



## The Food Insecurity Experience Scale

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## WHAT does the Food Insecurity Experience Scale measure?

### Q1 What is the Voices of the Hungry Project?

**A1** FAO launched the [Voices of the Hungry](#) (VOH) project in 2013 to provide up-to-date **information about food insecurity that is policy-relevant and actionable**. The project developed a methodology to measure the severity of food insecurity as experienced by individuals or households in a way that is comparable across countries<sup>1</sup>. Drawing on similar tools in the USA and Latin America, the project developed the [Food Insecurity Experience Scale](#) (FIES) and innovative analytic methods aiming to provide a new global standard for measuring food insecurity (access) that is valid, endorsed at the international level, and used for global and country monitoring. Peer review of the methodology by a group of distinguished experts and National Statistics Offices in 2015 affirmed the scientific validity of the approach to produce national estimates of moderate and severe food insecurity that are comparable across countries.

For world-wide application of the FIES, VOH leverages on the [Gallup World Poll](#)<sup>®</sup> (GWP), a branch of Gallup, Inc. that has conducted nationally representative surveys in more than 140 countries annually since 2005. Beginning in 2014, FAO contracted Gallup to collect data using the FIES in the World Poll questionnaire. The data are used to derive estimates of the prevalence of food insecurity at different levels of severity, gathered from a nationally representative sample of adults in all of the countries covered by the World Poll. (For more information on the GWP survey methodology access: <http://www.gallup.com/178667/gallup-world-poll-work.aspx>.)

An important goal of the VOH Project is to promote the adoption of the FIES methodology by national governmental institutions. The full potential of the FIES to generate statistics that can inform policy is realized when the tool is applied in larger national population surveys that enable more detailed analyses of the food insecurity situation according to income, gender, age, race, ethnicity, migratory status, disability, geographic location, or other policy-relevant characteristics, as is already the case for a number of countries.

### Q2 What does the Food Insecurity Experience Scale (FIES) measure?

**A2** The FIES is a measure of access to food at the level of individuals or households. It measures severity of food insecurity based on people's responses to questions about constraints on their ability to obtain adequate food. This approach to food security

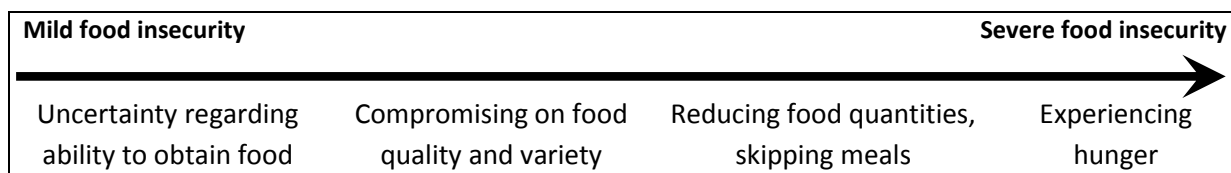
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<sup>1</sup> <http://www.fao.org/economic/ess/ess-fs/voices/en>

measurement represents a significant change compared to traditional ways of assessing it indirectly through determinants such as food availability, or consequences such as poor quality diets, anthropometric failures, and other signs of malnutrition.

The FIES is derived from two widely-used experience-based food security scales: the US *Household Food Security Survey Module* and the *Latin American and Caribbean Food Security Scale* (Spanish acronym ELCSA)<sup>2</sup>. It consists of a set of eight short yes/no questions asked directly to people, typically in face-to-face interviews, although they may be conducted by telephone as well. The questions focus on self-reported, food-related behaviors and experiences associated with increasing difficulties in accessing food due to resource constraints. The FIES is based on a well-grounded construct of the experience of food insecurity composed of three domains: uncertainty/anxiety, changes in food quality, and changes in food quantity.

These domains can be positioned on an underlying scale of severity, as shown for example in Figure 1. The measure of food insecurity associated with a respondent can be located on the scale based on the number of positive responses to the questions (number of behaviors or experiences reported). Such measures are then used to classify respondents into categories of food insecurity severity.



**Figure 1: Food insecurity severity along a continuous scale**

### Q3 What does the FIES *not* measure?

**A3** The FIES is not intended to quantify food consumption nor does it provide a quantitative assessment of dietary quality. It is not a measure of malnutrition and cannot be used to detect nutritional deficiencies or obesity. Consequently, it is not the appropriate tool for monitoring malnutrition or assessing nutrition-specific outcomes of food security programs and policies.

Determinants of food insecurity are many and varied, at the local, regional, national and international levels. These include factors as diverse as climatic conditions, food production and availability, food price volatility and poverty/income, social protection, access to public services and many others. The **FIES is not designed to measure these determinants** but

<sup>2</sup> Ballard, T, Kepple, A, Cafiero, C: The Food Insecurity Experience Scale - Development of a Global Standard for Monitoring Hunger Worldwide. 2013. (<http://goo.gl/ynngLg>)



rather to provide estimates of the proportion of the population experiencing food insecurity at different levels of severity.

When the FIES survey module is included in surveys that also collect information on determinants and/or of outcomes of food insecurity (inadequate access to food), it can help identify respectively the different risk factors for individual or household food insecurity and its consequences in different contexts.

#### **Q4 Does the FIES measure food insecurity of children?**

**A4** While food insecurity among children cannot be directly measured using the FIES survey module, it is possible to estimate the **percentage of children living in food insecure households**. To do so, it is necessary to have data on the number of children in each household surveyed. See Annex II, p. 48, of the VoH Technical Report No. 1 (<http://www.fao.org/3/a-i4830e.pdf>) for technical guidance and Fram, Bernal and Frongillo (2015) (<https://www.unicef-irc.org/publications/pdf/Food%20security.pdf>) for a more detailed discussion of the challenges of measuring child food insecurity.

#### **Q5 Is the FIES a food security indicator or a nutrition indicator?**

**A5** While the FIES does not provide specific information on actual food consumption, dietary quality or nutritional status, it provides a valuable tool for the nutrition and food security community to increase knowledge regarding relationships between the experience of food insecurity and the problems revealed by indicators of malnutrition, including anthropometric outcomes. The timeliness with which results can be obtained using the FIES improves identification of areas where malnutrition may potentially occur, therefore informing effective preventative measures.

The growing evidence of an association between food insecurity and overweight is a factor that complicates analysis of the relationship between food insecurity (food access) and anthropometric outcomes. Many countries are experiencing a nutrition transition characterized by decreased child stunting and wasting and a growing prevalence of overweight among the poor of all age groups. This leads to the need for a different conceptual framework regarding the anthropometric outcomes of food insecurity that reflects the counter-intuitive notion that people with excess weight can also be food insecure. Numerous studies have shown that food insecurity (restricted food access) and overweight/obesity can co-exist, both in children and adults.<sup>3</sup> Explanations for the association between food insecurity and overweight include consumption of less expensive

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<sup>3</sup> Ghattas, H: Food Security and Nutrition in the context of the Global Nutrition Transition. 2014. (<http://www.fao.org/3/a-i3862e.pdf>)



energy-dense foods, stress-induced eating disorders and metabolic adaptations to periods of going without food. Individuals who experienced hunger in infancy or childhood may be at greater risk of obesity as adults.

It is also worth noting that experiencing food insecurity is not synonymous with malnutrition. Food insecurity can have consequences for other aspects of people's health and well-being, such as negative psychosocial effects, that are not necessarily associated with nutritional status. Even in the absence of observable negative effects on nutritional status, the experience of food insecurity is a serious problem itself, indicating a violation of the Human Right to Adequate Food.

In summary, the FIES is a measure of food insecurity based on a theoretical construct that has relevance for dietary quality and food quantity considerations. It does not, however, quantify food consumption, dietary quality or malnutrition per se. It may be considered a nutrition indicator to the extent that the condition of food security is strongly associated with good nutrition and that nutritionists play a role in guaranteeing the Human Right to Adequate Food. Used together with traditional measures of food consumption, dietary quality and nutritional status, the FIES has the potential to contribute to a more comprehensive understanding of the causes and consequences of food insecurity, including nutritional and dietary impacts.

#### **Q6** Is the FIES a subjective measure?

**A6** Experience-based measures of household or individual food security, like the FIES, rely on self-reported information regarding food-related behaviors in the face of limited access to food. Three questions may be characterized as referring to “subjective” perceptions (Were you worried you would not have enough food? Were you unable to eat healthy and nutritious food? Did you eat less than you thought you should?) while the remaining five questions ask about “objective” experiences (running out of food, skipping meals, going a whole day without eating) due to a lack of money or other resources.

The FIES is a statistical measurement scale similar to other widely-accepted statistical scales designed to measure unobservable traits such as aptitude/intelligence, personality, and a broad range of social, psychological and health-related conditions. The questions that compose the scale are based on well-grounded empirical research regarding the experience of hunger and poor food access. Together, the eight questions form a quantitative tool to measure the prevalence of food insecurity (at moderate and severe levels) in a given population, using statistical methods that enable estimation of error (confidence intervals around the measures produced).



It is not uncommon for people to question respondents' ability to respond "accurately" to the question in the FIES survey module about whether or not they were able to eat a "healthy and nutritious diet". This particular question is intended to capture **respondents' own perspectives** regarding the adequacy of their food consumption rather than that of nutritionists or economists; it is not intended to measure nutritional adequacy of the diet. Nevertheless, it is worth noting that accumulated experience with food insecurity scales in Latin America and elsewhere, including focus group research conducted to adapt scales for different contexts, has shown, in fact, that people are relatively good judges of what constitutes a healthy and nutritious, or balanced diet. Numerous validation studies have shown a close association between severity of food insecurity and dietary quality measured with traditional nutrition indicators.

## WHY use the Food Insecurity Experience Scale?

### Q7 How does the FIES differ from other indicators of food insecurity?

**A7** The FIES measures the severity of food insecurity of individuals or households facing constraints in their ability to obtain adequate food. The tool is designed to have cross-cultural equivalence and validity in both developing and developed countries to produce comparable indicators of the prevalence of food insecurity in a population at various levels of severity.

Compared to the other indicators used to assess the state of food security at national level, experience-based food insecurity scales like the FIES stand out for the following reasons:

- a) Directly ask people about food-related behaviors and experiences associated with food insecurity.
- b) Ease of administration and timeliness of reporting.
- c) Soundness of the statistical basis used to enable cross-country comparisons based on information collected on individuals or households.
- d) Ability to reflect the depth of food insecurity by distinguishing between different severity levels.
- e) Possibility to disaggregate results by gender when applied at individual level and by sub national groups when applied in surveys with samples that are representative at sub-national level.
- f) Provides **actionable** information that policy makers can use to identify vulnerable population groups and guide policy interventions.



### Q8 What is the difference between the prevalence of food insecurity, based on the FIES, and the Prevalence of Undernourishment (PoU) reported annually by FAO?

**A8** The concept that informs the FIES (See Q2 above) is different from the one that is at the core of the PoU, and therefore the two indicators should not be confused. The **FIES provides estimates of the proportion of the population facing difficulties in accessing food**, at different levels of severity, based on data collected through direct interviews; the **PoU is an estimate of the adequacy of dietary energy intake** in a population, based on national-level estimates of food availability, food consumption and energy needs.

Generally speaking, the estimated prevalence of experienced food insecurity (at any level of severity), based on the FIES, and the PoU would be expected to show similar trends. However, the number of people having experienced food insecurity in a given country is expected to be greater (possibly much greater) than the number of those who are estimated to be “undernourished” (i.e. not consuming enough food energy). People may be in a situation of food insecurity yet still meet their dietary energy needs by consuming less expensive, low quality, energy dense foods, for example, or cutting back on other basic needs, with potentially negative consequences for their health and general well-being.

The new 2030 Sustainable Development Agenda (Goal 2) calls for the ERADICATION of hunger, with a focus on “leaving no one behind”. The **FIES yields reliable estimates** of food insecurity **even in countries where rates of food insecurity are very low**. When applied in large-scale surveys designed to be representative of subnational population groups, it can identify those groups most affected by food insecurity. This **provides actionable information** that policy makers can use to identify vulnerable population groups and guide policy interventions. The PoU methodology, informed by the data on food consumption currently available, cannot provide such precise results at subnational levels.

### Q9 What are the potential uses of the FIES?

**A9** The information resulting from use of the FIES is relevant for a variety of audiences, including government officials and programme managers at all levels as well as advocates, community leaders and researchers.

The unique contribution of the FIES is that it is a **measure of food insecurity experienced by individuals or households** obtained through direct administration of eight short questions that can be easily incorporated into many kinds of surveys. It **provides actionable information** that policy makers can use to identify vulnerable population groups and guide policy interventions. Used together with other indicators, it can **deepen our understanding of the determinants and consequences** of individual and household food insecurity.





The Voices of the Hungry project will use the FIES to **estimate the prevalence of food insecurity** of individuals at different levels of severity in the national populations of most countries and regions of the world. Global information collected annually will be used to monitor regional trends and for tracking progress towards achieving international goals for eradicating hunger. The “Prevalence of moderate or severe food insecurity in the population, based on the Food Insecurity Experience Scale (FIES)” is Indicator 2.1.2 for Goal 2 of the 2030 Sustainable Development Agenda *“By 2030, end hunger and ensure access by all people, in particular the poor and people in vulnerable situations, including infants, to safe, nutritious and sufficient food all year round”*.

With repeated application of the FIES in the same population at either individual or household level, it is possible to **monitor trends and changes in food insecurity** levels over time. The FIES can potentially be used to assess the impact of a food security programme or policy. If applied before and after an intervention, it is possible to detect changes in the severity of food insecurity, taking into consideration other factors that might have influenced the changes besides the specific intervention itself.

The full potential of the FIES to generate statistics that can inform policy is realized when the tool is applied in larger national population surveys that allow more detailed analyses of the food insecurity situation according to income, gender, age, race, ethnicity, migratory status, disability, geographic location, or other policy-relevant characteristics.

Results from surveys that include the FIES can also be used to **inform decisions regarding priorities for targeting programmes and resources**. While it is not appropriate to use the FIES to identify individual beneficiaries for programmes, the information provided by population surveys that include the FIES can serve to identify vulnerable sub-populations or geographic areas that are more affected by food insecurity. Results from project or programme impact research that include the FIES can be used to inform decisions regarding investments for up-scaling successful projects and programmes.

The FIES can be used together with other indicators to **identify risk factors and consequences of food insecurity**. The phenomenon of food insecurity encompasses much more than what the FIES captures; it includes aspects ranging from social, economic and agriculture policies at the international and national levels to livelihood strategies, access to public services, basic sanitation, food habits, and nutritional status at the household level. Since the FIES directly assesses individual or household food insecurity, it can be applied in broad-based studies together with indicators of these additional aspects collected on the same units to build a better understanding of the complex phenomenon of food insecurity and to inform policy aimed at improving the well-being of the population and ending hunger.



**Q10** Is there a potential response bias due to respondent expectations of receiving assistance/benefits?

**A10** Response bias due to expectations of receiving assistance is a potential problem for many types of surveys. The risk can be addressed through sound survey methodology to ensure that respondents are explicitly informed that their replies will have no influence on potential benefits and that their personal identification will not be provided to authorities or aid agencies. It would be advisable to avoid using interviewers known to be associated with assistance programs to collect data. If information is being collected specifically for programmatic purposes, an independent team not identified with the agency responsible for service delivery should be employed to carry out the survey.

## HOW is the FIES applied and analyzed?

**Q11** Is the FIES an individual or a household measure of food insecurity?

**A11** The FIES survey module (FIES-SM) is available in **individually-referenced** and **household-referenced** versions. The FIES-SM applied in the Gallup World Poll® as part of the Voices of the Hungry project measures food insecurity at the *individual* level. This has many advantages. One major advantage is that results can be meaningfully disaggregated by gender, so that different and comparable measures of the prevalence of food security among women and men can be calculated. Another advantage of using the individually-referenced version is that it enables analyses of food insecurity in relation to other information collected from the same individuals, such as individual dietary intake and nutritional status.

However the FIES survey module can be easily applied at the household level with minor adaptations. The Voices of the Hungry Project aims to promote inclusion of the FIES-SM in national-level household surveys such as Household Income and Expenditure Surveys, Household Budget Surveys and Living Standard Measurement Studies, and health and nutrition surveys.

Inclusion of either the individual or the household version of the FIES-SM in large scale population surveys enables more detailed analyses of the food insecurity situation according to income, gender, age, race, ethnicity, migratory status, disability, geographic location or other policy-relevant characteristics.

Download the **individually-** and **household-referenced versions** of the [FIES Survey Module](#).



## Q12 What is the reference period of the FIES?

**A12** The FIES is flexible with respect to the reference period. For the Gallup World Poll®, the reference period for each of the FIES questions is the “past 12 months” to avoid the influence of seasonal effects and to improve comparability of the measure across different countries. However, either a 12-month or a one-month reference period can be used depending on the survey and objectives for collecting the data.

Where seasonal changes are of interest, for example, a one-month period would be the best choice to investigate how food insecurity varies in different seasons. A one-month reference period is also more appropriate for analyses of food insecurity in relation to 24-hour dietary intake or weekly or monthly food frequency data collected in the same survey. If the FIES is included in a survey that is conducted continuously during the year throughout the country, a one-month reference period may also be preferable, with the advantage of being able to monitor seasonality effects if month of administration is included in the data.

In the case of national surveys with the objective of estimating overall prevalence of food insecurity in different parts of the country, or multi-national surveys that include countries with different environmental and climatic zones, the 12-month period is recommended.

## Q13 Can the FIES items be applied and analyzed individually?

**A13** Together, the FIES items compose a scale designed to cover a range of severity of food insecurity and should be analyzed together as a scale, not as separate items. This is because the items are meant to collectively scan the entire range of severity of food insecurity, as shown in **Figure 1** (Q2).

Another reason all the questions that compose the FIES should be included and analyzed as a joint set, rather than reporting results separately for each item, is that the reliability of the results is considerably higher. When considered individually, each item would have substantial measurement error. Taken together, every item contributes information to measuring food insecurity along the severity continuum that represents the latent trait of food insecurity, thus increasing precision, reducing the extent of measurement error and filtering out any subjective component that a single item may have.

## Q14 Is there a universal order in which the eight FIES questions fall along the scale of severity?

**A14** The FIES is grounded in Item Response Theory, which is used to establish the severity of each item on the scale. The idea is rather simple, yet powerful: by looking at the way in which the many respondents report on one of the experiences, one can establish a measure of the severity associated with that experience, i.e., where that experience is located on the



scale. Intuitively, experiences reported by a larger number of subjects are deemed less severe and vice versa.

**Figure 1** (Q2) shows how the general domains of food insecurity tend to flow along the underlying scale of severity, with uncertainty/anxiety typically the least severe, followed by compromising food quality, reducing food quantity, and finally, experiencing hunger. However, an essential aspect of the FIES is that the severity of each question (its position on the scale) for a specific population is established based on the number of positive responses to that item, as described above. Therefore, people's responses in different countries may result in differences in ordering of the items along the scale of severity. This may be due to nuances in translation or differences in the ways in which food insecurity is experienced or managed in different cultures and livelihood systems. The FIES methodology anticipates this possibility and accommodates such differences, when they exist, so they do not affect the validity of the prevalence estimates and their comparability across countries.

#### **Q15 What are the different classifications/levels of severity of food insecurity and what do they mean?**

**A15** The classifications of food insecurity severity may be described as mild, moderate, and severe food insecurity. Other labels for the mild food insecurity category include marginal food insecurity or marginal food security, aiming to describe a situation on the margin between food secure and food insecure. The experience of food insecurity, according to the theoretical construct on which the FIES is based, is typically characterized by uncertainty and anxiety regarding food access and changes in the quality of the diet as the situation worsens, such as a less balanced, more monotonous diet (marginal-to-moderate food insecurity). With increasing severity, the quantity of food consumed decreases as portion sizes are reduced or meals are skipped (moderate-to-severe food insecurity). Severe food insecurity is characterized by feeling hungry but not eating, or not eating for an entire day, due to lack of money or other resources.

When reporting results of the FIES, it is recommended that the mild/marginal food insecurity category not be aggregated with the moderate and severe categories. Grouping mild, moderate and severe food insecurity into a single "food insecure" category can be misleading because it fails to distinguish between serious and less serious conditions of food insecurity, putting people who still have food to eat in the same category as people who do not. The differences between the categories are meaningful, theoretically and empirically, for monitoring and policy purposes as well as research.

**For global monitoring, FAO uses two different thresholds** to identify, respectively the lower bounds of "moderate" and "severe" levels of food insecurity. The two values refer to estimates of the proportion of the population that, over the reference year, has experienced



food insecurity at a **moderate or severe** ( $FI_{mod+sev}$ ) and at **severe** ( $FI_{sev}$ ) levels, respectively. The group of people experiencing moderate or severe levels of food insecurity also includes those who have experienced severe food insecurity levels. The reason the percentage of those experiencing moderate food insecurity only is not used as an indicator for global monitoring is because a reduction in this percentage over time would be prone to ambiguous interpretation; a reduction in moderate food insecurity could be due to movement of some of those who were suffering from moderate food insecurity into the “severe” category. Combining the moderate and severe food insecurity categories avoids such ambiguity.

#### **Q16**      **How are the ‘cut-points’ for classification of food insecurity severity determined?**

**A16** If statistical validation confirms the data are consistent with the theoretical construct on which the FIES is based, raw score (that is, the total number of affirmative responses to the FIES questions) can be considered an ordinal measure of food insecurity and can thus be used to classify respondents in classes of food insecurity of increasing severity (with higher raw scores associated with higher severity). In fact, all countries that currently use their own experiential measures of food insecurity for official statistics compute prevalence estimates based on “discrete assignment” of respondents to different food security classes based on raw scores.

In order to produce **prevalence rates that are comparable across countries**, the VoH project has developed a procedure to establish a global reference scale and to calibrate the measures obtained in any country to that scale. By defining the threshold on the global scale, is thus possible to obtain formally comparable classifications.

The global FIES reference scale was created by assigning each item the median value of severity it revealed across datasets from nearly 150 countries and then normalizing them to have mean zero and unit standard deviation.

Two thresholds of food insecurity severity (moderate and severe) were provisionally selected, based on the observed pattern and location of the items along the scale of severity, to define the classes of “moderate or severe” and of “severe” levels of food insecurity. These are used to estimate two prevalence rates: **moderate or severe** ( $FI_{mod+sev}$ ) and **severe** ( $FI_{sev}$ ) food insecurity for global monitoring of Target 2.1 of the 2030 Agenda for Sustainable development. They correspond, respectively, to the severity of the questions “DID YOU EAT LESS THAN YOU THOUGHT YOU SHOULD?” and “DID YOU GO A WHOLE DAY WITHOUT EATING?” on the global reference scale. If one wishes to describe them with reference to the specific items, one could say that the lower bound of the range of severity described as “moderate or severe” corresponds to the condition of an individual or a



household, representative of the world population, that has a 50% probability of reporting to have been forced to eat less than they should, due to lack of money or other resources. Analogously, the lower bound of the “severe” range corresponds to the situation of a “global” individual or household that has a 50% probability of reporting having gone for an entire day without eating. Notice that the severity of the two thresholds on the global reference scale might not correspond to the severity of any raw score level in a particular country. This means that, to ensure comparability, it must be possible to estimate prevalence rates **at any level of severity**, and not only in correspondence to discrete raw scores. To do so, the VoH methodology proceeds by assigning a probability of belonging to each of the food insecurity classes to each respondent, based on the reported raw score and the estimated severity level and standard error of that raw score (please consult the [VoH Technical Report](#) for more details).

In conclusion, if national results from the application of the FIES are adjusted to the global FIES reference scale, and computed using the same thresholds, they can be meaningfully compared with results from other countries. The method based on raw score and discrete assignment of cases to classes may have the advantage of being easier to explain to policy officials, the media and the general public. While simplicity and ease of communication may be the priority at country level, national results based on raw score and discrete assignment are unlikely to be directly comparable with those of other countries.

#### **Q17 How does FAO present the global FIES results and what do they mean?**

**A17** Based on data collected using the FIES survey module in the GWP, FAO provides three different estimates of food insecurity (for each of two levels of severity: severe only and moderate-or-severe – see Q15) for all countries surveyed:

- The **prevalence (%) of adult individuals** (15 years or older) found to be food insecure;
- the estimated **number of adult individuals** (15 years or older) who are food insecure;
- the estimated **number of individuals in the total population living in households where at least one adult is food insecure**.

While food insecurity among children cannot be directly measured using the FIES survey module, it is possible to estimate the **percentage of children living in food insecure households** (see Q4).

#### **Q18 Are the questions and results of the FIES comparable across different cultures and countries?**

**A18** Yes. Various experience-based food security scales have been developed and validated in different regions of the world, the majority of which measure food insecurity in essentially the same way. The accumulated evidence pointing to the validity and reliability



of this type of tool in diverse contexts inspired the Voices of the Hungry project to develop a methodology and global reference scale to produce results that are truly comparable across cultures and countries.

The FIES is a global adaptation of the household-referenced and adult-referenced items in the Latin American and Caribbean Food Security Scale<sup>4</sup> (ELCSA), whose origins derive from the US Household Food Security Survey Module, the Brazilian Food Insecurity Scale, and a similar scale adapted for Colombia. In countries where the ELCSA has been applied, as well as the more than 145 countries in which the FIES was applied in the 2014 and 2015 Gallup World Poll®, the scientific evidence indicates that experience-based food insecurity scales can measure food insecurity accurately and in a manner that is comparable across cultures.

In the context of the VoH project, where cross-country comparability is the objective, food insecurity measures are comparable in terms of severity through the use of statistical techniques borrowed from the toolkit of *Item Response Theory* (IRT) models, commonly used in the educational and psychological testing fields. One challenge in defining the global FIES and in adjusting each country's scale to the global reference scale is that in any given country, one or more items may differ in severity from the severity level associated with the same item in most other countries. In other words, even if in principle each single item is intended to represent the same experience of food insecurity everywhere, the **severity of that item relative to that of the others may differ** in a country for several reasons. This may be due to nuances in the translation or differences in culture, livelihood arrangements or management of food scarcity. The FIES methodology anticipates this possibility and accommodates such differences, when they exist, so they do not affect the validity of the prevalence estimates and their comparability across countries.

**Q19** In countries that already have their own national food security scales, is it possible that FAO's prevalence estimates for these countries may differ from figures published by national governments?

**A19** Some countries in the world are already using experience-based food insecurity scales that have been validated nationally and applied in national surveys and/or are incorporated into national monitoring systems. Most of these scales are based on the same theoretical framework and construct of food insecurity as the FIES, although the number and wording of the questions differ, as well as the reference period. Almost all of them refer to the household level and include questions referring to children living in the household. Thresholds for national reporting differ somewhat from country to country as do the phrases used to describe the levels of severity.

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<sup>4</sup> <http://www.fao.org/3/a-i3065s.pdf>



**For countries with their own, well-established experience-based scales** FAO has based prevalence estimates of food insecurity on national government survey data rather than GWP data in its reports on global estimates of food insecurity. FAO's prevalence estimates for these countries may differ somewhat from those published in the official reports of the respective national statistical agencies, mainly due to the difference in the threshold used for classification. National statistical agencies have used thresholds based on raw score because comparability with other countries has not been the objective. In order for prevalence rates for these countries to be comparable with rates estimated for other countries using the GWP data, the data must be analyzed using the same statistical methodology and thresholds of severity used by VoH.