

100 days to Rio +20, 100 facts

Making the link between people, food and the environment

HUNGER

- 1 The first Millennium Development Goal set by the international community for the 21st century is to half the proportion of hungry people in the world. Progress was made in reducing chronic hunger in the 1980s and the first half of the 1990s, but hunger has been steadily rising for the past decade.
- 2 Today, chronic hunger affects over 900 million people worldwide— almost 16 percent of the population in developing countries.
- 3 The proportion of hungry people is highest in sub-Saharan Africa, at around 30 percent of the population. The region with the overall greatest sheer numbers of hungry people is Asia and the Pacific.
- 4 Malnutrition is the single largest contributor to disease in the world. In developing countries, almost five million children under the age of five die of malnutrition-related causes every year.
- 5 More often than not, the face of malnutrition is female. In households which are vulnerable to food insecurity, women are at greater risk of malnutrition than men.
- 6 The poor spend as much as 70 percent of their income on food. Urban residents and the rural poor, who can neither produce their own food nor buy it, are particularly vulnerable.
- 7 Within the next 20 years, 60 percent of the world's population will live in cities, with most urban expansion taking place in the developing world. Ensuring access to nutritious, affordable food for the poorer of these city-dwellers is emerging as a significant challenge.
- 8 Almost 100 countries have been significantly affected by high food prices in recent years.
- 9 With the world population expected to reach 8.2 billion by 2030, the planet will have to feed an additional 1.5 billion people, 90 percent of whom will be living in developing countries.
- 10 The world will need to raise its food production by 60-70 percent to feed more than nine billion people by 2050.



- 11 Every year, the average consumer in Europe and North America throws away 95–115kg of edible food.
- 12 The amount of food wasted by consumers in industrialised countries each year (222m tons) is almost as high as the total net food production of sub-Saharan Africa (230m tons).
- 13 The rate of growth in agricultural productivity is expected to fall to 1.5 percent between now and 2030 and further to 0.9 percent between 2030 and 2050.
- 14 Growth rate for agricultural productivity between 1961 and now: +2.3 percent per year.
- 15 There are 70 situations of current or potential conflict in the world and around 20 countries in protracted crisis, meaning they experience an extremely high prevalence of hunger.

WATER

- 16 From 2 000 to 5 000 litres of water are needed to produce the food consumed daily by one person.
- 17 Some 262 million people were affected by climate-related disasters between 2000 and 2004, 98 percent lived in developing countries.
- 18 Twenty percent of the world's population lives in river basin areas at risk of frequent flooding.
- 19 More than 1.2 billion people live in areas of severe water scarcity.
- 20 About 1.6 billion people live in water-scarce basins where human capacity or financial resources are insufficient to develop adequate water resources.
- 21 Agriculture withdraws 70 percent of water from aquifers, streams and lakes.
- 22 The total world crop production produced by rainfed agriculture systems is 60 percent.
- 23 Amount by which irrigation typically improves farm yields: Double.
- 24 The volume of rainfed cereal yields in the developing world, on average is 1.5 tonnes/hectares.

- 25 The volume of irrigated cereal yields in the developing world is 3.3t/hectares.
- 26 Percentage of world population now living in water-scarce regions: 40 percent.
- 27 Eleven countries currently use more than 40 percent of their water resources for irrigation each year, a threshold that is considered critical.
- 28 Number of countries that are withdrawing 20 percent of their water resources annually, indicating substantial pressure and impending water scarcity: 8
- 29 Percent of renewable water resources currently used in Libya, Saudi Arabia, Yemen, and Egypt: 100+ (they are net water importers).
- 30 Percent of total renewable water resources currently used in South America: 1 percent.
- 31 By 2025, 1 800 million people will be living in countries or regions with absolute water scarcity, and two-thirds of the world population could be under stress conditions.

FORESTRY

- 32 Approximately 14 million people worldwide are formally employed in the forestry sector.
- 33 Between 1990 and 2010, the amount of forest land designated primarily for the conservation of biological diversity increased by 35 percent. These forests now account for 12 percent of the world's forests.
- 34 In 2010, forests covered about 31 percent of the world's total land area: about 4 033 million hectares.
- 35 About 93 percent of the world's forest cover is natural forest and 7 percent is planted.
- 36 Deforestation affected an estimated 13 million hectares per year between 2000 and 2010; net forest loss was 5.2 million hectares per year, due to afforestation and natural expansion.
- 37 Estimates of the number of tree species vary from 80 000 to 100 000, yet fewer than 500 have been studied in any depth for their present and future potential.



GENDER

- 38 Women, on average, comprise 43 percent of the agricultural labor force in developing countries and account for an estimated two-thirds of the world's 600 million poor livestock keepers.
- 39 Women farmers typically achieve yields that are 20-30 percent lower than men. However, the vast majority of studies suggest that women are just as efficient as men and would achieve the same yields if they had equal access to productive resources and services.
- 40 The empowerment of women could raise their farm productivity by 20-30 percent, increase national agricultural output by 2.5 to 4.0 percent, and ultimately, lift 100-150 million people out of hunger.
- 41 Women produce about half of the world's food but own only about two percent of all land.
- 42 Women own, on average, 19 percent of landholdings, significantly less than men in every region of the world.
- 43 In rural areas of Ghana almost 15 percent of men and less than 4 percent of women receive a wage.
- 44 In rural Bangladesh 24 percent of men and 3 percent of women work in wage employment.
- 45 In rural Ecuador almost 30 percent of men and 9 percent of women are employed for wages.
- 46 In sub-Saharan Africa women contribute between 60 and 80 percent of the labour for food production, both for household consumption and for sale.

FISHERIES

- 47 Some 80 percent of the world's fish production is used for human consumption. The rest is mostly processed into fishmeal and fish oil.
- 48 The number of people who are directly engaged in the primary production of fish either in capture from the wild or in aquaculture reached 44.9 million in 2008.
- 49 Fish and fish products reached a record US\$102 billion dollars in exports in 2008, with further growth expected.
- 50 In developing countries, fishery net-exports (exports minus imports) are higher than those for other agricultural commodities including coffee, tea, rice and bananas.
- 51 Some 53 percent of the world's marine fishery resources are fully fished, or fished to the maximum sustainable level.
- 52 Another 32 percent is overfished, depleted, or recovering from depletion.
- 53 Fish contributes to food security in many regions of the world. Numerous developing countries rely on fish as a major source of protein; in 28 of them, fish accounts for over 40 percent of animal protein intake.
- 54 Since 1970, fish production from aquaculture has increased at an average annual rate of 6.6 percent.
- 55 With production reaching 52.5 million tonnes in 2008, aquaculture will soon overtake capture fisheries as the main source of food fish.
- 56 Taking family members and other dependents into account, almost 540 million people, or nearly 8 percent of the world population, rely on the fisheries sector for their livelihoods.
- 57 Although humans began to domesticate plants and animals for use in agriculture about 12,000 years ago, more than 90 percent of aquatic species presently in culture have only been domesticated since the beginning of the twentieth century.
- 58 The contribution of aquaculture to world food fish production soared from 3.9 percent in 1970 to about 48 percent in 2006.
- 59 One of every two fish produced comes from aquaculture, now growing faster than any animal food producing sector with millions of people depending on it directly or indirectly for food and nutritional security and livelihoods.

LAND

- 60 South Asia is using 94 percent of its potentially arable land. In contrast, in sub-Saharan Africa only 22 percent of potentially arable land is under cultivation.
- 61 Expansion in the area of land used to cultivated food crops between 1960 and 2010: 12 percent.
- 62 The increase in world agricultural productivity during 1960-2010 was in between 150-200 percent.
- 63 The extent of total cultivated land (rainfed + irrigated) in 1961 was 1.4 billion hectares.
- 64 The extent of total cultivated land (rainfed + irrigated) in 2006 was 1.5 billion hectares.
- 65 The cultivated area where irrigation was practiced in 1961 was 139 million hectares.
- 66 The Cultivated area where irrigation was practiced in 2006 was 301 million hectares.
- 67 The average number of hectares of cultivated land needed to feed one person in 1961 was 0.45 hectares
- 68 The average number of hectares of cultivated land needed to feed one person in 2006 was 0.22 hectares
- 69 The total world land area suitable for cropping is at 4.4 billion hectares
- 70 Arable land per person is shrinking. It decreased from 0.38 hectares in 1970 to 0.23 hectares in 2000, with a projected decline to 0.15 hectares per person by 2050.
- 71 Percent of the total world cultivated area that is rainfed: 80 percent (1.2 billion hectares)
- 72 Total land area currently being cultivated: 1.6 billion hectares of which 20 percent (0.3 billion hectares) is on marginally suitable lands.
- 73 Share of world land sources that are degraded: 25 percent.
- 74 Eight percent of land is moderately degraded
- 75 The share of land that is improving is 10 percent.

- 76 In several regions, soil quality constraints affect more than half the cultivated land base, notably in sub-Saharan Africa, Southern America, Southeast Asia and Northern Europe.
- 77 Percentage of the world's land area that is covered by low-income countries: 22 percent.
- 78 The average availability of cultivated land per capita in low-income countries is less than half that of high-income countries and the suitability of cultivated land for cropping is generally lower.
- 79 High-income countries, as a group, cultivate more than twice the land area per capita (0.37 hectares) than either middle income (0.23 hectares) or low income (.017 hectares) countries.
- 80 Between 1974 and 2010 the area cultivated using conservation agriculture grew from just under 3 million hectares to more than 117 million hectares.

FOOD SUPPLIES, FOOD PRODUCTION, FOOD WASTE

- 81 FAO's first forecast for world wheat production in 2012 stands at 690 million tonnes, 10 million tonnes less than last year's record high, but still the second largest crop.
- 82 Only 30 crops provide 95 percent of human food energy needs and just four of them – rice, wheat, maize and potatoes – provide more than 60 percent.
- 83 Livestock production currently accounts for some 40 percent of the gross value of world agricultural production, and its share is rising.
- 84 The value of post-harvest grain losses in sub-Saharan Africa alone is estimated at around \$4 billion a year. This lost grain production could meet the minimum annual food requirements of 48 million people.
- 85 Overall, post-harvest food losses can run from 15 percent of food production to as high as 50 percent. These losses are due to a variety of reasons, including harvesting at an incorrect stage of produce maturity, excessive exposure to rain, drought or extremes of temperature, contamination by micro-organisms and physical damage.



NATURE AND THE ENVIRONMENT

- 86 More than 200 million people are affected by natural disasters every year. In 2010, this included the latest floods in Pakistan, the recent earthquake in Haiti and drought in the Niger and the Horn of Africa.
- 87 Among the 80 new infectious diseases identified since 1970, 70 percent are of animal origin and pose a threat to food supplies across the globe.
- 88 Since 2004, over 60 countries have been affected by avian influenza; the virus remains endemic in five countries.
- 89 Agriculture currently accounts for some 30 percent of global greenhouse gas emissions.
- 90 About 32 percent of livestock breeds are under threat of extinction within the next 20 years.
- 91 About 75% of the genetic diversity of agricultural crops has been lost since 1900.
- 92 Worldwide, it is estimated that over half a million tonnes of banned, obsolete and unwanted pesticides are threatening the environment and human health.
- 93 Farm communities in the Andes cultivate more than 175 locally named potato varieties.
- 94 During the first six years of this century, more than 60 breeds – almost one a month – disappeared forever, taking with them their unique genetic make-up.
- 95 The economic value of pollination worldwide is more than USD 200 billion annually, representing 9.5% of global human food agricultural production
- 96 Pests, pathogens and weeds cause the loss of up to 40 percent of food production in some places.
- 97 Agriculture and deforestation account for about one third of global greenhouse gas emissions from human activities, specifically 25 percent of carbon, 50 percent of methane and over 75 percent of nitrous oxide.
- 98 About 80 percent of total emissions from agriculture, including deforestation, are from developing countries.
- 99 Climate change is expected to increase the number of undernourished people and may reduce yields of rainfed crops in some African countries significantly as early as the 2020s.
- 100 The food sector currently accounts for around 30 percent of the world's total energy consumption.