CLIMATE ACTION

FAST FACTS

On climate, food and agriculture

1. What we eat, and how that food is produced, affects our health but also the environment. The unsustainable use of land, soil, water and energy for food contributes to greenhouse gas emissions that cause rising temperatures.

2. About a third of all human-caused greenhouse gas emissions are linked to food. Food needs to be grown and processed, transported, distributed, prepared, consumed, and sometimes disposed of. Each of these steps creates greenhouse gases that trap the sun's heat and contribute to climate change. The largest chunk of food-related greenhouse gases comes from agriculture and land use.

3. Without intervention, food system emissions will likely increase by up to 40 per cent by 2050, given rising demand from population growth, more income and dietary changes.

4. Over 19 per cent of food is wasted, and up to 10 per cent of global greenhouse gas emissions are associated with food that is not consumed.

5. Higher temperatures in turn affect resources to produce food. In 2023, the cumulative impacts of droughts and heatwaves were associated with 151 million more people experiencing moderate or severe food insecurity across 124 countries.

6. Under higher temperatures, declines in crop yields are likely. Heat stress also results in impaired quality and increased waste.

7. The ocean has absorbed more than 90 per cent of the excess heat in the climate system, making it more acidic and less productive. This along with practices such as overfishing threatens marine resources that feed 3.2 billion people.

8. Changes in snow cover, lake and river ice, and permafrost in many Arctic regions have disrupted food supplies from herding, hunting, fishing and gathering activities, harming livelihoods and the cultural identity of Arctic residents.

9. Many practices can advance climate adaptation in food systems, such as erosion control, grazing land management, genetic improvements for tolerance to heat and drought, heterogeneous diets, and reduced food loss and waste.

10. Pilot climate-smart agriculture initiatives in a number of countries have boosted productivity, lowered emissions, improved soil quality and water efficiency, and increased incomes and climate resilience.

11. Consumption of healthy and sustainable diets presents major opportunities for reducing emissions from food systems and improving health outcomes, including through lower consumption of energy- and land-intensive animal-sourced foods.

Sources: World Bank (1), Crippa et al. (2), FAO (2), IPCC (2, 3, 6, 8, 9, 11), UNEP (4), Lancet (5), IPCC (7, 8), World Bank (10), UNEP (11).