Box: Protocol for weighting exercise

- Explain to the group/individual that the government can consider doing three things to (1) combat hunger and (2) improve nutrition:
 - (a) pass laws (e.g. to enshrine a right to food);
 - (b) initiate policies and programmes (e.g. to ensure subsidised food is available in village);
 - (c) spend government budgets.
- Explain that the exercise will be run separately, first for hunger, second for nutrition.
- Hunger: Draw three circles in the sand and clarify what each stands for (laws; policies/programmes; expenditures) (or some other way – for a group, it should allow everyone to be able to see and contribute to the discussion and allocation).
- Explain that the individual/group can distribute 100 marbles, and invite group members to allocate the marbles across the circles.
- Record ensuing discussions, and keep the final tally.
- Now repeat the exercise for government action on nutrition.

¹⁴ This was guided by a protocol explaining and agreeing with respondents the voluntary waiver of anonymity and confidentiality.

3 HANCI findings drawing on secondary data

This chapter presents findings for the HANCI 2012 drawing on secondary data. Before presenting HANCI rankings, we first discuss some key features of the rankings. The chapter next shows how commitment levels relate to key contextual factors such as a country's wealth, administrative capacity, and hunger and undernutrition situation.

3.1 HANCI rankings

Before setting out the HANCI rankings, readers should be aware of the following features of the index:

- The HANCI aggregates relative (not absolute) political commitment levels. HANCI indicators are measured on ordinal, categorical and cardinal scales, and the index is therefore not able to meaningfully calculate absolute commitment levels aggregated across indicators. Instead, HANCI employs the Borda scoring technique to calculate scores for the HRCI and NCI sub-indices and for the three themes that compose these (policies and programmes, spending and legal frameworks). Borda scoring respects the diversity of measurement scales, and thus allows the valid calculation of aggregate scores across indicators. Resultant Borda scores are translated in rankings. It is important to remember that the Borda scores do not represent absolute commitment levels; they represent relative political commitment levels. For this reason also, HANCI does not identify absolute benchmarks of commitment to be achieved.
- The HANCI compares countries' performance relative to one another. Consequently, a ranking emerges regardless of the (weak or strong) performance of countries.
- Countries that show relatively high commitment levels in the HANCI do not necessarily perform strongly on each of the composite indicators. High rankings should not be a reason to sit back and relax: often, substantial scope remains to enhance performance on selected indicators.
- Absolute commitment levels can be ascertained for all individual indicators (not aggregations) by referring to the raw data (prior to normalisation) shown in the spreadsheet in Annex 4.
- HANCI rankings are planned to be recalculated in 2013 and 2014. Over time, countries may improve their absolute performance on indicators, yet fail to improve their rankings, when other countries' performance improvements are at least just as fast. To prevent demotivation, we suggest that wherever absolute performance on indicators improves, this should be the benchmark (not country rankings).
- Finally, commitment rankings should not be confused with hunger and nutrition outcomes.

3.2 Key findings for the HANCI 2012

Below we set out key findings for the HANCI 2012.

Guatemala claims top spot and Guinea Bissau is the worst performing country in 2012.

Guatemala is a resounding number one on our list. When compared to the other 43 countries that were assessed, Guatemala performs best for *both* hunger and nutrition commitment. It does especially well in terms of nutrition commitment. This is very encouraging as undernutrition in particular constitutes a major challenge for Guatemala. The country has one

of the world's highest child stunting rates (48 per cent), and annually loses over US\$300 million in GDP to vitamin and mineral deficiencies (World Bank 2010). The Global Hunger Index considers that the situation in Guatemala remains 'alarming' (WHH/IFPRI/Concern 2012). While much remains to be done, hunger and nutrition outcomes in Guatemala are gradually improving, with year on year improvements in the Global Hunger Index, partially, we would hypothesise, thanks to substantial political commitment and concomitant government action.

So what has the Government of Guatemala done well and where are further improvements needed? The government has ensured a high level of access to drinking water (92 per cent of the population) and fairly high levels of access to improved sanitation (78 per cent); over nine out of ten pregnant women are visited by a skilled birth attendant at least once before delivery; and the government promotes complementary feeding practices. It has fully enshrined the International Code of Marketing of Breastfeeding Substitutes into domestic law, although active enforcement requires greater resources. Guatemala invests substantially in health, and has a separate nutrition budget line to make its spending accountable to all. The 2012 budget assigns funds for the fight against chronic child malnutrition and infant-maternal mortality. A further budget line exists for activities related to the window of opportunity of the first 1,000 days of a child's life. Public policy benefits from up-to-date information on nutrition statuses, as a nationally representative sample survey has been conducted in the last three years (SUN 2012b).

Guatemala's National Strategy for the Reduction of Chronic Malnutrition (started in 2006) was incorporated into a National Zero Hunger Pact in 2012 – as part of the 'National Agenda for Change' of President Otto Perez Molina. Its objective is a 10 per cent reduction of chronic malnutrition in children under five years of age by the end of the presidential tenure in 2016. A Strategic Plan for Food Security and Nutrition – better known as the Zero Hunger Plan – while in an early stage of implementation, has ambitious strategies for chronic child malnutrition, for acute malnutrition, for micronutrient deficiency and food insecurity, and a clear set of performance indicators. Furthermore, Guatemala's National Food Security and Nutrition System is regionally recognised as a reference model for multi-sector, multi-stakeholder coordination (SUN 2012b).

Guatemala is showing a good all-round performance. Yet, there are clear areas for improvement. Guatemala invests relatively little in agriculture and, as a consequence, its poor farmers do not always have sufficient access to extension services. Furthermore, although the right to food and the right to social security are enshrined in the Guatemalan Constitution, women's access to land and women's economic rights can be strengthened to reduce their (and their families') vulnerability to hunger and undernutrition. The Zero Hunger Plan is still in its early stages, with low implementation of available budget so far. Finally, it should be noted that in Guatemala, children from indigenous communities have rates of stunting and underweight almost twice that of non-indigenous children (PAHO 2008). Nearly eight out of ten indigenous children are stunted compared to four of ten non-indigenous children. Such large differentials may reflect social exclusion or other forms of differential access to services. Supply-side barriers have been shown to be particularly important for the indigenous population (World Bank 2010). It should be noted that while a highly committed government would address such inequities as a priority, the HANCI currently does not measure this.

Guinea Bissau shows the lowest level of political commitment to reduce hunger and undernutrition. This is very worrying, because the country faces very serious hunger and nutrition challenges. The Global Hunger Index considers the situation in Guinea Bissau to be 'alarming' (WHH/IFPRI/Concern 2012). Child stunting rates are fairly high (28 per cent), though not as high as in Guatemala (48 per cent), but the contrast in government commitment levels is very sharp. Guinea Bissau fails to invest in agriculture, despite a

commitment to invest 10 per cent of its budgets in agriculture (as part of the African Union's Maputo Declaration). Access to agricultural extension services is weak. While Guinea Bissau makes modest investments in health, it is not yet setting aside budgets for nutrition. Its nutrition policies, while not altogether lacking, need substantial strengthening, for instance, by instituting coordination mechanisms and by establishing time-bound nutrition targets. Guinea Bissau needs to strengthen people's right to social security and enhance very weak economic rights for women. While this leaves women especially vulnerable to hunger and destitution, there are yet no effective safety nets to protect them and other vulnerable groups.

Table 3.1 presents the HANCI 2012 rankings. It also shows the Borda scores and rankings for the Hunger Reduction Commitment and Nutrition Commitment sub-indices.

Economic growth has not necessarily led to a commitment from governments to tackle hunger and undernutrition.

Sub-Saharan Africa and South Asia are global hotspots of hunger and undernutrition. Here, not only is hunger and undernutrition prevalence high, this is also where hunger is increasing most rapidly (FAO 2012). Many countries within these regions have achieved sustained economic growth over the last decade (see section 3.3.2 'Political commitment, wealth and economic growth'). This makes it possible for governments to more effectively address hunger and undernutrition. Yet, progress on reducing hunger and undernutrition is either too slow (e.g. South Asia) or stagnating (sub-Saharan Africa).

Significantly, within areas of high and growing hunger and undernutrition prevalence, some countries are clearly showing much greater political commitment to address these problems than others.

Thus, the political commitment levels of the global rising economic powers, Brazil, Russia, India, Indonesia, China, South Africa (BRIICS), vary substantially. South Africa performs strongly on hunger commitment, and relatively poorly on nutrition commitment. Brazil and Indonesia perform well overall. China does well in terms of hunger commitment, though less strongly on nutrition commitment. India's commitment ranking is lowest within the group of BRIICS, even though its hunger and nutrition situation is the most serious.

Within sub-Saharan Africa, there are some success stories to be told. Some of the smaller economic powers (Malawi, Madagascar, The Gambia) are now leading the charge against hunger and undernutrition, leaving traditional powerhouses (South Africa, Ethiopia, Nigeria, Kenya, Angola) in their wake. For instance, in our fieldwork in Malawi, rural communities of women and men expressed strong appreciation of the subsidised farm input supplies programme. Women in Balaka district also recounted how timely food transfers, provided by the Malawi Vulnerability Assessment Committee during the 'hungry season', made a big difference. The food transfer made it possible for beneficiary households to avoid engaging in distress labour in other people's fields (*ganyu*). This critically allowed them to focus on their own crops, to ensure better harvests and reduce their future vulnerability to hunger.

The relative commitment to hunger reduction does not predict the relative commitment to nutrition.

In fact, we found a low correlation between the two. This is summarised in Figure 3.1 and demonstrated by the divergent performance of countries such as Nepal, South Africa and Mali on the two sub-indices.

Table 3.1 HANCI 2012 (with Borda scores and rankings by sub-index)

	Hunger Reduction Commitment Score	Nutrition Commitment Score	Hunger and Nutrition Commitment Score	Hunger Reduction Commitment Ranks	Nutrition Commitment Ranks	Hunger and Nutrition Commitment Ranks
Guatemala	109	131	240	1	1	1
Malawi	105	117	222	2	5	2
Madagascar	101	112	213	8	9	3
Peru	105	105	210	2	11	4
Brazil	96	114	210	10	7	4
Philippines	100	105	205	9	11	6
Indonesia	90	114	204	14	7	7
Gambia	71	130	201	24	2	8
Tanzania	91	110	201	13	10	8
Burkina Faso	104	94	198	5	16	10
Ghana	94	104	198	12	13	10
Bangladesh	74	115	189	21	6	12
Mozambique	68	118	186	26	4	13
Vietnam	86	93	179	18	17	14
Rwanda	90	89	179	14	21	14
Mali	104	73	177	5	29	16
Zambia	74	102	176	21	14	17
Nepal	50	125	175	34	3	18
Cambodia	87	88	175	17	22	18
Uganda	81	92	173	19	19	20
Senegal	89	83	172	16	26	21
China	103	65	168	7	33	22
South Africa	105	62	167	2	36	23
Niger	72	90	162	23	20	24
Ethiopia	96	64	160	10	34	25
Sierra Leone	59	88	147	31	22	26
Pakistan	63	84	147	30	25	26
Benin	54	93	147	33	17	26
India	67	71	138	27	30	29
Nigeria	55	80	135	32	27	30
Côte d'Ivoire	45	87	132	39	24	31
Togo	78	45	123	20	42	32
Cameroon	47	75	122	36	28	33
Kenya	46	68	114	38	32	34
Liberia	65	47	112	28	40	35
Lesotho	70	34	104	25	43	36
Afghanistan	8	96	104	45	15	36
Mauritania	48	53	101	35	37	38
Yemen	28	69	97	42	31	39
Sudan	64	28	92	29	45	40
Myanmar	26	63	89	43	35	41
Burundi	35	51	86	40	38	42
Angola	47	33	80	36	44	43
Congo, DR	29	47	76	41	40	44
Guinea Bissau	24	50	74	44	39	45

Note: Calculations based on Additive + Borda method, with equal weights by theme.

- Nepal ranks number three for nutrition commitment, but ranks only 34th (out of 45 countries) for hunger reduction commitment.
- Peru ranks 2nd highest for hunger reduction commitment, 11th for nutrition commitment.
- The Gambia ranks 24th for hunger commitment, 2nd for nutrition commitment.

- Mali ranks 5th on hunger commitment and 29th on nutrition commitment .
- South Africa shows 2nd highest commitment levels for hunger reduction, though ranks 36th for nutrition commitment.

Figure 3.2 further demonstrates that the commitment to reduce hunger is not the same as the commitment to reduce undernutrition.

Figure 3.1 Country nutrition commitment and hunger reduction commitment scores

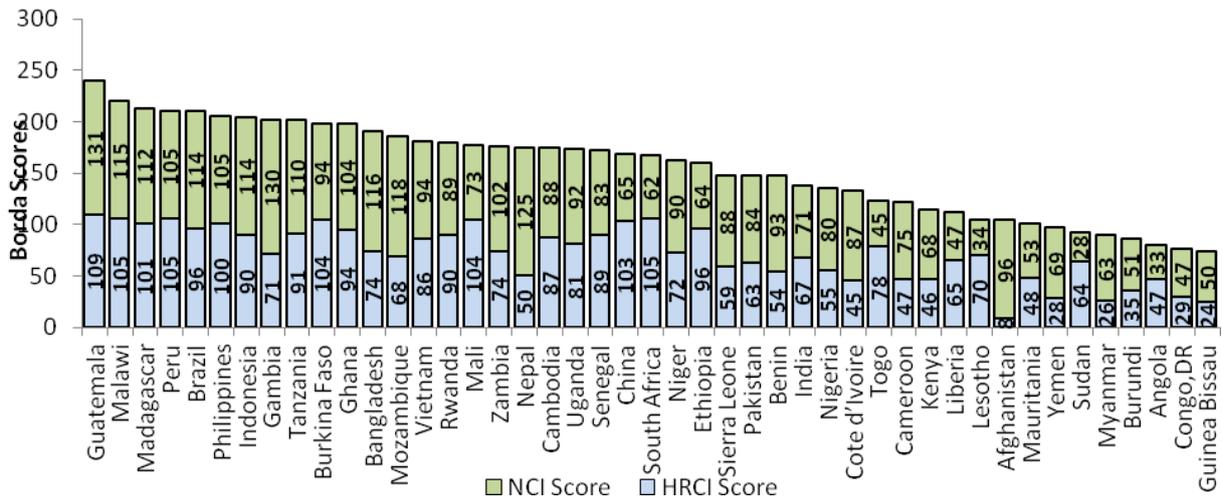
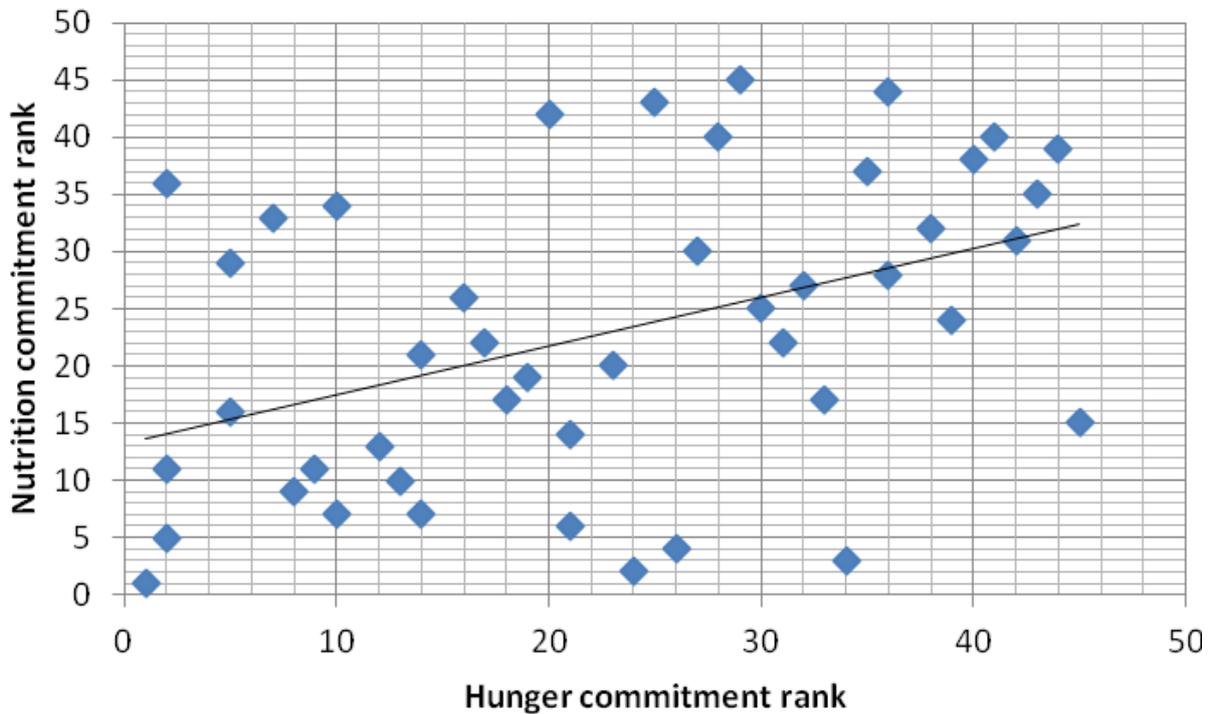


Figure 3.2 HRCI versus NCI rankings, 45 developing countries



3.3 Political commitment within context

The HANCI is calculated using political commitment indicators only. Yet, commitment must be understood within context. Here we present how commitment levels compare to critical

context variables such as hunger and undernutrition, wealth and governance effectiveness. This process of ‘decoupling and recoupling’ commitment levels from outcomes and context variables enhances HANCI’s diagnostic relevance for policymakers and civil society. Accordingly, in the tables and figures below we present a set of cross-tabulations and regression diagrams to assist reflections on political commitment set off against these contextual factors.

For analytical purposes, countries are organised into four groupings expressing relative commitment levels (*not* absolute commitment levels):

- High commitment (relative to other countries in the sample);
- Moderate commitment (relative to other countries in the sample);
- Low commitment (relative to other countries in the sample);
- Very low commitment (relative to other countries in the sample).

Two principles are applied to demarcate four country groupings. First, each of the four groups contains the nearest approximation of a quarter of all Borda points that were distributed in the scoring process. As such, groups with the relatively higher commitment levels (based on aggregate Borda scores across themes and HRCI and NCI sub-indices) contain fewer countries. Second, countries with the same number of Borda points must be located in the same group. Table 3.2 sets out resultant groupings.

Table 3.2 Political commitment groupings based on HANCI Borda scores

High commitment	HANCI Borda score	Moderate commitment	HANCI Borda score	Low commitment	HANCI Borda score	Very low commitment	HANCI Borda score
Guatemala	240	Gambia	201	Nepal	175	Togo	123
Malawi	222	Tanzania	201	Cambodia	175	Cameroon	122
Madagascar	213	Burkina Faso	198	Uganda	173	Kenya	114
Peru	210	Ghana	198	Senegal	172	Liberia	112
Brazil	210	Bangladesh	189	China	168	Lesotho	104
Philippines	205	Mozambique	186	South Africa	167	Afghanistan	104
Indonesia	204	Vietnam	179	Niger	162	Mauritania	101
		Rwanda	179	Ethiopia	160	Yemen	97
		Mali	177	Sierra Leone	147	Sudan	92
		Zambia	176	Pakistan	147	Myanmar	89
				Benin	147	Burundi	86
				India	138	Angola	80
				Nigeria	135	Congo, DR	76
				Côte d’Ivoire	132	Guinea Bissau	74

3.3.1 Political commitment within diverse hunger and nutrition contexts

Table 3.3 shows current stunting levels versus current commitment levels. It is striking to see how *countries with very similar stunting levels show highly divergent commitment levels.*

For instance, in right-hand column five, Guatemala and Malawi have among the highest stunting levels but show real commitment to address this, in contrast to conflict affected countries at the bottom of this column such as Burundi, Afghanistan, Burundi and Yemen. In left-hand column two, some notable differences exist between Brazil and China. Although both would want to move towards zero stunting levels, Brazil is closer to this target (7.4 per

cent) than China (14.5 per cent), and should also be expected reaching this target earlier because of its higher commitment levels.

Table 3.3 HANCI commitment levels and stunting levels for children under 5 years of age

	Percentage of under-5 stunting (severe and moderate)			
	<20%	20–29%	30–39%	≥40%
High commitment	Brazil	Peru	Philippines	Guatemala
				Malawi
				Madagascar
				Indonesia
Moderate commitment		Gambia	Burkina Faso	Tanzania
		Ghana	Vietnam	Bangladesh
			Mali	Mozambique
				Rwanda
				Zambia
Low commitment	China	Senegal	Uganda	Cambodia
		South Africa	Sierra Leone	Nepal
				Niger
				Ethiopia
				Benin
				Pakistan
				India
				Nigeria
		Côte d'Ivoire		
Very low commitment		Togo	Cameroon	Afghanistan
		Mauritania	Kenya	Yemen
		Angola	Liberia	Burundi
		Guinea Bissau	Lesotho	Congo, DR
			Sudan	
			Myanmar	

Given that commitment now is expected to have time-lagged effects on stunting rates, in future editions of the HANCI, one would:

- Expect to see countries in the top right corner move sideways to the left (i.e. reduce the incidence of stunting) driven by high levels of political commitment;
- Hope to see countries in the bottom right corner moving up the commitment rows, and move sideways to the left in the table;
- Hope to detect a pattern where countries with relatively low commitment are located in the bottom left corner of the table.

Table 3.4 compares past stunting trends (comparing the 1990s to the 2000s) with current commitment levels. It is hard to draw firm conclusions on this data. We do not know what past commitment levels looked like, but we assume that high commitment drives lower stunting (rather than the reverse). We propose that time-lags between the commitment level at a given time and its positive future effects on stunting reduction occur; however, the size of such latencies remains to be determined.¹⁵

Table 3.4 HANCI political commitment and decadal stunting trends (1990s–2000s)

	Percentage of under-5 stunting rate change between 1990s and 2000s			
	≥0%	–1% to –10%	–11% to –20%	>–20%
High commitment		Guatemala	Malawi	Brazil
		Madagascar	Peru	Indonesia
			Philippines	
Moderate commitment		Burkina Faso	Tanzania	Gambia
		Ghana	Mozambique	Bangladesh
		Rwanda		Vietnam
		Mali		
		Zambia		
Low commitment	Niger	Uganda	Nepal	Cambodia
	Sierra Leone	South Africa	Senegal	China
	Benin	Nigeria	Pakistan	
	Côte d'Ivoire		India	
Very low commitment	Afghanistan	Cameroon	Congo, DR	Togo
	Lesotho	Kenya		Mauritania
	Yemen			Angola
	Sudan			
	Burundi			

Within these provisos, the table shows that highest decadal reductions in stunting have been achieved by countries having high as well as those having low (current) commitment levels. Moreover, countries with current high commitment levels have had diverse past achievements in terms of stunting reduction.

Worryingly, in those countries that have seen stunting increases over the last two decades, current levels of political commitment are low to very low.

¹⁵ A good index should be able to predict (explain) phenomena within the theoretical framework of its construction. For example, an index of hunger and nutrition commitment should explain, after controlling for a series of confounding factors, achievements in hunger reduction and nutrition improvements. If the predictive power is poor then either commitment does not matter in hunger reduction – possible but unlikely – or we have a poor index. The only methodology available to statistically test the predictive power of the index on hunger outcomes is the use of cross-country regressions, although they have their limitations (Smith and Haddad 2000). Calculations of the index for past (and future) years may allow us to link it to hunger and nutrition outcome data and test for the relevance of different commitment formulations.

Many countries in this position are currently or have recently been afflicted by conflict (Sierra Leone, Côte d'Ivoire, Burundi, Yemen, Afghanistan and Sudan). Benin, Lesotho and Niger do not fall in this category; we suggest that political commitment levels in these countries have been low in the past for reasons other than conflict. Figure 3.3 shows this diagrammatically. Niger has the highest HANCI rating of the countries that experienced deteriorating stunting prevalence in the 2000s as compared to the 1990s. In future editions of the HANCI particular attention may be given to political commitment changes in countries such as Niger, Lesotho and Benin to ascertain whether these drive undernutrition.

Figure 3.3 Decadal stunting trends (1990s/2000s) by country and HANCI country ranks

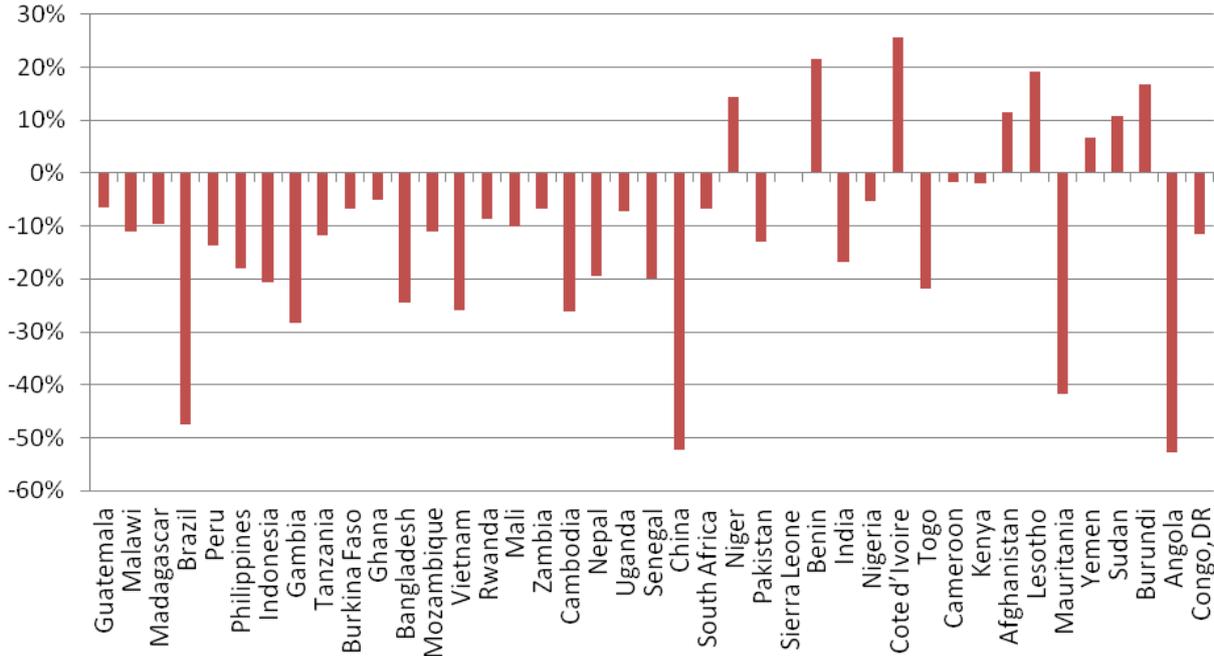


Figure 3.3 also shows that several countries buck the trend. Mauritania and Angola are among the countries showing the highest past decadal stunting reduction rates, yet they record low levels of current political commitment. In Angola, substantial non-agricultural economic growth (oil based) has lifted average incomes to among the highest in sub-Saharan Africa.

Alternatively, political commitment levels can be compared to countries' hunger and undernutrition statuses as defined by the Global Hunger Index (Table 3.5). The GHI is a composite index, calculated by combining hunger prevalence, child mortality and stunting prevalence data (WHH/IFPRI/Concern 2012).

Burundi stands out as having very low commitment levels in conditions that are 'extremely alarming'. Countries experiencing 'alarming' or 'serious' conditions demonstrate a wide range of commitment levels. Development partners may consider that in those showing high commitment, investments in hunger and nutrition may be more likely to bear fruit. Conversely, in countries having low commitment despite high hunger and undernutrition incidence, development partners may focus support on bringing this higher up political agendas, for instance through support for civil society advocacy.

Table 3.5 HANCI political commitment and hunger and undernutrition status as per GHI

HANCI 2012	GHI 2012				
	Low: ≤4.9	Moderate: 5.0–9.9	Serious: 10.0–19.9	Alarming: 20.0–29.9	Extremely alarming: ≥30.0
High commitment	Brazil	Peru	Guatemala	Madagascar	
			Malawi		
			Philippines		
			Indonesia		
Moderate commitment		Ghana	Gambia	Bangladesh	
			Tanzania	Mozambique	
			Burkina Faso	Zambia	
			Vietnam		
			Rwanda		
			Mali		
Low commitment		China	Cambodia	Nepal	
		South Africa	Uganda	Niger	
			Senegal	Ethiopia	
			Benin	Sierra Leone	
			Pakistan	India	
			Nigeria		
			Côte d'Ivoire		
Very low commitment			Togo	Yemen	Burundi
			Cameroon	Sudan	
			Kenya	Angola	
			Liberia		
			Lesotho		
			Mauritania		
			Guinea Bissau		

3.3.2 Political commitment, wealth and economic growth

Low wealth in a country does not necessarily imply low levels of political commitment.

Our data (Table 3.6) show that in cases where there are serious hunger and nutrition challenges, low aggregate and per capita wealth in a country does not mean that governments are simply unable to act on hunger and undernutrition. For instance, Angola and Malawi both have an 'alarming' and Guinea Bissau a 'serious' hunger status (WHH/IFPRI/Concern 2012). Out of these three countries, Malawi has by far the lowest Gross National Income per capita (\$870, as compared to Guinea Bissau (\$1,240) and Angola (\$5,230). Yet, Malawi ranks 2nd on the HANCI, while Angola and Guinea Bissau languish at the bottom of the league table. Similarly, India's child stunting rates are on a par with Guatemala's. The latter's higher GNI per head (\$4,390 compared to \$3,590) seems insufficient to explain the large divergence in political commitment levels.

Table 3.6 HANCI political commitment groupings versus Gross National Income per capita

HANCI	Gross National Income per capita (\$)				
	<1,000	1,000–1,499	1,500–1,999	2,000–3,499	>=3,500
High commitment	Malawi				Guatemala
	Madagascar				Brazil
					Peru
					Philippines

					Indonesia
Moderate commitment	Mozambique	Burkina Faso	Tanzania	Vietnam	
		Rwanda	Gambia		
		Mali	Ghana		
		Zambia	Bangladesh		
Low commitment	Niger	Ethiopia	Benin	Cambodia	India
	Sierra Leone	Nepal	Côte d'Ivoire	Nigeria	China
		Uganda	Senegal	Pakistan	South Africa
Very low commitment	Congo, DR	Togo	Kenya	Lesotho	Angola
	Liberia	Afghanistan		Sudan	
	Burundi	Guinea Bissau		Yemen	
				Cameroon	
				Mauritania	

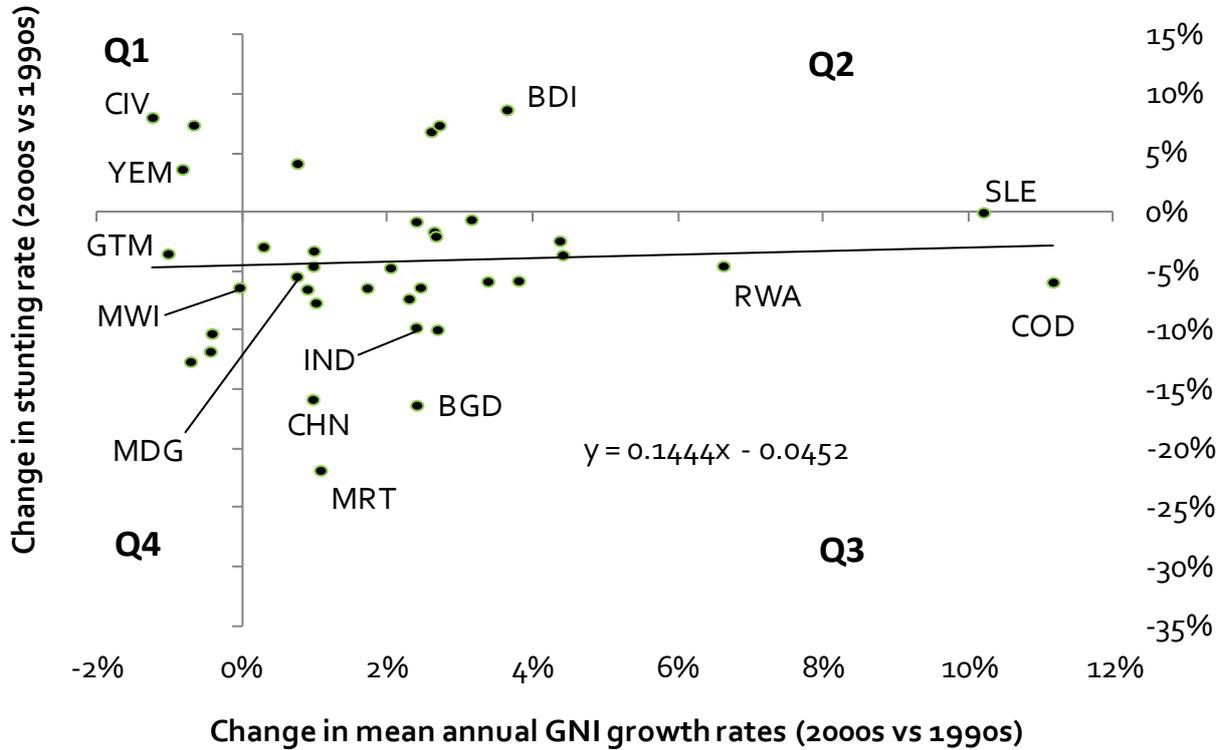
Furthermore, Figures 3.4 and 3.5 show first, how stunting trends and economic growth trends compare for our set of countries over the last two decades.

Figure 3.4 compares change in average annual GNI growth rates between the periods of 1990–1999 and 2000–2011. The average growth rate for the two periods was calculated using purchasing power parity adjusted GNI per capita. We removed Angola from the figures, being a strong outlier. The overall fitted linear trend is weakly positive, suggesting that countries that reported increasing growth between the two decades were not able to achieve increased reductions in stunting rates, affirming similar findings by Headey (2011).

Figure 3.4 sets out on the X-axis the difference in mean economic growth rates in the 2000s compared to the 1990s. Countries on the left-hand side of the Y-axis (in quadrants Q1,Q3) experienced a slowing of growth rates during the 2000s. Guatemala and Malawi, our top two countries are in this group. Countries above the X-axis (Q1 and Q2) show worsening stunting rates during this period. In quadrant 2 therefore, we see countries that experience an acceleration of economic growth as well as stagnating or worsening stunting rates. For instance, in Sierra Leone strongly increased mean growth rates of up to 10 per cent per annum (compared to the previous decade) did not go hand in hand with accelerations in stunting declines. In case of Burundi, a 3 per cent GNI growth rate per annum is accompanied by worsening stunting rates. Nevertheless, for the majority of countries (Q3) positive economic growth trends go together with reducing rates of stunting.

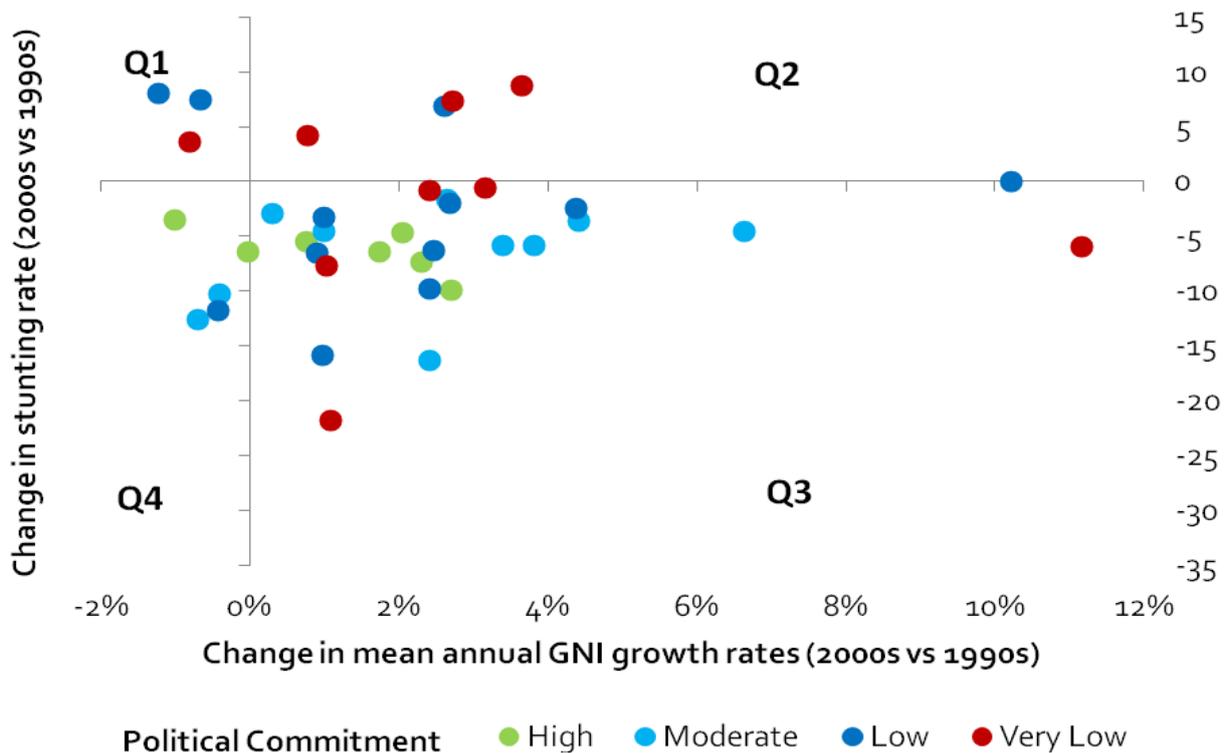
Figure 3.5 presents the same data as Figure 3.4 with a twist: it adds a coding scheme of symbols that demonstrates which countries have relatively high, moderate, low or very low political commitment (HANCI 2012 data). The diagram shows clearly that all countries above the X-axis (those with increasing stunting rates) are countries currently showing low or very low current political commitment.

Figure 3.4 Change in mean annual GNI growth versus mean annual change in stunting rates for 1990s versus 2000s



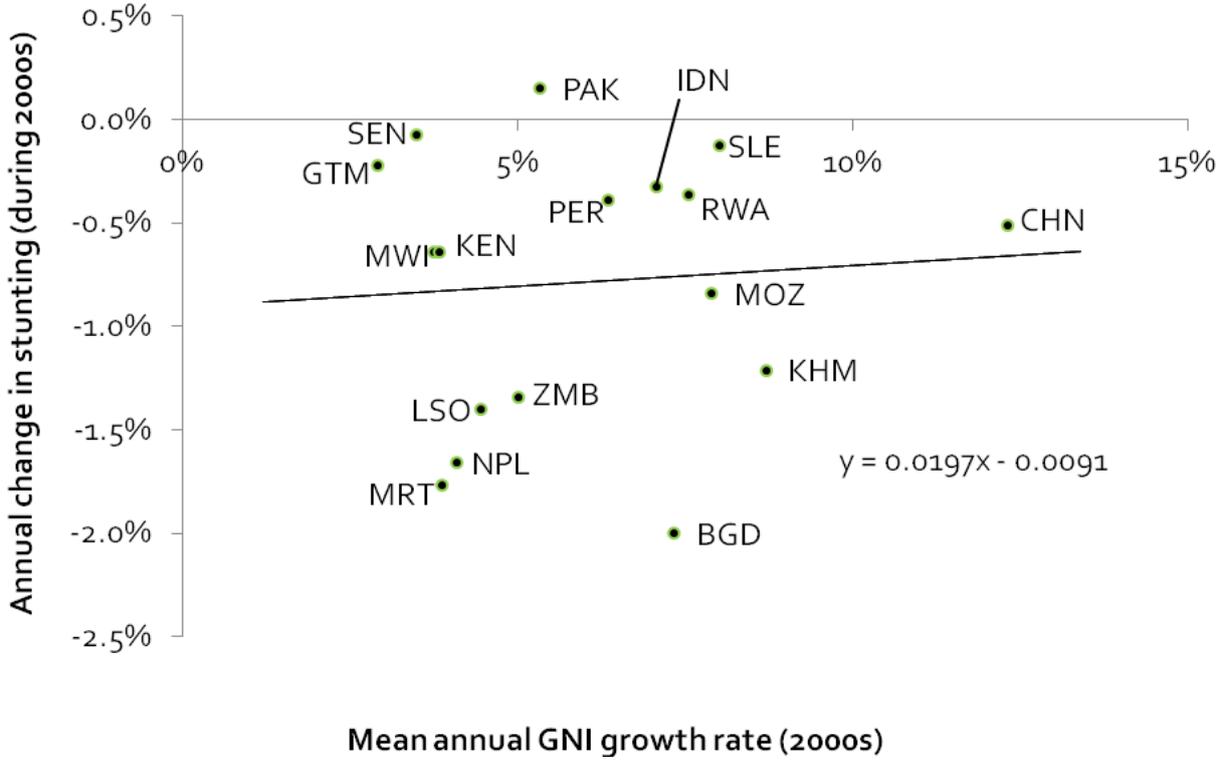
Note: Outlier Angola was removed.

Figure 3.5 HANCI political commitment levels, change in mean annual GNI growth versus mean annual change in stunting rates for 1990s versus 2000s



Finally, Figure 3.6, using data for the decade 2000–2011, again suggests that there is a weak relation between levels of economic growth and accelerations in reducing stunting rates.

Figure 3.6 Annual change in stunting versus annual GNI growth rates, 2000–2011



3.3.3 Political commitment and government effectiveness

Only very weak government effectiveness seems to bar the development of political commitment to reduce hunger and undernutrition.

Governments in our sample demonstrate that high levels of commitment to reduce hunger and undernutrition occur at all but the weakest levels of government effectiveness. Our data (Table 3.7) suggest that low levels of political commitment may be partially caused by very low levels of government effectiveness. Governments of countries such as Sierra Leone, Côte d’Ivoire, Togo, Liberia, Myanmar, DR Congo, Afghanistan and Sudan may feel stifled undertaking initiatives towards hunger and undernutrition reduction because of legitimate concerns regarding their capacity to deliver policies and programmes, put legal frameworks into practice and effectively use government spending.

Nevertheless, once a relatively low threshold of government effectiveness is passed (>10), governments seem able to be moderately to highly committed (e.g. Madagascar, Bangladesh, Mali, Guatemala, Malawi).

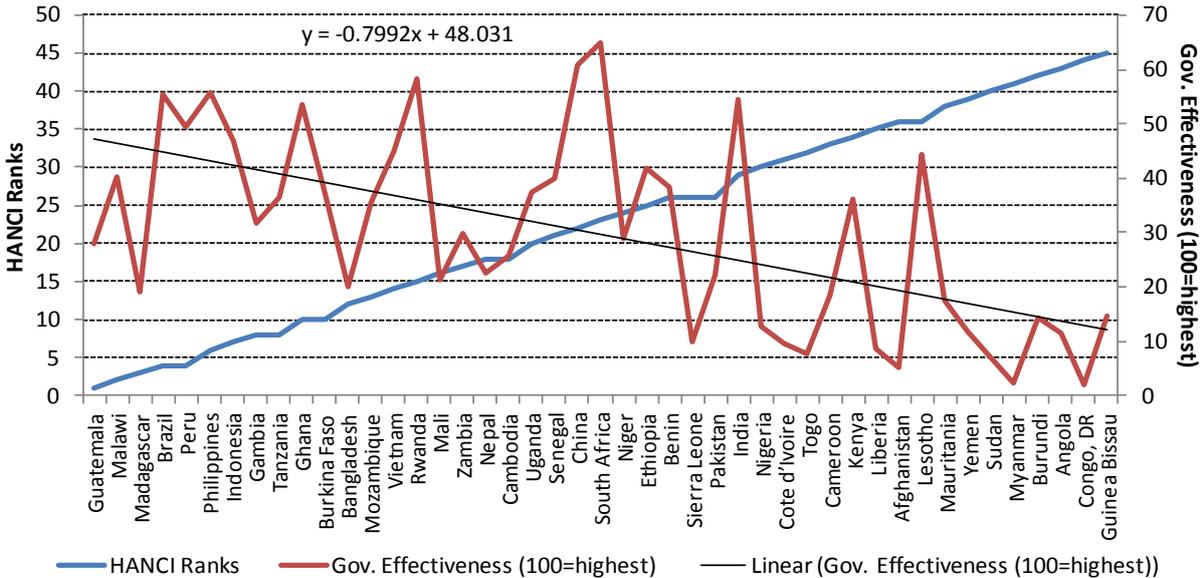
Figure 3.7 further demonstrates that high HANCI rankings overall coincide with higher levels of high government effectiveness. The regression coefficient of -0.7992 is fairly strong.

Table 3.7 HANCI political commitment and government effectiveness (World Governance Indicators 2011)

HANCI	Government effectiveness				
	0–10	10–25	25–50	50–75	75–100
High commitment		Madagascar	Guatemala	Brazil	
			Malawi	Philippines	
			Peru		
			Indonesia		
Moderate commitment		Bangladesh	Gambia	Ghana	
		Mali	Tanzania	Rwanda	
			Burkina Faso		
			Mozambique		
			Vietnam		
			Zambia		
Low commitment	Sierra Leone	Nepal	Cambodia	China	
	Côte d'Ivoire	Pakistan	Uganda	South Africa	
		Nigeria	Senegal	India	
			Niger		
			Ethiopia		
			Benin		
Very low commitment	Togo	Cameroon	Kenya		
	Liberia	Mauritania	Lesotho		
	Afghanistan	Yemen			
	Sudan	Burundi			
	Myanmar	Angola			
	Congo, DR	Guinea Bissau			

Note: Government effectiveness 100 = highest.
 Source: World Bank, World Governance Indicators (WGI 2011).

Figure 3.7 A linear regression of HANCI rankings and government effectiveness levels



Source: World Bank, World Governance Indicators, 2011.

4 The empirical functioning of the index

Although the HANCI employs a theory-driven approach to building the index, this section explores whether the index hangs together empirically, by ascertaining its internal reliability. We further present a sensitivity analysis to demonstrate the robustness of the index.

4.1 Internal reliability

HANCI can be considered reliable if it ranks two countries with the same level of political commitment on par with each other. In statistical terms, reliability is a measure of whether individual indicators in HANCI produce results that are consistent with the overall HANCI.

Arguably, the most commonly used measure of internal reliability is Cronbach's alpha or the standardised version thereof. In cases such as the HANCI where all indicators are normalised before being used in the index the standardised version is recommended (Cortina 1993). Cronbach's alpha is calculated as:

$$\text{Cronbach's } \alpha = \frac{N^2 \times M(COV)}{SUM(VAR / COV)}$$

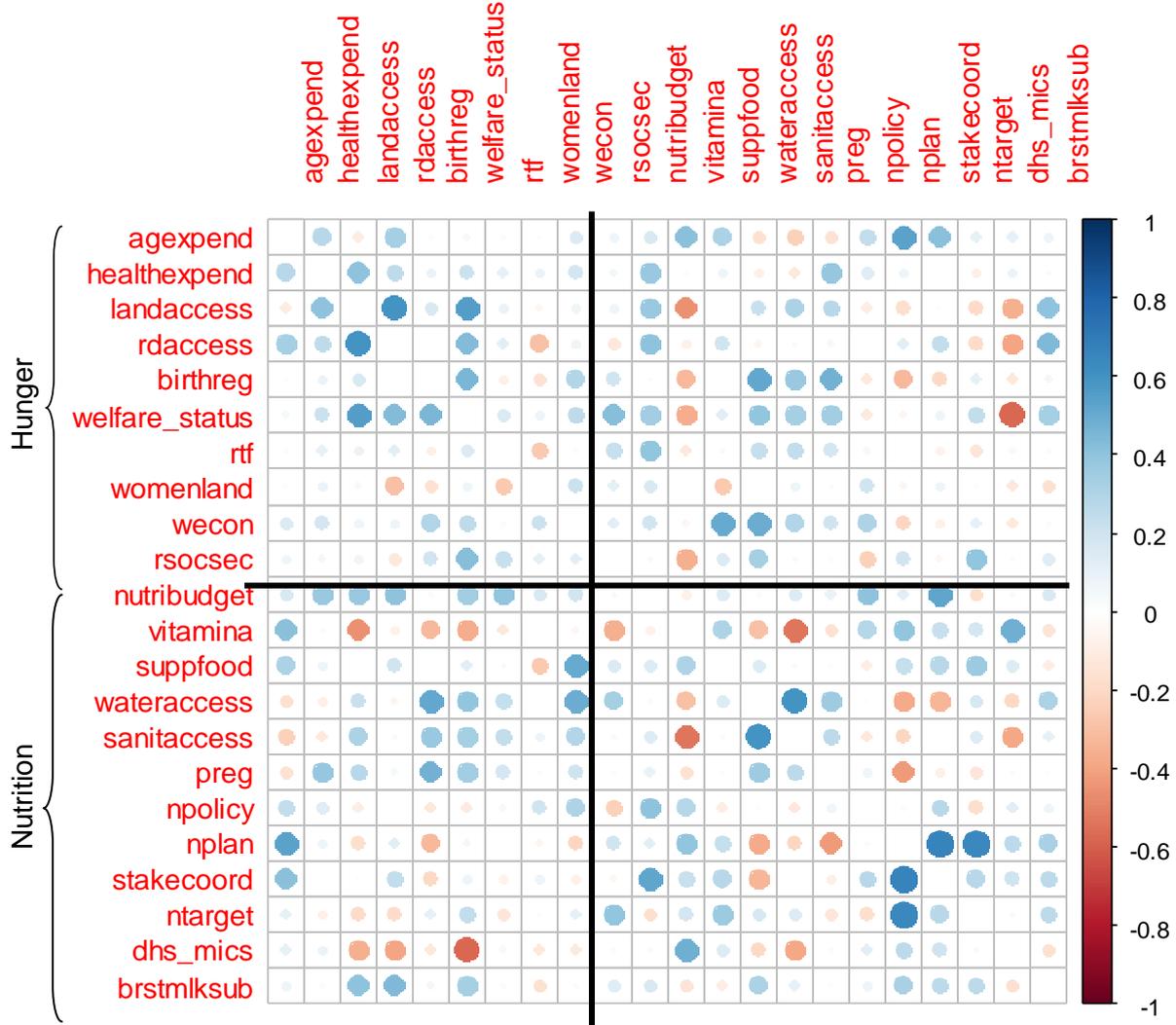
where N is the number of indicators and $M(COV)$ is the mean of inter-indicator covariance and $SUM(VAR/COV)$ is the sum of all elements in the variance covariance matrix (Cortina 1993). The standardised Cronbach alpha, on the other hand, uses information from the correlation matrix instead of the variance covariance matrix. Therefore, we use the correlation matrix of the full set of indicators to calculate the standardised alpha.

The calculation of the correlation matrix for all indicators needs to consider that HANCI comprises a mix of indicators measured on ordinal and continuous scales. If all were continuous indicators then we could have used Pearson moment correlation calculations to populate the correlation matrix that is needed to calculate the standardised alpha. However, the presence of ordinal variables requires that the calculation of correlation measures in each cell of the correlation matrix be determined as follows:

- (ordinal multicategories, ordinal multicategories) → polychoric correlation
- (ordinal two categories, ordinal two categories) → tetrachoric correlation
- (continuous, ordinal multicategories) → polyserial correlation
- (continuous, ordinal two categories) → biserial correlation
- (continuous, continuous) → Pearson moment correlation

The resulting heterogeneous correlation matrix is summarised in Figure 4.1. The figure groups indicators according to whether they represent the hunger reduction commitment sub-index (HRCI) or the nutrition commitment sub-index (NCI) components of the overall index.

Figure 4.1 Heterogeneous correlation matrix (45 countries, 22 indicators)



Note: The diagonal of 1s is not marked. The indices are separated into hunger and nutrition commitment sub-indices.

Figure 4.1 shows that quite a number of indicators are negatively associated with other indicators (81 out of a total of 231 are a red shade). These negative values push down the average intercorrelation among the HANCI indicators to a low but positive level (0.09). Sub-index level average intercorrelations, which are tabulated in Table 4.1, suggest that the average intercorrelation among indicators within a given sub-index (HRCI or NCI) is higher than across sub-indices. This may be interpreted as preliminary statistical evidence supporting our theory-based decision to separately account for hunger and nutrition elements within the HANCI.

Table 4.1 Heterogeneous correlations by sub-index

	HRCI	NCI
HRCI	0.131	
NCI	0.072	0.095

Table 4.2 tabulates Cronbach’s alphas based on the heterogeneous correlation matrix for HANCI and its sub-indices (HRCI and NCI). The alphas based on heterogeneous correlation matrices are identified in the table as ‘Modified α ’ to distinguish them from regular alphas calculated from Pearson moment correlations which assumes that all indicators are continuous. Though both types of alphas are presented in the table for completeness, the modified version is more accurate as it uses accurate correlation type for all indicators based on their data types.

Table 4.2 Cronbach’s alphas for HRCI, NCI and HANCI

	Number of countries	Indicators	Cronbach’s α	Modified Cronbach’s α
HANCI	45	22	0.5997	0.6852
HRCI	45	10	0.5205	0.6008
NCI	45	12	0.4477	0.5588

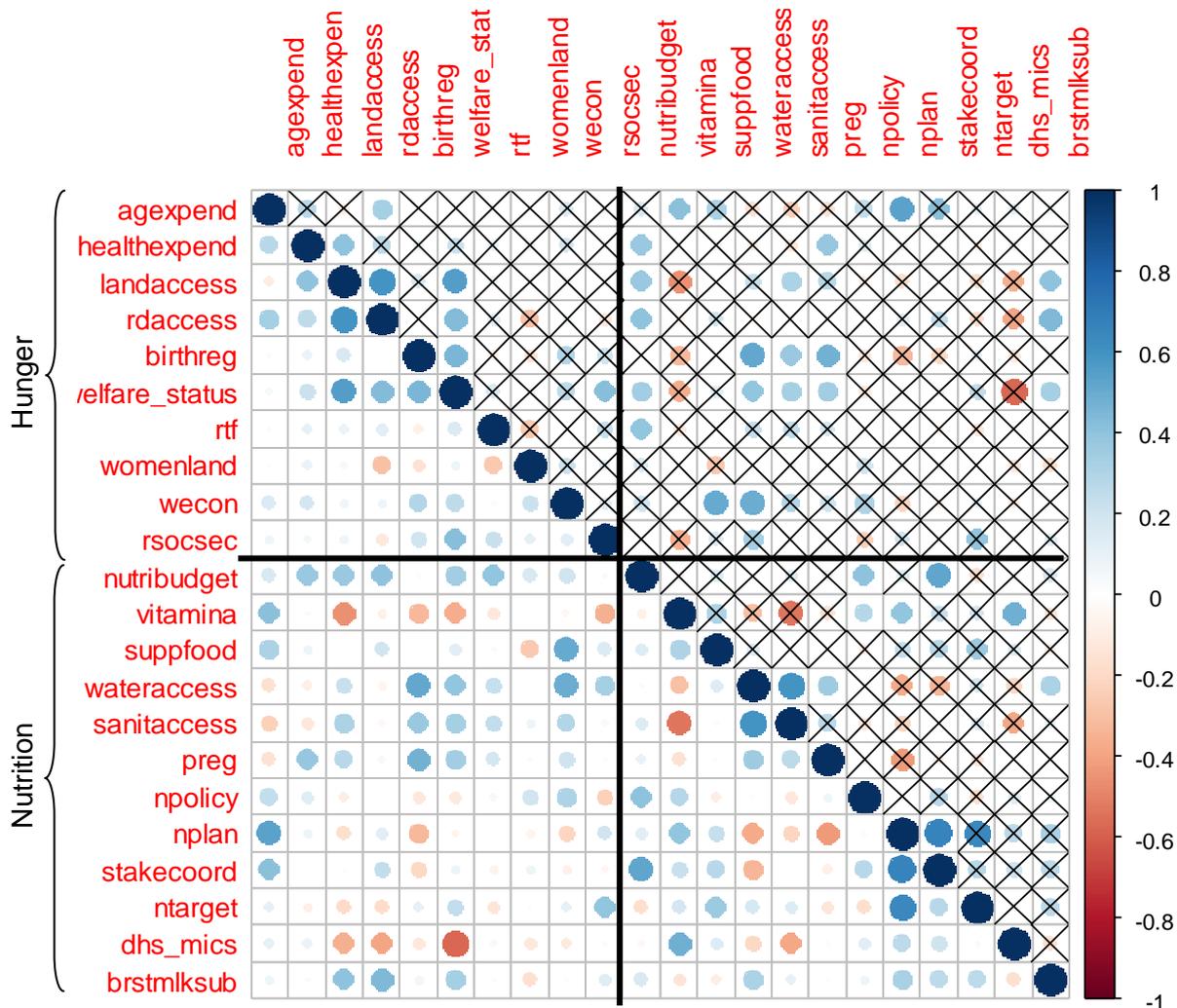
The first observation to make from Table 4.2 is that the alphas for HANCI are higher than for either of its sub-indices, confirming that hunger reduction commitment and nutrition commitment are distinct (albeit related) entities. Because Cronbach alphas should not be used as a measure of unidimensionality (Field 2009), HRCI and NCI alphas should not be expected to be greater than overall HANCI alpha, to demonstrate statistical evidence for the existence of underlying themes/factors.

Researchers commonly use 0.7 as a rule of thumb cut-off value when using Cronbach’s alpha to determine the internal reliability within a set of indicators. Table 4.2 shows that HANCI’s modified α misses the 0.7 level by a narrow margin. We are nevertheless confident that this is not something to be worried about. There are at least three reasons for not putting too much emphasis on the lower than 0.7 alpha. First, there is a substantial literature that argues against the blind application of 0.7 cut-off value of Cronbach’s alpha (Cortina 1993; Schmitt 1996). This literature clearly shows that factors other than reliability affect alpha values. For instance, Cortina (1993) argues that Cronbach’s alpha declines with the number of underlying dimensions of the data. For example, 18 indicators with an average intercorrelation of 0.3 would have an alpha of 0.88 if the data had just one dimension. However, alpha will decline to 0.64 when the dimensions of the data increase from 1 to 3 while retaining the average intercorrelation at the 0.3 level (Cortina 1993). HANCI currently considers that the theoretical construct of political commitment to reduce hunger and nutrition is hinged on at least two dimensions – hunger and Undernutrition – although conceivably a third dimension involves a commitment to reduce overnutrition.¹⁶

Second, even though we consider all elements of the correlation matrix in Figure 4.1 for calculating Cronbach’s alpha many of those are not statistically significant. Figure 4.2 emphasises this by crossing off correlation values that are not significant at the 5 per cent level. Notice that none of the negative correlations are significant.

¹⁶ Many developing countries face a double burden of nutrition, where undernutrition goes hand in hand with overnutrition in various population groups. HANCI cannot measure levels of government action regarding overnutrition due to the absence of comparable data for its countries.

Figure 4.2 Heterogeneous correlation matrix (excluding non-significant correlations)



Note: The correlations that are not significantly different from 0 at the 5 per cent level are crossed out. The size and colour of the circles indicate the size and sign of the correlations.

Third, upon further analysis, we find that the negative correlation coefficients that drive down Cronbach's alpha values are a consequence of the inclusion of a select number of countries with relatively low hunger and undernutrition levels. We examined scatter plots of all pairs of variables that had generated negative correlations in a bid to identify outliers. Quite a few of these scatter diagrams identified countries that scored low in the Global Hunger Index (GHI) i.e. Brazil, China, Peru and South Africa. When these countries were removed from the sample the analysis revealed that intercorrelations of most pairs of variables had increased. This suggests that our preferred indicators of political commitment interact differently in countries with low/moderate incidence of hunger (low GHI scores) compared to countries with high GHI scores.

To examine this further we looked at the change in the internal reliability of the index when low GHI countries were removed from the sample. Table 4.3 tabulates Cronbach's alpha for the truncated sample (41 countries – excluding Brazil, China, Peru and South Africa). It also includes a modified version of Cronbach's alpha which is based on the heterogeneous correlation matrix. Both versions of the Cronbach alpha strongly suggest that the removal of low/medium GHI countries from the sample enhances the internal reliability of HANCI.

Table 4.3 raises some interesting questions. It suggests that once countries are relatively successful in bringing down hunger and undernutrition (to a certain level which remains to be empirically determined), their performance on several commitment indicators used in HANCI come down. This may simply be because there is less need for government action. For instance, as GDP grows and countries become less dependent on their agricultural economies for income and food production, and better able to finance food imports, the relative share of public expenditures going to agriculture is likely to come down. This for instance seems to be the case for Brazil.

Table 4.3 HANCI’s internal reliability and country selection

	Countries	Indicators	α	Modified α
HANCI	41	22	0.6359	0.7174
HRCI	41	10	0.4434	0.5414
NCI	41	12	0.5287	0.6344

Yet, not all political commitment indicators are equally sensitive to a reduction (or increase) of effort when the need for action on hunger and undernutrition reduces (or rises). Take for example an indicator like the constitutional protection of the right to food (the variable ‘rtf’): once this right materialises, governments are relatively unlikely to revoke it. Constitutional law tends to be very robust because amendments require very high levels of political consensus that are difficult to achieve. In contrast, programmatic interventions, such as the promotion of complementary feeding may be abandoned relatively easily, e.g. once complementary feeding is deeply rooted in people’s awareness and everyday child care practices. Stopping a programme under such circumstances could be well justified and not involve lower political commitment, even though the mechanics of HANCI would interpret it as such.

In all, in this section we have demonstrated that HANCI works empirically, to affirm our theory-driven choice of hunger reduction commitment and nutrition commitment sub-indices. In the next section we discuss the sensitivity analysis that we conducted.

4.2 Sensitivity analysis

Sensitivity analysis is used to check the robustness of the index to choices about its components or construction. An index is robust if the rankings it generates do not vary substantively after small changes in composition or construction. We thus calculate the index in different ways and explore correlations between ranks. If the correlation between ranks (the Spearman rank) is high the index is said to be robust to the variation.

We test the robustness of the HANCI, by comparing it with six alternative ways of constructing the index (Table 4.4). The HANCI was built with HDI-type normalisation, and equally weighted thematic aggregation to produce index scores based on an additive plus Borda method. These choices are tabulated in the first row of Table 4.4. The rest of the table presents a few of the other ways this index could have been compiled had we made different design choices.

Table 4.4 HANCI versus HANCI alternatives

	Normalisation	Weighting	Aggregation level	Aggregation method
HANCI	HDI	Equal	Theme	Additive + Borda
Alt 1	Standardise	Equal	Theme	Additive + Borda
Alt 2	HDI	Equal	Theme	Borda + Borda
Alt 3	HDI	Equal	Indicator	Borda
Alt 4	HDI	Equal	Indicator	Additive
Alt 5	HDI	PCA	Indicator	Additive
Alt 6	HDI	Factor Analysis	Indicator	Additive

The six alternative specifications presented in Table 4.4 are:

1. where the normalisation of indicators is done using standardisation (Z scores);
2. where indicators within each theme is aggregated using the Borda method instead of the additive method used in the HANCI;
3. where aggregation is done at the indicator level using Borda method (in this case themes are not considered);
4. where indicators are aggregated using additive method;
5. where Principal Components Analysis identifies weights for calculating the index;
6. where factor analysis-based weights are used in aggregating the indicator.

Our PCA results suggest that there are nine principle components for the 22 indicators. We selected nine components with the support of the scree plot, $\lambda > 1$ criterion, and explained proportion of variance. The factor analysis on the other hand supported the idea that there are four underlying factors.

If HANCI is sensitive to design changes then we expect country ranks to change as a result (Table 4.5).

Table 4.5 tabulates the HANCI ranks as well as the ranks based on the above alternative indices. The rankings of HANCI with these alternate rankings are then compared and summarised using Spearman rank correlation coefficients, which assess the degree of correspondence between rankings. The rank correlations are all above 0.7, which confirms that the ranks are robust for all changes discussed here (all of these are significant at the 5 per cent level).

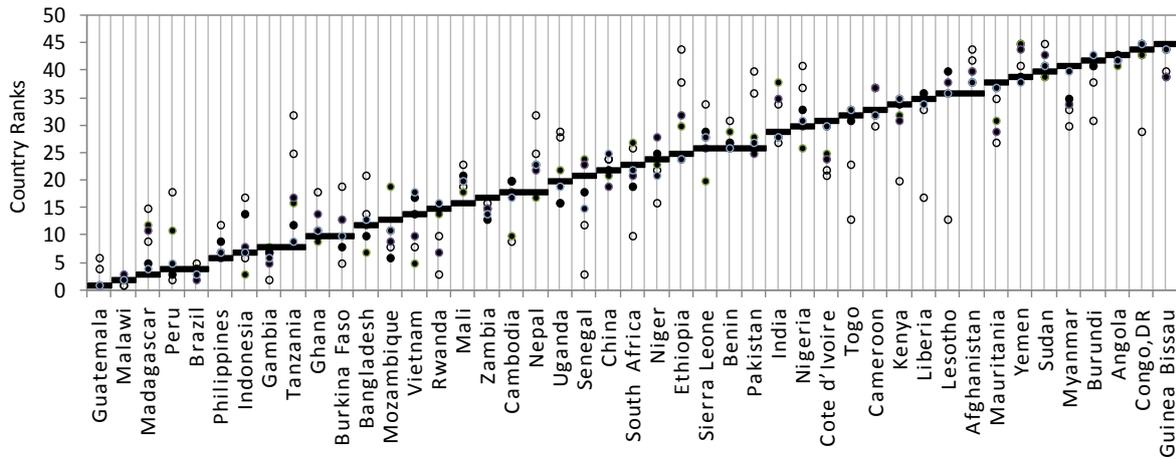
As high Spearman correlations can occur in conjunction with significant re-rankings (Ravallion 2010) we also assess how design choices affect country re-rankings. As expected, the lower the Spearman correlation coefficient of alternative design options, the greater variation in country ranks. Alternatives 1 and 2 in particular are highly robust.

It is however apparent that HANCI rankings seem most sensitive to decisions around weights, specifically by means of a Principal Components Analysis and by Factor Analysis. This is brought out more clearly in Figure 4.3 where the horizontal bars indicate the HANCI rankings and dots the alternative rankings. The white dots are the rankings for when the weighting assumption is changed from equal to either PCA-based or Factor Analysis-based. Clearly these deviate more.

Table 4.5 Comparison of country ranks: HANCI versus alternative design options

	HANCI	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5	Alt 6
Guatemala	1	1	1	1	1	4	6
Malawi	2	2	2	3	2	1	1
Madagascar	3	4	5	11	12	15	9
Peru	4	5	3	4	11	2	18
Brazil	4	3	4	2	4	5	4
Philippines	6	7	9	6	6	12	7
Indonesia	7	7	14	8	3	6	17
Gambia	8	6	7	5	8	7	2
Tanzania	8	9	12	17	16	32	25
Ghana	10	11	10	14	9	18	11
Burkina Faso	10	10	8	13	13	19	5
Bangladesh	12	13	10	12	7	14	21
Mozambique	13	11	6	9	19	11	8
Vietnam	14	18	17	10	5	8	14
Rwanda	15	16	15	7	14	10	3
Mali	16	20	21	20	18	23	19
Zambia	17	14	13	15	15	16	15
Cambodia	18	17	20	18	10	9	20
Nepal	18	23	23	22	17	25	32
Uganda	20	19	16	16	22	28	29
Senegal	21	15	18	23	24	3	12
China	22	25	22	19	21	24	24
South Africa	23	22	19	21	27	26	10
Niger	24	21	25	28	23	22	16
Ethiopia	25	24	24	32	30	44	38
Sierra Leone	26	28	29	26	20	34	28
Benin	26	26	27	27	29	31	26
Pakistan	26	27	26	25	28	40	36
India	29	28	28	35	38	27	34
Nigeria	30	31	33	30	26	37	41
Côte d'Ivoire	31	30	30	24	25	21	22
Togo	32	33	31	33	33	13	23
Cameroon	33	32	32	37	37	30	37
Kenya	34	35	34	31	32	20	35
Liberia	35	34	36	36	35	17	33
Lesotho	36	36	40	38	36	36	13
Afghanistan	36	38	38	40	40	42	44
Mauritania	38	37	37	29	31	35	27
Yemen	39	38	39	44	45	41	45
Sudan	40	41	41	43	39	45	39
Myanmar	41	40	35	34	34	33	30
Burundi	42	43	41	41	42	38	31
Angola	43	42	43	42	41	43	42
Congo, DR	44	45	45	45	43	29	43
Guinea Bissau	45	44	44	39	44	39	40
Spearman rank		0.9895	0.9785	0.9515	0.9442	0.7638	0.7922

Figure 4.3 HANCI rank (black bar) versus the ranks of alternative indices (circles)



Note: White circles indicate ranks based on alternative weights.

When employing alternative ranking and normalisation procedures, for developing countries, we find Spearman Rank Correlation coefficients that are close to one across the various components and that are always significantly different from zero at the 5 per cent level. We conclude that the HANCI rankings are robust.

5 HANCI findings drawing on primary data

Chapter 5 presents analyses of political commitment to reduce hunger and undernutrition for three case countries: Bangladesh, Malawi and Zambia. These countries were selected as high burden countries. The primary data is devised to complement rather than corroborate the index. We present new data on important aspects of political commitment on which no secondary data is routinely collected. The primary data hence is devised to support in country advocacy on hunger and undernutrition (rather than cross-country comparisons). The country analyses provide a brief discussion of context, before presenting the findings from the primary research conducted with experts and communities.

5.1 Country analysis: Bangladesh

Summary

- HANCI ranking: 12 (out of 45)
- Hunger: 25 million (17 per cent of population)
- Stunting: 41 per cent of children under 5 years of age
- Wasting: 16 per cent of children under 5 years of age.

5.1.1 Hunger and undernutrition in Bangladesh

Bangladesh has experienced rapid economic growth and substantial poverty reduction successes during the past two decades. Poverty rates declined by 8 per cent between 2005 and 2010. Per capita GDP doubled between 1990 and 2010, and agricultural growth averaged 3.3 per cent per year, due to impressive gains in rice yields (FAO 2012). Current estimates indicate that Bangladesh has already achieved a 50 per cent reduction in undernourishment and is likely to achieve the same reduction for underweight, meeting the hunger target of the first MDG (FAO 2012). Bangladesh has already achieved MDG4 (child mortality), and is on track to achieve MDG5 (maternal health) (SUN 2011).

Bangladesh also performed relatively well in terms of nutrition improvements, particularly in the 1990s. Although progress stalled between 1999 and 2004, it has since returned, albeit at lower rates than those achieved in the 1990s (FAO 2012).

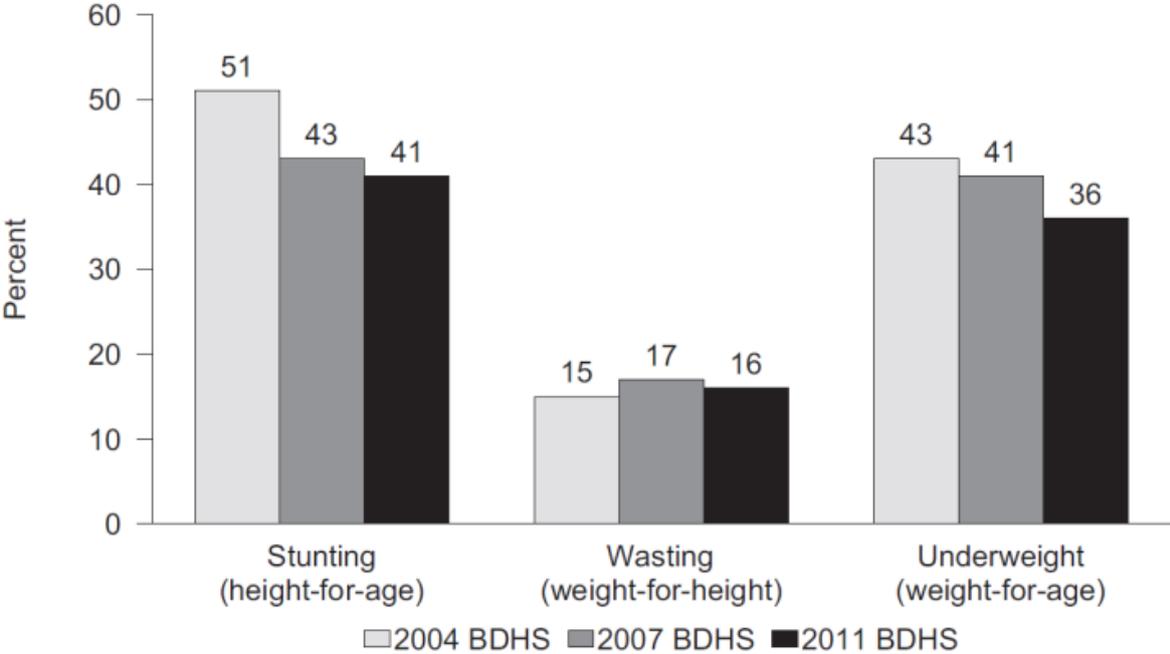
Yet, much remains to be done; 25 million Bangladeshis still face hunger. Moreover, the distribution of hunger is highly gendered: nearly one-third of women in Bangladesh are undernourished (Ahmed, Mahfuz, Ireen *et al.* 2012). Population growth, vulnerability of improved crop varieties to pests and diseases, poor access to food due to poverty, deteriorating access to increasingly scarce natural resources, and worsening soil fertility pose key challenges to food security (ACF 2012).

Malnutrition in Bangladesh costs an estimated US\$1 billion a year in lost economic productivity (FAO 2012).

Figure 5.1 gives the latest data, drawing on the Bangladesh Demographic and Health Surveys. A steady reduction in underweight prevalence has been achieved during 2004–2011. The prevalence of wasting declined from 1990 to 2000, but then increased steadily until 2007 when it reached 17 per cent. 2011 data shows wasting rates stand at 16 per cent, still exceeding the emergency threshold (FAO 2012). Nearly one in six children suffers from acute shortages in food intake. Deficiencies of micronutrients consumption are widespread in Bangladesh. Vitamin A, iron, iodine and zinc deficiencies are of particular relevance to public

health, with the prevalence of iron-deficiency anaemia among young infants, adolescent girls and pregnant women remaining very high (Ahmed *et al.* 2012).

Figure 5.1 Trends in nutritional status of children under five, Bangladesh, 2004–2011



Note: Rates are based on WHO Child Growth Standards (BDHS 2011).

While Bangladesh demonstrated good reductions in stunting rates during the 1990s, recently the rate of progress seems to have sharply declined (in 2004–2007 from 51 per cent to 43 per cent compared to only a 2 per cent reduction in the period 2007–2011). The country-level statistics presented above hide regional and urban/rural disparities. Rural children are more likely to be stunted than urban children (43 per cent compared with 36 per cent). Moreover, children living in some administrative divisions are more affected than others: stunting is lowest in Khulna and Rajshahi (34 per cent each) (Ahmed *et al.* 2012).

The effects of the global food price crisis (and the cyclone Sidr) are likely to have contributed substantially (if only temporarily) reversing progress on undernutrition in the period 2007–2011. Time will have to tell whether previous stunting reduction trends can be re-established. Encouragingly, some of the underlying social factors that help to drive reduced stunting outcomes have also seen improvements, notably (FAO 2012):

- Literacy rates for young females (aged 15–24 years) have doubled, rising from 38 per cent in 1991 to 77 per cent in 2009.
- The coverage of vitamin A supplementation for children aged 6–59 months (which started in the 1990s) is now nearly universal, and consumption of iodised salt has also increased substantially in recent years.
- The use of oral rehydration salts to treat diarrhoea has nearly doubled, from 35 per cent in 2000 to 68 per cent in 2007.
- A substantial increase in exclusive breastfeeding during the first six months of life, from 43 per cent in 2007 to 64 per cent in 2011.

5.1.2 HANCI findings

In 2012, the Government of Bangladesh (GoB) declared its commitment to food security ‘for all people of the country at all times’ (Ahmed *et al.* 2012). Although not yet an official member of the Scaling Up Nutrition movement, the GoB’s commitment to improving nutrition is well recognised (SUN 2011). Hunger and nutrition are clearly identified development issues in the current Sixth Five Year Plan 2011–2015. The GoB has actively pursued nutrition policies and programmes for some time. The Bangladesh Integrated Nutrition Project (BINP), initiated by the Ministry of Health and Family Welfare (MoHFW) in 1995 had a beneficial impact on nutrition outcomes. It was followed in 2002 by the National Nutrition Programme and other related programmes including the Health and Population Services Project (1998–2003), the Health, Nutrition and Population Sector Project (2003–2011), and the Health, Population and Nutrition Sector Development Programme (2011 to 2016) (CSNSI 2012).

The GoB takes a multi-sectoral approach to nutrition. The National Nutrition Service, situated in the MoHFW, coordinates multi-sectoral contributions, and may have a central role in mainstreaming nutrition across ministries and health services. Mainstreaming nutrition within the existing health system is likely to improve access to nutrition interventions for those living in hard to reach areas and the poorest segment of the population. Government efforts also invest substantial resources in demand creation for nutrition, through public awareness building and community mobilisation (SUN 2011).

The GoB puts a strong focus on the first 1,000 days of a child’s life, and targeted nutrition interventions for scaling up tally with those recommended by the authoritative Lancet series on maternal and child undernutrition (SUN 2011). More so, government policy is informed by up-to-date and robust evidence. The government has conducted nationally representative sampling surveys investigating nutrition statuses in 2004, 2007 and 2011. This compares favourably to, for example, India.

While not all nutrition programmes have yet been implemented at scale to reach the entire population (notably programmes against Severe Acute Malnutrition), programmes such as the Expanded Programme on Immunization and vitamin A supplementation have been very successful (Ahmed *et al.* 2012). The coverage of vitamin A supplementation in Bangladesh is around 90 per cent, one of the highest in the region (SUN 2011). It is now reported that all children aged 6–59 months have received two high doses of vitamin A supplements within the last year. The coverage of zinc treatment for diarrhoea is 20 per cent, which is the highest among countries with high burdens of undernutrition. The GoB is scaling up its infant and young child feeding programmes throughout the country and remains committed to providing community nutrition interventions provided through community clinics (SUN 2011). Exclusive breastfeeding for the first six months, followed by complementary feeding is actively promoted. Bangladesh has also taken measures to substantially enshrine the provisions of the International Code of Marketing of Breastmilk Substitutes in domestic law.

The budget of the GoB now contains a separate line for nutrition, and this enhances transparency and accountability of government spending on nutrition.

Other government interventions supporting the reduction of hunger and undernutrition include substantial investments in agriculture and health. The GoB has successfully promoted the adoption of new rice varieties and supported expansion of irrigation infrastructure, and these have driven agricultural growth rates of over three per cent per annum, which contribute substantially to reduced hunger. The share of government spending going to health is about double that of India and Pakistan. Yet, equitable access to adequate public health systems needs further strengthening: for instance, 47 per cent of all pregnant women are not attended even once by skilled health personnel during pregnancy.

The government supports programmes to improve female literacy and gender equity, and has also introduced social safety nets for the poor, such as the Vulnerable Group Development Scheme (supported by the UN World Food Programme) (CSNSI 2012).¹⁷ Yet, there are significant funding gaps for social protection programmes.

The Constitution of Bangladesh enshrines a right to food, and the right to social security. Article 15 recognises the fundamental responsibility of the state to secure to its citizens the provision of the basic necessities of life including food. There is, therefore, a clear commitment on the part of the state to ensure access of food to those who are in need of it most.

While appreciating these various government efforts, clearly more needs to be done as hunger and undernutrition remain major challenges. Here we identify some of the areas in which further improvements can be achieved that would accelerate hunger and undernutrition reduction. First, coverage rates of the civil registration system are still very low, at only 10 per cent of the population. Enhancing civil registration may help to improve people's access to essential public services, including health and education. Second, other services that need strengthening concern access to improved drinking water (currently 81 per cent of the population benefits) and improved sanitation (56 per cent). Third, in order to reduce women's disproportionate suffering from and vulnerability to hunger, further government action may be taken to effect women's economic rights, which exist on paper but are not effectively enforced (CIRI 2010). Similarly, while women have *de jure* equal rights to access and own productive agricultural land, various discriminatory practices prevent their realisation (OECD undated), and thus continue to keep women disproportionately vulnerable to hunger. Finally, at a systemic level, improvements in what the World Bank's World Governance Indicators (World Bank 2011) identify as a relatively ineffective public governance system are likely to have major impacts on the successful delivery of the various government interventions aimed at reducing hunger and undernutrition.

5.1.3 Expert perceptions of political commitment

In Bangladesh, 40 experts (30 men, 10 women) were interviewed in the period August–September 2012 by a team from ActionAid Bangladesh and consultants. This team had also conducted the 2011 survey, so it was well-versed in the practicalities of arranging and conducting the survey. Efforts were made to obtain a balanced sample with substantial representation of government officials, civil society organisations, research and academic institutions, international donors and some members of the media. However, the research team found it difficult gaining sufficient representation of government officials. All survey respondents were selected on the basis of having substantial knowledge and expertise in the areas of hunger and nutrition, food policy, agriculture, health and social policy.

Thanks to the face-to-face interview approach, response levels were very high. On a few questions, up to two respondents refrained to answer. Otherwise all questions were answered by all respondents.

One innovation of the 2012 survey (compared to the 2011 survey) is that respondents were asked to answer questions separately with reference to (a) hunger and (b) nutrition, in order to determine whether there are (different) commitment levels for hunger and undernutrition reduction.

The analysis of expert survey findings is split up: we first discuss the theme of public expenditures, and then investigate government policies and programmes.

¹⁷ It may be noted that the NGOs in Bangladesh have successfully rolled out substantial social protection schemes, e.g. BRAC's Targeting the Ultra Poor programme. These operate in parallel with government provisioning.

Overall, experts consider that current public expenditures by the GoB signal a fair commitment to hunger reduction and a mediocre commitment to reduce undernutrition (Table 5.1). In a country that is frequently plagued by emergencies and natural disasters, budget expenditures on hunger are deemed to be sensitive to such events, signalling a level of responsiveness of the state to the needs of its citizenry. Budget expenditures on hunger are also deemed fairly sensitive to electoral cycles, interestingly suggesting that hunger is a topic of relevance in electoral party politics.¹⁸ However, spending on hunger and nutrition is too often done through non-transparent financing mechanisms.

Table 5.1 Expert perceptions of public expenditures towards addressing hunger and undernutrition, Bangladesh

Questions*	2011	2012	
	Hunger and nutrition	Hunger	Nutrition
To what extent are government policy preferences reflected in budget expenditures?	3.02	2.56	3.08
How strong or weak would you, in general, characterise the government's absolute (in money terms) budget expenditures on hunger and nutrition	3.05	2.72	3.28
How reasonable would you, in general, characterise the government's relative budget expenditures on hunger and nutrition?	3.08	–	–
How sensitive are government budget expenditures on hunger and malnutrition to electoral cycles?	2.4	2.40	3.10
How sensitive are government budget expenditures on hunger and malnutrition to emergencies/disasters?	2.18	1.93	2.78
How well has the national government developed transparent financial mechanisms for earmarked funding	–	3.38	3.56
Indicator score (mean of means)	2.75	2.60	3.16

Note: Mean score: 1 = very strong commitment; 5 = very weak commitment.

*Tabulated questions are shortened. For full versions, see Annex 2 with questionnaires.

Also in terms of policies and programmes, experts suggest that the GoB gives somewhat stronger attention to hunger than nutrition issues, overall, and for each of the indicators (Table 5.2); 85 per cent of experts think that the GoB is giving high to very high priority to hunger as a problem. No respondents consider that this is given low priority. No such agreement was found for nutrition; while 57.5 per cent of experts consider that the GoB gives it high to very high priority, 17.5 per cent of experts argue that the GoB considers nutrition a low priority.

Overall, for the theme of policies and programmes, scores for 2011 and 2012 are not significantly different.

¹⁸ We interpret sensitivity to electoral cycles as a good thing (signalling responsiveness to voter concerns). A more cynical interpretation would be that this constitutes an attempt at manipulating voters. Even if that were to be the case, it affirms hunger to be part of party political agendas in Bangladesh.

Table 5.2 Expert perceptions of public policies and programmes addressing hunger and undernutrition, Bangladesh

Indicator	2011	2012	
	Hunger and nutrition	Hunger	Nutrition
Institutional coordination	2.37	2.75	3.10
Government intention and action	2.34	2.47	2.74
Locus of initiative	2.42	1.98	
Analytical rigour	2.50	3.13	3.18
Learning and adaptation	3.05	2.97	3.09
Public commitment	3.06	2.43	2.61
Mobilisation of stakeholders	3.11	2.72	2.92
Continuity of effort	3.32	2.97	3.28
Credible incentives	3.90	3.99	4.02
Political leadership	-	2.79	2.90
Overall score (mean of means)	2.91	2.80	2.96

Note: Mean score: 1 = very strong commitment; 5 = very weak commitment.

The GoB regularly conducts nationally representative demographic and health surveys (2004; 2007; 2011). Nevertheless, experts considered that there is clear scope for strengthening government systems that monitor, evaluate and generate knowledge and evidence on hunger and nutrition. They consider current systems to be only ‘somewhat developed’ (‘analytical rigour’).

The successful Bangladesh Infant Nutrition Programme that was developed in the 2000s was based on a model developed in Tamil Nadu (India) (Headey 2011). While the GoB has thus learnt lessons from other countries in the recent past, the experts consider that the GoB is currently neither weak, nor strong on this account (‘learning and adaptation’). This score reflects that expert responses were quite divided.

Policies and programmes are generally carried out by the same ministry, department or agency that initiated it, enabling better ownership and implementation (‘locus of initiative’).

The experts consider that policy and strategic decision-making processes on hunger and undernutrition benefit from moderate levels of representation of diverse stakeholders. The agencies in charge of these are fairly successful in building broad (political and social) support for their policies; implementing agencies find this harder (‘mobilisation of stakeholders’).

GoB ‘intention and action’ is overall considered a little better than mediocre. The mean figures in Table 5.2, however, obscure that experts deemed that the GoB gives high priority to hunger, and fairly high priority to nutrition. GoB efforts towards achieving declared policy goals on flagship policies on food, health, agriculture, nutrition and safety nets are however only somewhat adequate, and the implementation of policy efforts is deemed to be mediocre, to bring down overall scores for the ‘intention and action’ indicator.

Institutional coordination is deemed to be somewhat better than mediocre for hunger issues and mediocre for nutrition, which are under the respective stewardship of the Department for Food and Disaster Management, and the National Nutrition Council and the Ministry of Health and Family Welfare. Internationally, weak horizontal coordination of efforts to reduce hunger and malnutrition are often remarked on (Chopra *et al.* 2009; Engesveen *et al.* 2009); this does not sound quite true for Bangladesh. However, experts highlighted that horizontal

coordination efforts are stronger than vertical coordination between the central government and administrations at the sub-national level.

Overall the GoB's 'public commitment', openness and accountability to reduce hunger and undernutrition are fairly strong. For instance, government documents clearly express policy preferences and policy goals for hunger and nutrition. Budget lines are somewhat developed, and desirable outcome targets are fairly clearly set. The experts are however quite impressed by the way in which the GoB sets out its preferences regarding addressing hunger and nutrition in national policy documents: 67.5 per cent of experts consider that this is done clearly or very clearly (the remaining group thinks this is done neither clearly nor unclearly). Furthermore, 80 per cent and 70 per cent of experts considered that hunger and respectively nutrition are expressed strongly or very strongly in national development strategies.

However, the existing administrative and financial capacity to successfully achieve these goals, and the utilisation of these capacities (continuity of effort indicator) is considered to be modest. Moreover, the GoB bureaucracy has weakly institutionalised incentives to reward good performance and punish weak performance by both individual civil servants and bureaucratic agencies in the fight against hunger and undernutrition.

Finally, we assessed political leadership, which overall was found to be neither weak nor strong. This mean score, however, hides a certain political appetite for addressing hunger and undernutrition. Indeed, it is clear that hunger and nutrition are part of the development agendas of the GoB and its top political leadership. Top-level (presidential/prime ministerial) leadership was considered to be strong for hunger, and fairly strong for nutrition. Hunger reduction is considered to be fairly well defined in political party manifestos (nutrition less so). However, reflecting a polarised political climate, there is no cross-party support for the current GoB's efforts to reduce hunger and undernutrition; over three-quarters of respondents felt that weak to very weak support was received from political parties in opposition.

Moreover, senior political leaders are seen to be fairly strong at speaking out publicly against hunger and undernutrition. Their statements are, however, considered to be only modestly convincing (less so than civil service or civil society leaders); this may be bound up with a generic distrust of politicians and their posturing on social issues (this issue was frequently raised by poor communities that were consulted).

Over 75 per cent of experts interviewed noted that politicians, civil society leaders and civil servants also have moderate to high levels of factual understanding of the *status* of hunger and nutrition in the country. Senior politicians, however, have only a modest grasp of underlying (complex) causal factors, and a fairly weak understanding of possible solutions that the government may seek to support for addressing hunger and undernutrition. Accordingly, the political appetite for addressing hunger and nutrition may be capitalised on by supporting greater efforts to enhance senior politicians' understanding of its causes and solutions.

In contrast to political leaders and leaders in civil society, government officials are seen to have a sound understanding of the causes of, and solutions for, hunger and undernutrition. However, they are not deemed to speak out substantially against hunger and undernutrition. This could either reflect that civil servants lack the mandate, confidence and/or capacity to fulfil such a role. If they are, however, seen as legitimately playing a role in publicly raising the issue of hunger and malnutrition, greater support may be given to this facilitate their leadership and championing the effort to combat hunger and undernutrition in the country.

5.1.4 Community perceptions of political commitment

As part of the primary research, eight focus group discussions were conducted in four locations in Bangladesh: Dhaka (urban), and three rural districts, Nilphamari, Patuakhali and Bandarban. Discussions were held with men and women separately. This section briefly introduces experiences of hunger and undernutrition in these communities, and then highlights how they perceive their government's intentions and actions towards the reduction of hunger and undernutrition. Finally, the communities offer suggestions on a suitable weighting scheme for political commitment to reduce hunger and undernutrition.

In urban Dhaka, members of the communities are predominantly in the low-paid informal sector, whereas those based in rural areas are dependent on agriculture (subsistence and/or cash crop farming). All are prone to volatile incomes, and all respondents, including most small-scale farmers, depend on market purchases to access food.

Communities defined hunger as having access to fewer than three meals a day; while nutrition deficiency was interpreted as lack of a balanced diet. Community members in all areas reported being dependent on meals comprising vegetables and rice. They felt unable to afford a balanced diet, which was interpreted as including fish, and felt that this resulted in nutritional deficiencies.

'Amar shami macher arode kaj kore, kintu jeie rojgar hoi tatey sheie mach kinte parena. Taie shak shobji diyeie khawa hoi.'

(My husband works in a fish market as a labourer. But with the little earning he himself cannot buy fish for the family. That's why the family mostly lives on vegetable and rice.)

(Female participant, Patuakhali District)

Some of the consulted communities (including those in the urban area) reported as rarely going hungry. However, seasonal hunger is a problem in some of the rural areas, especially in the Monga period (September to November), particularly in Nilphamari. This leads community members to take out loans or sell their labour in advance (at discounted wage rates) to be able to buy food. The members of the community most severely affected in all areas are the women who prioritise food for their children and husbands. Even during pregnancy women do not eat any extra food, and this is likely to lead to both mother and child becoming underweight.

'Jokhon gorboboti thaki eki khabar khaie. Ekhon ja khacchi tokhon oiesomoi taie khawa lagey. Beshi kore khabar amader ke dibe? Taie to baccha durbol ar pushtihin. Porashonai bhalo korena boroloker cheleder moto. Eta ke bujhbe?'

(During pregnancy, they eat the same food. Whatever they are having now, they have the same then. Who will give them the extra food? That's why their children are weak and suffer from malnutrition; for which they do not do well in education like the children of rich class. Who will get this fact?)

(Female participant, Nilphamari District)

Government health services, drinking water, sanitation and social security (insurance or saving facilities) exist; however, community members noted that these are often in a very poor state.

Moreover, various national government programmes and policies aim to address food insecurity throughout Bangladesh. Participants had some awareness of the Vulnerable Group Distribution (VGD) and Vulnerable Group Feeding (VGF) schemes, 100 days

guaranteed employment programme, the agriculture subsidy programme and two programmes aimed specifically at children.

The VGD and VGF programmes involve government distribution of food items at subsidised rates based on a ration card system. The VGF programme is implemented throughout Bangladesh to provide food to low-income and other vulnerable groups who cannot meet basic needs for survival due to natural disasters or socio-economic circumstances by means of food aid relief during a period of distress. The VGD programme aims to promote self-reliance among the most vulnerable women, by providing them with food assistance and training in alternative livelihood skills. These include training in risk management for natural disasters, HIV/AIDS prevention, and enhancing maternal and child health.

One of the government programmes that communities reported on aims to support families a scholarship of Tk100 per month to enable children to attend school regularly. With support from the World Food Programme a school feeding programme has also recently started in poor areas (where high-energy biscuits are distributed during the break). Community members also mentioned the Old Age Allowance and Widow Allowance, which both provide a monthly allowance of Tk300 to beneficiaries. The Old Age Allowance is for men over the age of 65 and women over the age of 62 whose average annual income is below Tk3,000. Widowhood or spousal abandonment are prime eligibility criteria for obtaining the Widow Allowance. Focus group participants noted that other than this and birth control programmes, no specific programmes or policies support women.

When asked what actions a government that is politically committed to reducing hunger and undernutrition would take, people often responded that adequate policy measures could substantially alleviate food insecurity. Notably, communities emphasised that policy measures should assist them to engage in productive economic activity, rather than provide charitable handouts. Respondents stated that the government should create employment (e.g. in the ready-made garments industry) which could benefit both men and women. This would allow families to have higher and more stable household incomes, which in turn would enable them to eat three times a day (i.e. avoid hunger) and afford more balanced meals. Women in these communities also want to have access to free vocational training, which would enable them to get work and increase the family's income flow. They consider this a more feasible and enduring solution to hunger and undernutrition than the existing programmes. This perspective may well inform prevailing notions that food security programmes provide only limited benefit to the poor, because their implementation is subject to manipulation by local political leaders. Eligible groups accordingly do not always receive the VGD/VGF card. Furthermore, for those with a card, distribution of food is irregular (especially in Dhaka) or less than the allocated quota (Patuakhali district). Workers rarely get 100 days under the 100 days employment scheme, as powerful people get the contracts and hire someone else at a lower rate to carry out the work (*bodol* system). Although the government offers subsidies for agriculture for those farmers that open a low-cost bank account (Tk10), the poor fail to gain access due to a complex documentation process that can only be negotiated with bribes. For those who do receive the subsidy it is often not available on time.

Community members also expressed serious concern about how local leaders can be a barrier to access information about the programmes. They find local government officials aloof and unresponsive, and feel that they lack the means to reach more senior officials. Due to such lack of information, communities remain unaware of programme benefits that they are entitled to.

‘Ami janina kojjon shar pawar kotha. Boley to shudhu 20 ta naam.’

(I don’t know how many people are supposed to get fertiliser from government; the officers say there are only 20 names allocated for it.)

(Male participant, Bandarban District)

Furthermore, most consulted communities harbour a deep scepticism about the democratic process and political leaders. In election times political representatives make many promises, which are considered to be rarely kept. Effective linkages to politicians are therefore rarely seen as a viable way of promoting greater food security in the communities.

‘Jokhoni nirbachon ashey montri minister ra borabori golpo deie, nirbhachon sesh, keo naie.’

(When the election arrives, ministers start telling stories and giving hope. After the election no one cares!)

Nevertheless, despite their serious concerns about the implementation of food security programmes, communities remain remarkably enthusiastic about their (potential) benefits, possibly because they notice how some people do benefit (participants who did gain the benefits of government programmes, such as agricultural subsidies, argued it to be important for enhancing their food security), and how other programmes do function well. Communities thus noted that the government programmes aimed at children such as the Tk100 scholarship per month and the School Feeding Programme are able to deliver their benefits.

5.1.5 Weighting schemes: community and expert preferences

Chapter 2 showed how the HANCI research team applied an equal weighting scheme to the three themes that constitute the Hunger Reduction Commitment and Nutrition Commitment sub-indices. Recognising its subjective nature, we identified alternative weighting schemes based on the preferences of (a) experts and (b) communities affected by hunger and undernutrition. A simple exercise was devised for experts as part of the questionnaire survey, and for community members as part of the focus group discussions. Table 5.3 shows a summary of findings.

Table 5.3 Experts’ and community members’ subjective weighting schemes, Bangladesh

	Legal frameworks	Policies and programmes	Public expenditures
Experts	22%	42%	37%
Communities	24%	53%	23%

The communities allocated separate scores for hunger and nutrition, which were combined to determine the overall weighting scheme. Communities gave even stronger emphasis than the experts to policies and programmes (53 per cent), and more emphasis to legal frameworks (24 per cent), though less emphasis to public expenditures (23 per cent). Details of the weightings allocated in each of the communities consulted can be found in Annex 5. Table 5.4 shows a summary of findings.

Community members favoured policy and programmatic action in the shape of government employment creation and provision of social safety nets. Employment creation is seen to support household incomes, enhancing their ability to afford three nutritious meals a day for all members.

Table 5.4 A gendered breakdown of weights, community members, Bangladesh

	Hunger			Nutrition		
	Legal frameworks	Policies and programmes	Public expenditures	Legal frameworks	Policies and programmes	Public expenditures
Male	19	63	18	30	38	32
Female	29	50	22	21	60	19
Total	24	56	20	25	49	26

Note: Communities were consulted in urban Dhaka, and in Bandarban, Patuakhali and Nilphamari Districts.

Women participants considered hunger as well as undernutrition to be the consequence of households having insufficient income to buy nutritious foods. Safety nets are appreciated as a last resort protecting people from hunger. When discussing hunger, women in the hunger-prone Nilphamari District allocated substantially more points to ‘legal frameworks’. They argued that an effective legal framework would help to overcome persistent wage discrimination between men and women by putting pressure on employers and enable them to stand up against such discrimination. Enhanced wages (equating to the level of men’s wages) would help to combat hunger. In Dhaka, men considered that food adulteration and usage of harmful preservatives were important nutritional issues, and considered that strong legislation was required to address such concerns. This observation is interesting in the sense that nutrition seems to be identified as something external to household food and caring practices such as breastfeeding, complementary feeding and hygienic food handling.

Overall, the weighting schemes identified based on the preferences of experts and communities are quite different from the equal weighting schemes used by HANCI.

5.2 Country analysis: Malawi

Summary

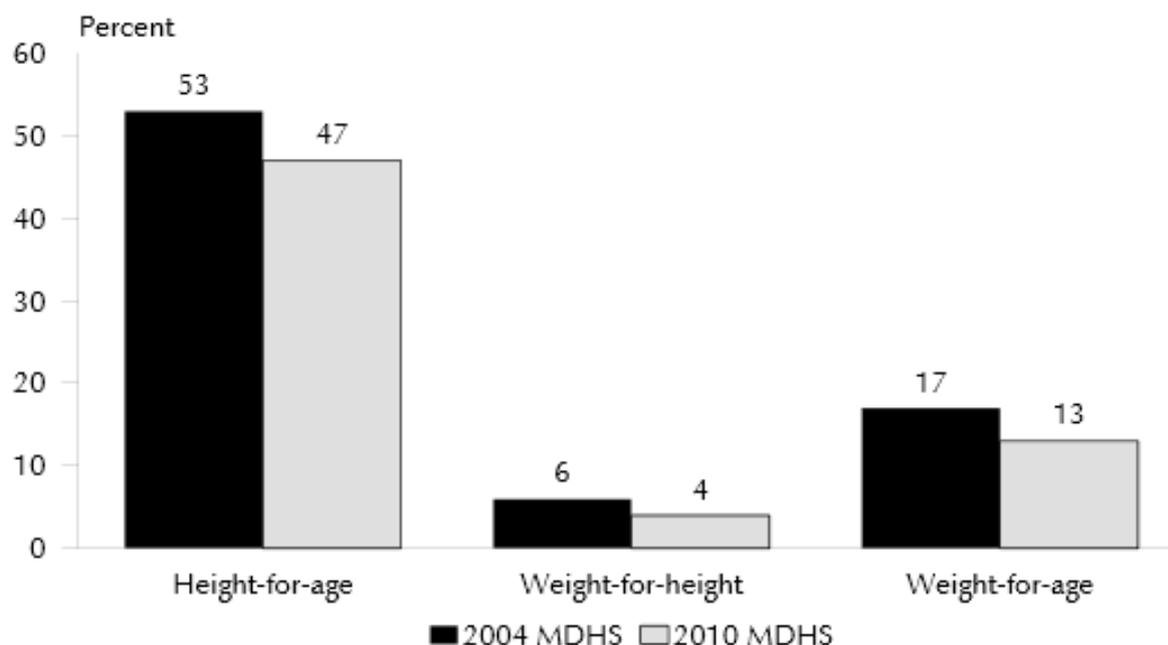
- HANCI ranking: 2 (out of 45)
- Hunger: 4 million (23 per cent of population)
- Stunting: 47 per cent of children under 5 years of age
- Wasting: 4 per cent of children under 5 years of age.

5.2.1 Hunger and undernutrition in Malawi

Malawi has in recent years benefited from substantial agricultural growth. As 80 per cent of the population work in agriculture, growth has had substantial impacts on reducing hunger, food insecurity and poverty. Malawi is expected to meet the millennium development hunger target by 2015 (FAO 2012). Poverty incidence has dramatically declined from 65 per cent in 2004 to about 39 per cent of the population in 2010 (SUN 2011), yet remains high. Around 23 per cent of people in Malawi suffer from chronic hunger (FAO 2012). Undernutrition also remains a major challenge. 47 per cent of children under five are stunted (low height for age), 4 per cent are wasted (low weight for height), and 13 per cent are underweight (MEASURE DHS 2011).

Considerable gains in child survival and maternal health have translated into a small drop in the prevalence of underweight children in recent years. Yet, reductions in stunting rates have been worryingly low (Figure 5.2), from 53 to 47 per cent between 2004 and 2010, to remain among the highest in the continent. Wasting rates have decreased from 6 to 4 per cent in this period (MEASURE DHS 2011).

Figure 5.2 Trends in nutritional status of children under five, Malawi, 2004–2010



MDHS 2010.

These statistics hide some gender and regional disparities. While boys and girls are equally likely to be wasted (4 per cent each), male children are more likely to be stunted (51 per cent) and underweight (14 per cent) than female children (43 and 12 per cent respectively). Children in rural areas are more likely to be wasted (4 per cent), stunted (48 per cent) and underweight (13 per cent) than those in urban areas (2, 41 and 10 per cent respectively).

Stunting is high in all regions; however, there are small regional variations for wasting and underweight levels. The Central and Southern Regions have levels of wasting that are the same as the national average (4 per cent); whereas, the percentage of children wasted in the Northern Region is lower than average (2 per cent). Children in the Central and Southern Regions are the most likely to be underweight (14 and 13 per cent respectively). Eight per cent of children under five years in Malawi are overweight (MEASURE DHS 2011).

High prevalence of micronutrient deficiency disorders such as anaemia and vitamin A deficiency also poses a major challenge (in a context of high HIV/AIDS incidence); 55 per cent of children between 6 and 59 months suffer from anaemia, and so do 13 per cent of pregnant women (SUN 2011).

5.2.2 HANCI findings

The Government of Malawi (GoM) joined the SUN Movement in March 2011 to underline its political commitment to enhance food security and nutrition. The GoM has undertaken a wide range of interventions aiming to improve hunger and undernutrition. Accordingly, nutrition is a priority area in the Malawi Growth and Development Strategy. Various policies are put in place, such as a National Nutrition Policy and Strategic Plan (2007–2012), a Food and Nutrition Security Policy (2005), a Food Security Policy (2006), a Food Security Action Plan (2008) and an Agriculture and Food Security Strategic Plan (2007–2012).

The GoM takes a multi-sectoral approach to nutrition. It has received high-level political endorsement; the Department of Nutrition, HIV and AIDS (DNHA), which implements the

National Nutrition Policy and Strategic Plan, is situated in the Office of the President and Cabinet. Nutrition has been integrated in sector-wide approaches of Ministries of Agriculture; Gender and Youth; Health; Education; Information; Water and Irrigation; Natural Resources; and Local Government (SUN 2011). Nutrition is therefore increasingly integrated in key sectoral policies such as the cross-sectoral policy and strategy for HIV/AIDS and Agriculture (2003), the National School Health and Nutrition Strategic plan (2009–2018) and a draft social protection policy (2012–2016).

Such a multi-sectoral approach requires effective coordination between agencies and between different administrative levels. Inspired by the SUN Movement, Malawi has set up multi-sectoral task force committees (with members from public and private sectors, civil society and development partners) to coordinate planning and implementation of the SUN-1000 Special Days programme (SUN 2011). A SUN Core team (with a key role for the DNHA, whose Secretary chairs the National Nutrition Committee) has also been established to steer the district-level roll-out of the programme, using similar multi-sectoral approaches during implementation (SUN 2013). This approach seeks to increase sector alignment at the district and community level. Multi-sectoral cooperation is reflected at the district level by the involvement of relevant officers, and at the community level through extension workers and frontline practitioners from the agriculture, health, education and development sectors (web appendix to Gillespie *et al.* 2013).

The National Nutrition Committee¹⁹ leads coordination on nutrition among technical specialists and development partners. Its main function is to mobilise resources and support for the implementation of nutrition interventions to be in line with the country's National Nutrition Policy and Strategic Plan, monitor progress and evaluate impact.

The budget of the GoM contains a separate line for nutrition (SUN 2011), and this enhances transparency and accountability of government spending on nutrition. Nutrition policy in Malawi is also informed by up-to-date and robust evidence. The government has conducted nationally representative sampling surveys investigating nutrition statuses in 2004 and 2010.

A number of programmes are implemented to address improved maternal nutrition and care; improved infant and young child feeding practices; improved intake of essential micronutrients; prevention and treatment of common infectious diseases; and improved management of acute malnutrition. The 1,000 Special Days National Education and Communication Strategy (2012–17) has been developed to tackle high stunting rates. This community-based action programme uses a strong behaviour-change and awareness-raising approach to enhance 'demand for nutrition'. It has set a *target* of bringing down stunting rates of children under two years of age to under 20 per cent (SUN 2013). The community-based approach has significantly scaled up good nutritional practices in all districts of Malawi, including the treatment of severe acute malnutrition (SUN 2012a).

National guidelines have been issued to promote good nutritional practices, micronutrient provision and therapeutic treatment of acute malnutrition. The GoM is currently developing a Nutrition Act and already has put into place legislation incorporating provisions of the International Code of Marketing of Breast-Milk Substitutes; covering salt iodisation; and maternity leave (for women in the formal economy).²⁰ A successful vitamin A supplementation programmes is now reaching 96 per cent of children between 6 and 59 months with two high doses (2009 figures) (UNICEF 2012a). Significant progress is also

¹⁹ The National Nutrition Committee is chaired by the Secretary for Nutrition, HIV and AIDS in the Office of the President and co-chaired by UNICEF.

²⁰ The New Labour Act in Malawi has increased maternity leave to 90 days (12 weeks) in the public sector and 60 days (8 weeks) in the private sector. This increase does not achieve the 14 weeks recommended by the International Labour Organization and does not cover the great majority of women workers in the informal economy.

achieved in exclusive breastfeeding rates, covering, by 2010, 72 per cent of infants up to five months of age (2010 data, in SUN 2011; SUN 2012a).

Malawi makes substantial investments in health and agriculture, resulting in important improvements in hunger outcomes. Agricultural spending amounts to 12.2 per cent of its public expenditures. Malawi is hence one of the few countries exceeding the 10 per cent commitment under the African Union's Maputo Declaration. Malawi has pioneered agricultural policies (in many instances defying aid donors) that have successfully enhanced agricultural productivity of staple crops such as maize among smallholder farmers. The GoM has supported crop diversification, small-scale irrigation, and improving local market systems and its Farm Input Subsidy Programme (FISP) has gained particular international recognition. Introduced in 2006, FISP provides subsidised fertilisers and seeds, targeting the most vulnerable smallholder farming households, to dramatically enhance food security (SUN 2011; Chinsinga 2012a). Investments in health amount to 14.2 per cent of government budgets. An impressive rate of 92 per cent of all pregnant women are attended at least once by skilled health personnel during pregnancy.

While appreciating these various government efforts, clearly more needs to be done, as hunger and undernutrition remain major challenges. Here we identify some of the areas in which further improvements can be achieved that would accelerate hunger and undernutrition reduction. First, while the Constitution of Malawi enshrines a right to food and the right to social security, women's economic rights and agricultural property rights can be strengthened to reduce their vulnerability to hunger. Some economic rights for women exist on paper, though they are not effectively enforced (CIRI 2010). Similarly, while women have *de jure* equal rights to access and own productive agricultural land, various discriminatory practices prevent their realisation (OECD undated). Second, key services that need strengthening to enhance people's access concern improved drinking water (currently 83 per cent of the population benefits) and improved sanitation (51 per cent). Third, while there are some efforts at piloting donor-funded social protection programmes in selected districts and for selected groups (children, labour-incapacitated people), Malawi's welfare regime is still in its infancy, perhaps unsurprisingly given its low wealth (Malawi's GNI per capita amounts to a mere \$870). Consequently, social assistance and social insurance mechanisms that can address widespread poverty and that can manage vulnerability to impoverishment and hunger are as yet weakly developed. Finally, there is substantial scope for enhancing coverage rates of the civil registration system; currently only half of the population is covered. Enhancing civil registration may help to improve people's access to essential public services, including health and education, and (once in place) social protection.

5.2.3 Expert perceptions of political commitment

In Malawi, 53 experts (41 men, 12 women) were interviewed in the period August–September 2012 through a local team of consultants. Experts were carefully selected to ensure a balanced sample with substantial representation of government officials, civil society organisations, research and academic institutions, international donors, and some members of the media. Survey respondents were selected on the basis of having substantial knowledge and expertise in the areas of hunger and nutrition, food policy, agriculture, health and social policy. Thanks to the face-to-face interview approach, response levels were very high.

Our analysis of expert survey findings first discusses the theme of public expenditures, and then investigates government policies and programmes.

Overall, experts consider that current public expenditures by the Government of Malawi are strong (2.05), whereas public expenditures for nutrition are considered mediocre (2.92) (Table 5.5). Hunger reduction budgets were considered to be more clearly developed.

Respondents noted that nutrition funding is fragmented and located in various agencies, such as in the Ministry of Health and in the Department of Nutrition, HIV and AIDS (Office of the President). Transparent financial mechanisms are also more developed for hunger than for nutrition. Possibly, at the time of the survey, not all respondents were yet aware of a newly introduced nutrition budget line by the GoM.

Table 5.5 Expert perceptions of public expenditures towards addressing hunger and undernutrition, Malawi

	Hunger	Nutrition
Q25. To what extent are government policy preferences for addressing hunger is reflected in budget expenditures	1.56	
Q25. To what extent are government policy preferences for addressing nutrition reflected in budget expenditures		2.73
Q26. How well has the national government developed transparent financial mechanisms for earmarked hunger funding	2.36	
Q26. How well has the national government developed transparent financial mechanisms for earmarked for nutrition funding		2.78
Q27. How government absolute expenditure on hunger can be characterised	2.09	
Q27. How government absolute expenditure on nutrition can be characterised		3.13
Q28. Sensitivity of government budget expenditures on hunger to electoral cycles	1.80	
Q28. Sensitivity of government budget expenditures on hunger to emergencies/disasters	2.43	
Q28 Sensitivity of government budget expenditures on nutrition to electoral cycles		3.02
Q28. Sensitivity of government budget expenditures on nutrition to emergencies/disasters		2.96
Indicator score (mean of means)	2.05	2.92

Note: Mean score: 1 = very strong commitment; 5 = very weak commitment.

Strikingly, nutrition policy preferences are deemed to be much less well represented in budgets than hunger policy preference. The latter are deemed strong to very strong; the former fairly mediocre. Somewhat similarly, absolute budgets for hunger are deemed strong, while budgets for nutrition are neither weak nor strong.

In Malawi, hunger and food security are deemed highly political. Government action on hunger, unlike nutrition, decides elections. In the mid-2000s, the late President Mutharika won elections due to the introduction of subsidised fertiliser and seed inputs for smallholder farmers through FISP. FISP is now considered to be at the heart of the social contract between the state and its citizens (Chinsinga 2012b). Budget expenditures on hunger are also found to be highly sensitive to electoral cycles, indeed more so than to emergencies and disasters. Yet, the situating of the national coordinating body on nutrition within the Office of the President perhaps suggests that nutrition is gaining the attention of the highest political leadership.

For the policies and programmes theme, overall, experts scored the GoM as fairly strongly committed to reducing hunger (2.34) and undernutrition (2.60). This seems to affirm the high commitment ranking in the HANCI. Similar to Bangladesh, on all indicators, commitment levels are considered equal or somewhat higher for hunger reduction than for improving nutrition. Table 5.6 presents a summary of findings. The text, where relevant, also references respondent scores on underlying questions that compose the indicators.

Table 5.6 Expert perceptions of public policies and programmes addressing hunger and undernutrition, Malawi

	Hunger	Nutrition
Institutional coordination	2.13	2.57
Government intention and action	2.13	2.55
Locus of initiative	1.66	1.66
Analytical rigour	2.15	2.69
Learning and adaptation	2.31	2.51
Public commitment	1.94	2.31
Mobilisation of key stakeholders	2.31	2.46
Continuity of effort	2.38	2.76
Credible incentives	3.66	3.76
Political leadership	2.74	2.74
Mean of means	2.34	2.60

Note: Mean score: 1 = very strong commitment; 5 = very weak commitment.

The strongest commitment scores were given to the 'locus of initiative'. Policies and programmes are generally carried out by the same ministry, department or government agency that initiates these, thus enabling better ownership and implementation.

GoM 'intention and action' is overall considered fairly strong (nutrition) to strong (hunger). Experts considered that hunger in particular is seen as a strong to very strong policy priority (nutrition = fairly strong priority). This is for instance reflected in the Farm Input Subsidy Programme. FISP strongly focuses on maize production. Legumes are also included but receive much less attention, and FISP does little to promote crop diversification.

Translating good commitment levels into improved hunger and nutrition outcomes is somewhat hampered by the quality of policy implementation. While hunger policies are seen to be implemented fairly well, for nutrition this is only mediocre. Particularly for nutrition therefore, capitalising on commitment may require supporting the effective functioning of policy and programme delivery mechanisms.

'Public commitment' to reducing hunger is considered strong, and to improving nutrition as fairly strong. GoM policy documents clearly express priorities, goals and desired outcomes regarding hunger and undernutrition reduction. Whereas hunger budgets are clearly set out, this is considered much less the case for nutrition (again, at the time of the survey, not all respondents were yet aware of the newly introduced nutrition budget line by the GoM). Public policies are also considered to be fairly open to public scrutiny.

On the 'continuity of efforts' indicator, the GoM again does fairly well, although again stronger for hunger than for nutrition. The GoM is seen to make fair use of existing capacities to address hunger and undernutrition and also invests fairly well in enhanced financial and administrative capacities.

The experts consider that the GoM has developed strong horizontal coordination mechanisms for hunger issues and fairly strong mechanisms for nutrition ('institutional coordination'). A coordinated approach through established structures such as Joint Task Force on Food Security and Nutrition across various government departments and agencies is deemed successful. Vertical coordination between the national government and sub-national forms of government is also fairly strong, though improvements could be made. Experts noted that, for instance, the Office of President and Cabinet has a Department of Nutrition, HIV and AIDS at national level but no decentralised structure, and accordingly work with Ministry of Agriculture officials at local level. These coordination mechanisms also help

to achieve fairly good levels of representation of a wide range of stakeholders and assist gaining broad social and political support for the policies and programmes ('political mobilisation').

The GoM has conducted nationally representative demographic and health surveys (2004; 2010), and the evidence generated by these is potentially critical for informed public policy. Experts considered that government systems that monitor, evaluate and generate knowledge and evidence on hunger are strong. For nutrition, such mechanisms are less well developed, and considered only somewhat better than mediocre ('analytical rigour'). Moreover, the GoM is deemed fairly strong at learning from and adapting policies and programmes in the light of new evidence ('adaptation and learning').

The experts allocated the weakest aggregate scores to 'political leadership' and to 'credible incentives'. Nevertheless, top-level (presidential) political leadership in the country on hunger is strong (1.76), and on nutrition also fairly strong (2.25). Senior political leaders speak out fairly strongly against hunger and undernutrition, although their public statements are only little more than moderately convincing. Leaders are seen to have only a little better than mediocre (2.75) understanding of the status; a mediocre understanding of causal factors (2.94) leading to hunger and undernutrition; and a fairly weak (3.38) understanding of potential solutions for these.

Whereas we have seen that government hunger budgets are highly sensitive to elections, the electoral manifestos of political parties weakly (3.68) define desirable nutrition outcomes, whereas hunger outcomes are defined somewhat better (2.87). Nutrition is seen to be less amenable to political messaging than hunger. For instance, it is much easier to campaign on whether households have enough food to eat and whether they are harvesting enough, than on the subtleties of whether people have access to those foods needed to meet dietary requirements. Interestingly, weak attention to hunger (and nutrition) in political party manifestos (including of the ruling party) contrasts with the high sensitivity of government hunger budgets to elections.

Finally, while experts considered that overall the GoM is showing (fairly) strong commitment to reduce hunger and undernutrition, the 'credible incentives' indicator was a major discrepancy. Experts thus considered that there are (fairly) weak institutional incentives to reward good performance and punish weak performance by both individual civil servants and bureaucratic agencies in the fight against hunger and undernutrition.

5.2.4 Community perceptions of political commitment

As part of the primary research, focus group discussions were conducted in Balaka (Southern Region) and Kasungu (Central Region) districts. Discussions were held in Mphamba and Chitenje villages (Kasungu) and Ntalika and Gibson villages (Balaka). Discussions were held with men and women separately. This section briefly introduces experiences of hunger and undernutrition in these communities, and then highlights how they perceive their government's intentions and actions towards the reduction of hunger and undernutrition. Finally, the communities offer suggestions on a suitable weighting scheme for political commitment to reduce hunger and undernutrition.

Community members in all four localities are predominantly subsistence farmers, growing maize, pigeon peas and sweet potatoes, although cash crops such as tobacco (in Kasungu District) or cotton (in Balaka District) are also cultivated. At the beginning of the harvest season, some people sell some of their food produce in order to get income to purchase other necessities. If the food produced is not adequate to last until the next harvesting season, food is purchased from the market using loans, proceeds from cash crops, casual

work (collecting mandasi reeds and firewood) or casual labour (*ganyu*) on other farmers' land in exchange for food.

Hunger and undernutrition are a regular feature of life in rural Malawi, particularly in the lean season prior to the harvest. Balaka District is prone to drought, and agricultural production is vulnerable to adverse weather events. In Kasungu District, the 2011/12 maize harvest was badly damaged by unseasonal rainstorms. The communities understood hunger as the absence of food, with households reducing the number of meals consumed per day or going to bed without any food at all. Malnutrition was defined as resulting from consuming inadequate food groups. The poor, people living with HIV and AIDS, the elderly, widows and people with disabilities are seen as the most vulnerable to hunger and undernutrition.

With the HIV epidemic, we are keeping a lot of orphans in our homes. I keep six orphans for example. That makes my family one of twelve people including myself and my wife. I cannot make it.

(Male participant, Balaka District)

The community members identified various services and programmes run by the GoM. Government health facilities are free of charge, yet not always easily accessible. Some community members in Balaka District have to travel 20km for the nearest facility. Similarly, safe drinking water is not always available. Women fetching water either queue for the single borehole in the village or use the wet lands and shallow wells as their water source. Boreholes also tend to run dry for parts of the year (Kasungu). In Balaka, water is freely accessed from taps. Nonetheless, in periods of drought, villagers resort to drinking river water.

Community members benefit from various government programmes, notably the Farm Input Subsidy Programme (FISP) and the Malawi Vulnerability Assessment Committee (MVAC). Relief food, irrigation programmes, food for work programmes, the school feeding programme, and the 'good health' programme were also mentioned as government initiatives relevant for addressing hunger and undernutrition.

The FISP targets smallholder farmers and poor, vulnerable groups such as female- or child-headed families and the elderly. It provides coupons for subsidised fertiliser and seeds (mainly for maize, sometimes also for legumes and cotton). Community members critically appreciate the FISP for enabling beneficiaries to enhance farm productivity. However, they also agree that the programme is poorly run, and that the majority of the programme's intended beneficiaries hardly benefit. There are too many potential beneficiaries and, although the poor are notionally targeted, it is mostly the well-to-do in their community that receive the coupons, with traditional leaders implicated in the maladministration of the scheme.

I really wished I benefited from the government farm input subsidies programme. Here, local chiefs are pivotal in the management of the programme but there is a lot of corruption that those of us that are not well known are usually left out.

(Female participant, Kasungu District)

Our chiefs distribute coupons for subsidised farm inputs but the problem is that the coupons are just so few when those who qualify to benefit are in thousands.

(Female participant, Kasungu District)

Women in Balaka District also recounted how timely emergency food transfers, provided by the MVAC during the 1 to 3 months 'hungry season', made a big difference. The food transfer, in the form of 50kg of maize, 5kg of beans, 2l cooking oil and 10kg of soya flour, made it possible for beneficiary households to avoid engaging in distress labour in other

people's fields (*ganyu*). This critically allowed them to focus on their own crops, to ensure better harvests and reduce their future vulnerability to hunger.

... everyone should stand up for themselves...
(Female participant, Balaka District)

While the MVAC is much appreciated, overall the communities stressed that they should be encouraged to grow their own food crops rather than relying on handouts. The effective scaling up of the FISP and reforming its inefficient administration was seen as critical to this objective. Farmers opined that the procedures for identification, selection, allocation and distributions of coupons should be transparent enough so that every farmer has an equal chance of receiving the subsidised fertiliser. It was also suggested that government assist farmers to organise themselves into clubs to facilitate receipt or purchase of fertiliser, or to do away with the targeting mechanism.

... I really wish I had access to fertilisers. God willing, I could work out miracles, produce whatever I can to be able to support my children. I really want them well fed and going to school. I would like to contribute to ending malnutrition which is rampant in this area.
(Female participant, Kasungu District)

Participants overall were adamant that the government must support communities in their struggle against hunger and malnutrition through various means. The government could give greater support for access to reliable cotton pesticides; ensure functional Agricultural Development and Marketing Corporation (ADMARC) depots; invest in irrigation; improve easy access to safe water and health facilities; ensure effective laws to safeguard the natural environment; and provide relief food when required. Agricultural extension officers could support communities with good and nutritious farming practices.

I request government to send us counsellors who would help us with knowledge on how to encounter these problems. I hate wanting for basics of life.
(Female participant, Kasungu District)

Some members noted that real progress would entail moving towards a less agricultural economy, with the government promoting small business and creating job opportunities.

In this area, we would have loved government to bring in new methods of uplifting our lives. It is clear that farming alone is not the way out. We need introduction of new methods of survival.
(Male participant, Balaka District)

Community members identified various channels through which they can raise hunger and undernutrition concerns with the government. These include extension advisors, members of parliament (MPs), politicians, traditional leaders, the Village Development Committee (VDC) and Area Development Committee (ADC). Participants, however, noted that these channels are often ineffective, and political leaders remain aloof to their problems.

Political leaders have let us down. We just hear them speak on the radios but we don't see how we are benefiting from them... When we elect these leaders, they forget about us and disappear in towns... They are not interested in us... As villagers, there is nothing we can do about these disappointing leaders. We are suffering.
(Male participant, Balaka District)

Even the member of parliament for this area has never come here to inquiry about our situation with regard to food shortage.
(Female participant, Balaka District)

...they [MPs] stay in town and get fat from drinking tea with milk while we languish here with hunger...

(Male participant, Balaka District)

My own children are malnourished and I am worried because there is very little I can do about it. We ask government to come in and assist... I wish these leaders came to hear from us what we are going through and see how they can assist us.

(Participant, Balaka District)

5.2.5 Weighting schemes: community and expert preferences

Chapter 2 showed how the HANCI research team applied an equal weighting scheme to the three themes that constitute the Hunger Reduction Commitment and Nutrition Commitment sub-indices. Recognising its subjective nature, we identified alternative weighting schemes based on the preferences of (a) experts and (b) communities affected by hunger and undernutrition. A simple exercise was devised for experts as part of the questionnaire survey, and for community members as part of the focus group discussions. Table 5.7 shows a summary of findings.

Table 5.7 Experts' and community members' subjective weighting schemes, Malawi

	Legal frameworks	Policies and programmes	Public expenditures
Experts	20%	50%	30%
Communities	22%	46%	32%

Expert and community scores are remarkably similar, and distinctly different from equal weighting. The communities allocated separate scores for hunger and nutrition, which were combined to determine the overall weighting scheme.

Details of the weightings allocated in each of the communities consulted can be found in Annex 5. Table 5.8 shows a summary of findings.

Community members favoured policy and programmatic action, particularly in the shape of an expanded and better functioning FISP, and also in MVAC. Government expenditures are critical for this, and for preventing officials from becoming corrupt. The men in Kasungu allocated 40 per cent weight to expenditure, arguing that this underpinned the functioning of clinical care and food supplements for malnourished children. Children can be taken care of in hospitals for a period up to a month. Overall, legal frameworks received low scores, because participants were not familiar with laws in Malawi that could protect them from hunger or malnutrition. Women in Kasungu allocated only 15 per cent towards that with specific mention that the funds could be utilised to sensitise them if any such laws existed. The men's group in Balaka, however, considered that legislation may make the introduction of a school feeding programme inevitable, and therefore allocated substantial weight to it. They felt this would ensure that their children would benefit from healthy growth with diets meeting diverse dietary needs.

Table 5.8 A gendered breakdown of weights, community members, Malawi

	Hunger			Nutrition		
	Legal frameworks	Policies and programmes	Public expenditures	Legal frameworks	Policies and programmes	Public expenditures

Male	17	50	33	32	38	30
Female	17	50	33	17	50	33
Total	17	50	33	25	44	31

Note: Communities were consulted in rural Balaka and Kasungu Districts.

Women's groups considered that the government should give equal priority to issues of hunger and malnutrition because in either case women suffer more than men. Women carry the burden of care for their households, struggle more if food is not readily available in their homes and stay longer periods in hospitals tending to malnourished children. During periods of hunger women are forced to go out and look for casual work in Balaka town, and some engage in sex work to get money to purchase food for their children. The group in Balaka further argued that nutrition disorders are also common among expectant and lactating mothers in the area resulting in unhealthy children, maternal morbidity and mortality.

5.3 Country analysis: Zambia

Summary

- HANCI ranking: 17 (out of 45)
- Hunger: 6 million (47 per cent of population)
- Stunting: 45 per cent of children under 5 years of age
- Wasting: 5 per cent of children under 5 years of age.

5.3.1 Hunger and undernutrition in Zambia

Following a period of steady economic development, Zambia is now classified as a lower middle income country (World Bank 2012); however, Zambia is making insufficient progress towards MDG1 (FAO 2012). Zambia faces major development challenges including widespread poverty, HIV and AIDS, and food and nutrition insecurity.

Zambia is facing an 'alarming' hunger and undernutrition situation (WHH/IFPRI/Concern 2012). Hunger is highly prevalent: 47.4 per cent of people were undernourished in Zambia during the period 2010-2012 (FAO 2012). Household surveys report even higher figures: 58 per cent of families reported that within a year they cannot always afford three meals a day (Chibuye 2011).

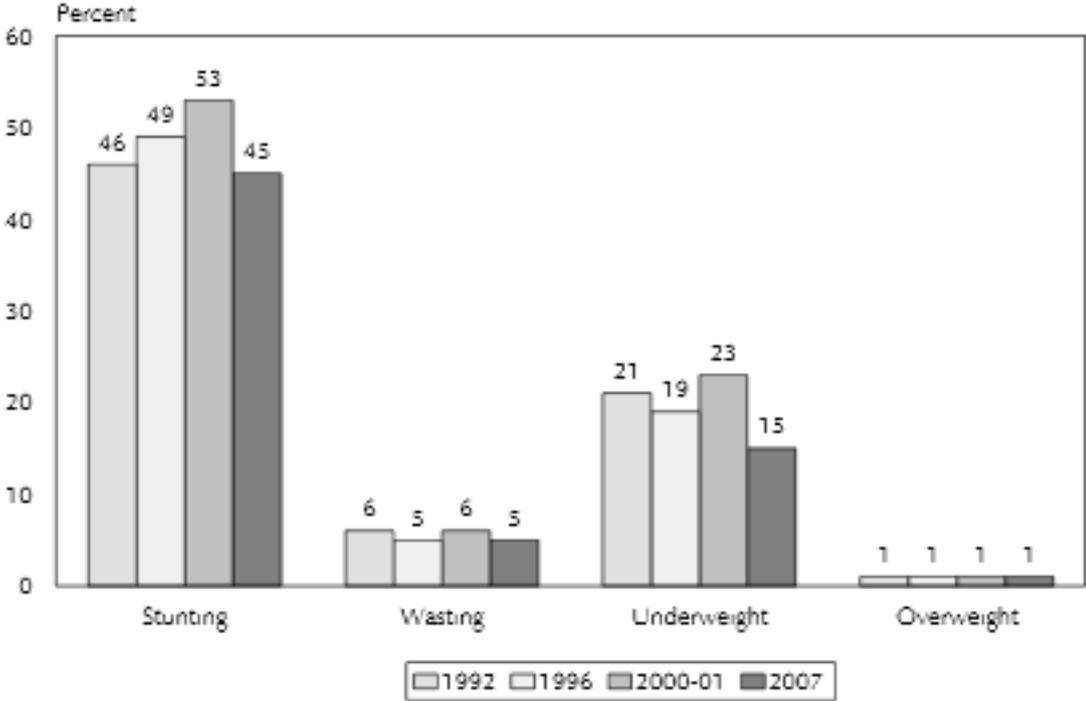
At 45 per cent, stunting rates are among the highest in the world (SUN 2011; MEASURE DHS 2007); 5 per cent of children under five suffer from wasting and 15 per cent are underweight (MEASURE DHS 2007). Male children are more likely to be stunted (48 per cent compared with 42 per cent), wasted (6 per cent compared with 5 per cent) and underweight (17 per cent compared with 13 per cent) than female children. Zambia has high geographic variety in undernutrition. Stunting in children under five years of age is highest in Luapula Province (56 per cent) and lowest in Western and Southern provinces (36 per cent each). There is a small difference in wasting levels of urban (4 per cent) and rural children (6 per cent). At the provincial level, Western, North-Western, Northern, Luapula, and Central provinces reported wasting levels that are above the national average (5 per cent). The proportion of underweight children is higher in rural areas than in urban areas. Children in Lusaka are the least likely (10 per cent) to be underweight, while children in the North-Western Province are the most likely (20 per cent).

More than one in ten babies is born with low birth weight indicating poor maternal nutrition. (SUN 2011). One in ten women are undernourished or thin, and about one in five (19 per cent) are overweight or obese. Women in rural areas (11 per cent) are more likely to be underweight than those in urban areas (8 per cent), while women in the North-Western and

in Western provinces are more likely to be underweight than those in other provinces (14 per cent each) (MEASURE DHS 2007).

Figure 5.3 shows key temporal trends in child nutrition in Zambia.

Figure 5.3 Nutrition trends in children under 5 years of age, Zambia, 1992–2007



Source: Zambia Demographic and Health Surveys (MEASURE DHS 2007).

Figure 5.3 shows that since the early 1990s, wasting levels have remained largely stagnant. Negative trends for stunting and underweight levels reached a nadir in the early 2000s and a corner seems to have been turned since. However, latest data is now over five years old, and unlikely to fully capture the negative impacts of the global food price crisis (commencing in 2007).

Vitamin A and iron-deficiency anaemia affects over half of all Zambian children (SUN 2011). Progress is underway though. In 2009, 92 per cent of children from 6 to 59 months received two high doses of vitamin A supplements (SUN 2011). Exclusive breastfeeding also shows a positive trend. About six in ten (61 per cent) infants below six months of age are exclusively breastfed, up from 40 per cent in 2001–2002 (MEASURE DHS 2007).

Zambia joined the SUN Movement in December 2010 (SUN 2011) and is aligning its National Food and Nutrition Strategic Plan with SUN objectives. The Government’s commitment to increasing food and nutrition security is further demonstrated by its signing of the Compact for the Comprehensive Africa Agriculture Development Programme (CAADP) in January 2011 (SUN 2012a). The Government of Zambia (GoZ) considers food and nutrition as priorities in the Fifth and the Sixth National Development Plans (SUN 2011). In 2008, the GoZ launched a National Food and Nutrition Policy. A National Food and Nutrition Strategic Plan 2011–15 strategically focuses on child stunting and a child’s first 1,000 days (Harris and Drimie 2012). Zambia also has several sectoral nutrition interventions. These include the

integration of nutrition within primary health care services, and include: a national breastfeeding programme; growth monitoring and promotion; universal child immunisation; a vitamin A supplementation programme; supplementary feeding for malnourished children; promotion of consumption of micronutrient-rich foods; and community-based nutrition (Harris and Drimie 2012).

As in Malawi, a Farmer Input Support Programme (FISP) run by the Ministry of Agriculture provides subsidised seed and fertiliser to farmers in order to promote food security. A separate intervention, the Food Security Pack (FSP) aims to provide a basic level of farm inputs to households in need, encourage crop diversification, and promote conservation farming practices (Harris and Drimie 2012).

5.3.2 HANCI findings

Zambia invests substantially in health services (15.6 per cent of public spending). One positive outcome of this is that a very high percentage (94 per cent) of women are attended at least once during pregnancy by skilled health personnel (nurse, doctor or midwife).

Zambia also invests fairly well in agriculture (8.3 per cent), although the latter does not achieve the 10 per cent commitment target agreed as part of the 2003 Maputo Declaration of the African Union.

Nevertheless, public agricultural research and extension have made major efforts to improve the participation of poor farmers in setting priorities and allocating funds. Direct demand-led and pluralistic approaches to extension are used and the extension system has been improved and is trying to extend its outreach to poor farmers. Some policies, strategies and mechanisms have been put in place to support women farmers having equal access to extension services (either public or private). A majority of rural poor households have access to some land, though this access is not always secure. However, vulnerable groups such as women and indigenous populations do not always enjoy the same access to land as other poor groups.

Women have equal legal rights but there are discriminatory practices against women's access to and ownership of agricultural land in practice. Similarly, women's broader economic rights are recognised by law, yet insufficiently enforced to be effective. Zambia's Constitution recognises a right to food, but not a right to social security. Moreover, social safety nets in Zambia are still rudimentary and cover only few risks for a limited number of beneficiaries. The majority of the population is at risk of poverty. Zambia also has a very low civil registration rate: only 14 per cent of live births.

Nutrition features in national development policies and strategies, and while Zambia has developed a costed nutrition plan, a realistic costed plan for the National Food and Nutrition Strategic Plan 2011–2015 continues to be needed (SUN 2012a). The country has a long history of developing policies addressing hunger and undernutrition. It has identified numeric time-bound nutrition targets.

Zambia has regularly undertaken demographic and health surveys during the last two decades (1992; 1996; 2001; 2007); the latest representative national survey data is now over five years old. Its vitamin A supplementation programme is successful, reaching 92 per cent of children aged between 6 and 59 months with at least high doses (2009) (SUN 2011). The GoZ actively promotes complementary feeding in addition to breastfeeding. Many provisions of the International Code of Marketing for Breastmilk Substitutes have been enshrined in Zambian law.

The 1967 National Food and Nutrition Act established a National Food and Nutrition Commission within the Ministry of Health (MoH) (Harris and Drimie 2012). It coordinates

action on nutrition in Zambia between government departments and agencies. The establishment of a multi-stakeholder platform for SUN is also underway (SUN 2012a).²¹ The Food Security Pack (FSP) policy instrument is considered an example of successful intersectoral coordination (Harris and Drimie 2012).

The GoZ can do more to improve the environmental factors that drive better nutrition outcomes. Little over six in ten people have access to safe drinking water, and only 48 per cent of the population has access to sanitation. Furthermore, other areas that may require further government attention include making laws ensuring women’s equal economic and agricultural land access rights effective in practice. The strengthening of safety nets in a context of widespread poverty and food insecurity could also have major impacts on hunger reduction.

5.3.3 Expert perceptions of political commitment

In Zambia, 40 experts (31 men, 9 women) were interviewed in the period August–September 2012 through a local team led by RuralNet Associates. This team had also conducted the 2011 survey, so was well-versed in the practicalities of arranging and conducting the survey. Experts were carefully selected to ensure a balanced sample with substantial representation of government officials, civil society organisations, research and academic institutions, international donors and some members of the private sector and media. Survey respondents were selected on the basis of having substantial knowledge and expertise in the area of hunger and nutrition. Thanks to the face-to-face interview approach, response levels were very high.

Expert survey findings are first discussed for the theme of public expenditures, and then for the theme of government policies and programmes.

Whereas in 2011, the survey did not distinguish specifically between hunger and nutrition commitment, the 2012 figures clearly show some important differences.

The GoZ has designated nutrition budget lines. Yet, overall, experts consider that current public expenditures by the GoZ signal a fair commitment to hunger reduction, and a less than mediocre commitment to reduce undernutrition (Table 5.9). For all but one question, respondents gave substantially lower scores for nutrition commitment than for hunger commitment. For instance, budget expenditures on hunger are much more sensitive to both electoral cycles and emergencies (e.g. droughts/floods) than expenditures for nutrition. The experts opined that absolute budgets for hunger are mediocre, and fairly weak for nutrition, and spending on both is conducted through modestly transparent financing mechanisms. Indeed, while the total earmarked fund for nutrition through the National Food and Nutrition Council is US\$1.2 million for the year 2012, however actual disbursements often fall short by 50 per cent (SUN 2012b).

Table 5.9 Expert perceptions of public expenditures towards addressing hunger and undernutrition, Zambia

Questions*	2011	2012	
	Hunger and nutrition	Hunger	Nutrition
To what extent are government policy preferences reflected in budget expenditures?	3.02	2.54	3.43

²¹ The SUN donor network, together with government has established a fully costed 1,000-day action plan and a pooled fund (SUN 2012a).

How strong or weak would you, in general, characterise the government's absolute (in money terms) budget expenditures on hunger and nutrition?	3.05	2.79	3.45
How sensitive are government budget expenditures on hunger and malnutrition to electoral cycles?	2.04	1.77	3.18
How sensitive are government budget expenditures on hunger and malnutrition to emergencies/disasters?	2.18	1.90	2.83
How well has the national government developed transparent financial mechanisms for earmarked funding?	-	3.03	3.16
Indicator score (mean of means)	2.57	2.41	3.21

Note: Mean score: 1 = very strong commitment; 5 = very weak commitment.

*Tabulated questions are shortened. For full versions, see Annex 2 with questionnaires.

Overall, for the theme of policies and programmes, scores for 2011 and 2012 are somewhat different. The composition of the group of experts was quite similar, with many respondents being re-surveyed. In 2012, lower mean scores are allocated to various indicators, most notably for institutional coordination and for government intention and action (Table 5.10). Small improvements are seen for the locus of initiative and for credible incentives, which however remain weak. It may be too early to say whether this reflects an (implicitly less positive) assessment of the government that came to power in 2012. However, it should be noted that political leadership on hunger and nutrition is seen to be mediocre, particularly so for nutrition.

Table 5.10 Expert perceptions of public policies and programmes addressing hunger and undernutrition, Zambia

Indicator	2011	2012	
	Hunger and nutrition	Hunger	Nutrition
Institutional coordination	2.19	2.84	3.12
Government intention & action	2.01	2.66	2.91
Locus of initiative	1.79	1.65	
Analytical rigour	3.10*	2.89	3.00
Learning and adaptation	2.96	2.93	3.08
Public commitment	2.49	2.44	2.65
Mobilisation of stakeholders	3.00	2.85	2.92
Continuity of effort	2.99	2.79	3.13
Credible incentives	4.45	4.01	4.07
Political leadership	-	2.86	3.23
Overall score (mean of means)		2.79	2.98

Note: Mean score: 1 = very strong commitment; 5 = very weak commitment.

*Recalculated from 2011 data to allow for comparability with 2012 data.

For both the expenditure theme and the policies and programmes theme, expert assessments suggest that the GoZ shows lower commitment to nutrition than to hunger reduction. The pattern is consistent, but particularly pronounced for the financial resources committed to nutrition improvements.

A closer look at the policies and programmes theme shows the following. In 2012, the 'locus of initiative' remained strong; that is, agencies designing policy are also in charge of overseeing their implementation, to foster high levels of ownership and improved chances of successful implementation.

The experts further noted that the government does fairly strongly in terms of demonstrating its 'public commitment', with quite similar scores for 2011 and 2012. Respondents noted that GoZ policy documents clearly express government priorities, and goals as well as desired outcomes regarding hunger and undernutrition reduction. Hunger and nutrition budget lines are considered to be set out in a mediocre manner for hunger, and in a less than mediocre manner for nutrition. Overall, policies are also considered fairly open to public scrutiny.

Government systems that generate knowledge and evidence for hunger are not particularly strong or weak ('analytical rigour') and 'policy learning and adaptation' from experiences elsewhere is mediocre. While the GoZ has fairly regularly carried out national nutrition surveys during the 1990s and 2000s, the last survey dates from 2007. Arguably, government policymaking is now not as well informed by up-to-date evidence as it used to be. 'Policy learning and adaptation' remains mediocre.

While various mechanisms have been put in place to support policy coordination, these are neither strong nor weak at developing broad support from a variety of policy stakeholders ('mobilisation of stakeholders'). Investments in enhanced administrative and financial capacities to deal with hunger and undernutrition are also rather mediocre ('continuity of effort').

Political leadership at the top level is fairly strong for hunger reduction, though mediocre for nutrition commitment. Political leaders are seen to speak out fairly strongly on hunger and nutrition issues, but their limited knowledge on the causes and possible solutions for these hold back more effective action. Furthermore so, political party manifestos are not particularly good at identifying desirable hunger and nutrition outcomes.

While it was noted that 2012 scores for institutional incentives are somewhat improved compared to 2011, systemic incentives in the bureaucracy to address hunger and undernutrition remain weak. Experts suggested, however, that individuals within these agencies are somewhat more accountable (and likely to be rewarded or penalised for good/bad performance) than the government departments, bodies and agencies at large.

5.3.4 Community perceptions of political commitment

As part of the primary research, eight focus group discussions (FGDs) were conducted in four locations in Zambia: Kavalamanja and Chitope in Luangwa District, and Kamanga and Mutendere in Lusaka District. Discussions were held with men and women separately. This section highlights how members of these communities perceive their government's intentions and actions towards the reduction of hunger and undernutrition.

Food production in Luangwa District is among the lowest in the country, due to low levels of precipitation. Drought-tolerant crops such as sorghum and millet are grown for subsistence purposes, and other food crops include maize and cow pea. Charcoal-selling is a popular income-generating activity in the area. Luangwa District is prone to drought and flooding, and crops are raided by wild animals. In Chitope, production levels of maize (the area's staple crop) are too low to warrant purchase by the government's Food Reserve Agency (FRA). As a result, household incomes are very low in the area affecting their ability to purchase food. The period from December to March is known as the 'hunger period'. Granaries are empty, and people are busy cultivating their fields, with little time to do piece-work for generating income.

In Lusaka District, most people are not involved in agricultural activity, and buy food from local markets. They typically work in the informal sector and are involved in street trading, such as selling charcoal or second-hand clothes (*salaula*). Here, people relate hunger and undernutrition to limited employment opportunities resulting in low household disposable

incomes. While the informal sector keeps growing in the absence of formal sector jobs, incomes raised are too low to guarantee all family members three meals a day. It is quite common for families to have only one meal a day, and hunger drives prostitution, stealing, borrowing money at high interest rates (*kaloba*) and indebtedness. In these townships, well-to-do families usually consume meat, whereas the poor can only sometimes afford this. Vegetables, beans and kapenta (a small local fish) are commonly eaten. Respondents opined that a meatless diet is unbalanced and leads to malnutrition in children. Unlike rural Luangwa, hunger in Lusaka does not tend to be seasonal. As in rural areas, the rainy season tends to reduce people's ability to earn income through labour, trade and services. While female-headed households, orphans and the aged make up the most vulnerable community members, respondents at both urban and rural locations noted that hunger and malnutrition affect almost everyone.

The next section reflects on community experiences and perspectives of government action in realm of hunger and undernutrition.

In Luangwa district communities want the government to support agriculture in order to enhance food production. They suggested investing in irrigation; vegetable and livestock production; fish farming; maize marketing; agricultural extension and seed provision; soil-enriching crops; and training on cultivation of drought-tolerant crops and protecting crops from wild animals. Respondents also mentioned access to credit and job creation and suggested nutrition training and the provision of food supplements. During drought, or following a bad harvest, participants expect the government to provide food relief.

They [people from Agriculture] really need to appreciate that sometimes we have no rains and obviously helping us determine when it is good and right to farm would be helpful.

(Male participant, Luangwa District)

In Lusaka District, participants highlighted the need for the government to enhance job creation and ensure skills training for the youth, access to credit and support for vulnerable groups. During difficult times, participants expect food for work and reduced/subsidised mealie-meal prices.

Unlike health services, access to drinking water is a distinct concern in the communities consulted. For instance, in Kavalamanja, residents get water from the Zambezi River because the communal solar water source sometimes breaks down. Mutendere Township is serviced by piped water but it is unreliable, especially in the dry season, and seen as expensive by many families.

In contrast to the list of suggested actions that government could undertake, respondents were unable to identify many existing programmes or interventions. In Luangwa, people mentioned food relief distribution, whereas in Mutendere and Kamanga people mentioned the Programme for Urban Self Help (PUSH), a food for work programme engaging able-bodied extremely poor people in roadwork (in exchange for mealie-meal and cooking oil).

Government programmes are not seen in the area apart from the newly improved road.

(Female participant, Lusaka District)

We only see people from the Disaster Management Unit come to talk about relief food'.

(Female participant, Luangwa District)

The relief maize helps and it is targeted at the infirm, [and] orphans which is a good thing.

(Female participant, Luangwa District)

While government programmes are appreciated for their contribution towards keeping hunger and undernutrition at bay, respondents argued more support is needed. Luangwa District is usually a food deficit area, yet major steps in preventing and addressing hunger and malnutrition in the area remain to be instituted. Moreover, there was a sense that the government officials do not realise the pressures that people face, and sometimes are obstructive to their pursuit to stay free from hunger:

What we don't understand is that the government closes fishing when there is real hunger and during the drought... The government should let us fish but when we have rains like say March, then they can close the fishing season at least that way we have food.

(Male participant, Luangwa District)

Participants in the focus group discussions stated that, like the government, politicians ought to have a critical role in the reduction of hunger and malnutrition. It was felt that politicians should more regularly visit people in their constituencies in order to stay abreast of the problems. In all areas, MPs have not gone back to the people to interact with them after the 2011 elections, whereas the voices of area councillors (Lusaka) and traditional leaders (Luangwa) are too feeble to receive any attention from the government.

The MP doesn't visit the area as he is too busy with government duties in Lusaka.
(Male participant, Luangwa District)

Since they [the politicians, the councillors and area MPs] were elected they don't come to listen to our problems, we only see them when there is a ceremony or a funeral.

(Male participant, Luangwa District)

5.3.5 Weighting schemes: community and expert preferences

Chapter 2 showed how the HANCI research team applied an equal weighting scheme to the three themes that constitute the Hunger Reduction Commitment and Nutrition Commitment sub-indices. Recognising its subjective nature, we identified alternative weighting schemes based on the preferences of (a) experts and (b) communities affected by hunger and undernutrition. A simple exercise was devised for experts as part of the questionnaire survey, and for community members as part of the focus group discussions. Table 5.11 shows a summary of findings.

Table 5.11 Experts’ and community members’ subjective weighting schemes, Zambia

	Legal frameworks	Policies and programmes	Public expenditures
Experts	19%	49%	32%
Communities	20%	40%	40%

Expert and community scores are similar for legal frameworks, but distinct for policies and programmes and public expenditures. The communities allocated separate scores for hunger and nutrition, which were combined to determine the overall weighting scheme.

Details of the weightings allocated in each of the communities consulted can be found in Annex 5. Table 5.12 shows a summary of findings.

Table 5.12 A gendered breakdown of weights, community members, Zambia

	Hunger			Nutrition		
	Legal frameworks	Policies and programmes	Public expenditures	Legal frameworks	Policies and programmes	Public expenditures
Male	21	44	35	20	36	44
Female	20	39	41	16	46	38
Total	21	41	38	18	41	41

Note: Communities were consulted in rural Luangwa District and urban Lusaka.

Participants were relatively unaware of the functions that laws could fulfil in combating hunger and undernutrition and accordingly allocated lower scores. At the urban sites (Mutendere and Kamanga), participants spoke with appreciation of the public works PUSH programme, in which they had participated for many years. People allocated 40 per cent weights to public spending as they want the government to spend substantially on relief food, on mealie-meal subsidies and on supporting the Programme Against Malnutrition (a semi-government programme).

6 Conclusions

The HANCI attempts to measure government commitment to reducing hunger and improving nutrition because this is something they can be held accountable to. The existence of a commitment score helps civil society hold governments to account. It also helps to guide resource allocation within and across countries.

We have provided two methods for assessing commitment: cross-country using secondary data, and within country relying on primary data for community and 'expert' opinion. The primary data provides a complementary and up-to-date perspective on political commitment to reduce hunger and undernutrition, as it interrogates a set of commitment indicators for which no secondary data is available for a range of countries.

Hunger and undernutrition are two related but distinct concepts and we accordingly calculate an index for each.

We have been rigorous and thorough in our methodological approach, being transparent about the choices we have made and the basis for those choices. We have conducted statistical tests and other sensitivity analyses to assess the consequences of our choices. These allow us to be confident that the HANCI methods and findings are robust.

The HANCI compares countries' performance relative to one another, and aggregates relative (not absolute) political commitment levels. It does not identify absolute benchmarks of commitment to be achieved. However, absolute commitment levels can be ascertained for all individual indicators (not aggregations) by referring to the raw data (Annex 4). Countries that show relatively high commitment levels in the HANCI do not necessarily perform strongly on each of the composite indicators. High rankings should not be a reason to sit back and relax: often, substantial scope remains to enhance performance on selected indicators. Moreover, HANCI commitment rankings should not be confused with hunger and nutrition outcomes.

For the country rankings based on secondary data we find:

- Guatemala is top ranked and Guinea Bissau is worst ranked.
- Strong overall commitment is shown by: Guatemala, Malawi, Madagascar, Peru, Brazil, the Philippines and Indonesia. The countries with very weak overall commitment are: Togo, Cameroon, Kenya, Liberia, Lesotho, Afghanistan, Mauritania, Yemen, Sudan, Myanmar, Burundi, Angola, DR Congo and Guinea Bissau.
- The commitment to hunger reduction and the commitment to nutrition are not the same. They are only weakly correlated.
- The top performers in commitment to hunger reduction are: Guatemala, South Africa, Malawi, Peru, Burkina Faso and Mali; and the top performers in nutrition commitment are Guatemala, the Gambia, Nepal, Mozambique and Malawi.
- South Africa, Nepal and Mali show the biggest difference in rankings between hunger reduction and nutrition improvement. Out of 45 countries South Africa shows 2nd highest commitment levels for hunger reduction and ranks only 36th for nutrition commitment. Nepal ranks number three for nutrition commitment, 34th for hunger reduction commitment. Mali ranks 5th on hunger commitment and 29th on nutrition commitment.
- The fast rising BRIICS show a variable performance in their commitment to hunger and nutrition. India is lagging substantially behind Brazil, China, Indonesia and South Africa.

- Countries with alarming hunger and undernutrition rates show both high and low commitments.
- In countries facing alarming or serious hunger and undernutrition, low wealth does not prevent high commitment. Some countries with very low wealth demonstrate high commitment (e.g. Malawi) whereas the reverse is true for countries with substantially higher wealth (e.g. Angola or India), facing similar hunger and nutrition challenges.
- Commitment shows a positive correlation with decadal improvements in stunting.
- Greater government effectiveness is associated with a higher commitment to hunger reduction and nutrition improvement.

While the primary research was not designed to compare across countries or to validate cross-country rankings, expert assessments do not seem to contradict the secondary data based assessments. Experts in Malawi considered their government to be fairly strongly committed to both hunger and undernutrition reduction, thus not contradicting Malawi's high rank (number 2) in the HANCI. Experts in Bangladesh and Zambia allocated lower commitment scores and these countries also rank lower in the HANCI.

Experts in each of the three case countries (Bangladesh, Malawi and Zambia) considered that government commitment to hunger reduction is stronger than commitment to undernutrition reduction. This is particularly pronounced in the area of expenditures (as compared to policies and programmes). Expenditures on hunger interventions are sensitive to electoral cycles, whereas nutrition expenditures are much less so, though neither gain much attention in political party manifestos. Encouragingly, experts in all countries noted reasonable to good levels of top-level political leadership on hunger and undernutrition. Senior leaders are deemed to have a fair grasp of the *status* of hunger and undernutrition; however, they only have a modest grasp of underlying (complex) causal factors, and tend to have a fairly weak understanding of possible remedies that may be employed. This political appetite for addressing hunger and nutrition should be capitalised on by supporting greater efforts to enhance senior politicians' understanding of its causes and solutions, and also by involving members of parliament and local political leaders, whom communities view with scepticism.

Communities in Bangladesh, Malawi and Zambia consider that real political commitment takes the shape of government policy and programmes. Communities much appreciated such efforts but are also often critical of them. Key limitations include insufficient reach and the manipulation of implementation (producing inequitable outcomes). Communities emphasised that they want government action to enable them to help themselves, for example, through appropriate agricultural extension services; through ensuring that economies generate sufficiently remunerative jobs; and through ensuring that discriminatory practices against women are tackled.

In order to enhance transparency and accountability in government efforts to reduce hunger and undernutrition, commitment to hunger and undernutrition reduction should be one of the indicators to be assessed as a potential post-2015 development goal.

Donor countries also have a key role to play; their commitment needs to be monitored, and they need to be held accountable for their commitment to reducing hunger and undernutrition in the high burden countries

Will commitment indices help to inspire greater political commitment to reduce hunger and undernutrition and ultimately contribute to bringing down hunger and undernutrition levels? The next phase of the HANCI project will undertake econometric work for the secondary data index and follow-up fieldwork for the primary data index, with partners in selected countries. For the indices to be worth collecting, we must be able to show they contribute to efforts to build commitment to end the twin scandals of hunger and undernutrition.

Annex 1 37 secondary data indicators considered but excluded from HANCI

	Indicators	Reason for exclusion from HANCI
1	Total expenditure on health as % of GDP	HANCI prefers expression of health spending as share of public expenditures as clearer indicator of government commitment
2	% government expenditure on education	Too indirect an indicator
3	Social protection expenditure	Data not available
4	Food price inflation for consumers (annual per cent)	Data not available
5	Length of maternity leave laws	Data available, yet of limited applicability (only to formal economy employment)
6	Does the country use a multi-sectoral approach to nutrition?	Data unavailable for sufficient number of countries
7	Signatory to SUN movement?	Applies only to (30-odd) SUN countries
8	Contraceptive prevalence (%)	Too indirect an indicator
9	Community health workers density (per 10,000 population)	Too indirect an indicator
10	Density of public health workers (per 10,000 population)	Too indirect an indicator
11	Do governments have a breastfeeding promotion programme?	Insufficient variation in data
12	Do governments have a vitamin A supplementation programme for children?	Insufficient variation in data
13	Do governments have a zinc supplementation programme for children?	Not applicable to many countries
14	Do governments have a salt iodisation programme?	Not applicable to many countries
15	Do governments have programmes for management of childhood severe acute malnutrition?	Limited data availability
16	Do governments have a maternal micronutrient supplementation programme?	Insufficient variation in data
17	Do governments have food fortification strategies?	Limited data availability
18	Do governments have school nutrition programme?	Limited data availability
19	Do governments have a diet diversity programme?	Limited data availability
20	Immunisation/vaccination coverage	Too indirect an indicator
21	Do governments promote safe hygienic practices?	Limited data availability
22	Do governments promote female/maternal education programmes?	Too indirect an indicator
23	Antenatal care coverage data	Limited data availability
24	Commitment of high level leadership	Limited data availability

(Cont'd.)

Annex 1 (cont'd.)

	Indicators	Reason for exclusion from HANCI
25	Multi-stakeholder platform on nutrition	Limited data availability
26	Business engagement with nutrition established?	Limited data availability
27	Do governments include a nutrition component in agricultural policy?	Limited data availability
28	Is there a nutrition component in education strategy?	Limited data availability
29	Public expenditure on agricultural R&D as % of agricultural GDP	Limited data availability
30	Do governments have national dietary guidelines?	Limited data availability
31	Gender equality data (WB)	Limited data availability
32	Equal political representation of men and women in rural areas	Too indirect an indicator
33	Public resources for rural development	Too indirect an indicator
34	Access to water for agriculture	Limited data availability
35	Do governments have food safety regulations?	Too indirect
36	Do governments enhance well-qualified human resources on nutrition?	Limited data availability
37	Do governments undertake programmes to combat overnutrition?	Limited data availability

Annex 2 Overview of questions in expert survey developing countries, by indicator

Indicator	Questions in questionnaire
Institutional coordination	Q29. Has the government appointed a coordinating body that promotes joined up thinking/action (Q29 was Q26 in 2011)
	Q30. If YES to Q29 – how successful is/are the body/ies in delivering a coordinated cross-agency approach to addressing hunger (Q27 in 2011)
	Q30. If YES to Q29 – how successful is/are the body/ies in delivering a coordinated cross-agency approach to addressing nutrition
	Q31. What is the strength of coordination efforts by national government with sub national (e.g. State) government efforts to improve hunger outcomes
	Q31. What is the strength of coordination efforts by national government with sub national (e.g. State) government efforts to improve nutrition outcomes
Government intention and action	Q2. Government priority to hunger
	Q2. Government priority to nutrition
	Q5A. Government consideration of policy 1 (all Q5s were Q6s in 2011)
	Q5A. Government consideration of policy 2
	Q5A. Government consideration of policy 3
	Q5A. Government consideration of policy 4
	Q5A. Government consideration of policy 5
	Q5B. Adequacy of government efforts towards fulfilling policy 1
	Q5B. Adequacy of government efforts towards fulfilling policy 2
	Q5B. Adequacy of government efforts towards fulfilling policy 3
	Q5B. Adequacy of government efforts towards fulfilling policy 4
	Q5B. Adequacy of government efforts towards fulfilling policy 5
	Q 34. How good is the implementation of public policies on hunger (Q34s was Q30 in 2011)
Q 34. How good is the implementation of public policies on nutrition	
Locus of initiative	Q4A. Extent policy 1 was initiated by state agency responsible for executing it
	Q4A. Extent policy 2 was initiated by state agency responsible for executing it
	Q4A. Extent policy 3 was initiated by state agency responsible for executing it
	Q4A. Extent policy 4 was initiated by state agency responsible for executing it
	Q4A. Extent policy 5 was initiated by state agency responsible for executing it
Analytical rigour	Q18. Importance of scientific evidence in policy making processes for hunger (Q18s was Q17 in 2011)
	Q18. Importance of scientific evidence in policy making processes for nutrition
	Q19. How developed are government systems that generate knowledge and evidence for hunger (Q19s were Q18 in 2011)
	Q19. How developed are government systems that generate knowledge and evidence for nutrition

(Cont'd.)

Annex 2 (cont'd.)

Indicator	Questions in questionnaire
Public commitment	Q14. How clear are public policy preferences in government docs. (was Q16 in 2011)
	Q15. How well are the goals of improving hunger outcomes expressed in State development strategies/policies
	Q15. How well are the goals of improving nutrition outcomes expressed in State development strategies/policies
	Q16. How well are budget lines related to hunger developed in the State budgets
	Q16. How well are budget lines related to nutrition developed in the State budgets
	Q17. How well defined are hunger outcomes in policies
	Q17. How well defined are nutrition outcomes in policies
	Q22. How accessible is government policy on hunger to public scrutiny (Q22s was Q21 in 2011)
	Q22. How accessible is government policy on nutrition to public scrutiny
Learning and adaptation	Q20. How likely are government policies to be adjusted when strong evidence suggests change in course for hunger (Q20s was Q19 in 2011)
	Q20. How likely are government policies to be adjusted when strong evidence suggests change in course for nutrition
	Q21. To what extent the government experiment and innovate with new policy approaches in hunger (Q21s were 20 in 2011)
	Q21. To what extent the government experiment and innovate with new policy approaches in nutrition
Mobilisation of stakeholders	Q6. How well do agencies responsible for the design of hunger policies build social/political support (all Q6s were Q7s in 2011)
	Q6. How well do agencies responsible for the design of nutrition policies build social/political support
	Q6. How well do agencies responsible for the implementation of hunger policies build social/political support
	Q6. How well do agencies responsible for the implementation of nutrition policies build social/political support
	Q8. How well policy strategies/decision-making bodies allow representation of divergent interests in area of hunger (Q8s was Q9 in 2011)
	Q8. How well policy strategies/decision-making bodies allow representation of divergent interests in area of nutrition
	Q9. How successful are agencies in gathering support to overcome resistance from threatened interests of stakeholders in hunger (Q9s was Q10 in 2011)
	Q9. How successful are agencies in gathering support to overcome resistance from threatened interests of stakeholders in nutrition

(Cont'd.)

Annex 2 (cont'd.)

Indicator	Questions in questionnaire
Continuity of effort	Q35A To what extent does the government enhance administrative capacity to address hunger reduction (Q35s were Q31s in 2011)
	Q35A. To what extent does the government enhance administrative capacity to address nutrition problems
	Q35B. To what extent does the government enhance financial capacity to address hunger reduction
	Q35B. To what extent does the government enhance financial capacity to address nutrition problems
	Q36A. To what extent does the government utilise administrative capacity to address hunger reduction (Q36 was Q32 in 2011)
	Q36A. To what extent does the government utilise administrative capacity to address nutrition problems
	Q36B. To what extent does the government utilise financial capacity to address hunger reduction
	Q36B. To what extent does the government utilise financial capacity to address nutrition problems
Credible incentives	Q32. Achievement/failure to achieve public policy objectives credibly rewarded/sanctioned – policy design agencies for hunger (Q32s was Q28 in 2011)
	Q32. Achievement/failure to achieve public policy objectives credibly rewarded/sanctioned – policy design agencies for nutrition
	Q32. Achievement/failure to achieve public policy objectives credibly rewarded/sanctioned – implementing agencies for hunger policies
	Q32. Achievement/failure to achieve public policy objectives credibly rewarded/sanctioned – implementing agencies for nutrition policies
	Q33. Achievement/failure to achieve public policy objectives credibly rewarded/sanctioned – policy designers for hunger (Q33s was Q28 in 2011)
	Q33. Achievement/failure to achieve public policy objectives credibly rewarded/sanctioned – policy designers for nutrition
	Q33. Achievement/failure to achieve public policy objectives credibly rewarded/sanctioned – implementers of hunger policies
	Q33. Achievement/failure to achieve public policy objectives credibly rewarded/sanctioned – implementers for nutrition policies
Political leadership	Q12. To what extent do senior political leaders speak out against hunger and malnutrition (all Q12s were Q14s in 2011)
	Q13. How convincing are public statements made by senior politicians (all Q13s were Q15s in 2011)
	Q17. How well defined are hunger outcomes in political manifestos
	Q17. How well defined are nutrition outcomes in political manifestos
	Q23A. Level of empirical understanding of the status of hunger and malnutrition – senior politicians (Q23s were Q22 in 2011)
	Q23B. Level of empirical understanding of the casual factors of hunger and malnutrition – senior politicians
	Q23C. Level of empirical understanding of the potential solutions to hunger and malnutrition – senior politicians
	Q24. How developed is presidential/prime ministerial leadership in the country on hunger
Q24. How developed is presidential/prime ministerial leadership in the country on nutrition	

Annex 3 HANCI indicators for hunger; hunger and nutrition; nutrition

Hunger	Hunger and nutrition	Nutrition
Government spending on agriculture Security of access to land Access to agricultural extension services	Constitutional right to food Women's access to agricultural land Civil registration of live births Status of safety nets Constitutional right to social security National nutrition survey Women's economic rights	Nutrition budget Vitamin A coverage Access to drinking water Access to sanitation Skilled birth attendance Enshrine ICBMS in domestic law Government spending on health Extent nutrition features in national development policies/strategies National nutrition policy, plan or strategy Multi-sectoral and multi-stakeholder coordination mechanism Time-bound nutrition targets Governments promote complementary feeding

Annex 4 HANCI raw data (22 indicators, 45 countries)

	Government spending on agriculture	Government spending on health	Nutrition budget	Security of access to land	Access to agriculture extension services	Civil registration of live births	Status of safety nets	Vitamin A coverage
Afghanistan	1.0	1.6	0.0	2.8	3.1	37	1	96
Angola	3.5	7.2	0.0	3.0	3.3	29	3	28
Bangladesh	7.3	7.4	1.0	3.2	3.8	10	3	100
Benin	5.6	9.6	0.0	3.1	4.5	60	4	100
Brazil	2.1	7.1	1.0	4.5	4.5	93	7	29
Burkina Faso	20.4	13.5	0.0	3.5	4.5	77	3	100
Burundi	4.4	8.1	0.0	3.5	3.2	75	2	73
Cambodia	7.5	10.5	0.0	3.4	3.2	62	3	98
Cameroon	3.6	8.5	0.0	3.5	4.1	70	4	89
China	8.1	12.1	0.0	4.2	4.1	90	5	29
Congo, DR	1.8	9.1	0.0	2.8	3.0	28	1	83
Côte d'Ivoire	2.0	5.1	1.0	2.8	3.0	55	3	100
Ethiopia	13.7	13.5	1.0	3.8	4.3	7	4	84
Gambia	8.5	11.3	1.0	3.9	4.0	53	2	100
Ghana	10.3	12.1	0.0	3.5	4.0	63	5	93
Guatemala	1.4	16.2	1.0	3.8	3.7	97	4	36
Guinea Bissau	0.5	11.3	0.0	3.3	3.0	24	1	100
India	1.4	3.6	0.5	3.5	4.0	75	4	34
Indonesia	5.0	7.8	1.0	3.9	3.5	53	5	80
Kenya	3.4	7.3	1.0	4.0	4.0	60	3	62
Lesotho	3.2	13.4	0.0	3.8	3.7	45	3	90
Liberia	2.5	11.1	0.0	2.9	2.8	4	3	97
Madagascar	8.0	14.7	1.0	3.5	4.3	80	3	95
Malawi	12.2	14.2	1.0	3.8	3.7	50	3	96
Mali	11.0	10.6	0.5	3.4	3.7	81	5	99
Mauritania	5.5	7.3	0.5	3.3	4.3	56	4	97
Mozambique	9.1	12.2	1.0	4.0	4.0	31	4	100
Myanmar	8.3	1.0	0.0	2.1	2.8	72	1	94
Nepal	4.3	7.9	1.0	3.5	3.1	42	2	91
Niger	15.1	11.1	1.0	3.0	4.0	32	3	98
Nigeria	7.0	4.4	0.0	3.2	3.3	30	4	91
Pakistan	6.6	3.6	0.0	3.4	4.0	27	3	87
Peru	2.4	14.3	1.0	4.4	3.7	93	5	6.2
Philippines	5.0	7.6	0.0	4.0	4.1	83	5	91
Rwanda	3.5	20.1	1.0	4.5	4.3	63	4	92
Senegal	13.9	11.6	1.0	3.6	4.2	75	4	97
Sierra Leone	7.7	6.4	1.0	3.1	4.0	78	4	100
South Africa	2.2	11.9	1.0	4.0	3.3	92	6	39
Sudan	5.4	9.8	0.0	3.6	3.7	59	1	82
Tanzania	5.5	13.8	1.0	4.3	5.0	16	4	99
Togo	8.0	15.4	0.0	2.8	2.3	78	3	100
Uganda	5.4	12.1	0.0	4.5	4.3	30	4	64
Vietnam	6.3	7.8	0.0	3.6	3.3	95	6	95
Yemen	1.0	4.3	0.0	4.5	4.0	22	3	47
Zambia	8.3	15.6	1.0	3.5	4.0	14	4	92

(Cont'd.)

Annex 4 (cont'd.)

	Governments promote complementary feeding	Access to drinking water	Access to sanitation	Skilled birth attendance	Extent of nutrition features in national development policies/strategies	National nutrition policy, plan or strategy	Multi-sectoral and multi-stakeholder coordination mechanism
Afghanistan	1	50	37	36	0.19	1	1
Angola	1	51	58	80	0.00	1	1
Bangladesh	1	81	56	53	0.56	1	1
Benin	1	75	13	84	0.23	1	1
Brazil	1	98	79	98	0.24	1	1
Burkina Faso	1	79	17	85	0.10	1	1
Burundi	1	72	46	99	0.19	0	1
Cambodia	1	64	31	89	0.33	1	1
Cameroon	0	77	49	82	0.06	1	0
China	1	91	64	92	0.00	1	0
Congo, DR	0	45	24	88	0.15	1	1
Côte d'Ivoire	1	80	24	85	0.30	1	1
Ethiopia	1	44	21	28	0.02	1	1
Gambia	1	89	68	98	0.33	1	1
Ghana	1	86	14	90	0.14	1	1
Guatemala	1	92	78	93	0.00	1	1
Guinea Bissau	1	64	20	93	0.12	1	0
India	0	92	34	75	0.47	0	0
Indonesia	1	82	54	93	0.09	1	1
Kenya	0	59	32	92	0.08	1	1
Lesotho	1	78	26	92	0.17	0	0
Liberia	0	73	18	79	0.29	1	1
Madagascar	1	46	15	86	0.27	1	1
Malawi	1	83	51	92	0.90	1	1
Mali	1	64	22	70	0.02	1	1
Mauritania	1	50	26	75	0.32	1	1
Mozambique	1	47	18	92	0.59	1	1
Myanmar	1	83	76	80	0.11	1	1
Nepal	1	89	31	44	0.09	1	1
Niger	1	49	9	46	0.53	1	1
Nigeria	1	58	31	58	0.08	1	1
Pakistan	1	92	48	61	0.09	1	0
Peru	0	85	71	95	0.17	1	1
Philippines	1	92	74	91	0.18	1	1
Rwanda	1	65	55	98	0.30	1	1
Senegal	0	72	52	87	0.44	1	1
Sierra Leone	1	55	13	87	0.12	1	1
South Africa	1	91	79	97	0.00	0	0
Sudan	1	58	26	56	0.00	1	0
Tanzania	1	53	10	88	0.00	1	1
Togo	0	61	13	87	0.36	1	0
Uganda	1	72	34	94	0.16	1	1
Vietnam	1	95	76	91	0.05	1	1
Yemen	0	55	53	47	0.09	1	1
Zambia	1	61	48	94	0.24	1	1

(Cont'd.)

Annex 4 (cont'd.)

	Time- bound nutrition targets	National nutrition survey	Constitutional right to food	Women's access to agricultural land	Women's economic rights	Constitutional right to social security	Enshrine ICBMS in domestic law
Afghanistan	1	1	1	0.5	0	0	9
Angola	0	0	3	0.5	1	1	3
Bangladesh	1	1	5	0.5	1	1	8
Benin	1	0	3	0.0	1	0	9
Brazil	0	0	5	0.5	2	1	9
Burkina Faso	0	1	2	0.5	1	1	9
Burundi	0	1	3	0.0	0	0	4
Cambodia	1	1	3	1.0	1	1	8
Cameroon	0	1	5	0.0	0	0	9
China	1	0	2	0.5	1	1	8
Congo, DR	0	1	3	0.5	0	1	7
Côte d'Ivoire	0	1	3	0.5	1	1	4
Ethiopia	0	0	5	0.5	0	1	7
Gambia	0	1	5	0.0	2	0	9
Ghana	1	1	4	0.0	1	1	9
Guatemala	1	1	5	0.5	1	1	9
Guinea Bissau	0	1	4	0.5	0	0	7
India	0	0	4	0.5	1	1	9
Indonesia	1	1	4	1.0	1	1	8
Kenya	0	1	5	0.5	0	0	6
Lesotho	0	1	2	1.0	2	0	3
Liberia	0	1	4	1.0	1	1	5
Madagascar	0	1	3	0.5	1	1	9
Malawi	1	1	5	0.5	1	1	8
Mali	0	1	3	0.5	1	1	8
Mauritania	0	1	2	0.5	1	0	3
Mozambique	0	1	3	0.5	1	0	9
Myanmar	0	1	5	0.5	1	0	3
Nepal	1	1	2	0.5	1	1	9
Niger	0	1	3	0.5	2	0	8
Nigeria	1	1	5	0.5	0	1	8
Pakistan	0	1	5	0.5	1	1	9
Peru	0	1	4	0.5	1	1	9
Philippines	1	0	3	0.5	2	1	9
Rwanda	0	1	3	0.5	1	0	4
Senegal	0	0	3	1.0	0	0	8
Sierra Leone	1	1	4	0.0	0	1	4
South Africa	0	0	5	0.5	1	1	6
Sudan	0	1	4	0.0	1	1	2
Tanzania	0	1	4	0.5	0	1	9
Togo	1	1	3	0.5	1	1	4
Uganda	0	1	5	0.0	0	1	9
Vietnam	1	1	2	0.5	1	1	8
Yemen	0	0	1	0.5	0	0	9
Zambia	1	0	5	0.5	1	0	8

Annex 5 Community weighting schemes: Bangladesh, Malawi and Zambia

Community weighting schemes for hunger and nutrition, by gender, Bangladesh

	Hunger			Nutrition		
	Legal frameworks	Policies and programmes	Public expenditures	Legal frameworks	Policies and programmes	Public expenditures
Dhaka						
Male	13	75	13	58	28	14
Female	12	63	24	14	71	15
Total	12	68	20	33	52	15
Nilphamari						
Male	16	67	17	18	41	41
Female	44	37	19	26	56	18
Total	29	53	18	22	48	30
Patuakhali						
Male	32	50	18	35	47	18
Female	20	60	20	19	64	17
Total	25	53	19	26	56	18
Bandarban						
Male	24	50	26	29	34	37
Female	22	52	26	21	46	33
Total	23	51	26	25	39	35
All sites						
Male	19	63	18	30	38	32
Female	29	50	22	21	60	19
Total	24	56	20	25	49	26

Community weighting schemes for hunger and nutrition, by gender, Malawi

	Hunger			Nutrition		
	Legal frameworks	Policies and programmes	Public expenditures	Legal frameworks	Policies and programmes	Public expenditures
Balaka						
Male	20	50	30	50	30	20
Female	20	50	30	20	50	30
Total	20	50	30	35	40	25
Kasungu						
Male	15	50	35	13	47	40
Female	15	50	35	15	50	35
Total	15	50	35	14	48	38
All sites						
Male	15	50	35	32	38	30
Female	15	50	35	18	50	32
Total	15	50	35	25	44	31

Community weighting schemes for hunger and nutrition, by gender, Zambia

	Hunger			Nutrition		
	Legal frameworks	Policies and programmes	Public expenditures	Legal frameworks	Policies and programmes	Public expenditures
Kavalamanja						
Male	20	40	40	30	30	40
Female	25	30	35	45	20	35
Total	22	35	37	47	25	38
Chitope						
Male	30	45	25	15	45	40
Female	20	50	30	10	55	35
Total	25	47	28	12	50	38
Mutendere						
Male	20	55	25	20	50	30
Female	25	45	30	25	50	25
Total	22	50	28	22	50	28
Kamanga						
Male	15	35	50	15	20	65
Female	10	30	60	10	35	55
Total	12	33	55	13	27	60
All sites						
Male	21	44	35	20	36	44
Female	20	39	39	22	40	38
Total	20	42	37	21	38	41

Annex 6 Outcome mapping HANCI uptake and impact

Type of stakeholder	Boundary partner	Expect to see	Like to see	Love to see
a. Civil society partner organisations	ActionAid Bangladesh (AAB); Oxfam India (OA)	Partners identify their key boundary partners and stakeholders; share HANCI findings with them	AAB/Oxfam India to adopt HANCI methodology or findings in their programming in coming years	AAB develops a Bangladesh specific index, or self-funds the primary research from 2015. OI to continue financially supporting Indian index beyond current commitments for 2012–13.
	<i>evidence</i>	AAB conducts partner mapping; identifies priority partners for info sharing and reports on demand for and actual follow-up action, if any	AAB/OI annual reports, workplans or programme outlines to show how they adopt HANCI in their programming. New co-funding by partners towards HANCI activities and objectives	AAB develops a Bangladesh specific index, or self-funds the primary research from 2015. Oxfam India to continue financially supporting Indian index
	<i>status of evidence</i>		OI has uptake of HANCI by regional offices included as one of their programming outputs. AAB to contribute new funds to support conducting expert workshops	AAB develops a Bangladesh specific index, or self-funds the primary research from 2015. OI to continue financially supporting Indian index
	As these are stakeholders for IDS, we may conduct an outcome mapping exercise with project partners (in selected countries) for their own boundary partners – this would require additional resources	Greater knowledge of HANCI by other civil society stakeholders	Civil society coalitions to use HANCI to generate greater public debate on governments' and donors' political commitment to reduce hunger and undernutrition	HANCI to become integral part of anti-hunger and nutrition campaigns by civil society stakeholders
	<i>evidence</i>	Wherever possible, HANCI partners will forward feedback on use and relevance from their partners; Consider use of automatic tracking tools – ask comms	Wherever possible, HANCI partners will forward feedback on use and relevance from their partners	Wherever possible, HANCI partners will forward feedback on use and relevance from their partners
	<i>status of evidence</i>			

(Cont'd.)

Annex 6 (cont'd.)

Type of stakeholder	Boundary partner	Expect to see	Like to see	Love to see
b. Partners of HANCI's civil society partner organisations	In donor countries (DFID/Irish Aid)	DFID/Irish Aid share HANCI findings with their boundary partners and stakeholders	DFID to recommend HANCI to SUN for inclusion in its accountability toolbox	SUN becoming a boundary partner
	<i>evidence</i>			
	<i>status of evidence</i>			
c. Government decision-makers	In developing countries	Greater knowledge of HANCI by experts working in government (through communities products and events including workshops)	Governments respond formally or informally in media or otherwise to their countries' rankings	Governments to announce (spending, legal, policy and programme) measures they will undertake to improve their HANCI commitment scores
	<i>evidence</i>	HANCI findings reach decision-makers, e.g. through partners, or comms and launch events; expert workshops	Citations of HANCI in government documents made publicly available or other public spaces	Media reports, press releases, parliamentary debate transcripts
	<i>status of evidence</i>			
d. Politicians	none	HANCI findings reach politicians through partners	Politicians publicly respond to HANCI findings	Politicians actively campaign on hunger and reference HANCI
	<i>evidence</i>		Media reports. government press releases; parliamentary debate transcripts	Parliamentary debate transcripts, political party manifestos
	<i>status of evidence</i>			

(Cont'd.)

Annex 6 (cont'd.)

Type of stakeholder	Boundary partner	Expect to see	Like to see	Love to see
e. International donors (bi + multilateral) and relevant government departments	Irish Aid (IA); DFID	IA/DFID to reference and use HANCI in its programming and advocacy events	IA/DFID to promote HANCI with their stakeholders, e.g. with SUN and country offices	SUN Secretariat to officially adopt HANCI as one its accountability indicators
	<i>evidence</i>	HANCI features in official reports by DFID, or is mentioned on their website	DFID documentation recommending HANCI for inclusion in SUN (e.g. Summary report on Hunger Summit). DFID to use HANCI in its hunger event (summer 2013). IDS will be invited to present HANCI at IA EU Presidency Summit	Regular interactions with SUN Secretariat, following a presentation of HANCI
	<i>status of evidence</i>	See Summary report on Hunger Summit 2012 – some notes on HANCI	See Summary report on Hunger Summit 2012 + 2013; IA EU Presidency summit conference + PowerPoint	PowerPoint presentation HANCI to SUN Secretariat, invitations to events
	FAO	Gaining FAO interest to consider using HANCI to develop their monitoring of political commitment as per their mid-term review strategy for 2013–17	FAO to incorporate HANCI aspects in its monitoring of political commitment as per their mid-term review strategy for 2013–17	FAO to become boundary partner; and FAO to routinely collect data on political commitment to reduce hunger and undernutrition
	<i>evidence</i>	Invited PowerPoint presentation HANCI to FAO	FAO documentation and communications	Regular interactions with FAO; FAO to use HANCI or (aspects of) its methodology to monitor political commitment on an annual basis
	<i>status of evidence</i>			

(Cont'd.)

Annex 6 (cont'd.)

Type of stakeholder	Boundary partner	Expect to see	Like to see	Love to see
f. International civil society and advocacy groups/networks	ONE/Save the Children	HANCI and its findings to feature in ONE/Save advocacy reports and informally influences their programming and advocacy activities	An official collaboration between IDS/ONE/Save to use HANCI in programming and advocacy at international and national levels	Develop effective partnerships and work with ONE/Save in-country offices in primary research and advocacy
	<i>evidence</i>	HANCI methodology inspiring Nutrition Barometer of Save, 2012	MoU or other formal expression of collaboration with ONE/Save; use of HANCI by CIFF in advocacy efforts	New collaborations for primary research and advocacy in Nepal, Tanzania and other countries
	<i>status of evidence</i>	Nutrition Barometer of Save, 2012 references HANCI and uses its thematic methodology		
	IDS	Other IDS projects on hunger and nutrition to reference or use HANCI materials or findings		
	<i>evidence</i>	Notes from nutrition group IDS		
	<i>status of evidence</i>			
g. Academics		HANCI to feature in Lancet 2013 series on nutrition	HANCI to feature at Lancet international launch events in May 2013	HANCI to inspire academic debate on better ways to measure political commitment to reduce hunger and undernutrition
	<i>evidence</i>			Academic citations
	<i>status of evidence</i>			
h. Media actors		Global media such as Guardian Development, and AllAfrica to feature HANCI	National and sub-national media in various countries to report on HANCI findings and to broadcast comms products, e.g. audio postcards	YouTube videos of HANCI to have over 5,000 views by end of 2013
	<i>evidence</i>			
	<i>status of evidence</i>			
i. Focus Group and Community Voices communities (not all affected communities)				
	<i>evidence</i>	?	?	?
	<i>status of evidence</i>			

(Cont'd.)

Annex 6 (cont'd.)

Type of stakeholder	Boundary partner	Expect to see	Like to see	Love to see
j. Global popular audiences				
	<i>evidence</i>	HANCI website traffic statistics		
	<i>status of evidence</i>			
k. Hunger and Nutrition experts (cross-cut)		Experts from survey panel to link up with one another within and across countries, as result of HANCI process		
	<i>evidence</i>	Use of forum on website – traffic figures		
	<i>status of evidence</i>			

Annex 7 Operationalisation of indicators

Indicator	Main source*	URL [†]	Operationalisation	Year	Variable name
Government spending on agriculture	IFPRI and ReSAKSS calculations using IMF Government Statistics	http://pdf.usaid.gov/pdf_docs/PNADS602.pdf http://www.fao.org/docrep/017/i3028e/i3028e.pdf	Government expenditures on agriculture as share of total government expenditures (percentage)	2005–11	agexpend
Government spending on health	WHO Nutrition Landscape Information System	http://apps.who.int/nutrition/landscape/report.aspx?rid=161&template=nutrition	Government expenditure on health as a share of total government expenditure (percentage)	2010	healthexpend
Nutrition budget	SUN country summary reports (not in public domain); SUN country fiche; IDS Nutrition Governance; Save the Children Nutrition Barometer; WHO Landscape Analysis.	http://www.ids.ac.uk/nutrition/governance	0 = no budgets or where no confirming information could be found; 0.5 = sectoral budgets for nutrition; 1 = separate budget line for nutrition	2011–12	nutribudget
Security of access to land	The International Fund for Agricultural Development (IFAD)	http://info.worldbank.org/governance/wgi/pdf/IFD.xlsx	Assesses the existence of an institutional, legal and market framework for secure land tenure and the procedure for land acquisition and accessibility to all. The Ratings Scale goes from 6 (high) through 1 (low), as follows: 6 = Good for 3 years; 5 = Good; 4 = Moderately satisfactory; 3 = Moderately unsatisfactory; 2 = Unsatisfactory; 1 = Unsatisfactory for 3 years. For coding details see p.6 of: http://www.ifad.org/gbdocs/eb/80/e/EB-2003-80-R-3.pdf	2011	landaccess

Note: *In addition to these main sources for some countries we sourced the data from specific country sources. These sources are highlighted in the online data base. [†]The URLs were last confirmed live on 4 April 2013 even though the data were extracted in 2012.

(Cont'd.)

Annex 7 (cont'd.)

Indicator	Main source*	URL [†]	Operationalisation	Year	Variable name
Access to agri. extension services	The International Fund for Agricultural Development (IFAD)	http://info.worldbank.org/governance/wgi/pdf/IFD.xlsx	This indicator assesses to what extent the agricultural research and extension system is accessible to poor farmers, including women farmers, and is responsive to the needs and priorities of the poor farmers. Coding is done in the same manner as for the 'security of access to land' indicator. For coding details see p.8 of: http://www.ifad.org/gbdocs/eb/80/e/EB-2003-80-R-3.pdf	2011	rdaccess
Civil registration of live births	UNICEF: DHS/MICS	http://www.childinfo.org/birth_registration_tables.php	Percentage of children under five years of age who were registered at the moment of the survey	2005–10	birthreg
Status of safety nets	Transformation Index of the Bertelsmann Stiftung (BTI)	http://www.bti-project.org/index/	10 = Social safety nets are comprehensive; 7 = Social safety nets are well developed, but do not cover all risks for all strata of the population; 4 = Social safety nets are rudimentary and cover only few risks for a limited number of beneficiaries; 1 = Social safety nets do not exist	2010	welfare_status
Vitamin A coverage	MICS4 Indicators, UNICEF field offices and WHO, Countdown to 2015 reports, author calculations based on country DHS data	http://www.unicef.org/statistics/index_countrystats.html	The percentage of children aged 6–59 months who received 2 high doses of vitamin A supplements within the last year	2007–10	vitamina
Governments promote complementary feeding	SUN Reports/world breast-feeding trends initiative	http://www.worldbreastfeedingtrends.org/docs/INDICATOR-1.pdf	Whether governments promote complementary feeding practices of children aged 6–9 months and continued breastfeeding of children at ages 12–15 and 20–23 months. 0 = no; 1= yes	2008–11	suppfood
Access to drinking water	WHO Nutrition Landscape Information System	http://apps.who.int/nutrition/landscape/report.aspx	The percentage of population with access to an improved drinking-water source	2010	wateraccess
Access to sanitation	World Bank Database	http://data.worldbank.org/indicator/SH.STA.ACSN	The percentage of population with access to improved sanitation facilities	2010	sanitaccess

Note: *In addition to these main sources for some countries we sourced the data from specific country sources. These sources are highlighted in the online data base. [†]The URLs were last confirmed live on 4 April 2013 even though the data were extracted in 2012.

(Cont'd.)

Annex 7 (cont'd.)

Indicator	Main source*	URL [†]	Operationalisation	Year	Variable name
Skilled birth attendance	UNICEF: DHS/MICS	http://www.childinfo.org/antenatal_care_country.php	Percentage of women aged 15–49 years attended at least once during pregnancy by skilled health personnel (doctor, nurse or midwife)	2005–10	preg
Extent of nutrition features in national dev. policies	Web-based searches	See Annex 8 in HANCI report for a list of documents consulted for each country	The total count of key search terms in a selected policy document divided by the number of pages in the document. Search terms: nutritio•.; undernutrition/under-nutrition; malnutrition/mal-nutrition nutrient; diet•.; stunt•.; wasting/wasted; short-for-age; short for age; height-for-age; height for age; weight-for-age; weight for age; weight for height; weight-for-height; underweight; under-weight; low birth weight; thinness; micro-nutrient; micronutrient; 1000 days; one thousand days; breastfeed•.; behaviour change; behaviour change; Iron deficiency anaemi/anemi; zinc; deworm; de-worm; vitamin A; supplementary feed; complementary feed		npolicy
National nutrition policy, plan or strategy	EIU Global Food Security Index; Save the Children Nutrition barometer	http://foodsecurityindex.eiu.com/ http://www.savethechildren.org.uk/sites/default/files/docs/Data_for_Nutrition_Barometer_0.pdf	Whether a national nutrition policy, plan or strategy exists: 1 = yes; 0 = no	2012	nplan
Multi-sectoral and multi-stakeholder coord. mechanism	SUN fiches/Country docs		Whether a multi-sectoral and multi-stakeholder coordination mechanism exists: 0 = no; 1 = yes	2011–2012	stakecoord
Time-bound nutrition targets	SUN 2.2, 2.3, / Save the Children nutrition barometer	http://www.savethechildren.org.uk/sites/default/files/docs/Data_for_Nutrition_Barometer_0.pdf	Whether governments identify time-bound nutrition targets in public policy documents: 0= no; 1 = yes	2011–2012	ntarget
National nutrition survey	UNICEF	http://www.childinfo.org/mics4_surveys.html	Has there been a Demographic and Health Survey / Multiple Indicator Cluster Survey /comparable national nutrition survey in the past three years? 1 = Yes if the survey was dated 2009 or thereafter, or currently underway; 0 = No new survey undertaken after 2009	2008–2012	dhs_mics

Note: *In addition to these main sources for some countries we sourced the data from specific country sources. These sources are highlighted in the online data base. [†]The URLs were last confirmed live on 4 April 2013 even though the data were extracted in 2012.

(Cont'd.)

Annex 7 (cont'd.)

Indicator	Main source*	URL [†]	Operationalisation	Year	Variable name
Constitutional right to food	FAO information paper	http://www.fao.org/docrep/MEE TING/007/J0574E.HTM	Different levels in which the right to food is enshrined in constitutional law are identified in Vidar (2006): 1 = High, 2 = Medium High, 3 = Medium, 4 = Medium Low, 5 = Low (see Annex III in the source document for more details about these categories)	2003	rtf
Women's access to agricultural land	OECD's Gender, Institutions and Development Database (GID-DB)	http://stats.oecd.org/Index.aspx?datasetcode=GIDDB2012#	Score based on women's legal rights and <i>de facto</i> rights to own and/or access agricultural land. Value based on the following scale: 0 = equal; 0.5 = Women have equal legal rights but there are discriminatory practices against women's access to and ownership of land in practice; 1 = Women have no/few legal rights to access or own land or access is severely restricted by discriminatory practices. (note: in HANCI calculation, this scoring is reversed for consistency)	2012	womenland
Constitutional right to social security	FAO information paper	http://www.fao.org/docrep/MEE TING/007/J0574E.HTM	The Constitution clearly references a right to social security (see Annex II of the source document). 0= no; 1= yes	2003	rsocsec
Women's economic rights	The Cingranelli-Richards (CIRI) Human Rights Data Project	http://humanrightsdata.org/	The extent to which women have equal economic rights in law and in practice. 0: there were no economic rights for women in law and systematic discrimination based on sex may have been built into law; 1 = women had some economic rights under law, but these rights were not effectively enforced; 2 = women had some economic rights under law, and the government effectively enforced these rights in practice while still allowing a low level of discrimination against women in economic matters; 3 = all or nearly all of women's economic rights were guaranteed by law and the government fully and vigorously enforces these laws in practice	2010	wecon

Note: *In addition to these main sources for some countries we sourced the data from specific country sources. These sources are highlighted in the online data base. [†]The URLs were last confirmed live on 4 April 2013 even though the data were extracted in 2012.

(Cont'd.)

Annex 7 (cont'd.)

Indicator	Main source*	URL [†]	Operationalisation	Year	Variable name
Enshrine ICBMS in domestic law	Unicef	http://www.unicef.org/nutrition/files/State_of_the_Code_by_Country_April2011.pdf	The extent to which the International Code for Marketing of Breastmilk Substitutes is enshrined in law: 9 = ICBMS is fully in law; 8 = Many provisions of ICBMS are in law; 7 = Few provisions are in law; 6 = Voluntary adoption of all, or nearly all provisions of the ICBMS; 5 = Some provisions voluntary; 4 = Measure drafted awaiting final approval; 3 = Being studied; 2 = Action to end free breast milk substitutes; 1 = No action	2011	brstmksub

Note: *In addition to these main sources for some countries we sourced the data from specific country sources. These sources are highlighted in the online data base. [†]The URLs were last confirmed live on 4 April 2013 even though the data were extracted in 2012.

Annex 8 Policy documents analysed for nutrition key words

Country	Searched document	Period
Afghanistan	Afghanistan National Development Strategy (ANDS)	2008–2013
Angola	MPLA Development Program	2012–2017
Bangladesh	6th Five year Plan	2011–2015
Benin	Growth and Poverty Reduction Strategy (GPRS)	2011–2015
Brazil	Plano Plurianual (PPA): Plano Mais Brasil	2012–2015
Burkina Faso	Strategy for Accelerated Growth and Sustainable Development (SCADD)	2011–2015
Burundi	PRSP II	2025
Cambodia	National Strategic Development Plan (NSDP)	2006–2010
Cameroon	Growth and Employment Strategy Paper (GESP)	2010–2020
China	12th Five Year Plan (FYP)	2011–2015
Côte d'Ivoire	PRSP	2009–2015
Congo, DR	Poverty Reduction and Growth Strategy Paper (PRGSP)	2006–2008
Ethiopia	Growth and Transformation Plan (GTP)	2011–2015
Gambia	PRSP	2007–2011
Ghana	Ghana Shared Growth and Development Agenda (GSGDA)	2010–2013
Guatemala	Plan estratégico SEGEPLAN	2008–2012
Guinea Bissau	PRSP II	2011–2015
India	11th Five Year Plan	2007–2012
Indonesia	National Medium-Term Development Plan (RPJMN)	2010–2014
Kenya	Kenya Vision 2030: First Medium Term Plan (MTP)	2008–2012
Lesotho	PRSP: National Strategic Development Plan	2013–2017
Liberia	Poverty Reduction Strategy (PRS)	2008–2011
Madagascar	Madagascar Action Plan (MAP)	2007–2012
Malawi	Malawi Growth and Development Strategy (MGDS)	2006–2011
Mali	PRSP II	2007–2011
Mauritania	PRSP III	2011–2015
Mozambique	Programa Quinquenal do Governo	2010–2014
Myanmar	Framework for Economic and Social Reforms (FESR)	2012–2015
Nepal	Three Year Interim Plan	2007–2010
Niger	PRSP II: Accelerated Development and Poverty Reduction Strategy (ADPRS)	2008–2012
Nigeria	PRSP: National Economic Empowerment and Development Strategy (NEEDS)	2003–2007
Pakistan	Vision 2030	2007–2030
Peru	Plan Bicentenario: El Perú hacia el 2021	2011–2021
Philippines	Philippine Development Plan	2011–2016
Rwanda	PRSP	2008–2012
Senegal	PRSP II	2007–2015
Sierra Leone	PRSP II	2009–2012
South Africa	National Dev Plan: Vision for 2030	2012–2030
Sudan	The Five Year Plan	2007–2011
Tanzania	The Tanzania Development Vision 2025	2025
Togo	PRSP	2009–2011
Uganda	National Development Plan	2011–2015
Vietnam	Socio-Economic Development Plan	2006–2010
Yemen	Socio-Economic Development Plan for poverty reduction	2006–2010
Zambia	Vision 2030	2007–2030

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