Ten years after the 1996 Rome World Food Summit (WFS), the number of undernourished people in the world remains stubbornly high. In 2001–03, FAO estimates there were still 854 million undernourished people worldwide: 820 million in the developing countries, 25 million in the transition countries and 9 million in the industrialized countries.\(^2\)

Virtually no progress has been made towards the WFS target of halving the number of undernourished people by 2015. Since 1990–92, the baseline period for the WFS target, the undernourished population in the developing countries has declined by only 3 million people: from 823 million to 820 million. This contrasts starkly with the reduction of 37 million achieved in the 1970s and of 100 million in the 1980s. Moreover, the most recent trends are a cause for concern – a decline of 26 million between 1990–92 and 1995–97 was followed by an increase of 23 million up to 2001–03. Because of population growth, the very small decrease in the number of hungry people has nevertheless resulted in a reduction in the proportion of undernourished people in the developing countries by 3 percentage points – from 20 percent in 1990–92 to 17 percent in 2001–03. This means that progress has continued towards the first Millennium Development Goal (MDG 1) of halving the percentage of undernourished people by 2015. However, progress over this period was slower than over the previous two decades, when the prevalence of undernourishment declined by 9 percent (from 37 percent to 28 percent) between 1969–71 and 1979–81 and by a further 8 percentage points (to 20 percent) between 1979–81 and 1990–92.\(^3\)

Success in meeting the WFS target will require a reversal of recent trends in the number of hungry people in the developing countries to 7 percent, which is 10 percentage points lower than the current level of 17 percent.
people and a sharp acceleration in the rate of reduction of the proportion of undernourished. Indeed, even if the MDG target were to be reached by 2015, the WFS target would still be far from being met (see box). In order to attain the WFS target in the developing countries, the number of undernourished people must be reduced by 31 million per year between 2001–03 and 2015.

**Regional trends in undernourishment**

Global stagnation in hunger reduction masks significant disparities among regions: Asia and the Pacific and Latin America and the Caribbean have seen an overall reduction in both the number and prevalence of undernourished people since the WFS baseline period. Nevertheless, in both regions the average rate of reduction has fallen short of what would be required to halve the undernourished population by 2015. Furthermore, in the case of Asia and the Pacific the number of undernourished has reverted to an increasing trend over the latter part of the decade, although the prevalence has continued to decline. Underlying this reversal are larger absolute numbers in China and India in 2001–03 relative to 1995–97.

On the other hand, both in the Near East and North Africa and in sub-Saharan Africa the number of undernourished people has risen during the 11-year period following the WFS baseline. In sub-Saharan Africa, this represents the continuation of a trend that has been apparent over at least the last three decades.

In sub-Saharan Africa, recent progress in reducing the prevalence of undernourishment is noteworthy. For the first time in several decades, the share of undernourished people in the region’s population saw a significant decline: from 35 percent in 1990–92 to 32 percent in 2001–03, after having reached 36 percent in 1995–97. This is an encouraging development, but the task facing the region remains daunting: the number of undernourished people increased from 169 million to 206 million while reaching the WFS target will require a reduction to 85 million by 2015.

The Near East and North Africa is the only region in which both the number and proportion of undernourished has risen since 1990–92, albeit from a relatively low base. Following the significant reduction in the numbers of undernourished achieved during the 1970s, the trend in subsequent decades has been consistently upwards. The decade since the WFS baseline period constituted no exception, although the rate of increase slowed in the later years. For the transition countries, the number of undernourished people has increased slightly, from 23 million to 25 million. This rise is attributed mainly to higher numbers in the Commonwealth of Independent States (CIS), where the...
The majority of the region’s undernourished people are found.

The WFS and MDG targets: regional progress and setbacks

The degree of regional progress towards the WFS and MDG targets is illustrated by Figure 6, which shows the ratio of the number and the prevalence of undernourished, respectively, in 2001–03 to that of 1990–92. A ratio of 0.5 or lower implies that the respective target (WFS target for the number and MDG target for the prevalence) has been achieved. A ratio of less than 1.0 indicates progress towards the target while a ratio of more than 1.0 indicates a setback. Only Asia and the Pacific and Latin America and the Caribbean have made progress towards the WFS target, but neither region is close to reaching it. The remaining regions have all moved away from the target by varying degrees.

Prospects for achieving the MDG target look more promising. All developing country regions except the Near East and North Africa have made inroads towards reducing the prevalence of undernourishment, and in the cases of Asia and the Pacific and Latin America and the Caribbean progress has been quite significant.

Subregional trends in undernourishment

Regional trends in undernourishment since the WFS baseline period conceal significant differences at the subregional level, as illustrated by Figures 7 and 8. Within the sub-Saharan Africa region, the subregions of Southern Africa, East Africa and West Africa all saw a decline in the prevalence of undernourishment (although not necessarily in the number of undernourished); by contrast, Central Africa experienced a dramatic increase in both the number of hungry people and prevalence of undernourishment.

In Asia (where China and India are treated as separate subregions in view of the size of their populations) significant progress in reducing the number of undernourished people was made in China and the populous subregion of Southeast Asia. In India, on the other hand, the prevalence of hunger declined, but the outcome in terms of reducing the number of undernourished was small, as a reduction in the first part of the decade (1990–92 to 1995–97) was subsequently reversed. At the same time, the number of undernourished increased in the rest of East Asia (excluding China) and, particularly, in the rest of South Asia (excluding India).

A significant contribution to progress towards the WFS target in the Latin American and Caribbean region was made by South America, while the number of hungry people increased in Central America and Mexico. In the Near East and North Africa, the absolute number of undernourished is the smallest of all the developing country regions, but it increased both in North Africa and in the Near East, with the latter also seeing an increase in the prevalence of hunger.

Globally, most subregions experienced a reduction in the prevalence of undernourishment. However, any significant progress towards reducing the global number of undernourished was concentrated in very few, but populous,
Progress and setbacks in hunger reduction in the subregions are shown in Figure 9. For each subregion, the ratio indicating the distance from the WFS target is plotted against the prevalence of undernourishment. A ratio between 1.0 and 0.5 implies progress towards the target whereas one of 0.5 or less indicates the target has been achieved or surpassed. A ratio greater than 1.0 indicates setback.

The two extremes – the Baltic States and Central Africa – illustrate the wide disparity in progress in the fight against hunger. The Baltic States, with the lowest prevalence of undernourishment, have already reduced the numbers by more than half; Central Africa, with the highest prevalence (56 percent of the population), has been moving rapidly away from the WFS target as a result of a dramatically worsening food security situation in the Democratic Republic of the Congo.

Apart from the Baltic States, only China, Southeast Asia, South America and the Caribbean have moved decisively towards the WFS target. The first three, owing to their large populations, are also the subregions that have provided the most substantive contribution towards a reduction in the number of undernourished. It is also worth noting that in all these subregions, except the Caribbean, prevalence of undernourishment is lower than the average of the developing countries.

In addition to Central Africa, also East Africa and Southern Africa call for priority attention in view of their high prevalence of undernourishment. In both subregions, the number of hungry people has continued to increase in spite of a reduction in the prevalence of hunger. Substantial acceleration of progress will be needed if the WFS target is to be met. The same applies to other regions with somewhat lower levels of undernourishment but with limited or no progress in reducing the absolute numbers: South Asia (excluding India), West Africa and India.

Other subregions with lower levels of undernourishment that show a worrying increase in both prevalence and numbers of undernourished are East Asia (excluding China) – mainly due to a worsening situation in the Democratic People’s Republic of Korea – the Near East and Central America.

Clearly, progress towards the WFS target is concentrated in too few subregions and generally in those with a prevalence of undernourishment below the average for the developing countries. Global progress is largely determined by a few subregions with large populations, while too many others have seen virtually no progress or have even experienced setbacks. To accelerate the pace of global hunger reduction, it is essential to halt and reverse the rising trend in numbers where it occurs and to broaden success in hunger reduction to other subregions. This will evidently be critical in those subregions where the...
prevalence of undernourishment is most severe.

**Undernourishment in the lead-up to 2015**

Despite painfully slow global progress in hunger reduction over the last decade, a positive sign comes from some of FAO’s latest projections, which indicate an acceleration in the future [see table].

The prevalence of hunger in the developing countries as a group is projected to drop by exactly half from the base rate (in 1990–92) of 20.3 percent to 10.1 percent in 2015. If this happens, the MDG hunger reduction target will be met. The same cannot be said for the WFS commitment, as the number of undernourished people in 2015 is expected to remain in excess of its target by 170 million hungry people.

A reduced number of undernourished people is not envisaged for all developing regions. Only East Asia is expected to reach the WFS target. Sub-Saharan Africa and the Near East and North Africa, on the contrary, are expected to suffer an increase, reaching higher numbers in 2015 than in 1990–92. Latin America and the Caribbean and South Asia, while projected to reach the MDG target, are not on track for the WFS target. The recent increasing trends in the number of undernourished people in South Asia, sub-Saharan Africa and the Near East and North Africa are likely to be reversed, but, of these three, only South Asia is foreseen to reach the MDG target.

### Projected undernourishment in the developing world

<table>
<thead>
<tr>
<th></th>
<th>Number of undernourished people (millions)</th>
<th>Prevalence of undernourishment (percentage of population)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Developing countries</td>
<td>823</td>
<td>582</td>
</tr>
<tr>
<td>Sub-Saharan Africa</td>
<td>170</td>
<td>179</td>
</tr>
<tr>
<td>Near East and North Africa</td>
<td>24</td>
<td>36</td>
</tr>
<tr>
<td>Latin America and the Caribbean</td>
<td>60</td>
<td>41</td>
</tr>
<tr>
<td>South Asia</td>
<td>291</td>
<td>203</td>
</tr>
<tr>
<td>East Asia**</td>
<td>277</td>
<td>123</td>
</tr>
</tbody>
</table>

Notes
- The base period for projections is 1999–2001 and not 2001–03. Some small countries have also been excluded from the projections.
- Data for 1990–92 may differ slightly from numbers reported elsewhere in the report as the projections are based on undernourishment estimates that do not include the latest revisions.
- **Includes Southeast Asia.**

Source: FAO

### Food intake and population growth

Projected progress in hunger reduction mirrors significant increases in average per capita food consumption. Despite the overall gains in food consumption, in several countries the increases will not be sufficient to allow for a significant reduction in the number of undernourished people. In particular, sub-Saharan Africa will still have an average per capita daily calorie intake of 2,420 kilocalories (kcal) (2,285 kcal when Nigeria is excluded) in 2015 – close to that of South Asia at the turn of the century. Low initial levels of calorie intake, coupled with high population growth, will contribute to the slow reductions in the number of undernourished people.

Reducing hunger will be particularly difficult for countries characterized by historically very high levels of hunger prevalence, very low food consumption (under 2,200 kcal/person/day in 1999–2001), low economic growth prospects, high population growth rates and a limited agricultural resource base. Thirty-two countries fall into this category – with undernourishment...
rates ranging from 29 to 72 percent of the population and an average prevalence of 42 percent. Their current population of 580 million is projected to rise to 1.39 billion by 2050. Their current average food consumption of 2,000 kcal/person/day has actually fallen below that of 30 years ago. Despite their poor historical record, however, several of these countries could achieve significant gains by prioritizing the development of local food production, as other countries have done in the past.

Undernourishment and poverty

Growth in per capita incomes will contribute to hunger alleviation by reducing poverty and increasing per capita food demand. Higher growth rates in per capita GDP relative to the 1990s are projected for all regions and country groups, with the exception of East Asia, which nevertheless remains the region with the highest growth rate (over 5.0 percent/year in per capita terms). Different methodologies are used to estimate poverty and undernourishment and the figures are not directly comparable. However, a closer look at trends for both indicators in the developing countries reveals that poverty has tended to decline more rapidly than undernourishment. The World Bank and FAO projections for these indicators suggest that this trend will continue. In fact, the differences in calculations notwithstanding, there were 1.5 poor people for every hungry person in 1990–92; by 2015, the corresponding figures are projected to be 1.2 to one.

These past trends and projections suggest that poverty reduction does not benefit proportionately those among the poor who are also undernourished. Although the reasons for the slower rate of hunger reduction are not clear, an important factor may be that hunger itself acts as a barrier to escaping poverty (the hunger trap). Past editions of The State of Food Insecurity in the World as well as the World Food Summit: five years later have emphasized that hunger is not only a consequence but also a cause of poverty, and that it compromises the productive potential of individuals, families and entire nations. In the 2004 edition of this report, an extensive analysis of the social and economic costs of hunger was presented. An important policy implication of this relationship would be that, in the absence of purposeful action, hunger will compromise efforts to reduce poverty globally. Income growth, while necessary, is not always sufficient for eradicating hunger. Specific measures targeted directly at ensuring access to food are an indispensable component of effective hunger eradication efforts.

Figure 12 presents trends and projections for poverty and undernourishment rates, which, significantly, indicate that the poverty target of MDG 1 (halving the proportion of the poor by 2015) will be reached in the baseline scenario.
Asia and the Pacific

Asia and the Pacific region accounts for 68 percent of the developing world’s population and 64 percent of its undernourished population. The prevalence of undernourishment – at 16 percent of the total population – is second only to Africa’s among the developing country regions.

Between 1990–92 and 2001–03, the number of undernourished people in the region declined from 570 million to 524 million and the prevalence of undernourishment dropped from 20 to 16 percent. Every country except the Democratic People’s Republic of Korea saw a decline in prevalence, but it was not sufficient in all cases to compensate for population growth – only 9 of the region’s 17 countries reduced the number of undernourished people.

To reach the WFS target by 2015, progress must be accelerated.

The decline in the number of hungry people in Asia and the Pacific was driven mainly by China, which saw a reduction from 194 million to 150 million. India has the largest number of undernourished people in the world, 212 million – only marginally below the 215 million estimated for 1990–92. Bangladesh and Pakistan, both with high levels of prevalence, account for 15 percent of the hungry people in the region, with Pakistan showing an increase in both prevalence and in absolute number.

Individual country progress towards the WFS target is shown in Figure 15. No country in the region has yet met the target. Two countries, Myanmar and Viet Nam, have reduced the number of undernourished people by more than 25 percent. In addition to these, the most significant progress in relative terms has been achieved by China, Thailand and Indonesia. The most serious deterioration in food security has been experienced by the Democratic People’s Republic of Korea, where the number of undernourished people more than doubled: from 3.6 million to 7.9 million.

Fighting hunger: determinants of success and setbacks

In most countries of the region, the majority of the population – and most of the poor and food-insecure – live in rural areas. A vibrant rural economy is therefore a prerequisite for reducing undernourishment. Productivity-driven (yield-increasing) growth in agriculture can...
have a strong positive impact on the rural non-farm economy through boosting demand for locally produced non-agricultural goods and by keeping food prices low. Increasing the productivity of small-scale farmers is especially important as they, and rural labourers, are more likely to spend the additional income on food and basic non-farm products and services deriving from rural areas. Agricultural growth thus generates a virtuous cycle in which agricultural and rural off-farm activities sustain each other. Such growth can make a powerful contribution towards reducing the numbers of undernourished, especially when initial income inequality is not too marked and population growth is moderate.

China and Viet Nam exemplify this process. From 1990–92 to 2001–03, the number of hungry people in China declined from 194 million to 150 million and the prevalence of undernourishment from 16 percent to 12 percent. This was achieved through strong economic and agricultural growth – real per capita GDP increased at an average annual rate of 8 percent between 1990 and 2003, while per capita agricultural GDP grew by 2.5 percent and per capita food production by 5.4 percent per year. At the same time, the annual population growth rate was only 1 percent.

**Food insecurity in the Democratic People’s Republic of Korea**

The Democratic People’s Republic of Korea has seen a sharp increase in both the prevalence of undernourishment and the number of hungry people over the period 1990–92 to 2001–03: the prevalence doubled and the absolute number more than doubled (to almost 8 million people).

The underlying cause appears to have been negative trends in economic growth. Statistics on GDP growth are not available, making it difficult to assess the extent of the problem. However, available data on food production indicate that this variable, in per capita terms, declined at a rate of 2.2 percent per year over this period. In 2003, the vast majority of the country’s 23 million people were dependent on cereals received through the public distribution system.
In fact, the rapid reduction of hunger and poverty in China started much earlier, originating with two major agricultural reforms in 1978, when families were permitted to lease land from the collectives and state procurement prices for foodgrains, oilcrops and hogs were raised. Agricultural output and incomes rose dramatically in response, with rural per capita income increasing by 90 percent between 1980 and 1985. From 1985 onwards, rural non-farm enterprises also began to expand rapidly. By 2000 they had absorbed about a quarter of the rural labour force and were contributing about 30 percent to national GDP, while farm households were deriving almost 50 percent of their incomes from non-farm sources. The number of poor people in rural China fell from about 490 million in 1979 to about 90 million in 2002 in terms of the World Bank’s US$1-a-day poverty line. The number of undernourished people was reduced from 387 million in 1969–71 to the current figure of 150 million. The rate of hunger reduction in China slowed down during the second half of the 1990s. This, at least in part, is attributable to the weak economic performance of the relatively isolated and disadvantaged rural areas where the majority of the remaining undernourished people are located. The bulk of agricultural output comes from about 200 million very small (0.65 ha or less) farms. Recent steps by the Government of China to revitalize rural areas holds out the promise that hunger reduction can accelerate over the next decade.

Between 1990–92 and 2001–03, Viet Nam reduced the prevalence of undernourishment from 31 to 17 percent and the number of undernourished people from 21 million to 14 million. As in China, accelerated hunger and poverty reduction originated with market-oriented economic and agricultural reforms, which were implemented in the 1980s. An economic reform programme gave farmers control over land, allowed them to increase sales to the market and reduced agricultural taxation. Also as in the case of China, the drivers were strong per capita growth in GDP (5.7 percent/year between 1990 and 2003) and agricultural GDP (2.5 percent/year) as well as rapid expansion in food production. A poverty eradication programme targeting investments in rural infrastructure also contributed to boosting agricultural production and hunger reduction. Viet Nam remains a low-income country, and keeping up the momentum in reducing hunger presents a formidable challenge.

Cambodia and India saw virtually no change in the total number of undernourished people despite strong growth in per capita income of 4 percent per year from 1993 to 2003 in Cambodia and 3.9 percent per year from 1990 to 2003 in India. However, the good overall economic performance was spread unevenly among sectors and was not underpinned by strong agricultural growth; per capita agricultural GDP increased at an annual rate of only 0.7 percent between 1993 and 2003 in Cambodia and by 0.9 percent from 1990 to 2003 in India.
Latin America and the Caribbean

Latin America and the Caribbean is home to some 6 percent of the developing world’s undernourished people and to 11 percent of its total population. At 10 percent of the region’s population, the prevalence of undernourishment is the second lowest among the developing regions.

With a reduction in the number of undernourished people from 59 million in 1990–92 to 52 million in 2001–03, the region is making progress towards the WFS target, although the pace needs to be accelerated. Progress is uneven and mostly concentrated in the subregions of South America and the Caribbean. Central America, on the other hand, has witnessed an upward trend in both numbers and prevalence. In Mexico, prevalence remained unchanged at a relatively low level while the number of undernourished people increased.

Figure 19 reveals the wide divergence in country progress towards the WFS target. A few countries – Cuba, Guyana and Peru – have already met the target while Chile and Uruguay are very close. Ecuador and Jamaica have reduced the number of undernourished people by around 25 percent. Brazil and Suriname have shown similar progress. Most countries in South America have advanced towards the target, but a significant increase in hunger was recorded in the Bolivarian Republic of Venezuela. Setbacks have also been recorded for most Central American countries, especially Guatemala and Panama. Haiti saw a reduction in the number of undernourished people but, at 47 percent of the population, the prevalence of undernourishment remains by far the highest in the region.

The World Food Summit target reached in Peru

Food insecurity deteriorated in Peru during the 1970s and, especially, the 1980s. The prevalence of undernourishment doubled from 21 percent in 1969–71 to 42 percent in 1990–92. In the 1990s, the trend was finally reversed. Between 1990–92 and 2001–03, the number of undernourished fell from 9.3 million to 3.3 million people and the prevalence of undernourishment from 42 to 12 percent of the population.

The improved food security can be attributed, inter alia, to the reduction of inflation. Between 1990–92 and 2001–03, real per capita GDP grew by 2.1 percent per year, despite the setback caused by world financial market upheaval in the late 1990s.

A key factor behind the success was strong agricultural growth. Peru introduced reforms in the agriculture sector, including legislation on land transactions and entitlements, which led to improvements in access to credit. Agricultural value added per worker increased by 4 percent annually between 1990–92 and 2001–03.

Nevertheless, significant levels of undernourishment and poverty remain. The challenge for the future is to maintain the pace of improvements in poverty and hunger reduction and broaden the gains to poorer regions of the country.
Fighting hunger: determinants of progress and setbacks

Overall, per capita dietary energy supplies are higher in the region than in both Asia and the Pacific and sub-Saharan Africa, and per capita GDP is the highest among developing country regions. A key factor underlying food insecurity in the region is high income inequality, which reflects unequal access to productive assets. Inequality causes an uneven distribution of the fruits of economic growth and acts as a brake on poverty reduction. The region is more urbanized than other developing country regions, but in many countries the share of the rural population is still high. Furthermore, in most countries the incidence of extreme poverty and food insecurity is higher in rural areas than in urban ones. Rural and agricultural development has a

Undernourishment in the regions

Number of undernourished: country progress and setbacks in Latin America and the Caribbean

Progress in Brazil

Between 1990–92 and 2001–03, the number of hungry people in Brazil decreased from 18.5 million to 14.4 million and the prevalence from 12 to 8 percent of the population. With an average energy intake of 3,060 kcal per day (in 2001–03), Brazil has adequate food supplies to feed its population, but access to food is hampered by highly skewed distribution of income and land.

In the early 1990s, Brazil experienced recession and a debt crisis. Major policy changes were introduced in an effort to stabilize the macroeconomic situation; these were accompanied by increased government expenditures on social programmes. Social indicators improved as a consequence, but the country still faces pervasive poverty and food insecurity among the lowest income groups.

In 2003, the government launched the Zero-Hunger Programme (Programa Fome Zero) with the aim of rapidly improving food security for 44 million people. Its main components set out to improve incomes, increase basic food supplies, enhance access to food and urgently alleviate hunger and malnutrition through targeted interventions.

A key social programme, launched in October 2003, is the Bolsa Família Programme, which provides conditional income transfers to poor families. Conditionalities include school attendance and health visits. The government plans, during 2006, to reach all eligible families – an estimated 11.2 million people.

Fighting hunger: determinants of progress and setbacks

Overall, per capita dietary energy supplies are higher in the region than in both Asia and the Pacific and sub-Saharan Africa, and per capita GDP is the highest among developing country regions. A key factor underlying food insecurity in the region is high income inequality, which reflects unequal access to productive assets. Inequality causes an uneven distribution of the fruits of economic growth and acts as a brake on poverty reduction. The region is more urbanized than other developing country regions, but in many countries the share of the rural population is still high. Furthermore, in most countries the incidence of extreme poverty and food insecurity is higher in rural areas than in urban ones. Rural and agricultural development has a
A major role to play in alleviating hunger and extreme poverty, especially among small-scale producers and indigenous communities. Ensuring access by the poor to productive resources – land, capital, technology and education – is of particular importance.

The food economy is characterized by deep structural changes – the diffusion of new forms of food retail, including supermarkets and hypermarkets, and the consolidation of the food industry. Ensuring that smallholders and poorer farmers are not marginalized is a challenge to be faced.

In many countries, export earnings are critical for ensuring staple food imports. For countries with a high degree of export commodity concentration, export earnings and the livelihoods of individuals who depend on agriculture and related activities are vulnerable to international price fluctuations. For instance, the dramatic decline in coffee prices in recent years had severe negative repercussions on food security in Central American countries.

In several countries in the region, susceptibility to natural shocks intensifies the vulnerability of the poorest sections of the population. Examples over the last decade include the El Niño phenomenon, which caused droughts and flooding in the Caribbean, Central America and the Andean countries in 1997 and 1998, and hurricanes Georges and Mitch, which destroyed lives, crops and infrastructure in many Caribbean and Central American countries in 1998.

Notes: Please see page 40.
With 9 percent of the population undernourished, the Near East and North Africa is the region with the lowest prevalence of undernourishment among the developing regions. Relatively higher incomes and/or a tradition of food support and subsidy policies in some countries account for a large part of the difference. The region is home to around 5 percent of the undernourished and around 8 percent of the population of the developing world.

Although relatively low, food insecurity in the region is persistent and actually rising both in absolute numbers and in prevalence. Between 1990–92 and 2001–03, the prevalence of hunger increased from 8 to 9 percent, which, combined with high population growth rates, led to an increase in the number of undernourished people from 25 million to 38 million. Excluding Afghanistan and Iraq (for which available data are very tenuous), the number of undernourished still increased from 15 million to 20 million and prevalence from 5 to 6 percent. Among the countries in the region (excluding Afghanistan and Iraq), only Yemen has very high levels of food insecurity; more than one-third of the population are chronically undernourished. In the remaining countries, except Jordan and Morocco, the prevalence of undernourishment lies below 5 percent.

Worsening food insecurity in Yemen

In Yemen, the number of hungry people increased from 4.2 million in 1990–92 to 7.1 million in 2001–03, and the proportion of undernourished people in the population from 34 to 37 percent. The country falls among the low-income grouping and is highly dependent on food imports. The average daily energy supply of 2,020 kcal per person (2001–03) has decreased slightly, from 2,040 kcal, in the decade since 1990–92. Yemen’s population growth is among the highest in the world, exerting considerable pressure on poverty and food insecurity levels in the country and on its natural resource base. Generally, social indicators have improved since 1990 but still remain poor; Yemen ranked 151 out of 177 countries in the 2005 UNDP Human Development Index.

About three-quarters of the population and more than 80 percent of the poor live in rural areas, and agriculture employs close to 50 percent of the labour force. Agricultural production has been unable to keep pace with the rapidly growing population, and dependence on agricultural imports has increased significantly.

Rural development is critical for improving food security. The agriculture sector is faced with low productivity due to the lack of investment, inadequate water supply and scarce arable land. Rapid depletion of groundwater resources may be the most serious problem facing the country as a whole and the agriculture sector in particular. About 42 percent of the cropped land is irrigated and over 75 percent of irrigated land uses groundwater. Ensuring sustainable use of scarce water resources is crucial for the development of rural areas.

A further contributing factor often referred to regarding Yemen is the production and use of the stimulant leaf qat, which competes with food production for resources, including water, and household food expenditures. The government has begun a campaign against chewing the leaf, and farmers are being encouraged to switch to high-value export crops in an effort to improve water-use efficiency.
Progress of individual countries towards the WFS target is shown in Figure 23. Only Kuwait has reached the target, but the apparently impressive record in hunger reduction must be seen in the context of the exceptionally high level of undernourishment at the WFS baseline period [1990–92] following the Iraqi occupation and the first Gulf war. The United Arab Emirates has significantly reduced the number of undernourished while bringing the prevalence to a very low level. Egypt and the Syrian Arab Republic achieved small reductions in the number of hungry people and a somewhat more significant reduction in the prevalence, which in both countries is below 5 percent. The remaining countries (especially Jordan and Yemen) experienced increases in numbers.

**Fighting hunger: determinants of progress and setbacks**

The region relies heavily on food imports, and foreign exchange earnings constitute a major determinant of food security. Fluctuations in oil prices – the key source of export earnings – influence directly the economies of the exporting countries and indirectly the non-oil-exporting countries, especially through flows of remittances from intraregional transfers.

![Proportion of undernourished people: Near East and North Africa](source: FAO)

![Number of undernourished: country progress and setbacks in Near East and North Africa](source: FAO)
labour migration. Hence, the decline in oil prices during the 1990s had a negative impact on food security in the region, while their present rebound since 2002 is a powerful driving economic force.

The majority of the poor in the region – about 70 percent – live in rural areas, while the rural share of the population is 43 percent. For the rural communities, agriculture remains the main source of employment and income and represents the engine of the rural economy. The performance of the sector is subject to volatile climatic conditions, especially rainfall. With the exception of Egypt, where most agricultural land is irrigated, drought often results in severe production shortfalls, exerting heavy pressure on farm incomes and food import bills. Increasing scarcity of water in the region limits the scope for agricultural expansion and places the livelihoods of agricultural and rural people under heavy stress. Improvements in water-use efficiency and management practices are critical elements for improving the performance of agriculture and the rural economies.

A significant challenge for the region is that of meeting the growing food requirements arising from high population growth. Food imports are crucial for food security in this context, and represent a means of saving scarce water. However, the region has not yet been successful in developing export-oriented industries that could reduce its dependency on oil exports. A further challenge for several countries is that of ensuring levels of economic growth sufficient to absorb the rapid expansion in the labour force.

**Rising undernourishment in Jordan**

Between 1990–92 and 2001–03, the number of hungry people increased from 100 000 to 400 000 and the prevalence of undernourishment from 4 percent to 7 percent of the population. Limited resources, especially water, make Jordan highly dependent on food imports. Agriculture accounts for only 3 percent of GDP and employs only 10 percent of the labour force.

The Jordanian economy is highly influenced by external factors, and its performance has closely followed the fluctuations in oil prices over the past two decades as well as the conflicts in the region. After a long period of economic decline starting in the mid-1980s, Jordan is again experiencing steady economic growth. Despite a large external debt, the government has succeeded in mobilizing public expenditures towards social activities such as health and education. However, unemployment is still high and poverty remains despite progress in reducing it. While fewer than 2 percent of the population are below the US$1-a-day World Bank international poverty line, 7 percent live on less than US$2 a day. With the labour force growing at 4 percent per year, the lack of job opportunities is currently considered the major threat to food security. In the longer run, serious water scarcity could constrain the country’s growth and development prospects.

**Undernourishment, GDP per capita and agricultural GDP per worker (percentage change 1990-92 to 2001-03)**

<table>
<thead>
<tr>
<th>Number of undernourished</th>
<th>GDP per capita</th>
<th>Agricultural GDP per worker</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source: FAO and World Bank</td>
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The State of Food Insecurity in the World 2006
Sub-Saharan Africa

Sub-Saharan Africa accounts for 13 percent of the population and 25 percent of the undernourished people in the developing world. It is the developing region with the highest proportion—one-third—of people suffering from chronic hunger. In 14 countries in the region, 35 percent or more of the population were chronically undernourished in 2001–03.

Hunger in sub-Saharan Africa is as persistent as it is widespread. Between 1990–92 and 2001–03, the number of undernourished people increased from 169 million to 206 million, and only 15 of the 39 countries for which data are reported reduced the number of undernourished. At an annual rate of about 2.5 percent, the region’s population has been rising more quickly than the number of hungry people, resulting in a reduction in the prevalence of undernourishment from 35 to 32 percent: it declined in 29 countries and increased in ten.

Efforts to reduce hunger in the region have been hampered by natural and human-induced disasters, including conflicts occurring during the 1990s and the spread of HIV/AIDS. Indeed, the increase in the number of undernourished people since the WFS baseline period was driven mainly by five war-torn countries: Burundi, the Democratic Republic of the Congo, Eritrea, Liberia and Sierra Leone. These countries combined account for 29 million of the region’s total increase of 37 million. Particularly dramatic is the worsening of food insecurity in the Democratic Republic of the Congo, where the number of undernourished people tripled, from 12 million to 36 million, and the prevalence rose from 31 to 72 percent of the population. The evident conclusion is that conflict is a major reason for lack of progress towards the WFS target in sub-Saharan Africa.

The persistence of hunger in the region is underlined by Figure 27, which shows individual country progress towards the WFS target. In addition to Ghana, which has already reached the target, only Gabon reduced the number of undernourished by 25 percent or more (and is thus halfway towards the target). Other countries that reduced the number of undernourished are:
Angola, Benin, Chad, Congo, Ethiopia, Guinea, Lesotho, Malawi, Mauritania, Mozambique and Namibia. Nigeria and Côte d'Ivoire saw only a marginal reduction in the numbers, while the prevalence declined.

Fighting hunger: determinants of progress and setbacks

Among the countries that stand out as having achieved a significant reduction in the number of undernourished are Ethiopia, Ghana and Mozambique. In Ethiopia, the number of undernourished people declined by 6 million (17 percent), from 38 million to 32 million, between 1993–95 and 2001–03, with the prevalence falling from 61 to 46 percent. In relative terms, Ghana's performance was even more impressive. The number of undernourished people was reduced from 5.8 million to 2.4 million (59 percent) and the prevalence of undernourishment from 37 to 12 percent. In Mozambique, the number of undernourished people declined by 900 000 (or by 10 percent) and the prevalence of undernourishment from 66 to 45 percent. Although the correlatives of success varied among highly successful countries, they seem to have combined good economic growth performances with a significant expansion of per capita

Economic and agricultural performance in Ethiopia, Ghana and Mozambique

<table>
<thead>
<tr>
<th>Country</th>
<th>Average annual per capita growth rate, 1990–2003</th>
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<tbody>
<tr>
<td></td>
<td>GDP</td>
</tr>
<tr>
<td></td>
<td>(percentage)</td>
</tr>
<tr>
<td>Ethiopia*</td>
<td>2.0</td>
</tr>
<tr>
<td>Ghana</td>
<td>1.8</td>
</tr>
<tr>
<td>Mozambique</td>
<td>4.5</td>
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</tbody>
</table>

* For Ethiopia, growth rates shown are for the period 1993–2003. Source: FAO and World Bank
agricultural or, especially, food production. The performance of the three countries is summarized in the table.

Growth in food production is indeed key to hunger reduction in sub-Saharan Africa. Productivity-driven increases in food production have been shown to have a strong positive impact on the rural economy, leading to increased food availability and a reduction of food prices in local markets. At the same time, the enhanced incomes of smallholders – the main producers of staples – provide a stimulus to rural economic activity by generating increased demand for the products of other sectors that are either linked to agriculture (e.g. processing and agricultural services) or supply consumption goods to farmers.

In 12 countries of the region, a fall in the prevalence of undernourishment has not been sufficient to translate into a reduction in the number of undernourished people. These countries are spread fairly evenly over the continent. In all but three exceptions, a common factor seems to be that per capita food production either declined or grew only slowly. The cases of Burkina Faso, Uganda and Zambia are examples.

In Uganda, the number of undernourished increased from 4.2 million to 4.6 million between 1990–92 and 2001–03, while the prevalence declined from 24 to 19 percent. This took place against a backdrop of strong per capita GDP growth, at an average annual rate of 3.8 percent, and a modest average growth rate of 1 percent in per capita agricultural GDP. Average dietary energy consumption also increased from 2 270 to 2 380 kcal/person/day, in spite of decreasing per capita food production. The increase in energy consumption was achieved mainly through large increases in both commercial food imports and food aid. Although overall food supplies did expand, the increase in rural incomes that could be generated if the additional supplies originated in domestic production did not materialize.

In Zambia, prevalence remained virtually unchanged [from 48 to 47 percent], and the number of undernourished people increased from 4.0 million to 5.1 million. Overall economic and agricultural performance was mixed. Indeed, per capita GDP declined at an annual rate of 0.9 percent, while per capita agricultural GDP grew by 1.0 percent per year. Per capita food production, on the other hand, declined at an annual rate of 0.9 percent.

In Burkina Faso, the reduction in the prevalence of undernourishment from 21 percent to 17 percent between 1990–92 and 2001–03 was insufficient to prevent an increase in the number of undernourished people from 1.9 million to 2.1 million. Food production increased in per capita terms at the same average rate as in the more successful Mozambique (1.6 percent per year). On the other hand, per capita growth of GDP and agricultural GDP were more modest, at average annual rates of 1.7 and 1.1 percent, respectively. Food imports per capita also increased slightly. As a result, average dietary energy consumption increased slightly from 2 350 to 2 460 kcal/person/day during this period. This was sufficient to ensure a reduction in the prevalence, but not in the number, of undernourished people.
Undernourishment in the regions

Countries in transition

The transition economies are an extremely diverse group, a fact that should be kept in mind when analysing hunger trends in the region. The region is home to an estimated 25 million undernourished people, 21 million of whom live in the Commonwealth of Independent States (CIS).

In countries that have recently acceded to the European Union (EU), and in Romania, the level of undernourishment is generally low – 6 percent at the most. Somewhat higher levels are found in the Balkans (Bosnia and Herzegovina, Bulgaria, Croatia, Serbia and Montenegro, and The former Yugoslav Republic of Macedonia). Within the CIS countries, the range of prevalence of undernourishment varies widely: from about 3 percent in Belarus, the Russian Federation and Ukraine to 61 percent in Tajikistan, which, along with Armenia and Uzbekistan, is one of the countries facing the most serious food insecurity problems.

Progress towards the WFS target for the countries in transition is measured using 1993–95 as the baseline period. For the region as a whole, there has been a slight increase in both the number of hungry people and the prevalence of hunger. While some countries showed progress to varying degrees, others have experienced a sharp deterioration in their food security situation.

Individual country progress towards the WFS target is shown in Figure 31. Of the countries that have achieved the target, the most successful are Azerbaijan, Georgia and Kyrgyzstan, all of which, starting from a high prevalence of hunger, have cut the number of undernourished by at least two-thirds. Armenia, which in 1993–95 had the highest prevalence of undernourishment (52 percent) in the region, has already halved its number of hungry people, but at 29 percent of the population the prevalence remains disturbingly high. Other countries that have met the WFS target are Croatia, Estonia, Lithuania and The former Yugoslav Republic of Macedonia. Latvia, the Russian Federation, Slovenia and Turkmenistan have made strong progress, though they have yet to meet the target.

A few countries suffered setbacks, in some cases very severe. The largest relative increase was in Kazakhstan, but by far the most serious situation is in Tajikistan and Uzbekistan, which have both seen a

Progress in Azerbaijan and Georgia

Azerbaijan and Georgia – the two countries that have been most successful in reducing hunger from very high levels – emerged from armed conflict in the early 1990s. Their economies started expanding in the second half of that decade following a severe contraction in the early years. Economic growth, in turn, was a major factor behind the significant reduction in the numbers of hungry people – in both countries from about 2.5 million in 1993–95 to 0.7–0.8 million in 2001–03. Both have made strong progress since 1993 in implementing economy-wide reforms and those specific to the agriculture sector, including privatization of agricultural land and titling.

A few countries suffered setbacks, in some cases very severe. The largest relative increase was in Kazakhstan, but by far the most serious situation is in Tajikistan and Uzbekistan, which have both seen a
serious worsening of food security and currently experience very high levels of undernourishment.

Fighting hunger: determinants of progress and setbacks

Factors influencing progress or setbacks in hunger reduction are diverse in the region. In many instances, food insecurity has been a direct consequence of human-induced disasters – war, conflict and political and economic instability with ensuing problems of refugees and displaced persons. Armenia, Azerbaijan, Georgia, the Republic of Moldova, the Russian Federation and many Balkan countries are among this group. Natural disasters (prolonged drought in parts of Armenia, Azerbaijan, Georgia and the Republic of Moldova) have also played a role.

More generally, food insecurity in the region can be traced to factors such as weak economic development resulting from lack of support policies and infrastructure and the breakdown of social safety nets following the dissolution of the pre-1990s economic and political systems in Eastern Europe and the CIS.

Between 1990 and 2001, extreme poverty, measured as the share of the population living on less than US$1 a day, increased from 0.4 to 5.3 percent in the CIS countries and from 0.2 to 2.0 percent in the transition countries of southeastern Europe. However, the CIS average masks the existence of countries with exceptionally high rates of extreme poverty such as the Republic of Moldova (22 percent), Uzbekistan (14 percent), Armenia (13 percent), Turkmenistan (10 percent) and Tajikistan (7 percent).

Reversing the food security setbacks requires focused efforts on pro-poor development strategies, targeting rural areas especially, which are home to more than 50 percent of the population in countries such as the Republic of Moldova, Tajikistan and Uzbekistan and to large shares also in other countries where hunger is pervasive. While agriculture is not the predominant sector in the region as a whole, it remains important in the poorer countries, and agricultural performance will determine future progress in reducing poverty and food insecurity. In the three countries with the highest levels of undernourishment – Tajikistan, Armenia and Uzbekistan – agriculture accounts for 24, 23 and 31 percent of GDP, respectively.

Number of undernourished: country progress and setbacks in the countries in transition

<table>
<thead>
<tr>
<th>Ratio: current number to baseline (2001–03/1993–95)</th>
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<tbody>
<tr>
<td><strong>Ratio</strong></td>
</tr>
<tr>
<td>4.5</td>
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<td>4.0</td>
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<tr>
<td>3.5</td>
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<td>0.5</td>
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<tr>
<td>0.0</td>
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</tbody>
</table>

**Source:** FAO

Note: Not shown on graphic: Kazakhstan (ratio 7.2, prevalence 8 percent).