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FAOSTAT ANALYTICAL BRIEF 92

Employment indicators

2000–2022

October 2024 update

>> FAO Statistics Division

HIGHLIGHTS

- → **Close to 1.3 billion people, or 39.2 percent of the global workforce, were employed in agrifood systems in 2021.**
- → **About 70 percent of agrifood system employment in Africa and Asia is in agriculture, while in the Americas, Europe, and Oceania, this proportion is around 40 percent.**
- → **Non-agricultural agrifood system employment remained stable globally at around 13 percent between 2000 and 2021.**
- → **The agricultural sector* employed 892 million people worldwide in 2022, which corresponds to 26.2 percent of total employment. Women constituted 28.5 per cent of the global agricultural workforce.**
- → **The share of employment in agriculture in 2022 was highest in Africa (48 percent) and lowest in Europe (5 percent).**
- → **In most countries, the share of men and women working in agriculture as employees remained low, and below 10 percent in 2022.**
- → **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 2022, women in agriculture worked on average 37 hours per week, compared to 41.7 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) and 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.[1]

[1] The data for global and regional results on employment in agriculture are retrieved using the latest version of the ILO Modelled estimates (November 2023) as of May 2024. The results shown in the country results section refer to

As of October 2024, FAOSTAT disseminates five new indicators on employment in agrifood systems (AFS) for the period 2000–2021 at the country, regional and global levels.[2] These indicators extend FAO's recent efforts to develop a methodology to estimate employment in agrifood systems over the last few years. In 2023, a statistical working paper (Davis *et al.*, 2023) was published with regional and global estimates using an operational definition that classifies individuals that are employed in AFS based on two-digit level codes of the International Standard Industrial Classification of All Economic Activities (ISIC).

Since then, FAO has been refining the methodology to publish country-level estimates in FAOSTAT, alongside global and regional aggregates. These new indicators supplement the agricultural estimates published by ILOSTAT and encompass the entire agrifood system, including off-farm employment. Consequently, agrifood system employment is divided into two sub-components: agricultural AFS employment and non-agricultural AFS employment.

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

GLOBAL AND REGIONAL RESULTS ON EMPLOYMENT IN AGRIFOOD SYSTEMS

According to the new FAO model developed to estimate the number of people employed in agrifood systems, approximately 1.3 billion people were working in this sector in 2021,[3] representing 39.2 percent of the global workforce (Figure 1).

Asia recorded the highest number of people employed in agrifood systems, with 830 million people. Notably, India and China[4] accounted for nearly 60 percent of AFS employment in Asia. Africa followed with an estimated 300 million people employed in agrifood systems. The Americas had slightly more than 100 million people employed, while Europe and Oceania had significantly lower numbers, with 50 million and around 4 million people employed in the sector, respectively. Asia and Africa together account for the bulk of global employment in agrifood systems (87.9 percent).[5]

2022 annual data accessed in May 2024 through the ILOSTAT LFS and RURURB databases. Please refer to the explanatory notes of this brief to see the list of indicators.

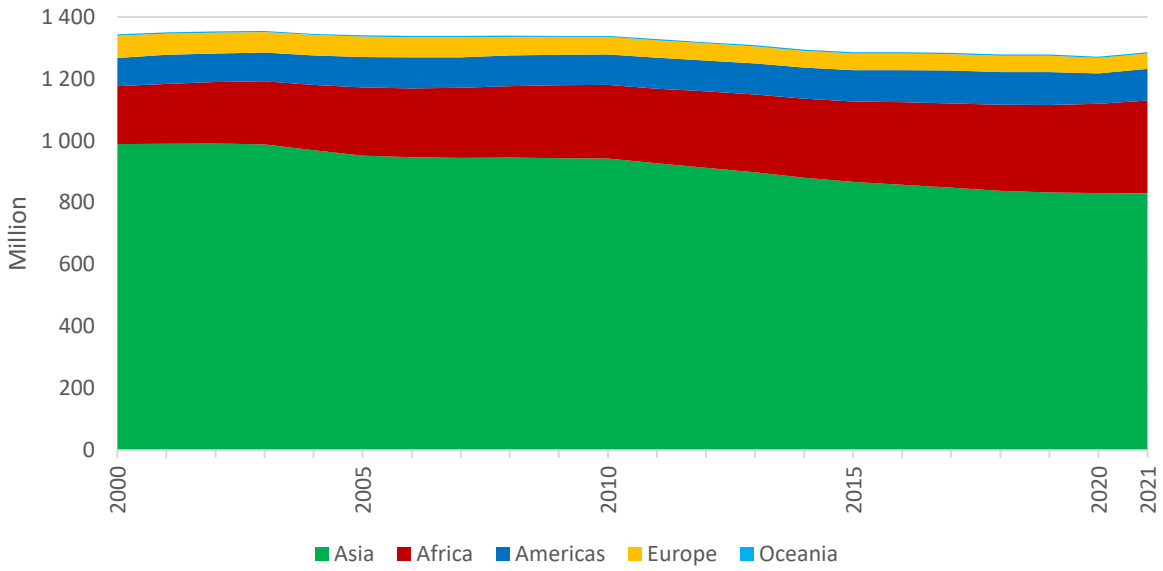
[2] The global and regional agrifood system employment numbers include estimates for 42 countries that are not disseminated in FAOSTAT due to concerns about the reliability and uncertainty of the estimates, as these countries do not have yet any official data points available in the ILOSTAT database for ISIC two-digit level codes. Additionally, ten small island countries and territories are excluded from the model as the ILO modelled estimates, which are used in the model, do not provide any data for them. Consequently, the data are complete for 76 percent of the countries globally.

[3] The regional aggregates are available until 2021, as the country-level data for 2022 are not yet sufficient to inform the regional estimates.

[4] The agricultural aggregates derived from the FAO model may show slight differences compared to the employment in agriculture disseminated in ILOSTAT. The FAO model incorporates data from specific sources, such as the Chinese Academy for Agricultural Sciences (CAAS) for China and official statistics, such as NAICS four-digit level statistics from Statistics Canada for Canada. Additionally, when non-modelled data with ISIC codes at the two-digit level are available in ILOSTAT, the share of AFS employment in total employment is calculated and applied to the total employment in the ILO modelled estimates. Therefore, slight discrepancies between the totals reported by the ILO and FAO models may arise due to these methodological differences and data sources used by each organization.

[5] The global and regional aggregates do not include Burkina Faso, Equatorial Guinea, Gabon, the Republic of Moldova and Rwanda due to unreliable data.

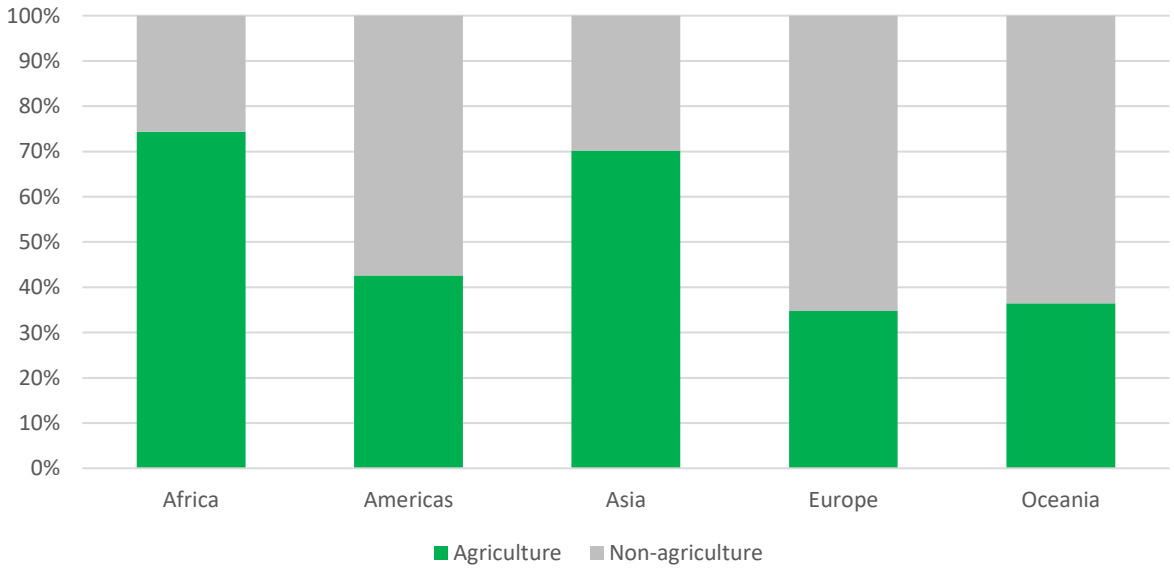
Figure 1: Total employment in agrifood systems by region



Source: FAO. 2024. FAOSTAT: Employment Indicators: Agriculture and agrifood systems. [Accessed October 2024]. https://www.fao.org/faostat/en/#data/OEA. Licence: CC-BY-4.0.

The data highlight significant variations in the distribution of employment within the agrifood systems across regions. In Africa and Asia, a substantial majority (70–75 percent) of this employment is within the agricultural sector, while in the Americas, Europe and Oceania, a higher proportion of employment (55–65 percent) is found in off-farm agrifood system activities (Figure 2).

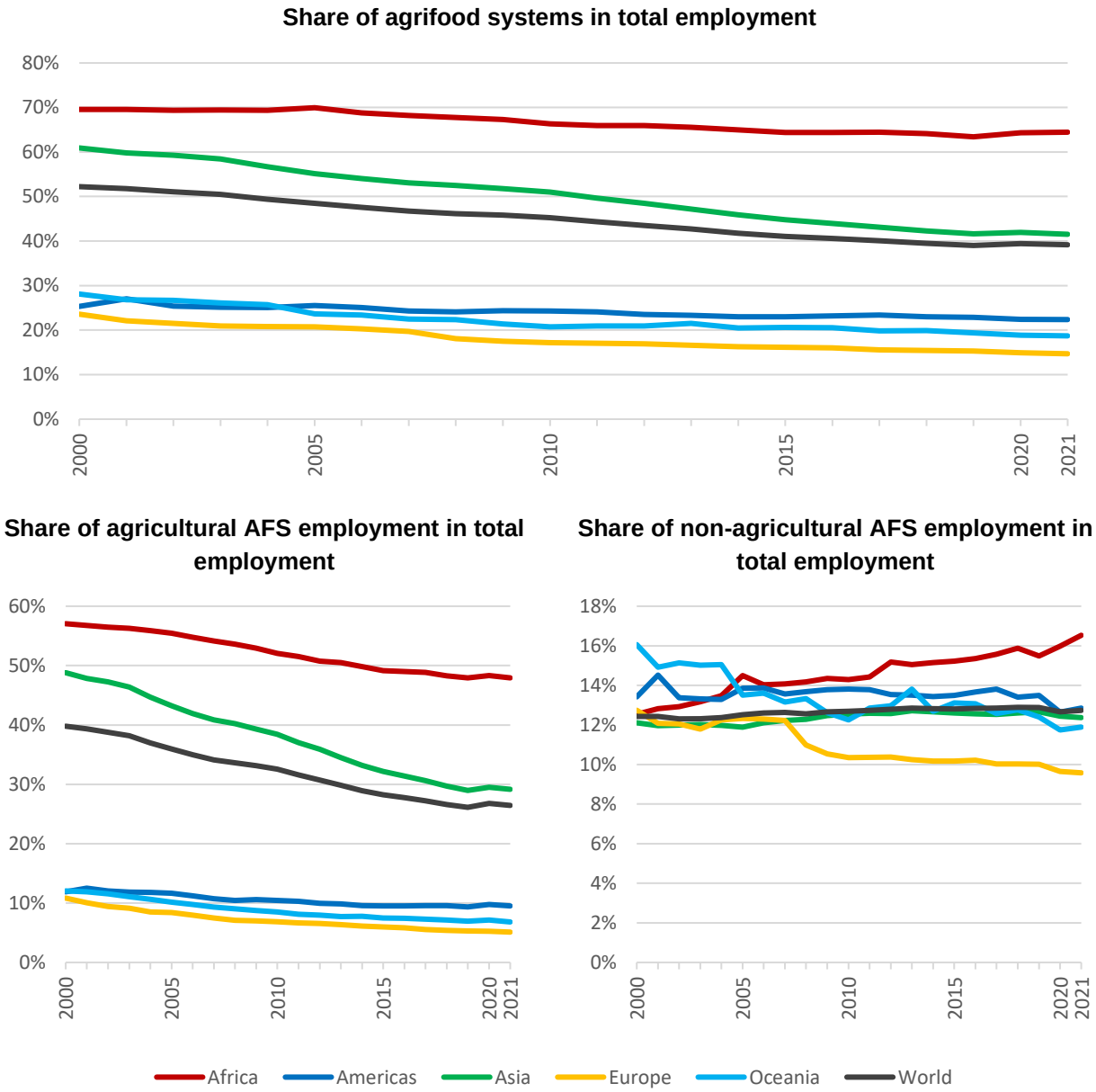
Figure 2: Agrifood systems employment by sector and region (2021)



Source: FAO. 2024. FAOSTAT: Employment Indicators: Agriculture and agrifood systems. [Accessed October 2024]. https://www.fao.org/faostat/en/#data/OEA. Licence: CC-BY-4.0.

The global share of AFS employment in total employment declined from 52.2 percent in 2000 to 39.2 percent in 2021, indicating a significant shift away from agrifood systems towards other sectors over the past two decades. Concurrently, the share of non-agricultural employment in agrifood systems increased in the world and across regions, potentially driven by economic diversification and industrialization: the global share of agricultural employment in total employment decreased from 39.8 percent in 2000 to 26.4 percent in 2021, whereas the share of non-agricultural AFS employment in total employment remained stable globally around 13 percent with some variations by region over time. Since 2000, the share of non-agricultural AFS employment in total employment has been increasing only in Africa and has been stable or decreasing in the other regions.

Figure 3: Share of AFS employment and its subcomponents in total employment by region



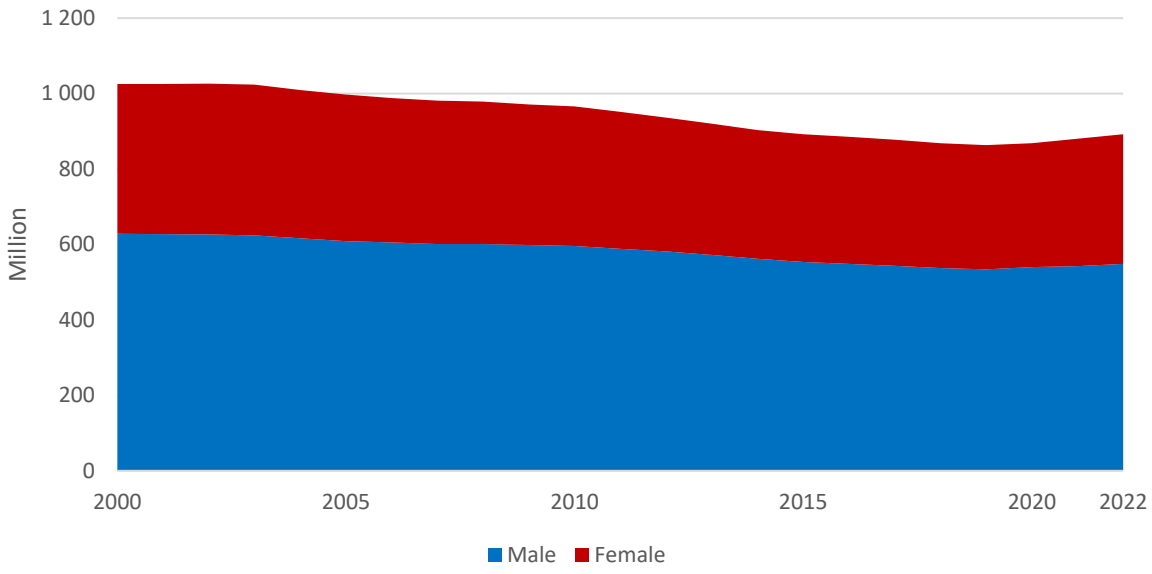
Source: FAO. 2024. FAOSTAT: Employment Indicators: Agriculture and agrifood systems. [Accessed October 2024]. https://www.fao.org/faostat/en/#data/OEA. Licence: CC-BY-4.0.

GLOBAL AND REGIONAL RESULTS ON EMPLOYMENT IN AGRICULTURE

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

According to the latest ILO modelled estimates (November 2023), global employment in agriculture, forestry and fishing decreased from 1 billion people in 2000 to 892 million people in 2022. The lowest number of people employed in agriculture during the past 20 years was 863 million people in 2019. The data show a modest recovery starting in 2020, with an increase of approximately 29 million people employed in agriculture over three years (Figure 4), which could be linked to the impact of the COVID-19 pandemic as many individuals returned to rural areas and took up farming, reversing the long-term decline in agricultural employment observed in many regions (Amankwah and Gourlay, 2022). With 343 million female workers compared to 549 million male workers, women accounted for 28.5 percent of the 892 million people working in agriculture in 2022, representing a marginal decline from 2000 (38.7 percent).

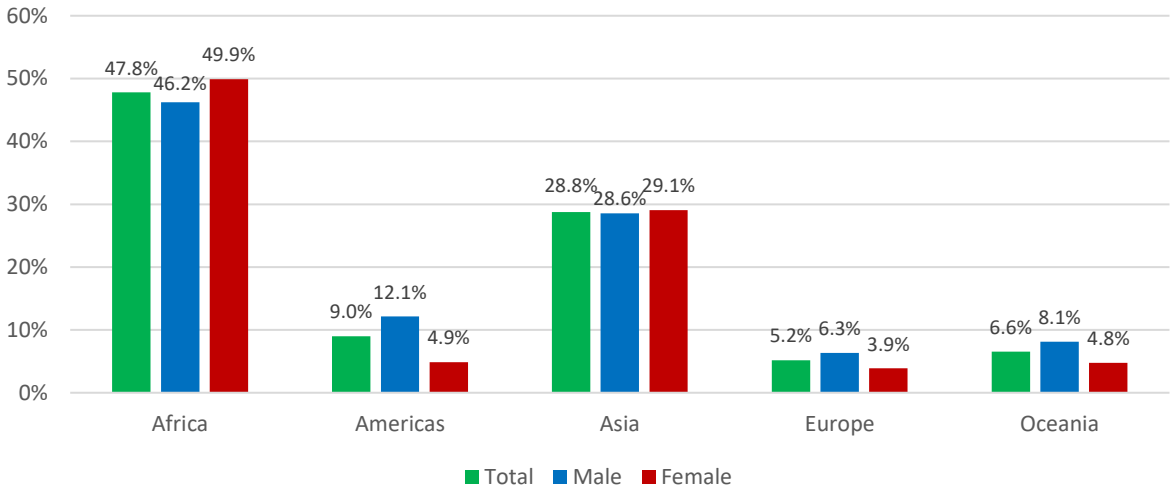
Figure 4: World employment in agriculture, forestry and fishing by sex



Source: FAO. 2024. FAOSTAT: Employment Indicators: Agriculture and agrifood systems. [Accessed October 2024]. https://www.fao.org/faostat/en/#data/OEA. Licence: CC-BY-4.0.

In 2022, the global share of employment in agriculture was 26.2 percent, yet this masks significant differences across regions (Figure 5). Africa had the highest share (47.8 percent), followed by Asia (28.8 percent), the Americas (9.0 percent), Oceania (6.6 percent) and Europe (5.2 percent). Notably, Africa was the only region where women were more likely to work in agriculture than men, with 49.9 percent of women employed compared to 46.2 percent of men. Conversely, the largest gender disparity was observed in the Americas, where 12.1 percent of men worked in agriculture compared to only 4.9 percent of women.

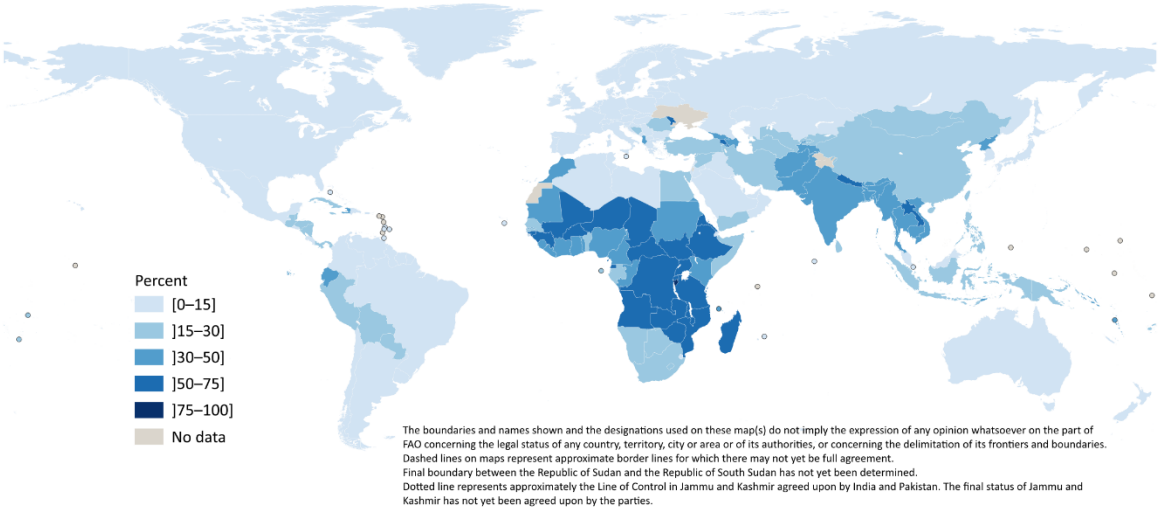
Figure 5: Share of employment in agriculture, forestry and fishing in total employment by sex and region (2022)



Source: FAO. 2024. FAOSTAT: Employment Indicators: Agriculture and agrifood systems. [Accessed October 2024]. https://www.fao.org/faostat/en/#data/OEA. Licence: CC-BY-4.0.

Figure 6 shows that agriculture is the main sector of employment in sub-Saharan Africa, complementing the findings of Figure 5. In 2022, Burundi recorded the highest proportion of agriculture in total employment (85.1 percent), followed by Burkina Faso, the Niger, the Central African Republic, Madagascar and Mozambique, where the share of agricultural employment exceeded 70 percent. Outside of Africa, Armenia, the Republic of Moldova, Nepal and the Lao People's Democratic Republic are the only countries where the agricultural sector provides jobs to more than 50 percent of the working population.

Figure 6: Share of employment in agriculture, forestry and fishing in total employment (2022)



Source: FAO. 2024. FAOSTAT: Employment Indicators: Agriculture and agrifood systems. [Accessed October 2024]. https://www.fao.org/faostat/en/#data/OEA. Licence: CC-BY-4.0.

COUNTRY RESULTS (2022)

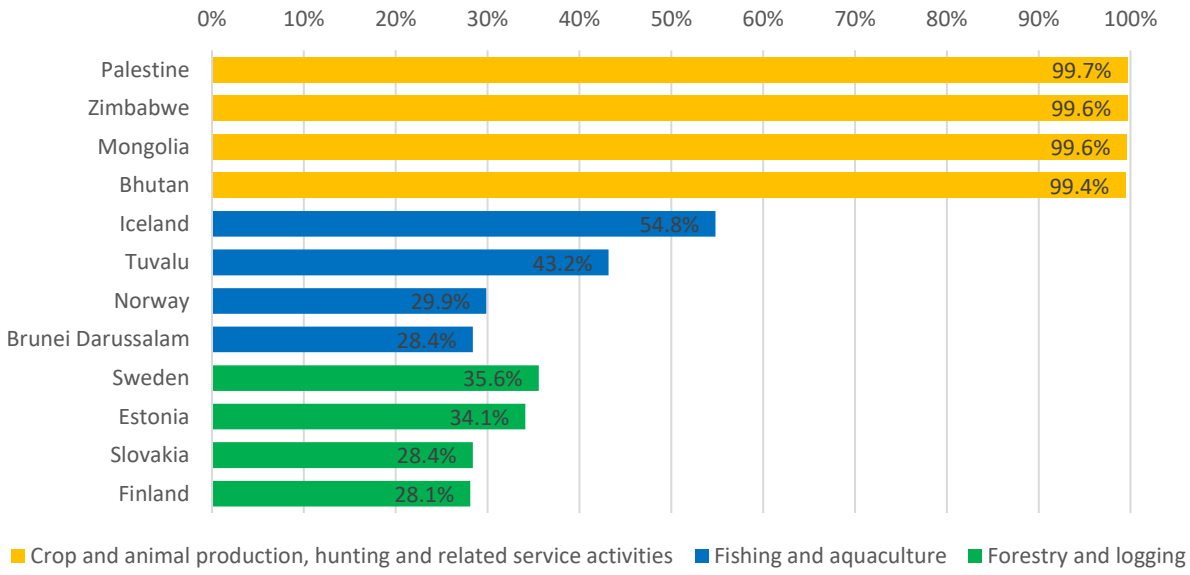
The results shown in this section refer to annual data derived mostly from available household-based surveys and do not allow to present regional or global aggregates. Depending on the implementation of the 19th International Conference of Labour Statisticians (ICLS) standards by the countries, the employment figures may refer to the latest resolution.[6]

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

The ISIC divides the broad agricultural sector into 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”.

In 2022, crop and animal production, hunting, and related service activities constituted the largest sector of employment within the agricultural sector in the vast majority of the 82 countries with available data. The shares varied widely, ranging from 45.2 percent in Iceland to 99.7 percent in Palestine. In Iceland, fishing and aquaculture accounted for 54.8 percent of agricultural employment in 2022. The highest proportion of employment in forestry and logging in total agricultural employment was observed in Sweden, with a share of 35.6 percent.

Figure 7: Share of employment in agriculture, forestry and fishing in 2022 by subsectors (two-digit ISIC divisions), top countries



Source: FAO. 2024. FAOSTAT: Employment Indicators: Agriculture and agrifood systems. [Accessed October 2024]. https://www.fao.org/faostat/en/#data/OEA. Licence: CC-BY-4.0.

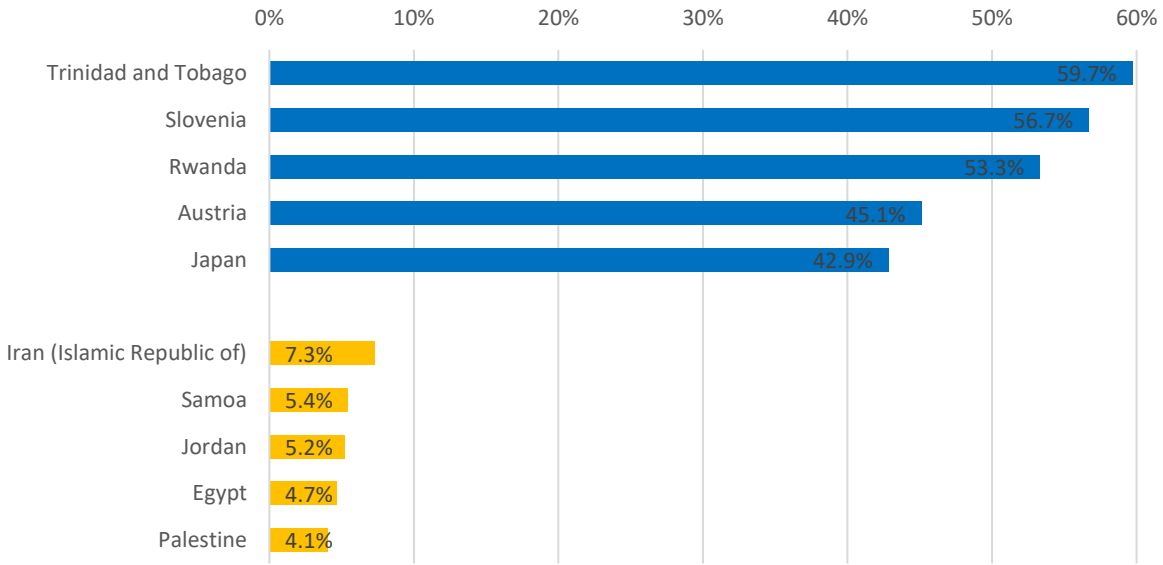
[6] The degree of implementation of these new standards varies by country and is increasing over time with recent surveys.

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),[7] which classifies agricultural workers in two main types of jobs: employees[8] and self-employed workers.[9] 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 (29 percent on average based on the European Labour Force survey data from 20 countries) and exceeds 50 percent only in three of the countries for which data are available in 2022: Trinidad and Tobago (59.7 percent), Slovenia (56.7 percent) and Rwanda (53.3 percent) (Figure 8). In 2022, in Palestine, Egypt, Jordan, Samoa and the Islamic Republic of Iran, 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 8: Share of female employees in total employees in agriculture, forestry and fishing in 2022, top and bottom countries



Source: FAO. 2024. FAOSTAT: Employment Indicators: Agriculture and agrifood systems. [Accessed October 2024]. https://www.fao.org/faostat/en/#data/OEA. Licence: CC-BY-4.0.

[7] 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.

[8] 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.

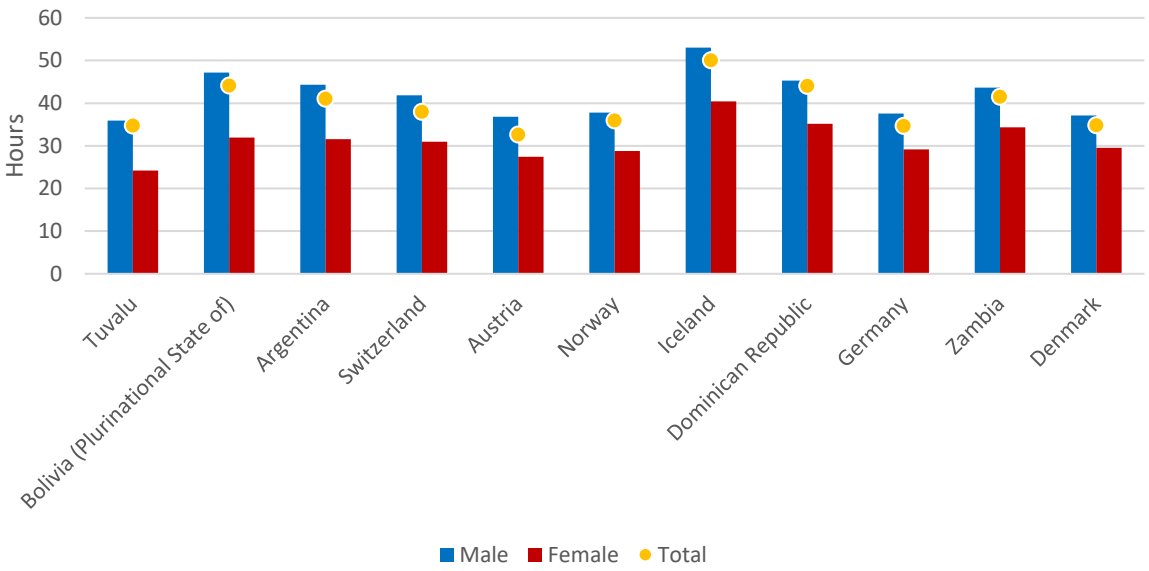
[9] Self-employed workers are those workers who, working on their own account or with one or a few partners or in cooperative, hold jobs where the remuneration is directly dependent upon the profits derived from the goods and services produced.

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 complementary information to data on the number of employed people. Typically, hours worked in agriculture vary significantly throughout the year, with longer hours during planting and harvesting seasons and shorter hours during off-peak times. Based on data from 88 countries in 2022, the average number of weekly hours worked in agriculture, forestry and fishing was 40.5 hours per week for all agricultural workers. Moreover, the data show a gap in hours worked in agricultural employment by sex. Women, on average, worked 37 hours per week, whereas men worked 41.7 hours per week.

Furthermore, the data highlight significant disparities between male and female workers in certain countries (Figure 9). In 2022, Tuvalu exhibited the highest disparity in hours worked between genders, with women averaging 24.2 hours per week compared to 36 hours for men – a 48 percent difference. The Plurinational State of Bolivia and Argentina followed, as male employees there worked more than 40 percent longer hours than their female counterparts. Women often shoulder additional responsibilities such as household chores, childcare and elderly care, which are typically unpaid and not captured in this brief.

Figure 9: Countries with largest hours gap between male and female employees (≥ 25 percent) working in agriculture (2022)



Source: FAO. 2024. FAOSTAT: Employment Indicators: Agriculture and agrifood systems. [Accessed October 2024]. https://www.fao.org/faostat/en/#data/OEA. Licence: CC-BY-4.0.

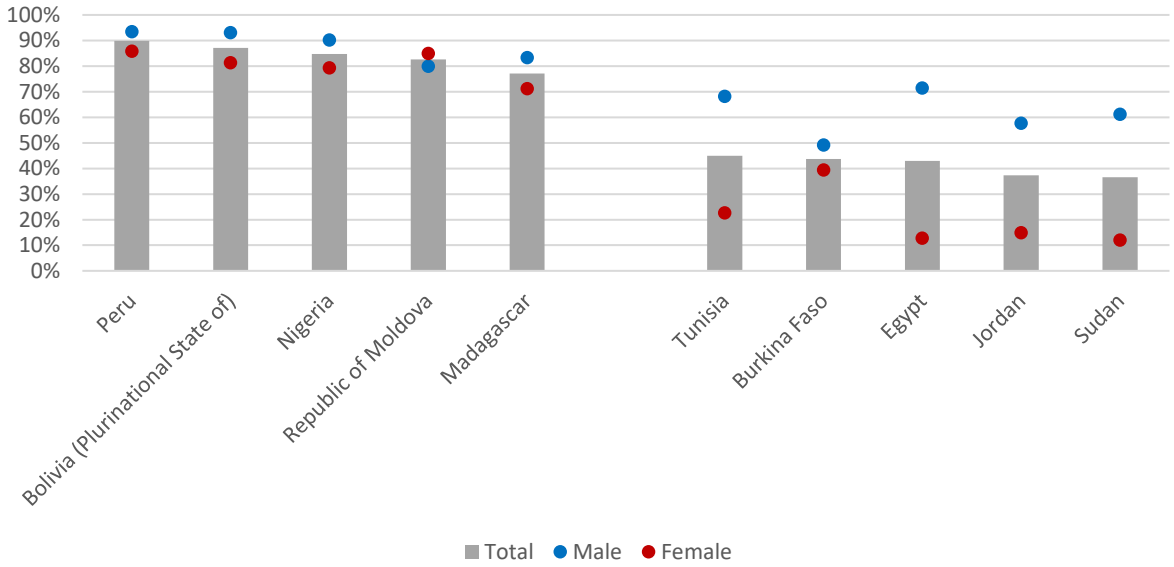
Labour force participation rate by age and sex in rural areas

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. In 2022, Peru showed the highest labour force participation rate among the countries with available data, with nearly nine out of ten working-age individuals in rural areas in the labour force

(Figure 10). Following Peru, the Plurinational State of Bolivia and the Republic of Moldova reported labour force participation rates of around 80 percent in their rural populations.

On the other hand, the Sudan, Jordan and Egypt exhibited lower labour force participation rates, with less than 40 percent of their rural populations actively participating in the labour force in 2022. Notably, gender disparities are stark in the Near East countries where data are available: in the Sudan and Jordan, for instance, only about 10 percent of rural women were part of the labour force, compared to 66 percent and 58 percent of rural men, respectively. These differences underscore significant challenges and inequalities in access to economic opportunities for women.

Figure 10: Labour force participation rate by gender in rural areas, top and bottom ranking countries (2022)



Source: FAO. 2024. FAOSTAT: Employment Indicators: Rural. [Accessed October 2024]. https://www.fao.org/faostat/en/#data/OER. Licence: CC-BY-4.0.

The indicator on the labour force participation rate in rural areas is further disaggregated by age groups.[10] Among the bottom- and top-ranking countries, the persons aged between 25 and 54 years 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.

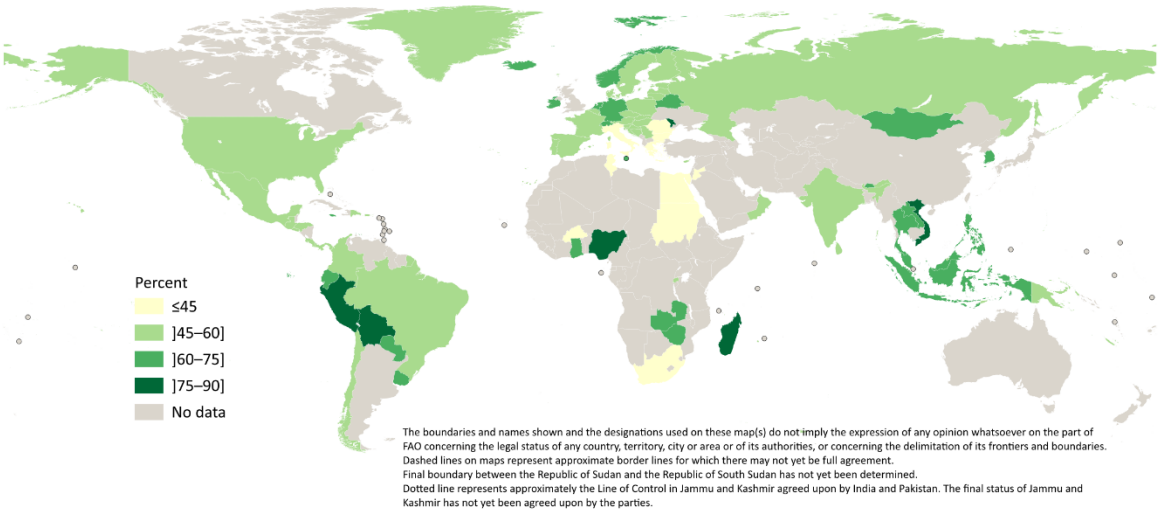
Employment-to-population ratio

In rural areas, the employment-to-population ratio, which measures the proportion of the working-age population that is employed in the total population, shows significant variation across countries. In 2022, this ratio ranged from a low of 29.5 percent in Jordan to a high of 89.3 percent in Peru (Figure 11). Low

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

employment rates might reflect a shortage of job opportunities in the labour market. Additionally, the exclusion of own-use production workers – those producing goods and services for their own consumption – from the definition of employment may also impact these rates. This is especially relevant in rural areas where subsistence farming is prevalent.

Figure 11: Employment-to-population ratio in rural areas (2022)



Source: FAO. 2024. FAOSTAT: Employment Indicators: Rural. [Accessed October 2024]. https://www.fao.org/faostat/en/#data/OER. Licence: CC-BY-4.0.

EXPLANATORY NOTES

FAOSTAT disseminates 23 indicators on employment in agrifood systems and in rural areas:

Employment in agrifood systems:

- Total employment in agrifood systems (AFS)
- Share of AFS employment in total employment
- Share of agricultural employment in total AFS employment
- Share of non-agricultural AFS employment in total AFS employment
- Total employment in non-agricultural AFS employment
- 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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CONTACTS

Statistics – Economic and Social Development
FAO-Statistics@fao.org
https://www.fao.org/about/who-we-are/departments/statistics-division
Food and Agriculture Organization of the United Nations
Rome, Italy

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