



Food and Agriculture
Organization of the
United Nations



Access to food in 2022: Filling data gaps Results of seven national surveys using the Food Insecurity Experience Scale (FIES)



Co-funded by
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REQUIRED CITATION

Cafiero, C., Gheri, F., Kepple, A.W., Lavagne d'Ortigue, O., Rosero Moncayo, J. and Viviani, S. 2023. *Access to food in 2022: Filling data gaps. Results of seven national surveys using the Food Insecurity Experience Scale (FIES)*. Rome. <https://doi.org/10.4060/cc6727en>

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Key messages

- All of the seven countries surveyed had high levels of food insecurity in 2022, with more than 60 percent of the people facing moderate or severe food insecurity over the past 12 months. The prevalence of moderate or severe food insecurity in 2022 ranged from 62.5 percent in Cameroon to 83.2 percent in Haiti, and the prevalence of severe food insecurity ranged from 16.2 percent in Rwanda to 42.9 percent in the Democratic Republic of the Congo.
- About eight in every ten persons in the Democratic Republic of the Congo, Haiti and Liberia were facing moderate or severe food insecurity, half of whom were facing severe food insecurity.
- In all seven countries, the worst food insecurity situation occurred during a period prior to the four weeks preceding data collection, as deduced from the lower prevalence of recent food insecurity (experienced during the 30 days preceding the survey) compared to the annual prevalence (experienced during the 12-month period preceding the survey), at both levels of severity.
- Results at the subnational level reveal marked inequalities within most of the countries. The difference between the provinces with the highest and the lowest prevalence of moderate or severe food insecurity is greater than 40 percentage points in the Democratic Republic of the Congo, Rwanda and Zambia, and greater than 30 percentage points in Liberia. Large ranges are also observed in the prevalence of severe food insecurity at the subnational level for the same countries. Such detailed information can be extremely useful to guide policies and actions at the country level.



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Acknowledgements

This work was co-funded by the European Union.

Abbreviations

CAPI	Computer-assisted personal interviewing
CATI	Computer-assisted telephone interviewing
CH	Cadre Harmonisé
FAO	Food and Agriculture Organization of the United Nations
FIES	Food Insecurity Experience Scale
GRFC	Global Report on Food Crises
IFAD	International Fund for Agricultural Development
IPC	Integrated Food Security Phase Classification
SDG	Sustainable Development Goal
SOFI	State of Food Security and Nutrition in the World
UNICEF	United Nations Children’s Fund
WFP	World Food Programme
WHO	World Health Organization

Introduction

Filling data gaps about access to food in 2022

The surveys described in this report were conducted to provide accurate and timely food insecurity assessments in seven countries facing food insecurity crises for which food security data are scarce. The detailed results, presented at the subnational level, can support country-level decision-making and will also inform the monitoring of the Sustainable Development Goals (SDGs) and targets, specifically SDG Target 2.1: 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. The assessment was conducted using a modified version of the Food Insecurity Experience Scale (FIES), described below, which is the basis for compiling SDG Indicator 2.1.2: Prevalence of moderate or severe food insecurity in the population.

The FIES is a theoretically sound and empirically validated set of tools and analytic protocols for measuring access to food at the household or individual level.¹ As custodian agency of SDG Indicator 2.1.2, the Food and Agriculture Organization of the United Nations (FAO) has collected FIES data annually through the Gallup World Poll (GWP) since 2014. The estimates are reported annually in *The State of Food Security and Nutrition in the World* and in the United Nations SDG indicator database for global SDG monitoring. Two of the distinct advantages of the FIES are that data can be collected quickly, including via telephone or other remote data-collection vehicles, and analysed in a way that ensures comparability across countries and over time.

Most importantly, the FIES measurement system makes it possible to produce assessments of the food insecurity of households or individuals over a range of severity levels that can be compared across countries. Furthermore, when focusing on the experiences reported with reference to the last four weeks, the FIES makes it possible to measure the extent of recent food insecurity.

This report presents the results of assessments based on FIES data collected by FAO in seven countries facing food insecurity crises, between July 2022 and October 2022.

An individually referenced FIES module was used to collect data on conditions experienced over the last 12 months (for assessment of annual food insecurity) and over the last four weeks (for recent food insecurity) (see [Annex 1](#). FIES survey module). The reference to the last four weeks also makes it possible to use the FIES data in the context of Integrated Food Security Phase Classification (IPC) and Cadre Harmonisé (CH) analyses – approaches to food insecurity assessment that many policymakers in the countries surveyed are familiar with and that have been conducted over the same period in some of these countries. The results of the surveys described in this report serve as a bridge between the FIES methodology and these other approaches to assessing food security (see [Annex 2](#). Comparing FIES-based estimates of the prevalence of recent food insecurity with IPC-based assessments).

This report begins with a description of the methodology of the national surveys, after which it presents the detailed results for each country.

Description of the study

This section presents details of the study methodology, including a description of the FIES module applied in the surveys, sampling and weighting. A description is provided of the indicators produced to assess food insecurity at different levels of severity and using different reference periods, including SDG Indicator 2.1.2 and food security estimates that are relevant when comparing FIES-based assessments to those based on the IPC/CH frameworks.

Coverage and data collection

The study covered seven countries facing food insecurity crises. The surveys were designed to be representative at the national as well as the Administration 1 (admin-1) level, the largest subnational administrative unit of a country.

Data were collected by FAO through two data collection service providers (GeoPoll and Kantar) between July 2022 and October 2022. Whenever possible, computer-assisted personal interviewing (CAPI) was used (in approximately half of the countries surveyed) while computer-assisted telephone interviewing (CATI) via mobile telephone was used in the others (see [Table 1](#)). To ensure sufficient coverage of each area, quotas of at least 200 observations were set at the admin-1 level, with few exceptions (detailed in the next section).

In addition to the FIES data, sociodemographic information on the respondent/household, including gender, age, urban or rural area, region, education and composition of the household, was collected.

The survey module was administered to respondents aged 18 or older who answered on behalf of themselves (individually referenced module). The questionnaire was translated into the main languages of each country.

Table 1 Survey profile for each country

Country	Data collected from-to	Number of observations	Collection method
Cameroon	Aug-Sept 2022	2 000	CATI
Democratic Republic of the Congo	Aug-Sept 2022	5 369	CAPI
Guinea-Bissau	Jul-Sept 2022	1 800	CATI
Haiti	Jul-Sept 2022	2 005	CATI
Liberia	Aug-Sept 2022	3 208	CAPI
Rwanda	Sept-Oct 2022	1 075	CAPI
Zambia	Jul-Sept 2022	2 179	CAPI

Source: Authors' own elaboration.

The Food Insecurity Experience Scale measurement system

The FIES is currently the only household or individual food security assessment system that ensures global comparability of the resulting statistics, due to the possibility of calibrating the measures obtained in each country against a common global reference standard. It is the official instrument used by FAO to produce estimates of the prevalence of food insecurity in the context of SDG Target 2.1 monitoring.

The standard FIES survey module contains eight questions focused on food-related behaviours and experiences, associated with difficulties in accessing food due to resource constraints. These are experiences or conditions that can be easily self-reported by individuals reached in a survey, either in person or by telephone. The eight questions are intended to reveal conditions that cover a wide range of severity of food insecurity. This makes it possible to identify population groups facing food insecurity at two levels of severity: severe food insecurity, which refers to people who have run out of food, gone hungry or perhaps not eaten for entire days; and moderate food insecurity, which refers to people who have been forced to compromise on the quality and/or quantity of the food they consume ([Figure 1](#)).

Figure 1 Explanation of food-insecurity severity levels measured by the FIES

FOOD INSECURITY BASED ON THE FIES: WHAT DOES IT MEAN?



Source: Cafiero, C., Gheri, F., Kepple, A.W., Rosero Moncayo, J. & Viviani, S. 2022. *Access to food in 2021: filling data gaps. Results of twenty national surveys using the Food Insecurity Experience Scale (FIES)*. Rome. <https://doi.org/10.4060/cc0721en>

The FIES can be easily applied at a relatively low cost within any properly designed individual or household survey to produce timely, reliable and meaningful information on the adequacy of access to food at the individual or household level, provided that the correct analytic protocol is used to process the information.ⁱ This is based on Rasch modelling, which makes it possible to transform the information collected (as simple “yes/no” answers) into rigorous quantitative measures, which, in turn, make it possible to classify respondents into different classes of food insecurity severity.

For the surveys conducted, the FIES module was adapted to serve multiple purposes, while preserving all the desirable properties in terms of food security measurement rigor and reliability. Each FIES question was asked with reference to the previous 12 months to produce an annual food insecurity prevalence rate for SDG monitoring. Questions answered affirmatively were followed up by asking whether the experience occurred over the past four weeks, so that the prevalence of recent food insecurity could be determined as well. As these countries are all expected to reveal quite a high prevalence of severe food insecurity, the last three questions in the FIES module were expanded to also collect information on the frequency of occurrence, a feature that makes it possible to better assess and potentially discriminate further within the severe food insecurity classification. This is particularly relevant when a high prevalence of severe food insecurity is expected and has the important advantage of being better suited to inform crisis/humanitarian assessments based on the Cadre Harmonisé (CH) and the Integrated Food Security Phase Classification (IPC), as described in **Annex 2**. Comparing FIES-based estimates of the prevalence of recent food insecurity with IPC-based assessments.

Post-hoc adjustments to correct for potential sampling bias

Post-hoc adjustments are performed to **control for potential sampling biases** and produce results that are representative of the entire population. Telephone surveys are biased by design because they target only those with access to mobile telephones. Face-to-face surveys may also suffer from sampling bias, especially in countries where specific areas or target populations are more difficult to reach. In both cases, the people omitted from the sample are likely to differ from the rest of the population with respect to their access to food.

For all countries, base sampling weights were built to replicate the distribution of the population at the admin-1 level. Additional demographic characteristics were considered in the post-adjustment at the national and admin-1 level, as described in **Table 2**.

ⁱ FAO provides technical guidance on how to process FIES data. See www.fao.org/in-action/voices-of-the-hungry/using-fies/en/

Table 2 Post-hoc adjustment information

Country	Mobile-cellular subscriptions per 100 inhabitants ⁱⁱ	Variables used in the post-stratification adjustment ⁱⁱⁱ	
		At the admin-1 level	At the national level
Cameroon	82.5	Age	-
Democratic Republic of the Congo	-	Gender, age, education and urbanicity	-
Guinea-Bissau	108.5	-	Education
Haiti	64.7	Gender and age	Education
Liberia	-	Gender, age, education and urbanicity	-
Rwanda	-	Age, gender, education and urbanicity	-
Zambia	-	Education	Gender, age and urbanicity

Source: Authors' own elaboration.

Indicators produced

Through an application of the Rasch measurement model,² FIES data were used to obtain a quantitative measure of the severity of the food insecurity condition (defined as the household's or individual's inability to access food) and the associated residual uncertainty (the "measurement error"), for each respondent in a sample. These measures were then used to estimate the prevalence of food insecurity, at different levels of severity, in the reference population.

With the FIES module used in these surveys, it was possible to produce several different indicators, depending on the combination of the reference period and of the severity thresholds chosen for classification.

(A) When the questions refer to the past **12 months** and the thresholds used are the ones defined in the context of global monitoring of the SDGs, it is possible to compute indicators of the prevalence of *annual* food insecurity:

- The "Prevalence of moderate or severe food insecurity (**FI_{mod+sev}**) in the population, based on the Food Insecurity Experience Scale" (SDG Indicator 2.1.2).
- The "Prevalence of severe food insecurity (**FI_{sev}**) in the population, based on the Food Insecurity Experience Scale".

FI_{mod+sev} is the proportion of the population affected by moderate food insecurity *plus* the proportion classified as severely food insecure. As a separate indicator, **FI_{sev}** includes only those in the severe food insecurity class.³

(B) When the reference is to the four weeks preceding the survey, the data allow for estimation of *recent* food insecurity. Provided they refer to the same severity thresholds, annual and recent food insecurity can be compared to highlight how problematic the month preceding the survey was in terms of access to food. Intuitively, the prevalence of annual food insecurity is expected to be always higher than that of recent food insecurity. A high ratio between the rates of recent and annual food insecurity can be found where food insecurity is a persistent phenomenon, with no marked seasonal fluctuations or when the survey happens to be conducted at or immediately after the peak of the worst food insecurity period of the year. Ideally, recent food insecurity should be assessed quarterly or monthly, whenever seasonal fluctuations are expected to be significant.

(C) Still with reference to **recent food insecurity** (experienced in the four weeks preceding the survey), but setting severity thresholds that align with definitions adopted in the **Integrated Food Security Phase Classification (IPC)** and the **Cadre Harmonisé (CH)**, additional indicators can be produced, which may be directly compared to existing IPC/CH assessment (see **Annex 2**. Comparing FIES-based estimates of the prevalence of recent food insecurity with IPC-based assessments).

ⁱⁱ Data available from the International Telecommunication Union (ITU) Statistics webpage www.itu.int/en/ITU-D/Statistics/Documents/statistics/2022/July/MobileCellularSubscriptions_2000-2021.xlsx The latest publicly available year is 2021. Data are reported only for CATI countries.

ⁱⁱⁱ Data are reweighted for population distribution by admin-1 areas for all countries.

Summary of the main results

All of the countries surveyed had high levels of food insecurity in 2022, with more than 60 percent of the people facing moderate or severe food insecurity over the past 12 months. The prevalence of moderate or severe food insecurity in 2022 ranged from 62.5 percent in Cameroon to 83.2 percent in Haiti, and the prevalence of severe food insecurity ranged from 16.2 percent in Rwanda to 42.9 percent in the Democratic Republic of the Congo. The Democratic Republic of the Congo, Haiti and Liberia had very similar food insecurity profiles, with about eight in every ten persons facing moderate or severe food insecurity, half of whom were facing severe food insecurity.

In all seven countries, the worst food insecurity situation occurred during a period prior to the four weeks preceding data collection, as deduced from the lower prevalence of recent food insecurity (experienced during the 30 days preceding the survey) compared with the annual prevalence (experienced during the 12-month period preceding the survey), at both levels of severity.

Table 3 Prevalence of annual and recent moderate or severe food insecurity, and severe only, in the seven countries surveyed

Country	Number of observations (N)	Over the last 12 months		Over the last 4 weeks	
		Mod. + Sev.	Severe	Mod. + Sev.	Severe
Cameroon	2 000	62.5	26.3	45.9	15.7
Democratic Republic of the Congo	5 369	82.1	42.9	58.6	21.2
Guinea-Bissau	1 800	78.3	29.4	60.3	17.8
Haiti	2 005	83.2	41.9	69.4	32.8
Liberia	3 208	82.4	38.0	69.5	32.2
Rwanda	1 075	64.6	16.2	45.9	10.4
Zambia	2 179	71.8	27.7	39.7	13.6

Source: Authors' own elaboration.

Results at the subnational level, presented in the country reports that follow, reveal marked inequalities within most of the countries. The country-level estimates of food insecurity often mask large differences among provinces or regions. The difference between the provinces with the highest and the lowest prevalence of moderate or severe food insecurity is greater than 40 percentage points in the Democratic Republic of the Congo, Rwanda and Zambia, and greater than 30 percentage points in Liberia. Large ranges are also observed in the prevalence of severe food insecurity at the subnational level for the same countries. Such detailed information can be extremely useful to guide policies and actions at the country level.

Country results

This section presents results for each country surveyed, beginning with the national-level estimates of the annual prevalence of moderate or severe food insecurity, and severe-only food insecurity. Whenever a previous food insecurity assessment is available, the time trend is discussed.

The prevalence of recent food insecurity (experienced over the four weeks preceding the survey) at the national level is also presented for each country.

Subnational estimates (admin-1 level) of food insecurity, experienced over the 12 months, as well as the four weeks, preceding the surveys, are then shown. For countries where post-stratification weights are adjusted by distribution by urbanicity, results disaggregated at that level are also included.

Finally, for those countries where an IPC or CH assessment has been conducted recently, FIES-based indicators that can be compared to the results of those assessments are also presented, using a specific threshold to compute the prevalence of food insecurity at severity levels that are equivalent to IPC Phase 3 or more (IPC 3+), also used as a reference for CH assessments.



Cameroon

Estimates at the national level point to 62.5 percent of the national population affected by moderate or severe food insecurity at some time during 2022, including 26.3 percent who were suffering from severe food insecurity. During the four weeks preceding the survey (September 2022), the rates were estimated to be 45.9 and 15.7 percent, respectively - or approximately half the annual rates ([Table 4](#) and [Figure 2](#)).

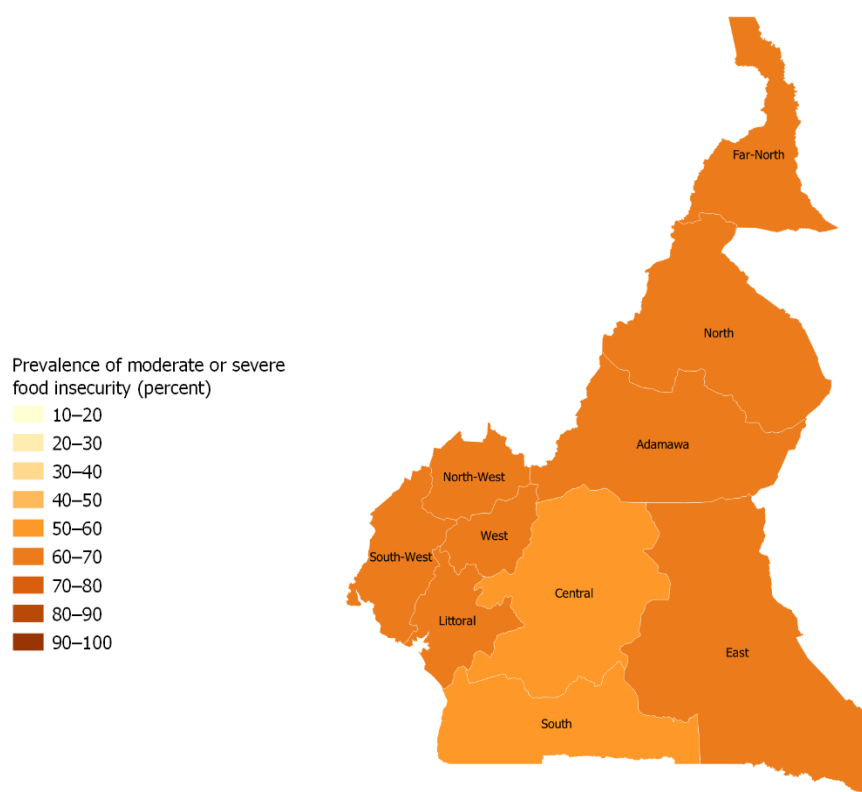
Compared to the previous assessment, conducted in 2020,⁴ the annual prevalence of moderate or severe food insecurity increased in 2022 (from 55.8 to 62.5 percent) while the prevalence at the severe level remained unchanged at more than 26 percent. This picture may suggest that the main drivers of food security in the country, e.g. conflict, economic shocks, weather extremes and crop pests and diseases,⁵ are still affecting Cameroon. In addition, FIES-based estimates reveal a fairly homogeneous distribution of food insecurity at the subnational level; the South region stands out with a much lower prevalence of severe food insecurity than the other regions.

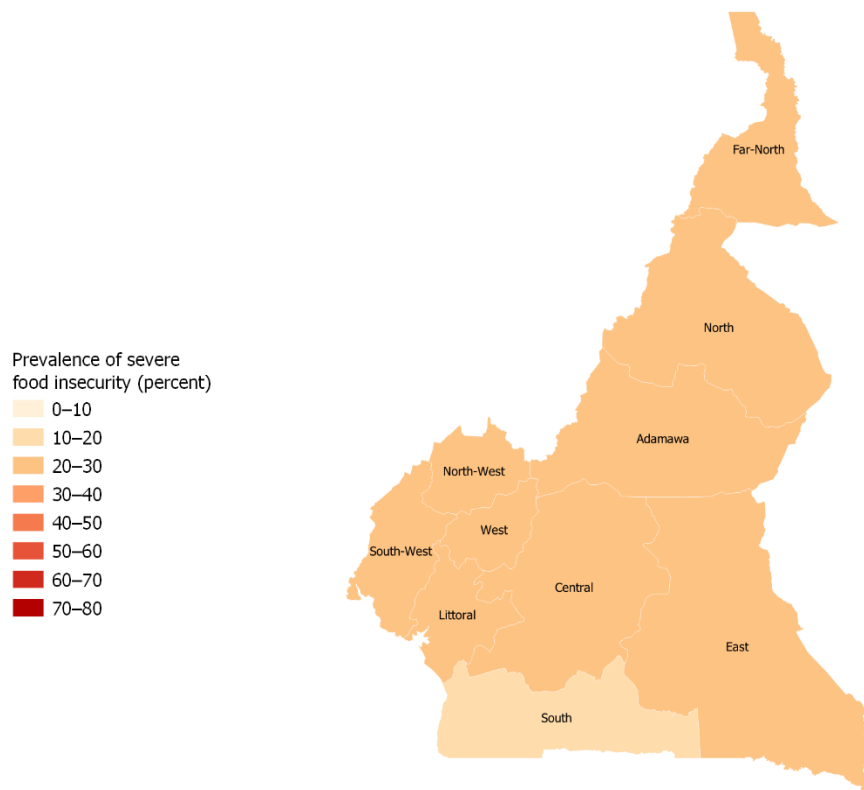
Table 4 FIES-based measures of the prevalence of food insecurity in Cameroon in 2022 (margins of error are in parentheses)

	N	Over the last 12 months		Over the last 4 weeks	
		Mod. + Sev.	Severe	Mod. + Sev.	Severe
National	2 000	62.5 (±3.6)	26.3 (±3.5)	45.9 (± 3.9)	15.7 (±2.7)
By region					
Adamawa	200	63.9 (±11)	29.9 (±9.7)	46.4 (±11.9)	17.4 (±9.3)
Central	200	58 (±11.1)	21.8 (±9.1)	42.3 (±11.2)	14.0 (±7.8)
East	200	63.1 (±11.4)	28.4 (±8.9)	45.7 (±10.2)	13.5 (±6.7)
Far-North	200	60.7 (±9.7)	26.8 (±9.8)	43.4 (±10.7)	15.7 (±7.7)
Littoral	200	63.3 (±10.5)	26.8 (±10.4)	49.5 (±10.7)	16.7 (±7.2)
North	200	63.0 (±10.7)	26.4 (±9.3)	47.5 (±10.8)	17.5 (±7.8)
North-West	200	69.4 (±8.3)	28.9 (±8.6)	47.9 (±10.6)	16.5 (±7.3)
South	200	54.8 (±9.9)	17.6 (±7.4)	35.8 (±10.0)	9.2 (±5.8)
South-West	200	68.1 (±9.7)	28.2 (±8.8)	52.2 (±10.7)	18.0 (±8.2)
West	200	63.7 (±10.3)	30.0 (±8.8)	46.4 (±11.3)	15.2 (±7.1)

Source: Authors' own elaboration.

Figure 2 Prevalence of moderate or severe food insecurity and severe food insecurity only (12-month) in Cameroon, by region





Source: FAO. 2023. Food and Agriculture Microdata Catalogue. In: FAO. Rome. Cited June 2023. <https://microdata.fao.org/index.php/catalog> based on UN Geospatial. 2020. Map geodata [Shapefiles]. New York, USA, United Nations (UN).

Democratic Republic of the Congo

In the Democratic Republic of the Congo, 82.1 percent of the national population was affected by moderate or severe food insecurity at some point during 2022, including 42.9 percent facing severe food insecurity. The percentages were smaller during the four weeks preceding the survey (September 2022): 58.6 and 21.2 percent, respectively. At the severe level, recent food insecurity was half the annual prevalence (Table 5).

Moderate or severe food insecurity in the Democratic Republic of the Congo increased in 2022 compared to 2021,⁶ from 78.1 percent to 82.1 percent, as did severe food insecurity, from 40.5 percent to 42.9 percent. The overall food security situation remains critical, mainly driven by conflicts, economic shocks, whether extremes and crop pests and diseases.⁷

Of the 26 provinces, 16 have a prevalence of moderate or severe food insecurity above 80 percent. Table 5 and Figure 3 show that some provinces are in a better situation than others. More than 95 percent of the population of Équateur, Haut-Uélé, Kasai-Central and Kwilu faced moderate or severe food insecurity at some time during 2022, compared with 56.5 percent in Lualaba. The situation in Haut-Katanga, Lualaba, Kwango and Mai-Ndombe is also somewhat better compared to the other provinces. Kwilu appears to be one of the most affected provinces, with the highest prevalence at both levels of severity.

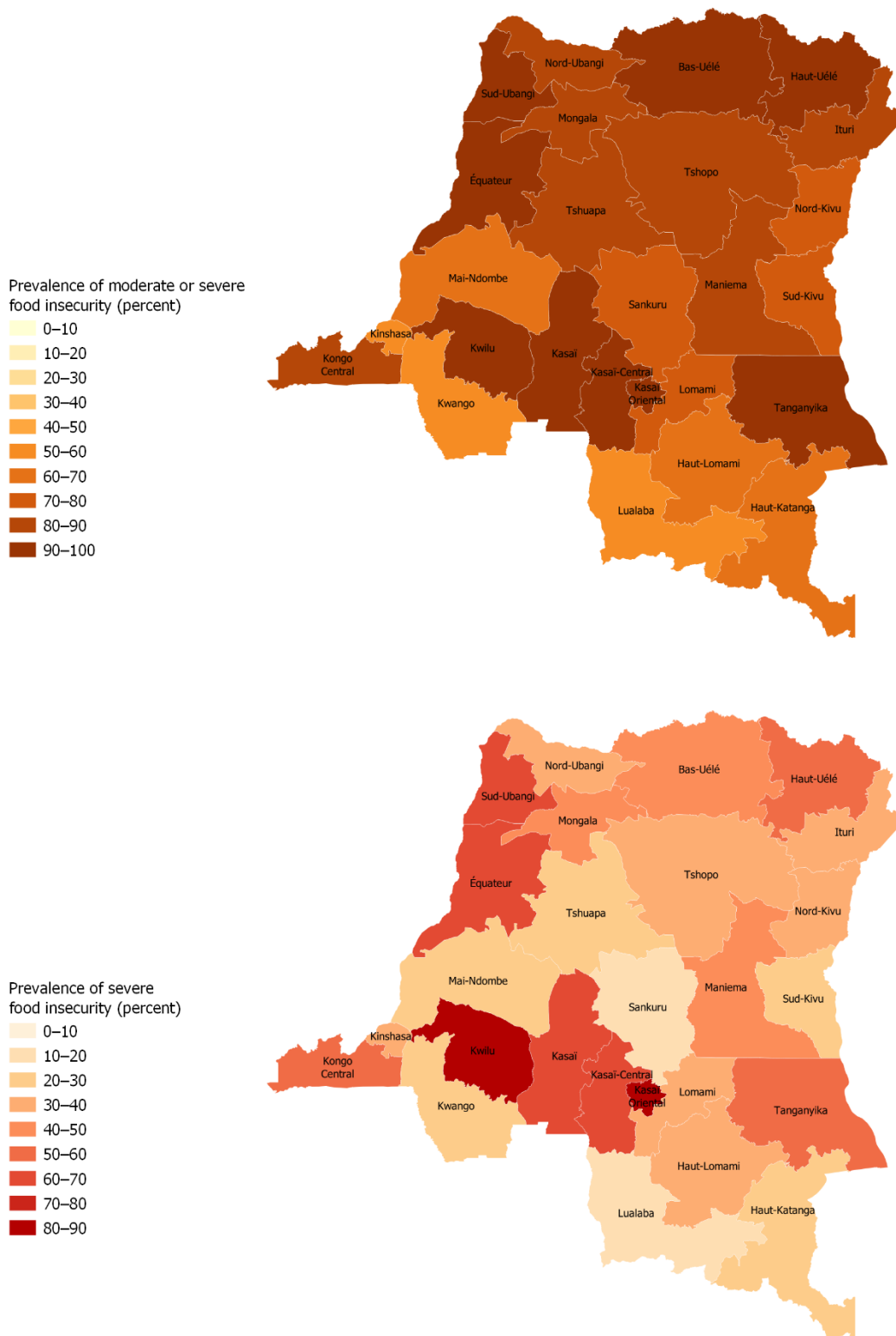
There appears to be no difference in food insecurity between rural and urban areas as the differences are within the margin of error.

Table 5 FIES-based measures of the prevalence of food insecurity in the Democratic Republic of the Congo in 2022 (margins of error are in parentheses)

	N	Over the last 12 months		Over the last 4 weeks	
		Mod. + Sev.	Severe	Mod. + Sev.	Severe
National	5 369	82.1 (±1.8)	42.9 (±2.2)	58.6 (± 2.4)	21.2 (± 1.8)
By province					
Bas-Uélé	202	91.6 (±8.3)	47.5 (±12.0)	78.7 (± 8.5)	30.8 (± 9.9)
Équateur	213	97.3 (±8.8)	65.8 (±12.1)	75.4 (± 7.6)	21.3 (± 7.4)
Haut-Katanga	218	62.9 (±9.3)	21.1 (±12.2)	34.5 (±11.6)	3.0 (± 3.0)
Haut-Lomami	207	66.0 (±7.3)	30.3 (±10.1)	98.4 (± 1.2)	37.4 (± 7.8)
Haut-Uélé	204	95.3 (±4.4)	54.1 (±7.9)	41.9 (±13.0)	16.6 (± 9.8)
Ituri	201	83.2 (±4.9)	36.7 (±8.0)	39.4 (±12.2)	12.6 (± 7.4)
Kasai	205	94.9 (±2.2)	65.1 (±9.5)	70.9 (± 8.0)	12.8 (± 7.6)
Kasai-Central	201	99.6 (±3.4)	83.7 (±7.7)	50.9 (±10.4)	5.6 (± 3.6)
Kasai Oriental	203	92.5 (±3.9)	65.7 (±7.8)	54.6 (±12.4)	23.4 (± 9.7)
Kinshasa	202	59.7 (±9.1)	30.4 (±10.7)	54.9 (±10.9)	16.9 (± 7.9)
Kongo Central	202	81.7 (±5.5)	58.6 (±9.5)	54.0 (±11.7)	12.0 (± 4.6)
Kwango	209	59.7 (±9.8)	20.8 (±6.1)	11.4 (± 7.7)	0.1 (± 0.3)
Kwilu	210	99.7 (±3.7)	86.1 (±9.9)	73.1 (± 9.0)	25.9 (± 9.6)
Lomami	217	72.8 (±4.2)	34.5 (±10.0)	78.1 (±11.7)	49.0 (±11.2)
Lualaba	202	56.5 (±11.2)	16.0 (±9.4)	56.1 (±12.8)	23.7 (±10.1)
Mai-Ndombe	211	67.8 (±6.7)	22.5 (±7.6)	88.4 (± 8.4)	48.0 (± 9.9)
Maniema	217	88.5 (±5.0)	42.7 (±6.2)	50.9 (±12.8)	18.0 (± 9.3)
Mongala	200	89.3 (±5.8)	41.1 (±7.4)	67.1 (± 9.5)	13.4 (± 6.0)
Nord-Kivu	208	74.4 (±6.3)	33.4 (±7.5)	85.7 (± 7.0)	52.2 (±10.2)
Nord-Ubangi	216	86.0 (±4.9)	34.8 (±3.7)	60.5 (±12.4)	20.9 (± 8.6)
Sankuru	201	75.7 (±6.6)	18.7 (±16.2)	47.6 (±11.2)	11.6 (± 6.4)
Sud-Kivu	200	76.9 (±7.0)	29.1 (±7.8)	43.6 (±12.8)	15.1 (±10.4)
Sud-Ubangi	208	91.0 (±3.9)	60.7 (±10.9)	79.6 (±11.4)	50.0 (±13.5)
Tanganyika	201	91.5 (±2.6)	50.5 (±9.2)	39.3 (±11.8)	13.6 (± 8.2)
Tshopo	200	87.4 (±3.1)	34.1 (±9.3)	48.6 (±11.0)	10.8 (± 6.8)
Tshuapa	211	88.5 (±2.7)	27.3 (±6.1)	24.4 (±10.5)	4.8 (± 4.3)
By urbanicity					
Rural	2 916	82.4 (±2.4)	43.0 (±3.0)	58.2 (± 3.2)	22.1 (± 2.5)
Urban	2 453	81.9 (±2.5)	42.8 (±3.0)	58.9 (± 3.3)	20.7 (± 2.5)

Source: Authors' own elaboration.

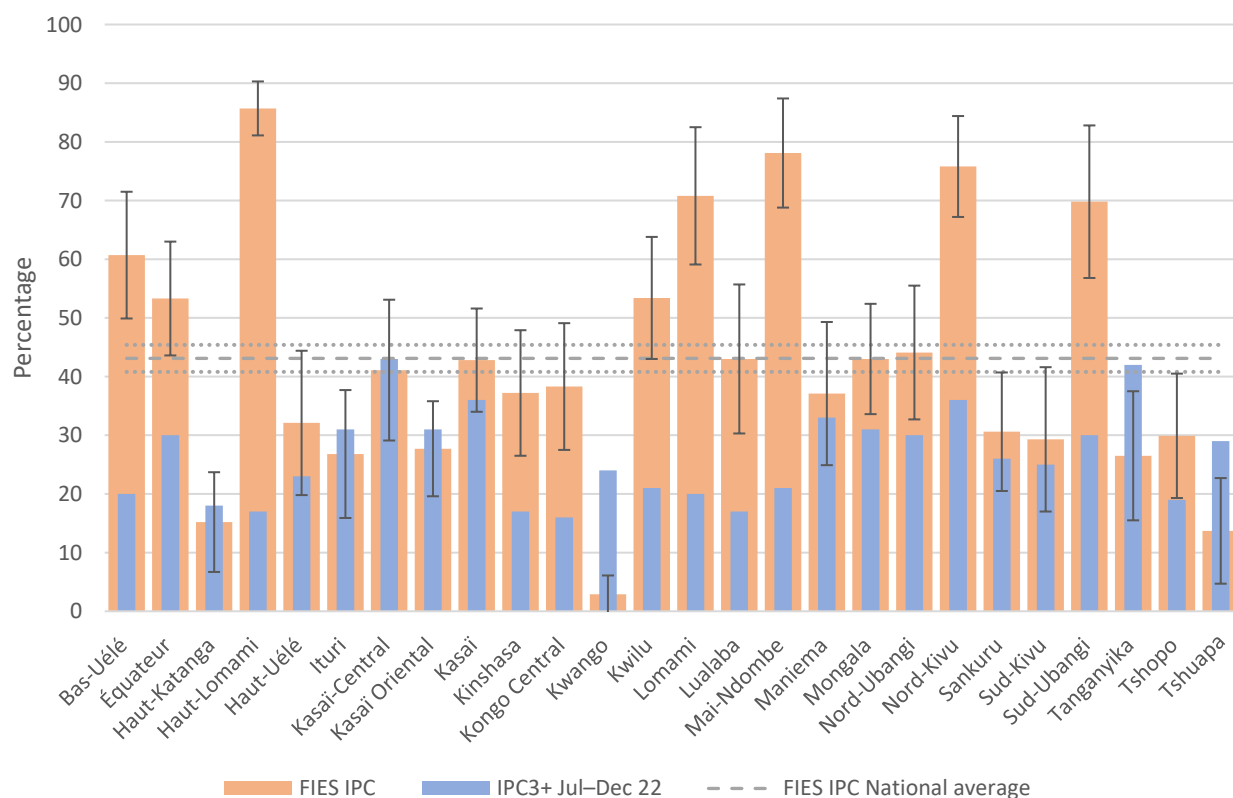
Figure 3 Prevalence of moderate or severe food insecurity and severe food insecurity only (12-month) in the Democratic Republic of the Congo, by province



Source: FAO. 2023. Food and Agriculture Microdata Catalogue. In: FAO. Rome. Cited June 2023. <https://microdata.fao.org/index.php/catalog> based on UN Geospatial. 2020. Map geodata [Shapefiles]. New York, USA, UN.

Figure 4 shows the percentage of the population at IPC Phase 3 or more (IPC 3+) according to the FIES analysis and according to the results of a recent IPC analysis. At the national level, the IPC reports a prevalence of population in Phase 3 or more of 26 percent, while the FIES-based estimate of the proportion of population in IPC 3+ is 43.5 percent. At the subnational level, there are some important differences. In some cases, the differences in levels are within the margin of error, thus not statistically significant. This is the case for Haut-Katanga, Haut-Uélé, Ituri, Kasai-Central, Kasai-Oriental, Maniema, Sankura, Sud Kivu and Tanganyika. The prevalence estimated with the FIES is higher with respect to the IPC assessment in almost all the areas with the exception of Haut-Katanga, Ituri, Kasai-Central, Kasai-Oriental, Kwango and Tanganyika.

Figure 4 Comparing FIES-based estimates with the result of a recent IPC analysis in the Democratic Republic of the Congo, by province



Source: Authors' own elaboration based on FAO. 2023. Food and Agriculture Microdata Catalogue. In: FAO. Rome. Cited June 2023. <https://microdata.fao.org/index.php/catalog> and IPC. 2023. IPC analysis portal. In: IPC. Rome. Cited June 2023. www.ipcinfo.org/ipc-country-analysis/en/

Guinea-Bissau

In Guinea-Bissau, more than three-fourths of the national population (78.3 percent) was affected by moderate or severe food insecurity at some time during 2022, including 29.4 percent who faced severe food insecurity. During the four weeks preceding the survey (August 2022), the rates were 60.3 and 17.8 percent, respectively. This means that approximately 77 percent of those who experienced moderate or severe food insecurity at some time during the year, and 60 percent of those facing severe food insecurity, faced serious difficulties in accessing food in August 2022 (Table 6).

Food insecurity in Guinea-Bissau appears to be stable in 2022 compared to 2021,⁸ from 77.6 (±3.1) to 78.3 percent (±2.9) at the moderate or severe level, and from 33.3 (±3.7) to 29.4 percent (±2.9) at the severe level.

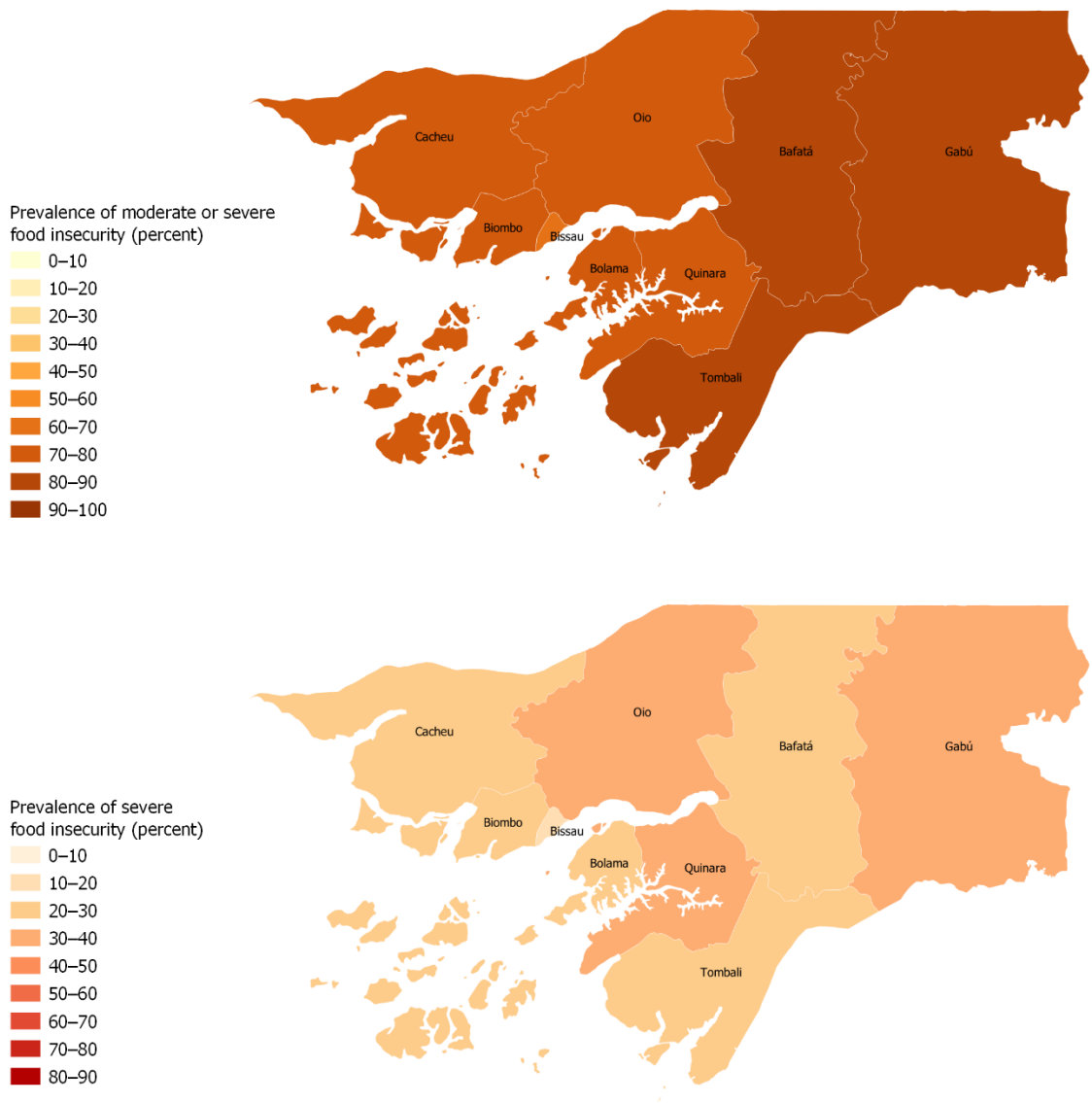
Figure 5 shows that Gabú is the most affected province at both moderate-or-severe (82.7 percent), and severe (39.3 percent) levels. The region with the lowest prevalence at both levels of severity is Bissau (68.8 and 18.8 percent, respectively).

Table 6 FIES-based measures of the prevalence of food insecurity in Guinea-Bissau in 2022 (margins of error are in parentheses)

	N	Over the last 12 months		Over the last 4 weeks	
		Mod. + Sev.	Severe	Mod. + Sev.	Severe
National	1 800	78.3 (±2.9)	29.4 (±2.9)	60.3 (± 3.5)	17.8 (±2.6)
By region and autonomous sector					
Bafatá	200	81.5 (±8.4)	29.7 (±8.1)	60.6 (±10.5)	16.9 (±7.3)
Biombo	200	75.3 (±9.1)	26.5 (±8.4)	55.0 (±10.9)	17.5 (±8.6)
Bissau	200	68.8 (±9.4)	18.8 (±7.1)	53.1 (±10.8)	11.0 (±5.5)
Bolama	200	77.7 (±8.5)	26.6 (±8.2)	57.0 (±10.7)	14.9 (±7.7)
Cacheu	200	79.9 (±8.9)	28.7 (±8.9)	61.0 (±10.3)	15.3 (±7.0)
Gabú	200	82.7 (±7.9)	39.3 (±9.4)	69.2 (± 9.9)	24.3 (±8.5)
Oio	200	78.9 (±8.7)	34.6 (±9.5)	64.4 (±10.4)	23.4 (±8.8)
Quinara	200	79.0 (±9.1)	31.4 (±8.6)	59.1 (±10.9)	16.8 (±7.6)
Tombali	200	80.8 (±8.2)	29.3 (±8.9)	63.2 (±10.2)	19.6 (±8.0)

Source: Authors' own elaboration.

Figure 5 Prevalence of moderate or severe food insecurity, and severe food insecurity only (12-month) in Guinea-Bissau, by region and autonomous sector



Source: FAO. 2023. Food and Agriculture Microdata Catalogue. In: FAO. Rome. Cited June 2023. <https://microdata.fao.org/index.php/catalog> based on UN Geospatial. 2020. Map geodata [Shapefiles]. New York, USA, UN.

Haiti

In Haiti, 83.2 percent of the national population was affected by moderate or severe food insecurity during 2022, including 41.9 percent who faced severe food insecurity. During the four weeks preceding the survey (August 2022), 69.4 percent of the population was moderately or severely food insecure and 32.8 percent was severely food insecure (**Table 7**).

Compared to 2021, food insecurity in Haiti appears to be stable, from 82.0 percent (± 8.5) in 2021⁸ to 83.2 percent (± 3.5) in 2022 at the moderate or severe level, and from 38.1 percent (± 6.5) in 2021 to 41.9 percent (± 4.7) in 2022 at the severe level. The overall situation remains then critical, with access to food highly constrained by conflicts, weather extremes and economic shocks.⁹

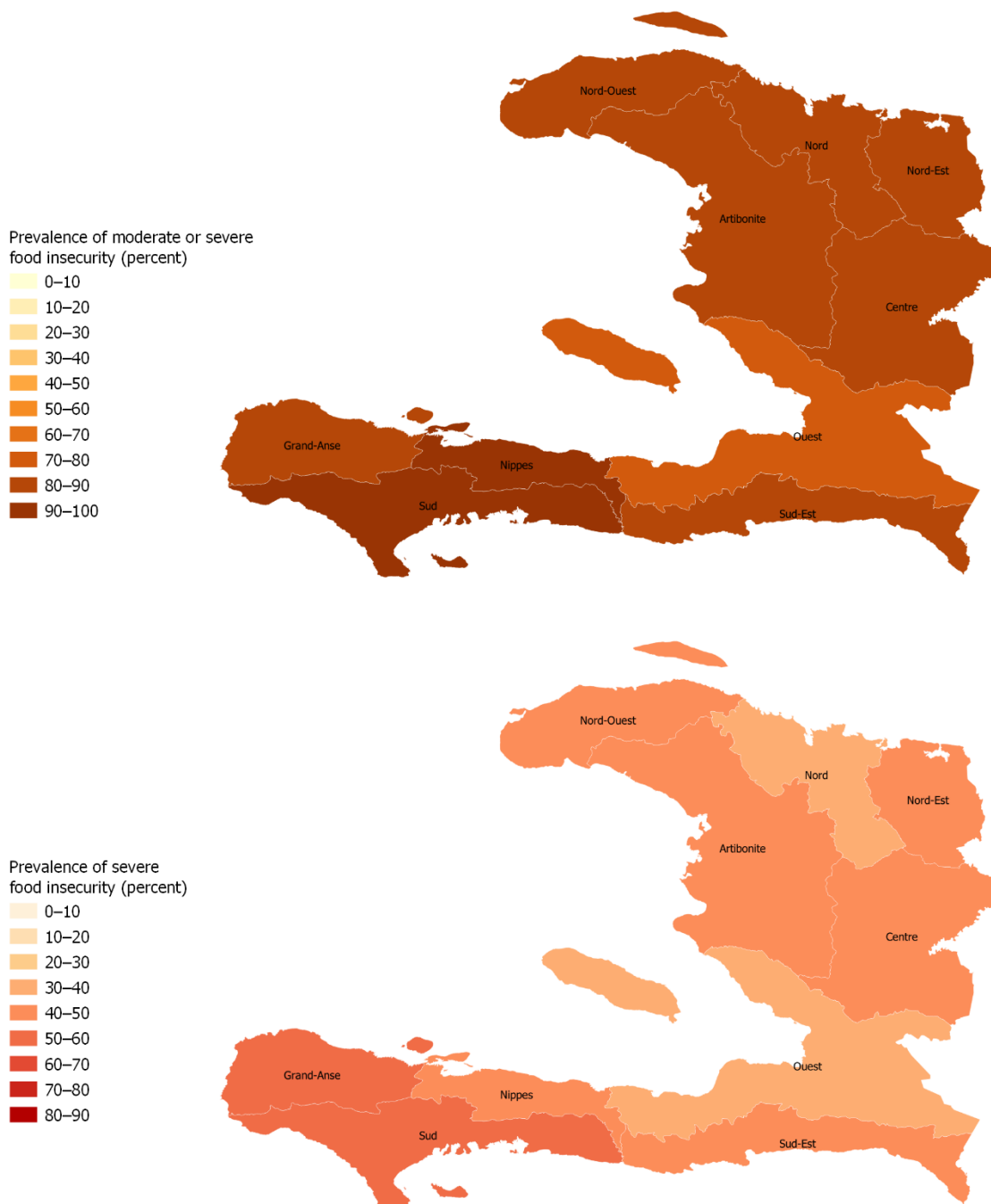
Figure 6 shows little variation across departments in terms of food insecurity levels. The department least affected by annual food insecurity is Ouest (79.0 percent), while all other departments have a prevalence between 81 and 91 percent. In 2022, severe food insecurity ranged from 37.0 percent in Ouest to 52.3 percent in Grand'Anse. Recent food insecurity is more predominant in Sud and Nippes.

Table 7 FIES-based measures of the prevalence of food insecurity in Haiti in 2022 (margins of error are in parentheses)

	N	Over the last 12 months		Over the last 4 weeks	
		Mod. + Sev.	Severe	Mod. + Sev.	Severe
National	2 005	83.2 (± 3.5)	41.9 (± 4.7)	69.4 (± 5.7)	32.8 (± 5.0)
By department					
Artibonite	203	84.4 (± 6.5)	44.4 (± 10.1)	74.3 (± 12.9)	34.9 (± 11.2)
Centre	200	87.0 (± 10.3)	49.7 (± 11.5)	74.0 (± 11.1)	37.9 (± 11.9)
Grand'Anse	201	89.8 (± 7.2)	52.3 (± 9.9)	78.7 (± 8.9)	40.5 (± 10.6)
Nippes	200	91.5 (± 8.4)	47.6 (± 9.2)	79.5 (± 7.7)	35.9 (± 10.5)
Nord	200	81.8 (± 8.3)	35.7 (± 10.0)	68.3 (± 11.1)	29.9 (± 10.4)
Nord-Est	200	83.9 (± 7.9)	43.7 (± 10.6)	74.4 (± 10.2)	34.0 (± 10.0)
Nord-Ouest	200	88.4 (± 7.9)	47.4 (± 11.5)	77.3 (± 9.4)	37.2 (± 12.6)
Ouest	201	79.0 (± 8.7)	37.0 (± 10.4)	62.1 (± 11.8)	28.8 (± 10.4)
Sud	200	90.9 (± 6.1)	51.4 (± 8.9)	80.2 (± 8.5)	38.4 (± 10.3)
Sud-Est	200	85.6 (± 10.1)	45.7 (± 11.9)	75.6 (± 10.7)	38.3 (± 10.5)

Source: Authors' own elaboration.

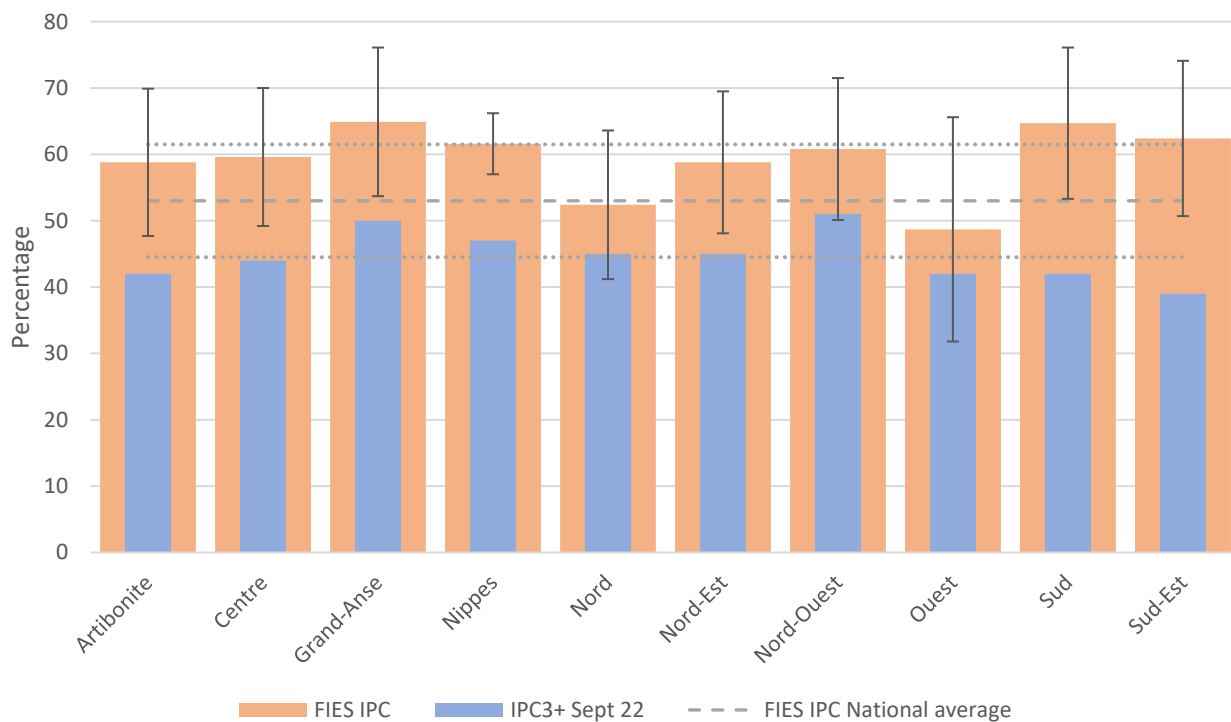
Figure 6 Prevalence of moderate or severe food insecurity and severe food insecurity only (12-month) in Haiti, by department



Source: FAO. 2023. Food and Agriculture Microdata Catalogue. In: FAO. Rome. Cited June 2023. <https://microdata.fao.org/index.php/catalog> based on UN Geospatial. 2020. Map geodata [Shapefiles]. New York, USA, UN.

The overall worrisome food insecurity situation in Haiti is confirmed by a comparison of FIES-based measures of food insecurity at IPC level 3 or above with the IPC analysis, as shown in **Figure 7**. At the national level, considering the uncertainty around the values, the FIES estimates are slightly higher than the IPC assessment conducted in the closest period, although within the margin of error. This is also true at the subnational level, where the estimates for Nord and Ouest are within the margin of error.

Figure 7 Comparing FIES-based estimates with the result of a recent IPC acute food insecurity analysis in Haiti, by department



Source: Authors' own elaboration based on FAO. 2023. Food and Agriculture Microdata Catalogue. In: FAO. Rome. Cited June 2023. <https://microdata.fao.org/index.php/catalog> and IPC. 2023. IPC analysis portal. In: IPC. Rome. Cited June 2023. www.ipcinfo.org/ipc-country-analysis/en/

Liberia

Estimates at the national level indicate that 82.4 percent of the national population was affected by moderate or severe food insecurity at some point during 2022, including 38.0 percent who were suffering from severe food insecurity. During the four weeks preceding the survey (August 2022), the rates were estimated at 69.5 and 32.5 percent, respectively – or approximately 80 percent of the annual rates (**Table 8**).

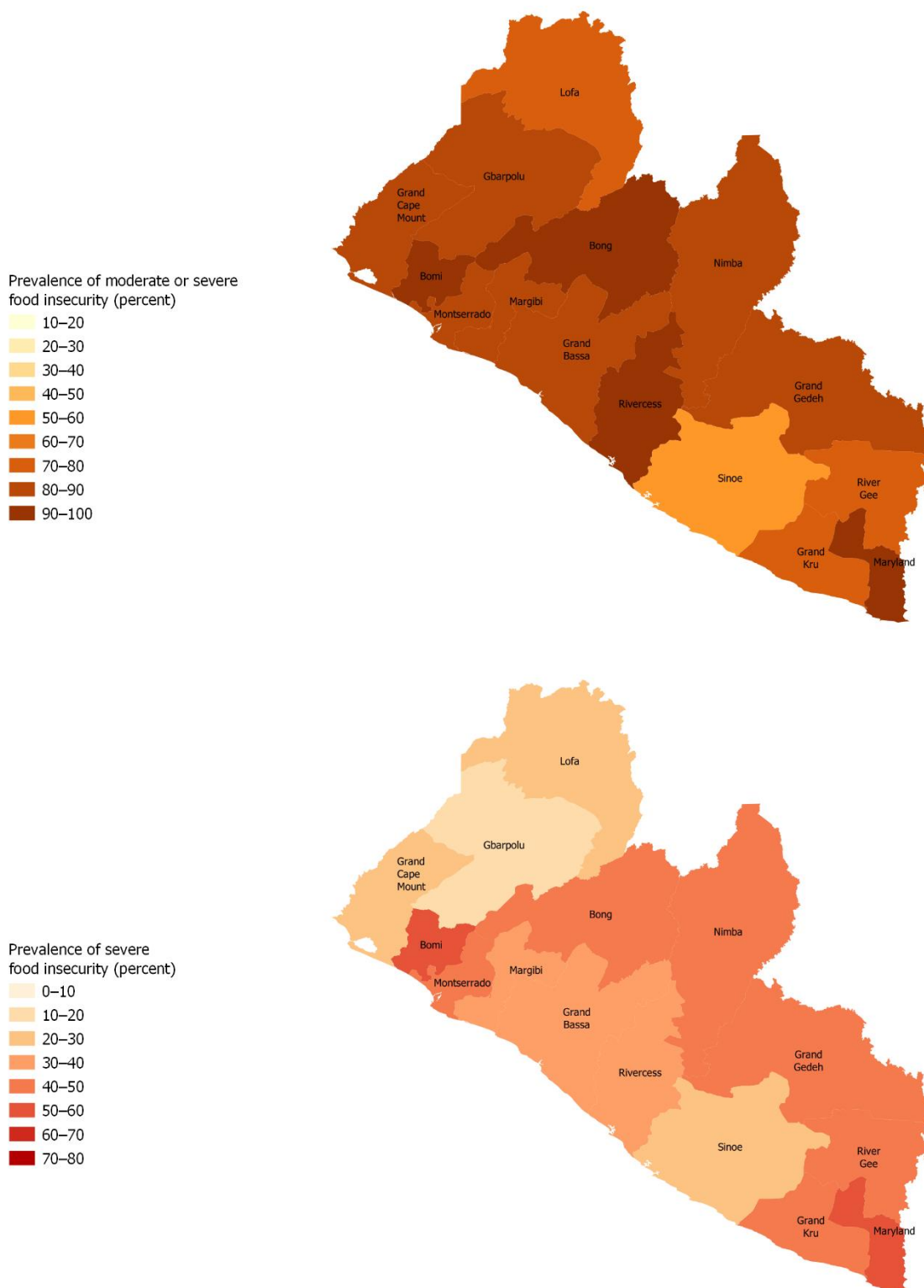
Compared to the previous assessment, conducted in 2020,¹⁰ the annual prevalence of food insecurity remained stable in 2022: from 80.6 to 82.4 percent (± 2.2) at the moderate or severe level, and from 37.3 to 38.0 percent (± 2.5) at the severe level (**Figure 8**). Estimates at the subnational level point to Bomi and Maryland as the most affected areas for both annual and recent food insecurity while food insecurity by urbanicity does not show any significant difference in the access to food in rural areas compared to urban areas.

Table 8 FIES-based measures of the prevalence of food insecurity in Liberia in 2022 (margins of error are in parentheses)

	N	Over the last 12 months		Over the last 4 weeks	
		Mod. + Sev.	Severe	Mod. + Sev.	Severe
National	3 208	82.4 (± 2.2)	38.0 (± 2.5)	69.5 (± 2.7)	32.2 (± 2.5)
By county					
Bomi	211	91.6 (± 4.2)	51.9 (± 9.1)	81.7 (± 7.7)	46.9 (± 8.9)
Bong	216	90.4 (± 7.8)	46.7 (± 5.7)	77.5 (± 9.2)	40.5 (± 9.4)
Gbarpolu	215	80.4 (± 7.6)	13.7 (± 6.2)	57.9 (± 10.4)	12.4 (± 5.9)
Grand Bassa	213	83.7 (± 8.0)	30.9 (± 8.5)	72.9 (± 8.7)	26.0 (± 8.7)
Grand Cape Mount	224	89.3 (± 6.7)	29.7 (± 2.6)	72.3 (± 8.3)	25.9 (± 7.2)
Grand Gedeh	217	86.1 (± 8.2)	48.6 (± 9.9)	72.9 (± 10.5)	36.5 (± 9.7)
Grand Kru	214	73 (± 12.1)	40.5 (± 11.3)	63.9 (± 12.4)	35.6 (± 11.4)
Lofa	207	73 (± 11.8)	26.4 (± 10.6)	47.8 (± 12.6)	18.3 (± 9.6)
Margibi	213	84.9 (± 6.9)	34.6 (± 8.7)	74.7 (± 8.7)	30.9 (± 9.0)
Maryland	219	91.2 (± 5.9)	51.1 (± 9.1)	86.7 (± 5.4)	46.5 (± 8.9)
Montserrado	212	81.8 (± 7.8)	44.5 (± 10.3)	71.1 (± 11.0)	37.7 (± 10.6)
Nimba	210	87.9 (± 7.6)	41.9 (± 10.1)	67.4 (± 11.9)	30.9 (± 10.2)
River Gee	213	72.9 (± 13.4)	45.1 (± 11.9)	80.4 (± 7.1)	29.5 (± 8.1)
Rivercess	210	90.2 (± 9.2)	34.8 (± 9.7)	64.6 (± 13.1)	39.9 (± 11.2)
Sinoe	214	59.6 (± 11.2)	28.7 (± 10.2)	50.0 (± 12.8)	25.3 (± 9.3)
By urbanicity					
Rural	2 324	82.9 (± 2.5)	38.0 (± 3.0)	70.5 (± 3.1)	32.3 (± 2.9)
Urban	884	81.0 (± 4.3)	38.1 (± 4.8)	66.9 (± 5.6)	32.0 (± 4.9)

Source: Authors' own elaboration.

Figure 8 Prevalence of moderate or severe food insecurity (12-month) in Liberia, by county



Source: FAO. 2023. Food and Agriculture Microdata Catalogue. In: FAO. Rome. Cited June 2023. <https://microdata.fao.org/index.php/catalog> based on UN Geospatial. 2020. Map geodata [Shapefiles]. New York, USA, UN.

Rwanda

In Rwanda, two-thirds (64.6 percent) of the national population was affected by moderate or severe food insecurity at some time during 2022, including 16.2 percent who faced severe food insecurity. Food access was less of a problem during the four weeks before the survey (August 2022), with rates of 45.9 and 10.4 percent, respectively (**Table 9**). This appears to be true across all the provinces.

Compared to 2021, food insecurity in Rwanda appears to be stable, from 66.9 percent (± 4.9) in 2021¹¹ to 64.6 percent (± 5.4) in 2022 at the moderate or severe level, while decreasing at the severe level from 23.9 percent (± 4.4) in 2021 to 16.2 percent (± 2.8) in 2022.

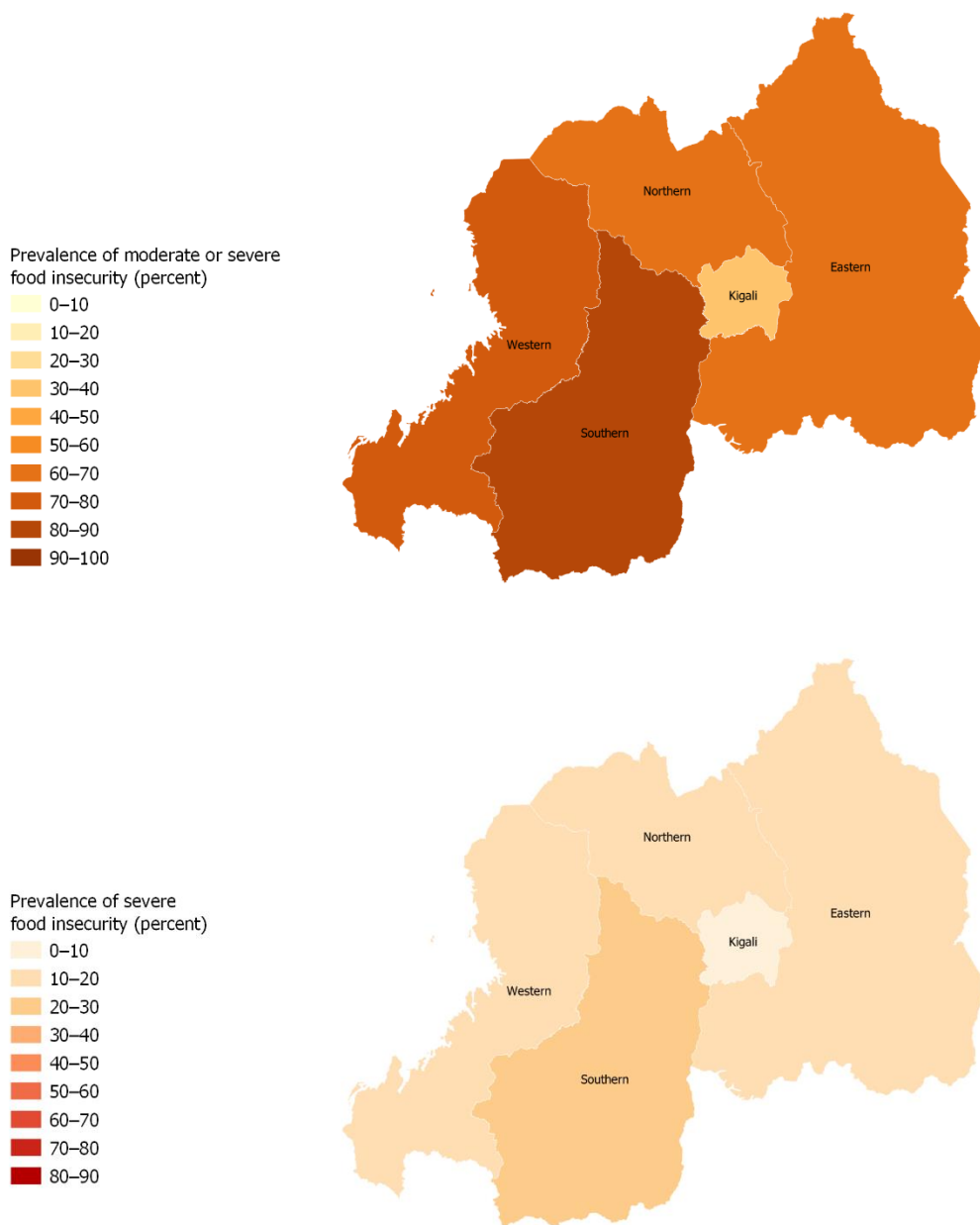
Subnational results show differences among the provinces that are not revealed by the national estimates. For instance, annual food insecurity (moderate or severe) was 37.6 percent in Kigali compared to 80.4 percent in the Southern province and 64.6 percent in the Eastern province, reflecting differences in socioeconomic conditions between these geographic areas (**Figure 9**).¹² Differences in moderate or severe annual food insecurity between urban and rural areas are also notable - 44.2 percent compared to 70.5 percent, respectively.

Table 9 FIES-based measures of the prevalence of food insecurity in Rwanda in 2022 (margins of error are in parentheses)

	N	Over the last 12 months		Over the last 4 weeks	
		Mod. + Sev.	Severe	Mod. + Sev.	Severe
National	1 075	64.6 (± 5.4)	16.2 (± 2.8)	45.9 (± 5.6)	10.4 (± 3.0)
By province					
Eastern	215	64.6 (± 11.7)	15.4 (± 5.3)	21.7 (± 11.5)	3.8 (± 5.4)
Kigali	202	37.6 (± 13.0)	7.3 (± 5.2)	50.3 (± 12.1)	8.8 (± 6.1)
Northern	224	69.0 (± 12.4)	13.3 (± 5.8)	55.0 (± 12.0)	17.8 (± 8.5)
Southern	209	80.4 (± 13.1)	26.7 (± 7.7)	47.4 (± 11.7)	10.3 (± 6.6)
Western	225	70.5 (± 13.6)	18.2 (± 6.0)	54.1 (± 12.1)	11.1 (± 6.0)
By urbanicity					
Rural	827	70.5 (± 5.9)	17.9 (± 3.4)	50.8 (± 6.2)	11.8 (± 3.6)
Urban	248	44.2 (± 10.2)	10.2 (± 3.8)	29.1 (± 11.6)	5.4 (± 5.0)

Source: Authors' own elaboration.

Figure 9 Prevalence of moderate or severe food insecurity and severe food insecurity only (12-month) in Rwanda, by province



Source: FAO. 2023. Food and Agriculture Microdata Catalogue. In: FAO. Rome. Cited June 2023. <https://microdata.fao.org/index.php/catalog> based on Hijmans, R. 2012. DIVA-GIS [Shapefiles]. In: *DIVA-GIS*. Cited June 2022. www.diva-gis.org/ and World Bank Group. 2015. Africa - Water Bodies (2015) [Shapefiles]. Cited June 2022. <http://purl.stanford.edu/nd124my6773>

Zambia

In Zambia, 71.8 percent of the national population was affected by moderate or severe food insecurity at some time during 2022, including 27.7 percent who faced severe food insecurity. During the four weeks preceding the survey (August 2022), the rates were lower - 39.7 and 13.6 percent, respectively (**Table 10**).

The prevalence of food insecurity in Zambia decreased compared to 2021, from 78.2 percent (± 3.2) in 2021 to 71.8 percent (± 3.7) in 2022 at the moderate or severe level, and from 36.1 percent (± 3.4) to 27.7 percent (± 3.1) at the severe level.¹³

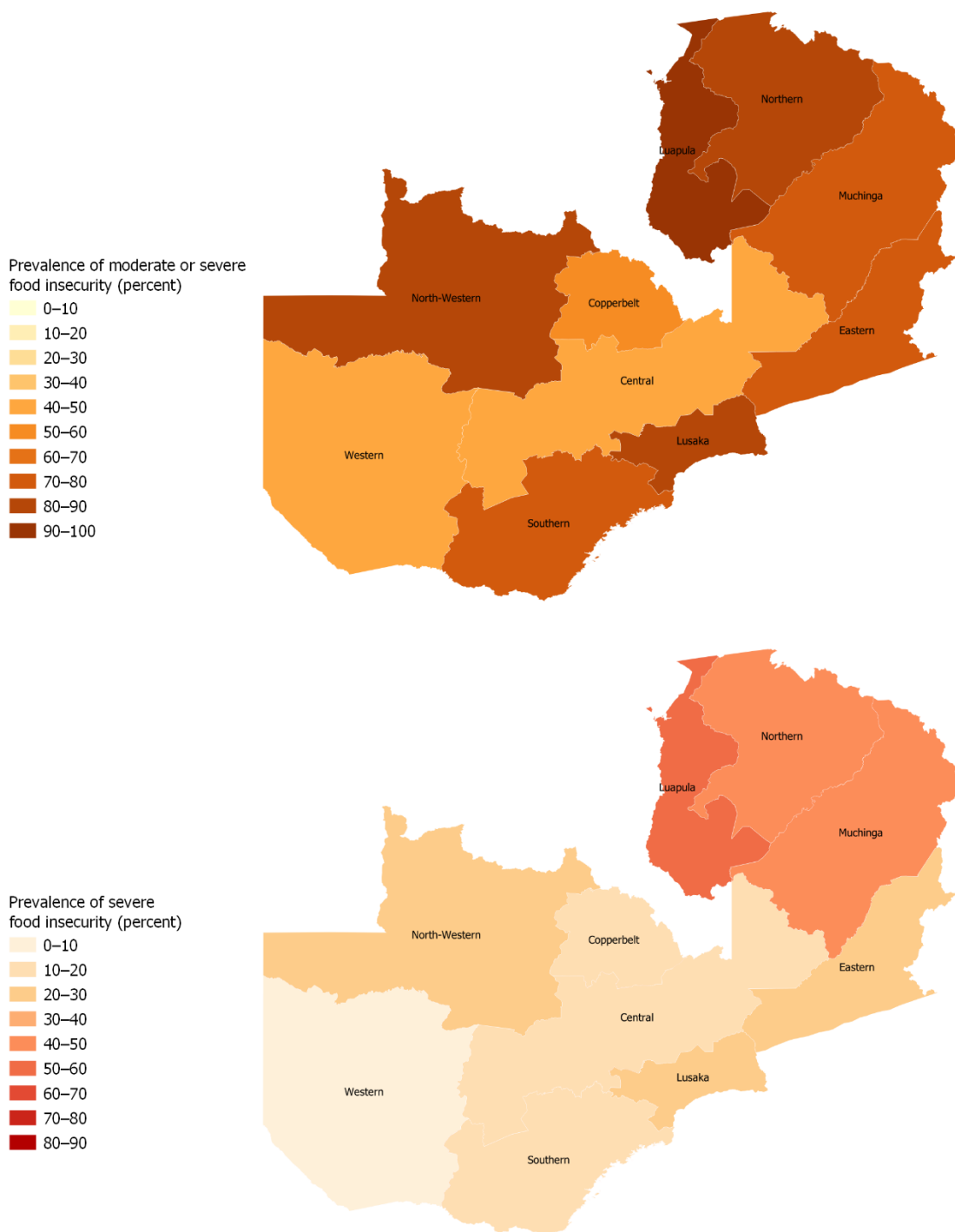
Figure 10 shows a concerning food insecurity situation in Zambia, although some provinces are more affected than others. The Luapula, Northern, North-Western and Lusaka provinces are the most affected by moderate or severe food insecurity, while the situation is comparatively better in the Central and Western provinces (49.1 and 42.2 percent, respectively), which also have the lowest prevalence of severe food insecurity together with Copperbelt. In terms of urbanicity, food insecurity appears to be slightly more predominant in rural areas at both levels of severity.

Table 10 FIES-based measures of the prevalence of food insecurity in Zambia in 2022 (margins of error are in parentheses)

	N	Over the last 12 months		Over the last 4 weeks	
		Mod. + Sev.	Severe	Mod. + Sev.	Severe
National	2 179	71.8 (± 3.7)	27.7 (± 3.1)	39.7 (± 4.2)	13.6 (± 2.9)
By province					
Central	202	49.1 (± 12.6)	12.3 (± 7.2)	20.0 (± 12.3)	5.3 (± 5.4)
Copperbelt	212	54.4 (± 11.9)	12.3 (± 4.5)	25.2 (± 11.2)	5.7 (± 5.9)
Eastern	211	70.3 (± 11.1)	27.3 (± 10.9)	29.1 (± 11.3)	7.8 (± 6.6)
Luapula	250	92.4 (± 9.6)	54.3 (± 9.9)	77.4 (± 9.6)	43.1 (± 11.7)
Lusaka	215	80.7 (± 9.6)	27.5 (± 9.8)	48.5 (± 11.4)	11.4 (± 8.4)
Muchinga	223	75.9 (± 11.6)	41.7 (± 10.1)	48.4 (± 15.3)	18.8 (± 10.5)
North-Western	204	83.5 (± 6.6)	29.9 (± 10.8)	53.3 (± 13.5)	21.1 (± 10.6)
Northern	221	84.2 (± 11.3)	42.1 (± 10.4)	41.1 (± 13.2)	11.4 (± 9.0)
Southern	227	77.8 (± 7.5)	17.6 (± 6.9)	30.9 (± 8.2)	4.3 (± 3.1)
Western	214	42.2 (± 12.0)	5.4 (± 5.6)	11.6 (± 5.6)	0.4 (± 0.5)
By urbanicity					
Rural	1 513	73.8 (± 4.5)	30.0 (± 3.9)	40.3 (± 5.0)	14.7 (± 3.5)
Urban	666	66.3 (± 6.6)	21.8 (± 4.6)	38.1 (± 7.5)	10.9 (± 5.4)

Source: Authors' own elaboration.

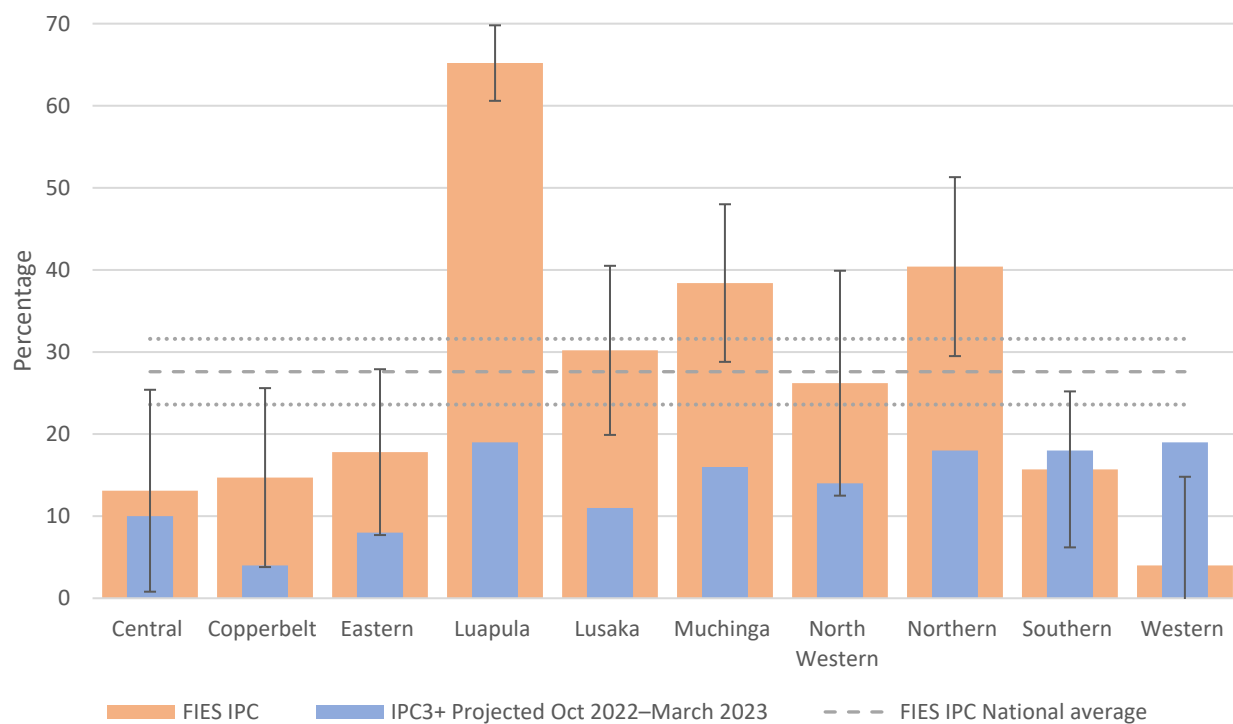
Figure 10 Prevalence of moderate or severe food insecurity and severe food insecurity only (12-month) in Zambia, by province



Source: FAO. 2023. Food and Agriculture Microdata Catalogue. In: FAO. Rome. Cited June 2023. <https://microdata.fao.org/index.php/catalog> based on UN Geospatial. 2020. Map geodata [shapefiles]. New York, USA, UN and World Bank Group. 2015. Africa - Water Bodies (2015) [Shapefiles]. Cited June 2022. <http://purl.stanford.edu/nd124my6773>

At the subnational level, while the ranking of the provinces is overall consistent between the FIES-based IPC Phase 3+ prevalence rates and the IPC estimates (Figure 11), the magnitude reveals partial differences. Specifically, the FIES-based IPC Phase 3+ estimates identify statistically higher rates of food insecurity in the provinces of Luapula, Lusaka, Muchinga and Northern. This different magnitude in some provinces is also reflected in the national prevalence rate, as the prevalence of population in IPC 3+ based on the FIES is almost twice the assessment done by the IPC group.

Figure 11 Comparing FIES-based estimates with the result of a recent IPC acute food insecurity analysis in Zambia, by province



Source: Authors' own elaboration based on FAO. 2023. Food and Agriculture Microdata Catalogue. In: FAO. Rome. Cited June 2023. <https://microdata.fao.org/index.php/catalog> and IPC. 2023. IPC analysis portal. In: IPC. Rome. Cited June 2023. www.ipcinfo.org/ipc-country-analysis/en/

Annex 1. FIES survey module

Now I would like to ask you some questions about food.	
Q1. During the last 12 months, was there a time when you were worried you would not have enough food to eat because of a lack of money or other resources? (if "Yes", go to question Q1a, otherwise go to question Q2)	0 No 1 Yes 98 Don't Know 99 Refused
Q1a. Did this happen in the past 4 weeks (30 days)?	0 No 1 Yes 98 Don't Know 99 Refused
Q2. Still thinking about the last 12 MONTHS, was there a time when you were unable to eat healthy and nutritious food because of a lack of money or other resources? (if "Yes", go to question Q2a, otherwise go to question Q3)	0 No 1 Yes 98 Don't Know 99 Refused
Q2a. Did this happen in the past 4 weeks (30 days)?	0 No 1 Yes 98 Don't Know 99 Refused
Q3. During the last 12 months, was there a time when you ate only a few kinds of foods because of a lack of money or other resources? (if "Yes", go to question Q3a, otherwise go to question Q4)	0 No 1 Yes 98 Don't Know 99 Refused
Q3a. Did this happen in the past 4 weeks (30 days)?	0 No 1 Yes 98 Don't Know 99 Refused
Q4. During the last 12 months, was there a time when you had to skip a meal because there was not enough money or other resources to get food? (if "Yes", go to question Q4a, otherwise go to question Q5)	0 No 1 Yes 98 Don't Know 99 Refused
Q4a. Did this happen in the past 4 weeks (30 days)?	0 No 1 Yes 98 Don't Know 99 Refused
Q5. Still thinking about the last 12 MONTHS, was there a time when you ate less than you thought you should because of a lack of money or other resources? (if "Yes", go to question Q5a, otherwise go to question Q6)	0 No 1 Yes 98 Don't Know 99 Refused
Q5a. Did this happen in the past 4 weeks (30 days)?	0 No 1 Yes 98 Don't Know 99 Refused
Q6. In the past 12 months, was there ever no food to eat of any kind in your house because of lack of resources to get food? (if "Yes", go to question Q6a, otherwise go to question Q7)	0 No 1 Yes 98 Don't Know 99 Refused
Q6a. Did this happen in the past 4 weeks (30 days)? (if "Yes", go to question Q6b, otherwise go to question Q7)	0 No 1 Yes 98 Don't Know 99 Refused
Q6b. How often did this happen in the past 4 weeks (30 days)?	1 Rarely (1 or 2 times) 2 Sometimes (3-10 times) 3 Often (more than 10 times) 98 Don't Know 99 Refused
Q7. In the past 12 months, did you ever go to sleep at night hungry because there was not enough food? (if "Yes", go to question Q7a, otherwise go to question Q8)	0 No 1 Yes 98 Don't Know 99 Refused

Q7a. Did this happen in the past 4 weeks (30 days)? (if "Yes", go to question Q7b, otherwise go to question Q8)	0 No 1 Yes 98 Don't Know 99 Refused
Q7b. How often did this happen in the past 4 weeks (30 days)?	1 Rarely (1 or 2 times) 2 Sometimes (3-10 times) 3 Often (more than 10 times) 98 Don't Know 99 Refused
Q8. During the last 12 months, did you ever go a whole day and night without eating anything at all because there was not enough food? (if "Yes", go to question Q8a, otherwise END)	0 No 1 Yes 98 Don't Know 99 Refused
Q8a. Did this happen in the past 4 weeks (30 days)? (if "Yes", go to question Q8b, otherwise END)	0 No 1 Yes 98 Don't Know 99 Refused
Q8b. How often did this happen in the past 4 weeks (30 days)? (END)	1 Rarely (1 or 2 times) 2 Sometimes (3-10 times) 3 Often (more than 10 times) 98 Don't Know 99 Refused

Annex 2. Comparing FIES-based estimates of the prevalence of recent food insecurity with IPC-based assessments

Since the Global Network Against Food Crises and the Food Security Information Network started publishing the Global Report on Food Crises (GRFC) series, many readers have been tempted to directly compare the number of people facing acute food insecurity as indicated in the GRFC reports with the number of people experiencing moderate or severe food insecurity as reported by FAO, the International Fund for Agricultural Development (IFAD), the United Nations Children’s Fund (UNICEF), the World Health Organization (WHO) and the World Food Programme (WFP) in The State of Food Security and Nutrition in the World (SOFI) reports.

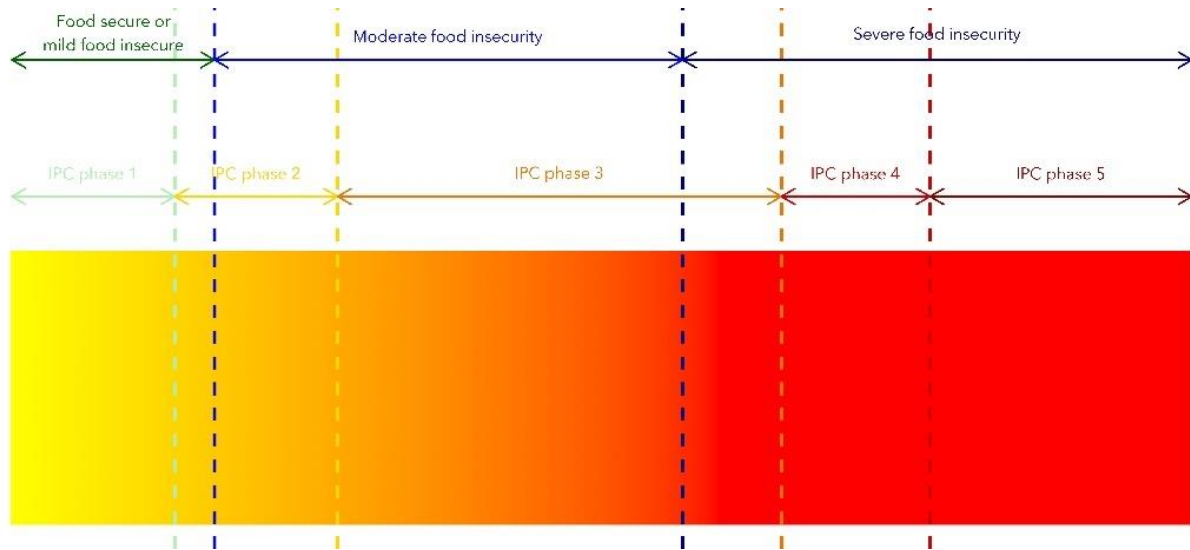
A direct comparison of GRFC and SOFI figures, even for the same country and year, however, would be incorrect because of three characteristics of these statistics. Those presented in the GRFC: (a) refer to the number of people in “Crisis or worse (IPC Phase 3 or more)” levels of food insecurity, (b) are assessed with reference to a specific moment of the year, based on evidence that covers the recent past (usually, the last month before the assessment), and (c) cover only a number of subnational analysis areas in each country (mostly rural food insecurity “hotspots”). On the other hand, the food insecurity statistics reported in SOFI: (a) refer to the annual food insecurity (that is, food insecurity experienced at any time in the course of the year), (b) consider the entire national population in each country, and (c) are based on the conventional threshold established by FAO to inform SDG Indicator 2.1.2, which implicitly defines the class of “moderate or severe food insecurity”, which has no correspondence with any of the five IPC acute food insecurity phases.

In contrasting the results from FIES-based assessments with IPC assessments, a fundamental methodological aspect must also be considered. While FIES-based statistics, as presented in SOFI, derive from an inference process that makes it possible to provide confidence intervals around the point estimates, IPC figures are to be considered largely indicative, due to the very nature of the assessments (a qualitative process of convergence of evidence conducted by a group of national analysts who consider and discuss all available evidence). It would thus be unwise to expect a perfect match between the results of such different processes. Nevertheless, as confirmed by a recent deliberation of the IPC Technical Advisory Group, the information provided by FIES-based assessments conducted with reference to the same time horizon and for the same analysis area can contribute to IPC acute food insecurity assessments, as is done with other indicators.

To allow for a proper comparison, this report presents an additional set of FIES-based estimates of the prevalence of recent food insecurity computed using severity thresholds set to correspond as closely as possible to the severity levels that identify the five IPC acute food security phases (see [Figure 12](#)).

Definition of IPC-compatible thresholds to be used for the classification of households with FIES data was possible thanks to an extensive analysis of the data collected between August 2020 and January 2021, in samples that were representative of the population at the subnational (admin-1) level.

Figure 12 Severity thresholds used for FIES-based assessments of the prevalence of food insecurity



Source: Boero, V., Cafiero, C., Gheri, F., Kepple, A.W., Rosero Moncayo, J. & Viviani, S. 2021. *Access to food in 2020. Results of twenty national surveys using the Food Insecurity Experience Scale (FIES)*. Rome. <https://doi.org/10.4060/cb5623en>

Figure 12 clearly illustrates how the category labelled “moderate food insecurity” for SDG monitoring purposes would include some of the households classified in IPC Phase 2 and would not cover some of those included in IPC Phase 3.

In some of these countries, IPC/CH acute food insecurity classifications conducted with reference to periods that overlap with those covered by the FIES data collection reported on in this document are available, thus allowing for a comparison between the FIES-based prevalence of recent food insecurity and the percentage of people in IPC Phase 3 or more at the subnational level. The set of results in this report demonstrate how, when available, FIES data collected with a four-week reference period may greatly contribute to IPC/CH acute food insecurity analyses.

Notes

- ¹ **Cafiero, C., Viviani, S. & Nord, M.** 2018. Food security measurement in a global context: The food insecurity experience scale. *Measurement*, 116:146-152.
www.sciencedirect.com/science/article/abs/pii/S0263224117307005
- ² **Nord, M.** 2014. *Introduction to Item Response Theory applied to Food Security Measurement: Basic Concepts, Parameters, and Statistics*. Technical Paper. Rome, FAO. <http://www.fao.org/economic/ess/ess-fs/voices/en>
- ³ **FAO, IFAD (International Fund for Agricultural Development), UNICEF (United Nations Children's Fund), WFP (World Food Programme) & WHO (World Health Organization).** 2019. *The State of Food Security and Nutrition in the World 2019. Safeguarding against economic slowdowns and downturns*. Rome, FAO. <https://doi.org/10.4060/ca5162en>
- ⁴ **Boero, V., Cafiero, C., Gheri, F., Kepple, A.W., Rosero Moncayo, J. & Viviani, S.** 2021. *Access to food in 2020. Results of twenty national surveys using the Food Insecurity Experience Scale (FIES)*. Rome. <https://doi.org/10.4060/cb5623en>
- ⁵ **FSIN and Global Network Against Food Crises.** 2022. *Global Report on Food Crises 2022*. Rome, FAO. www.fao.org/3/cb9997en/cb9997en.pdf
- ⁶ **Boero, V., Cafiero, C., Gheri, F., Kepple, A.W., Rosero Moncayo, J. & Viviani, S.** 2021. *Access to food in 2020. Results of twenty national surveys using the Food Insecurity Experience Scale (FIES)*. Rome. <https://doi.org/10.4060/cb5623en>
- ⁷ **FSIN and Global Network Against Food Crises.** 2022. *Global Report on Food Crises 2022*. Rome, FAO. www.fao.org/3/cb9997en/cb9997en.pdf
- ⁸ **Cafiero, C., Gheri, F., Kepple, A.W., Rosero Moncayo, J. & Viviani, S.** 2022. *Access to food in 2021: filling data gaps. Results of twenty national surveys using the Food Insecurity Experience Scale (FIES)*. Rome. <https://doi.org/10.4060/cc0721en>
- ⁹ **FSIN and Global Network Against Food Crises.** 2022. *Global Report on Food Crises 2022*. Rome, FAO. www.fao.org/3/cb9997en/cb9997en.pdf
- ¹⁰ **Boero, V., Cafiero, C., Gheri, F., Kepple, A.W., Rosero Moncayo, J. & Viviani, S.** 2021. *Access to food in 2020. Results of twenty national surveys using the Food Insecurity Experience Scale (FIES)*. Rome. <https://doi.org/10.4060/cb5623en>
- ¹¹ **Boero, V., Cafiero, C., Gheri, F., Kepple, A.W., Rosero Moncayo, J. & Viviani, S.** 2021. *Access to food in 2020. Results of twenty national surveys using the Food Insecurity Experience Scale (FIES)*. Rome. <https://doi.org/10.4060/cb5623en>
- ¹² **United Nations Development Programme.** 2019. *Rwanda National Human Development Report 2018 Policy Innovations and Human Development: Rwanda's home-grown solutions*. New York, USA. www.undp.org/rwanda/publications/rwanda-national-human-development-report-2018
- ¹³ **FAO, IFAD, UNICEF, WFP & WHO.** 2021. *The State of Food Security and Nutrition in the World 2021. Transforming food systems for food security, improved nutrition and affordable healthy diets for all*. Rome, FAO. <https://doi.org/10.4060/cb4474en>

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