Food and Agriculture Organization of the United Nations

FAOSTAT ANALYTICAL BRIEF 67

Employment indicators 2000–2021

July 2023 update

>> FAO Statistics Division

HIGHLIGHTS

→   **The agricultural sector* employed 873 million people worldwide in 2021, down from 1 billion in 2000. The lowest number of people employed in agriculture during the past 20 years was reached in 2020 with 855 million people, reflecting the impact of the COVID-19 pandemic on the labour markets.**

→   **The share of employment in agriculture in 2021 was highest in Africa (48 percent) and lowest in Europe (5 percent).**

→   **In most countries, the share of both men and women working in agriculture as employees remained low, and below 10 percent in 2021.**

→   **Overall, people aged 25 to 54 years make most of the labour force in rural areas. In addition, a significant gender disparity persists, with fewer women than men in employment or looking for a job.**

→   **In 2021, women in agriculture worked on average 32.8 hours per week, compared to 39.4 hours per week for men.**

* Agriculture includes forestry and fishing.

FAOSTAT EMPLOYMENT INDICATORS

BACKGROUND

The Food and Agriculture Organization of the United Nations (FAO) updates the employment indicators each year, using data from the International Labour Organization (ILO) ILOSTAT database that contains a rich set of indicators from a wide range of topics related to labour statistics. The indicators published in FAOSTAT are derived from the labour force statistics (LFS), rural and urban labour markets (RURURB) databases, which provide annual labour statistics compiled from various sources such as labour force surveys, establishment surveys and administrative records or microdata using representative household surveys. In addition, the ILO modelled estimates and projections (ILOEST) are used to provide information on employment in agriculture and the employment ratio in rural areas at the global level.

The indicators in FAOSTAT are grouped in two main areas: 1) indicators related to agriculture, forestry and fishing and 2) indicators related to rural areas. Key indicators are broken down by age groups, sex and divisions of agriculture using the International Standard Industrial Classification of All Economic Activities (ISIC) 2-digit level: (i) crop and animal production, hunting and related service activities, (ii) forestry and logging, and (iii) fishing and aquaculture.[1]

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[1] The data for global and regional results on employment in agriculture are retrieved using the latest version of the ILO Modelled estimates (November 2022) at the time of this brief's publication. The results shown in the country results section refer to 2021 annual data accessed in March 2023 through the ILOSTAT LFS and RURURB databases. Please refer to the Explanatory notes of this brief to see the list of indicators.

GLOBAL AND REGIONAL RESULTS BASED ON ILO MODELLED ESTIMATES

The ILO modelled estimates provide time-series on employment in agriculture, forestry and fishing, which include both nationally reported observed and imputed data for countries with missing data, allowing for the computation of regional and global estimates of labour market indicators.

According to these estimates, employment in agriculture, forestry and fishing declined globally from 1 billion people in 2000 to 873 million people in 2021. The lowest number of people employed in agriculture during the past 20 years was 855 million people in 2020. This reflects the impact of the COVID-19 pandemic on the labour markets, as the decline between 2019 and 2020 was larger than the average of the five previous years due to the movement restrictions and the drop in activity experienced in 2020. In addition, a slight recovery occurred in 2021, as the number of people employed in agriculture increased by about 17.5 million (Figure 1).
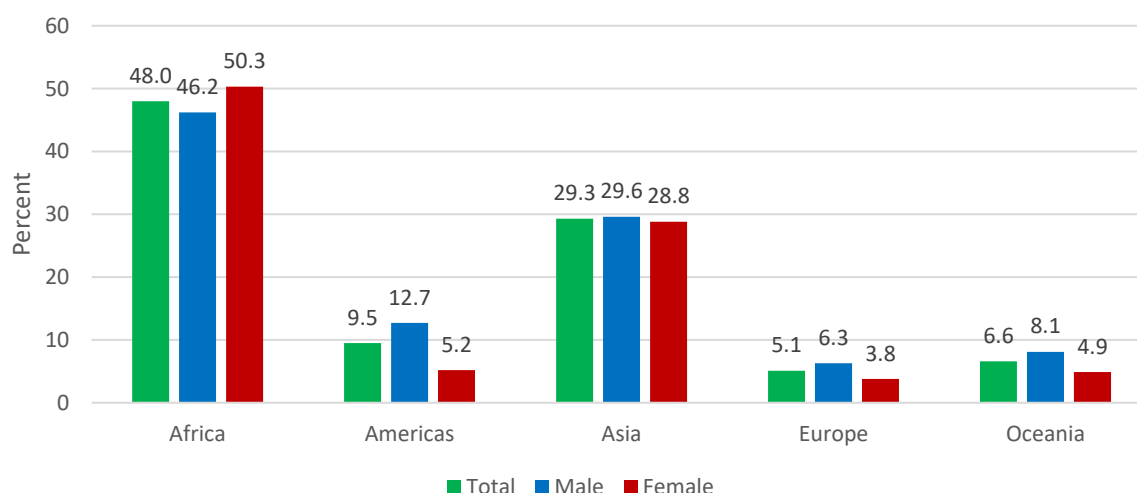
Figure 1: World employment in agriculture, forestry and fishing by sex
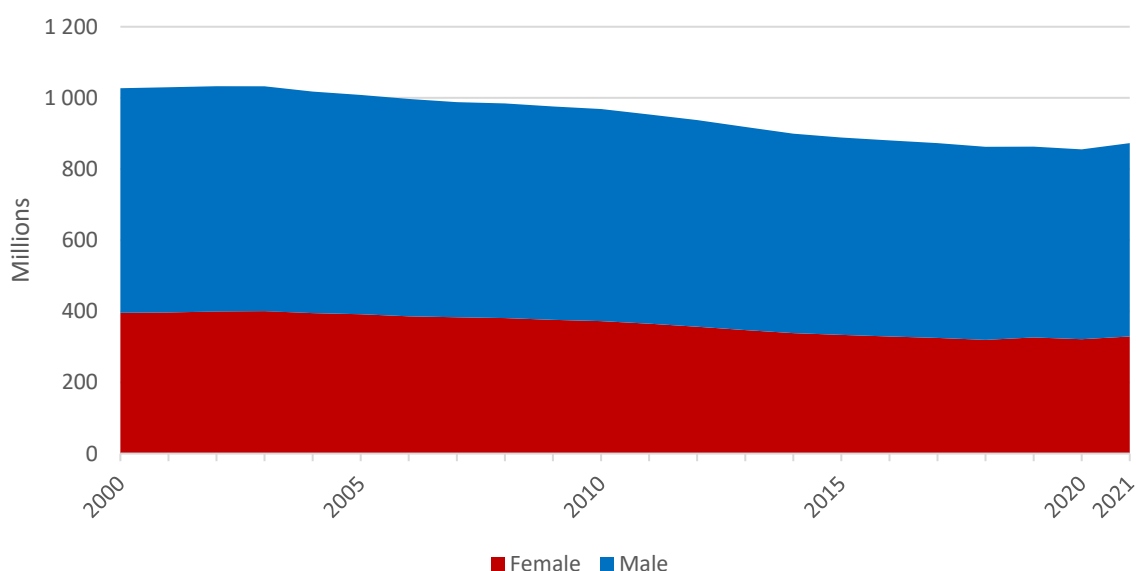
Source: FAO. 2023. Employment Indicators: Agriculture. In: *FAOSTAT*. Rome. [Cited July 2023]. https://www.fao.org/faostat/en/#data/OEA based on ILO Modelled Estimates (Nov. 2022).

The global share of employment in agriculture reached 26.6 percent in 2021, but this average masks great heterogeneity between regions (Figure 2). The share of employment in agriculture in 2021 was highest in Africa (48 percent) and Asia (29.3 percent), followed by the Americas (9.5 percent), Oceania (6.6 percent) and Europe (5.1 percent). Africa stands out as the only region where women are more likely to work in agriculture compared to men (50.3 percent vs 46.2 percent). The gap between men and women is largest in the Americas, where 12.7 percent of men work in agriculture compared to only 5.2 of women.
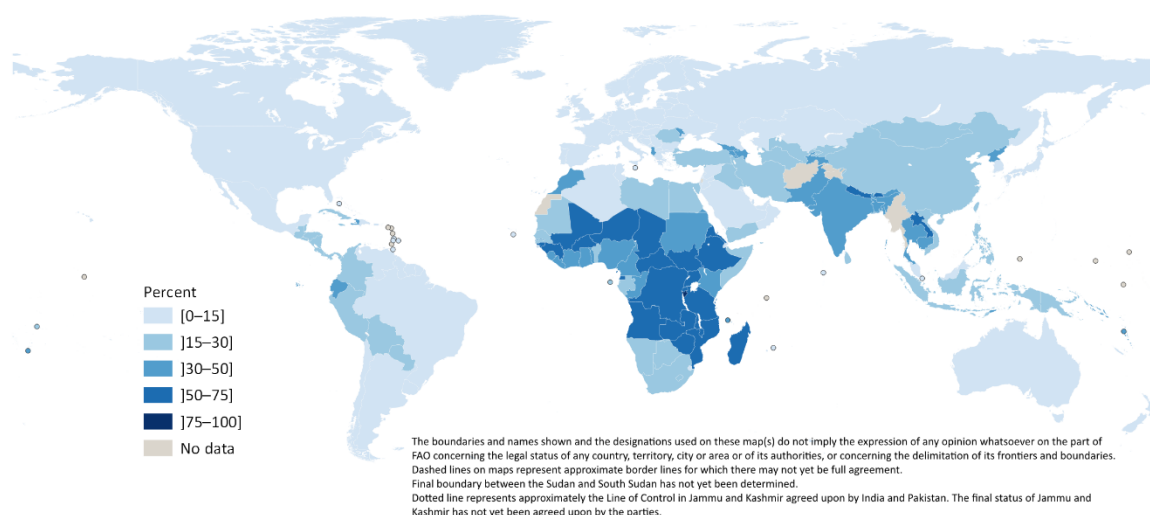
Figure 2: Share of employment in agriculture, forestry and fishing in total employment, by sex and region, 2021

Source: FAO. 2023. Employment Indicators: Agriculture. In: *FAOSTAT*. Rome. [Cited July 2023]. https://www.fao.org/faostat/en/#data/OEA based on ILO Modelled Estimates (Nov. 2022).

While Africa as a whole has the highest share of employment in agriculture among all regions, Figure 3 shows that agriculture constitutes the main sector of employment in sub-Saharan Africa. Burundi had the highest share of employment in agriculture in 2021 (85.9 percent), followed by Madagascar, Burkina Faso, the Niger and Mozambique, where the share of employment in agriculture exceeded 70 percent. Nepal, the Lao People's Democratic Republic and Bhutan are the only countries outside Africa with a share of employment in agriculture above 50 percent.

Figure 3: Share of employment in agriculture, forestry and fishing in total employment, 2021

The boundaries and names shown and the designations used on these map(s) do not imply the expression of any opinion whatsoever on the part of FAO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers and boundaries. Dashed lines on maps represent approximate border lines for which there may not be full agreement.
Final boundary between the Sudan and South Sudan has not yet been determined.
Dotted line represents approximately the Line of Control in Jammu and Kashmir agreed upon by India and Pakistan. The final status of Jammu and Kashmir has not yet been agreed upon by the parties.

Source: FAO. 2023. Employment Indicators: Agriculture. In: *FAOSTAT*. Rome. [Cited July 2023]. https://www.fao.org/faostat/en/#data/OEA based on UN Geospatial. 2020. Map geodata [shapefiles]. New York, USA, UN and ILO Modelled Estimates (Nov. 2022).

COUNTRY RESULTS (2021)

The results shown in this section refer to annual data derived mostly from available household-based surveys and do not allow to present regional or global aggregates. Depending on the implementation of the 19th International Conference of Labour Statisticians (ICLS) standards by the countries, the employment figures may refer to the latest resolution.[2]

Employment in agriculture, forestry and fishing by sub-sectors (two-digits ISIC divisions)

According to the International Standard Industrial Classification of all Economic Activities (ISIC), the broad agricultural sector comprises the following two-digit level divisions: 01 "Crop and animal production, hunting and related service activities"; 02 "Forestry and logging", and 03 "Fishing and aquaculture".

The crop, animal production, hunting and related service activities was the biggest sector of employment within agricultural employment in 2021 for each of the 67 countries with data available, with shares between 52.5 percent in Brunei Darussalam and 99.5 percent in Palestine. In Brunei Darussalam, the fishing and aquaculture sector represented 48 percent of agricultural employment in 2021. The highest share of forestry and logging employment in total agricultural employment was recorded in Slovakia with 27 percent.

Figure 4: Share of employment in agriculture, forestry and fishing in 2021 by sub-sectors (two-digits ISIC divisions), top countries
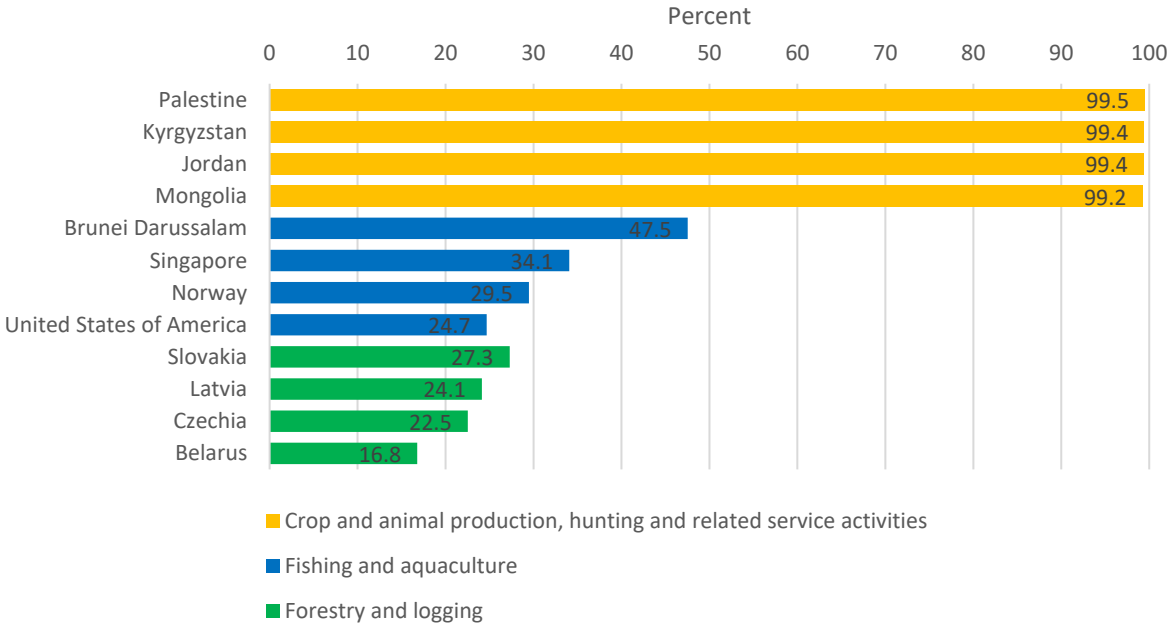
Source: FAO. 2023. Employment Indicators: Agriculture. In: *FAOSTAT*. Rome. [Cited July 2023]. https://www.fao.org/faostat/en/#data/OEA based on ILOSTAT Labour Force Statistics database.

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[2] The degree of implementation of these new standards varies by country and is increasing over time with recent surveys.

Status in employment in agriculture, forestry and fishing

The FAOSTAT employment indicators break down the status in employment of the people working in the agricultural sector using the 1993 International Classification of Status in Employment (ICSE-93),[3] which classifies agricultural workers in two main types of jobs: employees[4] and self-employed workers.[5] A third category is used for agricultural workers not classifiable by status.

Overall, the data show that most workers in agriculture are self-employed workers. Nevertheless, it is important to consider the breakdown of agricultural employees, as this category of workers earns wages. The share of female employees in total employees is generally low (28 percent on average based on the European Labour Force survey data from 17 countries) and exceeds 50 percent only in four of the countries for which data are available in 2021: Trinidad and Tobago (50.1 percent), Slovenia (53.4 percent), Rwanda (53.3 percent) and Singapore (54.1 percent) (Figure 5). In 2021, in Jordan, Palestine and Iraq, the share of female agricultural employees remains significantly low, which could also be related to the low employment rate of women in these countries.

Figure 5: Share of female employees in total employees in agriculture, forestry and fishing in 2021, top and bottom countries
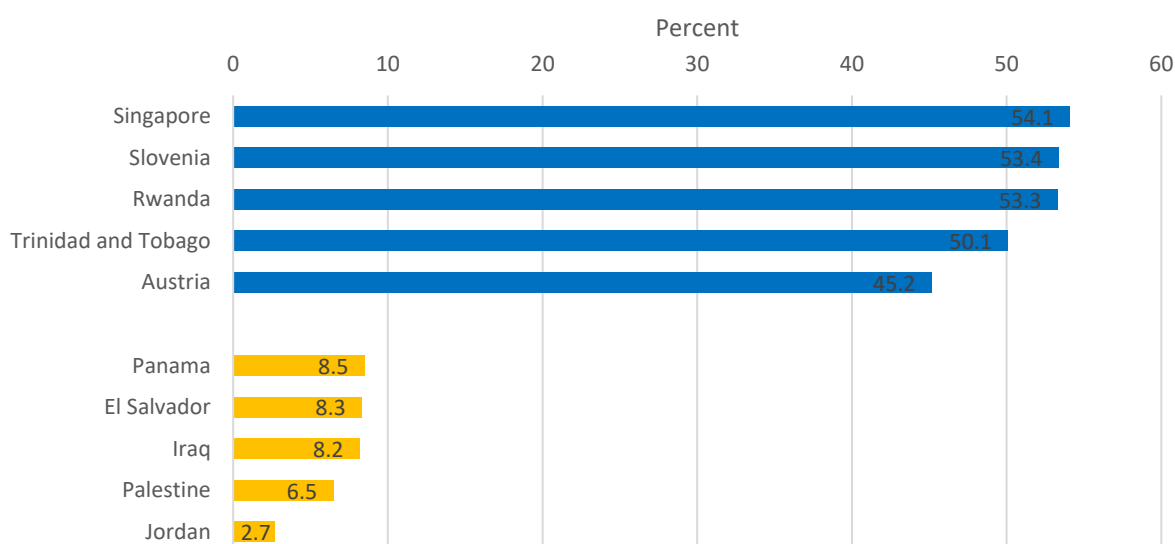
Source: FAO. 2023. Employment Indicators: Agriculture. In: *FAOSTAT*. Rome. [Cited July 2023]. https://www.fao.org/faostat/en/#data/OEA based on ILOSTAT Labour Force Statistics database.

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[3] Using the ICSE-93 classification, the ILOSTAT database classifies jobs into five main categories, which are then grouped under two main types of jobs: paid employment jobs (employees) and self-employment jobs (employers, own-account workers, contributing family workers and members of producers' cooperatives). A sixth category is reserved for workers not classifiable by status.
[4] Employees are all workers who hold paid employment jobs, which are those where the incumbents hold employment contracts that give them a basic remuneration not directly dependent upon the revenue of the unit for which they work.
[5] Self-employed workers are those workers who, working on their own account or with one or a few partners or in cooperative, hold jobs where the remuneration is directly dependent upon the profits derived from the goods and services produced.

Hours worked of people working in agriculture, forestry and fishing

Data on mean weekly hours actually worked per employed person and per employee by sex for the people working in agriculture offer a useful complement of information to data on the number of employed people. While the hours of work in agriculture tend to be extremely long during the planting and harvesting season, they are shorter during off-peak times. Based on 76 countries for which data are available, the average number of hours worked in agriculture, forestry and fishing was 37.5 hours per week in 2021 for all agricultural workers. Moreover, the data show a gap in hours worked in agricultural employment by sex, with women working an average of 32.8 hours per week, compared to 39.4 hours per week for men. This difference in hours worked reflects only the time spent at the main job and does not reflect the additional hours spent on food processing and preparation for the household, child and elderly care, water and fuel collection, and other unpaid household duties, which are tasks performed more frequently by women than by men.

Moreover, the data show that in 2021, Kyrgyzstan was the country with the highest difference of hours worked between male and female employees in agriculture (Figure 6). While women worked around 16.8 hours, men worked 28.4 hours, or 75 percent more than women. Kyrgyzstan was followed by Iceland and Switzerland, where male employees were working 60 percent longer hours than female employees. Looking at the hours spent on a given job alone may hide the variety of labour markets existing across the world such as the part-time jobs that can facilitate the life of women, or the lack of full-time jobs for certain groups, the segregation existing in certain sectors as well as the absence of equal pay for equal work.

Figure 6: Countries with largest hours gap between male and female employees (>=25 percent) working in agriculture, 2021
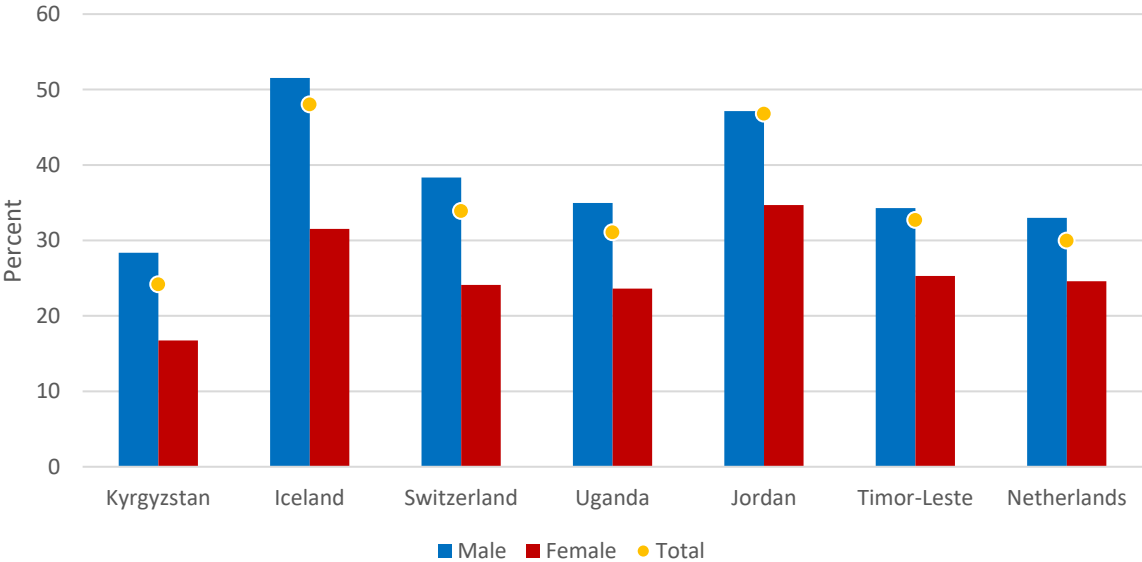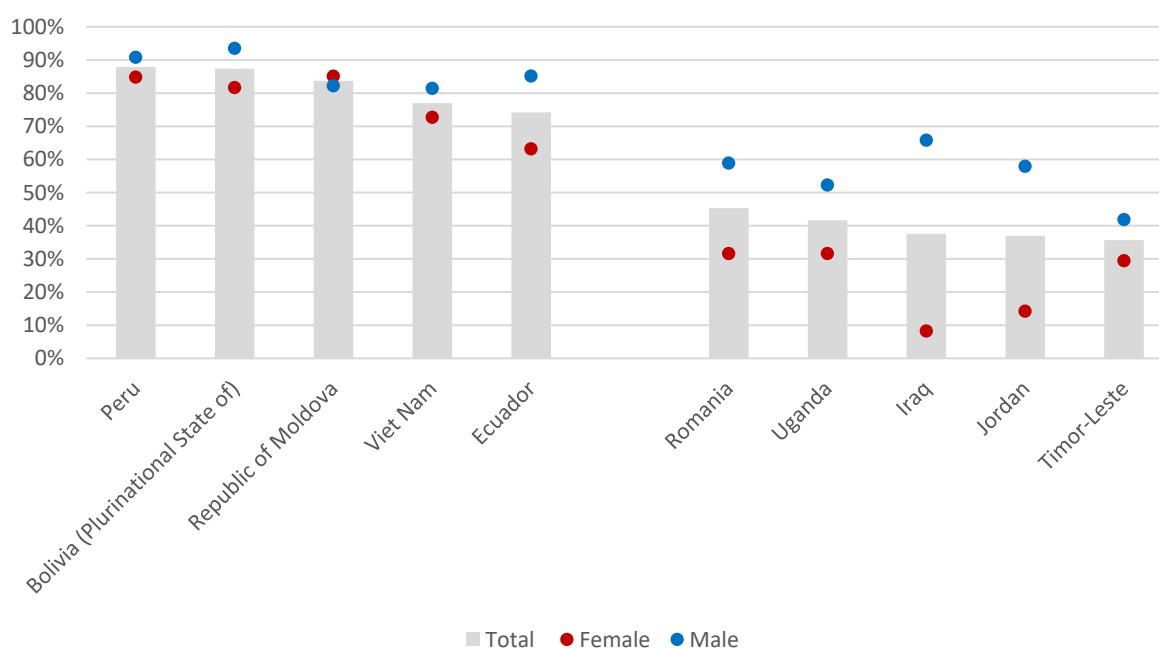

Source: FAO. 2023. Employment Indicators: Agriculture. In: *FAOSTAT*. Rome. [Cited July 2023]. https://www.fao.org/faostat/en/#data/OEA based on ILOSTAT Labour Force Statistics database.

Labour force participation rate by age and sex in rural areas

The labour force participation rate in rural areas is calculated as the ratio of the number of persons in the labour force (i.e. the people employed and the people seeking work) as a percentage of the working-age population. Among the countries for which data are available in 2021, Peru has the highest labour force participation rate, with almost nine people of working age out of ten employed or looking for a job in rural areas (Figure 7). It is followed by the Plurinational State of Bolivia, the Republic of Moldova and Viet Nam, where approximately 80 percent of the population living in rural areas were in the labour force in 2021. On the other hand, in Timor-Leste, Jordan and Iraq, the labour force participation rate stayed below 40 percent of the rural population. The gender differences are striking in the Near East countries with available data: in Iraq, for example, only 8.2 percent of the rural women were in the labour force compared to 65.8 percent of rural men.

Figure 7: Labour force participation rate by gender in rural areas in 2021, top and bottom ranking countries

Source: FAO. 2023. Employment Indicators: Rural. In: *FAOSTAT*. Rome. [Cited July 2023]. https://www.fao.org/faostat/en/#data/OER based on ILOSTAT Rural and Urban Labour Markets database.

The indicator on the labour force participation rate in rural areas is further disaggregated by age groups.[6] Among the bottom and top-ranking countries, the persons aged between 25 and 54 years old are, on average, more likely to be engaged in the labour market than the rest of the population.
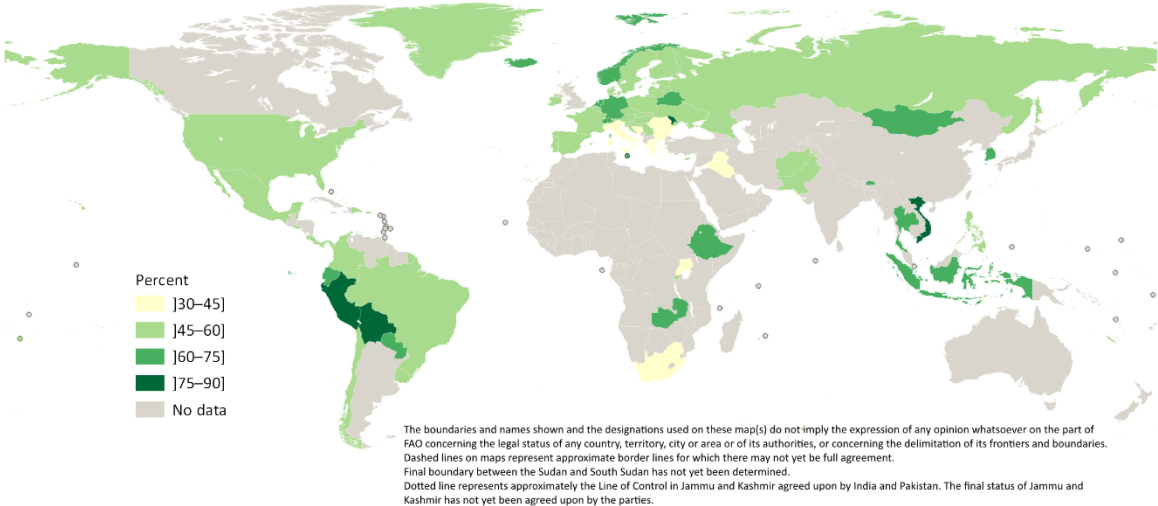
In terms of gender gap, women are less likely to participate in the labour market than men of the same age cohort. The data suggest that young women are less actively engaged in the labour market compared to older women; however, the gender gap seems to increase with age.

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[6] The age groups correspond to individuals between 15 and 24 years old, 25 and 54 years old, 55 and 64 years old, and over 65 years old.

Employment-to-population ratio

In rural areas, the employment-to-population ratio (defined as the proportion of a country's working-age population that is employed), is very heterogeneous across the countries for which the data are available, ranging between 28.9 percent in Jordan and 87.5 percent in Peru in 2021 (Figure 8). While low employment rates could indicate a lack of jobs on the labour market, the exclusion of own-use production workers (comprising the production of goods and services for own final use) from the employment definition may also affect the employment rate in rural areas where subsistence food production is widespread. This is particularly visible in sub-Saharan Africa countries where the latest ICLS resolution concerning statistics of the economically active population, employment, unemployment and underemployment is implemented.

Figure 8: Employment-to-population ratio in rural areas, 2021

Percent
]30–45]
]45–60]
]60–75]
]75–90]
No data

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EXPLANATORY NOTES

FAOSTAT disseminates 18 indicators on employment in agriculture and in rural areas:

Employment in agriculture:

> Employment in agriculture, forestry and fishing by age

> Employment in agriculture, forestry and fishing status in employment

> Employment in agriculture, forestry and fishing by sub-sectors

> Mean weekly hours actually worked per employed person in agriculture, forestry and fishing

> Mean weekly hours actually worked per employee in agriculture, forestry and fishing

> Share of employment in agriculture, forestry and fishing in total employment

> Share of females in total employment in agriculture, forestry and fishing

> Share of employment agriculture, forestry and fishing by sub-sectors

> Share of employees in agriculture, forestry and fishing in total employees

> Share of female employees in total employees in agriculture, forestry and fishing

> Agriculture value added per worker (constant 2015 USD)

> Employment in agriculture, forestry and fishing ILO modelled estimates

> Share of employment in agriculture, forestry and fishing in total employment - ILO modelled estimates.

Employment in rural areas:

> Employment by age in rural areas

> Employment by status in employment in rural areas

> Labour force participation rate by age in rural areas

> Employment-to-population ratio by age in rural areas

> Share of employment by status in employment in rural areas

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