



Food and Agriculture  
Organization of the  
United Nations



International Fund for  
Agricultural Development



World Food  
Programme



World Health  
Organization

2021

**IN BRIEF**

# THE STATE OF FOOD SECURITY AND NUTRITION IN THE WORLD

**TRANSFORMING FOOD SYSTEMS  
FOR FOOD SECURITY, IMPROVED NUTRITION  
AND AFFORDABLE HEALTHY DIETS FOR ALL**



# CONTENTS

## KEY MESSAGES 5

## FOREWORD 8

## CHAPTER 1 INTRODUCTION 11

**BOX 1** Major drivers and underlying factors challenging food security and nutrition in the world: a synthesis from the previous four editions of this report

## CHAPTER 2 FOOD SECURITY AND NUTRITION AROUND THE WORLD 13

### 2.1 Food security indicators – latest updates and progress towards ending hunger and ensuring food security 13

**FIGURE 1** The number of undernourished people in the world continued to rise in 2020. Between 720 and 811 million people in the world faced hunger in 2020. Considering the middle of the projected range (768 million), 118 million more people were facing hunger in 2020 than in 2019 – or as many as 161 million, considering the upper bound of the range

**TABLE 1** Prevalence of undernourishment (PoU) in the world, 2005–2020

**FIGURE 4** Moderate or severe food insecurity has been climbing slowly for six years and now affects more than 30 percent of the world population

**TABLE 5** Healthy diets were still unaffordable for around 3 billion people in the world in 2019. The number of people unable to afford healthy diets increased in Africa and in Latin America and the Caribbean between 2017 and 2019

### 2.2 Nutrition indicators – latest updates and progress towards global nutrition targets 18

**FIGURE 7** Reaching the 2025 and 2030 global nutrition targets remains a challenge. In 2020, an estimated 22 percent of children under 5 years of age were affected by stunting, 6.7 percent by wasting and 5.7 percent by overweight. Nearly 30 percent of women aged 15 to 49 years were affected by anaemia in 2019

### 2.3 Ending hunger and all forms of malnutrition by 2030 21

**FIGURE 10** The COVID-19 scenario projects a small decrease in global hunger between 2021 and 2030, with wide variation in evolution across regions

**FIGURE 12** Around half of children live in countries that are not on track to reach the 2030 SDG targets for child stunting, wasting and overweight

## CHAPTER 3 MAJOR DRIVERS OF RECENT FOOD SECURITY AND NUTRITION TRENDS 25

### 3.1 A food systems lens is critical to address the major drivers of recent food security and nutrition trends 25

**FIGURE 14** Impacts of various drivers are transmitted throughout food systems, undermining food security and nutrition

### 3.2 Impact of major drivers on food security and nutrition

**FIGURE 21** Hunger is higher and has increased more in countries affected by conflict, climate extremes or economic downturns, or with high inequality

**FIGURE 23** Latin America and the Caribbean feature the highest increase in the PoU from multiple drivers, while Africa is the only region where the PoU increased under the influence of all three drivers from 2017 to 2019

**FIGURE 24** In 2020, Africa, Asia, and Latin America and the Caribbean witnessed significant increases in the PoU while being hit by economic downturns combined with climate-related disasters, conflict, or a combination of both

**FIGURE 26** In 2019, countries affected by multiple drivers and countries affected by conflict (alone or combined with other drivers) exhibited among the highest percentage of the population who cannot afford a healthy diet and are moderately or severely food insecure

27	<b>CHAPTER 4</b>	
28	<b>WHAT NEEDS TO BE DONE TO TRANSFORM FOOD SYSTEMS FOR FOOD SECURITY, IMPROVED NUTRITION AND AFFORDABLE HEALTHY DIETS?</b>	<b>32</b>
29	<b>4.1 Six pathways to address major drivers behind recent food security and nutrition trends</b>	<b>33</b>
30	<b>FIGURE 27</b> Possible pathways towards food systems transformation to address major drivers of food insecurity, malnutrition and unaffordability of healthy diets	34
31	<b>BOX 11</b> Accelerating food systems transformation by empowering women and youth	35
	<b>4.2 Building coherent portfolios of policies and investments</b>	<b>35</b>
	<b>FIGURE 29</b> Key elements of a portfolio of policies and investments	37
	<b>CHAPTER 5</b>	
	<b>CONCLUSION</b>	<b>38</b>

# KEY MESSAGES

→ Well before the COVID-19 pandemic, we were already not on track to meet our commitments to end world hunger and malnutrition in all its forms by 2030. Now, the pandemic has made this significantly more challenging.

→ After remaining virtually unchanged for five years, the prevalence of undernourishment (PoU) increased 1.5 percentage points in 2020 – reaching a level of around 9.9 percent, heightening the challenge of achieving the Zero Hunger target by 2030.

→ Between 720 and 811 million people in the world faced hunger in 2020. Considering the middle of the projected range (768 million), around 118 million more people were facing hunger in 2020 than in 2019.

→ Compared with 2019, about 46 million more people in Africa, 57 million more in Asia, and about 14 million more in Latin America and the Caribbean were affected by hunger in 2020.

→ Around 660 million people may still face hunger in 2030, in part due to lasting effects of the COVID-19 pandemic on global food security – 30 million more people than in a scenario in which the pandemic had not occurred.

→ While the global prevalence of moderate or severe food insecurity has been slowly on the rise since 2014, the estimated increase in 2020 was equal to that of the previous five years combined. Nearly one in three people in the world (2.37 billion) did not have

access to adequate food in 2020 – an increase of almost 320 million people in just one year.

→ Close to 12 percent of the global population was severely food insecure in 2020, representing 928 million people – 148 million more than in 2019.

→ At the global level, the gender gap in the prevalence of moderate or severe food insecurity has grown even larger in the year of the COVID-19 pandemic.

→ The high cost of healthy diets coupled with persistent high levels of income inequality put healthy diets out of reach for around 3 billion people, especially the poor, in every region of the world in 2019.

→ Globally, malnutrition in all its forms also remains a challenge. Although it is not yet possible to fully account for the impact of the COVID-19 pandemic, in 2020, it is estimated that 22.0 percent (149.2 million) of children under 5 years of age were affected by stunting, 6.7 percent (45.4 million) were suffering from wasting and 5.7 percent (38.9 million) were overweight. The actual figures are expected to be higher due to the effects of the pandemic.

→ Africa and Asia account for more than nine out of ten of all children with stunting, more than nine out of ten children with wasting and more than seven out of ten children who are affected by overweight worldwide.

- An estimated 29.9 percent of women aged 15 to 49 years in 2019 around the world are affected by anaemia – now a Sustainable Development Goal (SDG) Indicator (2.2.3). Adult obesity is increasing sharply in all regions.
- Globally, the world is not on track to achieve targets for any of the nutrition indicators by 2030. The current rate of progress on child stunting, exclusive breastfeeding and low birthweight is insufficient, and progress on child overweight, child wasting, anaemia in women of reproductive age and adult obesity is stalled or the situation is worsening.
- The COVID-19 pandemic has likely impacted the prevalence of multiple forms of malnutrition, and could have lasting effects beyond 2020. These will be compounded through the intergenerational effects of malnutrition and the resulting impacts on productivity.
- Conflict, climate variability and extremes, and economic slowdowns and downturns (now exacerbated by the COVID-19 pandemic) are major drivers of food insecurity and malnutrition that continue to increase in both frequency and intensity, and are occurring more frequently in combination.
- The reversal in the PoU trends in 2014 and continuous increase are largely attributed to countries affected by conflict, climate extremes and economic downturns, and to countries with high income inequality.
- Between 2017 and 2019, the PoU increased by 4 percent in countries affected by one or more of these major drivers while it decreased by 3 percent in countries not affected by them. High income inequality magnified this negative impact of the drivers, particularly in middle-income countries.
- In the same period, countries affected by multiple drivers exhibited the highest increases in the PoU, 12 times larger than those in countries affected by only a single driver.
- Drivers that are external (e.g. conflicts or climate shocks) and internal (e.g. low productivity and inefficient food supply chains) to food systems are pushing up the cost of nutritious foods which, combined with low incomes, are increasing the unaffordability of healthy diets, particularly in countries affected by multiple drivers.
- In 2020, almost all low- and middle-income countries were affected by pandemic-induced economic downturns. When combined with climate-related disasters, conflict, or a combination, the largest increase in the PoU were seen in Africa and Asia.
- Because these major drivers are negatively affecting food security and nutrition by creating multiple, compounding impacts throughout our food systems, a food systems lens is essential to better understand their interactions and identify entry points for interventions to address them.
- When transformed with greater resilience to specifically address the major drivers, food systems can provide affordable healthy diets that are sustainable and inclusive, and become a powerful driving force towards ending hunger, food insecurity and malnutrition in all its forms, for all.

→ Depending on context, there are six pathways to follow towards food systems transformation: integrating humanitarian, development and peacebuilding policies in conflict-affected areas; scaling up climate resilience across food systems; strengthening resilience of the most vulnerable to economic adversity; intervening along the food supply chains to lower the cost of nutritious foods; tackling poverty and structural inequalities, ensuring interventions are pro-poor and inclusive; and strengthening food environments and changing consumer behaviour to promote dietary patterns with positive impacts on human health and the environment.

→ Given that most food systems are affected by more than one driver, the formulation of comprehensive portfolios of policies, investments and legislation may be elaborated along several pathways simultaneously. This will allow for maximizing their combined effects on food systems transformation, exploiting win-win solutions and mitigating undesirable trade-offs.

→ Coherence in the formulation and implementation of policies and investments among food, health, social protection and environmental systems is also essential to build on synergies towards more efficient and effective food systems solutions.

→ Systems approaches are needed to build coherent portfolios of policies, investments and legislation and enable win-win solutions while managing trade-offs, including territorial approaches, ecosystems approaches, Indigenous Peoples' food systems approaches and interventions that systemically address protracted crisis conditions.

→ While 2020 was an immense challenge for the world, it may also be a warning of unwelcome events to come if more resolute actions to change course are not taken because the major drivers have their own trajectory or cyclicity and will continue to occur.

→ The UN Food Systems Summit 2021 will bring forward a series of concrete actions to support a transformation of the world's food systems. The six transformation pathways identified in this report are needed for greater resilience to specifically address the negative impacts of the major drivers behind the recent rise in hunger and slowing progress to reduce malnutrition in all its forms.

# FOREWORD

The world is at a critical juncture: it is very different to where it was six years ago when it committed to the goal of ending hunger, food insecurity and all forms of malnutrition by 2030. At the time, while we understood that the challenges were significant, we were also optimistic that with the right transformative approaches, past progress could be accelerated, at scale, to put us on track to achieve that goal. Nonetheless, the past four editions of this report revealed a humbling reality. The world has not been generally progressing either towards Sustainable Development Goal (SDG) Target 2.1, of ensuring access to safe, nutritious and sufficient food for all people all year round, or towards SDG Target 2.2, of eradicating all forms of malnutrition.

Last year's report stressed that the COVID-19 pandemic was having a devastating impact on the world's economy, triggering an unprecedented recession not seen since the Second World War, and that the food security and nutrition status of millions of people, including children, would deteriorate if we did not take swift action. Unfortunately, the pandemic continues to expose weaknesses in our food systems, which threaten the lives and livelihoods of people around the world, particularly the most vulnerable and those living in fragile contexts.

This year, this report estimates that between 720 and 811 million people in the world faced hunger in 2020 – as many as 161 million more than in 2019. Nearly 2.37 billion people did not have access to adequate food in 2020 – an increase of 320 million people in just one year. No region of the world has been spared. The high cost of healthy diets and persistently high levels of poverty and income inequality continue to keep healthy diets out of reach for around 3 billion people in every region of the world. Moreover, new analysis in this report shows that the increase in the unaffordability of healthy diets is associated with higher levels of moderate or severe food insecurity.

While it is not yet possible to fully quantify the impact of the COVID-19 pandemic in 2020, we are concerned by the many millions of children under 5 years of age who were affected by stunting (149.2 million), wasting (45.4 million) or overweight (38.9 million). Child malnutrition continues to be a challenge, particularly in Africa and Asia. Adult obesity also continues to increase, with no reversal in the trend in sight at global or regional levels. Efforts to eradicate malnutrition in all its forms have been challenged by disruptions in essential nutrition interventions and negative impacts on dietary



patterns during the COVID-19 pandemic. On the health front, the interaction between the pandemic, obesity and diet-related non-communicable diseases has underlined the urgency of ensuring access to affordable healthy diets for all. Such myriad setbacks hide some important achievements – such as the increasing prevalence of exclusive breastfeeding of infants under 6 months.

The situation could have been worse without governments' responses and the impressive social protection measures they have put in place during the COVID-19 crisis. However, not only have measures to contain the spread of the pandemic resulted in an unprecedented economic recession, but also other important drivers are behind recent setbacks in food security and nutrition. These include conflict and violence in many parts of the world as well as climate-related disasters all over the world. Given the past and present interactions of these drivers with economic slowdowns and downturns, as well as high and persistent (and in some countries growing) levels of inequality, it is not surprising that governments could not keep the worst-case scenario for food security and nutrition from materializing and affecting millions of people all over the world.

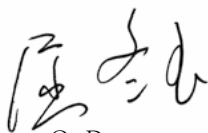
Hence, the world is at a critical juncture, not only because we have to overcome more significant challenges to ending hunger, food insecurity and all forms of malnutrition, but also because, with the fragility of our food systems widely exposed, we have an opportunity to build forward better and get on track towards achieving SDG 2. The UN Food Systems Summit, to be held later this year, will bring forward a series of concrete actions that people, food system actors and governments from all over the world can take to support a transformation of the world's food systems. We must build on the momentum that the run-up to the Summit has already generated and continue to build the evidence base on interventions and engagement models that best support the transformation of food systems. This report aims to contribute to this global effort.

We are aware that transforming food systems so that they provide nutritious and affordable food for all and become more efficient, resilient, inclusive and sustainable has several entry points and can contribute to progress across the SDGs. Future food systems need to provide decent livelihoods for the people who work within them, in particular for small-scale producers in developing countries – the people who harvest,

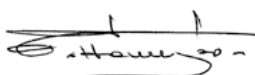
process, package, transport and market our food. Future food systems also need to be inclusive and encourage the full participation of Indigenous Peoples, women and youth, both individually and through their organizations. Future generations will only thrive as productive actors and leading forces in food systems if decisive action is taken to ensure that children are no longer deprived of their right to nutrition.

While this broader food systems transformation is currently at the centre of global attention, this report identifies the transformation pathways needed to specifically address the key drivers behind the recent rise in hunger and slowing progress towards reducing all forms of malnutrition. The report recognizes that these transformation pathways are only feasible if they help meet certain conditions, including creating opportunities for traditionally marginalized people, nurturing human health and protecting the environment. Getting on track towards ending hunger and all forms of malnutrition will require a move away from silo solutions towards integrated food systems solutions as well as policies and investments that address the global food security and nutrition challenges immediately.

This year offers a unique opportunity for advancing food security and nutrition through transforming food systems with the upcoming UN Food Systems Summit, the Nutrition for Growth Summit and the COP26 on climate change. The outcomes of these events will certainly shape the actions of the second half of the UN Decade of Action on Nutrition. We stand firmly committed to take advantage of the unprecedented opportunity for these events to generate commitments towards transforming food systems to eradicate food insecurity and malnutrition in all its forms and deliver affordable healthy diets for all, and to build forward better from the COVID-19 pandemic.



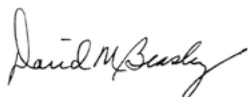
Qu Dongyu  
FAO Director-General



Gilbert F. Houngbo  
IFAD President



Henrietta H. Fore  
UNICEF Executive Director



David Beasley  
WFP Executive Director



Tedros Adhanom Ghebreyesus  
WHO Director-General

# CHAPTER 1

## INTRODUCTION

Well before the COVID-19 pandemic, we were already not on track to ending world hunger and malnutrition in all its forms by 2030. Now, the pandemic has made this goal significantly more challenging. This report presents the first global assessment of food insecurity and malnutrition for 2020 and offers some indication of what hunger and malnutrition would look like by 2030, in a scenario further complicated by the enduring effects of the pandemic. These trends highlight the need for deeper reflection on how to better address the global food security and nutrition situation.

One of the key questions posed in this year's report is – How did the world get to this critical point? To answer, the

report draws on the analyses of the past four editions, which have produced a vast, evidence-based body of knowledge of the major drivers behind the recent changes in food security and nutrition (Box 1). This is updated with new data to feed into a broader analysis of how these drivers interact, allowing for a holistic view of their combined effects both on each other and on food systems. In turn, this informs an in-depth look at how to move from silo solutions to integrated food systems solutions that specifically address the challenges posed by the major drivers, highlighting also the types of policy and investment portfolios required to transform food systems for food security, improved nutrition and affordable healthy diets for all. ■

## BOX 1 MAJOR DRIVERS AND UNDERLYING FACTORS CHALLENGING FOOD SECURITY AND NUTRITION IN THE WORLD: A SYNTHESIS FROM THE PREVIOUS FOUR EDITIONS OF THIS REPORT

### CONFLICT

@FAO/Cengiz Yar



**CONFLICT (2017 edition)** is a major threat to food security and nutrition and the leading cause of global food crises. Marked increases in the number and complexity of conflicts in the last ten years have eroded gains in food security and nutrition, leading several countries to the brink of famine.

### CLIMATE VARIABILITY AND EXTREMES

@FAO/J. Thompson



**CLIMATE VARIABILITY AND EXTREMES (2018 edition)** are a key driver behind the recent rise in global hunger, one of the leading causes of severe food crises, and a contributing factor to the alarming levels of malnutrition seen in recent years. Increasing climate variability and extremes, linked to climate change, are negatively affecting all dimensions of food security and nutrition.

### ECONOMIC SLOWDOWNS AND DOWNTURNS

@FAO/Giuseppe Bizzarri



**ECONOMIC SLOWDOWNS AND DOWNTURNS (2019 edition)** are a key driver behind rises in hunger and food insecurity. They hinder progress towards elimination of malnutrition in all its forms, irrespective of whether they are driven by market swings, trade wars, political unrest, or a global pandemic, such as that driven by COVID-19. Most countries where hunger has increased have experienced these economic slowdown and downturn episodes.

### UNAFFORDABILITY OF HEALTHY DIETS

@FAO/Vyacheslav Oseleiko



The **UNAFFORDABILITY OF HEALTHY DIETS (2020 edition)** is associated with increasing food insecurity and all forms of malnutrition, including stunting, wasting, overweight and obesity. Several factors are driving the cost of nutritious foods throughout food systems, in the realms of food production, food supply chains, food environments, as well as consumer demand and the political economy of food.

## UNDERLYING CAUSES OF POVERTY AND INEQUALITY

**Poverty and inequality (2019 and 2020 editions)** are underlying structural causes of food insecurity and malnutrition in all its forms, which amplify the negative impacts of the global drivers above. Poverty negatively impacts on the nutrition quality of diets. Food insecurity and malnutrition in all its forms are made worse by high and persistent levels of inequality in all its dimensions. Income inequality in particular increases the likelihood of food insecurity – especially for socially excluded and marginalized groups – and undercuts the positive effect of any economic growth on individual food security.

# CHAPTER 2 FOOD SECURITY AND NUTRITION AROUND THE WORLD

## 2.1 FOOD SECURITY INDICATORS – LATEST UPDATES AND PROGRESS TOWARDS ENDING HUNGER AND ENSURING FOOD SECURITY

### KEY MESSAGES

- World hunger increased in 2020 under the shadow of the COVID-19 pandemic. After remaining virtually unchanged for five years, the prevalence of undernourishment increased from 8.4 to around 9.9 percent in just one year, heightening the challenge of achieving the Zero Hunger target by 2030.
- It is projected that between 720 and 811 million people in the world faced hunger in 2020. Considering the middle of the projected range (768 million), around 118 million more people were facing hunger in 2020 than in 2019 – or as many as 161 million more, considering the upper bound of the projected range.
- More than half of the world's undernourished are found in Asia (418 million) and more than one-third in Africa (282 million). Compared with 2019, about 46 million more

people in Africa, 57 million more in Asia, and about 14 million more in Latin America and the Caribbean were affected by hunger in 2020.

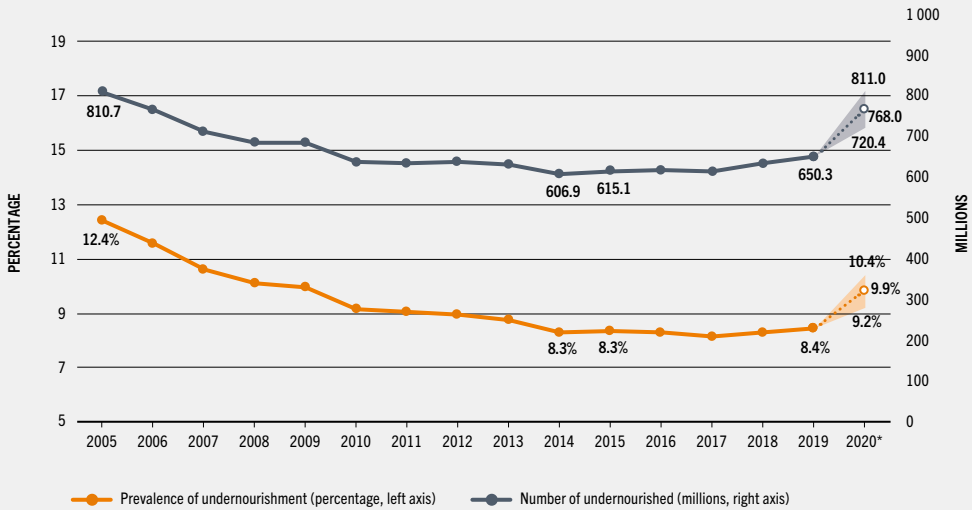
→ While the global prevalence of moderate or severe food insecurity (measured using the Food Insecurity Experience Scale) has been slowly on the rise since 2014, the estimated increase in 2020 was equal to that of the previous five years combined. Nearly one in three people in the world (2.37 billion) did not have access to adequate food in 2020 – an increase of almost 320 million people in just one year.

→ Close to 12 percent of the global population was severely food insecure in 2020, representing 928 million people – 148 million more than in 2019.

→ The high cost of healthy diets coupled with persistent high levels of income inequality put healthy diets out of reach for around 3 billion people, especially the poor, in every region of the world in 2019 – slightly less than in 2017.

The number of people in the world affected by hunger continued to increase in 2020 under the shadow of the COVID-19 pandemic. After remaining virtually unchanged from 2014 to 2019, the PoU increased from 8.4 percent to around 9.9 percent between 2019 and 2020, heightening the challenge of achieving the

**FIGURE 1** THE NUMBER OF UNDERNOURISHED PEOPLE IN THE WORLD CONTINUED TO RISE IN 2020. BETWEEN 720 AND 811 MILLION PEOPLE IN THE WORLD FACED HUNGER IN 2020. CONSIDERING THE MIDDLE OF THE PROJECTED RANGE (768 MILLION), 118 MILLION MORE PEOPLE WERE FACING HUNGER IN 2020 THAN IN 2019 – OR AS MANY AS 161 MILLION, CONSIDERING THE UPPER BOUND OF THE RANGE



NOTES: \* Projected values for 2020 in the figure are illustrated by dotted lines. Shaded areas show lower and upper bounds of the estimated range.  
SOURCE: FAO.

Zero Hunger target in 2030 (Figure 1 and Table 1). The 2020 estimate ranges from 9.2 to 10.4 percent, depending on the assumptions made to reflect the uncertainties around the assessment.

In terms of population, it is estimated that between 720 and 811 million people in the world faced hunger in 2020. Considering the middle of the projected range (768 million), 118 million more

people were facing hunger in 2020 than in 2019, with estimates ranging from 70 to 161 million.

The numbers show enduring and troubling regional inequalities. About one in five people (21 percent of the population) was facing hunger in Africa in 2020 – more than double the proportion of any other region. This represents an increase of 3 percentage points in one

**TABLE 1** PREVALENCE OF UNDERNOURISHMENT (PoU) IN THE WORLD, 2005–2020

Prevalence of undernourishment (%)								
	2005	2010	2015	2016	2017	2018	2019	2020*
<b>WORLD</b>	<b>12.4</b>	<b>9.2</b>	<b>8.3</b>	<b>8.3</b>	<b>8.1</b>	<b>8.3</b>	<b>8.4</b>	<b>9.9</b>
<b>AFRICA</b>	<b>21.3</b>	<b>18.0</b>	<b>16.9</b>	<b>17.5</b>	<b>17.1</b>	<b>17.8</b>	<b>18.0</b>	<b>21.0</b>
Northern Africa	8.5	7.3	6.1	6.2	6.5	6.4	6.4	7.1
Sub-Saharan Africa	24.6	20.6	19.4	20.1	19.5	20.4	20.6	24.1
Eastern Africa	33.0	28.4	24.8	25.6	24.9	25.9	25.6	28.1
Middle Africa	36.8	28.9	28.7	29.6	28.4	29.4	30.3	31.8
Southern Africa	5.0	6.2	7.5	7.9	7.3	7.6	7.6	10.1
Western Africa	14.2	11.3	11.5	11.9	11.8	12.5	12.9	18.7
<b>ASIA</b>	<b>13.9</b>	<b>9.5</b>	<b>8.3</b>	<b>8.0</b>	<b>7.8</b>	<b>7.8</b>	<b>7.9</b>	<b>9.0</b>
Central Asia	10.6	4.4	2.9	3.2	3.2	3.1	3.0	3.4
Eastern Asia	6.8	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
South-eastern Asia	17.3	11.6	8.3	7.8	7.4	6.9	7.0	7.3
Southern Asia	20.5	15.6	14.1	13.2	13.0	13.1	13.3	15.8
Western Asia	9.0	9.1	14.3	15.0	14.5	14.4	14.4	15.1
<i>Western Asia and Northern Africa</i>	8.8	8.2	10.5	10.9	10.7	10.6	10.7	11.3
<b>LATIN AMERICA AND THE CARIBBEAN</b>	<b>9.3</b>	<b>6.9</b>	<b>5.8</b>	<b>6.8</b>	<b>6.6</b>	<b>6.8</b>	<b>7.1</b>	<b>9.1</b>
Caribbean	19.2	15.9	15.2	15.4	15.3	16.1	15.8	16.1
Latin America	8.6	6.2	5.1	6.2	6.0	6.1	6.5	8.6
Central America	8.0	7.4	7.5	8.1	7.9	8.0	8.1	10.6
South America	8.8	5.7	4.2	5.4	5.2	5.4	5.8	7.8
<b>OCEANIA</b>	<b>6.9</b>	<b>5.3</b>	<b>6.1</b>	<b>6.2</b>	<b>6.3</b>	<b>6.2</b>	<b>6.2</b>	<b>6.2</b>
<b>NORTHERN AMERICA AND EUROPE</b>	<b>&lt;2.5</b>	<b>&lt;2.5</b>	<b>&lt;2.5</b>	<b>&lt;2.5</b>	<b>&lt;2.5</b>	<b>&lt;2.5</b>	<b>&lt;2.5</b>	<b>&lt;2.5</b>

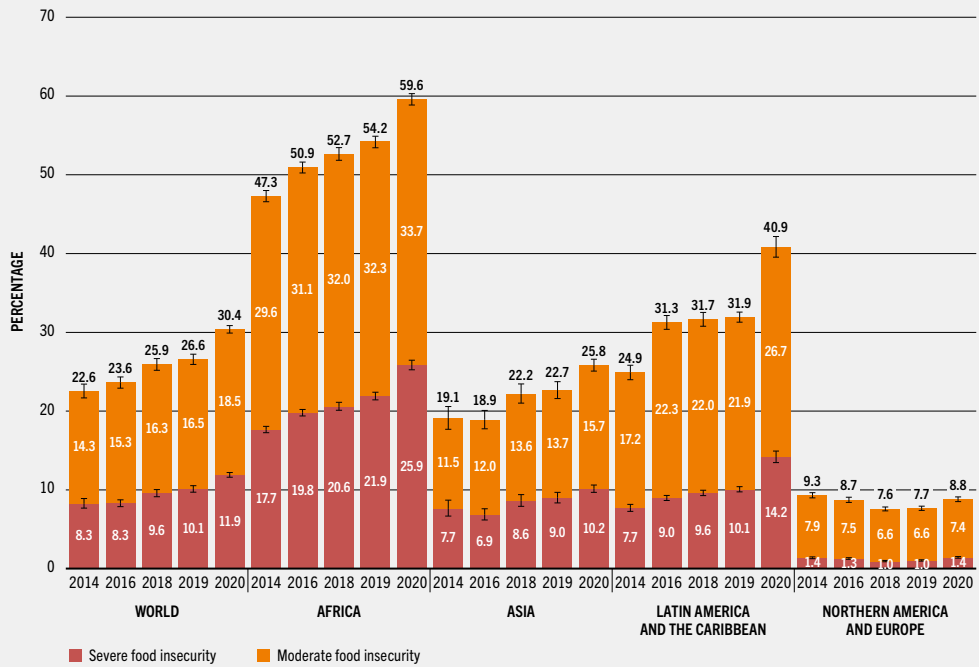
NOTES: \* Projected values based on the middle of the projected range. The full ranges of the projected 2020 values can be found in **Annex 2** in the report. For country compositions of each regional/subregional aggregate, see Notes on geographic regions in statistical tables inside the back cover of the full report.

SOURCE: FAO.

year. This is followed by Latin America and the Caribbean (9.1 percent) and Asia (9.0 percent), with increases of 2.0 and 1.1 percentage points, respectively, between 2019 and 2020.

Of the total number of undernourished people in 2020 (768 million), more than half (418 million) live in Asia and more than one-third (282 million) in Africa, while Latin America and the Caribbean

**FIGURE 4** MODERATE OR SEVERE FOOD INSECURITY HAS BEEN CLIMBING SLOWLY FOR SIX YEARS AND NOW AFFECTS MORE THAN 30 PERCENT OF THE WORLD POPULATION



NOTES: Differences in totals are due to rounding of figures to the nearest decimal point.

SOURCE: FAO.

accounts for about 8 percent (60 million). Compared with 2019, 46 million more people in Africa, almost 57 million more in Asia, and about 14 million more in Latin America and the Caribbean were affected by hunger in 2020.

Moderate or severe food insecurity (based on the Food Insecurity Experience Scale) at the global level has been slowly on the rise, from 22.6 percent in 2014 to 26.6 percent in 2019 (Figure 4). Then in 2020, the year the

COVID-19 pandemic spread across the globe, it rose nearly as much as in the previous five years combined, to 30.4 percent. Thus, nearly one in three people in the world did not have access to adequate food in 2020 – an increase of 320 million people in just one year, from 2.05 to 2.37 billion. Nearly 40 percent of those people – 11.9 percent of the global population, or almost 928 million – faced food insecurity at severe levels. Close to 148 million more people were severely food insecure in 2020 than in 2019. »



**TABLE 5** HEALTHY DIETS WERE STILL UNAFFORDABLE FOR AROUND 3 BILLION PEOPLE IN THE WORLD IN 2019. THE NUMBER OF PEOPLE UNABLE TO AFFORD HEALTHY DIETS INCREASED IN AFRICA AND IN LATIN AMERICA AND THE CARIBBEAN BETWEEN 2017 AND 2019

	Cost of a healthy diet in 2019		People unable to afford a healthy diet in 2019		
	Cost (USD per person per day)	Change between 2017 and 2019 (percent)	Percent	Total number (millions)	Change between 2017 and 2019 (percent)
<b>WORLD</b>	<b>4.04</b>	<b>7.9</b>	<b>41.9</b>	<b>3 000.5</b>	<b>-0.7</b>
<b>AFRICA</b>	<b>4.37</b>	<b>12.9</b>	<b>80.2</b>	<b>1 017.0</b>	<b>5.4</b>
Northern Africa	4.35	5.6	60.5	141.8	4.2
Sub-Saharan Africa	4.37	13.7	84.7	875.2	5.6
Eastern Africa	4.88	33.0	85.0	342.2	5.3
Middle Africa	3.81	2.2	87.9	152.0	6.8
Southern Africa	4.07	2.1	61.8	41.2	2.0
Western Africa	4.30	6.8	86.8	339.7	5.9
<b>ASIA</b>	<b>4.13</b>	<b>4.1</b>	<b>44.0</b>	<b>1 852.8</b>	<b>-4.2</b>
Central Asia	3.42	0.9	16.9	5.8	-22.0
Eastern Asia	4.99	6.4	13.5	213.5	-7.4
South-eastern Asia	4.41	4.9	49.5	316.1	-2.9
Southern Asia	4.12	1.2	71.3	1 281.5	-4.2
Western Asia	3.77	5.3	20.3	35.9	8.1
<b>LATIN AMERICA AND THE CARIBBEAN</b>	<b>4.25</b>	<b>6.8</b>	<b>19.3</b>	<b>113.0</b>	<b>8.4</b>
Caribbean	4.49	6.7	48.5	12.9	-1.0
Latin America	4.00	6.8	17.9	100.1	9.7
Central America	3.93	3.1	20.0	32.0	1.2
South America	4.05	9.2	17.1	68.1	14.3
<b>OCEANIA</b>	<b>3.25</b>	<b>6.2</b>	<b>1.8</b>	<b>0.5</b>	<b>-14.9</b>
<b>NORTHERN AMERICA AND EUROPE</b>	<b>3.43</b>	<b>6.8</b>	<b>1.6</b>	<b>17.3</b>	<b>-3.6</b>
<b>COUNTRY INCOME GROUPS</b>					
Low-income	4.06	5.4	87.6	463.0	4.8
Lower-middle-income	4.49	14.3	69.5	1 953.2	-1.4
Upper-middle-income	4.20	5.7	21.1	568.5	-2.0
High-income	3.64	6.6	1.4	15.8	-9.9

NOTES: The table shows the cost and unaffordability of a healthy diet by region and country income group in 2019. The cost of a healthy diet is the 2017 USD cost per person per day (published in last year's edition of this report), updated using FAOSTAT country level food consumer price index (CPI) and purchasing power parity (PPP) in 2019. Unaffordability of a healthy diet is the weighted percentage (%) and the total number (million) of population in each region and country income group who cannot afford the diet in 2019. For country income groups, the most recent 2019 World Bank income classification is used for both years 2017 and 2019. This implies that cost and affordability indicators shown by income groups in last year's edition of this report differ from this year's edition as some countries may have changed income status between 2017 and 2019. See **Annex 2** in the report for methodology and data sources.

SOURCE: FAO.

- » The increases in moderate or severe food insecurity from 2019 to 2020 were sharpest in Latin America and the Caribbean (9 percentage points) and Africa (5.4 percentage points), compared with a 3.1-point increase in Asia. Even in Northern America and Europe, where the lowest rates of food insecurity are found, the prevalence of food insecurity increased for the first time since the beginning of FIES data collection in 2014.

At the global level, the gender gap in the prevalence of moderate or severe food insecurity has grown even larger in the year of the COVID-19 pandemic, with the prevalence of moderate or severe food insecurity being 10 percent higher among women than men in 2020, compared with 6 percent in 2019.

Tracking the cost and the number of people who cannot afford a healthy diet provides valuable metrics to better understand the link between these important determinants of access to food and the trends in the multiple forms of malnutrition. As a result of the high cost of healthy diets coupled with persistent high levels of income inequality, it is estimated that around 3 billion people were unable to afford a healthy diet in 2019 (Table 5). Most of these people live in Asia (1.85 billion) and Africa (1.0 billion), although a healthy diet is also out of reach for millions living in Latin America and the Caribbean (113 million) and Northern America and Europe (17.3 million).

## 2.2 NUTRITION INDICATORS – LATEST UPDATES AND PROGRESS TOWARDS GLOBAL NUTRITION TARGETS

### KEY MESSAGES

- Globally, malnutrition in all its forms remains a challenge. Although it is not yet possible to fully account for the impact of the COVID-19 pandemic due to data limitations, in 2020, it is estimated that 22.0 percent (149.2 million) of children under 5 years of age were affected by stunting, 6.7 percent (45.4 million) were suffering from wasting and 5.7 percent (38.9 million) were affected by overweight. The actual figures, particularly for stunting and wasting, are expected to be higher due to the effects of the COVID-19 pandemic.
- Most children under five years with malnutrition live in Africa and Asia. These regions account for more than nine out of ten of all children with stunting, more than nine out of ten children with wasting and more than seven out of ten children who are overweight worldwide.
- There has been some progress towards increasing the percentage of infants 0–5 months of age who are fed exclusively with breastmilk – 44 percent in 2019 compared with 37 percent in 2012.
- Anaemia in women aged 15–49 years is now an SDG indicator (2.2.3). Globally, 29.9 percent of women aged 15 to 49 years are affected by anaemia; however, the data reveal stark regional differences. In 2019, more than 30 percent of women in Africa and Asia were

affected by anaemia, compared with only 14.6 percent of women in Northern America and Europe.

Progress towards each of the seven nutrition targets is summarized in [Figure 7](#). Due to the physical distancing measures taken to contain the spread of the pandemic, data on nutrition outcomes were limited in 2020. Consequently, the latest estimates do not account for the effects of the COVID-19 pandemic.

Globally, 149.2 million (22.0 percent) of children under the age of five years suffered from stunting (SDG Indicator 2.1.1) in 2020. The prevalence of stunting has decreased from 33.1 percent in 2000 to 26.2 percent in 2012 and further to 22.0 percent in 2020. In 2020, nearly three-quarters of the world's stunted children lived in just two regions: Central and Southern Asia (37 percent) and sub-Saharan Africa (37 percent).

In 2020, 45.4 million children under five years (6.7 percent) were wasted. Nearly one-quarter lived in sub-Saharan Africa and more than half lived in Southern Asia, the subregion with the highest prevalence of wasting – above 14 percent.

In the same year, around 5.7 percent (38.9 million) of children under five years were affected by overweight. There has been little change at global level in two decades – 5.7 percent in 2020 compared with 5.4 percent in 2000, and trends in some regions and in many settings are on the rise.

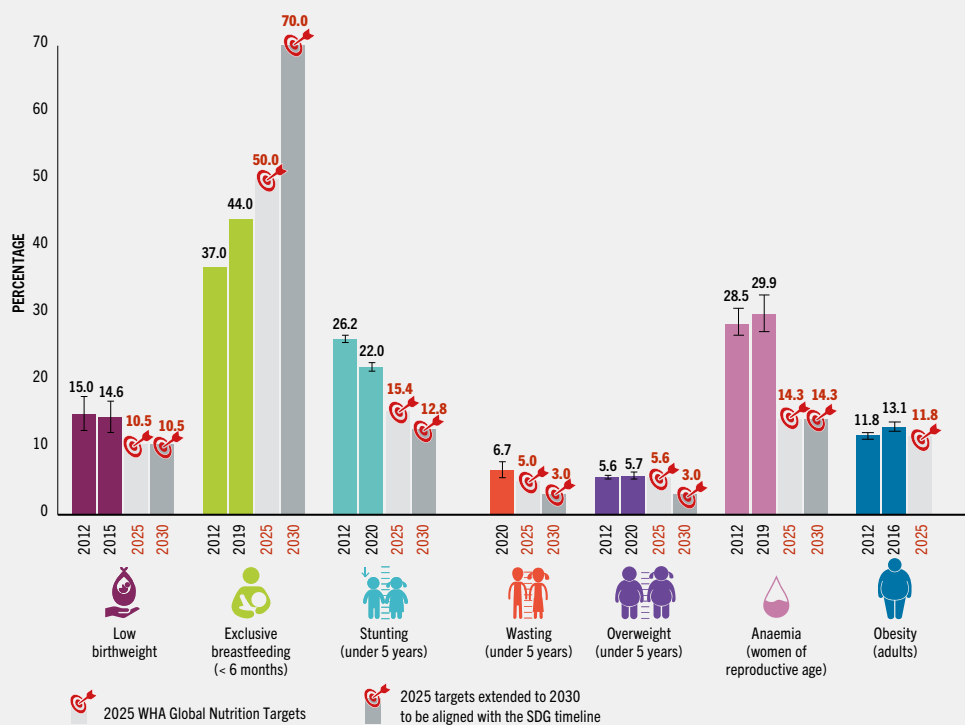
Adult obesity continues to rise, with the global prevalence increasing from 11.7 percent in 2012 to 13.1 percent in 2016. All subregions showed increasing trends in the prevalence of adult obesity between 2012 and 2016 and are off track to meet the 2025 World Health Assembly target to halt the rise by 2025.

One in seven live births, or 20.5 million (14.6 percent) babies globally, suffered from low birthweight in 2015. Low birthweight newborns have a higher risk of dying in the first 28 days after birth; those who survive are more likely to suffer from stunted growth and lower intelligence quotient (IQ), and face increased risk of overweight and obesity and adult-onset chronic conditions, including diabetes, later in life.

Optimal breastfeeding practices, including exclusive breastfeeding for the first 6 months of life, are critical for child survival and the promotion of health and brain and motor development. Globally, 44 percent of infants under 6 months of age were exclusively breastfed in 2019 – up from 37 percent in 2012.

Anaemia in women of reproductive age has been newly designated as an SDG indicator (SDG Indicator 2.2.3). Nearly one in three (29.9 percent) women of reproductive age globally were still affected by anaemia in 2019, and no progress has been made since 2012. Wide variations exist between regions, with the prevalence in Africa being nearly three times higher than that of Northern America and Europe. »

**FIGURE 7** REACHING THE 2025 AND 2030 GLOBAL NUTRITION TARGETS REMAINS A CHALLENGE. IN 2020, AN ESTIMATED 22 PERCENT OF CHILDREN UNDER 5 YEARS OF AGE WERE AFFECTED BY STUNTING, 6.7 PERCENT BY WASTING AND 5.7 PERCENT BY OVERWEIGHT. NEARLY 30 PERCENT OF WOMEN AGED 15 TO 49 YEARS WERE AFFECTED BY ANAEMIA IN 2019



NOTES: The potential impact of the COVID-19 pandemic is not reflected in the estimates. Wasting is an acute condition that can change frequently and rapidly over the course of a calendar year. This makes it difficult to generate reliable trends over time with the input data available – as such, this report provides only the most recent global and regional estimates.

SOURCES: Data for stunting, wasting and overweight are based on UNICEF, WHO & World Bank. 2021. *UNICEF-WHO-World Bank: Joint child malnutrition estimates - Levels and trends (2021 edition)* [online]. <https://data.unicef.org/resources/jme-report-2021>, [www.who.int/data/gho/data/themes/topics/joint-child-malnutrition-estimates-unicef-who-wb](http://www.who.int/data/gho/data/themes/topics/joint-child-malnutrition-estimates-unicef-who-wb), <https://datatopics.worldbank.org/child-malnutrition>; data for exclusive breastfeeding are based on UNICEF. 2020. UNICEF Global Database on Infant and Young Child Feeding. In: *UNICEF* [online]. New York, USA. [Cited 19 April 2021]. [data.unicef.org/topic/nutrition/infant-and-young-child-feeding](http://data.unicef.org/topic/nutrition/infant-and-young-child-feeding); data for anaemia are based on WHO. 2021. Global Health Observatory (GHO). In: *WHO* [online]. Geneva, Switzerland. [Cited 26 April 2021]. [www.who.int/data/gho/data/themes/topics/anaemia\\_in\\_women\\_and\\_children](http://www.who.int/data/gho/data/themes/topics/anaemia_in_women_and_children); data for adult obesity are based on WHO. 2017. Global Health Observatory (GHO). In: *WHO* [online]. Geneva, Switzerland. [Cited 2 May 2019]. [www.who.int/data/gho/data/indicators/indicator-details/GHO/prevalence-of-obesity-among-adults-bmi--30-\(age-standardized-estimate\)-\(-\)](http://www.who.int/data/gho/data/indicators/indicator-details/GHO/prevalence-of-obesity-among-adults-bmi--30-(age-standardized-estimate)-(-)); data for low birthweight are based on UNICEF & WHO. 2019. *UNICEF-WHO Low Birthweight Estimates: Levels and trends 2000–2015* [online]. [Cited 4 May 2021]. [data.unicef.org/resources/low-birthweight-report-2019](http://data.unicef.org/resources/low-birthweight-report-2019)

- » Countries worldwide are facing many challenges as they strive to ensure that health, food, education and social protection systems maintain essential nutrition services while simultaneously responding to the COVID-19 pandemic. Based on a survey tracking the situation of children during the pandemic, 90 percent of countries (122 of 135) reported a change in the coverage of key nutrition services in August 2020. Overall, essential nutrition services coverage declined by 40 percent, and nearly half of the countries reported a drop of 50 percent or more for at least one nutrition intervention.

Although data on nutritional outcomes are missing for 2020, research based on modelled scenarios can contribute valuable insights to illustrate the impact of the COVID-19 pandemic, at least until new empirical data are available to allow for an official assessment at global and regional levels. Results of one such analysis indicate that, under a moderate scenario, an additional 11.2 million children under five years of age in low- and middle-income countries would be affected by wasting from 2020 to 2022 as a consequence of the pandemic – 6.9 million in 2020 alone. Under a more pessimistic scenario, this estimate rises to 16.3 million additional children affected by wasting. For child stunting, the model predicts that 3.4 million additional children will be stunted due to the effects of the pandemic in 2022.

## 2.3 ENDING HUNGER AND ALL FORMS OF MALNUTRITION BY 2030

### KEY MESSAGES

- New projections confirm that hunger will not be eradicated by 2030 unless bold actions are taken to accelerate progress, especially actions to address inequality in access to food. The COVID-19 pandemic has worsened the discouraging trends that already existed prior to the crisis.
- Projections that consider the potential impact of the COVID-19 pandemic suggest that, following a peak of more than 760 million people in 2020, global hunger will decline slowly to fewer than 660 million in 2030. Nevertheless, this represents 30 million more people than projected for 2030 had the pandemic not occurred, revealing lasting effects of the pandemic on global food security.
- Globally, progress is being made for some forms of malnutrition, but the world is not on track to achieve targets for any of the nutrition indicators by 2030. The current rate of progress on child stunting, exclusive breastfeeding and low birthweight is insufficient, and progress on child overweight, child wasting, anaemia in women of reproductive age and adult obesity is stalled or the situation is worsening.
- The COVID-19 pandemic has likely impacted the prevalence of multiple forms of malnutrition, and could have lasting effects beyond 2020, as we are already seeing in 2021. These will be compounded through the intergenerational effects of malnutrition

and the resulting impacts on productivity. Exceptional efforts are required to address and overcome the effects of the pandemic as part of accelerating progress towards achieving SDG Target 2.2.

With less than a decade left to reach the end of the time horizon set for achieving the SDGs, this report presents updated assessments of the likelihood that SDG Targets 2.1 and 2.2 will be achieved by 2030.

This year's projections of the PoU up to 2030 were estimated using a structural approach based on a global dynamic general equilibrium model. Two scenarios were modelled: a scenario aimed at capturing the impact of the COVID-19 pandemic, and a no-COVID-19 scenario. Both scenarios assume that the trajectories are not disrupted by any of the main drivers of food insecurity and that momentous actions needed to transform food systems for food security and decrease inequalities in access to food are not implemented.

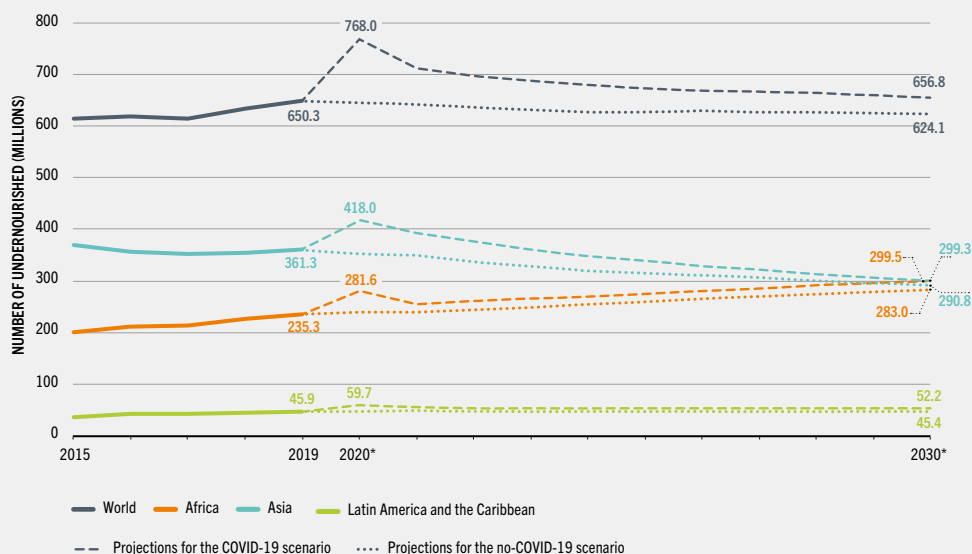
Under the COVID-19 scenario, following a projected peak of around 768 million (9.9 percent of the population) in 2020, global hunger would decrease to around 710 million in 2021 (9 percent), and then continue to decrease marginally to less than 660 million (7.7 percent) in 2030. However, the evolution from 2020 to 2030 is quite different across regions. While a substantial reduction is projected for Asia (from 418 million to 300 million people), a significant increase is forecast for Africa (from

more than 280 million to 300 million people), placing it on par with Asia by 2030 as the region with the highest number of undernourished people.

Under the COVID-19 scenario, about 30 million more people may face hunger in 2030 than if the pandemic had not occurred, revealing persistent effects of the pandemic on global food security. Greater inequality in access to food is mostly responsible for the observed difference (Figure 10).

Globally, progress is being made for some forms of malnutrition, but the world is not on track to achieve targets for any of the nutrition indicators by 2030. The current rates of progress on child stunting, exclusive breastfeeding and low birthweight are insufficient, and progress on child overweight, child wasting, anaemia in women of reproductive age and adult obesity is stalled (no progress) or the situation is worsening. Nevertheless, notable improvements are occurring in some areas, with about one-quarter of countries confirmed to be on track to reach the 2030 SDG targets for childhood stunting and wasting, and about one in six countries on track to achieve the target on child overweight (Figure 12).

As the economic and other impacts of the COVID-19 pandemic continue to unfold, the trajectory over the next years is difficult to foresee. Evidence is still scarce on the actual effects of the pandemic on various forms of malnutrition, including on the prevalence

**FIGURE 10** THE COVID-19 SCENARIO PROJECTS A SMALL DECREASE IN GLOBAL HUNGER BETWEEN 2021 AND 2030, WITH WIDE VARIATION IN EVOLUTION ACROSS REGIONS

NOTES: \* Projected values. The 2020 projected values are based on the middle of the projected range. The full ranges can be found in **Annex 2** in the report.

SOURCE: FAO.

of child stunting, wasting, overweight; adult obesity; anaemia in women of reproductive age; low birthweight; and exclusive breastfeeding. These effects will be compounded through the intergenerational effects of malnutrition and the resulting impacts on productivity and, hence, economic recovery. However, it is clear that the COVID-19 pandemic

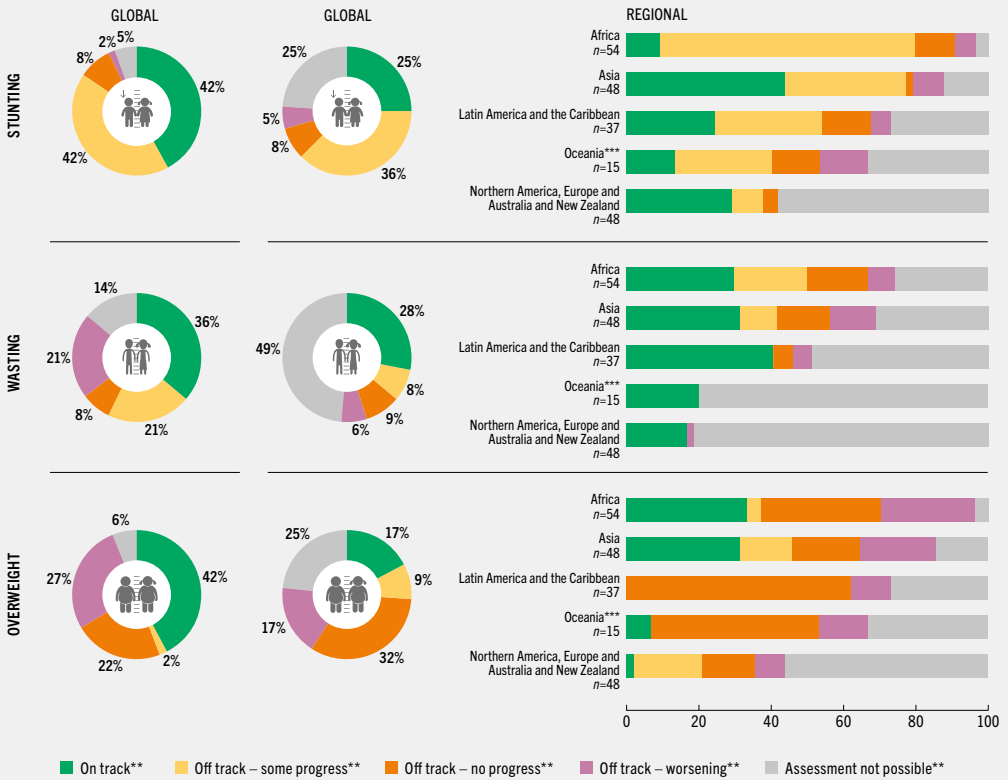
has likely impacted the prevalence of multiple forms of malnutrition, and could have lasting effects beyond 2020, as we are already seeing in 2021. Therefore, exceptional efforts are required to address and overcome the effects of the pandemic as part of accelerating progress towards achieving SDG Target 2.2. ■

**FIGURE 12** AROUND HALF OF CHILDREN LIVE IN COUNTRIES THAT ARE NOT ON TRACK TO REACH THE 2030 SDG TARGETS FOR CHILD STUNTING, WASTING AND OVERWEIGHT

Progress towards the child malnutrition SDG targets by:

Percentage\* of CHILDREN

Percentage\* of COUNTRIES



NOTES: \* Percentages may not add up to 100 percent due to rounding. \*\* See notes on progress assessment categories in **Annex 2** in the report. \*\*\* Oceania excluding Australia and New Zealand.  
 SOURCE: UNICEF, WHO & World Bank. 2021. *UNICEF-WHO-World Bank: Joint child malnutrition estimates - Levels and trends (2021 edition)* [online]. <https://data.unicef.org/resources/jme-report-2021>, [www.who.int/data/gho/data/themes/topics/joint-child-malnutrition-estimates-unicef-who-wb](http://www.who.int/data/gho/data/themes/topics/joint-child-malnutrition-estimates-unicef-who-wb), <https://datatopics.worldbank.org/child-malnutrition>



# CHAPTER 3

## MAJOR DRIVERS OF RECENT FOOD SECURITY AND NUTRITION TRENDS

### KEY MESSAGES

→ In the last ten years, the frequency and intensity of conflict, climate variability and extremes, and economic slowdowns and downturns have increased significantly.

The increased occurrence of these major drivers, now exacerbated by the COVID-19 pandemic, has led to a rise in hunger and has undermined progress in reducing all forms of malnutrition, particularly in low- and middle-income countries.

→ Seventy percent of low- and middle-income countries are affected by at least one of the drivers and 41 percent also have high income inequality (38 of 93 countries), which worsens their impact.

→ The majority of undernourished people and stunted children live in countries affected by multiple drivers. Between 2017 and 2019, in all regions, countries affected by multiple drivers exhibit the highest increases in the PoU – 12 times larger than those in countries affected by only a single driver.

→ In 2020, Africa, Asia, and Latin America and the Caribbean witnessed significant increases in the PoU while being hit by economic downturns largely driven by

COVID-19 containment measures, combined with climate-related disasters, conflict, or a combination of both.

→ Drivers that are external (e.g. conflict and climate shocks) and internal (e.g. low productivity and inefficient food supply chains) to food systems are pushing up the cost of nutritious foods which, combined with low incomes, are increasing the unaffordability of healthy diets.

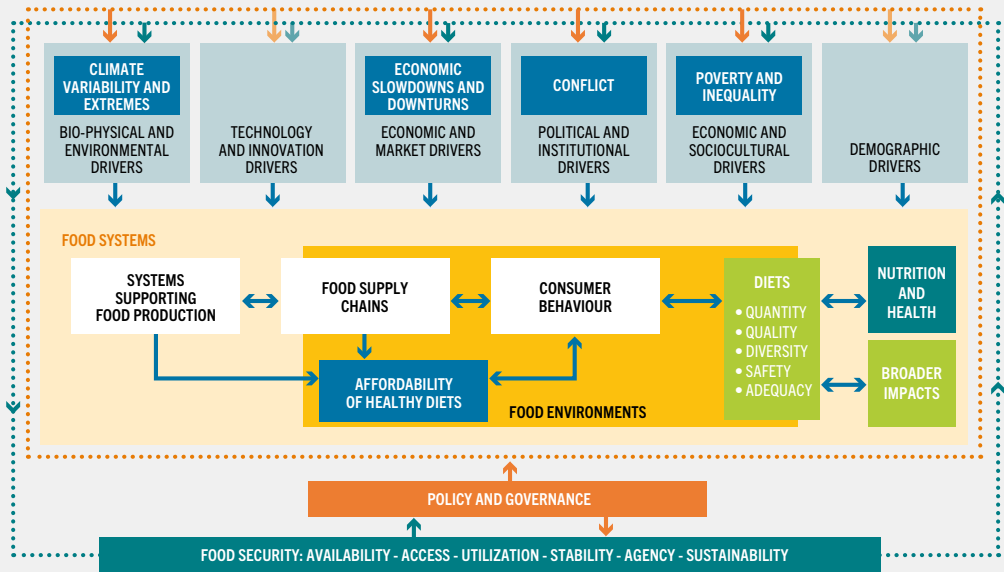
→ Countries affected by multiple drivers in 2019 exhibited the highest percentage of the population who cannot afford a healthy diet (68 percent), which is, on average, 39 and 66 percent higher than that of countries affected by a single driver or not affected by any driver, respectively. The unaffordability of healthy diets tends to be higher where there is conflict.

### 3.1

## A FOOD SYSTEMS LENS IS CRITICAL TO ADDRESS THE MAJOR DRIVERS OF RECENT FOOD SECURITY AND NUTRITION TRENDS

Conflict, climate variability and extremes, and economic slowdowns and downturns (now exacerbated by the COVID-19 pandemic) are behind recent rises in hunger and slowing progress in reducing all forms of malnutrition. Their adverse influence is made all the more difficult by high and persistent levels of inequality. In addition, millions of people around the world suffer from food insecurity and different forms of malnutrition because they cannot afford the cost of healthy diets. These major drivers are unique but not mutually exclusive, as they interact to the detriment of food security and nutrition by creating multiple,

**FIGURE 14** IMPACTS OF VARIOUS DRIVERS ARE TRANSMITTED THROUGHOUT FOOD SYSTEMS, UNDERMINING FOOD SECURITY AND NUTRITION



SOURCE: Adapted from HLPE. 2020. *Food security and nutrition: building a global narrative towards 2030*. A report by the High Level Panel of Experts on Food Security and Nutrition of the Committee on World Food Security, Rome.

compounding impacts at many different points within our food systems.

Figure 14 presents a food systems diagram to illustrate how the drivers behind recent food security and nutrition trends specifically create multiple impacts throughout food systems (food systems, including food environments), leading to impacts on the four dimensions of food security (availability, access, utilization and stability), as well as the two additional dimensions of agency and sustainability.

For example, conflict negatively affects almost every aspect of a food system, from production, harvesting, processing and transport to input supply, financing, marketing and consumption. Direct impacts can include the destruction of agricultural and livelihood assets and can severely disrupt and restrict trade and movements of goods and services, with a negative effect on the availability and prices of food, including nutritious foods.

Similarly, climate variability and extremes create multiple and compounding impacts on food systems. They negatively affect agricultural productivity, and also affect food imports as countries try to compensate for domestic production losses. Climate-related disasters can lead to significant impacts across the food value chain, with negative consequences on sector growth and on food and non-food agro-industries.

On the other hand, economic slowdowns and downturns primarily impact food systems through their negative effects on people's access to food, including the affordability of healthy diets, as they lead to rises in unemployment and declines in wages and incomes. This is the case irrespective of whether they are driven by market swings, trade wars, political unrest, or a global pandemic, such as COVID-19.

The unaffordability of healthy diets is a result of the effects of other drivers or factors on people's income and on the cost of nutritious foods throughout the food system. As such, it is a driver that acts within food systems to negatively affect food security and nutrition.

Poverty and inequality are critical underlying structural factors that amplify the negative impact of the major drivers. Their impacts are felt throughout food systems and food environments, ultimately affecting the affordability of healthy diets and food security and nutrition outcomes.

Beyond their direct impacts on food systems, these major global drivers and underlying structural factors weaken food security and nutrition through interconnected and circular impacts on other systems, including environmental and health systems.

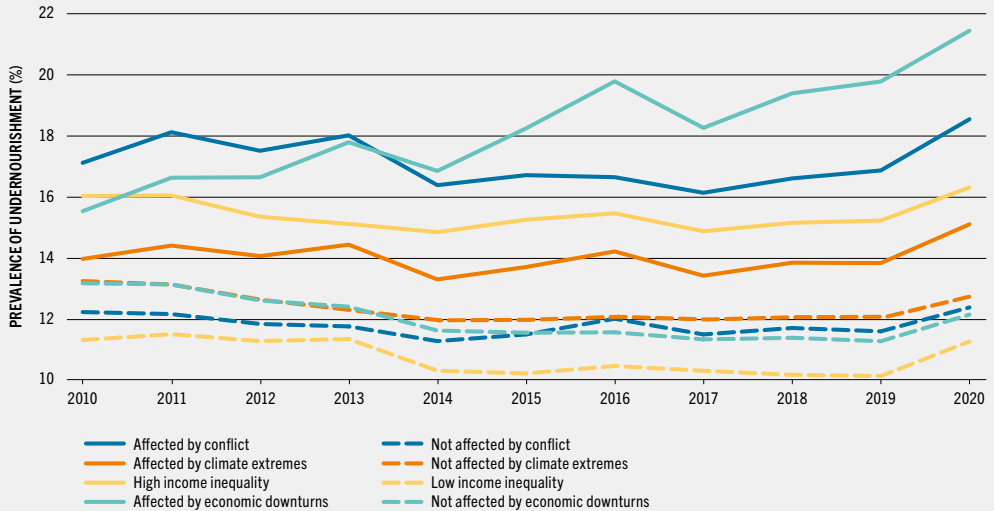
### 3.2 **IMPACT OF MAJOR DRIVERS ON FOOD SECURITY AND NUTRITION**

In the last ten years, the frequency and intensity of conflict, climate variability and extremes, and economic slowdowns and downturns have increased and are undermining food security and nutrition around the world. Of particular concern are low- and middle-income countries because the negative impacts on food security and nutrition are greatest in these countries and they carry the biggest burden of the world's population who are undernourished, food insecure and suffer from one or more forms of malnutrition.

More than half of the low- and middle-income countries experienced an increase in the PoU in correspondence with one or more drivers (conflict, climate extremes and economic downturns) between 2010 and 2018. Moreover, several of these countries faced recurring increases in correspondence with these drivers during this period.

Analysis shows that the reversal in the PoU trends in 2014 and the continuous increase, especially pronounced from 2017,

**FIGURE 21** HUNGER IS HIGHER AND HAS INCREASED MORE IN COUNTRIES AFFECTED BY CONFLICT, CLIMATE EXTREMES OR ECONOMIC DOWNTURNS, OR WITH HIGH INEQUALITY



NOTES: The figure shows the prevalence of undernourishment between years 2010 and 2020 for low- and middle-income countries affected by any of the three drivers (conflict, climate extremes or economic downturns), and for countries with high income inequality. PoU estimates are unweighted. The analysis is shown for 110 low- and middle-income countries with available PoU information. See **Annex 4** in the report for methodology and definition of countries affected by the different drivers.

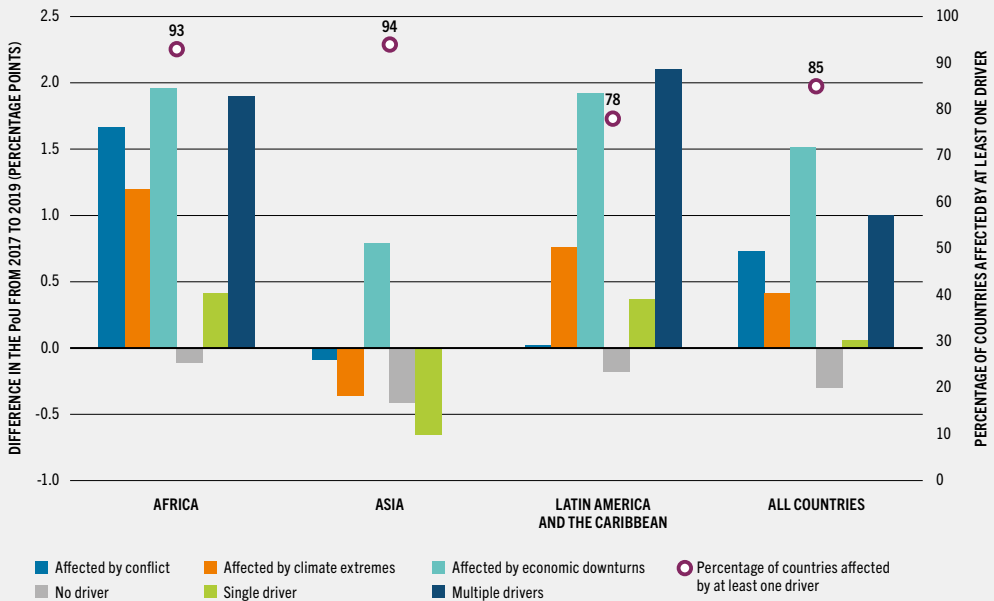
SOURCES: PoU based on FAO; Gini index of income inequality data based on World Bank, 2021. World Development Indicators. In: *World Bank* [online]. Washington, DC. [Cited 24 April 2020]. [datatopics.worldbank.org/world-development-indicators](https://datatopics.worldbank.org/world-development-indicators); see sources of Figure 17 in the report for data on drivers (conflict, climate extremes and economic downturns).

are largely attributed to low- and middle-income countries affected by conflict, climate extremes and economic downturns, and to countries with high income inequality (Figure 21). The PoU is higher and has increased more in countries affected by these drivers. The largest increase in the PoU is observed in countries affected by economic downturns.

Focusing on the most recent period of increase before the COVID-19 pandemic,

between 2017 and 2019, low- and middle-income countries affected by one or more of the drivers saw an increase in the PoU, while countries not affected by any driver saw a decrease. In contrast, the prevalence of child stunting shows a continuing declining trend from 2017 to 2019 and an analysis of countries affected by drivers did not reveal any notable patterns, indicating the presence of other stronger drivers behind this trend.

**FIGURE 23** LATIN AMERICA AND THE CARIBBEAN FEATURE THE HIGHEST INCREASE IN THE PoU FROM MULTIPLE DRIVERS, WHILE AFRICA IS THE ONLY REGION WHERE THE PoU INCREASED UNDER THE INFLUENCE OF ALL THREE DRIVERS FROM 2017 TO 2019



NOTES: In the figure, the left axis shows the difference in the PoU, measured in percentage points, from 2017 to 2019 for all low- and middle-income countries affected by conflict, climate extremes and economic downturns, and for each selected region (bars). The right axis shows the percentage of countries that were exposed to at least one driver in each region compared with all countries in the region (circles). The analysis is shown for a sample of 110 low- and middle-income countries with available PoU information. See Annexes 3 and 4 in the report for definitions and methodology.

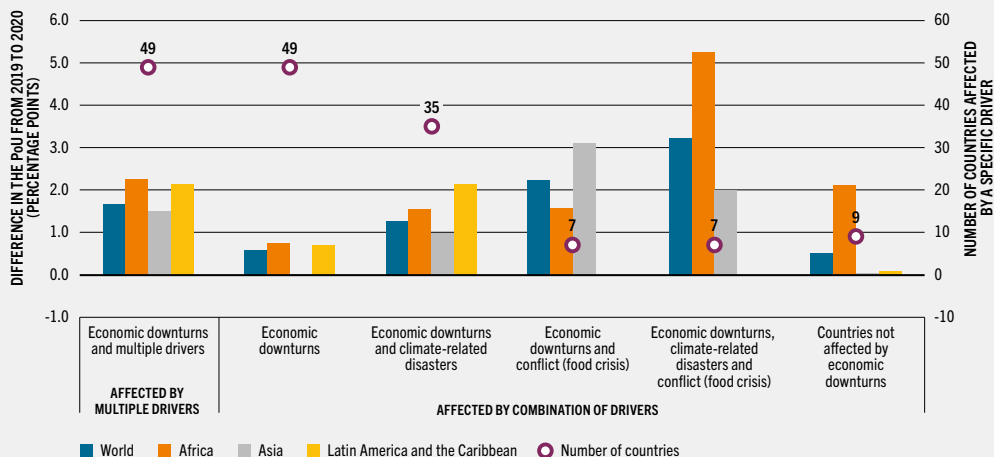
SOURCES: PoU based on FAO; see sources of Figure 17 in the report for data on drivers (conflict, climate extremes and economic downturns).

There are also important differences in trends depending on whether a country is affected by more than one driver (multiple drivers) and depending on the country income-group and region. Countries affected by multiple drivers consistently show the highest increases in the PoU, 12 times larger than those in countries affected by only a single driver. For all three regions analysed (Africa, Asia, and Latin America and the Caribbean), around 36 percent of low-

and middle-income countries were affected by multiple drivers.

Low-income countries affected by the drivers show the largest increase in the PoU, which is 2.5 times higher compared with the increase reported by middle-income countries affected by the drivers over the same period. Africa is the only region with PoU increases from 2017 to 2019 associated with all three drivers (conflict, climate extremes and

**FIGURE 24** IN 2020, AFRICA, ASIA, AND LATIN AMERICA AND THE CARIBBEAN WITNESSED SIGNIFICANT INCREASES IN THE PoU WHILE BEING HIT BY ECONOMIC DOWNTURNS COMBINED WITH CLIMATE-RELATED DISASTERS, CONFLICT, OR A COMBINATION OF BOTH



NOTES: In the figure, the left axis shows the difference in the PoU, measured in percentage points, from 2019 to 2020 in each selected region, and for all low- and middle-income countries affected by economic downturns, and by specific combinations of economic downturns with other drivers (bars). The right axis shows the number of low- and middle-income countries that were exposed to each combination of drivers (circles). The analysis is shown for a sample of 107 low- and middle-income countries with available information on PoU and GDP per capita growth in 2020. See **Annex 5** in the report for definitions and methodology.

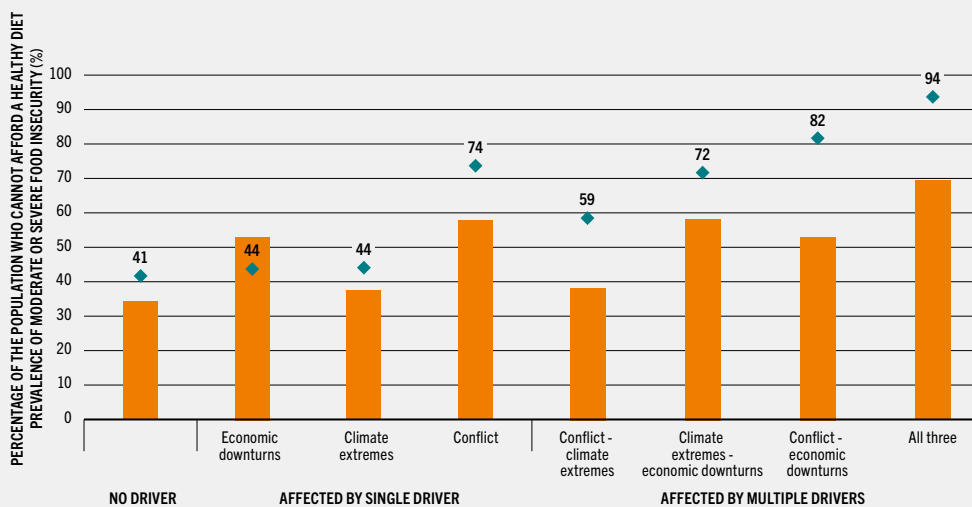
SOURCES: PoU based on FAO; conflict data based on Uppsala University. 2021. Uppsala Conflict Data Program (UCDP). In: *UCDP* [online]. Uppsala, Sweden. [Cited 10 June 2021]. [ucdp.uu.se](http://ucdp.uu.se); climate-related disasters (extreme temperatures, flooding, storms) data based on Centre for Research on the Epidemiology of Disasters (CRED). 2021. EM-DAT: the international disasters database. In: *EM-DAT* [online]. Brussels. [Cited 10 June 2021]. [public.emdat.be](http://public.emdat.be); annual per capita GDP based on IMF. 2021. World Economic Outlook Database - April 2021. In: *IMF* [online]. Washington, DC. [Cited 10 June 2021]. [www.imf.org/en/Publications/WEO/weo-database/2021/April](http://www.imf.org/en/Publications/WEO/weo-database/2021/April); conflict as a primary driver of acute food insecurity in countries in a food crisis situation based on FSIN & Global Network Against Food Crisis. 2021. *Global Report on Food Crises 2021*. Rome. (also available at [www.fsinplatform.org/sites/default/files/resources/files/GRFC\\_2021\\_050521\\_med.pdf](http://www.fsinplatform.org/sites/default/files/resources/files/GRFC_2021_050521_med.pdf)).

economic downturns). Countries affected by economic downturns in Africa, Asia, and Latin America and the Caribbean show the highest increase in the PoU compared with countries affected by climate extremes or conflict, with the largest increase seen in Africa, and Latin America and the Caribbean (Figure 23).

In 2020, almost all low- and middle-income countries were affected by economic downturns. The increase in

the number of undernourished was more than five times greater than the highest increase in undernourishment in the last two decades, and the economic downturn was twice as severe as any previously recorded in the same period. When economic downturns occurred along with other drivers (either climate-related disasters, conflict, or a combination of both), the largest increase in the PoU was seen in Africa, followed by Asia (Figure 24).

**FIGURE 26** IN 2019, COUNTRIES AFFECTED BY MULTIPLE DRIVERS AND COUNTRIES AFFECTED BY CONFLICT (ALONE OR COMBINED WITH OTHER DRIVERS) EXHIBITED AMONG THE HIGHEST PERCENTAGE OF THE POPULATION WHO CANNOT AFFORD A HEALTHY DIET AND ARE MODERATELY OR SEVERELY FOOD INSECURE



NOTES: The figure shows the percentage of the population who cannot afford a healthy diet (blue diamonds) and the percentage of the population with moderate or severe food insecurity (orange bars). Both indicators are shown for year 2019 and for all the possible combinations of drivers. The analysis is shown for 100 low- and middle-income countries with available information on unaffordability of a healthy diet, and for 88 countries with available information on moderate or severe food insecurity. See Annexes 2 and 4 in the report for definitions and methodology. SOURCES: FAO's moderate or severe food insecurity indicator based on the FIES and for unaffordability of healthy diets. See sources of Figure 17 in the report for data on drivers (conflict, climate extremes and economic downturns).

In last year's edition of this report, it was shown that the unaffordability of healthy diets in 2017 was strongly associated with undernourishment and different forms of malnutrition, including child stunting and adult obesity. These results are reconfirmed for 2019, and new analysis shows that high levels of unaffordability in 2019 are strongly associated with higher levels of both severe and moderate or severe forms of food insecurity, as measured by the FIES.

Countries affected by multiple drivers exhibit the highest percentage of the

population who cannot afford a healthy diet (68 percent), which is, on average, 39 percent higher than countries affected by a single driver, and 66 percent higher than countries not affected by any driver (Figure 26). Those countries also show higher levels of moderate or severe food insecurity (47 percent) – 12 percent higher than countries affected by a single driver and 38 percent more than countries not affected by any driver. The unaffordability of healthy diets tends to be higher where there is conflict. ■

# CHAPTER 4

## WHAT NEEDS TO BE DONE TO TRANSFORM FOOD SYSTEMS FOR FOOD SECURITY, IMPROVED NUTRITION AND AFFORDABLE HEALTHY DIETS?

### KEY MESSAGES

- When transformed with greater resilience to major drivers, food systems can provide affordable healthy diets that are sustainable and inclusive, and become a powerful driving force towards ending hunger, food insecurity and malnutrition in all its forms.
- In conflict-affected areas, maintaining conflict-sensitive food systems functions to the extent possible, while aligning actions for immediate humanitarian assistance to protect lives and livelihoods, long-term development and sustaining peace, is key to building resilience of the most vulnerable in these areas.
- Innovative mechanisms to reduce climate-related risks, widespread adoption of climate-smart and environmentally sound production techniques, and the conservation

and rehabilitation of natural environments will strengthen the resilience of food systems against increased climate variability and extremes.

→ The economic fallout from the COVID-19 pandemic has demonstrated that during economic slowdowns and downturns, it is critical to keep food supply chains operational, while providing adequate support to the livelihoods of the most vulnerable, ensuring continued production and access to nutritious foods, including through enhanced social protection programmes.

→ The persistence of socio-economic inequalities amplifies the need for systemic changes in food systems to provide vulnerable and historically marginalized populations with greater access to productive resources, technology, data and innovation to empower them to become agents of change towards more sustainable food systems.

→ Given that food systems are affected by more than one driver, and also impact on food security and nutrition outcomes in multiple ways, comprehensive portfolios of context-specific policies, investments and legislation should be formulated to maximize their combined effects on food systems transformation, while recognizing that financial resources are limited.



## 4.1 SIX PATHWAYS TO ADDRESS MAJOR DRIVERS BEHIND RECENT FOOD SECURITY AND NUTRITION TRENDS

There are six possible recommended pathways through which food systems could be transformed to address the major drivers of food insecurity and malnutrition and ensure access to affordable healthy diets for all, sustainably and inclusively. These six pathways are shown in [Figure 27](#). Every one of the pathways builds on key recommendations from the previous four editions of this report (2017–2020) and corresponds to one or more of the major drivers discussed and analysed in Chapter 3.

As many countries are affected by multiple drivers, several pathways will apply simultaneously, calling for coherence among these pathways to ensure efficiency in implementation. Comprehensive portfolios of policies, investments and legislation are therefore central to enabling the transformation of food systems through these pathways.

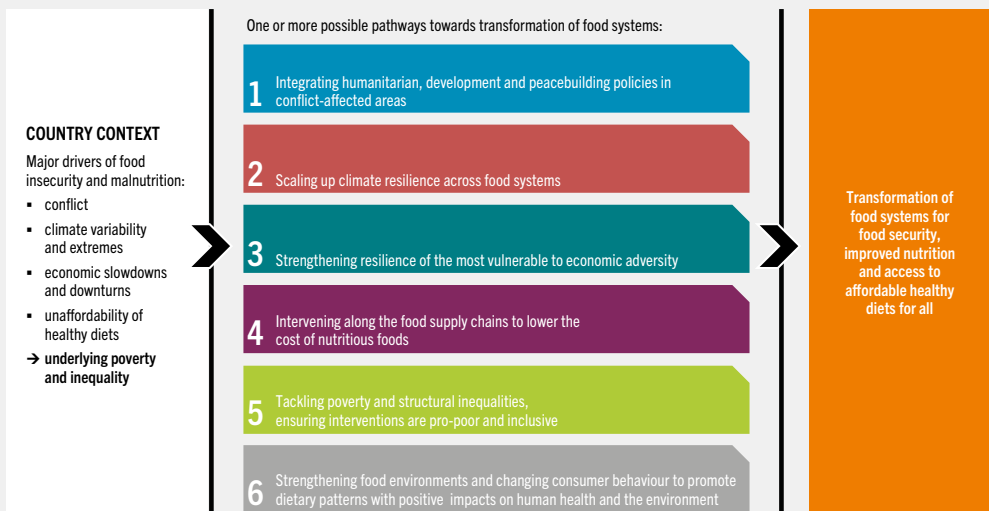
These transformation pathways form a basis for formulating a coherent set of policy and investment portfolios to enable the transformation of food systems. The relevant set of pathways is derived from a context-specific situation analysis that determines which driver or combination of drivers impacts most

on the identified food system and on related food security and nutrition outcomes. The pathways may also complement and reinforce each other.

Under conditions of conflict, entire food systems are often severely disrupted, challenging people's access to nutritious foods. Deep economic crises can unfold where the root causes of conflict situations are linked to competition over natural resources, including productive land, forest, fisheries and water resources. It is imperative that policies, investments and actions to reduce immediate food insecurity and malnutrition be implemented simultaneously with those aimed at a reduction in the levels of conflict and aligned with long-term socio-economic development and peacebuilding efforts.

The ways we produce food and use our natural resources can help deliver a climate-positive future in which people and nature can coexist and thrive. This is important, not only because food systems are affected by climate events, but also because food systems themselves impact on the state of the environment and are a driver of climate change. Central to this effort are priorities to protect nature, to sustainably manage existing food production and supply systems, and to restore and rehabilitate natural environments. These sustainability efforts will also strengthen resilience to climate shocks to ensure food security and improved nutrition.

**FIGURE 27** POSSIBLE PATHWAYS TOWARDS FOOD SYSTEMS TRANSFORMATION TO ADDRESS MAJOR DRIVERS OF FOOD INSECURITY, MALNUTRITION AND UNAFFORDABILITY OF HEALTHY DIETS



SOURCES: FAO, IFAD, UNICEF, WFP & WHO. 2017. *The State of Food Security and Nutrition in the World 2017. Building resilience for peace and food security*. Rome, FAO; FAO, IFAD, UNICEF, WFP & WHO. 2018. *The State of Food Security and Nutrition in the World 2018. Building climate resilience for food security and nutrition*. Rome, FAO; FAO, IFAD, UNICEF, WFP & WHO. 2019. *The State of Food Security and Nutrition in the World 2019. Safeguarding against economic slowdowns and downturns*. Rome, FAO; FAO, IFAD, UNICEF, WFP & WHO. 2020. *The State of Food Security and Nutrition in the World 2020. Transforming food systems for affordable healthy diets*. Rome, FAO.

Economic and social policies, legislation and governance structures should be in place well in advance of economic slowdowns and downturns to counteract the effects of adverse economic cycles when they do arrive, and to maintain access to nutritious foods, especially for the most vulnerable population groups, including women and children. In the immediate term, these must include social protection mechanisms and primary healthcare services.

Interventions along food supply chains are needed to increase the availability of safe and nutritious foods and lower their

cost, primarily as a means to increase the affordability of healthy diets.

This calls for a coherent set of policies, investments and legislation from production to consumption aimed at realizing efficiency gains and cutting food losses and waste to help achieve these objectives.

Empowerment of poor and vulnerable population groups, often smallholders with limited access to resources or those living in remote locations, as well as the empowerment of women, children and youth, who may otherwise be excluded, represents a major lever in transformative

**BOX 11 ACCELERATING FOOD SYSTEMS TRANSFORMATION BY EMPOWERING WOMEN AND YOUTH**

Women's empowerment often leads to improved nutrition because of positive effects on child and maternal health. In **Ghana**, women's empowerment is strongly associated with diet quality, and women's aggregate empowerment and participation in credit decisions is positively and significantly correlated with the indicator estimating Minimum Dietary Diversity for Women (MDD-W). A study in **Nepal** measuring outcomes against three of ten indicators of the Women's Empowerment in Agriculture Index (WEAI) found significant associations between women's empowerment and improved child nutrition.

Young people can similarly benefit from interventions that remove some of the age-specific constraints to their ability to productively engage in agriculture and food systems. Evidence from an empowerment and livelihoods for adolescents programme in

**Uganda** showed how vocational and life-skills training could significantly increase the likelihood of adolescent girls of legal working age engaging in safe income-generating activities (by 48 percent), while reducing both teenage pregnancy (by 34 percent) and the likelihood of entering into early marriage or cohabitation (by 62 percent). Especially for younger youth below 18, employment-focused interventions need to avoid drawing children into child labour situations, and thus need to target only youth of legal working age (14–15 years old in most countries) and engage them only in safe tasks. In **Senegal**, a comprehensive approach to diversified agricultural production improved market access of mostly vulnerable small-scale producers, women and underemployed youth by strengthening their access to markets and ensuring access to finance.

change (**Box 11**). Measures of empowerment include increased access to productive resources, including access to natural resources, agricultural inputs and technology, financial resources, as well as knowledge and education. Other empowerment measures relate to strengthened organizational skills and, importantly, access to digital technology and communication.

Changing dietary patterns have had both positive and negative impacts on human health and the environment. Based on the specific country context and prevailing consumption patterns, there is

a need for policies, laws and investments to create healthier food environments and to empower consumers to pursue dietary patterns that are nutritious, healthy and safe and with a lower impact on the environment.

## 4.2 BUILDING COHERENT PORTFOLIOS OF POLICIES AND INVESTMENTS

A key challenge that restricts successful transformation of food systems is that existing national, regional and global

policies, strategies, legislation and investments are compartmentalized into distinct dialogues. These challenges can be overcome through the formulation and implementation of cross-sectoral portfolios of policies, investments and legislation that comprehensively address the negative food security and nutrition effects of the multiple drivers impacting on food systems.

These portfolios need to be well targeted and provide incentives for all actors to engage constructively in innovative and systemic changes that will lead to transformed food systems. Drawing upon best practices and lessons learned from a series of case studies worldwide, this report provides many illustrative examples of what it takes – in very practical and innovative ways – to transform food systems at local, country, regional and global levels to become more resilient to the drivers behind rising levels of food insecurity and malnutrition, and to improve access to affordable healthy diets.

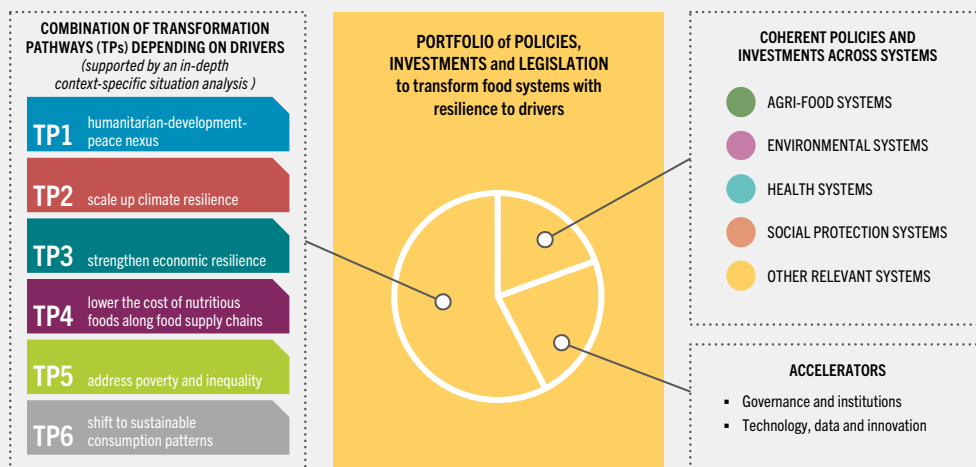
A context-specific situation analysis will enable countries to assess which combination of pathways towards the transformation of food systems is most relevant, given the way in which the major drivers of food insecurity and malnutrition have affected them, and which policy measures and investments are most appropriate to form part of the portfolio (Figure 29, left-hand side).

The performance of food systems depends on their coherence and interaction with several other systems, including

especially the wider agri-food systems, in addition to environmental, health and social protection systems (Figure 29, right-hand side). Other systems, such as education systems, play a critical role throughout the food system, from providing nutritious school meals, the necessary knowledge and skills in food production to nutrition education for school-aged children and raising consumer awareness towards minimizing the negative impacts of food consumption on human health and the environment.

Health systems and their services are vital in ensuring that people are able to consume foods and utilize the necessary nutrients for their health and well-being. Food systems may exert both positive and negative impacts on human health through multiple interrelated pathways, which are influenced by factors arising from within and outside food systems, including social, economic and environmental determinants of health.

Investments in social protection systems have served as powerful instruments for strengthening people's access to nutritious food, including during the COVID-19 pandemic. Importantly, social protection is more than a short-term response to acute situations of food insecurity and malnutrition. When predictable and well targeted, social protection can support households to engage in new economic activities, and to capitalize on opportunities created by the continued economic dynamism of food systems, thereby bringing about longer-term improvements in access to healthy diets.

**FIGURE 29** KEY ELEMENTS OF A PORTFOLIO OF POLICIES AND INVESTMENTS

SOURCE: FAO.

The effective and efficient implementation of portfolios of policies and investments requires an enabling environment of governance mechanisms and institutions that facilitate consultation across sectors and key stakeholders (Figure 29, right-hand side). Scaling up the availability of technologies, data and innovative solutions is key to accelerating the transformation of food systems, while ensuring that possible trade-offs are minimized as a consequence of the transformative process.

The successful transformation of food systems towards greater affordability of healthy diets for all, sustainably

produced and with improved resilience to identified drivers, calls for win-win solutions to be fully exploited. As with all systemic changes, there will be winners and losers, while the introduction of new technologies, improved access to data and innovations, and the subsequent changes in food systems performance, will produce both positive and negative spillover effects. Coherence among systems, as well as the cross-cutting accelerators, play a key role in maximizing the benefits and minimizing negative consequences of transformation. ■

## CHAPTER 5 CONCLUSION

With less than a decade to 2030, the world is not on track to ending world hunger and malnutrition; and in the case of world hunger we are moving in the wrong direction. This report has shown that economic downturns as a consequence of COVID-19 containment measures all over the world have contributed to one of the largest increases in world hunger in decades, which has affected almost all low- and middle-income countries, and can reverse gains made in nutrition. The COVID-19 pandemic is just the tip of the iceberg, more alarmingly, the pandemic has exposed the vulnerabilities forming in our food systems over recent years as a result of major drivers such as conflict, climate variability and extremes, and economic slowdowns and downturns. These major drivers are increasingly occurring simultaneously in countries, with interactions that seriously undermine food security and nutrition.

The UN Food Systems Summit 2021 will bring forward a series of concrete actions that people from all over the world can take to support a transformation of the world's food systems. This report has identified six transformation pathways: (i) integrating humanitarian, development and peacebuilding policies in conflict-affected areas; (ii) scaling up

climate resilience across food systems; (iii) strengthening economic resilience of the most vulnerable to economic adversity; (iv) intervening along the food supply chains to lower the cost of nutritious foods; (v) tackling poverty and structural inequalities, ensuring interventions are pro-poor and inclusive; and (vi) strengthening food environments and changing consumer behaviour to promote dietary patterns with positive impacts on human health and the environment. These pathways, alone or frequently in combination, depending on context, are needed for greater resilience to specifically address the negative impacts of the major drivers behind the recent rise in hunger and slowing progress to reduce malnutrition in all its forms, while ensuring that everyone can afford a healthy diet.

The coherence in policies and actions to transform food systems, and among systems, as well as the cross-cutting accelerators play a key role in maximizing the benefits and minimizing negative consequences of transformation through these six pathways. That is why policy coherence, understood as a situation where the implementation of policies in one area does not undermine others (and where policies even reinforce each other where feasible), will be critical to building transformative multisectoral portfolios. Systems approaches are needed for building coherent portfolios of policies, investments and legislation that become win-win solutions; these include territorial approaches, ecosystems approaches, Indigenous Peoples' food systems approaches and interventions that systemically address protracted crisis conditions. ■





# 2021

# THE STATE OF FOOD SECURITY AND NUTRITION IN THE WORLD

## TRANSFORMING FOOD SYSTEMS FOR FOOD SECURITY, IMPROVED NUTRITION AND AFFORDABLE HEALTHY DIETS FOR ALL

In recent years, several major drivers have put the world off track to ending world hunger and malnutrition in all its forms by 2030. The challenges have grown with the COVID-19 pandemic and related containment measures. This report presents the first global assessment of food insecurity and malnutrition for 2020 and offers some indication of what hunger might look like by 2030 in a scenario further complicated by the enduring effects of the COVID-19 pandemic. It also includes new estimates of the cost and affordability of healthy diets, which provide an important link between the food security and nutrition indicators and the analysis of their trends. Altogether, the report highlights the need for a deeper reflection on how to better address the global food security and nutrition situation.

To understand how hunger and malnutrition have reached these critical levels, this report draws on the analyses of the past four editions, which have produced a vast, evidence-based body of knowledge of the major drivers behind the recent changes in food security and nutrition. These drivers, which are increasing in frequency and intensity, include conflicts, climate variability and extremes, and economic slowdowns and downturns – all exacerbated by the underlying causes of poverty and very high and persistent levels of inequality. In addition, millions of people around the world suffer from food insecurity and different forms of malnutrition because they cannot afford the cost of healthy diets. From a synthesized understanding of this knowledge, updates and additional analyses are generated to create a holistic view of the combined effects of these drivers, both on each other and on food systems, and how they negatively affect food security and nutrition around the world.

In turn, the evidence informs an in-depth look at how to move from silo solutions to integrated food systems solutions. In this regard, the report proposes transformative pathways that specifically address the challenges posed by the major drivers, also highlighting the types of policy and investment portfolios required to transform food systems for food security, improved nutrition and affordable healthy diets for all. The report observes that, while the pandemic has caused major setbacks, there is much to be learned from the vulnerabilities and inequalities it has laid bare. If taken to heart, these new insights and wisdom can help get the world back on track towards the goal of ending hunger, food insecurity and malnutrition in all its forms. To that end, this global report provides a clear diagnostic to put in place the policies needed.



*The State of Food Security and  
Nutrition in the World 2021 (full text)*



Some rights reserved. This work is available  
under a CC BY-NC-SA 3.0 IGO licence



©FAO, 2021  
CBS409EN/1/07.21