End hunger, achieve food security and improved nutrition and promote sustainable agriculture

OUTLOOK

There is a challenging road ahead to achieve this goal. Despite significant progress in the reduction of hunger and malnutrition, improvements vary across subregions and countries and disproportionately affect the nutritional status, food security and livelihoods of vulnerable groups. In many places, undernourishment and obesity co-exist; and agriculture continues to pose an unsustainable burden on the planet’s carrying capacity. Climate change will have a significant impact on crop yields and harvests, disproportionately affecting the nutritional status and livelihoods of impoverished households.

THE PHOTO

Members of the Gita Swasthya Samooh distribute food for students’ midday meal in Muhali, India

Photo credit: ADB
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INSIGHTS

• The prevalence of undernourishment is an important indicator of hunger. Nonetheless, many other phenomena affecting the short-term food situation of a country or of specific population groups also need to be measured. Seasonal variations, food price volatility, impact of natural disasters or irregular weather conditions on food production are just some of the phenomena that are not captured by the prevalence of undernourishment and for which additional measures can be used.¹

• Many countries in the region need to pay more attention to growth in their agriculture sector and to supporting diverse food systems. Evidence consistently shows that growth originating in agriculture has a stronger impact on poverty and hunger reduction than growth originating in other sectors.²

• Achieving SDG 2 will be challenging due to the convergence of expanding populations, climate change, fertilizer overuse, competing use of land for food, energy and industries, changing consumption patterns, the ageing population of working farmers and the degradation of agricultural land.

BRIGHT SPOTS

Eradicating hunger and malnutrition (getting enough of the right food)

• The region as a whole has halved the prevalence of undernourishment or the proportion of the population below the minimum level of dietary energy consumption, from 23 per cent in 1991 to 12 per cent in 2015.³

• Food and agricultural resources have been an important base for pro-poor growth and have facilitated the rapid emergence from hunger and poverty for most households in the region.

Agricultural productivity and sustainable food production systems

• The region is the world’s largest producer of cereals, vegetables, fruits, meat and fish, with strong growth in all areas. Agricultural production has been increasing steadily since 1990. Measured in terms of constant prices, the value of food produced in the region increased from $736 billion in 1990 to $1,351 billion in 2013.⁴

• Agricultural productivity in the region, as measured by value added per worker, has generally been rising, especially in East Asia. Although in South Asia, it has been a slow rise. With the exception of a few countries, it remains a fraction of what has been achieved in industrialized countries.⁵
Farm mechanization is increasingly used in crop production and harvest and post-harvest operations: While more than 90 per cent of farm power originated from animal sources in the 1960s, many countries of the region now have mechanization rates higher than 60 per cent.\textsuperscript{6}

**HOTSPOTS**

**Eradicating hunger and malnutrition**
*(getting enough of the right food)*

- There has been a slowdown in the rate of reducing undernourishment over the past five years (2010–2015) for many countries in the region, when compared with the rates for the previous two decades.

- Hunger reduction in South and South-West Asia is taking place more slowly than in other subregions and is not keeping pace with population growth. Nearly 300 million people were affected by hunger in 2016, reflecting the slow pace in reduction.\textsuperscript{7}

- The rate of reducing undernourishment has reversed\textsuperscript{8} and it has even deteriorated for some countries. For example, the proportion of people affected by hunger in 2014–2016 increased from the level that existed in 1990–1992 in the Democratic People’s Republic of Korea (from 23.3 per cent to 41.6 per cent) and Tajikistan (from 28.1 per cent to 33.2 per cent). Only limited improvements (a decline in the percentage of people affected by hunger) have been made in some other countries in that same time period: Afghanistan (from 29.5 per cent to 26.8 per cent); Mongolia (from 29.9 per cent to 20.5 per cent); India (from 23.7 per cent to 15.2 per cent); Pakistan (from 25.1 per cent to 22 per cent); and Sri Lanka (from 30.6 per cent to 22 per cent).\textsuperscript{9}

- Stunting due to malnutrition affected more than 96 million children in 2014.\textsuperscript{10} In Bangladesh, India and Nepal, the proportion of stunted children was greater than 35 per cent in 2014.\textsuperscript{11} MDGs related to nutrition and stunting remain unmet in the region as a whole.

- Almost half of all overweight children younger than 5 years in the world live in Asia. The overweight concerns combined with the approximately 27 per cent of children younger than 5 years who are stunted (in 2014) has created a double burden of malnutrition for the region.

- The prevalence of overweight within the region has grown by 2.1 per cent and obesity by 4.3 per cent annually. The prevalence of obesity is especially high in the Pacific, ranging from 28 per cent in the Solomon Islands and Papua New Guinea to 43 per cent in Tonga and more than 40 per cent for Kiribati, Samoa and Tuvalu. Between 1990 and 2008, the prevalence of overweight and obesity increased most rapidly in South-East Asia.\textsuperscript{12}
Agricultural productivity and sustainable food production systems

- Agriculture depends on the sustainable management of the genetic diversity of crops, breeds, trees and aquatic resources. But biodiversity is threatened throughout the region due to extensive agriculture, aquaculture and oil palm and rubber plantations. The proportion of threatened native mammal and plant species increased by more than 10 per cent and 18 per cent, respectively, in the past decade. Degradation of biota and ecosystems affects the livelihoods of 50–80 per cent of rural people.\textsuperscript{13}

- A total of 90 million hectares of agricultural land was lost in the region between 2000 and 2013. Between 1993 and 2013, the region lost 5.3 per cent, or 35 million hectares, of its arable land due to land degradation and conversion to other uses, such as industrial parks and urban centres.\textsuperscript{14}

- The region has the world’s highest rates of mineral fertilizer use. By subregion, North-East Asia, followed by South Asia, are the heaviest users of fertilizers, at 445 kilograms and 150.4 kilograms per hectare, respectively.\textsuperscript{15}

EMERGING ISSUES

- Climate change threatens all dimensions of food security. Projections show that increasing temperatures will result in decreased yields, especially in South and South-East Asia, and increased incidence of pest and disease outbreaks. The widespread melting of glaciers and snow cover in the major mountain ranges of Asia will affect the volume and timing of water flows and ultimately reduce the availability of irrigation water downstream. The effects of climate change on agricultural production and livelihoods are expected to intensify over time.\textsuperscript{16}

- The availability of water is also a challenging issue, especially with agriculture a major user of water—the proportion of water withdrawn for agriculture is more than 90 per cent for 13 countries in the region,\textsuperscript{17} in particular in Central Asia. Nearly all countries in the region are experiencing increasing pressure on water resources due to their growing populations and economic development. Between 1990 and 2010, per capita water availability dropped by 42 per cent in the Solomon Islands, by 36 per cent in Malaysia, Nepal and Pakistan, by 29 per cent in India and Bangladesh and by 23 per cent in Viet Nam.\textsuperscript{18}

- About half of the global food loss and waste occurs in China, Japan and the Republic of Korea (at 28 per cent) and in South and South-East Asia (at 23 per cent), although on a per capita basis, loss is lowest in South and South-East Asia.\textsuperscript{19}

- Changing food consumption patterns across the region are increasing the demand for meat and thus compounding the land and water availability challenges. Between 1990 and 2011, animal sources contributed 200 calories per person per day, while fruits, vegetables and pulses contributed 125 calories more per day, and the contribution of cereals and starchy roots declined by more than 50 calories per person per day.\textsuperscript{20}
2.1 By 2030, end hunger and ensure access by all people, in particular the poor and people in vulnerable situations, including infants, to safe, nutritious and sufficient food all year round.

2.2 By 2030, end all forms of malnutrition, including achieving, by 2025, the internationally agreed targets on stunting and wasting in children under 5 years of age, and address the nutritional needs of adolescent girls, pregnant and lactating women and older persons.

2.3 By 2030, double the agricultural productivity and incomes of small-scale food producers, in particular women, indigenous peoples, family farmers, pastoralists and fishers, including through secure and equal access to land, other productive resources and inputs, knowledge, financial services, markets and opportunities for value addition and non-farm employment.

2.4 By 2030, ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters and that progressively improve land and soil quality.

2.5 By 2020, maintain the genetic diversity of seeds, cultivated plants and farmed and domesticated animals and their related wild species, including through soundly managed and diversified seed and plant banks at the national, regional and international levels, and promote access to and fair and equitable sharing of benefits arising from the utilization of genetic resources and associated traditional knowledge, as internationally agreed.

2.a Increase investment, including through enhanced international cooperation, in rural infrastructure, agricultural research and extension services, technology development and plant and livestock gene banks in order to enhance agricultural productive capacity in developing countries, in particular least developed countries.

2.b Correct and prevent trade restrictions and distortions in world agricultural markets, including through the parallel elimination of all forms of agricultural export subsidies and all export measures with equivalent effect, in accordance with the mandate of the Doha Development Round.

2.c Adopt measures to ensure the proper functioning of food commodity markets and their derivatives and facilitate timely access to market information, including on food reserves, in order to help limit extreme food price volatility.