

Prevalence of moderate or severe food insecurity in the population, based on the Food Insecurity Experience Scale (FIES)

SDG indicator 2.1.2



Prevalence of moderate or severe food insecurity in the population, based on the Food Insecurity Experience Scale (FIES)

Sustainable Development Indicator 2.1.2

April 2021
Virtually - [ESCWA](#)

Firas Yassin, FAO



Food and Agriculture Organization of the United Nations

Organisation des Nations Unies pour l'alimentation et l'agriculture

Organización de las Naciones Unidas para la Alimentación y la Agricultura

Prevalence of
moderate or severe
food insecurity in
the population,
based on the Food
Insecurity
Experience Scale
(FIES)

SDG indicator 2.1.2



Introduction to the Food Insecurity Experience Scale (FIES)



Food and Agriculture Organization
of the United Nations

Organisation des Nations Unies
pour l'alimentation et l'agriculture

Organización de las Naciones Unidas
para la Alimentación y la Agricultura

Prevalence of moderate or severe food insecurity in the population, based on the Food Insecurity Experience Scale (FIES)

SDG indicator 2.1.2



Objectives

- Define experience-based food security scales and the benefits of using them;
- Become familiar with the eight FIES questions;
- Describe what the FIES measures and what it does not measure; and
- Explain the reasons for countries to adopt the FIES for monitoring food insecurity.



Food and Agriculture Organization
of the United Nations

Organisation des Nations Unies
pour l'alimentation et l'agriculture

Organización de las Naciones Unidas
para la Alimentación y la Agricultura

Prevalence of moderate or severe food insecurity in the population, based on the Food Insecurity Experience Scale (FIES)

SDG indicator 2.1.2



The origins of the Food Insecurity Experience Scale



Researchers at **Cornell University** in the late 1980s sought a **new approach to measuring hunger** that would be appropriate for use in a wealthy country like the USA, where rates of **child stunting and wasting** are **very low**, and many food insecure people are **overweight**.

Aiming to develop a new measure, they interviewed women who said they had experienced hunger, and based on their conversations, identified various **dimensions and components of the experience of hunger**.



Food and Agriculture Organization of the United Nations

Organisation des Nations Unies pour l'alimentation et l'agriculture

Organización de las Naciones Unidas para la Alimentación y la Agricultura

Prevalence of moderate or severe food insecurity in the population, based on the Food Insecurity Experience Scale (FIES)

SDG indicator 2.1.2



Food and Agriculture Organization of the United Nations

Organisation des Nations Unies pour l'alimentation et l'agriculture

Organización de las Naciones Unidas para la Alimentación y la Agricultura

Measuring food insecurity from the perspective of people's experiences

The Cornell researchers identified a **sequence of experiences** that characterized hunger and food insecurity as described by the women – a sequence that reveals **increasing severity of food insecurity**.

Years later, a review of **studies in many countries** around the world concluded that these dimensions of the experience of hunger appear to be **common across cultures**.



The **consequences of food insecurity** become more severe as the situation worsens, **negatively affecting physical, mental and social well-being**.

Prevalence of moderate or severe food insecurity in the population, based on the Food Insecurity Experience Scale (FIES)

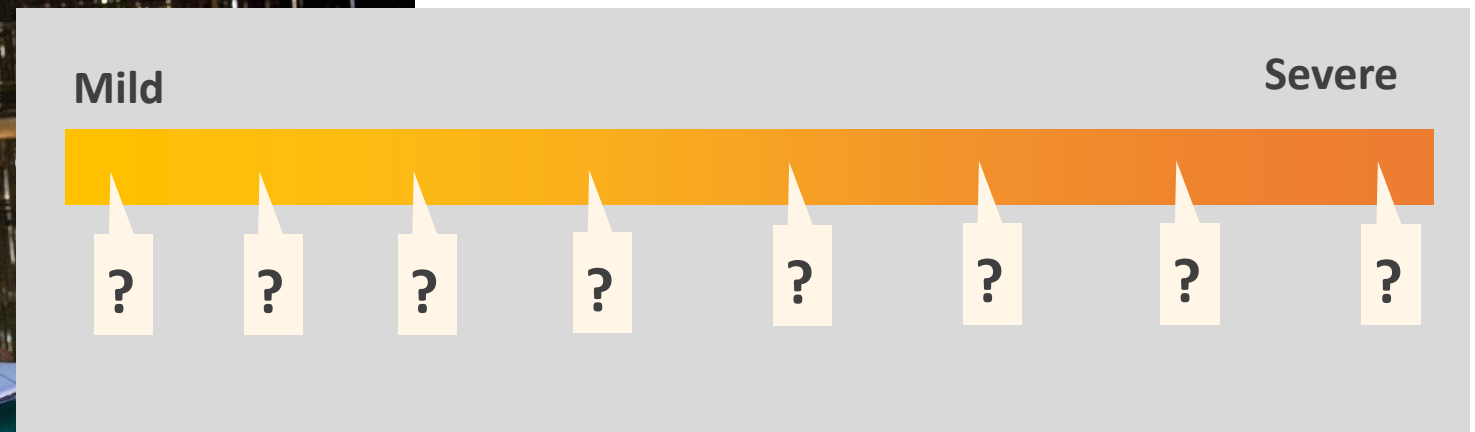
SDG indicator 2.1.2



Measuring food insecurity from the perspective of people's experiences

The FIES and similar experience-based food security scales are all composed of a **series of questions** that refer directly to **people's ability to access food**.

The series of **questions** are part of a **scale** that covers a **range of experiences** of food insecurity at **increasing levels of severity**.



Food and Agriculture Organization of the United Nations

Organisation des Nations Unies pour l'alimentation et l'agriculture

Organización de las Naciones Unidas para la Alimentación y la Agricultura

Prevalence of moderate or severe food insecurity in the population, based on the Food Insecurity Experience Scale (FIES)

SDG indicator 2.1.2

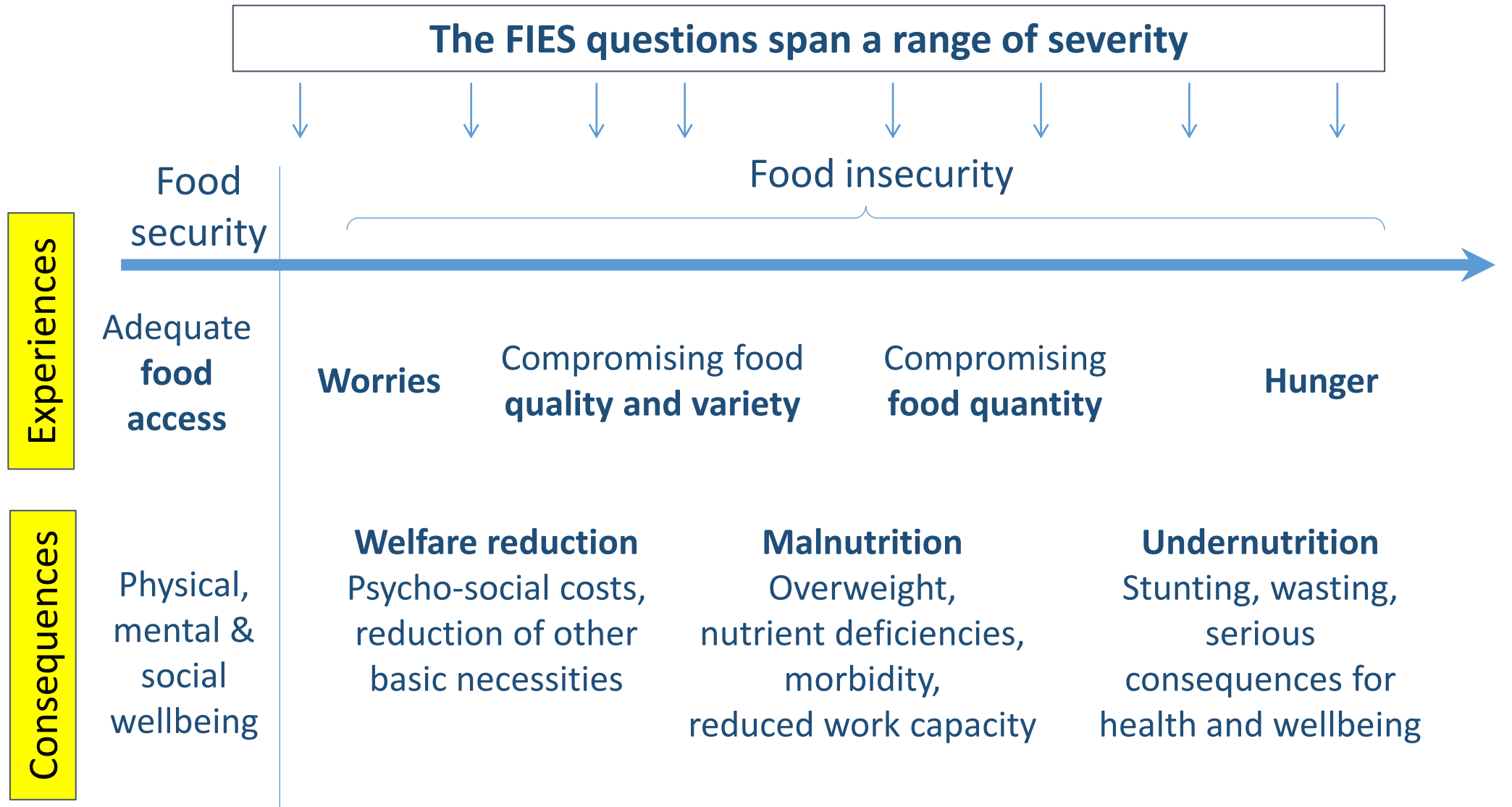


Food and Agriculture Organization of the United Nations

Organisation des Nations Unies pour l'alimentation et l'agriculture

Organización de las Naciones Unidas para la Alimentación y la Agricultura

The Experiences & Consequences



Prevalence of moderate or severe food insecurity in the population, based on the Food Insecurity Experience Scale (FIES)

SDG indicator 2.1.2



Food and Agriculture Organization of the United Nations

Organisation des Nations Unies pour l'alimentation et l'agriculture

Organización de las Naciones Unidas para la Alimentación y la Agricultura

The FIES survey module

The FIES survey **individual/household** module is composed of **eight questions** with simple **dichotomous responses** (“yes” or “no”)



Respondents are asked whether any time during a certain **reference period (12 months)** they have had **any of the experiences** described in the questions due to **lack of money or other resources** to obtain food.

These experiences range from **worrying** about their ability to get enough food to whether they have been forced to **compromise** the **quality or quantity** of the food they ate.

Note that each question is **conditioned** on the **lack of money or resources** to get food..

and **NOT** due to other reasons to reducing food consumption or alter diet, such as **religion or health reasons**.

Prevalence of moderate or severe food insecurity in the population, based on the Food Insecurity Experience Scale (FIES)

SDG indicator 2.1.2



Food and Agriculture Organization of the United Nations

Organisation des Nations Unies pour l'alimentation et l'agriculture

Organización de las Naciones Unidas para la Alimentación y la Agricultura

The eight FIES questions – Individual frame

“During the last 12 months, was there a time when, because of lack of money or other resources”:

1. You were **worried** you could not get enough food to eat?
2. You were unable to eat **healthy** and **nutritious** food?
3. You ate only a **few kinds of foods**?
4. You had to **skip a meal**?
5. You **ate less** than you thought you should?
6. Your household **ran out of food**?
7. You were **hungry** but did not eat?
8. You went **without eating** for a **whole day**?”

Prevalence of moderate or severe food insecurity in the population, based on the Food Insecurity Experience Scale (FIES)

SDG indicator 2.1.2



Food and Agriculture Organization of the United Nations

Organisation des Nations Unies pour l'alimentation et l'agriculture

Organización de las Naciones Unidas para la Alimentación y la Agricultura

The eight FIES questions – Household frame

“During the last 12 months, was there a time when, because of lack of money or other resources”:

1. You or any other adult in your household were **worried** you could not get enough food to eat?
2. You or any other adult in your household were unable to eat **healthy** and **nutritious** food?
3. You or any other adult in your household ate only a **few kinds of foods**?
4. You or any other adult in your household had to **skip a meal**?
5. You or any other adult in your household **ate less** than you thought you should?
6. Your household **ran out of food**?
7. You or any other adult in your household were **hungry** but did not eat?
8. You or any other adult in your household went **without eating** for a **whole day**?”

Prevalence of moderate or severe food insecurity in the population, based on the Food Insecurity Experience Scale (FIES)

SDG indicator 2.1.2



Translation and adaptation of the FIES survey module

- Before applying the FIES in a new setting, it is essential to carefully prepare a **linguistically and culturally adapted translation** of the FIES into all the languages in which it will be administered
- Because the **validity** and **accuracy** of results from the FIES are highly dependent on the **words** and **terminology** used in the questions.

FAO has a **repository** (<http://www.fao.org/in-action/voices-of-the-hungry/using-fies/en/>) of the 2015 FIES versions in nearly **200 different languages**, which can be used as a starting point for translation and preparation of the FIES survey module.

Please note, these are the individual version, so adaptation is necessary if using the household version.



Food and Agriculture Organization of the United Nations

Organisation des Nations Unies pour l'alimentation et l'agriculture

Organización de las Naciones Unidas para la Alimentación y la Agricultura

Prevalence of
moderate or severe
food insecurity in
the population,
based on the Food
Insecurity
Experience Scale
(FIES)

SDG indicator 2.1.2



Intended meaning of the eight questions of the FIES survey module

- The language should contain **words and phrases** that are **easily understood** by both the enumerators and the respondents.
- The **most appropriate** terms may **NOT** be a literal translation.
- Translation of the FIES should be guided by considering the intended **meaning of the eight questions**.



Food and Agriculture Organization
of the United Nations

Organisation des Nations Unies
pour l'alimentation et l'agriculture

Organización de las Naciones Unidas
para la Alimentación y la Agricultura

Prevalence of
moderate or severe
food insecurity in
the population,
based on the Food
Insecurity
Experience Scale
(FIES)

SDG indicator 2.1.2



Questions?



Food and Agriculture Organization
of the United Nations

Organisation des Nations Unies
pour l'alimentation et l'agriculture

Organización de las Naciones Unidas
para la Alimentación y la Agricultura

Prevalence of moderate or severe food insecurity in the population, based on the Food Insecurity Experience Scale (FIES)

SDG indicator 2.1.2



Existing Previous Applications

- **US Household Food Security Survey Module (HFSSM)**
 - Used in the US since 1995 and in Canada since 2004
 - Annual reports published in the US since 1995. Used to evaluate the effectiveness of the largest USDA program on food subsidies
- **Escala Brasileira de Insegurança Alimentar (EBIA)**
 - Based on the HFSSM, has been developed in Brazil to provide the means to monitor the success of the Zero Hunger program.
 - Applied to the **national population** through the PNAD since 2004
- **Escala Latinoamericana y Caribena de Seguridad Alimentaria (ELCSA)**
 - Developed as a harmonized scale for use in Spanish speaking countries
 - Validated in Colombia, Mexico, Nicaragua, Guatemala, El Salvador, Paraguay
- **Escala Mexicana de Seguridad Alimentaria (EMSA)**
 - Used by CONEVAL to provide evidence used as part of the multidimensional poverty assessment
 - Included in the intermediate **General Population Census survey**



Food and Agriculture Organization of the United Nations

Organisation des Nations Unies pour l'alimentation et l'agriculture

Organización de las Naciones Unidas para la Alimentación y la Agricultura

Prevalence of moderate or severe food insecurity in the population, based on the Food Insecurity Experience Scale (FIES)

SDG indicator 2.1.2



Existing applications

- **Household Food Insecurity Access Scale (HFIAS)**
 - Developed by the second Food and Nutrition Technical Assistance (FANTA – II) program, funded by US-Aid, to **target and monitor food security intervention** throughout the world
- **Household Hunger Scale (HHS),**
 - Developed based on the **most severe items** of **HFIAS** due to difficulties in validating the consistency of severity associated to different experiences across countries



Food and Agriculture Organization of the United Nations

Organisation des Nations Unies pour l'alimentation et l'agriculture

Organización de las Naciones Unidas para la Alimentación y la Agricultura

Prevalence of moderate or severe food insecurity in the population, based on the Food Insecurity Experience Scale (FIES)

SDG indicator 2.1.2



Food and Agriculture Organization of the United Nations

Organisation des Nations Unies pour l'alimentation et l'agriculture

Organización de las Naciones Unidas para la Alimentación y la Agricultura

Voices of the Hungry project

In 2013 FAO launched the **Voices of the Hungry (VoH) Project** to bring this **accumulated experience** with food security scales to **the global level**.

This project developed the **Food Insecurity Experience Scale (FIES)** with the aim of providing a global tool to facilitate valid and reliable **monitoring of progress** towards **eradicating hunger** and ensuring **universal access to food**.



As the developer of the FIES methodology, **FAO is committed** to helping all member countries **develop the capacity to use the FIES** for monitoring food security.

Prevalence of moderate or severe food insecurity in the population, based on the Food Insecurity Experience Scale (FIES)

SDG indicator 2.1.2



Food and Agriculture Organization of the United Nations

Organisation des Nations Unies pour l'alimentation et l'agriculture

Organización de las Naciones Unidas para la Alimentación y la Agricultura

Voices of the Hungry project

- In **2014**, FAO began **collecting** FIES data by leveraging on the **Gallup® World Poll (GWP)**, a branch of Gallup, Inc. that surveys nationally representative samples of the adult population annually in nearly **150 countries**, covering 90% of the world's population.
- This has enabled FAO to collect information from **individual respondents** at a relatively **low cost** and to compute **country-level estimates** of the **prevalence of food insecurity** at different levels of severity that are **valid, reliable** and **comparable** across countries.
- As a result, the VoH project is able to provide, for the first time, **nationally representative data on the food access at the individual level on an annual basis**



Voices of the Hungry

The Voices of the Hungry project has developed the Food Insecurity Experience Scale, a new metric for household and individual food insecurity. It brings us a step closer to hearing the voices of the people who struggle every day to have access to safe and nutritious food.

Technical Report

Number 1/August 2016
(Revised Version)

Prevalence of moderate or severe food insecurity in the population, based on the Food Insecurity Experience Scale (FIES)

SDG indicator 2.1.2



Voices of the Hungry project

- In 2017 and 2018, *The State of Food Security and Nutrition in the World* publishes a list of SDG indicators related to food security and nutrition, including FIES
- The prevalence of **severe food insecurity** in the population, based on the FIES is reported for those countries that **authorized the publication** of the results



Food and Agriculture Organization of the United Nations

Organisation des Nations Unies pour l'alimentation et l'agriculture

Organización de las Naciones Unidas para la Alimentación y la Agricultura

Prevalence of
moderate or severe
food insecurity in
the population,
based on the Food
Insecurity
Experience Scale
(FIES)

SDG indicator 2.1.2



Questions?



Food and Agriculture Organization
of the United Nations

Organisation des Nations Unies
pour l'alimentation et l'agriculture

Organización de las Naciones Unidas
para la Alimentación y la Agricultura

Prevalence of moderate or severe food insecurity in the population, based on the Food Insecurity Experience Scale (FIES)

SDG indicator 2.1.2



Food and Agriculture Organization of the United Nations

Organisation des Nations Unies pour l'alimentation et l'agriculture

Organización de las Naciones Unidas para la Alimentación y la Agricultura

The FIES can be used to measure food security for the following purposes

1 To **assess** the population **prevalence of food insecurity** (for both SDG monitoring and national use)

2 To **identify vulnerable** populations most affected by food insecurity

3 To **guide** and **monitor** the effects of national food security **policies and programmes**

4 To **identify risk factors and consequences of** food insecurity



Prevalence of moderate or severe food insecurity in the population, based on the Food Insecurity Experience Scale (FIES)

SDG indicator 2.1.2



Food and Agriculture Organization of the United Nations

Organisation des Nations Unies pour l'alimentation et l'agriculture

Organización de las Naciones Unidas para la Alimentación y la Agricultura

The FIES can be used to measure food security for the following purposes

1 To **assess** the population **prevalence of food insecurity** (for both SDG monitoring and national use)

2 To **identify vulnerable** populations most affected by food insecurity

3 To **guide** and **monitor** the effects of national food security **policies and programmes**

4 To **identify risk factors and consequences** of food insecurity

The primary result from the FIES is the prevalence of food insecurity in the population.

By “prevalence” we mean the **percentage** of people in the total population that are **affected by food insecurity at different levels** of severity.

It is possible to use the same set of questions across cultures to estimate food insecurity at different levels of severity and to **compare the results in a way that is meaningful and statistically valid.**

Prevalence of moderate or severe food insecurity in the population, based on the Food Insecurity Experience Scale (FIES)

SDG indicator 2.1.2



Food and Agriculture Organization of the United Nations

Organisation des Nations Unies pour l'alimentation et l'agriculture

Organización de las Naciones Unidas para la Alimentación y la Agricultura

The FIES can be used to measure food security for the following purposes

1 To **assess** the population **prevalence of food insecurity** (for both SDG monitoring and national use)

2 To **identify vulnerable** populations most affected by food insecurity

3 To **guide** and **monitor** the effects of national food security **policies and programmes**

4 To **identify risk factors and consequences** of food insecurity

The FIES can be used to identify **sub-populations vulnerable** to food insecurity, to understand **who they are and where they live**.

The full **potential** of the FIES to generate information that provides **actionable information for policy** is realized when the tool is applied in **large national population surveys** that allow more detailed analyses of the food insecurity situation in relation to **income, gender, age, race, ethnicity, migratory status, disability, geographic location, or other policy-relevant characteristics**.

Prevalence of moderate or severe food insecurity in the population, based on the Food Insecurity Experience Scale (FIES)

SDG indicator 2.1.2



Food and Agriculture Organization of the United Nations

Organisation des Nations Unies pour l'alimentation et l'agriculture

Organización de las Naciones Unidas para la Alimentación y la Agricultura

The FIES can be used to measure food security for the following purposes

1 To **assess** the population **prevalence of food insecurity** (for both SDG monitoring and national use)

2 To **identify vulnerable** populations most affected by food insecurity

3 To **guide** and **monitor** the effects of national food security **policies and programmes**

4 To **identify risk factors and consequences** of food insecurity

Use of the FIES to monitor changes in the **prevalence** of food insecurity **over time** and to **identify trends** is a powerful way to **assess the effects** of **national policies and development programmes** on reducing food insecurity nationally and among vulnerable populations.

The FIES may also be used with the objective of **project evaluation**.

Prevalence of moderate or severe food insecurity in the population, based on the Food Insecurity Experience Scale (FIES)

SDG indicator 2.1.2



Food and Agriculture Organization of the United Nations

Organisation des Nations Unies pour l'alimentation et l'agriculture

Organización de las Naciones Unidas para la Alimentación y la Agricultura

The FIES can be used to measure food security for the following purposes

1 To **assess** the population **prevalence of food insecurity** (for both SDG monitoring and national use)

2 To **identify vulnerable** populations most affected by food insecurity

3 To **guide** and **monitor** the effects of national food security **policies and programmes**

4 To **identify risk factors and consequences** of food insecurity

Conducting researches to identify determinants and consequences of food insecurity on health and well-being.

This involves exploring food insecurity in relation to other variables. These may be measured on the same individual (or household) in the same survey, or analysed using ecological studies..

By **studying associations** between **food insecurity** and **characteristics** or **conditions** such as **livelihood strategies**, **access to public services**, **basic sanitation**, **food habits**, **health and nutritional status**, we will have a **better understanding** of the complex phenomenon of food insecurity.

Prevalence of moderate or severe food insecurity in the population, based on the Food Insecurity Experience Scale (FIES)

SDG indicator 2.1.2



Benefits of using the FIES to measure food insecurity



Direct

Easy

Low cost

Statistically sound

Distinguish between severity levels

Results can be disaggregated



Food and Agriculture Organization of the United Nations

Organisation des Nations Unies pour l'alimentation et l'agriculture

Organización de las Naciones Unidas para la Alimentación y la Agricultura

Prevalence of moderate or severe food insecurity in the population, based on the Food Insecurity Experience Scale (FIES)

SDG indicator 2.1.2



Benefits of using the FIES to measure food insecurity

Direct

The FIES asks respondents **directly** about their experiences in the face of **constrained access** to food. In this way, the FIES “listens” to the people affected by food insecurity.

Easy

Low cost

Statistically sound

Distinguish between severity levels

Results can be disaggregated



Food and Agriculture Organization of the United Nations

Organisation des Nations Unies pour l'alimentation et l'agriculture

Organización de las Naciones Unidas para la Alimentación y la Agricultura

Prevalence of moderate or severe food insecurity in the population, based on the Food Insecurity Experience Scale (FIES)

SDG indicator 2.1.2



Food and Agriculture Organization of the United Nations

Organisation des Nations Unies pour l'alimentation et l'agriculture

Organización de las Naciones Unidas para la Alimentación y la Agricultura

Benefits of using the FIES to measure food insecurity

Direct

The FIES asks respondents directly about their experiences in the face of constrained access to food. In this way, the FIES “listens” to the people affected by food insecurity.

Easy

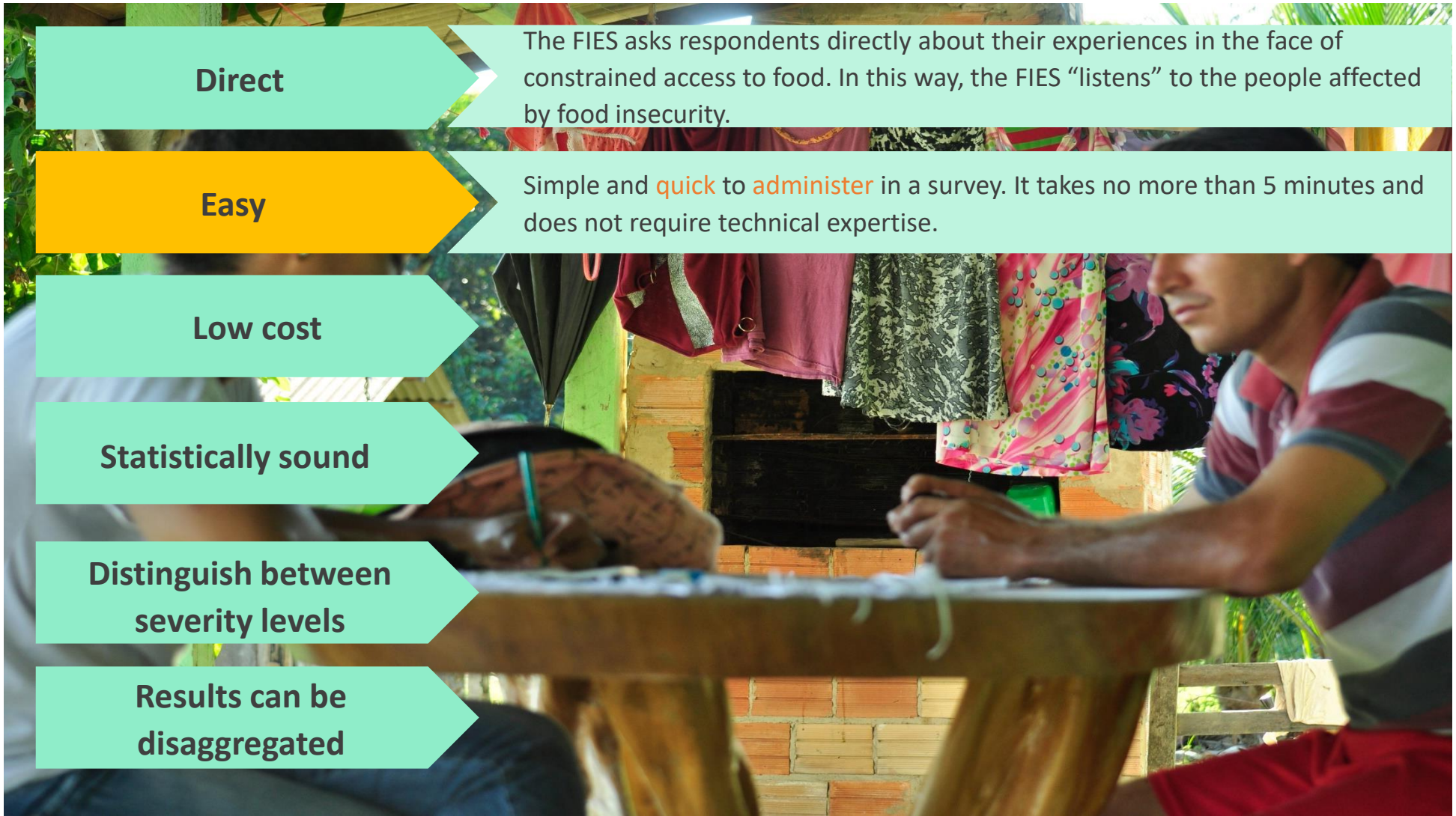
Simple and **quick to administer** in a survey. It takes no more than 5 minutes and does not require technical expertise.

Low cost

Statistically sound

Distinguish between severity levels

Results can be disaggregated



Prevalence of moderate or severe food insecurity in the population, based on the Food Insecurity Experience Scale (FIES)

SDG indicator 2.1.2



Benefits of using the FIES to measure food insecurity

Direct

The FIES asks respondents directly about their experiences in the face of constrained access to food. In this way, the FIES “listens” to the people affected by food insecurity.

Easy

Simple and quick to administer in a survey. It takes no more than 5 minutes and does not require technical expertise.

Low cost

Can be included in almost any existing survey, at very **little additional cost**.

Statistically sound

Distinguish between severity levels

Results can be disaggregated



Food and Agriculture Organization of the United Nations

Organisation des Nations Unies pour l'alimentation et l'agriculture

Organización de las Naciones Unidas para la Alimentación y la Agricultura

Prevalence of moderate or severe food insecurity in the population, based on the Food Insecurity Experience Scale (FIES)

SDG indicator 2.1.2



Benefits of using the FIES to measure food insecurity

Direct

The FIES asks respondents directly about their experiences in the face of constrained access to food. In this way, the FIES “listens” to the people affected by food insecurity.

Easy

Simple and quick to administer in a survey. It takes no more than 5 minutes and does not require technical expertise.

Low cost

Can be included in almost any existing survey, at very little additional cost.

Statistically sound

FIES and similar scales have been shown to be valid in different settings, and by using the FIES methodology, food insecurity prevalence rates can be **compared across countries and populations**.

Distinguish between severity levels

Results can be disaggregated



Food and Agriculture Organization of the United Nations

Organisation des Nations Unies pour l'alimentation et l'agriculture

Organización de las Naciones Unidas para la Alimentación y la Agricultura

Prevalence of moderate or severe food insecurity in the population, based on the Food Insecurity Experience Scale (FIES)

SDG indicator 2.1.2



Benefits of using the FIES to measure food insecurity

Direct

The FIES asks respondents directly about their experiences accessing to food. In this way, the FIES “listens” to the people affected by food insecurity.

Easy

Simple and quick to administer in a survey. It takes no more than 5 minutes and does not require technical expertise.

Low cost

Can be included in almost any existing survey, at very little additional cost.

Statistically sound

FIES and similar scales have been shown to be valid in different settings, and by using the FIES methodology, food insecurity prevalence rates can be compared across countries and populations.

Distinguish between severity levels

Able to reflect the **depth of food insecurity**.

Results can be disaggregated



Food and Agriculture Organization of the United Nations

Organisation des Nations Unies pour l'alimentation et l'agriculture

Organización de las Naciones Unidas para la Alimentación y la Agricultura

Prevalence of moderate or severe food insecurity in the population, based on the Food Insecurity Experience Scale (FIES)

SDG indicator 2.1.2



Benefits of using the FIES to measure food insecurity

Direct

The FIES asks respondents directly about their experiences in the face of constrained access to food. In this way, the FIES “listens” to the people affected by food insecurity.

Easy

Simple and quick to administer in a survey. It takes no more than 5 minutes and does not require technical expertise.

Low cost

Can be included in almost any existing survey, at very little additional cost.

Statistically sound

FIES and similar scales have been shown to be valid in different settings, and by using the FIES methodology, food insecurity prevalence rates can be compared across countries and populations.

Distinguish between severity levels

Able to reflect the depth of food insecurity.

Results can be disaggregated

Observe **differences in food insecurity by population characteristics** e.g. gender, age, occupation, etc. and among sub-populations (i.e. location, ethnicity, language etc.)



Food and Agriculture Organization of the United Nations

Organisation des Nations Unies pour l'alimentation et l'agriculture

Organización de las Naciones Unidas para la Alimentación y la Agricultura

Prevalence of moderate or severe food insecurity in the population, based on the Food Insecurity Experience Scale (FIES)

SDG indicator 2.1.2



Conclusion

- FIES can be used to fulfil monitoring requirements on SDG indicator 2.1.2 AND for national policy purposes.
- The FIES module is short and simple, and it is easy implementable in nationally-representative surveys.
- The data can be analyzed to produce valid and reliable estimates of food insecurity in the country on a regular basis.



Food and Agriculture Organization of the United Nations

Organisation des Nations Unies pour l'alimentation et l'agriculture

Organización de las Naciones Unidas para la Alimentación y la Agricultura

Prevalence of
moderate or severe
food insecurity in
the population,
based on the Food
Insecurity
Experience Scale
(FIES)

SDG indicator 2.1.2



Questions?



Food and Agriculture Organization
of the United Nations

Organisation des Nations Unies
pour l'alimentation et l'agriculture

Organización de las Naciones Unidas
para la Alimentación y la Agricultura

Prevalence of
moderate or severe
food insecurity in
the population,
based on the Food
Insecurity
Experience Scale
(FIES)

SDG indicator 2.1.2



Thank you



Food and Agriculture Organization
of the United Nations

Organisation des Nations Unies
pour l'alimentation et l'agriculture

Organización de las Naciones Unidas
para la Alimentación y la Agricultura