



Food security dimensions at the national level

Although the 2015 MDG hunger goal remains within reach, progress is not even and many countries are unlikely to meet the goal of halving the prevalence of undernourishment by 2015. Many of these countries face severe constraints. For example, countries that have experienced conflict during the past two decades are more likely to have seen significant setbacks in reducing hunger. Landlocked countries often lag behind coastal countries as they face persistent challenges in accessing world markets, while developing countries with poor infrastructure and weak institutions find it difficult to implement policies to increase agricultural productivity and address inequities of access to food.

This section looks at six countries – Bangladesh, Ghana, Nepal, Nicaragua, Tajikistan and Uganda – in more detail, finding a mixed picture of progress and setbacks, successes and shortfalls in the fight against hunger. Reducing poverty and hunger requires successful efforts over a long period of time, but the conditions – environmental, social, economic and political – that leave people vulnerable vary considerably from one country to another.

Bangladesh, Ghana and Nicaragua have all managed to halve the prevalence of undernourishment since the

beginning of the 1990s. This achievement is the result of a combination of factors, such as robust economic growth over decades, freer trade and, for Ghana and Nicaragua, political stability and favourable international market conditions characterized by high export prices. But, above all, it was the commitment of consecutive governments to long-term rural development and poverty-reducing plans that has shaped the dynamics of change.

Nepal experienced a period of prolonged conflict and political uncertainty which weakened the effectiveness of its institutions in both producing food and improving access to it. Nevertheless, the country seems on track to reach the MDG hunger goal by 2015. Tajikistan, landlocked and with poor infrastructure and little additional land to bring into agricultural production, looks unlikely to reach the hunger target. Incomplete land reform in Tajikistan has slowed growth in agricultural productivity and incomes, but this has to some extent been offset by inflow of remittances from migrants.

Uganda still faces significant challenges in undernourishment. With one of the highest population growth rates in the world, low agricultural productivity growth and a large part of the population living on \$1.25 a day or less, the country seems unlikely to reach the 2015 hunger target.



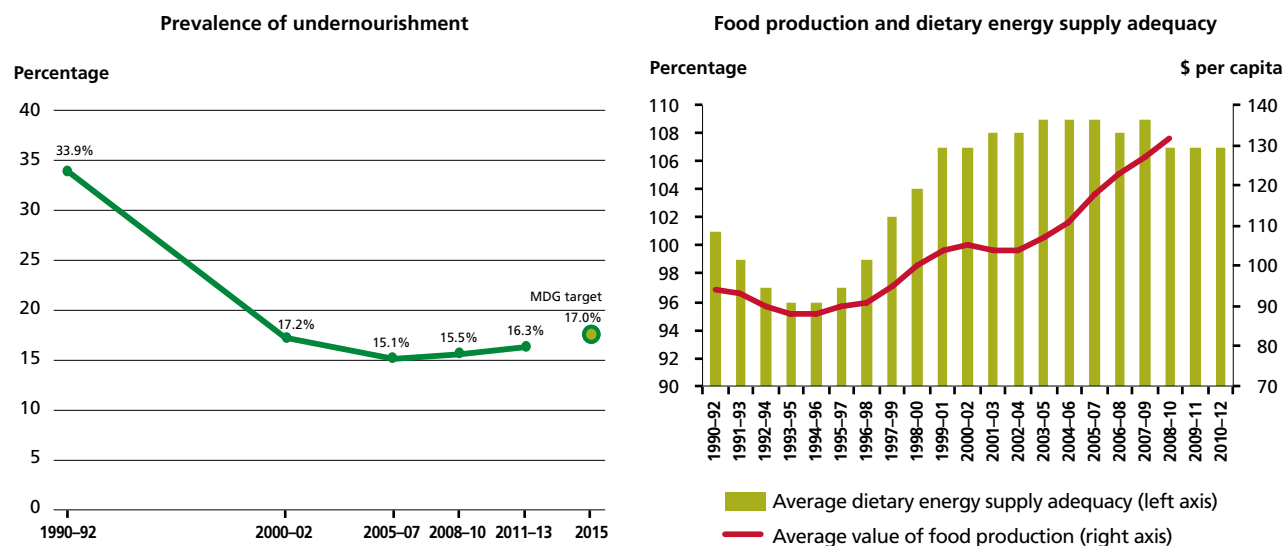
Bangladesh: Long-term commitment to food security spurs significant progress

Food security in Bangladesh is challenged by a host of factors ranging from the country's ever-increasing population density, climate change, scarce natural resources (with nearly no agricultural land left untilled), vulnerability to price shocks and persistent poverty. In spite of these constraints, Bangladesh has already met the MDG hunger target

(Figure 20). This remarkable feat was achieved in the context of rapid economic growth in the 1990s spurred by significant growth in agricultural productivity⁷ and driven by a combination of factors including macroeconomic stability, liberalization of input markets and opening up of the economy.

FIGURE 20

Bangladesh has already met its MDG hunger target, dietary energy supply is adequate and stable and food production continues to increase



Note: Average value of food production denominated in 2004–06 international prices. Source: FAO.

However, some 25 million people remain undernourished, and the prevalence of undernourishment has been rising slowly since the mid-2000s. Food security therefore remains high on the agenda of the government, and is being mainstreamed in policies. A comprehensive National Food Policy developed in 2008 was followed in 2011 by the Country Investment Plan, which provides stakeholders with a clear roadmap for investment in agriculture, food security and nutrition.

Agricultural productivity has increased substantially, with average yields and the value of food production per capita rising significantly since the mid-1990s (Figure 20). Private seed firms are being encouraged to enter the agricultural seed sector and regulatory frameworks are being strengthened.⁹ Irrigation has spread widely through sustained public infrastructure development programmes, but the focus has now shifted to promoting water-saving farming practices to deal with declining aquifer levels and the increasing cost of irrigation.⁹ Bangladesh Bank is increasing credit supply to farmers in an attempt to boost agricultural production; special attention is given to the needs of small-scale farmers because the vast and vibrant microfinance sector is unable to reach the poorest sections.¹⁰

The commitment of successive governments to poverty alleviation has resulted in considerable progress in poverty reduction, which mirrors growth in GDP per capita (Figure 21). The decline in poverty has been matched by similar declines in undernutrition, and Bangladesh appears to be on track to achieve its MDG target of reducing the percentage of children who are underweight to 33 percent by 2015 (Figure 21). However, considerable regional

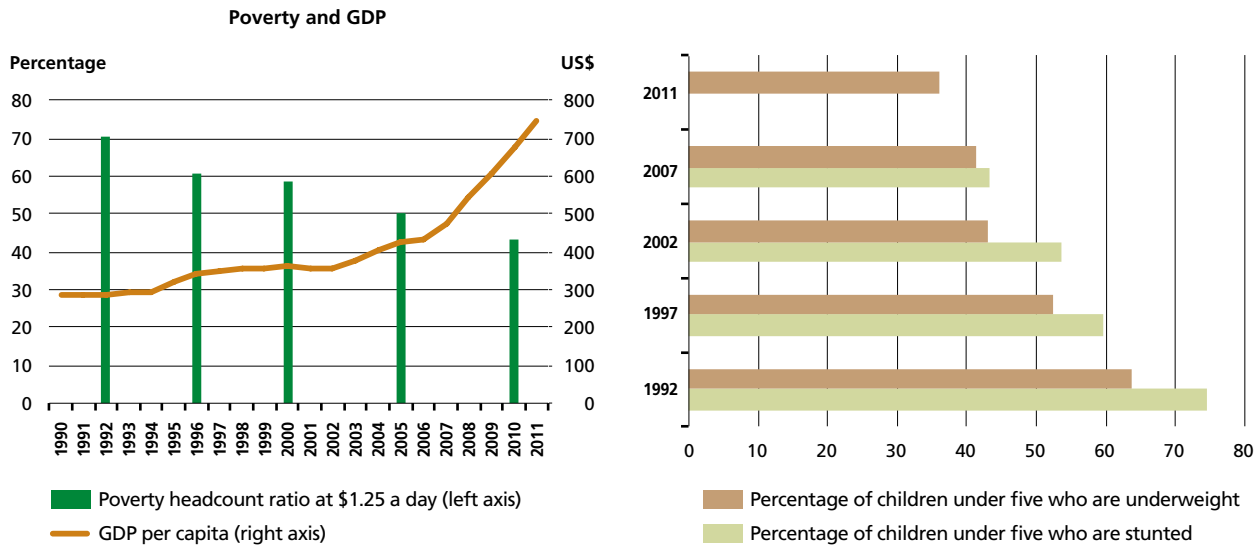
disparities exist and progress in tackling undernutrition has been slowing in recent years. This indicates that higher incomes alone are not sufficient to reduce undernutrition. In 2009, cereals still provided 78.3 percent of all calories consumed. Moving away from cereals and into a variety of high-value food products would not only make more nutritious food available, but would also create an opportunity to increase farmers' incomes. The Country Investment Plan therefore gives priority to developing sustainable and diversified agriculture. The development of biofortified crops through programmes such as HarvestPlus and the Golden Rice Project is an example of how nutrition and agriculture can be integrated to tackle these issues.

Little progress has been made in reducing the proportion of women who are anaemic (42 percent in 2011 compared with 45 percent in 2004), and anaemia still constitutes a severe public health problem in the country. Gender-based differences, notably in wages and in access to inputs and markets, also have an impact on food security and nutrition.¹¹ Many households have chosen international and national migration as a livelihood strategy. From the early 1990s onwards, almost a quarter of a million people migrated abroad every year, generating an income inflow from remittances amounting to some 10 percent of GDP in 2011–12.¹²

Bangladesh has in place a significant safety net programme complemented by efforts of numerous non-governmental organizations (NGOs) to help those who are unable to reap the benefits from emerging productive

FIGURE 21

Bangladesh appears to be on track to meet its MDG targets for both poverty reduction and proportion of children who are stunted and underweight



Note: Poverty threshold denominated in 2005 international prices. Sources: World Development Indicators, 2012 (left); WHO, and National Institute of Population Research and Training (Bangladesh), *Bangladesh Demographic and Health Survey 2011* (right).

opportunities and the decline in poverty. This programme has been quite responsive to the adverse effects of price volatility on the poor. In reaction to the 2007–08 price crisis, for example, an employment generation programme was designed to provide financial relief to the most vulnerable during the lean seasons while building infrastructure. An improved version of this programme, together with other safety nets and NGO programmes, such as the multidonor Chars Livelihoods Programme, has succeeded in recent years in eradicating the often acute seasonal hunger experienced in the northwest of the country.

Problems of mistargeting and inefficiencies do exist, however, leaving some households outside of safety net assistance.¹³ To deal with such issues, the government is developing a national social protection strategy, building on the success of existing programmes and including innovations meant to help the poor to graduate out of poverty.¹⁴ The Country Investment Plan also aims to develop institutions and capacity to enhance the effectiveness of safety nets, calling for strengthening of partnerships with NGOs, some of which are experimenting with models that facilitate the graduation of households out of poverty.



Ghana: Impressive and broadly shared economic growth fuels food security achievement

Ghana is considered a success story in Africa for its robust economic growth over the past three decades – GDP grew by an average of 4.5 percent a year since 1983 and by an impressive 14 percent in 2011¹⁵ (Figure 22). This has been fostered by political stability (Figure 23), market reforms, favourable terms of trade (higher gold and cocoa prices) and a good investment climate. The success of the

economic programmes and reforms show what sustained political commitment and partnership with the donor community can achieve.¹⁶ Ghana is well on track to meet its MDG poverty target before 2015, and had met its 2015 MDG hunger target by 2000–02 (Figure 23). In 2011–13 less than 5 percent of the population were undernourished.

Ghana's economy depends heavily on agriculture; more than half of the country's workforce is involved in this sector. In the 1990s, a series of policies and institutional reforms, together with a corresponding set of investments, led to sustained increases in food production by Ghana's smallholder farmers.¹⁷ Per capita food production increased by 55 percent between 1990–92 and 2008–10. Reforming the cocoa sector, which was implicitly taxed, played a crucial role in agricultural growth. Investments in research and development on roots and tubers and extension efforts were also successful in introducing innovative production methods, leading to yield increases and the development of new, more resilient varieties.¹⁸

Ghana's impressive GDP growth, averaging 5 percent per year since 2001, has reached a large part of the population, with extreme poverty declining from 51.7 percent in 1991 to 28.5 percent in 2006 (Figure 22). About 5 million people have been lifted out of poverty in just 15 years because the benefits of the rapid economic growth were broadly shared, especially with people in rural areas, who benefited from increased production and the creation of vibrant markets. The major beneficiaries of rising rural incomes were small-scale producers of cocoa and farmers producing fruits and vegetables.

Despite rapid progress in reducing poverty and hunger, Ghana has made less progress in reducing undernutrition (Figure 22). Although the proportion of children under five years of age who are underweight has been nearly halved since 1993–95, less progress has been made in reducing

prevalence of stunting, and about 23 percent of children under five years of age were stunted in 2011. Underlying causes of undernutrition include poverty, high disease burden and lack of access to deworming medication, lack of adequate child feeding practices at key stages of development and poor sanitation facilities. Inadequate access to sanitation facilities is a major cause of waterborne chronic diseases, acute infections and infant or child mortality. Despite considerable improvement in access to safe water sources over the past three decades, access to adequate sanitation facilities is still very poor.

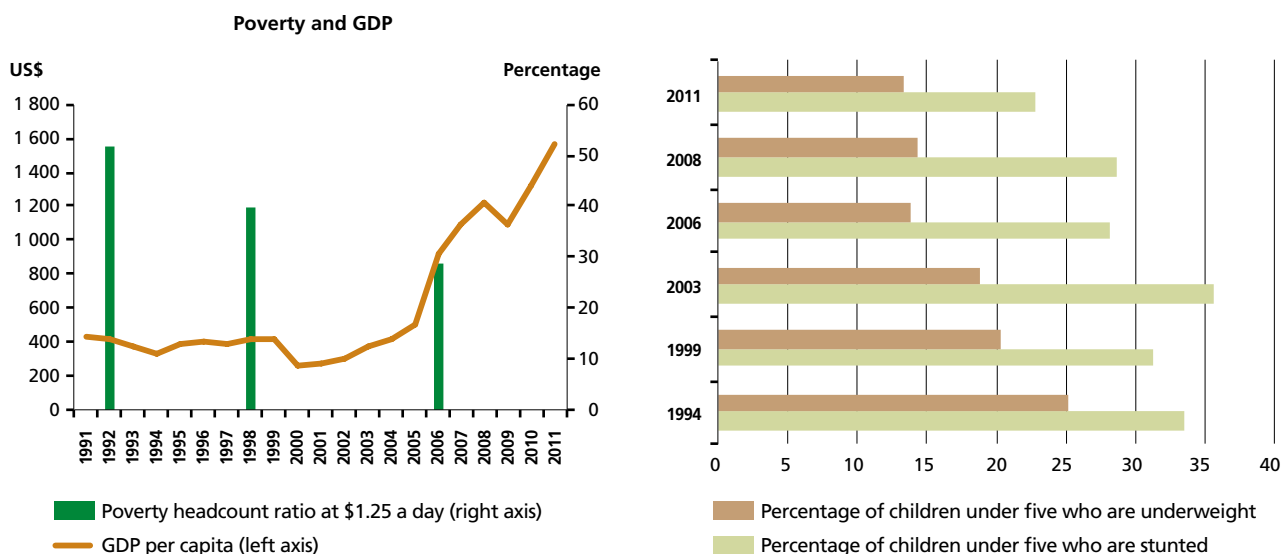
Considerable differences still exist in poverty and nutrition at the regional level. Overall, rural people are up to four times more likely to live below the poverty line than are people in urban areas. The prevalence of poverty is the highest in the Northern, Upper East and Upper West regions, which are characterized agro-ecologically as rural savannah.¹⁹

These disparities are reflected in diets. People from worse-off areas consume a diet that is much less diverse and contains much less protein in the form of meat, fish, eggs or milk than do people in better-off areas.

The National Social Protection Strategy launched in 2007 is an integrated social protection framework that addresses the needs of vulnerable groups that have not benefited from economic growth. It targets policies to the extreme poor and highly vulnerable, notably through its main programme, Livelihood Empowerment Against Poverty, a conditional cash transfer programme.²⁰

FIGURE 22

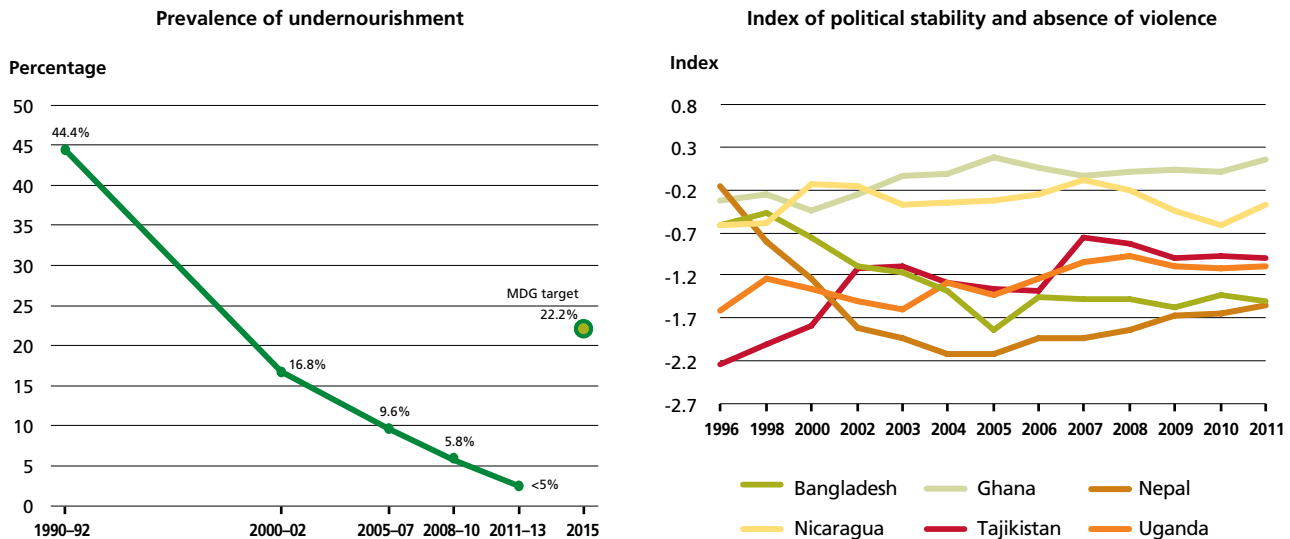
Ghana's GDP has increased rapidly and poverty has declined, but less progress has been made in reducing undernutrition



Note: Poverty threshold denominated in 2005 international prices. Sources: World Development Indicators, 2012 (left); WHO, and Ministry of Health (Ghana), 2013, *National Multiple Indicator Cluster Survey*, 2011 (right).

FIGURE 23

Peace and political stability contributed to Ghana achieving its 2015 MDG hunger target by 2000–02



Note: For the definition of political stability and absence of violence, see the Food Security Indicators available at <http://www.fao.org/economic/ess/ess-fs/fs-data/en/>. Sources: FAO (left) and Brookings Institution, World Bank Development Research Group and World Bank Institute (right).



Nepal: Political stability is necessary to make progress sustainable and more evenly distributed

Nepal has made great strides in its fight against hunger since 1990–92, with the prevalence of undernourishment declining from 25.4 percent in 1990–92 to 16.0 percent in 2011–13. If it continues to progress at this rate, it will reach the MDG target on hunger by 2015 (Figure 24). This progress is all the more remarkable given the civil strife from the mid-1990s to 2006, the weakness of the country's infrastructure and the relatively low state of development of agriculture. In spite of progress in the fight against hunger, however, undernutrition is still widespread. The prevalences of underweight and stunting in children are among the highest in the world. Between 1995 and 2011, the prevalence of underweight in children declined from 44 to 29 percent, while the prevalence of stunting declined from 64 to 40 percent (Figure 24). Combating undernutrition poses great challenges for both short-term (e.g. implementation of safety nets) and long-term (e.g. structural development) policy measures.

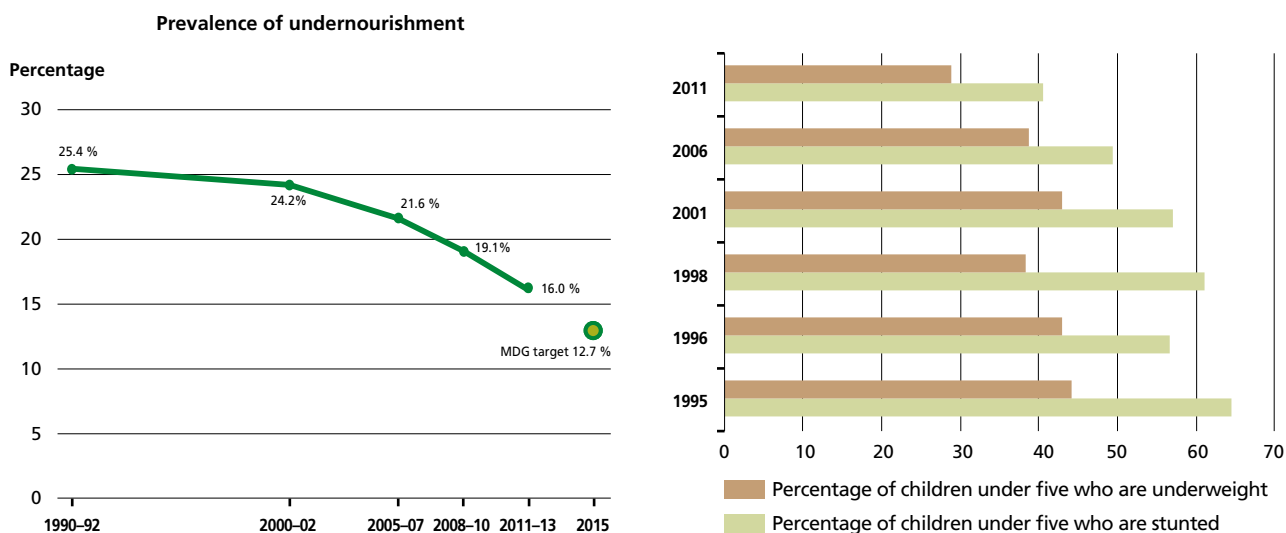
Nepal is a predominantly mountainous country with poor transport, communication and power infrastructure.

Agriculture, the mainstay of its economy, is hindered by relatively low productivity as compared with other countries in the region, and by a limited land resource base. Lack of roads, inadequate capital, insufficient access to output and input markets and poor access to affordable credit hinder the adoption of modern and productive farming technologies, resulting in producers relying on traditional agriculture.

Although policies have been in place to promote agricultural research, technology adoption and infrastructure development, their impact was diluted by both the years of conflict and the prolonged political transition that followed (see Figure 23), both of which resulted in a decline in the effectiveness of some institutions and programmes. Nevertheless, the average dietary energy supply in the country has been adequate to meet the food requirements of the population (Figure 25), partly as a result of modest increases in food production since 1990–92 (the value of food production per capita has increased by 12 percent) and partly because of increased food imports.

FIGURE 24

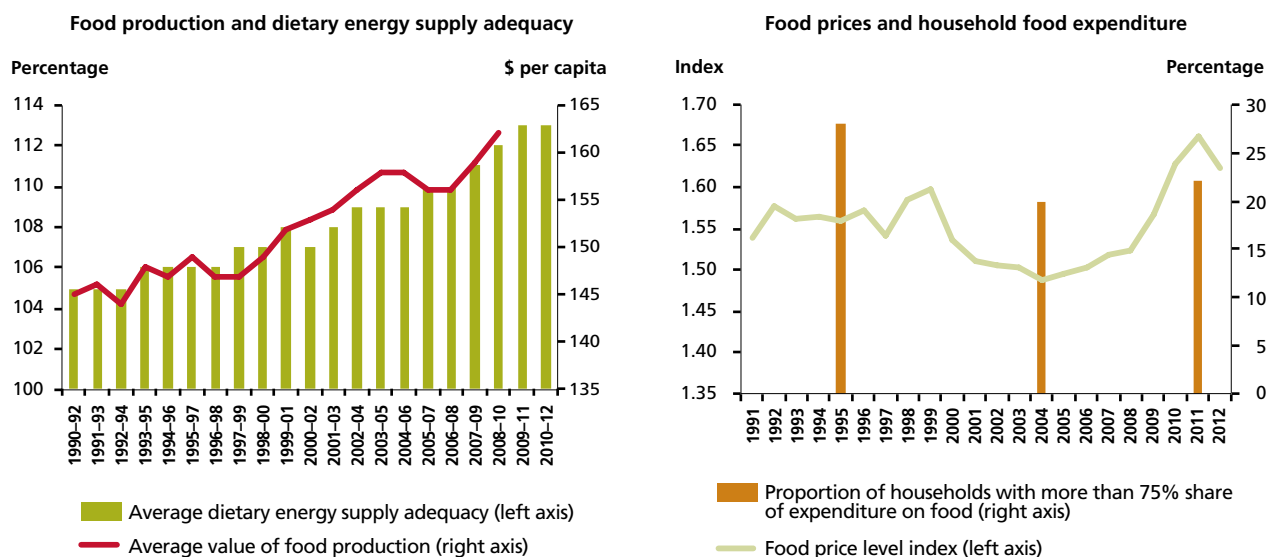
Nepal has made good progress in its fight against hunger, and is on track to meet the MDG hunger target by 2015



Sources: FAO (left); WHO, and Ministry of Health and Population of Nepal, 2012 (right).

FIGURE 25

Nepal has maintained and even slightly increased food availability per person since 1990-92, although food production has increased only slightly



Note: Average value of food production denominated in 2004-06 international prices. Sources: FAO (left); National Planning Commission and Central Bureau of Statistics, 2013 (right).

Given that there is enough food in the country, undernourishment is mainly caused by problems in economic access. At the national level, Nepal has met the MDG poverty target, having reduced extreme poverty rates from 68 percent in 1996 to 25 percent in 2010. Nevertheless, the country is still one of the poorest in the world.

However, reduction in poverty, and therefore hunger, in Nepal is not so much the result of the development of Nepal's economy but of a large increase in remittances from migrant workers; in 2011-12 these amounted to 23 percent of GDP.²¹ While remittance income has helped significantly reduce poverty and food insecurity, the

migration on which it is based has adversely affected agricultural productivity, as those who out-migrate are usually the male members of farm families. Women are left to do all the farm management and labour on their own. It is estimated that around 30 percent of the poor are in female-headed households, most of them engaged in agriculture. Given this important role of women in food production, policies should be put in place to enable them to enhance productivity and to encourage efficient use of remittances for investment.

Progress in the fight against poverty and hunger has been extremely uneven across the country. For example, in 2010 the incidence of poverty ranged from 9 percent of the urban population in the Hills region to 42 percent of the rural population in the Mountains region.²² Economic and physical constraints to access to food render many households unable to acquire enough food to meet their minimum needs. Physical constraints are significant. Nepal has few roads, and most of these are of poor quality: the country's road density in 2008 was about 13.5 kilometres per 100 square kilometres of land area, as compared with an average of 72 kilometres per 100 square kilometres in Southern Asia as a whole. In remote areas there are few markets and commodity prices are high because of high

transportation costs. For example, rice in difficult-to-access regions can cost three times as much as in Terai, a region bordering India and the most productive agricultural zone in the country.²³

Food security varies across the country. In the Mountains region, staples provide more than 75 percent of calories in 60 percent of households, compared with only 13 percent of households in urban Kathmandu. Lack of diversity in diets results in undernutrition being prevalent even among children younger than six months of age, suggesting that poor nutrition constrains growth even before birth. Indeed, maternal undernutrition is a serious problem in Nepal: 35 percent of women of reproductive age and 46 percent of children are anaemic.²⁴

With food prices in the country increasing since 2004, poor and food-insecure households have become more and more food-insecure as high food prices have put increasing stress on family budgets. On average, households in Nepal spend 60 percent of their income on food; poor and very poor households spend an even larger proportion on food. Almost a quarter of the population, mostly rural, allocates more than 75 percent of their budget to food, making them extremely vulnerable to price spikes such as those experienced since 2008.



Nicaragua: Economic and political stability and sound policies addressing smallholders and the vulnerable pay off

Since the early 1990s, the adequacy of average dietary energy supply has increased steadily in Nicaragua while the prevalence of undernourishment fell from 55 percent in 1990–92 to less than 22 percent in 2011–13 (Figure 26). Nicaragua achieved the 2015 MDG hunger target between 2000–02 and 2005–07. However, this is no reason for complacency as the current prevalence of undernourishment is still a high 22 percent.

Much of this progress is the result of the period of economic and political stability experienced after several years of political and economic turmoil in the 1980s and a succession of costly natural disasters. This stability allowed the government to shift the focus from short-term emergency relief to long-term development and poverty-targeting plans.

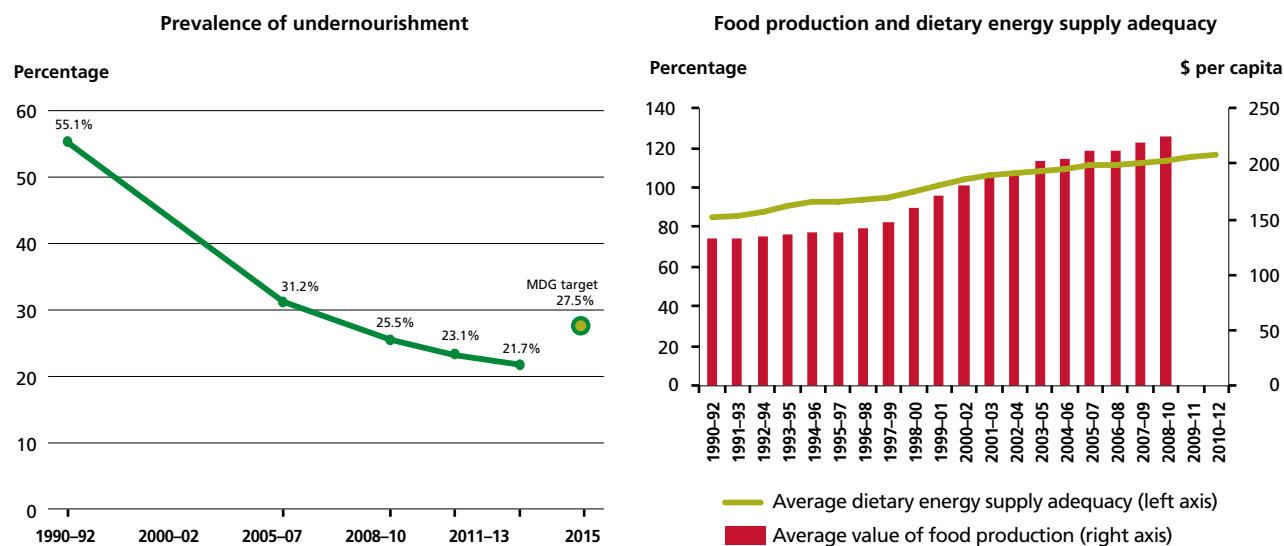
Well-targeted policies, diversified food production, increased access to new international markets through

participation in the Central America Free Trade Agreement and, at least for some periods, beneficial terms of trade partially cushioned the effects of the natural disasters and allowed the agriculture sector to start developing. The per capita value of food production has increased by 68 percent since 1990–92, bringing dietary energy supply adequacy above 100 percent by the beginning of the new millennium (Figure 26). Increased supplies of beans and vegetables have raised the daily average protein supply from 46 grams per capita in 1990–92 to 65 grams per capita in 2007–09.

Most of Nicaragua's agriculture is small scale, labour intensive and characterized by constraints in raising its productivity. The proportion of arable land equipped for irrigation remains extremely low (3.2 percent in 2007–09) and adoption of more modern productive technologies is hampered by low incomes, low educational levels and

FIGURE 26

Nicaragua achieved its MDG hunger target before 2005–07 and achieved dietary energy sufficiency around year 2000



Note: Average value of food production denominated in 2004–06 international prices. Source: FAO.

limited access to credit. In an effort to overcome these constraints, the government has developed programmes such as the Agro-seeds Programme which promotes technology transfer and the Productive Food Programme which has given about 75 000 poor rural households access to land and other productive assets, such as animals, seeds and fertilizer.²⁵

Economic growth since the early 1990s has been insufficient to reduce poverty levels substantially, but some progress was registered after 2005 thanks to higher growth rates and an improved distribution of income.²⁶ In 2005, 32 percent of the population still lived on \$2 a day or less (Figure 27). Poverty rates differed markedly between regions and were up to four times as high in rural areas as in urban areas. The proportion of people living in extreme poverty (\$1.25 per day or less) declined from 18 percent in 1993 to 12 percent in 2005. If this rate of decline continues, the country is on track to meet the MDG target of halving the prevalence of extreme poverty by 2015. Despite the widespread poverty, the enhancement of agricultural productivity, especially that of smallholder farmers, and the resultant increase in the availability of food has contributed significantly to reducing the prevalence of hunger. Article 69 of Nicaragua’s Constitution makes explicit provisions for the right of people to be protected against hunger and the role of the state to promote availability of food and equitable access to it. In 2009, Parliament passed a Food and Nutrition Security and Sovereignty Law, establishing the institutional and governance framework for food security and nutrition in order to protect and guarantee people’s right to adequate food, define the mechanisms for intersectoral and

multistakeholder coordination and the main policy areas to be addressed.²⁷

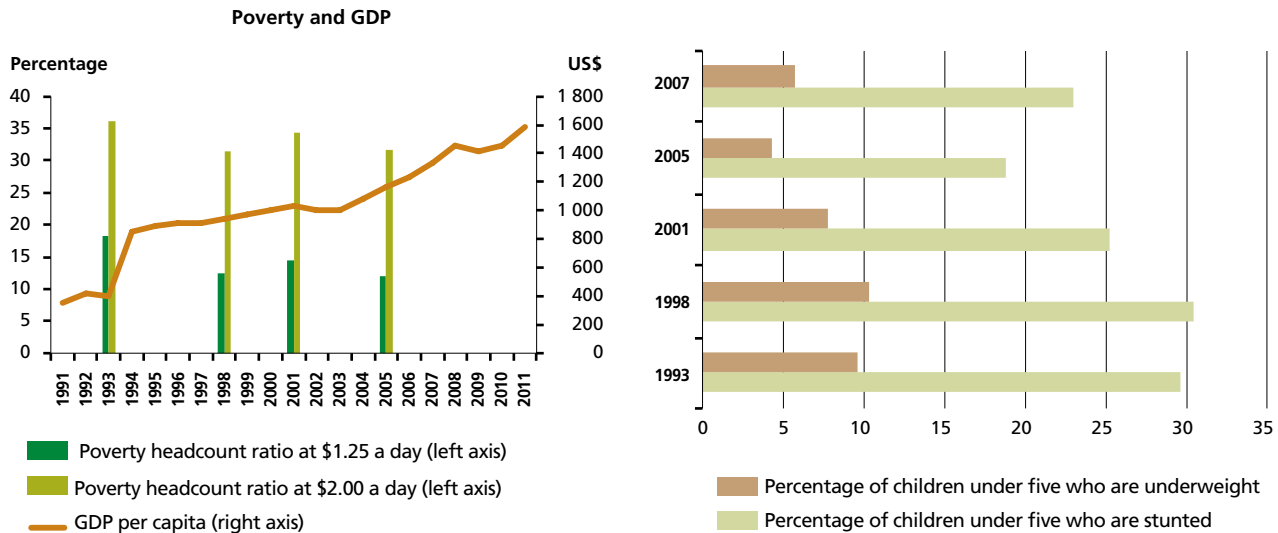
Prevalence of undernutrition has declined since 1990 but 23 percent of children under five years old were recorded as stunted in 2007, albeit down from nearly 30 percent in 1993 (Figure 27).

Marked differences are observed in nutritional levels depending on income group and geographic location, reflecting variations in access to antenatal and child care and to adequate sanitation. The government has put in place a number of programmes to address these problems, such as the *Red de Protección Social*. This conditional cash transfer programme implemented from 2000 to 2006 resulted in a five percentage point decline in stunting in under-fives after just two years of implementation.²⁸

Nicaragua’s geographical position and geomorphology make it especially vulnerable to natural disasters. Over the last 30 years, storms, floods and other disasters have killed more than 4 000 people and caused much economic loss. Poor farming households, most of which are reliant on rainfed agriculture, are particularly vulnerable to disasters and unpredictable weather. Lessons have been learned, however, and disasters in the 2000s have caused much less economic damage than those in the 1980s or 1990s. Nicaragua’s comprehensive and multisectoral approach to disaster risk management includes programmes that help households cope with the immediate effects of disasters, but also offer them the option to be involved in new and more economically rewarding opportunities that have long-term impact on their earnings and increase their resilience to weather shocks.²⁹

FIGURE 27

Nicaragua's GDP has increased steadily since 1993 and prevalence of poverty and undernutrition have declined



Note: Poverty thresholds denominated in 2005 international prices.
Sources: World Development Indicators, 2012 (left); WHO (right).



Tajikistan: Structural changes in agriculture are needed to create resilience against external shocks and programmes are needed to ensure adequate diets for the vulnerable

During the 1990s, Tajikistan, a landlocked country in Central Asia, experienced a difficult transition from a centrally-planned to a market economy and a civil war from 1992 to 1997, resulting in little progress in reducing poverty and hunger (Figure 28). However, the economy grew by up to 9 percent per year between 2000 and 2008 as a result of improved policies, public investment, donor assistance, a favourable external environment, with high world prices for the country's main exports (cotton and aluminium), and increasing remittances from migrants. Nevertheless, Tajikistan remains one of the poorest countries in the region, with GDP per capita only recently recovering to a level comparable with pre-war levels in real terms.

Although progress in reducing undernourishment since the early 2000s has been good, almost one in three people is still chronically undernourished according to the most recent

estimate. Since 1999, the percentage of children who are stunted has declined only marginally, reflecting sustained periods of undernutrition (Figure 28). The country's main challenges remain addressing long-term agricultural development needs, and achieving the high and sustainable levels of economic growth necessary to reduce poverty and hunger.

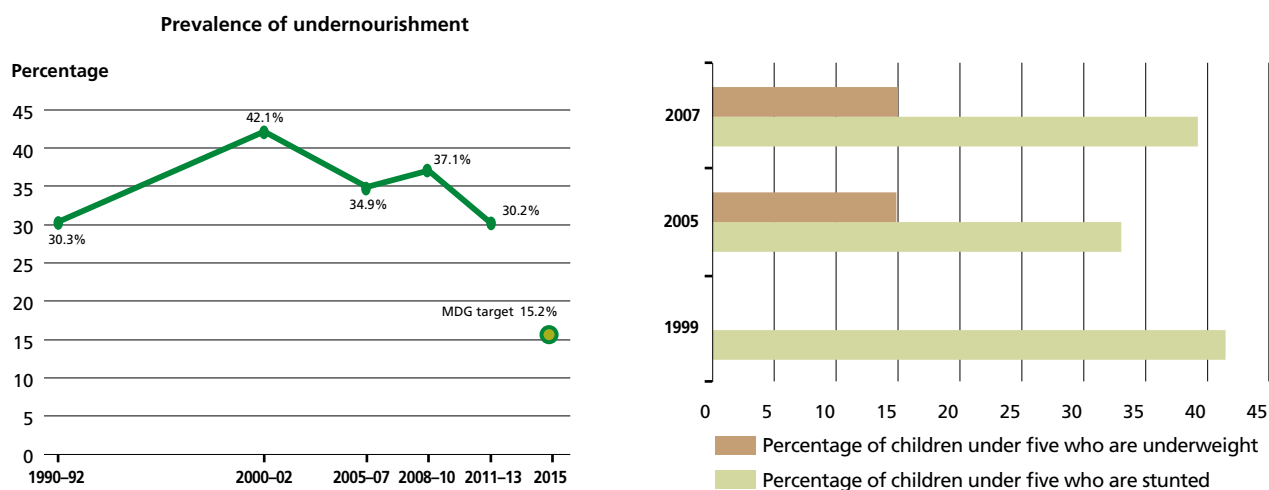
During the 1990s, agricultural production was severely affected by the civil war and the dismantling of the centrally-planned economy, but since the early 2000s it has increased by nearly 6 percent per year. Most of the increase was the result of productivity gains in the private farm sector and on household plots, which together account for some 82 percent of agricultural land in Tajikistan (59 percent on private farms and 23 percent on household plots).³⁰ By 2006, family-run household plots were producing 50 percent of the country's crops and 94 percent of its aggregate livestock output.

Delays in reforming the agriculture sector and lack of clarity concerning property rights weakened incentives for farmers to invest and increase agricultural productivity. Currently, the reform process is being deepened by shifting local authorities' functions away from intervening in farm activities and production decisions and towards helping farmers to respond to price signals through the provision of information, training and development of agricultural input markets and rural finance.³¹

Vigorous and sustained economic growth since 2000 has led to a fivefold increase in GDP per capita (albeit from an extremely low base of US\$178 in 1999). This, together with large increases in remittances over the same period, resulted in a large decline in extreme poverty, from over half of the population in 1999 to about 6.5 percent in 2009 (Figure 29). Progress in poverty reduction is, however, very uneven over the various regions within the country. Partly as a result of

FIGURE 28

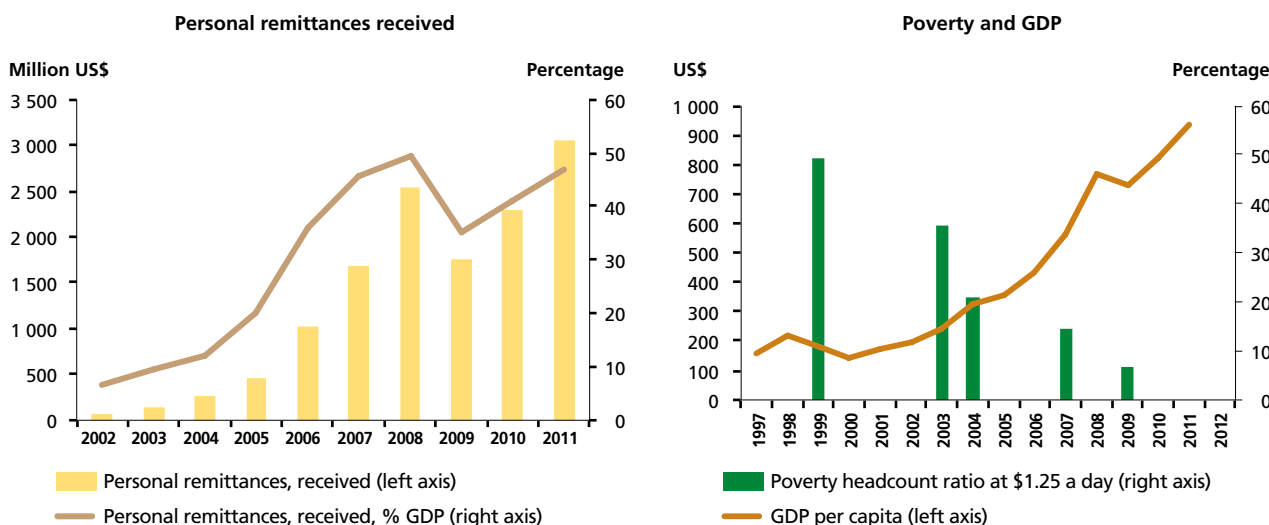
Tajikistan has made little progress in reducing prevalence of undernourishment and underweight



Sources: FAO (left); WHO (right).

FIGURE 29

Tajikistan's GDP has grown rapidly since 2000, with a rapid decline in the proportion of people living in extreme poverty. Remittances also increased rapidly over the same period



Note: Poverty threshold denominated in 2005 international prices.
Source: World Development Indicators, 2012.

incomplete land reform, high rates of poverty still prevail in rural areas; in several regions about half of the people were still poor in 2009 and more than 15 percent lived below the extreme poverty threshold, with limited access to nutritious food.³²

Poor transport infrastructure, especially in mountainous regions, limits access to nutritious food in many parts of the country. Poor children derive about 60 percent of their calorie intake from bread and flour products and 16 percent from fats and oils, with meat and vegetables providing a mere 2 percent and 6 percent, respectively. Lack of dietary diversity results in widespread vitamin and mineral deficiencies; these can have serious and long-lasting consequences for individual welfare and for the country's socio-economic development.

As a result of the low productivity of its agriculture, Tajikistan depends heavily on food imports. According to the

most recent estimate, the country imports about half of the cereals it consumes, and the cost of food imports is absorbing a gradually increasing share of total merchandise export revenue. The global economic recession that followed the food price surge in 2007–08 resulted in a temporary but significant decline in the inflow of remittances, which accounted for nearly half of Tajikistan's GDP in 2008, and a fall in export earnings from cotton and aluminium, the country's two main exports. The resultant decrease in both national and household income seriously hampered progress towards poverty reduction and food security (Figure 29). Remittances have since increased again, reaching 50 percent of GDP in 2011, sustaining the fight against poverty and hunger. However, this underlines the country's vulnerability to external shocks.



Uganda: Sluggish growth in agricultural productivity results in setbacks

Since the early 2000s, the prevalence of undernourishment in Uganda has been increasing and the country is unlikely to achieve the MDG hunger target by 2015 (Figure 30). The upward trend in the prevalence of undernourishment is the result of growth in food production failing to keep up with population growth, which, with an annual rate of more than 3.2 percent, is among the highest in the world.

Food production per capita has been declining since 2002–04 (Figure 30).³³ Dietary energy supply, which includes the energy supplied by imported food, has also declined since 2003–05, but remains – on average – adequate to meet the energy requirements of the population. However, unequal distribution and access to food mean that almost one-third of the population remains chronically undernourished.

The low productivity growth in Ugandan agriculture is, at least partly, the result of the limited use of modern technology and inputs. Given the country's high population density – 173 people per square kilometre – intensive methods of farming are becoming increasingly necessary. To tackle this challenge the government has initiated a number of policies aimed at facilitating the adoption of modern technologies by smallholder farmers. For example, the National Agricultural Advisory Services programme, a public–private approach to extension service delivery, has been successful in promoting adoption of improved varieties of crops and some other yield-enhancing technologies.³⁴

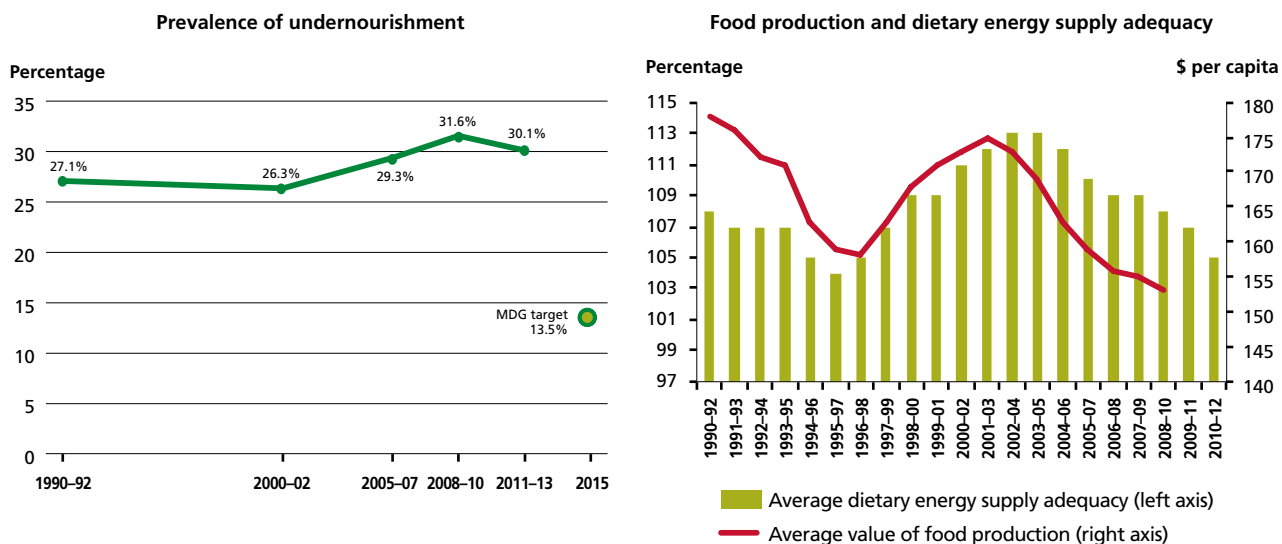
Under the Comprehensive Africa Agriculture Development Programme, the Government of Uganda has committed itself to increasing public spending on agriculture to 10 percent of the national budget. In 2010–11, however, government spending on agriculture amounted to only 5 percent, down from 7.6 percent in the previous year.³⁵ If Uganda is to realize its agricultural potential, the government must provide public goods such as extension services and irrigation, transport and communication infrastructure to allow smallholder farmers, who account for over 95 percent of all farms, to increase their productivity. Increasing agricultural productivity will not only contribute towards increased food security, but will also allow the country to produce a surplus, particularly of cereals, for export to food-deficit regions in Africa.

Per capita food production is much more variable in Uganda than the average for sub-Saharan Africa, largely because of limited use of irrigation (Figure 31). With less than 1 percent of the land being irrigated, Ugandan agriculture relies almost exclusively on rainfed production. Crop yields, and therefore prices, reflect fluctuations in rainfall.

Over the last decade, the country has seen an increase in the variability of rainfall and a higher frequency of extreme climate events. For example, the 2010–11 rainfall deficits caused an estimated loss of US\$1.2 billion or 7.5 percent of the country's GDP. In the north-eastern Karamoja region, consecutive years of poor weather conditions and below-

FIGURE 30

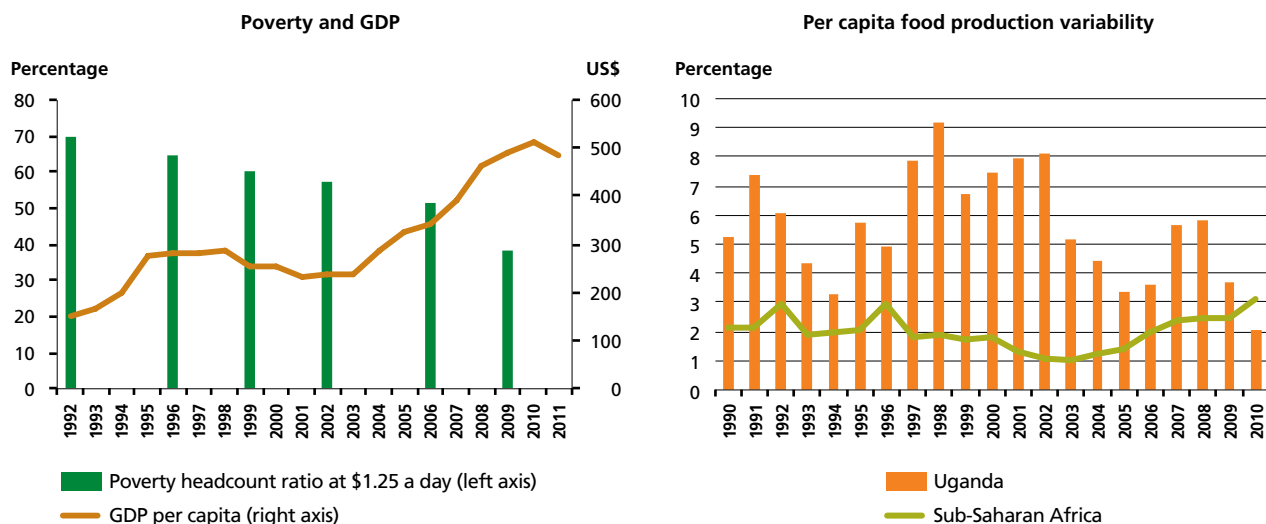
Prevalence of undernourishment in Uganda has increased since 2000–02, and food production per person is declining, as is adequacy of dietary energy supply



Note: Average value of food production denominated in 2004–06 international prices. Source: FAO.

FIGURE 31

GDP is increasing in Uganda and the country is on track to meet the MDG poverty target by 2015, but per capita food production is highly variable



Notes: Poverty threshold denominated in 2005 international prices. For the definition of per capita food production variability, see the Food Security Indicators available at <http://www.fao.org/economic/ess/fs/fs-data/en/>. Sources: World Development Indicators, 2012, and Uganda Bureau of Statistics (left); FAO (right).

normal rainfall have had a strong and adverse impact on food security due to crop failure and low livestock productivity.³⁶

Although the country is on track to meet the MDG target of halving the proportion of people in extreme poverty, 38 percent of the population was still living on \$1.25 a day or less in 2009 (Figure 31).

Food insecurity is more prevalent in rural areas than in urban areas and considerable differences are observed across the country. Since 1997, government expenditure on health care has increased, with more people, especially the poorest, using government health centres.³⁷ Better health care and child care practices, together with reductions in poverty and

improvements in water and sanitation under the government's Poverty Eradication Action Plan, have contributed towards improved nutrition in recent years.³⁸ The percentage of stunted children declined from 44.8 percent in 2001 to 33.4 percent in 2011, and the prevalence of underweight children decreased from 21.5 percent in 1995 to 13.8 percent in 2011.

Regional differences in nutrition outcomes are significant. Across regions, high rates of poverty and poor access to clean water and sanitation are reflected in high undernutrition rates; in Karamoja, for example, in 2011, 32 percent of children under five years of age were underweight, compared with only 6 percent in Kampala, the country's capital.



Key messages

- Policies aimed at enhancing agricultural productivity and increasing food availability, especially when smallholders are targeted, can achieve hunger reduction even where poverty is widespread. When they are combined with social protection and other measures that increase the incomes of poor families to buy food, they can have an even more positive impact and spur rural development, by creating vibrant markets and employment opportunities, making possible equitable economic growth.**
- Remittances, which have globally become three times larger than official development assistance, have had significant impacts on poverty and food security. This report suggests that remittances can help to reduce poverty, leading to reduced hunger, better diets and, given appropriate policies, increased on-farm investment.**
- Long-term commitment to mainstreaming food security and nutrition in public policies and programmes is key to hunger reduction. Keeping food security and agriculture high on the development agenda, through comprehensive reforms, improvements in the investment climate, supported by sustained social protection, is crucial for achieving major reductions in poverty and undernourishment.**