1 Armenia, Azerbaijan, Cuba, Djibouti, Georgia, Ghana, Guyana, Kuwait, Kyrgyzstan, Nicaragua, Peru, Saint Vincent and the Grenadines, Samoa, Sao Tome and Principe, Thailand, Turkmenistan, Venezuela (Bolivarian Republic of) and Viet Nam.


5 Correlations were computed on panel data from 1996 to 2008 for all countries for which data were available, using Pearson’s correlation coefficient (sigma two-tailed). Those quoted are statistically significant at the 1 percent level.


10 BRAC BCUP Sharecropper Development Programme.


41 Even just the actual basal metabolic rate, arguably the largest contributor to normal energy requirements in humans, is difficult to assess at the individual level and at reasonable cost.


46 When no data on the distribution of actual food consumption are available, parameters related to the variability of food access have been estimated based on the distribution of food expenditures, on the inequality of income distribution or, in the worst case, on child mortality rates. See Naiken (2003, pp. 14 and 15) (see note 40).

47 It is not uncommon to observe values lower than 800 kcal or in excess of 5000 kcal, clearly unreliable measures of habitual daily caloric consumption.

48 This was obtained by calculating the CV, assigning to each individual a level of dietary energy consumption equal to the median value of per capita dietary energy consumption recorded among the households grouped in the same income class.


51 For a detailed description of the procedure, see Naiken (2003) (see note 40).

52 The point was effectively made by P.V. Sukhatme in 1960 (see note 39), and subsequently recognized, among others, by Srivinvas in 1981; see T.N. Srivinvas. Malnutrition: some measurement and policy issues. Journal of Development Economics, 8(1): 3–19. Yet, researchers have persisted in making such a mistake in later years (for example, see L. Smith, H. Alderman and D. Aduayom. 2006. Food insecurity in sub-Saharan Africa: new estimates from household expenditure surveys. IFPRI Research Report 146. Washington DC, IFPRI.

53 “Nourishing” here must be taken to mean “providing with food”, and is not related to the actual nutrition conditions. A less appealing alternative to “undernourishment” could be “underfeeding”, which might have the advantage of not creating the false expectation that the indicator is capturing the state of malnutrition resulting from inadequate absorption of nutrients. In languages other than English, such as French, the difference is clearer, as there are distinct terms to refer to “feeding” (“alimentation”) as opposed to “nourishing” (“nutrition”). The correct term for the FAO indicator in French is, in fact, “prévalence de la sous-alimentation” rather than “prévalence de la sous-nutrition”.


Food security is a complex condition. Its determinants—availability, access, utilization, and stability—are better understood when presented through a suite of indicators.

Undernourishment and undernutrition can occur simultaneously. In some countries, undernutrition rates are negligible, but the food availability indices are too low. Several categories of dietary energy supply. In these countries, considerably higher than the prevalence of undernourishment. Progress, while Southern Asia and Northern Africa show continued losses, and Eastern and South Asia show continued progress, while much effort is required to prevent hunger. Growth can raise incomes and reduce hunger, but African states are using more proactive policies, such as social protection and other measures that increase the incomes of poor families to help them escape from hunger. But many countries have made significant progress towards the MDG/undernourishment target.

By year 2015, the prevalence of undernourishment has fallen by more than 5%.

Key messages

- Policies aimed at enhancing agricultural productivity and increasing food availability, especially if heightened, could alleviate hunger, especially if more proactive policies, such as social protection and other measures that increase the incomes of poor families to help them escape from hunger.
- Growth can raise incomes and reduce hunger, but many countries have made significant progress towards the MDG/undernourishment target.
- Despite overall progress, marked differences across regions persist. In 2010–12, the estimated number and prevalence of undernourishment in rural areas was significantly higher than in urban areas. In poor countries, hunger and poverty are often intertwined, leading to reduced hunger, better diets and, ultimately, improved health outcomes. Long-term commitment in maintaining food security is crucial, especially for programmes targeting smallholders, which have been shown to improve food security and reduce poverty, leading to reduced hunger, better diets and, ultimately, improved health outcomes. Long-term commitment in maintaining food security is crucial, especially for programmes targeting smallholders, which have been shown to improve food security and reduce poverty, leading to reduced hunger, better diets and, ultimately, improved health outcomes.

NOTES for Annex 1


2. Includes: Antigua and Barbuda, Argentina, Bahamas, Barbados, Belize, Bolivia (Plurinational State of), Brazil, Chile, Colombia, Costa Rica, Cuba, Dominica, Dominican Republic, Ecuador, El Salvador, Grenada, Guatemala, Guyana, Haiti, Holy See (Vatican City State), Iceland, Jamaica, Japan, Jordan, Kenya, Kiribati, Kuwait, Lebanon, Lesotho, Liberia, Libya, Madagascar, Malawi, Mali, Mauritania, Mexico, Mozambique, Namibia, Nauru, Nepal, Netherlands Antilles, Niger, Nigeria, Oman, Pakistan, Panama, Paraguay, Peru, Philippines, Poland, Portugal, Puerto Rico, Qatar, Republic of Yemen, Republic of the Congo, Reunion, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Senegal, Sierra Leone, Solomon Islands, Somalia, South Africa, South Sudan, Suriname, Swaziland, Syrian Arab Republic, Tajikistan, Tanzania, Timor-Leste, Trinidad and Tobago, Tuvalu, Uganda, United Arab Emirates, United Kingdom, United States of America, Uruguay, Uzbekistan, Vanuatu, Venezuela, Viet Nam, Yemen, Zambia, Zaire.

3. Change from 1990–92 baseline. For countries that did not exist in the baseline period, the 1990–92 proportion of undernourished is based on the FAO Regional Office RAF: Angola, Benin, Botswana, Burkina Faso, Burundi, Cameroon, Central African Republic, Chad, Comoros, Congo, Côte d’Ivoire, Democratic Republic of the Congo, Djibouti, Egypt, Eritrea, Ethiopia, Gambia, Ghana, Guinea, Guinea-Bissau, Haiti, Kenya, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mozambique, Myanmar, Niger, Nigeria, Pakistan, Rwanda, Sao Tome and Principe, Senegal, Sierra Leone, Somalia, South Sudan, Sudan, Tanzania, Togo, Uganda, United Republic of Tanzania, Zambia, Zimbabwe.


