

# The State of Food Insecurity in the World 2005

## Eradicating world hunger – key to achieving the Millennium Development Goals



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Other members of the core technical team in the ES Department were: Kostas Stamoulis, Agricultural and Development Economics Division; Ali Arslan Gurkan, Commodities and Trade Division; Jorge Mernies, Statistics Division. The following FAO staff provided technical contributions: Josef Schmidhuber, Global Perspective Studies Unit (ES); Jakob Skoet, Office of the Assistant Director-General (ES); Haluk Kasnakoglu, Ricardo Sibrian, Amanda Gordon, Cinzia Cerri and Seevalingum Ramasawmy, Statistics Division (ES); Gero Carletto, Marcella Vigneri and Carlo Azzarri, Agricultural and Development Economics Division (ES); Gina Kennedy and Frank Martinez-Nocito, Food and Nutrition Division (ES); Mark Smulders, FIVIMS Coordination Unit (ES); Alexander Sarris, Henri Josserand and Harmon Thomas, Commodities and Trade Division (ES); Marcela Villareal, Gabriel Rugalema and Yianna Lambrou, Gender and Population Division (Sustainable Development Department [SD]); Lavinia Gasperini, Mirella Salvatore and Jeff Tschirley, Research, Extension and Training Division (SD).

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# The State of **Food Insecurity in the World** 2005

## Eradicating world hunger – key to achieving the Millennium Development Goals



## About this report

s the international community reviews progress towards the Millennium Development Goals (MDGs) and prepares for the mid-term review of the World Food Summit (WFS), *The State of Food Insecurity in the World 2005* focuses on the critical importance of reducing hunger, both as the explicit target of the WFS and MDG 1 and as

an essential condition for achieving the other MDGs.

The first section of the report analyses long-term trends in reducing undernourishment and explores the impact of economic growth, governance and natural disasters.

The second section examines each of the MDGs separately,

highlighting ways that hunger holds back development and hunger reduction could accelerate progress.

Tables (pp. 30–35) provide: FAO's latest estimates of undernourishment and of progress towards the WFS and MDG targets for reducing hunger; and key indicators for the other MDGs.

MD	lGs	Selected targets	Links to reducing hunger
1	Eradicate extreme poverty and hunger	<ul> <li>Halve, between 1990 and 2015, the proportion of people whose income is less than US\$1 a day</li> <li>Halve, between 1990 and 2015, the proportion of people who suffer from hunger</li> </ul>	<ul> <li>Hunger perpetuates poverty by reducing productivity</li> <li>Poverty prevents people from producing or acquiring the food they need</li> </ul>
2	Achieve universal primary education	• Ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling	<ul> <li>Hunger reduces school attendance and impairs learning capacity</li> <li>Lack of education reduces earning capacity and increases the risk of hunger</li> </ul>
3	Promote gender equality and empower women	• Eliminate gender disparity in primary and secondary education, preferably by 2005, and in all levels of education no later than 2015	<ul> <li>Hunger reduces school attendance more for girls than for boys</li> <li>Gender inequality perpetuates the cycle in which undernourished women give birth to low-birth weight children</li> </ul>
4	Reduce child mortality	<ul> <li>Reduce by two-thirds, between 1990 and 2015, the under-five mortality rate</li> </ul>	<ul> <li>More than half of all child deaths are caused directly or indirectly by hunger and malnutrition</li> </ul>
5	Improve maternal health	<ul> <li>Reduce by three-quarters, between 1990 and 2015, the maternal mortality ratio</li> </ul>	<ul> <li>Undernourishment and micronutrient deficiencies greatly increase the risk of maternal death</li> </ul>
6	Combat HIV/AIDS, malaria and other diseases	<ul> <li>Have halted, by 2015, and begun to reverse the spread of HIV/AIDS</li> <li>Have halted, by 2015, and begun to reverse the incidence of malaria and other major diseases</li> </ul>	<ul> <li>Hunger spurs risky behaviour that accelerates the spread of HIV/AIDS</li> <li>Undernourished children are more than twice as likely to die of malaria</li> </ul>
7	Ensure environmental sustainability	<ul> <li>Integrate the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources</li> <li>Halve the proportion of people without sustainable access to safe drinking water and basic sanitation</li> </ul>	<ul> <li>Hunger leads to unsustainable use of resources</li> <li>Restoring and improving ecosystem functions are key to reducing hunger among the rural poor</li> </ul>
8	Develop a global partnership for development	<ul> <li>Develop further an open, rule-based, predictable, non-discriminatory trading and financial system</li> <li>Address the special needs of the least developed countries</li> <li>Deal comprehensively with the debt problems of developing countries</li> </ul>	<ul> <li>Subsidies and tariffs in developed countries hamper hunger-reducing rural and agricultural development</li> </ul>

## The Millennium Development Goals and links to reducing hunger



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## Foreword

# Towards the World Food Summit and Millennium Development Goal targets: food comes first

"We pledge our political will and our common and national commitment to achieving food security for all and to an ongoing effort to eradicate hunger in all countries, with an immediate view to reducing the number of undernourished people to half their present level no later than 2015." [Rome Declaration, 1996]

"We will spare no effort to free our fellow men, women and children from the abject and dehumanizing conditions of extreme poverty ...". (Millennium Declaration, 2000)

nly ten years now remain before the 2015 deadline by which world leaders have pledged to reduce hunger and extreme poverty by half and to make substantial gains in education, health, social equity, environmental sustainability and international solidarity. Without stronger commitment and more rapid progress, most of those goals will not be met.

If each of the developing regions continues to reduce hunger at the current pace, only South America and the Caribbean will reach the Millennium Development Goal (MDG) target of cutting the proportion of hungry people by half. None will reach the more ambitious World Food Summit (WFS) goal of halving the number of hungry people.

Progress towards the other MDG targets has also lagged, particularly in the countries and regions where efforts to reduce hunger have stalled, as the accompanying graph clearly illustrates.

Most, if not all, of the WFS and MDG targets can still be reached. But only if efforts are redoubled and refocused. And only by recognizing and acting on two key points:

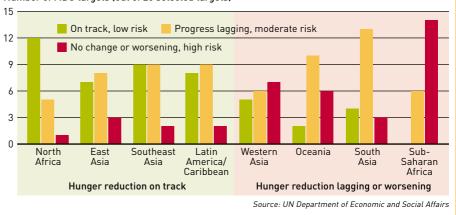
- without rapid progress in reducing hunger, achieving all of the other MDGs will be difficult, if not impossible; and
- 2. the fight to eliminate hunger and reach the other MDGs will be won or lost in the rural areas where the vast majority of the world's hungry people live.

## Food comes first

As this report documents, hunger and malnutrition are major causes of the deprivation and suffering targeted by all of the other MDGs (see diagram, facing page):

- Hungry children start school later, if at all, drop out sooner and learn less while they do attend, stalling progress towards universal primary and secondary education (MDG 2).
- Poor nutrition for women is one of the most damaging outcomes of gender inequality. It undermines women's health, stunts their opportunities for education and employment and impedes progress towards gender equality and empowerment of women (MDG 3).

- As the underlying cause of more than half of all child deaths, hunger and malnutrition are the greatest obstacle to reducing child mortality (MDG 4).
- Hunger and malnutrition increase both the incidence and the fatality rate of conditions that cause a majority of maternal deaths during pregnancy and childbirth (MDG 5).
- Hunger and poverty compromise people's immune systems, force them to adopt risky survival strategies, and greatly increase the risk of infection and death from HIV/AIDS, malaria and other infectious diseases (MDG 6).
- Under the burden of chronic poverty and hunger, livestock herders, subsistence farmers, forest dwellers and fisherfolk may use their natural environment in unsustainable ways, leading to further deterioration of their livelihood conditions. Empowering the poor and hungry as custodians of land, waters, forests and biodiversity can advance both food security and environmental sustainability (MDG 7).



## Progress towards the MDG targets by subregion

Number of MDG targets (out of 20 selected targets)

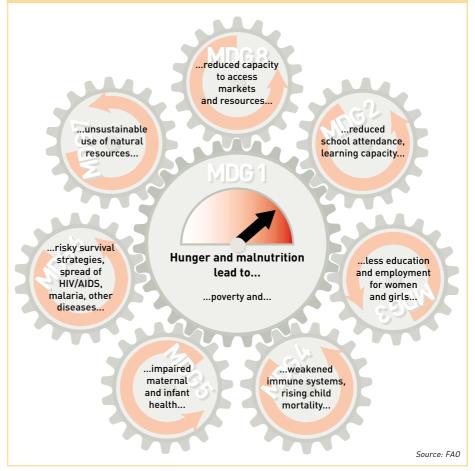


## Giving priority to rural areas

Given the importance of hunger as a cause of poverty, illiteracy, disease and mortality, given the fact that 75 percent of the world's hungry people live in rural areas, it is hardly surprising that these same rural areas are home to the vast majority of the 121 million children who do not attend school, of the nearly 11 million children who die before reaching the age of five, of the 530 000 women who die during pregnancy and childbirth, of the 300 million cases of acute malaria and more than 1 million malaria deaths each year. Clearly, to bring these numbers down, to reach the MDG targets, priority must be given to rural areas and to agriculture as the mainstay of rural livelihoods, through sustainable and secure systems of production that provide employment and income to the poor, thus improving their access to food.

Yet, in recent decades, agriculture and rural development have lost ground on the development agenda. Over the past 20 years, resources for these sectors have declined by more than 50 percent. That must change. And we can be encouraged by signs that it is indeed changing, that both national governments and international donors are recognizing the critical importance of rural areas as the location and agriculture as the engine for reaching the MDGs.

After years of dwindling support to agriculture, the countries of the African Union have committed themselves to increasing the share of their national budgets allocated to agriculture and rural development to 10 percent within five years. The Commission for Africa has emphasized that "agriculture is key to Africa". The United Nations Millennium Project has stated that Running in reverse: persistent hunger slows progress towards other Millennium Development Goals



"the global epicenter of extreme poverty is the smallholder farmer". If increased recognition leads to scaled-up action, the MDGs can still be reached.

For far too long, hunger and poverty have driven an infernal engine of deprivation and suffering (see diagram). The time and the opportunity have finally come to throw that engine into forward gear – to turn hunger reduction into the driving force for progress and hope, as improved nutrition fuels better health, increases school attendance, reduces child and maternal mortality, empowers women, lowers the incidence and mortality rates of HIV/AIDS, malaria and tuberculosis, and helps reverse the degradation of soil and water resources, the destruction of forests and the loss of biodiversity.

It can be done.

Jacques Diouf FAO Director-General

## **Undernourishment around the world**

# Counting the hungry: long-term trends in the developing world

oth the World Food Summit in 1996 and the Millennium Summit in 2000 set goals for reducing hunger by half between a baseline period (c. 1990) and the year 2015. The target date is drawing near, but the targets themselves are not.

Although significant progress has been made towards achieving the MDG target of halving the proportion of the population who are undernourished, the pace will need to be accelerated if the goal is to be reached by 2015.

Achieving the WFS goal of reducing the absolute number of hungry people from about 800 million to 400 million will prove more challenging, requiring much more rapid progress (see graphs, below). The world population is expected to grow by approximately two billion between the baseline period (1990–92) and 2015. So, even if the proportion of that larger population who are undernourished is reduced by half, nearly 600 million people in the developing world will still suffer from chronic hunger. To reach the WFS target of 400 million, the proportion of the population who are undernourished would need to be reduced not by half, but by twothirds.

#### Regional-level progress uneven

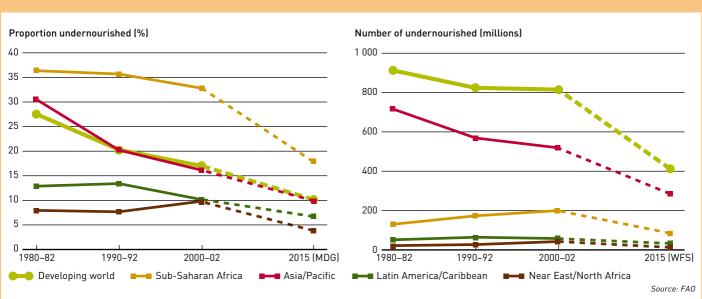
Among developing regions, only Latin America and the Caribbean has been reducing the prevalence of hunger quickly enough since 1990 to reach the MDG target by maintaining its current pace. The Asia–Pacific region also stands a good chance of reaching the MDG target if it can accelerate progress slightly over the next few years.

In the Near East and North Africa, on the other hand, the prevalence of hunger is low, but it is increasing, rather than decreasing. To reach the target, the region needs to reverse the rising trend experienced in the past decade.

In sub-Saharan Africa, the prevalence of undernourishment has been decreasing very slowly, although the speed of progress improved in the 1990s. The region will need to step up the pace dramatically to reach the MDG target.

Progress towards the WFS goal has been even slower and more uneven. Global gains in the 1980s were owed entirely to progress in Asia. In all other developing regions, the number of hungry people actually increased.

Since the WFS baseline period, progress has slowed significantly in Asia and stalled completely worldwide. Only Latin America and the Caribbean reversed the negative trend of the 1980s to register progress in the 1990s, although sub-Saharan Africa did succeed significantly in slowing the rise in the number of undernourished people.



## Long-term trends in the proportion and number of undernourished by region, 1980–82 to 2000–02



## Country progress towards the MDG target

To gauge progress towards achieving the MDG target at the national level, it is useful to look at the ratio of the prevalence of hunger in 2000–02 to the prevalence in the baseline period, 1990–92.

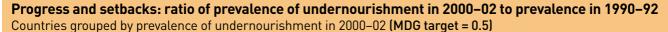
Hunger is not a problem in six developing countries where fewer than 2.5 percent of the population are undernourished. Another seven countries have already effectively reached the MDG target by reducing the proportion of hungry people in their population by at least half.

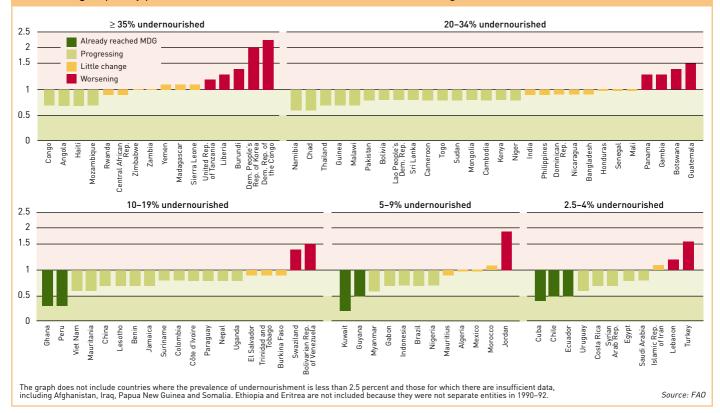
More than 40 other countries are making progress towards achieving the target, although many will need to step up the pace to reach it by 2015. 23 countries have seen little change, and in 14 countries the prevalence of hunger has been increasing.

To put these numbers in perspective, it is important to take account of levels of hunger in these countries. If countries are divided into groups based on the current prevalence of undernourishment, it becomes apparent that progress has been most difficult where hunger is most widespread.

Only 4 of the 16 countries where more than 35 percent of the population are undernourished are making progress towards achieving the MDG target. None has yet reached it. The prevalence of undernourishment is either increasing or effectively unchanged in the other 12 countries in this group, where hunger will remain a major problem even if the goal is reached.

Most of the countries in all other groups have succeeded in reducing hunger, including two-thirds of countries in the group where between 20 and 34 percent of the population are undernourished. None of the countries in this group has yet reached the target, however. At the other end of the spectrum, 15 of the 23 countries where fewer than 10 percent of the population are undernourished are making progress in reducing hunger, including five countries that have already reached the MDG target.





## **Undernourishment around the world**

## Economic growth and hunger reduction

ogic suggests, and ample evidence confirms, that sustained economic growth leading to increased productivity and prosperity at the national level will result in reduced hunger (see graph, below). That being the case, it is tempting to conclude that countries need only speed up economic growth to reach the hunger reduction targets of the MDGs and the WFS.

Cross-country analyses conducted across the developing world suggest, however, that economic growth alone, in the absence of specific measures to combat hunger, may leave large numbers of hungry people behind for a long time, particularly in rural areas. These analyses have also shown that economic growth has a far greater impact on hunger when it occurs in rural areas and in countries that have already created fertile conditions through rural and human resource development.

If rates of economic growth are compared for countries grouped

GDP in the 1990s and

undernourishment in 2000

prevalence of

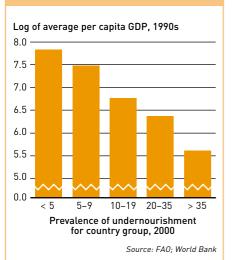
according to progress in reducing hunger, no clear pattern emerges (see graph). As might be expected, the group of countries where hunger increased during the 1990s also registered the worst economic performance. Far from growing, their per capita gross domestic product (GDP) shrank at an average rate of 1.4 percent per year. Every other group recorded gains.

Among these other groups, there is no evident correlation between the pace of economic growth and the rate of progress in reducing hunger. Paradoxically, the group that made the most rapid progress in reducing hunger registered relatively slow economic growth.

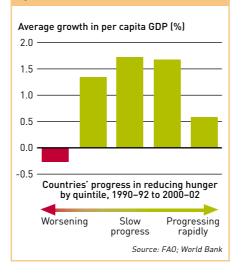
Similarly, if changes in GDP for individual countries during the 1990s are plotted against progress towards the MDG target of reducing the proportion of people who suffer from hunger by half, the trendline is almost flat (see graph). Examining changes over a longer period, however, reveals evidence that economic growth and hunger reduction are indeed related. If progress towards the MDG target is plotted for countries that registered positive economic growth during both the 1980s and 1990s, the trendline is clearly steeper, indicating a stronger correlation between the pace of economic growth maintained over a longer period and the rate of progress in reducing hunger.

This trend suggests that sustained growth may have a cumulative and stronger impact on hunger reduction. It could also be interpreted as evidence that the impact of economic growth on hunger only becomes evident over time. An FAO study found that it takes longer for economic growth to have an impact on hunger reduction than for improved nutrition to stimulate economic growth.

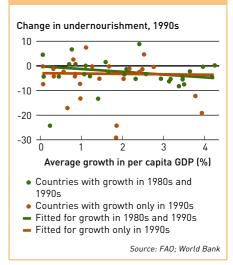
Certainly the relationship between economic growth and hunger reduction flows in both directions. An examination of the costs of hunger in The State of Food Insecurity in the



## GDP growth in the 1990s and hunger reduction by quintile



## Economic growth and hunger reduction





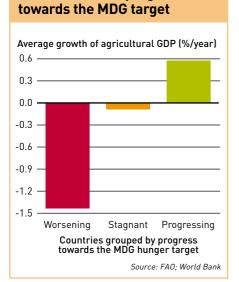
World 2004 concluded that the present discounted value of the loss of productivity over the lifetimes of people whose physical and cognitive capacities are impaired by low birth weight, protein-energy malnutrition and shortages of essential vitamins and minerals adds up to 5 to 10 percent of GDP in the developing world. Another FAO study analysed the relationship between nutrition intake and economic growth in Sri Lanka. It found that GDP growth responds quickly to improvements in nutrition, with a 1 percent increase in protein intake yielding a 0.49 percent increase in GDP in the long run.

## The key role of agricultural growth

Numerous studies have provided evidence that the impact of economic growth on reducing hunger and poverty depends as much on the nature of the growth as on its scale and speed. A World Bank analysis of data from India, for example, found that growth in rural

**Agricultural GDP growth** 

in the 1990s and progress



## Economic growth and the reduction of hunger in Botswana and Peru, 1990–2000

Both Botswana and Peru registered strong economic growth during the 1990s. But in terms of reducing the prevalence of hunger, the two countries parted ways. Peru reduced the prevalence of hunger by almost 70 percent to reach the MDG target 15 years ahead of schedule. In Botswana, on the other hand, the prevalence of hunger increased even as the national economy surged ahead.

Tellingly, the agricultural GDP in Peru grew even faster than the rest of the economy, fueled in part by diversification into value-added, non-traditional exports that boosted farm incomes and created processing jobs. The agricultural GDP in Botswana fell by almost 40 percent.

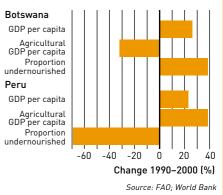
Many other factors contributed to the disparity between Botswana and Peru. Botswana has been hit extremely hard by

areas and in the agriculture sector had a much greater impact on reducing poverty than did urban and industrial growth.

Analysis of the relationship between growth and reductions in hunger reveals a similar pattern. If countries are grouped based on their success in reducing hunger during the 1990s, the group that made progress towards the MDG hunger reduction target was the only one where the agriculture sector grew (see graph).

Comparisons within and between countries yield further evidence that the composition of growth matters. In India, for example, the prevalence of hunger decreased sharply during the 1980s, while the agriculture sector thrived and the national economy stagnated. But progress in reducing hunger stalled during the second half of the 1990s, precisely the HIV/AIDS pandemic, for example, with more than 35 percent of the adult population infected. In Peru, the infection rate is less than 1 percent.

#### Economic growth and hunger reduction in Botswana and Peru in the 1990s



when the national GDP took off and agricultural growth stumbled. A similar link between agriculture sector growth and hunger reduction can be seen when comparing Botswana and Peru – countries that both boasted rapid growth in GDP in the 1990s, but with different impacts on hunger (see box).

These and other examples tend to support the conclusions that economic growth alone is important, but not sufficient to reduce hunger, and that growth in the agriculture sector of developing countries has a much greater impact in reducing hunger than do urban and industrial growth. Furthermore, progress also hinges on many other factors, including rates of HIV infection, trade openness and political stability, control of corruption and other features often grouped under the rubric of "governance" (see pages 10–11).

## **Undernourishment around the world**

## The role of governance in hunger reduction

nalysis of the impact of economic growth on hunger and poverty suggests that initial conditions make a big difference (see pages 8–9). Poverty falls significantly faster and farther when growth occurs in places where the political situation is stable, corruption is rare and farm productivity and literacy rates are high. Many of these favourable initial conditions can be regarded as indicators of what is often called "good governance".

Definitions and measures of governance vary considerably. The World Bank defines it as "the set of traditions and institutions by which authority in a country is exercised" and gathers more than 350 variables to compile six aggregate indicators.

Other development agencies, such as the International Food Policy Research Institute (IFPRI), have argued that good governance extends to providing essential "public goods", ranging from peace and security to roads and electricity in rural areas. Advocates of a "rights-based" approach to development maintain that good governance must also include support for essential human rights, including the right to food.

All three of these dimensions of governance are important to reducing hunger and achieving food security.

#### World Bank indicators

Economic analysis confirms that the World Bank's governance indicators can be used to differentiate, with considerable accuracy, between those developing countries that have achieved relatively low levels of hunger and those that have not. Using just four of the indicators – political stability, government effectiveness, rule of law and control of corruption – it is possible to differentiate accurately for twothirds of the countries, without referring to any other factors that are known to be important for hunger reduction, such as economic and agricultural growth (see pages 8–9), education levels and the degree of inequality in access to food.

These governance indicators are far less successful, however, in differentiating between countries that made progress in reducing hunger during the 1990s and those where the prevalence of undernourishment has remained unchanged or has increased (see graph).

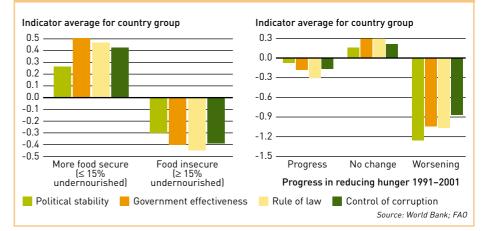
As might be expected, countries where food security deteriorated were also the least stable politically, had the weakest rule of law and had the most rampant corruption. Many were countries where conflict had shredded the political and legal fabric of governance. But these same governance indicators were also slightly negative for the group of countries that succeeded in decreasing undernourishment. As a group, only the countries where hunger remained unchanged scored positive marks on the World Bank governance indicators.

This analysis suggests that the absence of these aspects of good governance can be a major obstacle to hunger reduction but that achieving progress depends on many other factors.

#### Delivering essential public goods

Many of these other factors are included among the "public goods" cited by IFPRI as responsibilities and indicators of good governance. Internal peace, rule of law, rural infrastructure and agricultural research, for example, are all essential for increasing agricultural production and reducing hunger and poverty in the rural areas that are home to three-quarters of the world's hungry people.

When governments cannot preserve internal peace, violent conflict disrupts agricultural production and access to food. In Africa, per capita food production



## Governance indicators, food security and hunger reduction in the 1990s



has dropped by an average of 12.4 percent during times of conflict.

Weak rule of law also erodes agricultural productivity and food security by making land tenure and contracts precarious and investment unattractive. Failure to develop roads. electricity and communication links in rural areas makes it difficult and expensive for farmers to get their produce to market and to obtain fertilizer and other agricultural inputs.

Studies in China and India have identified building roads as "the single most effective public goods investment in terms of poverty reduction" (see graph). Evidence suggests that it has a similar impact on reducing hunger. When China introduced secure household land contracts and started investing heavily in rural infrastructure and agricultural research in the late 1970s, agricultural production soared and hunger fell rapidly. Over the next two decades, total grain output increased by 65 percent and the prevalence of hunger was reduced by almost two-thirds.

Tellingly, rural infrastructure tends to be least developed in countries and regions with the highest levels of hunger. Road density in Africa in the early 1990s, for example, was less than one-sixth the density in India around the time of independence, in 1950 (see graph).

Another way of gauging governance is to consider how well government investment in agriculture and agricultural research corresponds with the sector's importance to the national economy and well-being. In the countries with the highest levels of hunger, where an average of about 70 percent of the population depend on agriculture, the share of public

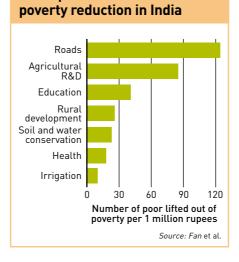
budget expenditures invested in agriculture in proportion to the importance of agriculture to the national economy falls far below the scale of investment in countries where the incidence of hunger is lower (see graph).

#### Governance and the right to food

The affirmation at the World Food Summit of the "fundamental right of everyone to be free from hunger" highlighted another dimension of good governance - the obligation of states to respect human rights and fundamental freedoms. And the adoption in 2004 of "Voluntary quidelines to support the progressive realization of the right to adequate food in the context of national food security" by the FAO Council provided a practical tool to assist national efforts to fulfil that obligation.

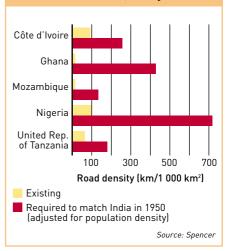
The impact on governance and food security can be seen in several countries that have already recognized a "justiciable" right to food. In India, for example, the Supreme Court mandated cooked

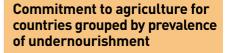
**Rural public investment and** 

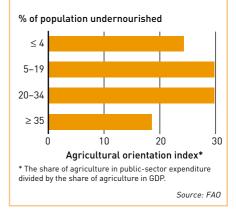


## lunches in all of the country's schools. Both nutrition and school attendance have improved dramatically where the programme has been implemented, particularly among girls. Given the critical role of maternal nutrition and education in breaking the cycle of hunger and poverty, the benefits will be felt for generations to come (see pages 16 and 20).

#### Rural road density in selected African countries, early 1990s







## **Undernourishment around the world**

# Hunger hot spots: the complex impact of natural disasters

he reasons are complex, but the trend is clear – natural disasters have become more frequent, more deadly and more costly. One simple measure proves the point: the average annual loss from hurricanes, droughts, earthquakes and other natural disasters during the 1990s was nine times higher than it had been three decades earlier (see graph).

The impact of natural disasters is much greater on poorer countries than on wealthier countries, in both absolute and relative terms. Their populations often cannot afford to relocate from disaster-prone areas or to make their homes and farms less vulnerable. Their economies and infrastructure tend to be less diverse and more fragile, so a natural disaster can set back the entire development process.

Natural disasters can also affect food security in uneven or complex ways. Their impact on different communities and groups varies according to people's locations, occupations and social status, as well as being divided along economic, political and cultural lines. Evidence of this can be seen in the effects of two recent disasters – the drought and desert locust infestation that scourged North and West Africa in 2003–04, and the Indian Ocean earthquake and tsunami in 2004, especially as it struck the Indonesian province of Aceh.

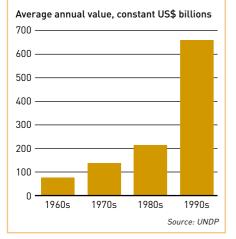
## **Drought and locusts in Africa**

In late 2003, favourable weather conditions led to a sharp increase in desert locust populations in the Maghreb and part of the Sahel. FAO issued warnings of a locust infestation. By early 2004, swarms of locusts were spreading across North and West Africa and beyond, ranging as far as Cyprus, Egypt, Guinea and Yemen. Most of the swarms stayed in northwestern Africa and the Sahel, however, feeding on crops and natural vegetation.

Rainfall in the Sahel follows a gradient, becoming scarcer the further north one goes until it gives out almost entirely in the Sahara. The southern part of a country such as Mali, for instance, receives about twice the annual rainfall of the northernmost inhabited areas. The pattern of agricultural activity mirrors the rains, with intensive farming concentrated along the southern fringe, subsistence agriculture and livestock-raising in the middle, and nomadic goat- and camel-herding in the extreme north.

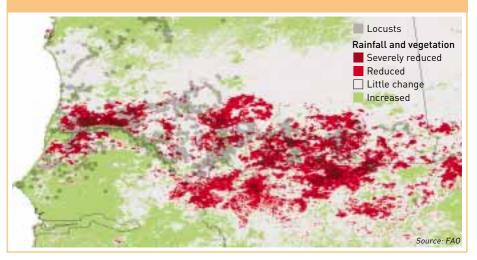
In 2004, differences in rainfall between north and south in the Sahel were more pronounced than usual. Drier areas of the north suffered a severe drought, while rainfall increased in the wetter areas of the south (see map). Desert locusts, which are extremely sensitive to environmental conditions, tended to prefer the dry weather and scant vegetation of the north. They completely devastated northern pastures and crops that are marginal in the best of years and largely spared the lusher areas of the south.

Since the southern areas produce the greater share of the food, most countries in the region were spared a major disaster. Regionwide, agricultural production in 2004 was



## Economic losses from natural disasters

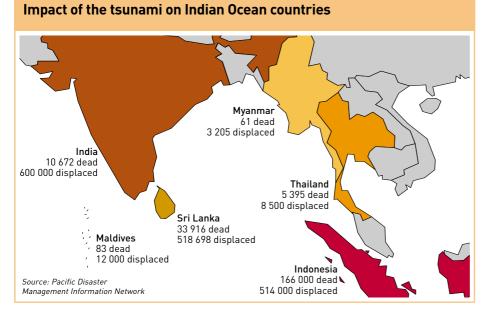
Locusts and changes in rainfall and vegetation in the Sahel, 2003–04



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close to the five-year average. But the locust swarms had a catastrophic impact on Mauritania, where they staved the longest, and on the northern areas of other countries. Many northern herders moved south with their livestock. sparking conflicts over land and water resources. Others were forced to sell their animals at a loss or to abandon their farms. For many of the most impoverished areas and population groups of the Sahel, the situation would remain desperate until the October 2005 harvest. prompting several countries to launch an emergency appeal in May.

## The Indian Ocean tsunami

The earthquake that struck off the coast of Sumatra, Indonesia, on 26 December 2004 was the strongest in 40 years. It triggered a tsunami that caused an estimated 240 000 deaths and displaced more than 1.6 million people from their homes. Fisheries and coastal agriculture were destroyed in many areas, depriving communities of their main sources of food and income. The impact on national economies varied greatly. In a large country like Indonesia, economic damage was severe locally but relatively insignificant nationwide, amounting to an estimated 2.2 percent of GDP. In the Maldives and several other small countries, on the other hand, the tsunami swept away as much as 60 percent of annual GDP.

The impact on food security was also very uneven. The limited agriculture sectors of small island states like the Maldives and Seychelles were ravaged. Rice production in Indonesia, Sri Lanka and Thailand was not severely affected at the national level.

Many coastal provinces suffered severe damage, however, often in the very communities plagued by high levels of poverty and hunger before the disaster. Nearly 30 percent of the population in the Indonesian province of Aceh, for example, lived below the poverty line before the tsunami, almost twice the national average. More than 35 percent of children below the age of five were already underweight. With fishing boats, nets and other equipment destroyed and many fishing families uprooted, the output from both marine and coastal fisheries in Aceh was expected to fall by half in 2005. Although the province was still expected to produce a rice surplus of 200 000 tonnes, many coastal farmers lost two consecutive paddy seasons.

In Aceh, as in Sri Lanka, food security problems were exacerbated by long-standing conflict between the government and a separatist movement. After the tsunami, persistent insecurity complicated emergency relief and rehabilitation activities.

## Natural disasters and development

As these two different emergencies illustrate, even when natural disasters do not reduce aggregate food supplies substantially, they can have a catastrophic impact on certain population groups. Often the poorest and most vulnerable are hardest hit, worsening poverty and malnutrition. Disasters also affect fragile livelihoods to such an extent that populations are displaced and long-term rehabilitation is required. Finally, they tend to affect countries that are both poor and unprepared. setting them back on the path to development.

This devastation is why the World Conference on Disaster Reduction that was held in Kobe, Japan, in January 2005 strongly emphasized the need to build disaster prevention and mitigation explicitly into national development strategies.

The State of Food Insecurity in the World 2005

# Education and undernourishment: the virtuous cycle of feeding bodies and minds

ducation has long been acclaimed as one of the most powerful engines for reducing hunger and poverty. And deservedly so. Lack of education undermines productivity, employability and earning capacity, leading directly to poverty and hunger. Every year of schooling increases individual wages by about 10 percent, worldwide. Investments in education have resulted in higher returns than investments in physical capital.

In the rural areas where the vast majority of the world's hungry people live, research shows that a farmer with four years of primary education is, on average, almost 9 percent more productive than a farmer with no education. When combined with the availability of inputs such as fertilizers, new seeds or farm machinery, the productivity increase rises to 13 percent.

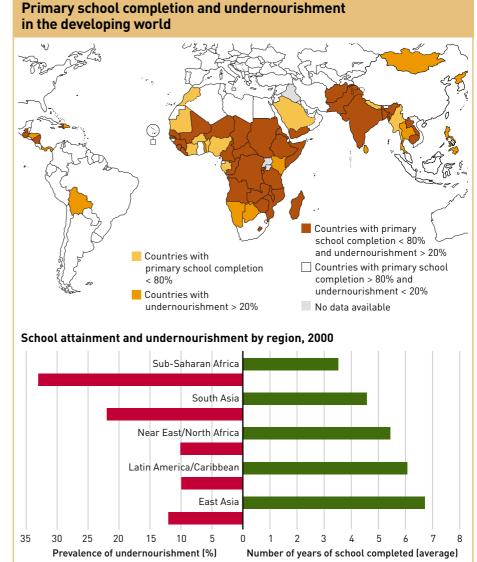
It is not only by increasing productivity and incomes that education reduces hunger and malnutrition. Better education for women, in particular, is strongly associated with improvement in their children's nutrition and in family health (see page 16).

The MDGs set the target of ensuring that every child in the world receives a primary school education by the year 2015. But progress towards the goal of universal primary education has been slow and uneven. More than 121 million school-age children remain out of school. Two-thirds of them are girls, and most of them live in rural areas in the regions where hunger and poverty are most widespread.

Among those children who do attend school, one-third drop out before they acquire basic literacy and arithmetic skills. On average, adults have completed only 3.5 years of school in sub-Saharan Africa and only 4.5 years in South Asia. These are also the two subregions where hunger is most prevalent and where progress in reducing it has lagged (see map and graph). To reach the MDG target, the rate at which out-of-school children are being enrolled in schools would have to quadruple. If enrolments in sub-Saharan Africa continue at the current pace, fewer than half the countries in the region will reach the target (see graphs, facing page).

## Hunger as an obstacle to education

One reason that the drive for universal primary education has lagged is the persistence of hunger and malnutrition. Just as lack of



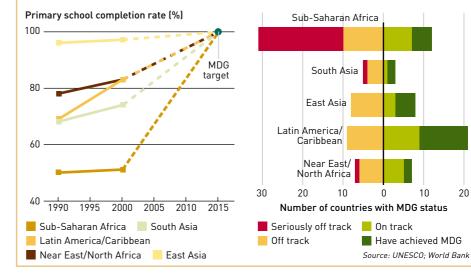


education condemns people to lives of poverty and hunger, hunger and malnutrition deprive millions of children of the opportunity to acquire an education.

Poor, food-insecure families often cannot afford school fees and depend on children, particularly girls, for tasks such as fetching water and fuelwood. Also, poor health and stunting caused by malnutrition often prevent or delay enrolment in school. In a number of countries in Africa and South Asia, more than half of all children from the poorest 40 percent of the population never even enrol in school.

Attendance and completion rates are lowest among rural children, especially girls. In almost half of 41 countries in Africa, Asia and Latin America included in a recent survey, primary school attendance in rural areas fell 20 percentage points or more below attendance in urban areas. The "gender gap" between school attendance and attainment for boys and girls is often two to three times greater in rural areas. In several African countries, primary school completion rates among rural girls fall below 15 percent. Only 1 percent of girls and 1.6 percent of boys in rural Ethiopia complete the eight-year primary education cycle.

Hunger and malnutrition impair children's performance even when they do attend school. Low birth weight, protein-energy malnutrition, anaemia and iodine deficiency all impair cognitive abilities and reduce children's ability to learn. Even mild to moderate levels of stunting have been associated with significantly lower mental capacity and school performance. Iron-deficiency anaemia, which affects more than half of all school-age children,



## Progress towards universal primary education by region, 1990–2000

damages their ability to learn by eroding attention span and memory.

## Universal education and the MDGs

Reducing hunger and malnutrition is essential to improving school attendance and children's learning capacities and performance, especially among rural people, who make up the vast majority of both the unschooled and the hungry.

Likewise, attaining the MDG target for universal education would make a powerful contribution towards achieving the goals for reducing poverty and hunger and would accelerate progress towards other MDGs, such as empowering women and halting the spread of HIV/AIDS. A recent study by the Global Campaign for Education concluded that providing universal primary education could save at least 7 million young people from contracting HIV over a decade. By introducing free primary education in the mid-1990s, Uganda succeeded not only in doubling school enrolments but also in helping to reverse the tide of HIV/AIDS. With 10 million young people achieving basic literacy and receiving AIDS education in the classroom, HIV prevalence rates fell from 15 percent in 1990 to 4 percent in 2004. Other studies suggest that universal primary education would contribute to improving maternal health, gender equality and natural resource management.

In order to reach the goal, however, developing countries and the international community will need to step up their commitment significantly. The World Bank estimates that spending on primary education in developing countries will have to increase by around US\$35 billion per year in order to eliminate school fees, provide subsidies for the neediest families, build schools, employ more teachers and rehabilitate and upgrade existing systems.

## Gender equality and the empowerment of women: keys to progress in reducing poverty and hunger

nited Nations Secretary-General Kofi Annan has called educating and empowering women "the greatest weapon in the war against poverty". The same could be said of the critical importance of eliminating gender inequality for efforts to reduce hunger and malnutrition.

Research confirms that educated women have healthier families. Their children are better nourished, less likely to die in infancy and more liable to attend school. A recent study of 63 countries concluded that gains in women's education made the single largest contribution to declines in malnutrition during 1970–95, accounting for 43 percent of the total progress.

The entire family also benefits when women are able to work and earn on an equal footing. In the developing world, women commonly use almost all of their income to meet household needs, while men use at least 25 percent for other purposes. A World Bank study in Guatemala found that it takes 15 times as much spending to reduce child malnutrition when income is earned by the father rather than the mother. But cultural traditions and legal obstacles often prevent women and girls from attending school, holding jobs or accessing resources and services that would allow them to improve their families' livelihoods. In many countries and communities, for example, women are barred by tradition or law from owning land. Although at least 70 percent of the female labour force on the Indian subcontinent is engaged in food production, fewer than 20 percent of women farmers in India and Nepal own land.

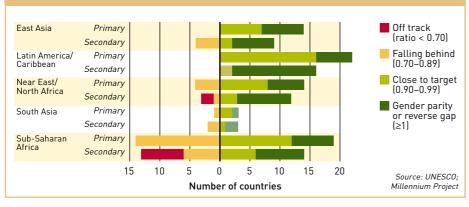
Without secure land tenure. women often cannot obtain the credit they would need to make improvements - such as irrigation and drainage systems - that would increase production and maintain the fertility of the soil. In sub-Saharan Africa, where the numbers of women and men farmers are roughly equal, women farmers receive only 10 percent of loans granted to smallholders and less than 1 percent of the total credit advanced to the agriculture sector. Not surprisingly, their households are often the hardest hit by malnutrition and food insecurity.

## Closing the education "gender gap"

In most of the developing world, school attendance and completion rates for girls fall significantly below those for boys at all levels, from primary school through university. The MDGs set the target of eliminating this "gender gap" in primary and secondary education by 2005 and at all levels by 2015. Although significant progress has been made worldwide, it has not been sufficient to reach the 2005 target and has lagged most notably in countries and regions plagued by widespread and persistent hunger (see graph).

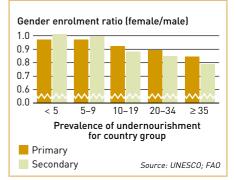
While school attendance and literacy rates for both girls and boys are lowest in sub-Saharan Africa, gender inequalities are greater in South Asia than in any other developing region. Women in the region complete only about half as many years of school as men, and secondary school attendance rates are more than 30 percent lower.

Further analysis reveals that the gender gap is higher where hunger is more prevalent (see graph). Significantly, in these countries, the gap is even greater for secondary



## Country predictions by region for progress in closing the gender gap in primary and secondary education by 2005

## Gender enrolment ratio by prevalence of undernourishment





school than for primary school. In the countries where the smallest share of the population goes hungry, the opposite is true: school enrolment for girls almost equals that of boys in primary school and surpasses it in secondary school.

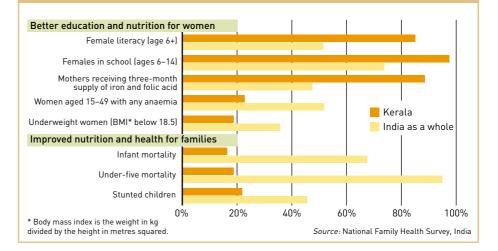
This distinct pattern correlates with research suggesting that eliminating the gender gap would accelerate economic growth and reduce undernutrition and child mortality. A recent study supported by the World Bank analysed the impact of failing to achieve gender equality in primary and secondary school in the 45 countries that appear likely to fall short of the MDG target. The study concluded that achieving the goal in these countries could save the lives of more than 1 million children each year and reduce malnutrition rates by several percentage points.

#### Breaking the cycle of hunger

Poor maternal nutrition and health can be considered the hub of the vicious cycle that passes hunger from one generation to the next – from malnourished mothers to lowbirth weight babies who are at high risk of stunting during childhood, of reduced working and earning capacity as adults and of giving birth to low-birth weight babies themselves (see page 21).

Perhaps the main force driving this cycle is inequality between women and men. That was the conclusion of an expert analysis of "the Asian enigma" – the fact that a far higher proportion of children are malnourished in South Asia than in even the poorest countries of sub-Saharan Africa.

A report for the United Nations Children's Fund (UNICEF) identified three main reasons for the extraordinarily high levels of child



## Impact of better education and nutrition for women in Kerala, India

malnutrition in South Asia. Two of these – the far higher incidences of low birth weight and of inadequate growth during breastfeeding and transition to solid foods – were traced directly to the fact that extreme gender inequality cuts South Asian women off from education, employment opportunities and participation in making decisions.

As a result, millions of South Asian mothers "have neither the knowledge nor the means nor the freedom to act in their own and their children's best interests". And they are far more likely to be severely malnourished themselves. In parts of South Asia, men and boys consume twice as many calories, even though women and girls do much of the heavy work.

"The 'key of keys'" for breaking this cycle of hunger, the analysis concluded, "is the education of girls".

Other evidence from South Asia supports this conclusion. In India as a whole, for example, progress in reducing the education gender gap has lagged and barely half of the women can read. For more than 50 years, however, successive governments in the State of Kerala have demonstrated a strong commitment to women's education. Nearly 90 percent of the state's female population is literate, and almost every girl under the age of 14 in Kerala attends school.

The impact on family health and welfare is striking. Kerala does not rank among India's wealthier states in per capita GDP. But it stands head and shoulders above the rest in terms of maternal and child nutrition and health. Rates of anaemia and underweight among women and stunting in children are less than half the national average, and infant and child mortality less than one-quarter (see graph).

The Kerala example suggests that promoting gender equality and empowering women could do more to reduce hunger and malnutrition than any of the other MDGs. It also suggests that addressing the nutritional needs and knowledge of women is essential both to empowering women and to breaking the cycle of hunger.

## Reducing hunger, saving children's lives

Very year, nearly 11 million children die before they reach their fifth birthday. Almost all of these deaths occur in developing countries, three-quarters of them in sub-Saharan Africa and South Asia, the two regions that also suffer from the highest rates of hunger and malnutrition. That is no coincidence.

Hunger and malnutrition are the underlying cause of more than half of all child deaths, killing nearly 6 million children each year - a figure that is roughly equivalent to the entire preschool population of Japan. Relatively few of these children die of starvation. The vast maiority are killed by neonatal disorders and a handful of treatable infectious diseases, including diarrhoea, pneumonia, malaria and measles. Most would not die if their bodies and immune systems had not been weakened by hunger and malnutrition.

Analysis of ten community-based studies of children under the age of

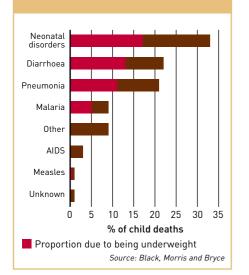
five found that the proportion of deaths that could be attributed to being underweight ranged from 45 percent, in the case of measles, to more than 60 percent, for diarrhoea (see graph). Children who are mildly underweight are about twice as likely to die of infectious diseases as children who are better nourished. For children who are moderately to severely underweight, the risk of death is five to eight times higher.

Lack of essential vitamins and minerals also increases the risk of dying from childhood diseases. Vitamin A deficiency, for example, increases the risk of death from diarrhoea, measles and malaria by 20 to 24 percent. For children whose diets lack sufficient zinc, the risk of dying from diarrhoea, pneumonia and malaria is increased by 13 to 21 percent. In many regions of the developing world, more than onethird of all children suffer from deficiencies in these and other micronutrients. Shortages of vitamin A and zinc alone cause the deaths of more than 1.5 million children each year (see graphs).

## Progress towards MDG lagging

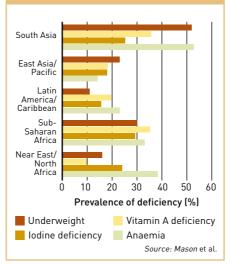
The MDGs set a target of reducing the rate of death among children under five by two-thirds between 1990 and 2015. But progress in reducing child mortality has been slowing, not accelerating. Between 1960 and 1990, the number of child deaths fell at a rate of 2.5 percent each year. Since 1990, the baseline year for the MDGs, the pace has slowed to just 1.1 percent. Among developing regions, only Latin America and the Caribbean is currently on pace to reach the MDG target (see graph, facing page).

A study of trends in 59 developing countries found that much of the success in reducing child mortality between 1966 and 1996 could be credited to improved nutrition. Steep reductions in the proportion of underweight children led to a steep

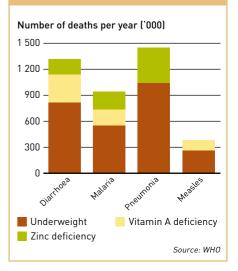


## Global child deaths by cause

Prevalence of child underweight and micronutrient deficiencies by region



## Child deaths from infectious diseases attributed to hunger and malnutrition



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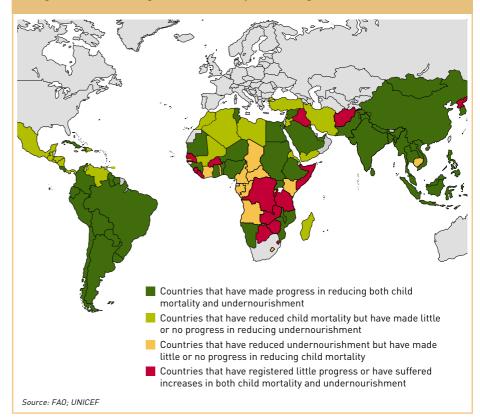
declines in child mortality – 16 percent in Latin America and almost 30 percent in both Asia and the Near East and North Africa.

Looking to the future, the study confirmed that one sure way to reduce child mortality would be to make further improvements in child nutrition. Reducing the prevalence of underweight by another five percentage points could reduce child mortality by about 30 percent. Analysis of recent trends confirms that child mortality has fallen fastest in the countries that are making the most rapid progress in reducing hunger (see map and graph).

The World Health Organization and UNICEF have targeted the deadly interaction between malnutrition and treatable childhood diseases as the key to reducing child mortality. Their joint strategy for Integrated Management of Childhood Illness (IMCI) emphasizes the importance of improved diets and feeding practices at home and attention to the risks of hunger and malnutrition when children are brought to clinics for treatment of common childhood ailments.

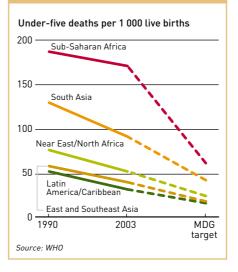
A review of results in the United Republic of Tanzania found significant improvements in children's weights and levels of vitamin A and iron in districts where the IMCI approach had been implemented. Although child mortality had not been reduced as rapidly as expected, it was falling six times faster in IMCI districts than in control districts nearby.

Reaching the MDG target will require a comparable acceleration of progress worldwide, fueled by redoubled efforts to reduce hunger and malnutrition, the most important causes of child deaths.

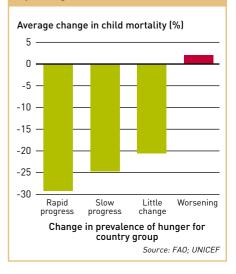


#### Progress in reducing child mortality and hunger since 1990

## Reductions in child mortality and the MDG target by region, 1990–2003



## Changes in child mortality for countries grouped by hunger reduction



# Improving maternal health and breaking the cycle of poverty, hunger and malnutrition

mproving maternal health is key to both saving the lives of more than half a million women each year and breaking the vicious cycle that perpetuates poverty, hunger and malnutrition from one generation to the next.

Every year nearly 530 000 women die as a result of complications from pregnancy and childbirth. Ninety-nine percent of these deaths take place in the developing world, where maternal mortality rates are typically 100 to 200 times higher than in industrialized countries. Almost all of these deaths could be prevented if women in developing countries had access to adequate diets, safe water and sanitation facilities, basic literacy and health services during pregnancy and childbirth.

The MDGs set the target of reducing the maternal mortality rate by 75 percent between 1990 and 2015. With little or no

Maternal deaths per 100 000 live births

reliable data available from many countries, estimating progress towards this target has proven difficult. The best available estimates, however, suggest that, globally, levels of maternal mortality remained stable between 1995 and 2000 at a level of around 400 maternal deaths for every 100 000 live births. What is certain is that in most developing regions, maternal mortality rates remain alarmingly high (see graph).

South Asia and sub-Saharan Africa account for more than 85 percent of all maternal deaths worldwide. Maternal mortality ratios in these regions are estimated at 570 and 920 per 100 000 live births, respectively, compared to 20 per 100 000 in developed regions. Unless progress accelerates rapidly in æthese developing regions, there is little chance of reaching the MDG target.

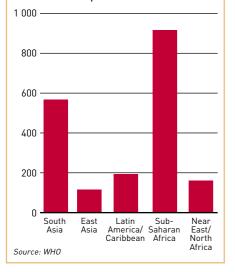
#### Malnutrition and maternal death

Hunger and malnutrition have been found to increase both the incidence and the fatality rate of the conditions that cause up to 80 percent of maternal deaths (see graph).

Women who are underweight before starting pregnancy and gain too little weight during pregnancy face increased risks of complications and death. That description applies to more than half the pregnant women in India, whose annual toll of 130 000 maternal deaths outstrips any other country by far.

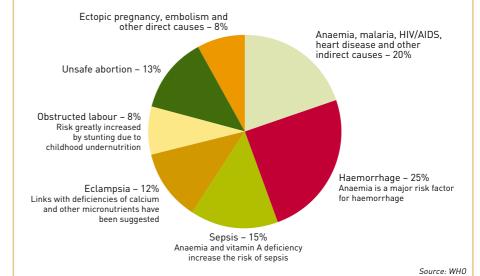
Stunting during childhood leaves women particularly vulnerable to obstructed labour, in which the baby's head is too large to fit through the birth canal. Obstructed labour causes more than 40 000 maternal deaths each year and is far more common in short women.

Anaemia is one of the main indirect causes blamed for



#### Maternal mortality ratio by region, 2000

## Cause of maternal deaths: global estimates





20 percent of maternal deaths and has also been found to heighten the risk of haemorrhage and postdelivery infection (sepsis), which together cause another 40 percent. More than half of all pregnant women in developing countries are anaemic, including more than 80 percent in some parts of South Asia. Iron deficiency is considered the main cause of anaemia among pregnant women.

Other micronutrient deficiencies also threaten the health and lives of mothers and newborn children. Severe vitamin A deficiency has been found to increase vulnerability to sepsis. Iodine deficiency can lead to miscarriages and stillbirths. And lack of dietary calcium appears to increase the risk of high blood pressure and other symptoms of eclampsia.

As might be expected, countries where hunger is widespread also suffer from high rates of maternal mortality (see graph). And maternal

Maternal mortality ratio for

countries grouped by

mortality has fallen in at least some countries as they have succeeded in reducing malnutrition.

Thailand provides striking evidence that improving household nutrition can produce a steep decline in maternal mortality. As part of the country's Nutrition Security Compact, village volunteers identify pregnant women and make sure that they receive food supplements to improve overall nutrition, as well as iron and folic acid treatment to combat anaemia. The programme also promotes home gardening and the consumption of fruits and vegetables to improve micronutrient intake. Maternal mortality in Thailand fell from 230 per 100 000 live births in 1992 to 17 in 1996.

## Maternal malnutrition and the cycle of hunger and poverty

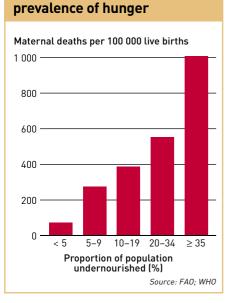
The damage caused by poor maternal nutrition and health

extends far beyond the half a million deaths each year.

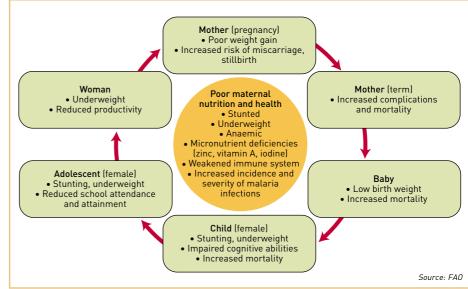
Malnourished mothers are far more likely to give birth to low-birth weight babies. So are women whose own growth was stunted by malnutrition during childhood. In some developing countries, more than 30 percent of children are born with low birth weights.

These low-birth weight babies face a greatly increased risk of dying in infancy. They are also far more likely to suffer stunting during childhood that will greatly increase their own risk of dying during childbirth or giving birth to another generation of low-birth weight babies.

And so the cycle of suffering continues (see diagram). Reaching the MDG target for improving maternal health could break the hub around which it revolves. Improving nutrition for women and girls throughout their lives could accelerate progress to bring the MDG target within reach.



## Maternal health and the cycle of poverty, hunger and malnutrition



# Combating HIV/AIDS, malaria and tuberculosis: the role of undernutrition as both symptom and cause

IV/AIDS. malaria and tuberculosis kill more than 6 million people each year, the vast majority of them in the developing world, and most of them in sub-Saharan Africa. Tens of millions more become infected or fall ill, including more than 5 million newly infected with HIV, 8 million new active cases of tuberculosis and more than 300 million acute malaria attacks. Millions of households are pushed deeper into hunger and poverty by the illness and death of breadwinners and by the costs of health care for the sick. funerals for the dead and support for orphans and other dependents who survive.

The MDGs have set targets for halting and reversing the spread of HIV/AIDS, malaria and tuberculosis. Achieving these targets would save millions of lives and tens of billions of dollars and would significantly slow the vicious cycle of hunger and poverty that has stalled progress towards many of the other MDGs. Conversely, reducing hunger and malnutrition would help halt the spread and roll back the death toll of these diseases.

HIV/AIDS, malaria and tuberculosis are all diseases of hunger and poverty. The overwhelming majority of cases occur in developing countries, especially in sub-Saharan Africa and southern Asia, the two regions that also suffer from the highest rates of undernourishment and extreme poverty (see map and graphs). Within those countries and regions, the hungry and poor are hit the hardest.

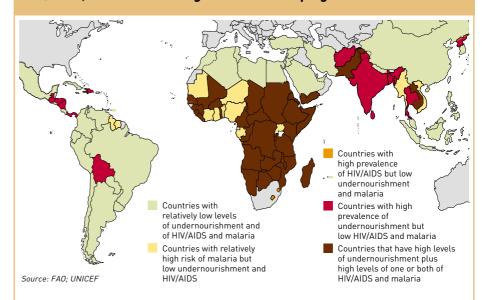
Approximately 40 million people are now living with HIV, more than 60 percent of them in sub-Saharan Africa. Each year another 5 million people become infected with HIV and more than 3 million people die of AIDS. Malaria kills more than 1 million people per year. More than 90 percent of these deaths take place in Africa, mainly among young children. Of the 8 million new active cases of tuberculosis each year, more than 5 million occur in South Asia and sub-Saharan Africa.

#### Hunger as a cause of disease

Hunger and malnutrition alter people's behaviour and weaken their

bodies and immune systems, greatly increasing their vulnerability to HIV/AIDS, malaria and tuberculosis.

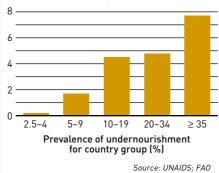
In the case of HIV/AIDS, hunger and poverty drive men to become migrant labourers, women to turn to prostitution or other dangerous sexual relationships, children to drop out of school. All face greatly increased risk of infection. Recent studies confirm, for example, that young people with little or no education are more than twice as



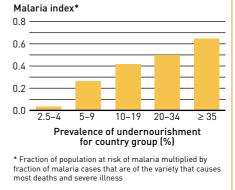
HIV/AIDS, malaria and hunger in the developing world

## Hunger and HIV prevalence by country group, 2001

HIV prevalence rate, ages 15–49 (%)



#### Hunger and malaria risk, 1994



Source: Gallup and Sachs; FAO



likely to contract HIV as those who have completed a primary education (see pages 18–19). Among those who have already been infected with HIV, malnutrition increases vulnerability to opportunistic infections, accelerating the progression of the disease to full-blown AIDS and death.

Hunger and malnutrition also increase the risk of infection and death from malaria and tuberculosis. Severe malaria attacks are more common and more often fatal for children and pregnant women who already suffer from anaemia and other micronutrient deficiencies. Malaria attack rates can be substantially reduced, for example, by increasing vitamin A and zinc through supplements or improved diets.

Tuberculosis spreads quickly among poor people living in crowded conditions, whose immune systems have been weakened by malnutrition. In India, for example, researchers found that tuberculosis rates were twice as high among people who earned less than US\$7 per month as they were among those who earned more than US\$20 per month.

## Disease as a cause of hunger

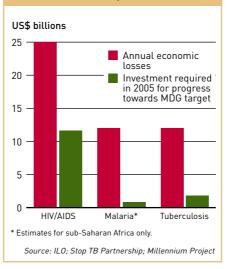
Because they strike at people during their most productive working years, these diseases cause poverty and hunger not only for those who are infected, but also for their families and communities. When aggregated at national and regional levels, the costs are staggering.

In half of the countries in sub-Saharan Africa, per capita economic growth is estimated to be falling by between 0.5 and 1.2 percent each year as a direct result of AIDS. The economic losses from lost productivity are compounded by soaring costs of medical care and support for orphans. In the countries that have been hardest hit, public health spending related to HIV/AIDS often exceeds 2 percent of GDP. The costs of the pandemic have been estimated at more than US\$25 billion per year and rising fast.

Malaria and tuberculosis also take a heavy toll on productivity, prosperity and food security. Malaria costs Africa an estimated US\$12 billion every year in lost GDP and accounts for between 20 and 50 percent of all hospital admissions in countries where the disease is endemic. Tuberculosis victims who survive their illness typically lose three to four months of work time and 20 to 30 percent of their annual household income.

#### Relative costs of inertia and action

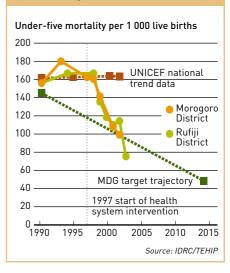
Compared to the human suffering and economic losses caused by these diseases, the investments needed to scale up prevention and treatment to meet the MDG targets



## Estimated annual costs of diseases and required actions

are small (see graph). Less than US\$1 billion per year, for example, would provide insecticide-treated bed nets for 70 percent of the children in Africa, preventive treatment for pregnant women and better first-line treatment for people suffering from malaria attacks. Vitamin A supplements to boost resistance to malaria and other diseases can be supplied for as little as US\$0.10 a year per child.

Given the strong linkages between malnutrition and infectious disease, coordinated and aggressive action to combat both hunger and disease could accelerate the pace and reduce the costs of progress in both areas. A programme in two districts in the United Republic of Tanzania that simultaneously focused on improved child nutrition and distribution of bed nets illustrates the point. Five years after the start of the programme, child mortality in both districts had deviated sharply from the prevailing trend and was on track to reach the MDG target (see graph).



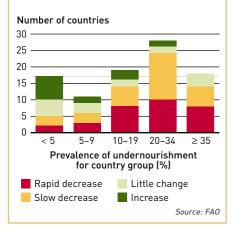
Under-five mortality in the United Republic of Tanzania

## Improving environmental sustainability and food security by empowering the rural poor

o segment of humanity depends more directly on environmental resources and services than the rural poor, who make up an estimated 80 percent of the world's 800 million hungry people. They make daily use of soil and water for farming and fishing, of forests for food, fuel and fodder, of the biodiversity of a wide range of plants and animals, both domesticated and wild. Their lives are interwoven with the surrounding environment in ways that make them both particularly valuable as custodians of environmental resources and particularly vulnerable to environmental degradation.

A large proportion of the hungry are concentrated in areas that are highly vulnerable to environmental degradation and climate change, including forests and semi-arid rangelands (see map). When population pressure grows and food is scarce, hunger can drive them to plough under or overgraze fragile rangelands and forest margins, threatening the very resources upon which they depend.

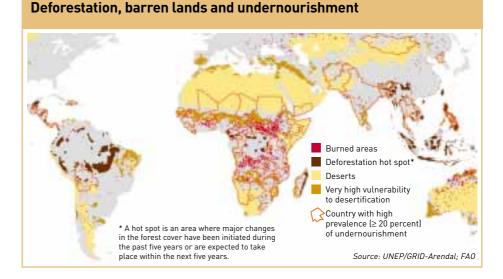
Changes in forest cover, 1990–2000, by undernourishment prevalence group



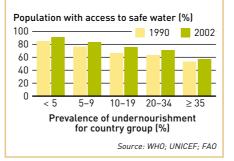
The MDGs established several targets for ensuring environmental sustainability. Key indicators include measures of deforestation and use of solid fuels, as well as access to improved water and sanitation facilities. Progress towards all of these targets would have a direct impact on reducing hunger and malnutrition, as well as improving the environment. But progress has been slow and uneven at best.

Worldwide, forests were felled and burned during the 1990s at a

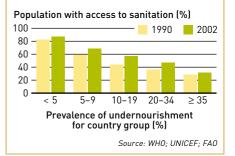
rate of 9.4 million hectares a year (an area roughly the size of Portugal). In proportional terms, the most rapid deforestation took place in Africa and the Caribbean and among the countries with the highest prevalence of hunger. The countries where hunger is most prevalent are also marked by the highest reliance on solid fuels, the lowest levels of access to safe water and sanitation and the slowest progress towards the MDG targets (see graphs).



#### Access to improved water and prevalence of undernourishment



## Access to improved sanitation and prevalence of undernourishment

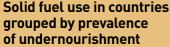


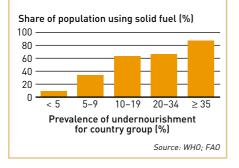
# MDG 7

## Dependency and vulnerability

The activities of poor farmers, herders, forest dwellers and fisherfolk have shaped and conserved much of the rural environment over thousands of vears. But they have also contributed to environmental damage, particularly when hunger and population pressure have driven these people to expand fields and herds beyond the carrying capacity of the land. Their multiple roles as sustainable users, sometime despoilers and potential guardians of environmental resources are exemplified by the forests.

Worldwide, an estimated 350 million people depend on forests as their primary source of income and food. Wild plants, animals and other forest foods are important to the diets and food security of an estimated 1 billion people. Forests also provide grazing and fodder for many of the 500 million poor livestock producers whose livelihoods depend on keeping a few animals. Particularly in countries where hunger is widespread, most of the rural poor burn wood gathered from forests and other solid fuels to cook their food (see graph). A study in





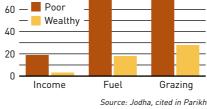
six Indian states found that poor people depended on forests and other common lands for around 20 percent of their income, 75 percent of their fuel and 80 percent of grazing for their livestock (see graph).

Because they rely so heavily on forest resources, many of the rural poor have developed techniques for exploiting them sustainably. Small farmers in forested areas, for example, often cultivate crops and raise animals among trees that help capture water, prevent erosion and provide fuel, food and fodder. In rural India, where more than half of domestic energy comes from burning fuelwood, a study found that nearly 90 percent of this wood was obtained by gathering or cutting branches rather than felling trees.

Dependence on forest resources also leaves the rural poor particularly vulnerable to the destruction and degradation of forests. When forests are cleared and converted to other uses and private ownership, poor local residents lose important parts of their incomes and diet and may be forced to travel even greater distances to gather fuel and water, increasing the threats to their food security from polluted water and unsafe food preparation.

## and wealthy in India on common land resources Proportion derived from common lands (%) 80 40 Popr

**Dependence of poor** 



## Food security and sustainability

Efforts to promote food security and environmental sustainability can often reinforce each other. All too often, however, ill-conceived policies have favoured large-scale, industrial production of crops and livestock at the expense of mixed farming systems employed by the poor. By devoting large tracts of land to a single use, industrial production often contributes to deforestation, land degradation, contamination of surface and groundwater supplies and loss of biodiversity. Changes in taxation and subsidy policies that make industrial producers responsible for environmental 'externalities" can improve both the economic viability and environmental sustainability of small-scale production by the rural poor.

Another promising approach involves recognizing and rewarding the environmental services provided by small farmers and livestock producers. A number of schemes have been devised to compensate farmers for planting trees in and around their fields and pastures to improve carbon sequestration, biodiversity conservation and watershed management. In many cases, the more environmentally friendly techniques may also prove to be more productive. Early results from one project in Latin America suggest that participating livestock producers can raise more animals per hectare while earning payments for planting trees and other plants that remove climate-warming carbon from the atmosphere and enhance biodiversity.

Adopting similar approaches more widely and ensuring that they are targeted to benefit the poor could improve both food security and environmental sustainability.

## Increased aid and more equitable trade: keys to forging a global partnership for development

he first seven MDGs focus on objectives that must be attained largely through the efforts of the governments and people of developing countries themselves. MDG 8 highlights the responsibility of wealthier industrialized nations to assist those efforts. It calls for increased aid, more equitable trade, relief from the crushing burden of debt and better access to technology, medicines and jobs.

At the International Conference on Financing for Development, convened in Monterrey, Mexico, two years after the Millennium Summit, governments agreed on the framework for a global partnership between developed and developing countries to achieve the MDGs. Within this framework, countries committed themselves "to sound policies, good governance at all levels and the rule of law ... [and] ... to mobilizing domestic resources. attracting international flows, promoting international trade as an engine for development, increasing international financial and technical cooperation for development, sustainable debt financing and external debt relief, and enhancing the coherence and consistency of the international monetary, financial and trading systems".

As tools for increasing financing for development, the Conference focused on the critical importance of external aid for many of the poorest countries and on the role of trade as "the single most important external source of development financing" in many cases.

#### Reversing the decline in aid

The Monterrey Consensus recognizes that Official Development Assistance (ODA) is "a crucial instrument for supporting education, health, public infrastructure development, agriculture and rural development, and to enhance food security" for many countries in Africa, least developed countries (LDCs), small island developing states and landlocked developing countries. As part of their commitment to provide additional resources, donor countries vowed to boost ODA to the long-standing target of 0.7 percent of their gross national income (GNI). Although this target had first been proposed by the United Nations General Assembly more than 30 years earlier, aid from the industrialized countries had fallen to an all-time low of 0.22 percent of GNI in 2001 (see graph).

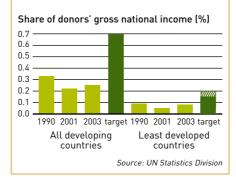
Since the Conference, this downward trend has finally been reversed. G8 members preliminarily agreed in June 2005 to forgive US\$40 billion in debt owed by 18 of the world's poorest countries. Several donors have made specific pledges to raise their development assistance to 0.7 percent of GNI. In May 2005, the European Union detailed plans to reach this goal, announcing specific targets for member countries. But several of the world's wealthiest nations have made no such commitments, and the commitments that have been made still must be translated into concrete action targeting the poor.

In addition to increasing the volume of aid, it is also essential to make sure that aid reaches the countries where it is most needed and the sectors where it will have the most impact. That is decidedly not the case today.

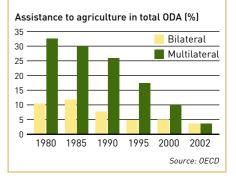
External assistance is critical for very poor countries with limited ability to mobilize domestic private and public savings for investment. And it is particularly critical for agriculture, which is largely bypassed by foreign private investors. Yet at the time of the Monterrey Conference, less than a quarter of ODA went to the 49 LDCs. which are home to more than onethird of the world's hungry people. And both the volume and share of aid directed to agriculture had fallen to less than half the levels of the 1980s (see graph).

It also appears that external assistance to agriculture (EAA) is not related to need. Data on EAA for 1998–2000 indicate that countries

## Aid to developing and least developed countries, 1990–2003 and targets



## Share of aid to agriculture in total Official Development Assistance



where fewer than 5 percent of the population were undernourished received three times the amount of assistance per agricultural worker that went to countries where more than 35 percent of the population went hungry. In sub-Saharan Africa, where two-thirds of the population depend on agriculture, bilateral aid to agriculture fell by 60 percent in a decade, from US\$1.3 billion in 1990 to US\$524 million in 2001.

The decline in domestic investment and EAA has resulted in a large and growing investment gap between countries where the prevalence of undernourishment is high and those that have managed to reduce hunger. In the group of countries where more than one-third of the people are undernourished, the value of capital stock in primary agriculture per agricultural worker has fallen by almost one-quarter over the past 25 years (see graph).

Since the Monterrey Conference, the share of aid to LDCs in donor GNI has increased to 0.08 percent – a distinct improvement, but well short of the 0.15–0.20 percent target. The level of EAA has remained essentially unchanged.

## More equitable trade

Increasing aid to developing countries would certainly help fuel progress towards the MDGs. Reducing agricultural subsidies and tariffs in developed countries and improving the capacity of LDCs to participate in trade through investments in agricultural productivity, traderelated infrastructure and export industries might help even more.

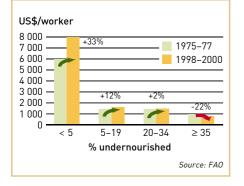
Every year, wealthier countries hand out more than US\$250 billion in subsidies to agricultural producers. Most of this largesse goes to large farms in the United States of America and Europe, resulting in huge surpluses that are often sold on world markets at less than half their cost of production. Poor developing countries and their consumers gain from the low prices, but their farmers find it difficult, if not impossible, to compete. Exporting countries are also penalized by rich-country tariffs that are often four to five times higher for agricultural products than for manufactured goods.

Removing trade barriers and improving infrastructure to increase trade among developing countries could also have a big impact on improving both incomes and food security. In Africa, for example, local demand for food is expected to outpace growth of export markets over the next 20 years. As the Commission for Africa points out, growing staple foodstuffs for parts of Africa that suffer from regular food shortages could bring growth to the continent's potential breadbaskets, while reducing the need to import more than US\$20 billion worth of food each year.

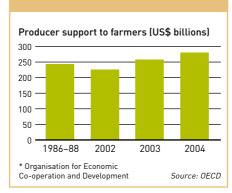
So far, the MDG 8 call for an open, non-discriminatory trading and financial system has not led to any significant reduction in farm subsidies and tariffs. In fact, producer support to farmers in industrialized countries increased from US\$226 billion in 2002 to US\$280 billion in 2004 (see graph). While a number of initiatives are under way to boost the trading capacity of the poorest countries, support from international financial and development institutions has fallen far short of what is needed. Reversing these trends and scaling up aid to meet the Monterrey commitments are essential to forging an effective partnership for development.

Meeting the aid targets of MDG 8 would substantially contribute to national efforts to meet the rest of the MDGs. Cancelling the debt of poor countries would allow them to stop spending more on servicing debts than they receive as aid, as was the case in 2003. Account must be taken, however, of countries' ability to absorb large additional amounts of aid. Where necessary, this ability must be enhanced through capacity-building. With such assistance, all of these increased flows of resources could be used to step up the investments in rural development, education and health services needed to reach the MDGs.

## Capital stock in agriculture by prevalence of undernourishment



## Farm subsidies in OECD\* countries, 1986–2004



# The way ahead: shifting into forward gear on the twin-track approach to the WFS and MDG goals

t the International Conference on Financing for Development held in Monterrey, Mexico, in 2002, FAO, the International Fund for Agricultural Development (IFAD) and the World Food Programme (WFP) mapped out a practical and affordable "twin-track approach" for combating hunger. Track one: strengthen the productivity and incomes of the hungry and poor, targeting the rural areas where the vast majority of them live and the agriculture sector on which their livelihoods depend. Track two: provide direct access to food and create social safety nets for the hungry.

Since that time, we have seen encouraging signs of revitalized commitment to fight hunger and of an emerging consensus that the twin-track approach provides the core of an effective strategy for waging that fight. The main elements of the approach, for example, were incorporated into the recommendations of the Hunger Task Force of the United Nations Millennium Project. Building upon the solid foundation of the twin-track approach, at the meeting of the United Nations Economic and Social Council (ECOSOC) that was convened to prepare the World Summit of September 2005, FAO, IFAD and WFP proposed elements of a broader strategy to reach the targets for reducing hunger and poverty specified in MDG 1. If the strategy succeeds in shifting the drive to end hunger into high gear, it will also kick-start more rapid progress towards all the other MDGs.

## Twin tracks to the MDGs

Although the twin-track approach was proposed primarily as a way to combat hunger, many of its key elements explicitly target areas where efforts to reduce hunger intersect with achieving the other MDGs (see diagram).

Introducing improved water management, use of green manures, agroforestry and other low-cost, simple technologies, for example, will enhance not only the productivity and incomes of small farmers, but also their role as custodians of land, water, forests and biodiversity. Similarly, investing in roads, improved water facilities and other rural infrastructure can reduce the lethal impact of water-borne illnesses, improve access to health care and prevent thousands of needless child and maternal deaths, even as it rolls back hunger by opening links to markets where farmers can sell surplus produce and acquire fertilizer and other inputs at reasonable prices.

Measures to provide direct access to food for the neediest families can also contribute to several MDGs simultaneously. Feeding programmes for mothers and infants target the hub of the vicious cycle that perpetuates hunger and malnutrition from one generation to the next, undermining maternal health, stunting children's physical and cognitive growth, impairing school attendance and performance and impeding progress towards gender equality and the empowerment of women.

## A twin-track approach to reach the WFS goal and accelerate progress towards the MDG targets



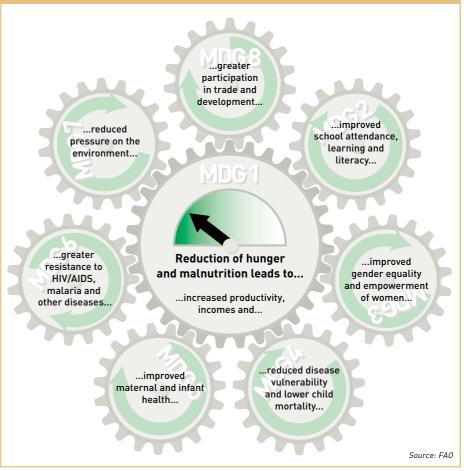


## Extending twin-track synergy

As with the twin-track approach itself, the broader strategy for meeting MDG 1 put forward at ECOSOC will also serve to accelerate progress towards the other MDGs. Key elements of the strategy include:

- setting targets, agreeing on coordinated actions in each country and mobilizing resources to exploit synergies among the MDGs;
- using participatory approaches that build local institutions and skills, strengthen legal rights and access to resources, and empower women, indigenous people and other vulnerable groups;
- giving priority to "hot spots" where a high proportion of the population suffer from hunger and extreme poverty and often also from illiteracy, disease, social marginalization and child and maternal mortality;
- using food assistance to develop and enhance skills or to create physical assets, such as food storage facilities or water and erosion control structures, that will help communities weather crises and build the foundation for longer-term development;
- focusing policies and investments on rural areas and agriculture in ways that promote sustainable use of natural resources, improve rural infrastructure, facilitate the function of markets and enhance rural institutions;
- supporting dynamic rural growth by improving the productivity of smallholder agriculture and by diversifying into rural non-farm activities and strengthening microenterprises in which rural women play a major role;
- strengthening poor urban livelihoods with an urban twin-





track approach that combines propoor employment and asset generation programmes with measures to help the poor meet their basic needs for food, housing, clean water, health and education;

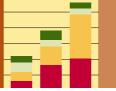
 accelerating progress towards an open and fair international trading system, with special attention to improving market access and reducing export subsidies and trade-distorting domestic support in agriculture.

All of these approaches are proven, practical and affordable. All can be effectively adapted and applied to meet local requirements, monitored to ensure that they are effective and scaled up as they prove successful and sufficient resources are mobilized.

If developing countries gear up their efforts to revitalize agricultural and rural development and ensure the hungry have access to food, if donor countries fulfil their pledges to increase development assistance substantially, we can still reach the WFS and MDG hunger reduction targets. And in the process, we will shift progress towards all of the other MDGs into high gear as well.

## Table 1. Prevalence of undernourishment and the distance from Millennium Development Goal<sup>1</sup> and World Food Summit<sup>2</sup> targets in developing countries

DEVELOPING WORLD Region/subregion/country	Total po	pulation	Number underno	of people ourished	of under	ortion nourished opulation	Ratio current/baseline prevalence of undernourished <sup>3</sup>	Ratio current/baseline number of undernourished <sup>3</sup> Ratio for WFS <sup>2</sup> target = 0.5	
	1990–92 (mill	2000–02 ions)	1990–92 (mill	2000-02 ions)		2000–02 %]	Ratio for MDG <sup>1</sup> target = 0.5		
DEVELOPING WORLD	4058.7	4796.7	823.8	814.6	20	17	0.8	1.0	
ASIA AND THE PACIFIC*	2815.2	3256.1	569.2	519.0	20	16	0.8	0.9	
East Asia	1241.5	1364.5	198.8	151.7	16	11	0.7	0.8	
China	1175.7	1292.5	193.5	142.1	16	11	0.7	0.7	
Dem. People's Rep. of Korea	20.3	22.4	3.7	8.1	18	36	2.0	2.2	
Mongolia	2.3	2.5	0.8	0.7	34	28	0.8	0.9	
Rep. of Korea	43.3	47.1	0.8	0.7	-	-	0.9	0.9	
Southeast Asia	444.2	522.8	78.4	65.5	18	13	0.7	0.8	
Cambodia	10.1	13.5	4.3	4.4	43	33	0.8	1.0	
Indonesia	185.2	214.3	16.4	12.6	9	6	0.7	0.8	
Lao People's Dem. Rep.	4.2	5.4	1.2	1.2	29	22	0.8	1.0	
Malaysia	18.3	23.5	0.5	0.6	3	-	0.9	1.1	
Myanmar	41.2	48.2	4.0	2.8	10	6	0.6	0.7	
Philippines	62.5	77.1	16.2	17.2	26	22	0.9	1.1	
Thailand	55.1	61.6	15.2	12.2	28	20	0.7	0.8	
Viet Nam	67.5	79.2	20.6	14.7	31	19	0.6	0.7	
South Asia	1125.3	1363.3	291.3	301.1	26	22	0.9	1.0	
Bangladesh	112.1	140.9	39.2	42.5	35	30	0.9	1.1	
India	863.3	1033.3	215.8	221.1	25	21	0.9	1.0	
Nepal	19.1	24.1	3.9	4.0	20	17	0.8	1.0	
Pakistan	113.7	146.3	27.7	29.3	24	20	0.8	1.1	
Sri Lanka	17.0	18.8	4.8	4.1	28	22	0.8	0.9	
LATIN AMERICA AND THE CARIBBEAN	443.4	521.2	59.5	52.9	13	10	0.8	0.9	
North America	84.8	100.5	4.6	5.2	5	5	1.0	1.1	
Mexico	84.8	100.5	4.6	5.2	5	5	1.0	1.1	
Central America	28.8	36.9	5.0	7.4	17	20	1.2	1.5	
Costa Rica	3.2	4.0	0.2	0.2	6	4	0.7	0.9	
El Salvador	5.2	6.3	0.6	0.7	12	11	0.9	1.1	
Guatemala	9.0	11.7	1.4	2.8	16	24	1.5	2.0	
Honduras	5.0	6.6	1.1	1.5	23	22	1.0	1.3	
Nicaragua	3.9	5.2	1.2	1.4	30	27	0.9	1.2	
Panama	2.5	3.0	0.5	0.8	21	26	1.3	1.5	
Caribbean	28.5	31.7	7.8	6.7	27	21	0.8	0.9	
Cuba	10.7	11.2 8.5	0.8	0.4	8 27	3 25	0.4	0.4	
Dominican Rep. Haiti	7.2	8.1	4.6	3.8	65	47	0.9	0.8	
Jamaica	2.4	2.6	0.3	0.3	14	10	0.7	0.8	
Trinidad and Tobago	1.2	1.3	0.3	0.3	14	12	0.7	1.0	
South America	301.3	352.2	42.0	33.6	13	12	0.9	0.8	
Argentina	33.0	37.5	0.7	0.6	-	-	0.8	0.9	
Bolivia	6.8	8.5	1.9	1.8	28	21	0.8	0.7	
Bolivarian Rep. of Venezuela	20.0	24.8	2.3	4.3	11	17	1.5	1.9	
Brazil	151.2	174.0	18.5	15.6	12	9	0.7	0.8	
Chile	131.2	174.0	1.1	0.6	8	4	0.5	0.6	
	35.7	42.8	6.1	5.7	17	13	0.5	0.8	
Lolomnia		42.0	0.1						
Colombia Ecuador		12.6	N 9	0 A	R	4	05	(1.7	
Ecuador	10.5	12.6 0.8	0.9	0.6	8 21	4	0.5	0.7	
Ecuador Guyana	10.5 0.7	0.8	0.2	0.1	21	9	0.5	0.5	
Ecuador Guyana Paraguay	10.5 0.7 4.3	0.8 5.6	0.2 0.8	0.1 0.8	21 18	9 14	0.5 0.8	0.5 1.0	
Ecuador Guyana	10.5 0.7	0.8	0.2	0.1	21	9	0.5	0.5	



**Table 1.** Prevalence of undernourishment and the distance from Millennium Development Goal<sup>1</sup> and World Food Summit<sup>2</sup> targets in developing countries

DEVELOPING WORLD Region/subregion/country	Total pop	oulation	Number underno		of under	ortion nourished oopulation	Ratio current/baseline prevalence of undernourished <sup>3</sup>	Ratio current/baseline number of undernourished <sup>3</sup>	
	1990–92 (milli	2000-02 ons)	1990–92 (mill			2000-02 %)	Ratio for MDG <sup>1</sup> target = 0.5	Ratio for WFS <sup>2</sup> target = 0.5	
NEAR EAST AND NORTH AFRICA*	322.8	399.4	24.8	39.2	8	10	1.3	1.6	
Near East*	202.5	255.0	19.4	33.1	10	13	1.4	1.7	
Islamic Rep. of Iran	58.0	67.3	2.1	2.7	4	4	1.1	1.3	
Jordan	3.4	5.2	0.1	0.4	4	7	1.9	2.9	
Kuwait	2.1	2.3	0.5	0.1	23	5	0.2	0.3	
Lebanon	2.8	3.5	0.1	0.1	-	3	1.2	1.5	
Saudi Arabia	17.1	22.8	0.7	0.8	4	3	0.8	1.1	
Syrian Arab Rep.	13.1	17.0	0.7	0.6	5	4	0.7	1.0	
Turkey	58.7	69.3	1.0	1.8	_	3	1.6	1.9	
United Arab Emirates	2.1	2.9	0.1	0.1	4	_	0.5	0.6	
Yemen	12.5	18.7	4.2	6.7	34	36	1.1	1.6	
North Africa	120.4	144.4	5.4	6.1	4	4	1.0	1.1	
Algeria	25.6	30.8	1.3	1.7	5	5	1.0	1.2	
Egypt	57.0	69.1	2.5	2.4	4	3	0.8	1.0	
Libyan Arab Jamahiriya	4.4	5.3	0.0	0.0	-	_	1.2	1.4	
Morocco	25.0	29.6	1.5	2.0	6	7	1.1	1.3	
Tunisia	8.4	9.6	0.1	0.1	_	-	0.9	1.0	
SUB-SAHARAN AFRICA*	477.3	620.0	170.4	203.5	36	33	0.9	1.2	
Central Africa	63.4	82.0	22.7	45.2	36	55	1.5	2.0	
Cameroon	12.0	15.4	4.0	3.9	33	25	0.8	1.0	
Central African Rep.	3.0	3.8	1.5	1.6	50	43	0.9	1.1	
Chad	6.0	8.1	3.5	2.7	58	34	0.6	0.8	
Congo	2.6	3.5	1.4	1.3	54	37	0.7	1.0	
Dem. Republic of the Congo	38.8	49.9	12.2	35.5	32	71	2.3	2.9	
Gabon	1.0	1.3	0.1	0.1	10	6	0.7	0.8	
East Africa*	167.8	217.7	76.4	86.2	46	40	0.9	1.1	
Burundi	5.7	6.4	2.7	4.4	48	68	1.4	1.6	
Eritrea**	na	3.9	na	2.8	na	73	na	na	
Ethiopia**	na	67.3	na	31.3	na	46	na	na	
Kenya	24.4	31.1	10.7	10.3	44	33	0.8	1.0	
Rwanda	6.4	8.0	2.8	3.0	44	37	0.9	1.1	
Sudan	25.5	32.2	8.0	8.5	32	27	0.8	1.1	
Uganda	17.9	24.2	4.2	4.6	24	19	0.8	1.1	
United Rep. of Tanzania	27.0	35.6	9.9	15.6	37	44	1.2	1.6	
Southern Africa	71.0	90.1	34.1	35.7	48	40	0.8	1.1	
Angola	9.6	12.8	5.6	5.1	58	40	0.7	0.9	
Botswana	1.4	1.7	0.3	0.6	23	32	1.4	1.7	
Lesotho	1.4	1.8	0.3	0.2	17	12	0.7	0.8	
Madagascar	12.3	16.4	4.3	6.0	35	37	1.1	1.4	
Malawi	9.6	11.6	4.8	3.8	50	33	0.7	0.8	
Mauritius	1.1	1.2	0.1	0.1	6	6	0.9	1.0	
Mozambique	13.9	18.2	9.2	8.5	66	47	0.7	0.9	
Zimbabwe	10.7	12.7	4.9	5.6	45	47	1.0	1.1	
Namibia	1.5	12.7	0.5	0.4	35	22	0.6	0.9	
Swaziland	0.9	1.7	0.5	0.4	14	19	1.4	1.6	
Zambia	8.4	10.6	4.0	5.2	48	49	1.4	1.3	
	0.4	10.0	4.0	J.Z	40	47	1.0	1.3	
WEST AFRICA	175.1	230.3	37.2	36.4	21	16	0.7	1.0	
Benin	4.8	6.4	1.0	0.9	20	15	0.7	1.0	
Burkina Faso	9.2	12.3	1.0	2.3	20	15	0.7	1.0	
Côte d'Ivoire	12.9	12.3	2.3	2.3	18	19	0.9	1.2	
		10.1							

(continued)

## **Tables**

**Table 1.** Prevalence of undernourishment and the distance from Millennium Development Goal<sup>1</sup> and World Food Summit<sup>2</sup> targets in developing countries

DEVELOPING WORLD Region/subregion/country	Total po		of people ourished	of under	ortion nourished oopulation	Ratio current/baseline prevalence of undernourished <sup>3</sup>	Ratio current/baseline number of undernourished <sup>3</sup>		
	1990–92 (mill	2000-02 ions)	1990-92 2000-02 (millions)		1990-92 2000-02 (%)		Ratio for MDG <sup>1</sup> target = 0.5	Ratio for WFS <sup>2</sup> target = 0.5	
Ghana	15.7	20.0	5.8	2.5	37	13	0.3	0.4	
Guinea	6.4	8.2	2.5	2.1	39	26	0.7	0.9	
Liberia	2.1	3.1	0.7	1.4	34	46	1.3	2.0	
Mali	9.3	12.3	2.7	3.6	29	29	1.0	1.3	
Mauritania	2.1	2.7	0.3	0.3	15	10	0.6	0.8	
Niger	7.9	11.1	3.2	3.8	41	34	0.8	1.2	
Nigeria	88.7	117.8	11.8	11.0	13	9	0.7	0.9	
Senegal	7.5	9.6	1.8	2.3	23	24	1.0	1.3	
Sierra Leone	4.1	4.6	1.9	2.3	46	50	1.1	1.2	
Тодо	3.5	4.7	1.2	1.2	33	26	0.8	1.0	

#### Notes

Countries revise their official statistics regularly for the past as well as the present. The same holds for population data of the United Nations. Whenever this happens, FAO revises its estimates of undernourishment accordingly. Therefore users are advised to refer to changes of estimates over time only within the same *The State of Food Insecurity in the World* publication and refrain from comparing the data published in editions for different years.

Table does not list countries for which there were insufficient data.

<sup>1</sup> Millenium Development Goal 1, target 2: halve, between 1990 and 2015, the proportion of people who suffer from hunger.

<sup>2</sup> World Food Summit goal: halve, between 1990–92 and 2015, the number of undernourished people.

<sup>3</sup> Current refers to 2000–02 estimates and baseline refers to 1990–92 estimates.

\* Although not listed separately, provisional estimates for Afghanistan, Iraq, Papua New Guinea and Somalia have been included in the relevant regional aggregates.

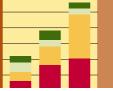
\*\* Eritrea and Ethiopia were not separate entities in 1990–92, but estimates of the number and proportion of undernourished in the former People's Democratic Republic of Ethiopia are included in regional and subregional aggregates for that period.

#### Key

- proportion less than 2.5% undernourished
- na data not available
- 0.0 zero or less than half the unit shown

#### Sources

Total population: UN Population Prospects, 2002 revision. Undernourishment: FAO estimates.



## Table 2. Selected indicators of the Millennium Development Goals in developing countries, classified by category of prevalence of undernourishment

CATEGORY OF PREVALENCE OF UNDERNOURISHMENT in total population 2000-02			Prevalence of underweight children under five years of age MDG 4 1990 2004 [%]		Net enrolment rate in primary education MDG 6 1990 2002 (%)		Ratio of girls to boys in primary education MDG 9		Under-five mortality rate (per 1 000 live births) MDG 13		Maternal mortality ratio (per 100 000 live births) MDG 16		Proportion of land area covered by forest MDG 25	
Country							1990	2002	1990	2003	1990	2000	1990 (۲	2000 %)
LESS THAN 2.5% UNDERNOURIS	SHED													
Argentina	2	3	na	5	94	na	1.04	1.00	28	20	100	82	14	13
Libyan Arab Jamahiriya	na	na	na	5	96	na	0.94	1.00	42	16	220	97	0	0
Malaysia	2	2	25	12	94	93	1.00	1.00	21	7	80	41	66	59
Rep. of Korea	na	2	na	na	100	100	1.01	1.00	9	5	130	20	64	63
Tunisia	2	2	10	4	94	97	0.89	0.96	52	24	170	120	3	3
United Arab Emirates	na	na	na	7	99	83	0.97	0.97	14	8	26	54	3	4
2.5 TO 4% UNDERNOURISHED														
Chile	6	2	2	1	88	86	0.98	0.98	19	9	65	31	21	21
Costa Rica	5	2	3	5	87	90	0.99	0.98	17	10	55	43	42	39
Cuba	na	na	na	4	92	93	0.97	0.96	13	8	95	33	19	21
Ecuador	2	18	17	12	98	100	0.99	1.00	57	27	150	130	43	38
Egypt	4	3	10	9	84	91	0.83	0.95	104	39	170	84	0	0
Islamic Rep. of Iran	2	2	na	11	92	86	0.90	0.97	72	39	120	76	4	4
Lebanon	na	na	na	3	78	91	0.96	0.97	37	31	300	150	4	4
Saudi Arabia	na	na	na	14	59	54	0.86	0.96	44	26	130	23	1	1
Syrian Arab Rep.	na	na	12	7	92	98	0.90	0.95	44	18	180	160	3	3
Turkey	2	2	10	8	90	86	0.92	0.93	78	39	180	70	13	13
Uruguay	2	2	6	na	92	90	0.99	0.98	24	14	85	27	5	7
5 TO 9% UNDERNOURISHED														
Algeria	2	2	9	6	93	95	0.85	0.93	69	41	160	140	1	1
Brazil	14	8	7	6	86	97	0.94	0.95	60	35	220	260	67	64
Gabon	na	na	na	12	86	78*	0.98	0.99	92	91	500	420	85	85
Guyana	8	3	18	14	89	99	0.98	0.98	90	69	na	170	81	79
Indonesia	17	8	40	26	97	92	0.98	0.98	91	41	650	230	65	58
Jordan	2	2	6	4	94	92	1.01	1.01	40	28	150	41	1	1
Kuwait	na	na	11	2	49	83	0.95	1.00	16	9	29	5	0	0
Mauritius	na	na	24	15	95	97	1.00	1.01	25	18	120	24	8	8
Mexico	8	10	17	8	99	99	0.98	0.99	46	28	110	83	32	29
Morocco	2	2	12	9	57	90	0.69	0.90	85	39	610	220	7	7
Myanmar	na	na	32	35	98	84	0.95	1.01	130	107	580	360	60	52
Nigeria	66	70	35	29	60	67	0.78	0.81	235	198	1 000	800	19	15
10 TO 19% UNDERNOURISHED														
Benin	na	na	35	23	45	58*	0.50	0.72	185	154	990	850	30	24
Bolivarian Rep. of Venezuela	3	14	8	4	88	91	1.03	0.98	27	21	120	96	59	56
Burkina Faso	63	45	33	38	26	36	0.63	0.74	210	207	930	1 000	26	26
China	33**	17**	17**	10**	97**	na		* 1.00**	49**	37**	95*;	* 56**	16	18
Colombia	2	8	10	7	68	87	1.15	0.99	36	21	100	130	50	48
Côte d'Ivoire	10	11	12	21	46	61	0.71	0.80	157	192	810	690	31	22
El Salvador	21	31	15	10	73	90	1.01	0.95	60	36	300	150	9	6
Ghana	18	45	30	22	52	63	0.83	0.95	125	95	740	540	33	28
Jamaica	8	2	7	4	96	95	0.99	0.99	20	20	120	87	35	30
Lesotho	30	36	16	18	73	86	1.21	1.01	120	84	610	550	0	0
Mauritania	47	26	48	32	35	68	0.73	0.97	183	183		1 000	0	0
Nepal	na	39	na	48	81	70*	0.61	0.89	145	82	1 500	740	33	27
Paraguay	5	16	4	5	93	89	0.97	0.96	37	29	160	170	62	59
Peru	2	18	11	7	88	100	0.97	1.00	80	34	280	410	53	51
Suriname	na	na	na	13	78	97	1.00	0.98	48	39	na	110	90	90
Swaziland	8	na	na	10	77	75	0.98	0.93	110	153	560	370	27	30
									-	-				

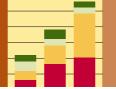
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## **Tables**

**Table 2.** Selected indicators of the Millennium Development Goals in developing countries, classified by category of prevalence of undernourishment

CATEGORY OF PREVALENCE OF UNDERNOURISHMENT in total population 2000–02	of population und below US\$1 child 02 PPP per day five y MDG 1		under childre five yea	Prevalence of underweight children under five years of age MDG 4 MDG 6 Net enrolment rate in primary education MDG 6			girls in pr educ	tio of to boys imary cation DG 9	Under-five mortality rate (per 1 000 live births) MDG 13		Maternal mortality ratio (per 100 000 live births) MDG 16		Proportion of land area covered by forest MDG 25	
Country			1990 2004 [%]		1990 2002 (%)		1990	2002	1990	2003	1990	2000	1990 2000 (%)	
Trinidad and Tobago	4	na	7	6	91	91	0.99	0.97	24	20	90	160	55	50
Uganda	88	85	23	23	53	na	0.80	0.98	160	140	1 200	880	26	21
Viet Nam	15	2	45	33	91	94*	0.93	0.93	53	23	160	130	29	30
20 TO 34% UNDERNOURISHED														
Bangladesh	36	36	66	52	71	84	0.86	1.04	144	69	850	380	9	10
Bolivia	6	14	11	8	91	95	0.91	0.99	120	66	650	420	50	49
Botswana	31	na	na	13	85	81	1.08	1.00	58	112	250	100	24	22
Cambodia	na	34	na	45	67	93	0.81	0.90	115	140	900	450	56	53
Cameroon	na	17	15	21	74	na	0.86	0.85	139	166	550	730	56	51
Chad	na	na	35	28	37	63	0.45	0.64	203	200	1 500	1 100	11	10
Dominican Rep.	4	2	10	5	58	96	1.02	1.02	65	35	110	150	28	28
Gambia	54	na	na	17	48	79	0.68	0.98	154	123	1 100	540	44	48
Guatemala	35	16	33	23	64	87	0.88	0.93	82	47	200	240	31	26
Guinea	na	na	na	23	26	65	0.47	0.77	240	160	1 600	740	30	28
Honduras	38	21	18	17	90	87*	1.05	1.02*	59	41	220	110	53	48
India	42	35	64	47	na	88	0.76	0.94	123	87	570	540	21	22
Kenya	34	23	23	20	74	66	0.95	0.94	97	123	650	1 000	32	30
Lao People's Dem. Rep.	8	26	44	40	63	85	0.79	0.87	163	91	650	650	57	54
Malawi	na	42	28	22	50	na	0.83	0.96	241	178	560	1 800	35	27
Mali	16	na	31	33	20	44	0.60	0.76	250	220	1 200	1 200	12	11
Mongolia	na	27	12	13	90	79	1.02	1.02	104	68	65	110	7	7
Namibia	35	na	26	24	83	78	1.09	1.01	86	65	370	300	11	10
Nicaragua	48	45	11	10	72	85	1.06	0.99	68	38	160	230	37	27
Niger	42	61	43	40	24	38	0.58	0.69	320	262	1 200	1 600	2	1
Pakistan	48	13	40	38	35	59*	na	0.71	130	103	340	500	4	3
Panama	12	7	6	7	92	100	0.96	0.97	34	24	55	160	46	39
Philippines	20	15	34	31	97	94	0.99	0.99	63	36	280	200	22	19
Senegal	45	22	22	23	47	58	0.73	0.92	148	137	1 200	690	35	32
Sri Lanka	4	8	37	29	90	na	0.96	0.99	32	15	140	92	35	30
Sudan	na	na	34	41	43	46*	0.77	0.87	120	93	660	590	30	26
Thailand	18	2	25	18	76	85	0.96	0.96	40	26	200	44	31	29
Тодо	na	na	25	25	75	91	0.66	0.83	152	140	640	570	13	9
35% OR MORE UNDERNOURISH	ED													
Angola	na	na	20	31	58	61*	0.92	0.86*	260	260	1 500	1 700	57	56
Burundi	45	55	38	45	53	57	0.84	0.81	190	190	1 300	1 000	9	4
Central African Rep.	67	na	na	24	54	na	0.63	0.68	180	180	700	1 100	37	37
Congo	na	na	24	14	79	54	0.90	0.93	110	108	890	510	65	65
Dem. People's Rep. of Korea	na	na	na	21	na	na	na	na	55	55	70	67	68	68
Dem. Rep. of the Congo	na	na	na	31	55	na	0.75	0.90*	205	205	870	990	62	60
Eritrea	na	na	41	40	16	45	0.94	0.81	147	85	1 400	630	14	13
Ethiopia	na	23	48	47	23	47	0.66	0.73	204	169	1 400	850	5	4
Haiti	na	na	27	17	22	na	0.94	na	150	118	1 000	680	6	3
Liberia	na	na	na	27	na	70*	na	0.73*	235	235	560	760	38	31
Madagascar	46	61	41	33	65	79	0.98	0.96	168	126	490	550	22	20
Mozambique	na	38	na	24	45	55	0.76	0.81	235	158	1 500	1 000	40	39
Rwanda	na	52	29	27	67	87	0.98	1.00	173	203	1 300	1 400	19	12
Sierra Leone	57	na	29	27	41	na	0.69	0.70*	302	284	1 800	2 000	20	15
United Rep. of Tanzania	49	na	29	29	50	69	0.98	0.97	163	165	770	1 500	45	44
Yemen	4	16	30	46	52	72	0.35	0.69	142	113	1 400	570	1	1
Zambia	65	64	25	28	79	68	0.91	0.93	180	182	940	750	53	42
Zimbabwe	33	56	12	13	86	80	0.99	0.98	80	126	570	1 100	57	49

(continued)



## **Table 2** . Selected indicators of the Millennium Development Goals in developing countries, classified by category of prevalence of undernourishment

#### Notes

\* Refers to a previous year.

\*\* Figures refer only to Mainland China. Other figures include data for Mainland China, Hong Kong Special Administrative Region of China, Macao Special Administrative Region of China and Taiwan Province of China.

Proportion of population below US\$1 purchasing power parity (PPP) per day (poverty headcount ratio at US\$1 a day [PPP]): The proportion of people below US\$1 a day is the percentage of the population with average consumption expenditures less than US\$1.08 a day measured in 1993 prices converted using PPP rates. As a result of revisions in PPP exchange rates, poverty rates cannot be compared with poverty rates reported previously for individual countries. All 2% headcount estimates indicate that actual values are less than or equal to 2% and should be treated with caution. Dates of the surveys vary. For each country, data were included for the year closest to 1990 from the decade 1985–94 and for the most recent year from the decade 1995–2004, with at least a period of five years between the surveys.

Prevalence of underweight children under five years of age: This is the proportion of children under the age of five whose weight is less than that of two standard deviations below the median weight-for-age for the international reference population aged 0 to 59 months, as adopted by the World Health Organization (WHO). It refers to moderately or severely underweight. Dates of the surveys vary. For each country, data were included for the year closest to 1990 from the decade 1985–94 and for the most recent year from the decade 1995–2004, with at least a period of five years between the surveys. Some surveys may refer to different age groups.

Net enrolment rate in primary education: Net enrolment ratio is the ratio of the number of children of official school age (as defined by the national education system) who are enrolled in school to the population of the corresponding official school age. Primary education provides children with basic reading, writing and mathematics skills along with an elementary understanding of such subjects as history, geography, natural science, social science, art and music.

Ratio of girls to boys in primary education: Primary education includes both public and private schools. The ratio of girls to boys is calculated as the gross enrolment ratio (GER) of girls divided by the GER of boys. GER refers to enrolment at a given level of education, regardless of age, expressed as a percentage of the population in the theoretical school-age group corresponding to this level of education.

**Under-five mortality rate:** probability that a newborn baby will die before reaching age five, assuming current age-specific mortality rates. Data are from different surveys and hence may reflect different methodologies.

Maternal mortality ratio (per 100 000 live births): Maternal death refers to the death of woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management but not from accidental causes. Data are from different surveys and hence may reflect different methodologies. The margin of uncertainty associated with the estimated maternal mortality ratios is very large, and the estimates should not, therefore, be used to monitor trends in the short term. In addition, cross-country comparisons should be treated with considerable circumspection because different strategies are used to derive the estimates for different countries, making it difficult to draw comparisons.

**Proportion of land area covered by forest:** Forest area is land under natural or planted stands of trees, whether productive or not.

#### Key

na data not available

#### Sources

Data from the United Nations Statistics Division (UNSD) MDG online database have been complemented with more recent data from primary sources, where available.

Proportion of population below US\$1 purchasing power parity (PPP) per day: World Bank, *World Development Indicators 2005.* 

**Prevalence of underweight children under five years of age:** United Nations Children's Fund (UNICEF) online database; WHO online database; World Bank, *World Development Indicators 2005.* 

**Net enrolment rate in primary education:** 1990 data from the United Nations Educational, Scientific and Cultural Organization (UNESCO), as cited in the UNSD MDG online database; most recent data from UNESCO online database.

Ratio of girls to boys in primary education: 1990 data from UNESCO, as cited in the UNSD MDG online database; most recent data from UNESCO online database. Some data are UNESCO Institute for Statistics or national estimates.

Under-five mortality rate: UNICEF online database.

Maternal mortality ratio (per 100 000 live births): 1990 data from WHO, UNICEF, the United Nations Population Fund, as cited in the UNSD MDG online database; most recent data from UNICEF online database.

**Proportion of land area covered by forest:** FAO, *Global Forest Resources* Assessment 2000.

## Sources

The State of Food Insecurity in the World 2005 is based mainly on data and analysis provided by FAO's technical divisions. Specific references cited in this edition include the following. Web sites cited were accessed in October, 2005.

#### Pages 8-9

- Alderman, H., Behrman, J., & Hoddinott, J. 2004. Hunger and malnutrition. In B. Lomborg, ed. *Global crises, global solutions*. Cambridge, UK, Cambridge University Press.
- Ravallion, M. & Datt, G. 1999. When is growth pro-poor? Evidence from the diverse experiences in India's states. Washington, DC, World Bank.

#### Pages 10-11

- Fan, S., Hazell, P. & Thorat, S. 2000. Government spending, growth and poverty in rural India. *Am. J. Agr. Econ.*, 82(4): 1038-1051.
- Paarlberg, R. 2002. Governance and food security in an age of globalization. Washington, DC, International Food Policy Research Institute.
- Spencer, D. 1994. Infrastructure and technology constraints to agricultural development in the humid and subhumid tropics of Africa.
   Washington, DC, International Food Policy Research Institute.
- World Bank. 2005. Governance indicators: 1996–2004 (available at http://www. worldbank.org/wbi/governance/govdata/).

#### Pages 12-13

- Pacific Disaster Management Information Network. 2005. Indian Ocean earthquake tsunami emergency report (available at http://www.coe-dmha.org/tsunami.htm).
- UNDP. 2004. Reducing disaster risk: a challenge for development. New York, USA, United Nations Development Programme.

#### Pages 14-15

- Bruns, B., Mingat, A. & Rakotomalala, R. 2003. Achieving universal primary education by 2015: a chance for every child. Washington, DC, World Bank.
- UNESCO. 2005. Education for all global monitoring report. United Nations Educational, Scientific and Cultural Organization (available at http://www.efareport.unesco.org).
- United Nations Millennium Project. 2005. Toward universal primary education: investments, incentives and institutions. London and Sterling, USA, Earthscan.

#### Pages 16-17

Abu-Ghaida, D. & Klasen, S. 2004. The costs of missing the Millennium Development Goal on gender equity. Institute for the Study of Labor (IZA) Discussion Paper No. 1031 (available at http://papers.ssrn.com/sol3/papers.cfm? abstract\_id=515945).

- International Institute for Population Sciences. 2000. National Family Health Survey, India (available at http://www.nfhsindia.org/ india2.html).
- Ramalingaswami, V., Jonsson, U. & Rohde, J. 1996. Commentary: the Asian enigma. *In* UNICEF, *The progress of nations 1996*. New York, USA, United Nations Children's Fund.
- United Nations Millennium Project. 2005. Taking action: achieving gender equality and empowering women. London and Sterling, USA, Earthscan.

#### Pages 18-19

- Black, R., Morris, S. & Bryce, J. 2003. Where and why are 10 million children dying every year. *Lancet*, 361: 2226-2234.
- Mason, J., Lotfi, M., Dalmiya, N., Sethuraman, K.
  & Deitchler, M., with Geibel, S., Gillenwater,
  K., Gilman, A., Mason, K., & Mock, N. 2001.
  The micronutrient report: current progress and trends in the control of vitamin A, iron, and iodine deficiencies. Ottawa, Micronutrient Initiative, International Development Research Centre.
- World Health Organization. 2005. Comparative quantification of health risks: childhood and maternal undernutrition (available at http://www.who.int/publications/cra/chapters /volume1/part2/en/index.html).
- World Health Organization. 2005. The world health report 2005: make every mother and child count. Geneva, Switzerland.

#### Pages 20-21

- Konje, J. & Ladipo, O. 2000. Nutrition and obstructed labor. Am. J. Clin. Nutr., 72(Suppl): 291S-297S.
- Rush, D. 2000. Nutrition and maternal mortality in the developing world. *Am. J. Clin. Nutr.*, 72[Suppl.]: 212S-240S.
- WHO, UNICEF (United Nations Children's Fund)
  & UNFPA (United Nations Population Fund).
  2005. Maternal mortality in 2000: estimates developed by WHO, UNICEF and UNFPA.
  Geneva, Switzerland, World Health
  Organization.

#### Pages 22–23

- Gallup, J. & Sachs, J. 2001. The economic burden of malaria. *Am. J. Trop. Med. Hyg.*, 64(1, 2) S: 85-96.
- IDRC/TEHIP (Tanzania Essential Health Interventions Project). 2004. TEHIP in action (available at http://web.idrc.ca/en/ev-6300-201-1-D0\_TOPIC.html). International Development Research Centre.
- ILO. 2004. HIV/AIDS and work: global estimates,

*impact and response.* Geneva, Switzerland, International Labour Organization.

- UNAIDS & WHO. 2004. AIDS epidemic update. Geneva, Switzerland, Joint United Nations Programme on HIV/AIDS and World Health Organization.
- United Nations Millennium Project. 2005. Combating AIDS in the developing world. London and Sterling, USA, Earthscan.
- United Nations Millennium Project. 2005. Coming to grips with malaria in the new millennium. London and Sterling, USA, Earthscan.

#### Pages 24–25

- Parikh, K. 1998. Poverty and environment: turning the poor into agents of environmental regeneration. New York, USA, United Nations Development Programme.
- Roe, D., ed. 2004. The Millennium Development Goals and conservation - managing nature's wealth for society's health. International Institute for Environment and Development.
- UNEP & IISD. 2004. Exploring the links: human well-being, poverty & ecosystem services. Nairobi and Winnipeg, Canada, United Nations Environment Programme and International Institute for Sustainable Development.
- UNEP/GRID-Arendal. 2005. Fragilised environments. *Environment and Poverty Times* (3). United Nations Environment Programme Global Resource Information Database (available at http://www.environmenttimes.net).

#### Pages 26–27

- **Commission for Africa.** 2005. *Our common interest: report of the Commission for Africa* (available at
  - http://www.commissionforafrica.org).
- DFID. 2004. Official development assistance to agriculture. United Kingdom Department for International Development (available at http://dfid-agriculture-consultation.nri.org/ summaries/wp9.pdf).
- Diao, X., Diaz-Bonilla, E. & Robinson, S. 2003. How much does it hurt? The impact of agricultural trade policies on developing countries. Washington, DC, International Food Policy Research Institute.
- Eicher, C. 2003. Flashback: fifty years of donor aid to African agriculture. Paper presented at the InWent (Capacity Building International), IFPRI (International Food Policy Research Institute), NEPAD (New Partnership for Africa's Development), CTA (Technical Centre for Agricultural and Rural Cooperation ACP-EU) conference, Successes in African Agriculture: Building for the Future, Pretoria.
- FA0. 2005. Mobilizing resources to halve world hunger. Paper prepared for the 2005 World Summit. Rome.



## The FIVIMS initiative and the Millennium Development Goals

In the Millennium Declaration, world leaders pledged "to spare no effort to free our fellow men, women and children from the abject and dehumanizing conditions of extreme poverty". The associated Millennium Development Goals (MDGs) established targets and indicators to measure progress towards the lofty vision of "freeing the entire human race from want".

Today, with only ten years remaining until the 2015 deadline for reaching the MDG targets, a great deal of attention has been focused on MDG 1, on the target of reducing by half the proportion of people struggling to survive on less than a dollar a day, on the goal of "making poverty history". But MDG 1 is not only about reducing income poverty. It also includes a commitment to reduce by half the proportion of people who suffer from hunger, because freedom from hunger is a fundamental right of every human being.

When the MDGs were framed, the halving of extreme poverty and hunger were listed first and together. And rightfully so. Hunger is both one of the most painful symptoms and one of the most important causes of extreme poverty. Yet hunger is often all but ignored in discussions of MDG 1, just as it has, for far too long, been all but invisible on the development agenda.

As this edition of *The State of Food Insecurity in the World* clearly demonstrates, reducing hunger is perhaps the most critical element if we are to meet most of the other MDGs. Hunger undermines health, education, productivity and environmental sustainability. Hungry women give birth to hungry babies, with greatly increased risks of both maternal and infant mortality. Hungry children cannot learn. Hungry adults cannot work as hard or earn as much. Hungry people are more likely to catch infectious diseases and to suffer severe illness and death once they do. Hungry people need to use all the means at their disposal to survive, even if that means despoiling the natural resources upon which they depend.

We cannot allow this vicious cycle of deprivation to continue. If we want to eliminate extreme poverty and reach the other MDGs, we must first mobilize resources, energy and political commitment to make hunger history.

The Inter-Agency Working Group on Food Insecurity and Vulnerability Information and Mapping Systems (IAWG-FIVIMS) is dedicated to doing just that by providing the information needed to galvanize, target and monitor effective action to end hunger. The core mandates of our different member agencies cover all of the MDGs. In the IAWG-FIVIMS team we bring together all the elements of those mandates pertinent to the fight against hunger.

Based on a comprehensive, independent assessment of our activities, structures and processes, we are gearing up to be more relevant, more timely, and more effective. Learning from what we did well and, more importantly, what we did not, we are formulating a new business plan and revising our operating structure. The changes will serve not to alter but to reinforce our core mandate - to provide a framework for a wide range of national and international activities to gather, analyse and disseminate improved information that can be actively used to reduce hunger and achieve food security for all.

We recognize that the fight against hunger will be long and tough and that we must be prepared to meet the challenge. We believe that at the end of our business planning process we will be up to the task at hand.

> Lynn Brown (World Bank) Chairperson, IAWG-FIVIMS

IAWG-FIVIMS members include bilateral aid and technical agencies, United Nations and Bretton Woods agencies, international agricultural research organizations, international non-governmental organizations and regional organizations. More information about FIVIMS and its member agencies is available at www.fivims.net or by e-mailing FIVIMS-Secretariat@fao.org.



## The State of **Food Insecurity in the World**

Only ten years now remain before the 2015 deadline by which world leaders have pledged to reduce hunger and extreme poverty by half and to make substantial gains in education, health, social equity, environmental sustainability and international solidarity. *The State of Food Insecurity in the World 2005* examines progress towards the World Food Summit goals and the Millennium Development Goals (MDGs), focusing on the critical importance of reducing hunger, not only as the explicit target of MDG 1 but as an essential condition for reaching the other MDGs.

The report presents compelling evidence that hunger and malnutrition are major causes of the deprivation and suffering targeted by all of the other MDGs. Progress towards those targets has lagged, particularly in the countries and regions where efforts to reduce hunger have stalled.

The State of Food Insecurity in the World 2005 emphasizes that most, if not all, of the MDG targets can still be reached. But only if efforts are redoubled and refocused. And only by recognizing and acting on two key points: without rapid progress in reducing hunger, achieving all of the other MDGs will be difficult, if not impossible; and the fight to eliminate hunger and reach the other MDGs will be won or lost in the rural areas where the vast majority of the world's hungry people live.



