



الهيئة العامة للإحصاء
General Authority for Statistics

Methodology and Quality Report for Food Security Statistics

V-3.2

Quality Management



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1. Contact

1.1. Contact organization	General Authority for Statistics
1.2. Contact organization unit	Environment, Agriculture, and Energy Statistics Department
1.3. Contact person function	Director of Environment, Agriculture, and Energy Statistics Department
1.4. Contact mail address	P.O. Box: 3735 Riyadh, 11481 Kingdom of Saudi Arabia
1.5. Contact email address	info@stats.gov.sa
1.6. Contact phone number	199009

2. Methodology and Quality Update

2.1. Methodology and Quality last update	26/12/2024
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3. Statistical Presentation

3.1. Data description
<p>Food security statistics present data related to the state of food security in the Kingdom of Saudi Arabia. The publication focuses on the four dimensions of food security: Food availability, food accessibility, food safety, food utilization, and food supply stability.</p> <p>Main indicators of Food Security Statistics publication</p> <ul style="list-style-type: none">• Per capita food supply (available for consumption).

- The self-sufficiency rate for plant and livestock products.

3.2. Classification system

The following classifications are applied in Food Security Statistics.

Harmonized Commodity Description and Coding System (H.S.2017):

The merchandise exports and imports statistics are based on classification issued by the World Customs Organization (WCO), which is a table for describing and classifying merchandise that includes sub-items and their numeric codes, sections, and chapters, in accordance with the International Convention on Nomenclature for the Classification of Goods in Customs Tariffs, done at Brussels.

Central Product Classification (CPC 2.1):

It is a classification of products, goods and services issued by the United Nations Statistical Commission. It is intended to be an international standard for organizing and analyzing data on industrial production, national accounts, trade, prices, etc.

Metadata are collected through interviews, so that outputs can be produced in accordance with all relevant classifications.

The classifications are available on the GASTAT's website: www.stats.gov.sa

3.3. Sector coverage

Not applicable.

3.4. Statistical concepts and definitions

Terms and concepts of Food Security Statistics:

- Self-sufficiency rate:

Self-sufficiency is measured by the total percentage of national production plus the percentage of imported food relative to total domestic consumption.

- Per capita share of available food (available for consumption):

The total quantity of food available for consumption at the national level divided by the population.

3.5. Statistical unit

Not applicable.

3.6. Statistical population

Not applicable.

3.7. Reference area

Food Security Statistics covers all 13 administrative regions data across Saudi Arabia.

3.8. Time coverage

Food Security Statistics cover data for the year 2023.

3.9. Base period

Not applicable.

4. Unit of measure

- Results calculated as a percentage (e.g.: (Self-sufficiency rate for plant and livestock products).
- Results calculated as a rate such as: (Per capita food supply (available for consumption)).

5. Reference period

Food Security Statistics Data from Administrative Records are Based on the Last Day of Each Calendar Year.

6. Confidentiality

6.1. Confidentiality - policy

According to the Royal Decree No. 23 dated 07-12-1397, data must always be kept confidential and must be used by GASTAT only for statistical purposes.

Therefore, the data are protected in the data servers of the Authority.

6.2. Confidentiality - data treatment

Data are displayed in appropriate tables to facilitate its summarization, comprehension, results extraction, comparison with other data and coming up with statistical connotations for the study community. It is also easier to check tables without the need to see any sensitive or confidential data, which violates the confidentiality of statistical data.

7. Release policy

7.1. Release calendar

Food Security Statistics are included in the statistical calendar.

7.2. Release calendar access

Available on the: <https://www.stats.gov.sa/statistical-calendar-releases>

7.3. User access

One of GASTAT's objectives is to better meet its clients' needs, so it immediately provides them with the publication's results once the Food Security Statistics publication is published.

It also receives questions and inquiries of the clients about the Publication and its results through various communication channels, such as:

- GASTAT official website: www.stats.gov.sa
- GASTAT official e-mail address: info@stats.gov.sa
- Client support e-mail: info@stats.gov.sa
- Official visits to GASTAT's official head office in Riyadh or one of its branches in Saudi Arabia.
- Official letters.
- Statistical telephone: (199009).

8. Frequency of dissemination

Annual.

9. Accessibility and clarity

9.1. News release

The announcements of each publication are available on release calendar as mentioned in 7.2. Release calendar access. The news release can be viewed on the website of GASTAT through the following link:

<https://www.stats.gov.sa/en/news>



9.2. Publications

GASTAT issues Food Security Statistics on a regular basis within a pre-prepared dissemination plan and is published on GASTAT's website. GASTAT is keen to publish its publications in a way that serves all users of different types, including publications in different formats that contain (publication tables, data graphs, indicators, and metadata) in both English and Arabic.

The results of Food Security Statistics are available on:

<https://www.stats.gov.sa/en/statistics>

9.3. On-line database

Not available.

9.4. Micro-data access

Not available.

9.5. Other

Not available.

9.6. Documentation on methodology

Framework of Food Security Statistics: The concepts and definitions are based on the Food and Agriculture Organization (FAO) methodology for food security indicators, as well as the Sustainable Development indicators (SDG). For more details, you can refer to the attachment.

[Food and Agriculture Organization \(FAO\)](#)

9.7. Quality documentation

Quality documentation covers documentation on methods and standards for assessing, measuring, and monitoring the quality of statistical process and output. It is based on standard

quality criteria such as relevance, accuracy and reliability, timeliness and punctuality, accessibility and clarity, comparability, and coherence.

10. Quality management

10.1. Quality assurance

GASTAT declares that it considers the following principles: impartiality, user orientated, quality of processes and output, effectiveness of statistical processes, reducing the workload for respondents.

Quality controls and validation of data are actions carried out throughout the process in different stages such as the data input and data collection and other final controls.

10.2. Quality assessment

GASTAT performs all statistical activities according to a national model (Generic Statistical Business Process Model - GSBPM). According to the GSBPM, the final phase of statistical activities is overall evaluation using information gathered in each phase or sub-process. This information is used to prepare the evaluation report which outlines all the quality issues related to the specific statistical activity and serves as input for improvement actions.

11. Relevance

11.1. User needs

Internal users at the General Authority for Statistics for Food Security Statistics data:

- Strategic Communication and Client Support Department
- International Indicators Department.

Some several external users and beneficiaries greatly benefit from Food Security Statistics, including:

- Government entities.
- Regional and international organizations.

- Research institutions.
- Media.
- Individuals.

The disseminated key variables used by external users:

- The self-sufficiency rate for plant and livestock products.
- Per capita food supply (available for consumption).
- Per capita GDP.

11.2. User satisfaction

Not available.

11.3. Completeness

Food Security Statistics data are based on two main sources in order to provide comprehensive information on Umrah sector in Saudi Arabia, and the data status is complete.

12. Accuracy and reliability

12.1. Overall accuracy

- Data is checked with previous years to identify any significant changes in the data.
- The internal consistency of the data is checked before it is finalized.
- The links between variables are checked and coherence between different data series is confirmed.

13. Timeliness and punctuality

13.1. Timeliness

The General Authority for Statistics is committed to applying internationally recognized standards in announcing and clarifying the publication time of statistics on the official website through the statistical calendar. In case of any delay, it will be updated accordingly.

13.2. Punctuality

The publication takes place according to the published release dates on the statistical calendar for Food Security Statistics on the website of the General Authority for Statistics.

The data are available at the expected time, as scheduled in the statistical release calendar, If the publication is delayed, reasons shall be provided.

14. Coherence and comparability

14.1. Comparability - geographical

The data are geographically comparable at the level of Saudi Arabia.

14.2. Comparability - over time

Data is fully comparable.

14.3. Coherence- cross domain

Not applicable.

14.3.1. Coherence - sub annual and annual statistics

Not applicable.

14.3.2. Coherence- National Accounts

Not applicable.

14.4. Coherence - internal

Food Security Statistics data have complete internal consistency.

15. Data revision

15.1. Data revision - policy

Not applicable, only final results will be published.

15.2. Data revision - practice

Not applicable, only final results will be published.

16. Statistical processing

16.1. Source data

Food Security Statistics data are based on two sources:

First source: Surveys and statistical publications issued by the General Authority for Statistics:

- Agricultural statistics.
- Household Environment Statistics.
- Health Determinants Statistics.
- Women Health and Reproductive Care Statistics.

Second source: Registry data from government agencies:



- Ministry of Environment, Water and Agriculture.
- General Food Security Authority.
- Agricultural Development Fund.

16.2. Frequency of data collection

Annual.

16.3. Data collection

Data collection from administrative records:

In coordination with the Authority's departments related to data collection and management, the record data for the Food Security Statistics publication is obtained from the Ministry of Environment, Water and Agriculture, The General Food Security Authority, and the Agricultural Development Fund.

The data is stored in the authority's databases after undergoing auditing and review processes following approved statistical methods and recognized quality standards. If errors or discrepancies are discovered, the data is cross-referenced with the data source for correction or clarification.

16.4. Data validation

Data are reviewed and matched to ensure their accuracy and precision in a way that suits their nature with the aim of giving the presented statistics quality and accuracy.

The data of the current year publication are compared with the data of the previous year to ensure their integrity and consistency in preparation for processing data and extracting and reviewing results.

In addition to the data processing and tabulation to check their accuracy, all the outputs are stored and uploaded to the database after being calculated by GASTAT to be reviewed and processed by specialists in Environment, Agriculture, and Energy Statistics Department through modern technologies and software designed for this purpose.

16.5. Data compilation

Data editing:



Specialists of Environment, Agriculture, and Energy Statistics Department have processed and analyzed data in this stage, and this step was based on the following measures:

- Sorting and arranging data in groups or different categories in a serial order.
- Summarizing detailed data into key points or data.
- Combining many data segments and ensuring their interconnection.
- Processing incomplete or missing data.
- Processing illogical data.
- Converting data into statistically significant data.
- Arranging, presenting, and interpreting data.

The applied statistical equations:

GASTAT has relied on the formulas approved by the international standards in calculating the key indicators for Food Security Statistics, as follows:

- $\text{GDP per capita} = (\text{GDP} / \text{population})$

16.6. Adjustment

Not applicable, only final results will be published.

17. Comment