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# Women's Employment in Agrifood Systems in the UNECE Region

## Note by the Food and Agriculture Organization of United Nations[*]

*Abstract*

Global and national policy discourse and agendas are moving beyond traditional silos of agriculture and other economic sectors to address the challenges facing agrifood systems (AFS). Davis et al. (2023) estimate that 1.23 billion people are employed in AFS and that 3.83 billion people worldwide live in households reliant on AFS. Costa et al. (forthcoming) expanded this study and produced global and regional estimates for people working in AFS disaggregated by sex. In this paper, we present the findings for women and men working in AFS focusing on the countries of the UNECE region by analysing the trends from 2005 to 2019 and the heterogeneity across countries and sub-regions within the UNECE region.

The analysis shows that, in 2019, 36.5 million women and 50 million men were employed in AFS within the UNECE region, which corresponds to 13% of working women and 16% of working men. This reflects a decline of four percentage points for women and three percentage points for men since 2005, mainly driven by a decline of employment in agriculture. The paper identifies significant gender inequality in employment in AFS, which worsened during the first year of the Covid-19 pandemic.

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# I.   Introduction

1.  In September 2021, the United Nations Food Systems Summit (UNFSS) – the first of its kind – recognized the centrality of food systems to our lives and their relevance to achieving the 2030 Agenda for Sustainable Development (FAO, 2023a). Agrifood systems (AFS)[1] remain the major driver of economic development and poverty reduction in low-income countries (Fanzo et al., 2021a; Fanzo et al., 2021b; Townsend et al., 2017; Tschirley et al., 2015; Yeboah and Jayne, 2018). Consistent with a process of structural transformation, Davis et al. (2023) find that as national economies develop, the share of people employed in AFS decreases, driven by a decline in employment in agriculture. AFS represents 62% of total employment in Africa, 40% in Asia and 23% in the Americas. The FAO's global report on the Status of Women in Agrifood Systems highlights that, in Sub-Saharan Africa (SSA) and Southern Asia, and generally in Low and Middle-Income countries, AFS is the primary employer for both women and men, but it is a more important source of livelihood for women providing opportunities for incomes, productivity and resilience (FAO, 2023b). Costa et al. (*forthcoming*) show that in SSA, more than 60% of working women and men are engaged in AFS and in Southern Asia, this share reaches 71% for women and 47% for men.

2.  Conversely, employment in AFS constitutes a smaller proportion of total employment in countries belonging to the United Nations Economic Commission for Europe (UNECE)[2]. In particular, the European Union (EU) is the world's largest agrifood exporter and one of the leading importers, putting the region's activities and actions at the helm of global trade.[3]

3.  Knowing where women and men work in agrifood systems, under what conditions and how these employment conditions may differ by gender is critical for designing and targeting policy and programming interventions to enhance the welfare of the workers within agrifood systems and increase gender equality. Increased gender equality is a pathway towards more just, sustainable and resilient agrifood systems (FAO, 2023b).

4.  However, to the best of our knowledge, currently available data and statistics do not readily quantify the number of women and men whose livelihoods depend on employment in AFS in the UNECE region. This paper aims to fill this gap by presenting new data and findings about women's and men's participation in AFS, using macro data with a focus in the UNECE region, a diverse region which includes 56 countries in Europe and North America, including Central and Western Asia. It uses methods first developed by Davis et al. (2023) and the methodology to disaggregate the agrifood-system employment estimates by sex developed by Costa et al. (*forthcoming*). We find that in 2019, 36.5 million women and 50 million men were employed in AFS within the UNECE region. These gender inequalities worsened during the Covid-19 pandemic, which exposed certain fragilities but also highlighted opportunities and refocused attention on food systems (FAO, 2023a). Within the UNECE region, women's employment in AFS declined by 10% between 2019 and 2020, as compared to a 5% reduction of men's employment. Across Europe, North America and Central and Western Asia, women were more likely to experience job losses in AFS, mainly driven by job losses in the non-agricultural segment of AFS.

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[1] Agrifood systems (AFS) encompass the entire range of actors and their interlinked value-adding activities in primary production of food (e.g., agriculture, livestock, forestry, fishing, aquaculture, hunting) and non-food agricultural products, as well as in food storage, aggregation, post-harvest handling, transportation, processing, distribution, marketing, disposal and consumption (FAO, IFAD, UNICEF, WFP and WHO, 2021)

[2] The UNECE region encompasses 56 countries, both high-income and middle-income, across a number of subregions, such as Europe, North America and Central and Western Asia. For a list of countries included in the UNECE regions please see https://unece.org/member-states-and-member-states-representatives. Due to a lack of data availability, our estimates of employment in AFS in the UNECE region are missing estimates from Andorra, Liechtenstein, Luxemburg, Monaco, Malta, and San Marino.

[3] "Monitoring Agri-trade Policy: Map 2021-2", European Commission, 2021, https://ec.europa.eu/info/sites/default/files/ food-farming-fisheries/trade/documents/map-2021-2_en.pdf.

5.  The paper is structured as follows. The second section presents the operational definition of AFS, the ILOSTAT data and the methodology used for the analysis, where we expand the statistical model developed by Davis et al. (2023) and Costa et al. (*forthcoming*) to predict non-agricultural AFS employment for those UNECE countries that did not have any recent data on employment in AFS disaggregated by sex. The third section discusses the results about the trend of women's and men's employment in agrifood systems from 2005 to 2019 and the changes occurred from 2019 to 2020, to investigate on the effects of the Covid-19 pandemic, in the UNECE countries. The last section provides the conclusions.

## II.    Definitions, data and methodology

### A.  Operational definition of employment in agrifood systems

6.  The ability to examine employment patterns in AFS largely depends on the way employment and AFS are measured. We use Davis et al. (2023)'s operational definition of AFS at the 2-digit level of the International Standard Industrial Classification of All Economic Activities (ISIC)[4]. This definition includes the entire range of actors and their interlinked value-adding activities in the primary production of food (e.g., agriculture, livestock, forestry, fishing, aquaculture, hunting) and non-food agricultural products, including food storage, aggregation, post-harvest handling, transportation, processing, distribution, marketing, disposal and consumption. The 2-digit code is the minimum disaggregation necessary to identify AFS economic activities, and AFS is measured as the sum of the following variables: participation in agriculture, forestry and fishing (agr), food processing and service (fsy), transportation (trans), and trade (trade) AFS activities (see **Table A1** in the Annex).

7.  We use the employment definition that comprises any work performed for pay as well as the production of goods, whether the goods were for profit or for own use (that is, for own or household consumption, such as *subsistence* farming) during the last 7 days (see *'Employment'* 13th ICLS, 1982, in **Table A2** in the Annex). We avoid using the 19th International Conference of Labour Statisticians (ICLS) definition of employment revised by ILO in 2013 because only a few countries have updated their labour force surveys accordingly and thus, this definition would not allow us to compare employment data over the last two decades across countries.

### B.  Data

8.  We use the ILOSTAT database that provides country-level harmonized indicators of employment over time disaggregated by economic activity and gender for the economically active population aged 15-64 years. This database uses both ISIC Rev. 4 and ISIC Rev.3.1 classifications for categorizing economic activities depending on the year of survey used.[5]

9.  Forty-two countries in the UNECE region include at least one data point between 2000 and 2020. The panel, however, is unbalanced with several gaps throughout. To address this issue, the ILO provides modelled estimates, for which they use a series of statistical and econometric methods to impute the indicators. However, the

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[4] ISIC is the classification of economic activities grouped according to the similarities of the goods and services produced, the use of the goods and services produced.
[5] The data used for this analysis were downloaded in September 2022.

modelled estimates are only disaggregated by broad sectors (e.g., agriculture and total employment), which is not sufficient to measure employment in AFS. To address this issue, we use the ILO modelled estimates to measure employment in agriculture and total employment, but we carry out our own econometric modelling to impute the missing non-agricultural AFS employment disaggregated by sex, which is described in sub-section C.

## C. Methodology

10. The ability to examine employment patterns in AFS depends not only on the definitions of AFS and employment used, but also on the availability of employment data across countries and years. To identify individuals employed in AFS, we begin by constructing employment in AFS using Davis et al. (2023)'s operational definition referenced in sub-section B[6]. Then, we use the ILO-modelled estimates to impute employment in non-agricultural AFS. Further, as in Davis et al. (2023), when there are large discrepancies in agricultural employment between the ILO-modelled estimates and the ISIC Rev. 4 or 3.1 estimates, we use the ILO-modelled estimates. The modelled estimates, however, cannot be used to identify workers in the non-agricultural AFS sectors. Thus, we impute employment in AFS using an econometric model based on Davis et al. (2023) to predict non-agricultural AFS employment for those countries with missing data[7].

11. This imputation allows us to fill in the missing countries and complete the time series with the total number of people employed in AFS for a given country. Then, we determine the number of men and women employed in AFS in the UNECE region using Costa et al. (forthcoming)'s methodology. First, we group employment into agricultural and non-agricultural AFS employment for both men and women using the ILOSTAT data. Non-agricultural AFS employment is defined as the sum of the number of people employed in food processing and services, manufacture of non-food agricultural products, trade, and transportation. Second, as in Costa et al. (forthcoming), we estimate the share of men and women employed in agrifood systems for the missing country-year pairs. To do so, we estimate the share of men out of total employment in non-agricultural AFS, which is used as the dependent variable in our estimation.

$$y_{itm} = \frac{non-ag\ AFS_{itm}}{non-ag\ AFS_{itm} + non-ag\ AFS_{itf}}$$

Where:

- $non-ag\ AFS_{itm}$ refers to the number of men employed in non-agricultural agrifood systems in country *i* in year *t*.
- $non-ag\ AFS_{itf}$ refers to the number of women employed in non-agricultural agrifood systems in country *i* in year *t*.

12. We replicate the fractional regression model used in Costa et al. (forthcoming) to determine the share of men in non-agricultural agrifood systems:

$E[y_{itm}|share\ ag\ employ_{itm}, share\ ag\ employ_{it}, urban\ pop\ share_{it}, \ln(gdp\ per\ capita_{it}), pop_{it},$

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[6] Trade and transportation in AFS are estimated as in Davis et al. (2023) by taking the share of employment in AFS out of total employment excluding trade and transportation. Then, we multiply this share by the total number of people in trade and transport. Essentially, assuming the proportion of people employed in AFS is equivalent to the share of people within trade and transport that work within AFS.

[7] See Davis et al. (2023) for a more in-depth explanation.

$$share\ ag\ GDP_{it}, YEAR_t, \delta_t]$$

Where:

- $share\ ag\ employ_{itm} = \frac{agricultural\ employment_{itm}}{total\ employment_{itm}}$
- $share\ ag\ employ_{it} = \frac{agricultural\ employment_{it}}{total\ employment_{it}}$
- $urban\ pop\ share_{it}$ refers to the share of the population living in urban areas in country $i$ in year $t$
- $share\ ag\ gdp_{it}$ is the share of agriculture value added in total GDP in country $i$ in year $t$. $\delta_i$ refers to regional fixed effects
- $YEAR_t$, is a vector of years.

13. We predict $\hat{y}_{itm}$, and estimate the share of women in non-agricultural agrifood systems employment as $\hat{y}_{itf} = 1 - \hat{y}_{itm}$.

14. Finally, the number of men and women employed in non-agricultural agrifood systems is estimated by multiplying $\hat{y}_{itm}$ and $\hat{y}_{itf}$ with the total number of people employed in non-agricultural agrifood systems estimated by Davis et al. (2023) in order to ensure consistency between the two papers.

## III. Results

15. Agrifood-system employment plays an important role for men and women within the UNECE region, although much smaller than at the global level. Overall, in 2019, 36.5 million women and 50 million men were employed in AFS within the UNECE region, corresponding to 13% of working women and 16% of working men (Figure 1). In comparison, in 2019, 36% of working women and 38% of working men globally were employed in AFS (Costa et al. forthcoming).

16. In addition, while the global share of working men and women in agrifood systems declined by almost ten percentage points between 2005 and 2019, in the same period in the UNECE region, it declined by only three percentage points for women and four percentage points for men (Figure 1). This decline in the relative importance of AFS employment is mainly driven by agriculture. Agriculture is a major sector in many of the economies of the Central and Western Asia region, much more than in Europe (FAO, 2022). Nearly a third of the population is rural in the region, and this share rises to around half in Western and Central Asia. In the Central and Western Asian countries of the UNECE region, agriculture is an important source of and employment for a relatively large share of the population (FAO, 2022).

17. The decline in employment in AFS is evident in all the sub-regions of the UNECE region apart from North America, where it has remained stable, but also where AFS plays the smallest role out of total employment. The largest decline is seen in Central and Western Asia where the share of women working in AFS declined by 13 percentage points from 2005 to 2019, entirely due to the decline in agriculture (Figure 1).

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**Figure 1** | *The share of AFS employment in total employment between 2005 and 2019, by sex*
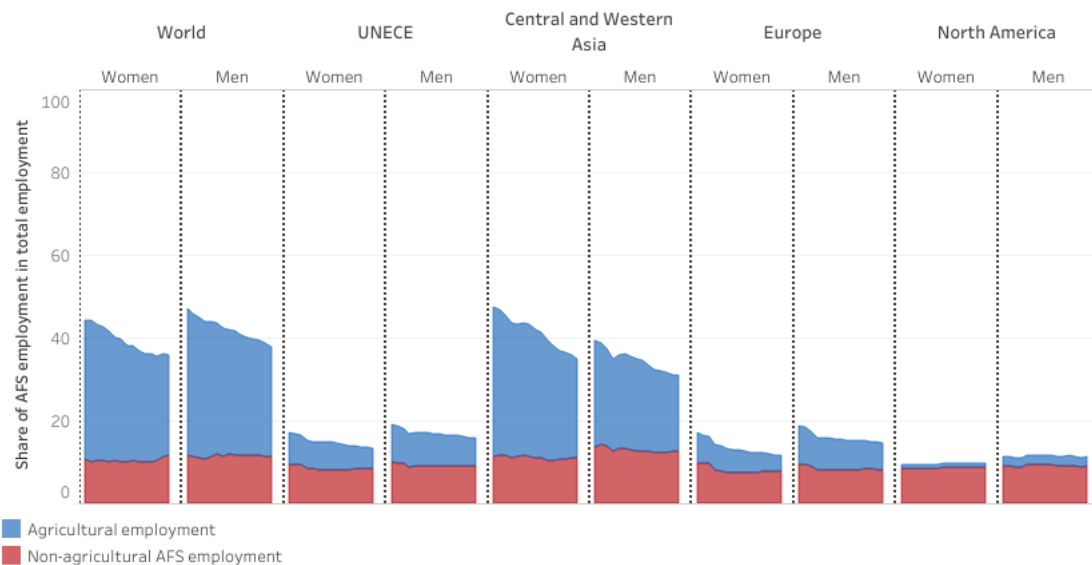


*Note: Central and Western Asia include*: Armenia, Azerbaijan, Cyprus, Georgia, Israel, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Türkiye, Uzbekistan. *North America includes*: Canada and the United States of America. *Europe includes:* Albania, Austria, Belarus, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Republic of Moldova, Montenegro, Netherlands, North Macedonia, Norway, Poland, Portugal, Romania, Russian Federation, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Ukraine and United Kingdom of Great Britain and Northern Ireland.

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18. Despite a declining importance of agricultural production as the primary employer in AFS, Costa et al. (forthcoming) finds that globally, about 70% of men and women employed in AFS were engaged in primary agriculture in 2019 (Figure 2). However, among the member countries of the UNECE region, employment in non-agricultural AFS makes up a larger share than employment in agriculture for both men and women. Figure 2 shows that in 2019, 62% of women and 57% of men employed in AFS within the UNECE region were working in non-agricultural sectors. However, there is significant heterogeneity across regions of the UNECE. For instance, while agriculture makes up less than half of women's employment in AFS in Europe and North America, this is not the case for Central and Western Asia where 69% and 59% of women's and men's jobs in AFS in 2019 were in agriculture. In North America, non-agricultural AFS represented 90% of women's employment in AFS and 80% of men's in 2019, which has remained constant since 2005. Europe is more heterogenous between men and women and over time. From 2005 to 2019, the share of women in non-agricultural AFS increased by 10 percentage points and the share of men in non-agricultural AFS by 5 percentage points.

Figure 2. *Share of employment in agriculture and non-agricultural AFS out of total AFS employment for men and women from 2005 to 2019*
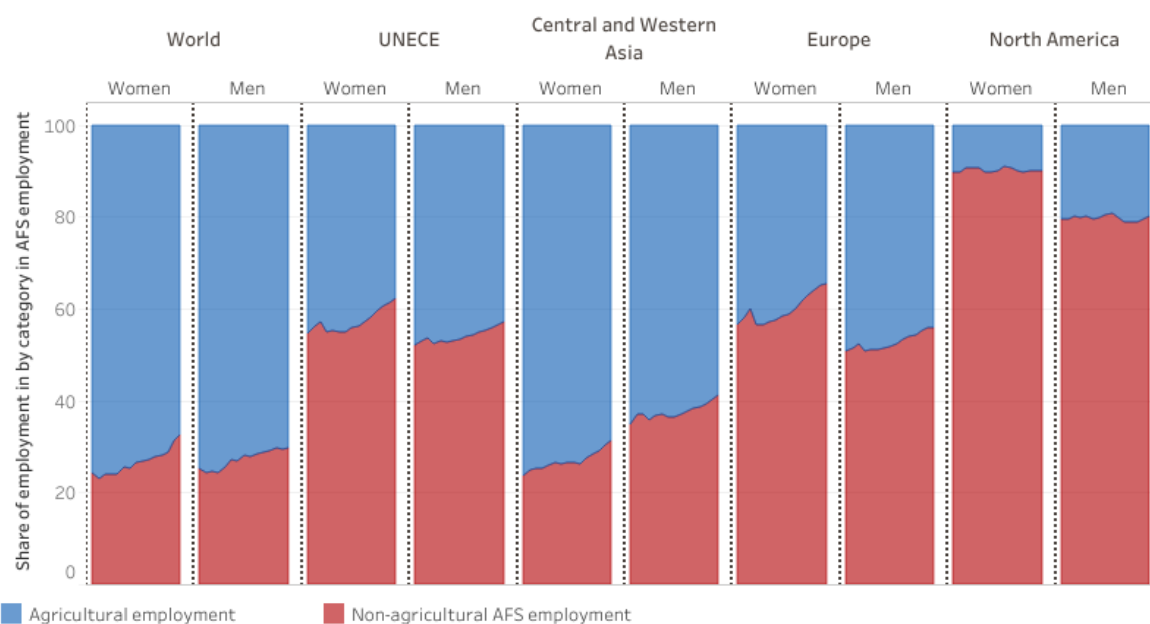


*Note: Central and Western Asia include*: Armenia, Azerbaijan, Cyprus, Georgia, Israel, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Türkiye, Uzbekistan. *North America includes*: Canada and the United States of America. *Europe includes:* Albania, Austria, Belarus, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Republic of Moldova, Montenegro, Netherlands, North Macedonia, Norway, Poland, Portugal, Romania, Russian Federation, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Ukraine, United Kingdom of Great Britain and Northern Ireland.
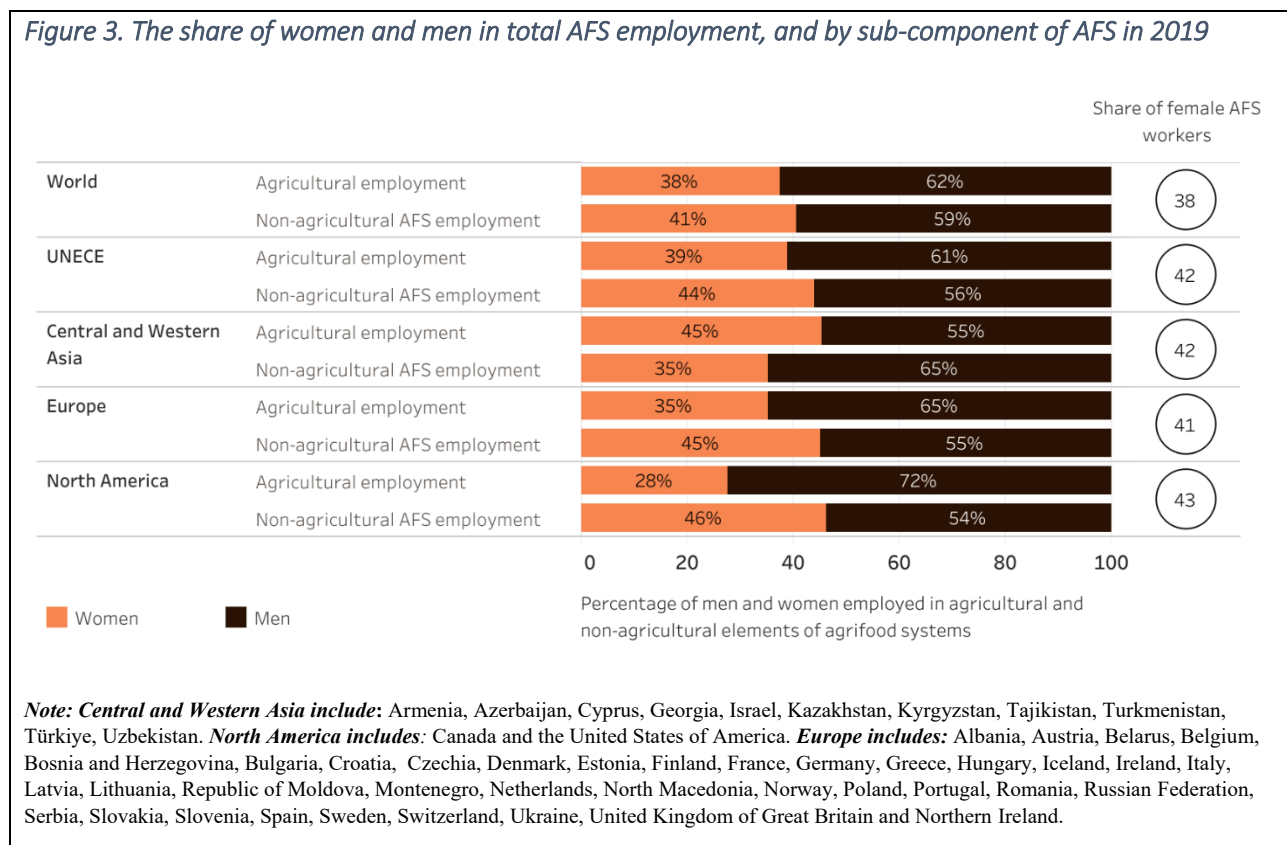
19. Women make up 42% of AFS workers within the UNECE region, while globally, 38% of AFS workers are women (Figure 3). Women represent 44% of all non-agricultural AFS workers within the UNECE region, ranging from 35% in Central and Western Asia to 46% in North America. There is also substantial variation in the proportion of female AFS workers in agriculture worldwide and across regions within the UNECE. Women comprised 38% of all agricultural workers in crop, livestock, fisheries and forestry production around the world in 2019; a decrease of only 1 percentage point from 2005 (Costa et al, forthcoming). In the UNECE region, women make 39% of agricultural workers. At the regional level, only 28% of agricultural workers in North America are women, while in Central and Western Asia, they make up 45%. Thus, women do not constitute the majority of agricultural workers in the UNECE region, nor is their share in agriculture increasing. The highest shares of female workers are seen in trade and in food processing and services, where women make up around half of all workers both globally and within the UNECE region (Table A1 in the Annex).

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*Figure 3. The share of women and men in total AFS employment, and by sub-component of AFS in 2019*

Share of female AFS workers

| | | Women | Men | Share of female AFS workers |
|---|---|---|---|---|
| World | Agricultural employment | 38% | 62% | 38 |
| | Non-agricultural AFS employment | 41% | 59% | |
| UNECE | Agricultural employment | 39% | 61% | 42 |
| | Non-agricultural AFS employment | 44% | 56% | |
| Central and Western Asia | Agricultural employment | 45% | 55% | 42 |
| | Non-agricultural AFS employment | 35% | 65% | |
| Europe | Agricultural employment | 35% | 65% | 41 |
| | Non-agricultural AFS employment | 45% | 55% | |
| North America | Agricultural employment | 28% | 72% | 43 |
| | Non-agricultural AFS employment | 46% | 54% | |

0    20    40    60    80    100

■ Women   ■ Men

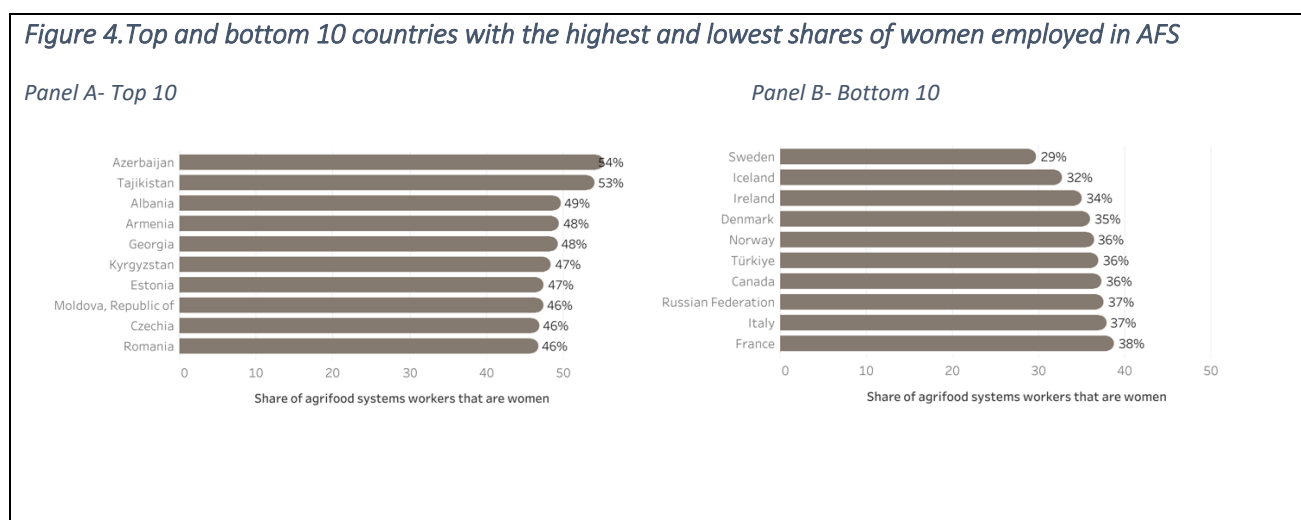Percentage of men and women employed in agricultural and non-agricultural elements of agrifood systems

*Note: Central and Western Asia include*: Armenia, Azerbaijan, Cyprus, Georgia, Israel, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Türkiye, Uzbekistan. *North America includes*: Canada and the United States of America. *Europe includes*: Albania, Austria, Belarus, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Czechia, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Republic of Moldova, Montenegro, Netherlands, North Macedonia, Norway, Poland, Portugal, Romania, Russian Federation, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Ukraine, United Kingdom of Great Britain and Northern Ireland.

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20. Regional estimates may also mask variation at the country level. For instance, among UNECE member states, women make up only 29% of AFS workers in Sweden, but they represent over 50% of AFS workers in Azerbaijan (54%) and Tajikistan (53%) (Figure 4). The shares of female AFS workers have stayed relatively constant over time. For example, Portugal and the Republic of Moldova saw the largest declines in the share of female AFS workers between 2005 and 2019, at 7.5 and 6 percentage points, respectively. Meanwhile, Kyrgyzstan and Tajikistan had the largest increases, with a four-percentage point increase in both countries.

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*Figure 4.Top and bottom 10 countries with the highest and lowest shares of women employed in AFS*

*Panel A- Top 10*

| Country | Share |
|---|---|
| Azerbaijan | 54% |
| Tajikistan | 53% |
| Albania | 49% |
| Armenia | 48% |
| Georgia | 48% |
| Kyrgyzstan | 47% |
| Estonia | 47% |
| Moldova, Republic of | 46% |
| Czechia | 46% |
| Romania | 46% |

0   10   20   30   40   50

Share of agrifood systems workers that are women

*Panel B- Bottom 10*

| Country | Share |
|---|---|
| Sweden | 29% |
| Iceland | 32% |
| Ireland | 34% |
| Denmark | 35% |
| Norway | 36% |
| Türkiye | 36% |
| Canada | 36% |
| Russian Federation | 37% |
| Italy | 37% |
| France | 38% |

0   10   20   30   40   50

Share of agrifood systems workers that are women

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21. The underlying gender inequalities in employment in AFS worsened during the first year of the Covid-19 pandemic. In contrast to previous crises, women working in AFS were more likely to experience job losses. Costa et al. (forthcoming) show that, globally, female employment in AFS declined by 12%, compared to a decline 3% in male employment in the same sector (Figure 5). A reduction in non-agricultural AFS activities largely drove the drop in women's employment in AFS. In 2020, 22% of women lost their jobs in the non-agricultural sector of AFS as compared to 2019, whereas men's employment in the same sector declined by 2% during the same period (Figure 5).

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*Figure 5. Impact of COVID-19 on employment in AFS*



*Note: Central and Western Asia include*: Armenia, Azerbaijan, Cyprus, Georgia, Israel, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Türkiye, Uzbekistan. *North America includes*: Canada and the United States of America. *Europe includes:* Albania, Austria, Belarus, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia,  Czechia, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Republic of Moldova, Montenegro, Netherlands, North Macedonia, Norway, Poland, Portugal, Romania, Russian Federation, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Ukraine, United Kingdom of Great Britain and Northern Ireland.

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22. This is consistent with global trends during the COVID-19 pandemic, where women in all sectors were more likely than men to lose their jobs in AFS. The pattern is similar within the UNECE region where women's employment in AFS declined by 10% from 2019 to 2020 compared to a 5% reduction in men's. Across all three regions within the UNECE, women were more likely to experience job losses in AFS, mainly driven by declines in the non-agricultural sector of AFS. Women's employment in agriculture experienced the largest decline in Central and Western Asia, 10%, as compared to 4% in men's employment.

## IV.    Conclusions

23. This paper provides an estimate of the number of men and women employed in AFS worldwide and a more in-depth analysis of the member countries of the UNECE region. To do so, we rely on data from the ILO, which provides employment information at the 2-digit ISIC level disaggregated by sex. Following Davis et al. (2023), we estimate the total number of people employed in AFS across the UNECE countries. We also apply the Costa et al. (forthcoming) methodology to estimate the number of women and men in countries where the non-agricultural employment data are not disaggregated by sex. We find that, in 2019, 36.5 million women and 50 million men were employed in AFS among UNECE countries, which corresponds to 13% of working women and 16% of working men. Employment in the non-agricultural sector of AFS makes up a larger share than employment in agriculture for both men and women. This is consistent with a structural transformation process whereby workers move away from primary agriculture as countries develop.

24. The regional figures mask significant country heterogeneity in the shares of women in AFS, especially in agriculture and how these shares have changed over time and across countries. Globally, more men than women are employed in AFS, and in the UNECE region, women make up 42% of AFS workers and 39% of agricultural workers. In the lower income countries within the region, women make up a larger share of AFS workers at over 50% in Tajikistan and Azerbaijan, compared to 29% in the higher income country of Sweden. According to the European Commission, in 2020, in the European Union, women made up only 28.7% of farm managers. Female farm managers were particularly few in the Netherlands (5.2%), Malta (6%), Denmark (7.7%) and Germany (9.6%). In the United States, according to the U.S Department of Agriculture (USDA), women make up 36% of the country's agricultural producers (USDA, 2019).

25. During the Covid-19 crisis, gender inequalities within employment in AFS were exacerbated. In 2020, women's employment in AFS declined by 10%, compared to a decline of 5% in men's employment in the same sector across the UNECE region. Women were more likely to experience job losses in AFS in all three sub-regions within the UNECE, mainly driven by declines in the non-agricultural AFS sector. These findings are consistent with previous research that has found that gender inequalities are driven by the employment reduction in service sectors where women often make up most workers. Lockdowns and closures of schools also increased women's time burden and reduced the amount of time they could spend working.

26. The analysis in this paper contributes to the existing literature by extending Davis et al. (2023) and Costa et al. (forthcoming) methodology to estimate of employment in AFS in the UNECE region. Moreover, it shows how the gender inequalities have changed over time and how crises such as the Covid-19 pandemic affect women and

men in AFS differently. The Covid-19 pandemic has reaffirmed the urgent need to develop robust and resilient systems capable of ensuring safe and healthy diets for all during crises (FAO, 2021).

27. This paper only discusses evidence on the participation of women in AFS within the UNECE region, while FAO (2023b) also provides global data and evidence on the quality of jobs by highlighting that women are more likely than men to work in informal, part-time and vulnerable jobs. Future research is needed to explore the relationship between the gender inequalities in AFS employment and welfare outcomes such as poverty, education, empowerment and health care in the UNECE region. In addition, further research is needed to determine the wage gaps between men and women employed in agrifood systems and how various factors, such as education, child dependency, age, etc., might impact the gap between men and women in the UNECE region. Finally, future research may also examine the types of policy interventions that can help close the gender inequalities in AFS employment under different country contexts.

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## Annex

**Table A1. Definition of agrifood systems employment variables**

| Categories | ISIC Divisions | ISIC Rev.4 2-digit codes | Share of women | |
|---|---|---|---|---|
| | | | Global | UNECE |
| **Agriculture, forestry and fishing** | Agriculture | 1 | 38% | 39% |
| | Forestry and logging | 2 | | |
| | Fishing | 3 | | |
| **Food processing and service** | Manufacture of food products | 10 | 51% | 48% |
| | Manufacture of beverages | 11 | | |
| | Food and beverage service activities | 56 | | |
| | Undifferentiated goods- and services- producing activities of private households for own use | 98 | | |
| **Manufacture of non-food agricultural products** | Manufacture of tobacco products | 12 | 38% | 33% |
| | Manufacture of textiles | 13 | | |
| | Manufacture of leather and related products | 15 | | |
| | Manufacture of wood and of products from wood and cork, except furniture | 16 | | |
| | Manufacture of paper and paper products | 17 | | |
| **Trade** | Wholesale trade, except of motor vehicles and motorcycles | 46 | 50% | 50% |
| | Retail trade, except of motor vehicles and motorcycles | 47 | | |
| **Transportation** | Land transport and transport via pipelines | 49 | 15% | 23% |
| | Water transport | 50 | | |
| | Air transport | 51 | | |
| | Warehousing and support activities for transportation | 52 | | |
| | Postal and courier activities | 53 | | |

**NOTE:** ISIC – United Nations International Standard Industrial Classification of All Economic Activities. The shares are calculated based on varying samples of countries for which detailed information disaggregated by economic activity is available (around 80 countries).

**Table A2 – Definitions of employment used in the analysis.**

|  | Definition | Measurement | Variables | Source |
|---|---|---|---|---|
| **Employment** | Employment comprises any work performed for pay as well as the production of goods, whether the goods were for profit or for own use | Main job, last 7-days | (i) Paid employment<br>(ii) Self-employment<br>(iii) Subsistence farmers | ILO (13th ICLS, 1982) |
| **Employment-revised definition** | Employment comprises any work performed for others in exchange for pay or profit | Main job, last 7-days | (i) Paid employment<br>(ii) Self-employment | ILO (19th ICLS, 2013) |