

# Food Insecurity Experience Scale 2021

**FAO Statistics Division**

report\_generated\_on: January 13, 2023

visit\_data\_catalog\_at: <https://microdata.worldbank.org/index.php>

## Identification

### SURVEY ID NUMBER

MDG\_2021\_FIES\_v01\_M\_v01\_A\_OCS

### TITLE

Food Insecurity Experience Scale 2021

### COUNTRY/ECONOMY

Name	Country code
Madagascar	MDG

### STUDY TYPE

Socio-Economic/Monitoring Survey [hh/sems]

### ABSTRACT

Sustainable Development Goal (SDG) target 2.1 commits countries to end hunger, ensure access by all people to safe, nutritious and sufficient food all year around. Indicator 2.1.2, "Prevalence of moderate or severe food insecurity based on the Food Insecurity Experience Scale (FIES)", provides internationally-comparable estimates of the proportion of the population facing difficulties in accessing food. More detailed background information is available at <http://www.fao.org/in-action/voices-of-the-hungry/fies/en/>.

The FIES-based indicators are compiled using the FIES survey module, containing 8 questions. Two indicators can be computed:

1. The proportion of the population experiencing moderate or severe food insecurity (SDG indicator 2.1.2).
2. The proportion of the population experiencing severe food insecurity.

These data were collected by FAO through GeoPoll. National institutions can also collect FIES data by including the FIES survey module in nationally representative surveys.

Microdata can be used to calculate the indicator 2.1.2 at national level. Instructions for computing this indicator are described in the methodological document available in the documentations tab. Disaggregating results at sub-national level is not encouraged because estimates will suffer from substantial sampling and measurement error.

### KIND OF DATA

Sample survey data [ssd]

### UNIT OF ANALYSIS

Individuals

## Scope

### NOTES

The FIES survey module includes the following questions to compute the FIES-based indicators:

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

1. You were worried you would not have 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?

In addition to the FIES questions, socio-demographic information on the respondent/household including gender, age, urban or rural area, region, education, composition of the household was collected.

The survey module was administered to respondents who answered on behalf of themselves (individually-referenced module). The questionnaire was translated into the main languages of each country.

## TOPICS

Topic
SDGs
Food Access

## KEYWORDS

Keyword
Food Insecurity
SDG

## Coverage

## GEOGRAPHIC COVERAGE

National coverage

## UNIVERSE

Individuals of 15 years or older.

## Producers and sponsors

## PRIMARY INVESTIGATORS

Name	Affiliation
FAO Statistics Division	FAO

## Sampling

## SAMPLING PROCEDURE

A sampling quota of at least 200 observations per each Administrative 1 areas is set

Exclusions: NA

Design effect: NA

## WEIGHTING

Post-stratification weights are provided. Population statistics are used to weight the data by gender, age, and, where reliable data are available, education or socioeconomic status.

## data\_collection

## DATES OF DATA COLLECTION

Start	End
2021-11-15	2021-12-15

## DATA COLLECTION MODE

Computer Assisted Personal Interview [capi]

## data\_processing

### DATA EDITING

Statistical validation assesses the quality of the FIES data collected by testing their consistency with the assumptions of the Rasch model. This analysis involves the interpretation of several statistics that reveal 1) items that do not perform well in a given context, 2) cases with highly erratic response patterns, 3) pairs of items that may be redundant, and 4) the proportion of total variance in the population that is accounted for by the measurement model.

## data\_appraisal

### ESTIMATES OF SAMPLING ERROR

The margin of error is estimated as NA. This is calculated around a proportion at the 95% confidence level. The maximum margin of error was calculated assuming a reported percentage of 50% and takes into account the design effect.

### DATA APPRAISAL

Since the population with access to mobile telephones is likely to differ from the rest of the population with respect to their access to food, post-hoc adjustments were made to control for the potential resulting bias. Post-stratification weights were built to adjust the sample distribution by gender and education of the respondent at admin-1 level, to match the same distribution in the total population. However, an additional step was needed to try to ascertain the food insecurity condition of those with access to phones compared to that of the total population.

Using FIES data collected by FAO through the GWP between 2014 and 2019, and a variable on access to mobile telephones that was also in the dataset, it was possible to compare the prevalence of food insecurity at moderate or severe level, and severe level only, of respondents with access to a mobile phone to that of the total population at national level.

## Access policy

### CONTACTS

Name	Affiliation	Email	URL
FAO Statistics Division	FAO	Carlo.Cafiero@fao.org	<a href="#">Link</a>

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The users shall not take any action with the purpose of identifying any individual entity (i.e. person, household, enterprise, etc.) in the micro dataset(s). If such a disclosure is made inadvertently, no use will be made of the information, and it will be reported immediately to FAO.

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- Any results derived from the micro dataset will be used solely for reporting aggregated information, and not for any specific individual entities or data subjects;
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### DISCLAIMER

The user of the data acknowledges that the original collector of the data, the authorized distributor of the data, and the relevant funding agency bear no responsibility for use of the data or for interpretations or inferences based upon such uses.

## Metadata production

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### DDI DOCUMENT ID

DDI\_MDG\_2021\_FIES\_v01\_M\_v01\_A\_OCS

### PRODUCERS

Name	Abbreviation	Affiliation	Role
Office of Chief Statistician	OCS	Food and Agriculture Organization	Metadata producer
Development Economics Data Group	DECDG	The World Bank	Metadata adapted for World Bank Microdata Library

### DATE OF METADATA PRODUCTION

2023-01-12

### DDI DOCUMENT VERSION

Version 01 (January 2023): This metadata was downloaded from the FAO website (<https://microdata.fao.org/index.php/catalog>) and it is identical to FAO version (MDG\_2021\_FIES\_v01\_EN\_M\_v01\_A\_OCS). The following two metadata fields were edited - Document ID and Survey ID.

**data\_dictionary**

Data file	Cases	variables
<b>MDG_2021_FIES_v01_EN_M_v01_A_OCS</b> This dataset contains the variables used to calculate the FIES-based indicator, demographic variables and some derived variables calculated by FAO from the survey.	0	22



**Data file: MDG\_2021\_FIES\_v01\_EN\_M\_v01\_A\_OCS**

This dataset contains the variables used to calculate the FIES-based indicator, demographic variables and some derived variables calculated by FAO from the survey.

Cases: 0

variables: 22

**variables**

ID	Name	Label	Question
V1	Random_ID	Unique respondent identifier	
V2	WORRIED	Worried you would not have enough food to eat because of a lack of money or other resources	
V3	HEALTHY	Unable to eat healthy and nutritious food because of a lack of money or other resources	
V4	FEWFOOD	Ate only a few kinds of foods because of a lack of money or other resources	
V5	SKIPPED	Skipped a meal because there was not enough money or other resources to get food	
V6	ATELESS	Ate less than you thought you should because of a lack of money or other resources	
V7	RUNOUT	Household ran out of food because of a lack of money or other resources	
V8	HUNGRY	Hungry but did not eat because there was not enough money or other resources for food?	
V9	WHLDAY	Went without eating for a whole day because of a lack of money or other resources?	
V10	wt	Post-stratification sampling weights	
V11	year	Year when the study was administered in the country	
V12	N_adults	Number of adults 15 years of age and above in household	
V13	N_child	Number of children under 15 years of age in household	
V14	Raw_score	Sum of Affirmative responses to FIES questions	
V15	Raw_score_par	Estimated person parameters using the Rasch model	
V16	Raw_score_par_error	Estimated person parameter errors using the Rasch model	
V17	Prob_Mod_Sev	Probability of being moderately or severely food insecure	
V18	Prob_sev	Probability of being severely food insecure	
V19	Age	Age of the respondent	
V20	Education	Education of the respondent	
V21	Area	Area	
V22	Gender	Gender of the respondent	

total: 22





**RANDOM\_ID: Unique respondent identifier****Data file:** MDG\_2021\_FIES\_v01\_EN\_M\_v01\_A\_OCS**Overview**

Valid: 0 Invalid: 0

Type: Continuous Decimal: 0 Width: 10 Range: 111011114 - 209987025 Format: Numeric

**WT: Post-stratification sampling weights****Data file:** MDG\_2021\_FIES\_v01\_EN\_M\_v01\_A\_OCS**Overview**

Valid: 0 Invalid: 0

Type: Continuous Decimal: 0 Width: 10 Range: 0.291687258 - 3.372993222 Format: Numeric Weighted: yes

**WORRIED: Worried you would not have enough food to eat because of a lack of money or other resources****Data file:** MDG\_2021\_FIES\_v01\_EN\_M\_v01\_A\_OCS**Overview**

Valid: 0 Invalid: 0

Type: Discrete Width: 12 Range: - Format: character

**Questions and instructions**

## CATEGORIES

Value	Category
0	No
1	Yes

**HEALTHY: Unable to eat healthy and nutritious food because of a lack of money or other resources****Data file:** MDG\_2021\_FIES\_v01\_EN\_M\_v01\_A\_OCS**Overview**

Valid: 0 Invalid: 0

Type: Discrete Width: 12 Range: - Format: character

**Questions and instructions**

## CATEGORIES

Value	Category
0	No

1	Yes
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### **FEWFOOD: Ate only a few kinds of foods because of a lack of money or other resources**

Data file: MDG\_2021\_FIES\_v01\_EN\_M\_v01\_A\_OCS

#### **Overview**

Valid: 0 Invalid: 0

Type: Discrete Width: 12 Range: - Format: character

#### **Questions and instructions**

##### CATEGORIES

Value	Category
0	No
1	Yes

### **SKIPPED: Skipped a meal because there was not enough money or other resources to get food**

Data file: MDG\_2021\_FIES\_v01\_EN\_M\_v01\_A\_OCS

#### **Overview**

Valid: 0 Invalid: 0

Type: Discrete Width: 12 Range: - Format: character

#### **Questions and instructions**

##### CATEGORIES

Value	Category
0	No
1	Yes

### **ATELESS: Ate less than you thought you should because of a lack of money or other resources**

Data file: MDG\_2021\_FIES\_v01\_EN\_M\_v01\_A\_OCS

#### **Overview**

Valid: 0 Invalid: 0

Type: Discrete Width: 12 Range: - Format: character

## Questions and instructions

### CATEGORIES

Value	Category
0	No
1	Yes

## **RUNOUT: Household ran out of food because of a lack of money or other resources**

Data file: MDG\_2021\_FIES\_v01\_EN\_M\_v01\_A\_OCS

### Overview

Valid: 0 Invalid: 0

Type: Discrete Width: 12 Range: - Format: character

### Questions and instructions

### CATEGORIES

Value	Category
0	No
1	Yes

## **HUNGRY: Hungry but did not eat because there was not enough money or other resources for food?**

Data file: MDG\_2021\_FIES\_v01\_EN\_M\_v01\_A\_OCS

### Overview

Valid: 0 Invalid: 0

Type: Discrete Width: 12 Range: - Format: character

### Questions and instructions

### CATEGORIES

Value	Category
0	No
1	Yes

## **WHLDAY: Went without eating for a whole day because of a lack of money or other resources?**

Data file: MDG\_2021\_FIES\_v01\_EN\_M\_v01\_A\_OCS

## Overview

Valid: 0 Invalid: 0

Type: Discrete Width: 12 Range: - Format: character

## Questions and instructions

### CATEGORIES

Value	Category
0	No
1	Yes

## YEAR: Year when the study was administered in the country

Data file: MDG\_2021\_FIES\_v01\_EN\_M\_v01\_A\_OCS

## Overview

Valid: 0 Invalid: 0

Type: Discrete Decimal: 0 Width: 12 Range: 1 - 1 Format: Numeric

## Questions and instructions

### CATEGORIES

Value	Category
1	2021

## N\_ADULTS: Number of adults 15 years of age and above in household

Data file: MDG\_2021\_FIES\_v01\_EN\_M\_v01\_A\_OCS

## Overview

Valid: 0 Invalid: 0

Type: Discrete Width: 12 Range: - Format: character

## Questions and instructions

### CATEGORIES

Value	Category
00	00
01	01
02	02
03	03
04	04
05	05

06	06
07	07
08	08
09	09
10	10+

## **N\_CHILD: Number of children under 15 years of age in household**

**Data file:** MDG\_2021\_FIES\_v01\_EN\_M\_v01\_A\_OCS

### **Overview**

Valid: 0    Invalid: 0

Type: Discrete    Width: 12    Range: -    Format: character

### **Questions and instructions**

#### CATEGORIES

<b>Value</b>	<b>Category</b>
00	00
01	01
02	02
03	03
04	04
05	05
06	06
07	07
08	08
09	09
10	10+

## **RAW\_SCORE: Sum of Affirmative responses to FIES questions**

**Data file:** MDG\_2021\_FIES\_v01\_EN\_M\_v01\_A\_OCS

### **Overview**

Valid: 0    Invalid: 0

Type: Continuous    Decimal: 0    Width: 10    Range: 0 - 8    Format: Numeric

## **RAW\_SCORE\_PAR: Estimated person parameters using the Rasch model**

**Data file:** MDG\_2021\_FIES\_v01\_EN\_M\_v01\_A\_OCS

**Overview**

Valid: 0 Invalid: 0

Type: Continuous Decimal: 0 Width: 10 Range: -1.97570772308037 - 2.17215536599291 Format: Numeric

**RAW\_SCORE\_PAR\_ERROR: Estimated person parameter errors using the Rasch model****Data file:** MDG\_2021\_FIES\_v01\_EN\_M\_v01\_A\_OCS**Overview**

Valid: 0 Invalid: 0

Type: Continuous Decimal: 0 Width: 10 Range: 0.438652314534254 - 0.68276254763499 Format: Numeric

**PROB\_MOD\_SEV: Probability of being moderately or severely food insecure****Data file:** MDG\_2021\_FIES\_v01\_EN\_M\_v01\_A\_OCS**Overview**

Valid: 0 Invalid: 0

Type: Continuous Decimal: 0 Width: 10 Range: 0 - 0.99986266913971 Format: Numeric

**PROB\_SEV: Probability of being severely food insecure****Data file:** MDG\_2021\_FIES\_v01\_EN\_M\_v01\_A\_OCS**Overview**

Valid: 0 Invalid: 0

Type: Continuous Decimal: 0 Width: 10 Range: 0 - 0.668015896632435 Format: Numeric

**AGE: Age of the respondent****Data file:** MDG\_2021\_FIES\_v01\_EN\_M\_v01\_A\_OCS**Overview**

Valid: 0 Invalid: 0

Type: Continuous Decimal: 0 Width: 10 Range: 18 - 90 Format: Numeric

**EDUCATION: Education of the respondent****Data file:** MDG\_2021\_FIES\_v01\_EN\_M\_v01\_A\_OCS**Overview**

Valid: 0 Invalid: 0

Type: Discrete Decimal: 0 Width: 12 Range: 1 - 11 Format: Numeric

**Questions and instructions**

## CATEGORIES

Value	Category
1	Elementary_or_less
2	Secondary
3	College
4	Dont_know
5	Refused
6	Didn't attend school
7	DON'T KNOW
8	Primary/Elementary - Completed elementary education or less [up to eight years of basic education]
9	REFUSED
10	Secondary - Completed some secondary education up to three years tertiary education [9 to 15 years of education]
11	Tertiary - Completed four years of education beyond "high school" and/or received a four-year college degree

**AREA: Area**

Data file: MDG\_2021\_FIES\_v01\_EN\_M\_v01\_A\_OCS

**Overview**

Valid: 0 Invalid: 0

Type: Discrete Decimal: 0 Width: 12 Range: 1 - 9 Format: Numeric

**Questions and instructions**

## CATEGORIES

Value	Category
1	Urban/Suburbs
2	Towns/Rural
3	Dont_know
4	Refused
5	A FARM
6	A TOWN
7	A VILLAGE
8	THE CENTER OF A BIG CITY
9	THE SUBURBS OF A BIG CITY

**GENDER: Gender of the respondent**

Data file: MDG\_2021\_FIES\_v01\_EN\_M\_v01\_A\_OCS



## Overview

Valid: 0    Invalid: 0

Type: Discrete    Decimal: 0    Width: 12    Range: 1 - 2    Format: Numeric

## Questions and instructions

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### CATEGORIES

Value	Category
1	Male
2	Female

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# study\_resources

## questionnaires

### Food Insecurity Experience Scale: Questions

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title Food Insecurity Experience Scale: Questions  
language English  
filename FIES\_Questions.pdf

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## technical\_documents

### Computed variables at respondent level

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title Computed variables at respondent level  
language English  
description This document contains the methodology of the derived variables and the computation of the indicator 2.1.2.  
filename Derived\_variables\_and\_Computation\_indicator.pdf

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