**Towards the Summit commitments**

**Education for rural people and food security**

Hunger, malnutrition and food insecurity erode cognitive abilities and reduce school attendance. Conversely, illiteracy and lack of education reduce earning capacity and directly contribute to hunger and poverty.

In developing countries, school attendance and literacy rates are significantly lower for rural people, particularly among women and girls. A study in rural Pakistan found that a relatively minor improvement in nutrition would increase the likelihood of starting school by 4 percent for boys and 17 percent for girls. Lack of education reduces productivity and earning capacity and increases vulnerability to hunger and extreme poverty. Research shows that a farmer with four years of elementary education is, on average, 8.7 percent more productive than a farmer with no education.

Expanding and improving education, especially among rural people and women, can be one of the most effective ways to reduce hunger and malnutrition. Higher rates of literacy among rural women are associated with increased enrollment of girls in primary school and lower rates of malnutrition (see graph).

Education is also the front line against HIV/AIDS. A recent study in Uganda found that people who finished primary school were only half as likely to contract HIV – and those with a secondary education only 15 percent as likely – as those who received little or no schooling.

**The way ahead – scaling up action to scale down hunger**

Although progress has lagged so far, the World Food Summit (WFS) target is both attainable and affordable. We have ample evidence that rapid progress can be made by applying a twin-track strategy that attacks both the causes and the consequences of extreme poverty and hunger (see diagram). Track one includes interventions to improve food availability and incomes for the poor by enhancing their productive activities. Track two features targeted programmes that give the most needy primary school and lower rates of malnutrition and food insecurity.

**Accelerating a twin-track strategy to eliminate hunger**

To meet the WFS goal, we must now translate the twin-track approach into large-scale programmes that can be adopted in countries where hunger is widespread and resources are extremely limited. This means that within the twin-track framework we must give priority over the next ten years to actions that will have the most immediate impact on the food security of millions of vulnerable people.

Where resources are scarce, we must focus on low-cost approaches that empower small-scale farmers to raise production in ways that will enhance food consumption for their families and communities. At the same time, we must rapidly expand targeted safety nets.

**Food availability and incomes**

- Low-cost, simple technology (water management, use of green manures, crop rotation, agroforestry)
- Rural infrastructure (roads, electricity, etc.)
- Improved irrigation and soil fertility
- Natural resource management (including forestry and fisheries)
- Market and private sector development
- Agricultural research, extension and training

**Linkages – maximizing synergy**

- Alliances against hunger
- Local food procurement for safety nets
- Support to rural organizations
- Primary health care, reproductive health and HIV/AIDS prevention
- Asset redistribution (including land reform)
- Education for rural people, especially women
- Clean drinking water
- Legal reforms (including the Right to Food)

**Track 2 – provide direct access to food**

- Mother and infant feeding (including nutritional supplements)
- School meals and school gardens
- Unemployment and pension benefits
- Food-for-work and food-for-education
- Targeted conditional cash transfers
- Soup kitchens and factory canteens
- Food banks
- Emergency rations

**World Food Summit Goal**

For further information please contact:

FIVIMS Secretariat
Economic and Social Department
Food and Agriculture Organization of the United Nations
Telephone: (+39) 06 5705 6782
E-mail: fi vims-secretariat@fao.org

Nick Parsons
Chief, News and Multimedia Service
Information Division
Food and Agriculture Organization of the United Nations
Telephone: (+39) 06 5705 3256
E-mail: nick.parsons@fao.org

**Fact number one – to date, efforts to reduce chronic hunger in the developing world have fallen far short of the pace required to reduce the number of hungry people by half no later than the year 2015.**

**Fact number two – despite slow and faltering progress on a global scale, numerous countries in all regions of the developing world have shown that success is possible.** More than 30 countries, with a total population of over 2.2 billion people, have reduced the prevalence of undernourishment by 25 percent since 1990–1992 and have made significant progress towards reducing the number of hungry people by half by the year 2015. We can do better.

Fact number three – the costs of not taking immediate and decisive action to reduce hunger at comparable rates worldwide are staggering. Every year that hunger continues at present levels costs more than 5 million children their lives and costs developing countries hundreds of billions of dollars in lost productivity and earnings. The costs of interventions that could sharply reduce hunger are trivial in comparison. We cannot afford not to do better.

**Towards the World Food Summit target**

As we approach the mid-term review of progress towards the World Food Summit (WFS) goal, FAO’s report on the state of food insecurity in the world highlights three irrefutable facts and three inescapable conclusions.

Fact one number one – to efforts to reduce chronic hunger in the developing world have fallen far short of the pace required to reduce the number of hungry people by half no later than the year 2015 (see graph. Although the proportion of people who are chronically undernourished continued to fall slowly between 1995–1997 and 2000–2002, the number actually increased by 18 million.

Fact number two – despite slow and faltering progress on a global scale, numerous countries in all regions of the developing world have shown that success is possible. More than 30 countries, with a total population of over 2.2 billion people, have reduced the prevalence of undernourishment by 25 percent since 1990–1992 and have made significant progress towards reducing the number of hungry people by half by the year 2015. We can do better.

Fact number three – the costs of not taking immediate and decisive action to reduce hunger at comparable rates worldwide are staggering. Every year that hunger continues at present levels costs more than 5 million children their lives and costs developing countries hundreds of billions of dollars in lost productivity and earnings. The costs of interventions that could sharply reduce hunger are trivial in comparison. We cannot afford not to do better.

**Counting the hungry**

FAO estimates that 852 million people worldwide were undernourished in 2000–2002. This figure includes 815 million in developing countries, 28 million in the countries in transition and 9 million in the industrialized countries.

The number of undernourished people in developing countries decreased by only 9 million during the decade following the World Food Summit baseline period of 1990–1992. During the second half of the decade, the number of chronically hungry in developing countries increased at a rate of almost 4 million per year, wiping out two thirds of the reduction of 27 million achieved during the previous five years.

The news is not all bad, however. After climbing at a rate of almost 7 million per year, the number of undernourished in developing countries other than China and India essentially held steady during the second half of the decade. In sub-Saharan Africa, the rate of increase in the number of undernourished slowed from 5 million per year to 1 million per year and the proportion of undernourished fell from 36 percent, where it had hovered since 1990–1992, to 33 percent.

**Number of undernourished in the developing world: observed and projected ranges compared with the World Food Summit target**

<table>
<thead>
<tr>
<th>Years</th>
<th>Undernourished (millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970</td>
<td>815</td>
</tr>
<tr>
<td>1980</td>
<td>880</td>
</tr>
<tr>
<td>1990</td>
<td>900</td>
</tr>
<tr>
<td>2000</td>
<td>750</td>
</tr>
<tr>
<td>2010</td>
<td>600</td>
</tr>
<tr>
<td>2020</td>
<td>450</td>
</tr>
</tbody>
</table>

**Sources:** FAO

**For further information please contact:**

FIVIMS Secretariat
Economic and Social Department
Food and Agriculture Organization of the United Nations
Telephone: (+39) 06 5705 6782
E-mail: fi vims-secretariat@fao.org

Nick Parsons
Chief, News and Multimedia Service
Information Division
Food and Agriculture Organization of the United Nations
Telephone: (+39) 06 5705 3256
E-mail: nick.parsons@fao.org

**Notes:**

* excl. China and India

---

**Toward the State of Food Insecurity in the World**

**The news is not all bad, however. After climbing at a rate of almost 7 million per year, the number of undernourished in developing countries other than China and India essentially held steady during the second half of the decade. In sub-Saharan Africa, the rate of increase in the number of undernourished slowed from 5 million per year to 1 million per year and the proportion of undernourished fell from 36 percent, where it had hovered since 1990–1992, to 33 percent.**

**Undernourished 2000–2002 (millions)**

<table>
<thead>
<tr>
<th>Countries in transition</th>
<th>28</th>
</tr>
</thead>
<tbody>
<tr>
<td>Near East</td>
<td>39</td>
</tr>
<tr>
<td>North Africa</td>
<td>39</td>
</tr>
<tr>
<td>Latin America/Caribbean</td>
<td>33</td>
</tr>
<tr>
<td>Sub-Saharan Africa</td>
<td>286</td>
</tr>
</tbody>
</table>

**Source:** FAO

**Developing Nations Index:**

<table>
<thead>
<tr>
<th>Index</th>
<th>2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>142</td>
</tr>
<tr>
<td>Asia/Pacific</td>
<td>156</td>
</tr>
</tbody>
</table>

**Source:** FAO

**Notes:**

* excl. China and India
Undernourishment around the world

The human costs of hunger: millions of lives destroyed by death and disability

More than three quarters of the 10 million deaths each year among children under the age of five are caused by neonatal disorders and a handful of treatable infectious diseases, including diarrhoea, pneumonia, malaria and measles. And well over half of these deaths can be traced to the increased vulnerability of children who are undernourished and underweight.

The latest Global Burden of Disease report from the WHR ranks undernutrition as the single most significant risk factor for DALYs worldwide and for both death and DALYs in "high-mortality developing countries" – a group that includes almost 70 countries with a combined population of more than 2.3 billion people.

Overall, childhood and maternal undernutrition are estimated to cost more than 220 million DALYs in developing countries. When other nutrition-related risk factors are taken into account, the toll rises to almost 340 million DALYs, fully one half of all DALYs in the developing world. That total represents a loss of life and labour equivalent to having a disaster kill or disable the entire population of a country larger than the United States of America. It also highlights the immeasurable suffering that the ongoing disaster of world hunger inflicts on millions of households and the crushing economic burden it imposes on countries throughout the developing world.

The economic costs of hunger: billions in lost productivity, earnings and consumption

The costs of hunger to society come in several distinct forms. Perhaps the most obvious are the direct costs of dealing with the damage it causes. These include the medical costs of treating both the problem pregnancies and deliveries of anemic, underweight mothers and the severe and frequent illnesses of children whose bodies and immune systems have been weakened by hunger. A very rough estimate suggests that these direct costs add up to around US$30 billion per year – over five times the amount committed so far to the Global Fund to Fight AIDS, Tuberculosis and Malaria.

These direct costs are minuscule compared with the indirect costs of lost productivity and income caused by premature death, disability and stunted educational and occupational opportunities.

The Academy for Educational Development (AED) has developed a methodology and software for quantifying both the costs of various forms of malnutrition and the benefits of action to reduce or eliminate it. FAO calculations based on data provided by AED show that the discounted present value of allowing current levels of iodine deficiency and protein-energy malnutrition to persist for another ten years range as high as 15 percent of one year’s GDP (see graph). Losses of that magnitude clearly represent a significant drag on national development efforts. AED’s estimates demonstrate that they also dwarf the costs of action to reduce or eliminate hunger and malnutrition. For the countries for which data were made available, the estimated benefits of interventions to reduce protein-energy malnutrition outweighed the costs by a factor of 7.7 to 1, on average. For actions to reduce iron and iodine deficiencies, the benefits averaged 9.8 and 22.7 times the costs respectively.

Costs of protein-energy malnutrition and iodine deficiency

Globalization, urbanization and changing food systems

Profound demographic and economic changes are rapidly transforming food systems and the scope and nature of nutritional challenges throughout the developing world. Population is becoming increasingly urban. Average incomes and calorie intake are rising. Commodity and food prices are falling. An increasingly integrated world food environment and improved transportation facilities are spurring a greater concentration of the food industry and a convergence of dietary preferences.

Nutrition experts identify two distinct trends fuelled by these changes: Dietary convergence and dietary adaptation. Dietary convergence is characterized by a greater reliance on a narrow base of staple grains (wheat and rice), increased consumption of meat, dairy products, edible oil, salt and sugar, and lower intake of fruits and vegetables. Dietary adaptation refers to ways that help short-term survival but increase long-term risk.

Over recent decades, a handful of vertically integrated, transnational corporations have gained increasing control over the global trade, processing and distribution of food. The 30 largest supermarket chains now account for about one third of all food sales worldwide.

In South America and East Asia, the supermarket share of retail food sales has ballooned from less than 20 percent to more than 50 percent over the past decade (see graph). Like their counterparts in industrialized countries, supermarket chains in developing countries are shifting towards contracts with a limited number of suppliers who can meet their requirements.

Smallholders face many obstacles to joining the ranks of preferred suppliers for supermarkets. Meeting standards for quality and reliability may require substantial investments in irrigation, greenhouses, trucks, cooling sheds and packing technology. Smallholders who have succeeded as suppliers for supermarkets have generally overcome these obstacles by forging cooperatives or entering in group purchase schemes.

As supermarkets expand their market from the wealthy urban elite to middle and working class neighbourhoods and towns, one Central American supermarket chain has estimated that only 17 percent of the population is beyond their reach. That 17 percent is characterized as the poorest, rural segment of the population. Smallholders who fail to gain a foothold in this globalized marketplace risk finding themselves consigned to a permanently marginalized minority, excluded from the food system both as producers and as consumers.

Urbanization and the globalization of food systems are redefinition both the map and the nutritional profile of hunger and malnutrition in developing countries.

Although the proportion of people who go hungry usually remains lower in cities, the numbers of poor and hungry city dwellers are climbing rapidly along with the total urban population. A recent study found that the share of urban children among underweight preschoolers rose between 1985 and 1996 in 11 of 14 developing countries for which data were analysed.

Many developing countries now face a double challenge – widespread hunger on the one hand and rapid increases in diabetes, cardiovascular disease and other diet-related non-communicable diseases on the other (see graph). A growing body of evidence suggests that low birthweight and stunting in early childhood heighten the risks of growing up to develop diabetes, heart disease and other ailments commonly associated with too much food and too little physical activity. It has been suggested that this may be the result of "foetal programming", in which the body adapts to nutritional deprivation in ways that help short-term survival but endanger long-term health.

An estimated 84 million adults in developing countries suffer from diabetes today. By 2025 that number is expected to rise to 228 million. Levels of obesity, heart disease and other diet-related ailments are also rising rapidly. And studies have shown that they are higher and rising faster among the poorest segments of the population.

Special feature

Global DALYs attributed to nutrition-related risk factors, 2000

Source: WHO

Global DALYs attributed to nutrition-related risk factors, 2000

<table>
<thead>
<tr>
<th>Risk Factor</th>
<th>DALYs (millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Underweight</td>
<td>10.3</td>
</tr>
<tr>
<td>Iron deficiency</td>
<td>4.3</td>
</tr>
<tr>
<td>Overweight</td>
<td>5.0</td>
</tr>
<tr>
<td>Zinc deficiency</td>
<td>5.1</td>
</tr>
<tr>
<td>Low fruit/vegetable intake</td>
<td>5.7</td>
</tr>
<tr>
<td>Vitamin A deficiency</td>
<td>3.7</td>
</tr>
<tr>
<td>Physical inactivity</td>
<td>6.0</td>
</tr>
<tr>
<td>Developing countries with high mortality</td>
<td>30.0</td>
</tr>
<tr>
<td>Developing countries with low mortality</td>
<td>11.0</td>
</tr>
<tr>
<td>Low fruit/vegetable intake in developing countries</td>
<td>11.0</td>
</tr>
<tr>
<td>Iron deficiency in developing countries</td>
<td>6.0</td>
</tr>
<tr>
<td>Zinc deficiency in developing countries</td>
<td>5.0</td>
</tr>
<tr>
<td>Vitamin A deficiency in developing countries</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Attributable DALYs (millions)

Source: WHO

Supermarket share of retail food sales

Source: AED

The impact on small farmers in developing countries

Over recent decades, a handful of vertically integrated, transnational corporations have gained increasing control over the global trade, processing and distribution of food. The 30 largest supermarket chains now account for about one third of all food sales worldwide.

In South America and East Asia, the supermarket share of retail food sales has ballooned from less than 20 percent to more than 50 percent over the past decade (see graph). Like their counterparts in industrialized countries, supermarket chains in developing countries are shifting towards contracts with a limited number of suppliers who can meet their requirements.

Smallholders face many obstacles to joining the ranks of preferred suppliers for supermarkets. Meeting standards for quality and reliability may require substantial investments in irrigation, greenhouses, trucks, cooling sheds and packing technology. Smallholders who have succeeded as suppliers for supermarkets have generally overcome these obstacles by forging cooperatives or entering in group purchase schemes.

As supermarkets expand their market from the wealthy urban elite to middle and working class neighbourhoods and towns, one Central American supermarket chain has estimated that only 17 percent of the population is beyond their reach. That 17 percent is characterized as the poorest, rural segment of the population. Smallholders who fail to gain a foothold in this globalized marketplace risk finding themselves consigned to a permanently marginalized minority, excluded from the food system both as producers and as consumers.

The changing profile of hunger and malnutrition

Urbanization and the globalization of food systems are redefinition both the map and the nutritional profile of hunger and malnutrition in developing countries.

Although the proportion of people who go hungry usually remains lower in cities, the numbers of poor and hungry city dwellers are climbing rapidly along with the total urban population. A recent study found that the share of urban children among underweight preschoolers rose between 1985 and 1996 in 11 of 14 developing countries for which data were analysed.

Many developing countries now face a double challenge – widespread hunger on the one hand and rapid increases in diabetes, cardiovascular disease and other diet-related non-communicable diseases on the other (see graph). A growing body of evidence suggests that low birthweight and stunting in early childhood heighten the risks of growing up to develop diabetes, heart disease and other ailments commonly associated with too much food and too little physical activity. It has been suggested that this may be the result of "foetal programming", in which the body adapts to nutritional deprivation in ways that help short-term survival but endanger long-term health.

An estimated 84 million adults in developing countries suffer from diabetes today. By 2025 that number is expected to rise to 228 million. Levels of obesity, heart disease and other diet-related ailments are also rising rapidly. And studies have shown that they are higher and rising faster among the poorest segments of the population.