Welcome to Part 6: Food Security, and Task 6-1. In Part 5 the team learned more about how food is cooked and preserved to meet dietary needs. Having regular access to healthy foods to cook and preserve is one thing to consider when thinking about food security. At a very basic level, food security means regularly having enough food to eat; not just today or tomorrow, but also next month and next year. Understanding the dimensions of food security in your community and communities around the world is an important step as the team begins developing your action plan in Part 7.

**Objective**

In this task, the team will be analyzing some global data about different dimensions of food security. The team can use this data, plus data collected in other parts, to begin analyzing food security in your community.

In this task, the team will be focusing on the following questions from the question map:

• What effects do changes in population and urbanization have on food and nutritional security?

• What effects do changes in economic and social dynamics have on food and nutritional security?

1. Go to the Task 6-1 folder and get the Analyzing Food Security Data Analysis Guide questions.

2. Use the information and questions in the task folder to guide your analysis of the data.

3. Discuss how this data and analysis could be useful when thinking about the question: What effects do changes in population and urbanization have on food and nutritional security?

4. Discuss how this data and analysis could be useful when thinking about the question: What effects do changes in economic and social dynamics have on food and nutritional security?

5. Discuss how this data and analysis could be useful when thinking about the problem question: **How do we ensure good nutrition for all?**
Task 6-1 Analyzing Food Security Data Analysis Guide

#1: Population Size and Annual Growth Rate for the World 1950–2020

The solid black line on this graph shows global population from 1950 to 2020. The dashed black line also shows the projected population to the year 2100. The yellow line shows the population growth rate. This is the rate at which the number of individuals in a population changes in a given time period.

1. What was the approximate global population in 1950?
2. What is the approximate global population in 2020?
3. What is the difference in global population between 1950 and 2020?
4. How has the global population changed between 1950 and 2020?
5. What is the projected population in 2050? 2100?
6. Describe the general trend in the projected population between 2020 and 2100.
7. How and why would population data like this be useful and of interest to the team when thinking about food?

#2: Population by Region 1950–2020; Projections 2020–2100

This graph shows the population of different regions of the world between 1950 and 2020. The dotted lines then show projections of population changes to the year 2100.

1. Find the region on the graph where you live. How has the population of that region changed between 1950 and 2020?
2. How does the population change in your region between 1950 and 2020 compare to the change in other regions around the world?
3. Describe the projected population change in your region between 2020 and 2100?
4. What do you think could be affecting this projection?
5. How does the projected population change in your region between 2020 and 2100 compare to the change in other regions?
6. How and why would regional population data like this be useful and of interest to the team when thinking about food?
#3: Prevalence of Overweight People in by Age Group and Region, 2000–2018

The term “overweight” refers to body weight that is greater than what is considered normal or healthy for people of a certain height. Being overweight is generally due to extra body fat.

1. Describe any changes in the number of overweight people between 2000 and 2018 globally for each of the following age groups:
   a. < 5 years
   b. > 5–19 years
   c. Adults (18+ years)
2. Globally, what do you think could be causing these changes in the number of overweight people between 2000 and 2018?
3. Compare and contrast the six regions shown on this graph. What similarities and differences do you see between the six regions for different age groups?
4. What do you think could be causing the differences between the six regions and age groups?
5. How and why could data like this about the prevalence of overweight people be useful and of interest to the team when thinking about food?

#4: Undernourished People in the World, 2005–2018

Undernourishment is defined as not having the amount of food needed to meet minimum energy requirements for a population. Many factors, such as food access and economics, can impact affect many people are considered undernourished. Look at this graph of number of undernourished people in the world between the years 2005 and 2018. It also includes a percentage of the world population that is considered undernourished.

1. Describe any changes in the number of people who are undernourished between 2005 and 2018. What do you think could be causing these changes in the number of undernourished people?
2. Describe any changes in the prevalence (percentage) of undernourishment between 2005 and 2018.
3. Describe any relationships you see between the number of undernourished people and the prevalence of undernourishment between 2005 and 2018. What do you think could be causing these changes?
4. How and why could data like this about undernourished people be useful and of interest to the team when thinking about food?

#5: Composition of Geographic Regions

Use this list to determine which geographic region each country belongs to.

1. Identify which geographic region your country belongs to.
   a. Africa
   b. Asia
   c. Latin America and the Caribbean
   d. Oceania
   e. Northern America and Europe

2. Identify which geographic subregion your country belongs to.
   a. Examples: Northern Africa, Central Asia, South America, Melanesia, or Eastern Europe

#6: Number of Undernourished People in the World, 2005–2018

This table includes data on the numbers of undernourished people in each region between 2005 and 2018.

1. Create a line graph of the regional data between the years 2005 and 2018 in each of the following regions.
   a. Africa
   b. Asia
   c. Latin America and the Caribbean
2. Find your geographic subregion in this data table. Choose another region if your region is not represented. (Northern America and Europe)
3. Add your subregion data to the line graph.
4. How do the trends between the different regions compare?
5. How does the trend of your subregion compare to your region as a whole?
6. How does the trend of your subregion compare to other regions of the world?

7. How and why could data like this about undernourished people be useful and of interest to the team when thinking about food?

#7: Explanation of Food-Insecurity Severity Levels

This graphic describes the three levels of food insecurity. These levels will be used in #8 and #9. Go over the three levels of food security as a team. Refer to this graphic when looking at #8 and #9.

#8: Concentration and Distribution of Food Insecurity Across the Regions, 2018

This graphic provides information on food security levels of people in the world and across regions.

1. Compare and contrast the number of people with moderate food insecurity across the different regions.

2. Compare and contrast the number of people with severe food insecurity across the different regions.

3. Compare and contrast the number of people with moderate food insecurity within a region to the total population of that region. How does this differ across the regions?

4. Compare and contrast the number of people with severe food insecurity within a region to the total population of that region. How does this differ across the regions?

5. How and why could data like this about food security levels be useful and of interest to the team when thinking about food?

#9: Food Security and Country Income Level, 2018

This graphic shows the food security level of people in countries of different income levels.
1. Compare and contrast the number of people with moderate food insecurity across countries with different income levels. What do you think could be causing these differences?
2. Compare and contrast the number of people with severe food insecurity across countries with different income levels. What do you think could be causing these differences?
3. Compare and contrast the number of people with moderate food insecurity within an income level to the total population of that income level. How does this differ across income levels?
4. Compare and contrast the number of people with severe food insecurity within an income level to the total population of that income level. How does this differ across income levels?
5. How and why could data like this about food security levels and income be useful and of interest to the team when thinking about food?

#10: Food Insecurity Levels Across Regions, 2014–2018

1. Describe the trends of the total percentage of food insecure people across each region between 2014 and 2018.
2. What do you think could be causing these differences between the different regions of the world?
3. Describe the trend of the total percentage of food insecure people within your region between 2014 and 2018.
4. What do you think could be causing these differences over time within your region?

#11: Food Insecurity and Gender, 2016–2018 Three-Year Averages

This graph shows food insecurity levels for men and women across the different regions of the world.

1. Compare and contrast the percentage of men and of women experiencing moderate food insecurity across the regions.
2. What do you think could be causing these differences between men and women in different regions of the world?
3. Compare and contrast the total percentage of men and of women experiencing severe food insecurity within your region. What do you think
could be causing these differences between men and women in your region?

4. Compare and contrast the total percentage of men and of women experiencing food insecurity in the world as a whole.

5. What do you think could be causing these differences between men and women in the world?
Task 6-1. Analyzing Food Security Data

Sources:


#1: Population Size and Annual Growth Rate for the World 1950–2020

#2: Population by Region 1950–2019; Projections 2020–2100

* excluding Australia and New Zealand
#3: Prevalence of Overweight People by Age Group and Region, 2000–2018
#4: Undernourished People in the World, 2005–2018

NOTES: * Values for 2018 are projections as illustrated by dotted lines and empty circles. The entire series was carefully revised to reflect new information made available since the publication of the last edition of the report; it replaces all series published previously. See Box 2.

SOURCE: FAO.
Composition of geographic regions

AFRICA
Northern Africa: Algeria, Egypt, Libya, Morocco, Sudan, Tunisia and Western Sahara.
Sub-Saharan Africa
Eastern Africa: Burundi, Comoros, Djibouti, Eritrea, Ethiopia, Kenya, Madagascar, Malawi, Mauritius, Mozambique, Rwanda, Seychelles, Somalia, South Sudan, Uganda, United Republic of Tanzania, Zambia and Zimbabwe.
Middle Africa: Angola, Cameroon, Central African Republic, Chad, Congo, Democratic Republic of the Congo, Equatorial Guinea, Gabon, and Sao Tome and Principe.
Southern Africa: Botswana, Eswatini, Lesotho, Namibia and South Africa.
Western Africa: Benin, Burkina Faso, Cabo Verde, Côte d’Ivoire, Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mali, Mauritania, Niger, Nigeria, Senegal, Sierra Leone and Togo.

ASIA
Central Asia: Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan.
Eastern Asia: China, Democratic People's Republic of Korea, Japan, Mongolia and Republic of Korea.
South-eastern Asia: Brunei Darussalam, Cambodia, Indonesia, Lao People's Democratic Republic, Malaysia, Myanmar, Philippines, Singapore, Thailand, Timor-Leste and Viet Nam.
Southern Asia: Afghanistan, Bangladesh, Bhutan, India, Iran (Islamic Republic of), Maldives, Nepal, Pakistan and Sri Lanka.
Western Asia: Armenia, Azerbaijan, Bahrain, Cyprus, Georgia, Iraq, Israel, Jordan, Kuwait, Lebanon, Oman, Palestine, Qatar, Saudi Arabia, Syrian Arab Republic, Turkey, United Arab Emirates and Yemen.

LATIN AMERICA AND THE CARIBBEAN
Caribbean: Antigua and Barbuda, Bahamas, Barbados, Cuba, Dominica, Dominican Republic, Grenada, Haiti, Jamaica, Puerto Rico, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, and Trinidad and Tobago.
Latin America
Central America: Belize, Costa Rica, El Salvador, Guatemala, Honduras, Mexico, Nicaragua and Panama.
South America: Argentina, Bolivia (Plurinational State of), Brazil, Chile, Colombia, Ecuador, Guyana, Paraguay, Peru, Suriname, Uruguay and Venezuela (Bolivarian Republic of).
Australia and New Zealand: Australia and New Zealand.

Oceania excluding Australia and New Zealand
Melanesia: Fiji, New Caledonia, Papua New Guinea, Solomon Islands and Vanuatu.
Micronesia: Kiribati, Marshall Islands, Micronesia (Federated States of), Nauru and Palau.
Polynesia: American Samoa, Cook Islands, French Polynesia, Niue, Samoa, Tokelau, Tonga and Tuvalu.

NORTHERN AMERICA AND EUROPE
Northern America: Bermuda, Canada, Greenland and United States of America.

Europe
Eastern Europe: Belarus, Bulgaria, Czechia, Hungary, Poland, Republic of Moldova, Romania, Russian Federation, Slovakia and Ukraine.
Northern Europe: Denmark, Estonia, Finland, Iceland, Ireland, Latvia, Lithuania, Norway, Sweden, and United Kingdom of Great Britain and Northern Ireland.
Southern Europe: Albania, Andorra, Bosnia and Herzegovina, Croatia, Greece, Italy, Malta, Montenegro, North Macedonia, Portugal, Serbia, Slovenia and Spain.
Western Europe: Austria, Belgium, France, Germany, Luxembourg, Netherlands and Switzerland.
### Number of Undernourished People in the World, 2005–2018

<table>
<thead>
<tr>
<th>Region</th>
<th>2005</th>
<th>2010</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018*</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>World</strong></td>
<td>947.2</td>
<td>822.3</td>
<td>785.4</td>
<td>796.5</td>
<td>811.7</td>
<td>821.6</td>
</tr>
<tr>
<td><strong>Africa</strong></td>
<td>196.0</td>
<td>199.8</td>
<td>217.9</td>
<td>234.6</td>
<td>248.6</td>
<td>256.1</td>
</tr>
<tr>
<td>Northern Africa</td>
<td>9.7</td>
<td>8.5</td>
<td>15.5</td>
<td>16.1</td>
<td>16.5</td>
<td>17.0</td>
</tr>
<tr>
<td>Sub-Saharan Africa</td>
<td>176.7</td>
<td>180.6</td>
<td>202.4</td>
<td>218.5</td>
<td>232.1</td>
<td>239.1</td>
</tr>
<tr>
<td>Eastern Africa</td>
<td>113.5</td>
<td>118.6</td>
<td>119.3</td>
<td>126.9</td>
<td>129.8</td>
<td>133.1</td>
</tr>
<tr>
<td>Middle Africa</td>
<td>36.2</td>
<td>36.5</td>
<td>37.9</td>
<td>41.1</td>
<td>43.2</td>
<td>44.6</td>
</tr>
<tr>
<td>Southern Africa</td>
<td>3.6</td>
<td>4.2</td>
<td>5.0</td>
<td>5.5</td>
<td>5.4</td>
<td>5.3</td>
</tr>
<tr>
<td>Western Africa</td>
<td>33.0</td>
<td>31.9</td>
<td>40.3</td>
<td>45.0</td>
<td>53.7</td>
<td>56.1</td>
</tr>
<tr>
<td><strong>Asia</strong></td>
<td>688.6</td>
<td>572.1</td>
<td>518.7</td>
<td>512.3</td>
<td>512.4</td>
<td>513.9</td>
</tr>
<tr>
<td>Central Asia</td>
<td>6.5</td>
<td>4.6</td>
<td>3.8</td>
<td>3.8</td>
<td>4.0</td>
<td>4.1</td>
</tr>
<tr>
<td>Eastern Asia</td>
<td>219.1</td>
<td>178.4</td>
<td>138.1</td>
<td>137.8</td>
<td>138.1</td>
<td>137.0</td>
</tr>
<tr>
<td>South-eastern Asia</td>
<td>103.8</td>
<td>75.9</td>
<td>61.9</td>
<td>61.9</td>
<td>61.1</td>
<td>60.6</td>
</tr>
<tr>
<td>Southern Asia</td>
<td>339.8</td>
<td>293.1</td>
<td>286.1</td>
<td>278.3</td>
<td>276.4</td>
<td>278.5</td>
</tr>
<tr>
<td>Western Asia</td>
<td>19.4</td>
<td>20.1</td>
<td>28.8</td>
<td>30.5</td>
<td>32.7</td>
<td>33.7</td>
</tr>
<tr>
<td>Western Asia and Northern Africa</td>
<td>29.1</td>
<td>28.6</td>
<td>44.3</td>
<td>46.6</td>
<td>49.2</td>
<td>50.6</td>
</tr>
<tr>
<td><strong>Latin America and the Caribbean</strong></td>
<td>51.1</td>
<td>40.7</td>
<td>39.1</td>
<td>40.4</td>
<td>41.7</td>
<td>42.5</td>
</tr>
<tr>
<td>Caribbean</td>
<td>9.1</td>
<td>8.0</td>
<td>7.7</td>
<td>7.6</td>
<td>7.7</td>
<td>7.8</td>
</tr>
<tr>
<td>Latin America</td>
<td>42.1</td>
<td>32.6</td>
<td>31.5</td>
<td>32.9</td>
<td>34.0</td>
<td>34.7</td>
</tr>
<tr>
<td>Central America</td>
<td>12.4</td>
<td>11.6</td>
<td>10.9</td>
<td>10.6</td>
<td>10.7</td>
<td>11.0</td>
</tr>
<tr>
<td>South America</td>
<td>29.6</td>
<td>21.1</td>
<td>20.6</td>
<td>22.2</td>
<td>23.2</td>
<td>23.7</td>
</tr>
<tr>
<td><strong>Oceania</strong></td>
<td>1.8</td>
<td>1.9</td>
<td>2.3</td>
<td>2.4</td>
<td>2.5</td>
<td>2.6</td>
</tr>
<tr>
<td><strong>Northern America and Europe</strong></td>
<td>n.r.</td>
<td>n.r.</td>
<td>n.r.</td>
<td>n.r.</td>
<td>n.r.</td>
<td>n.r.</td>
</tr>
</tbody>
</table>

**Notes:**
- * Projected values. See Box 2 and Annex 1B for a description of how the projections are made.
- n.r. = not reported, as the prevalence is less than 2.5 percent. Regional totals may differ from the sum of subregions, due to rounding. For country compositions of each regional/subregional aggregate, see Notes on geographic regions in statistical tables inside the back cover.

**Source:** FAO.
EXPLANATION OF FOOD-INSECURITY SEVERITY LEVELS MEASURED BY THE FIES IN SDG INDICATOR 2.1.2

FOOD SECURITY
Adequate access to food in both quality and quantity

MODERATE FOOD INSECURITY
People experiencing moderate food insecurity face uncertainties about their ability to obtain food, and have been forced to compromise on the quality and/or quantity of the food they consume

SEVERE FOOD INSECURITY
People experiencing severe food insecurity have typically run out of food and, at worst, gone a day (or days) without eating

SDG INDICATOR 2.1.2
The prevalence of moderate or severe food insecurity in the population based on the FIES

SOURCE: FAO.

2 The other three dimensions of food security are food availability, utilization and stability.
#8: Concentration and Distribution of Food Insecurity Across the Regions, 2018

- **World**: Total population 7,633 million
  - 2014: 704 million
  - 2018: 1,039 million

- **Asia**: Total population 4,545 million
  - 2014: 354 million
  - 2018: 676 million

- **Africa**: Total population 1,288 million
  - 2014: 277 million
  - 2018: 89 million

- **Northern America and Europe**: Total population 1,106 million
  - 2014: 11 million
  - 2018: 188 million

- **Latin America**: Total population 608 million
  - 2014: 55 million

**Source**: FAO.
#9: Food Security and Country Income Level, 2018

- **High-income countries**: Total population 1,197 million
  - Total population: 2,640 million
  - Moderate or severe food insecurity: 102
  - Severe food insecurity: 21

- **Upper-middle-income countries**: Total population 3,097 million
  - Total population: 982
  - Moderate or severe food insecurity: 342
  - Severe food insecurity: 104

- **Lower-middle-income countries**: Total population 3,373 million
  - Total population: 373
  - Moderate or severe food insecurity: 434
  - Severe food insecurity: 190

- **Low-income countries**: Total population 695 million
  - Total population: 190
  - Moderate or severe food insecurity: 434
  - Severe food insecurity: 190

SOURCE: FAO.
#10: Food Insecurity Levels Across Regions, 2014–2018

NOTES: Differences in total are due to rounding of figures to the nearest decimal point. SOURCE: FAO.
#11: Food Insecurity and Gender, 2016–2018 Three-Year Averages

Notes: Differences in total are due to rounding of figures to the nearest decimal point. Source: FAO.