WOMEN IN THE ECOLOGICAL TRANSITION

2025

GOBIERNO DE ESPAÑA
VICEPRESIDENCIA TERCERA DEL GOBIERNO
MINISTERIO PARA LA TRANSICIÓN ECOLÓGICA Y EL RETO DEMOGRÁFICO

WOMEN IN THE ECOLOGICAL TRANSITION 2025

EXECUTIVE SUMMARY
JULY 2025

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July 2025 edition

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To provide a comprehensive overview of this report, ***Women in the Ecological Transition 2025***, the following includes, first, an introduction to its objectives and methodology. Second, the general conclusions of the quantitative approach carried out using the gender indicator system designed for this analysis. Third, the conclusions of a specific qualitative approach on Women and the Circular Economy. Finally, fourth, a set of infographics illustrating some of the specific results of the quantitative analyses performed.

Introduction to the objectives and methodology

This report is one of the products of the first edition of *Women in the Ecological Transition*, a project whose **strategic objective was to develop and analyse a system of indicators and a database for a new biennial publication on the status and evolution of (in)equality between women and men in different areas related to the ecological transition**, within the framework of the Sustainable Development Goals of the 2030 Agenda and areas of the Environmental Profile of Spain. **Each edition has an additional qualitative focus** on a specific aspect of the ecological transition, which **in this first edition is Women and the Circular Economy**.

This first edition is also part of the commitments made by the Ministry for the Ecological Transition and the Demographic Challenge (MITECO) to the "Feminist Action for Climate Justice" Action Coalition of the Generation Equality Forum and the Equal by 30 Campaign, and specifically contributes to implementing Measure 190 of the Strategic Plan for the Effective Equality of Women and Men 2022-2025 (PEIEMH), adopted by the Council of Ministers on March 8th, 2022.

Given that public policies need evolutionary data from an intersectional gender approach not only focused on what differential impacts the triple environmental crisis and the policies promoted to address it are having on women, or on certain groups of women, but also on the extent to which women are participating from different areas as agents of the necessary change and what their interests, visions, etc. are in relation to that change, the strategic objective has been articulated in five operational objectives related to:

1. **Design a system of indicators on Women in the Ecological Transition**, from an intersectional gender approach, to identify and measure inequalities between women and men in Spain in relation to the following areas: Climate change; Green employment and entrepreneurship; Higher education, vocational training, and training for employment in the ecological transition; Governance of the ecological transition; Sustainable habits; Health; Energy; Biodiversity, forests, and management of protected natural areas; Water; and Marine Environment.
2. **Create** (in xls, csv, RDF, and pdf formats) **a database on Women in the Ecological Transition** based on this system of indicators, analysing the situation and evolution of inequalities between (different groups of) women and men in the ecological transition in Spain in the reference years 2015 and 2019-2023 (or the closest year before or after each, depending on the data source).
3. **Conduct a specific qualitative analysis on women and the circular economy**, based on a review of regulatory and strategic frameworks as well as resources on equality in the circular economy, and interviews with diverse profiles of women key players in the circular economy.
4. **Develop a report on Women in the Ecological Transition (pdf)** highlighting the main results and conclusions of the quantitative analysis conducted based on the database and the specific qualitative analysis on women and the circular economy.
5. **Develop an interactive report in Power BI format** on the main quantitative analyses conducted based on the database.

> On the one hand, a system of 58 indicators on the situation and evolution of women in the ecological transition has been designed. A quantitative analysis from an intersectional gender approach has been conducted on 53 of these indicators

To this end, **on the one hand, a system of 58 indicators on the situation and evolution of women in the ecological transition has been designed[1]. A quantitative analysis from an intersectional gender approach has been conducted on 53 of these indicators[2]**.

The quantitative indicators are based on data collected from 21 different sources (national and European), which together include administrative records and surveys on:

- **Perception, opinion and vulnerability in relation to different aspects of the triple environmental crisis and its impacts:**
  - Regarding **perception and opinion**, four European surveys: the Special Eurobarometer - Climate Change; the Special Eurobarometer - Attitudes of Europeans towards the Environment; the Special Eurobarometer - Attitudes of Europeans towards Air Quality; and the Special Eurobarometer - Attitudes of Europeans toward Biodiversity..
  - Regarding **vulnerability**: the Living Conditions Survey and the Statistics on Deaths by Cause of Death (both sources from INE, the National Statistics Institute); as well as the Daily Mortality Monitoring System (MoMo) from the Carlos III Health Institute (ISCIII, Ministry of Health).
- **Personal involvement of women and men as (potential) agents of change towards environmental, social and economic sustainability, in terms of:**
  - **Sustainable habits:** the Special Eurobarometer - Climate Change; the Flash Eurobarometer - The EU Ecolabel; the European Social Survey (ESS); three INE surveys (the aforementioned Income and Living Conditions Survey, in this case for some of the questions in the new module on energy efficiency, plus the Survey on Essential Characteristics of Population and Housing and the Household Budget Survey; the Bicycle Barometer survey from the Network of Cities for the Bicycle (RedBici); and the Cyclist Accident Report from the Directorate General of Traffic (DGT, Ministry of the Interior) based on administrative data for the period 2013-2022.
  - **Governance**: information published by the Congress and Senate; administrative data from MITECO; Women in Figures database from the Institute of Women (Ministry of Equality); and the Special Eurobarometer - Attitudes of Europeans towards the Environment.
  - **Green Employment and Entrepreneurship**: the INE Labour Force Survey (also known as the Economically Active Population Survey); administrative data by the Social Security Treasury (TGSS, Ministry of Inclusion, Social Security and Migration); and the INE *Agricultural Census*.
  - **Education** (published administrative data): UNIVbase by the Ministry of Science, Innovation and Universities (MICIU); EDUCAbase by the Ministry of Education, Vocational Training and Sports (MEFPD); and the statistical series by the State foundation for on-the-job training (FUNDAE, Ministry of Labour and Social Economy).

These sources have made it possible to design indicators that at least could be disaggregated by sex, using **the individual as the unit of measurement** and, exceptionally, the **household**. Depending on the data source,

[1] For further information, see Table 1 in Chapter 1, and its expanded version in Table 24 of the Methodological Annex.
[2] For more information, see Chapter 2.

sex-disaggregation of households is based on the primary breadwinner (Household Budget Survey), the household reference person (Living Conditions Survey), or the household composition (Survey on Essential Characteristics of Population and Housing). Household composition has been used to compare households composed solely of women versus those composed solely of men or mixed-gender households.

Furthermore, for the **intersectional gender analysis, other sociodemographic variables** have been considered whenever possible to identify whether the patterns of inequality observed between women and men in Spain at a general level vary depending on their age, nationality, educational level, type of household, income level, type of municipality according to the degree of urbanization, or Autonomous Community, in addition to comparing them with other European countries and the EU-27 average.

Aimed at systematizing the gender analysis of the various indicators selected for this report, **the following indices and gaps were considered to identify and measure inequalities between women and men**:

- When the indicator is based on **administrative data**, the **distribution index** (the respective percentage of women and men in a category) is highlighted. When inequalities are observed, it allows for the identification of those gender-balanced (40-60%) and those outside this range, in which case it implies underrepresentation of one gender and overrepresentation of the other.
- When the indicator is based on **survey data**, the **concentration index**[3] is highlighted (it shows, on the one hand, the percentage of women in a category relative to the total number of women and, on the other hand, the percentage of men in a category relative to the total number of men). Gender inequality is understood to exist when the respective concentration indices of women and men are not equal or similar.
- In both cases, the **gender gap** is also analysed (which measures the difference between women and men by subtracting the indices or euros of men from those of their female counterparts). When calculated using distribution indices, it allows for observing whether the gap is within the gender balance. When calculating concentration indices, a value of zero is considered the scenario of maximum equality, and a value of ±100 is considered the scenario of maximum inequality. Furthermore, when the indicator is measured in euros, a distinction is made between absolute gender gaps in euros (the result of directly subtracting women's contributions or expenditures from those of their male counterparts) and relative gender gaps (the result of calculating the percentage of the absolute difference between women and men compared to men's contributions or expenditures).

For more details on the nature and operationalization of the indicators and variables, please refer to the Methodological Annex.

The quantitative indicators are based on data collected from 21 different sources (national and European), which together include administrative records and surveys

[3] The exception to this criterion is the Labour Force Survey, where the distribution index (and gap) has also been prioritized in the analysis of these survey data instead of the concentration index (and gap), given that the indicator based on this survey is part of the section on Employment and Entrepreneurship where the other indicators are based on administrative data from the Social Security Treasury (TGSS), and the Agricultural Census, and also specifically some data by TGSS on Social Security affiliations are used to weight some data elaborated from the Labour Force Survey.

A special qualitative focus on Women and the Circular Economy is also included, based on an analysis of regulatory and strategic framework, resources and six interviews with women key players in the transition to the circular economy

On the other hand, a special qualitative focus on Women and the Circular Economy is also included, based on an analysis of regulatory and strategic framework, resources and six interviews with women key players in the transition to the circular economy[4].

As a result of the methodological challenges faced in preparing this first edition of *Women in the Ecological Transition*, **the recommendations are aimed at ensuring that future editions and other studies on areas of the ecological transition can benefit from greater accessibility, availability, and interoperability of relevant quantitative data for intersectional gender analysis**. This data will facilitate evolutionary analysis and at least the comparison between state level of Spain and other EU-27 countries with the European Union average, as well as, to the extent possible, comparisons with other international levels.

Therefore, the raised recommendations highlight not only the need to improve across various sources the frequency and harmonization of some of the data which have been analysed in this edition, but also to generate new data that will allow for the incorporation of new indicators, segmentation variables, and sources of information that contribute to expanding and improving knowledge about the experiences, interests, and views of different groups of women and men on various aspects of the ecological transition[5].

The recommendations are aimed at ensuring that future editions and other studies on areas of the ecological transition can benefit from greater accessibility, availability, and interoperability of relevant quantitative data for intersectional gender analysis

[4] For more information, see Chapter 3.
[5] For more information, see Chapter 4.

General conclusions of the quantitative approach using the gender indicator system on Women in the Ecological Transition

The quantitative analyses from an intersectional gender approach carried out based on the matrix of indicators designed on Women in the Ecological Transition have **evidenced some inequalities between women and men, and between different groups of women and men, with respect to how they experience, respond to and participate in relation to different dimensions of the ecological transition**. It is highlighted in the specific examples detailed in the infographics included at the end of this executive summary, as well as in the following general conclusions[6]:

> Evidenced some inequalities between women and men, and between different groups of women and men, with respect to how they experience, respond to and participate in relation to different dimensions of the ecological transition

- On the one hand, **regarding perception, opinion and vulnerability in relation to different aspects of the triple environmental crisis and its impacts**, it has been concluded at a general level that **in Spain**:
  - **Women more than men tend to perceive certain environmental problems and their impacts as more serious and significant**, with some exceptions showing the opposite pattern or (practically) non-existent differences between women and men.
  - **Certain groups of women are especially vulnerable to certain environmental problems or their impacts**, for example, pollution and other environmental problems in their living areas, various forms of energy poverty, or deaths attributable to excessively high or low temperatures.
- On the other hand, **regarding the personal involvement of women and men as (potential) agents of change towards environmental, social and economic sustainability**, through sustainable habits and participation in the governance of the ecological transition, in employment and entrepreneurship in areas of the green economy as well as in education and training in areas especially related to the ecological transition, it has been concluded at a general level that **women in Spain**:
  - **More women than men report practicing certain sustainable mobility and consumption habits, especially certain profiles of women.**
  - **Women are somewhat more likely than men to lead the governance of the ecological transition at the state level** (as senior officials at MITECO), **but somewhat less so in the governance of this transition at the regional level** (according to the composition of the Sectoral Conference on Energy and the Sectoral Conference on the Environment), **as well as in the legislative power in these areas at the state level** (as members of the Congress' Committee on Ecological Transition and Demographic Challenge and the Senate's Committee on Ecological Transition), **and even less so in local governance as mayors**.

[6] For more information, see Chapter 4.

- **Women are significantly less represented than men in employment and entrepreneurship in areas of the green economy**, especially some profiles of women and some of these areas.
- Women **participation as students in formal education and training for employment in areas specifically related to the ecological transition varies depending on the area**: they are significantly more represented than men in some, while being significantly underrepresented or evenly represented in others.

Conclusions of the specific qualitative approach on Women and the Circular Economy

The specific qualitative analysis carried out on Women and the Circular Economy led to the following general conclusions[7], which show that **progress is being made in integrating gender perspective into the circular economy, but there is still room for improvement**:

- On the one hand, regarding the review carried out on the integration of a social and gender approach in the **main regulatory and strategic framework that has been developed in recent years in relation to the circular economy in Spain at the state level and in the European Union**, it is highlighted that:
  - **When the revised framework is general in nature with respect to the circular economy** (i.e., when it does not focus solely on a specific sector or sectors, but rather on general or cross-cutting aspects of the circular economy), at the Spanish and European Union levels, a transition is observed from an initial focus on scientific, technical, and environmental aspects to a more recent one that tends to integrate a social and gender approach, although not consistently across all instruments.
  - **When the revised framework is specific to a certain sector or sectors of the circular economy**, the framework developed at the state level in Spain does not explicitly incorporate a gender approach or other social approaches, while the framework developed at the European Union level explicitly incorporates aspects related to the gender approach and other social approaches only in some regulatory and strategic instruments..
- On the other hand, **regarding some** identified **resources related to the circular economy and women, it is worth highlighting the gender approach integrated into the PERTE on the Circular Economy, especially because the first call for proposals for this PERTE has shown a positive gender impact**.
- Finally, the **conclusions of the interviews with six women key players of the circular economy** highlight the need to continue advancing in the incorporation of a gender perspective:
  - Into all areas and sectors of the circular economy, considering both the opportunities and challenges they may present for women.

> Progress is being made in integrating gender perspective into the circular economy, but there is still room for improvement

[7] For more information, see Chapter 4.

- Into public policies that can contribute to reducing the gender gaps identified in sectors linked to the circular economy.
- Into entrepreneurship financing, to address the difficulty women entrepreneurs face in accessing lines of credit.
- Into education, especially in the more technical areas, and into research, for example, to improve how to measure the impact of the circular economy in all dimensions of sustainability.
- Into communication campaigns on the circular economy, so that they do not only focus on recycling and waste separation.
- Making visible and revaluing for both women and men those activities related to the circular economy traditionally carried out by women.
- Including women's voices in the planning, implementation, monitoring, and evaluation of projects.

Infographics on some concrete results

To conclude this executive summary, the following 16 infographics have been prepared to highlight some specific results of the quantitative analyses carried out in this first edition of Women in the Ecological Transition. Each of these 16 infographics represents three key quantitative results.

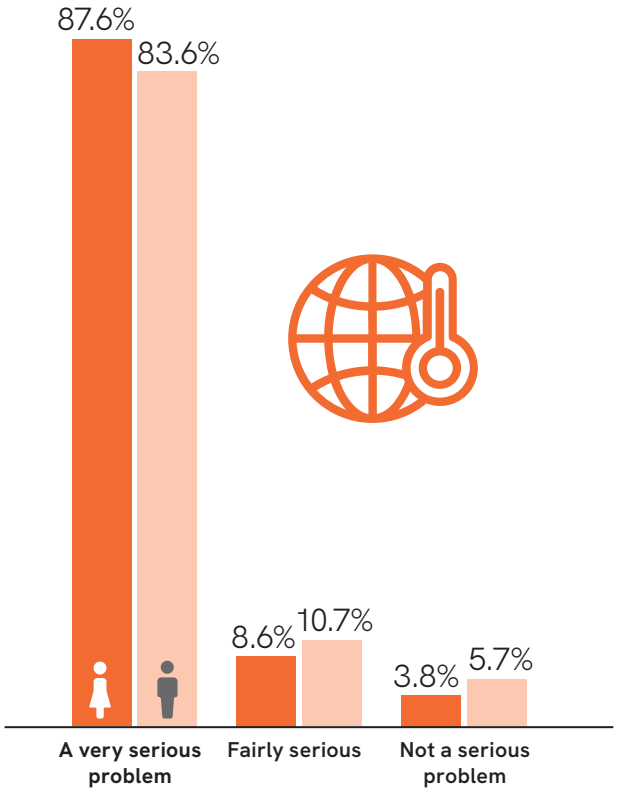
Thus, the first ten infographics illustrate three results in each of the ten main areas of the indicators system on Women in the Ecological Transition, while the eleventh represents quantitative results specific to the field of the Circular Economy.

These first eleven infographics are more focused on highlighting inequalities observed between women and men at a general level. Therefore, five additional infographics are included, each highlighting three results of the intersectional gender analysis carried out on different profiles of women and men based on the following five sociodemographic variables: type of municipality, age, type of household, nationality, and Spain's comparison with the EU-27 average.

Women in the Ecological Transition 2025

Climate Change

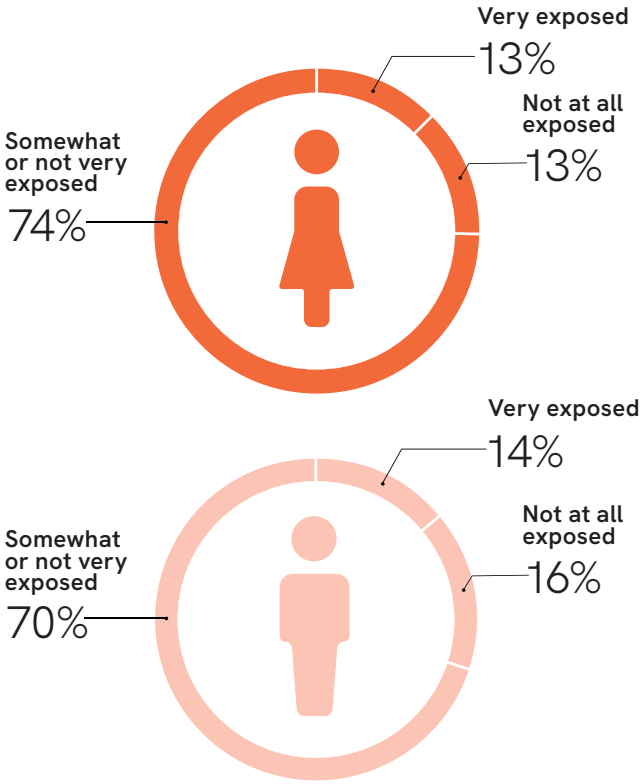
Perception of the seriousness of climate change



Source: Own elaboration based on the Special Eurobarometer, Climate Change (Spain data)

In 2023, 87.6% of women and 83.6% of men considered climate change to be a very serious problem, compared to 8.6% of women and 10.7% of men who perceived it as a fairly serious problem, and 3.8% of women and 5.7% of men who did not consider it to be serious.

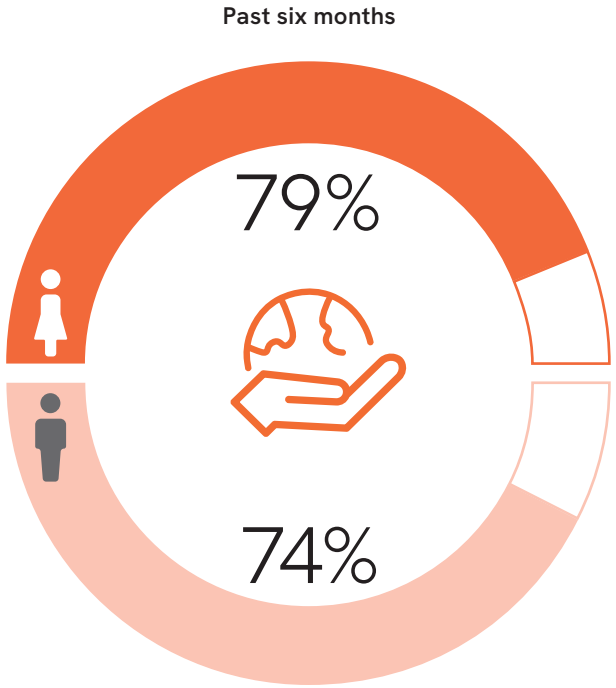
Perception of personal exposure to environmental and climate-related risks and threats



Source: Own elaboration based on Special Eurobarometer, Climate Change (Spain data)

In 2023, only 13% of women and 14% of men perceived themselves as being very exposed to environmental and climate-related risks and threats, compared to 13% of women and 16% of men who considered themselves not at all exposed, and 74% of women and 70% of men who considered themselves somewhat or not very exposed.

Personal action taken to fight climate change



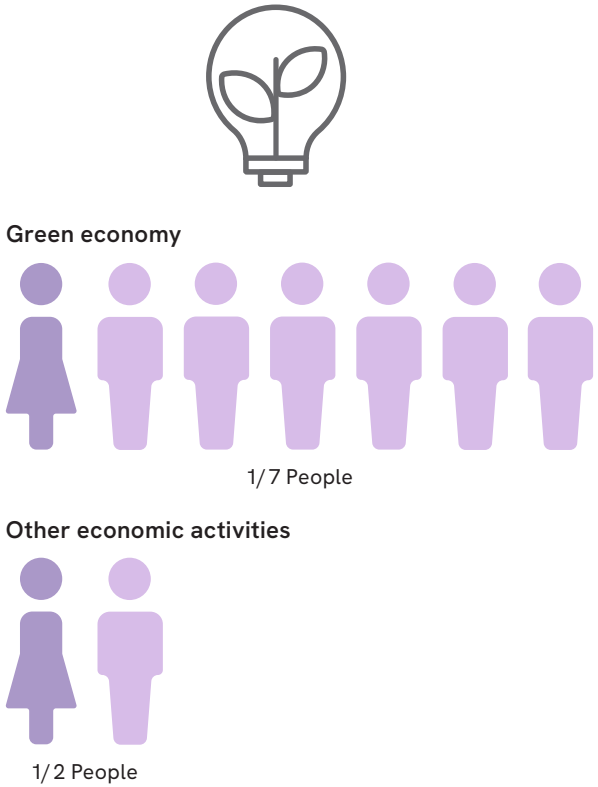
Source: Own elaboration based on Special Eurobarometer, Climate Change (Spain data)

In 2021 and 2023, 79% of women and 74% of men reported having taken any action to fight climate change over the past six months.

Women in the Ecological Transition 2025

Green Employment and Entrepreneurship

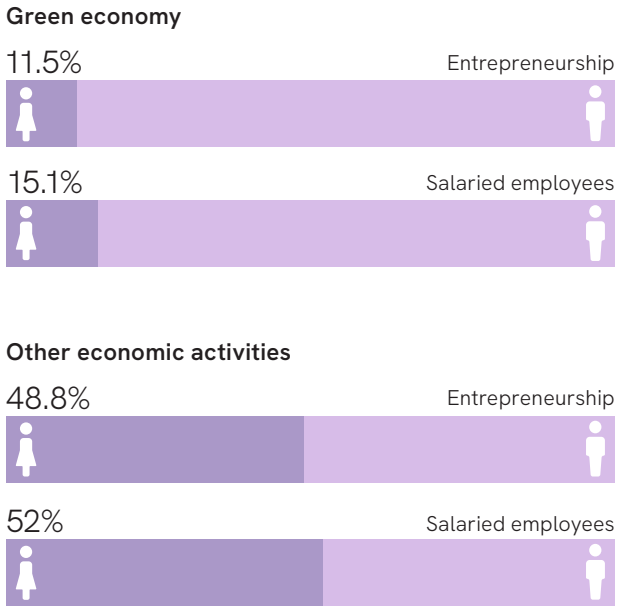
Share of women in employment in green economy activities



Source: Own elaboration based on INE, Labour Force Survey (Q2)

Between 2019 and 2023, only one out of every seven people employed in green economy activities was a woman, compared to one out of every two in other economic activities.

Share of women in green economy entrepreneurship and salaried employment



Source: Own elaboration based on INE, Labour Force Survey (Q2)

Women accounted for 11.5% of entrepreneurs and 15.1% of salaried employees in green economic activities in 2023, compared to 48.8% and 52%, respectively, in other economic sectors.

Average Social Security contribution base in green economic activities

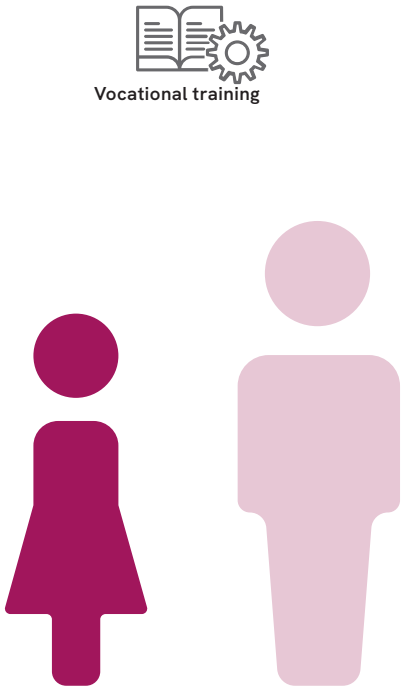
Source: Own elaboration based on data from TGSS

Between 2019 and 2023, the average Social Security contribution base for women was higher in green economic activities than in other sectors (€1,909 compared to €1,784 in 2023). In contrast, men showed the opposite pattern (€1,938 in green activities compared to €2,051 in other sectors in 2023).

Women in the Ecological Transition 2025

Education

Underrepresentation of female students in some types of vocational training programs as a function of estimated link to the ecological transition



Source: Own elaboration based on MEFPD (EDUCAbase) and MICIU (UNIVbase)

Women are underrepresented in vocational training programs that are "closely linked" to the ecological transition, as well as in "linked" basic vocational training programs.

Balanced representation of female and male students in some types of university fields and vocational training programs as a function of estimated link to the ecological transition

Source: Own elaboration based on MEFPD (EDUCAbase) and MICIU (UNIVbase)

There is gender balance in Bachelor's and Master's fields "closely linked" and "linked" to the ecological transition, as well as in intermediate and higher vocational training programs "linked" to it, and in "other" higher vocational training programs.

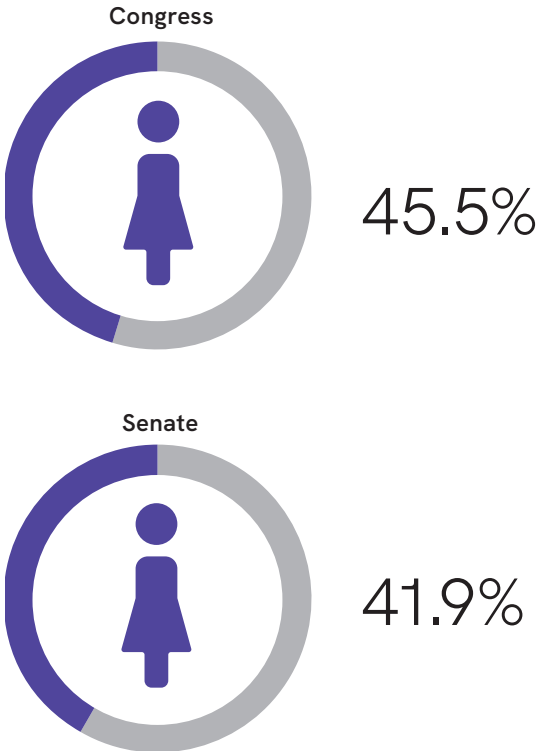
Overrepresentation of female students in some types of university fields and vocational training programs as a function of estimated link to the ecological transition

Source: Own elaboration based on MEFPD (EDUCAbase) and MICIU (UNIVbase)

Women are overrepresented in the "other" Bachelor's and Master's fields, as well as in the "other" basic and intermediate vocational training programs.

Women in the Ecological Transition 2025 Governance

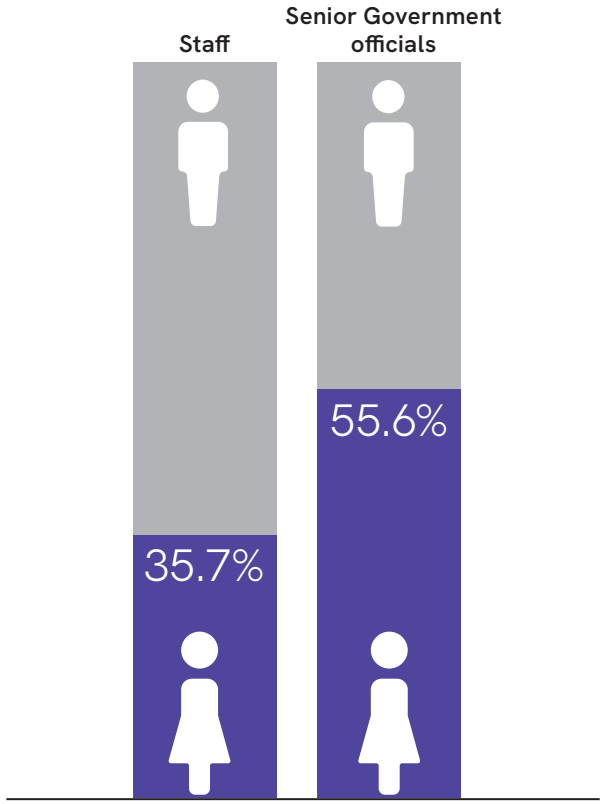
Share of women in the Ecological Transition Committees of the Congress and Senate



Sources: Own elaboration based on data from the Congress of Deputies and the Senate

In the 15th Legislature (2023–), women make up 45.5% of the members of the Ecological Transition and Demographic Challenge Committee in the Congress, and 41.9% of the members of the Ecological Transition Committee of the Senate.

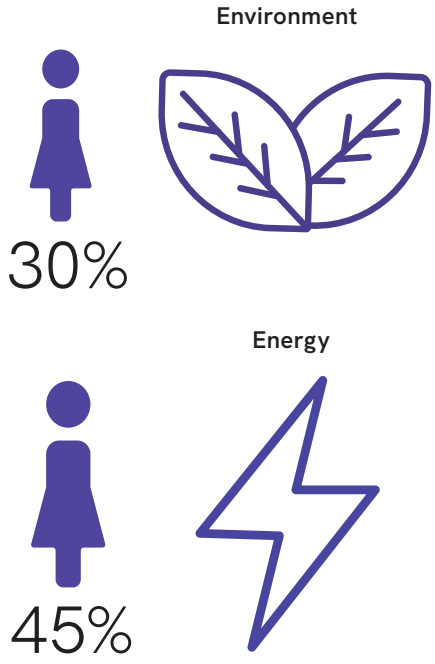
Share of women in staff and senior Government officials at MITECO



Source: MITECO

In 2024, women made up 35.7% of the overall staff and 55.6% of senior Government officials at MITECO.

Share of women in the Sectoral Conference on the Environment and the Sectoral Conference on Energy



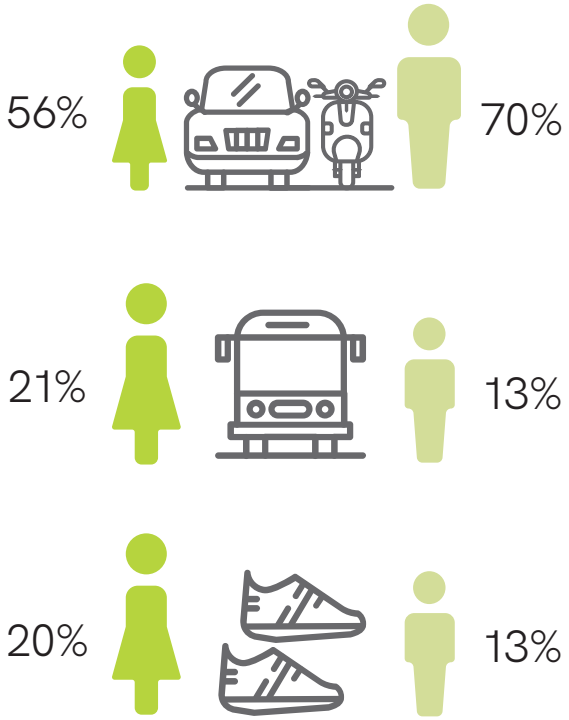
Source: MITECO

In 2024, women represented only 30% of the members of the Sectoral Conference on the Environment, compared to 45% in the Sectoral Conference on Energy.

Women in the Ecological Transition 2025

Sustainable Habits

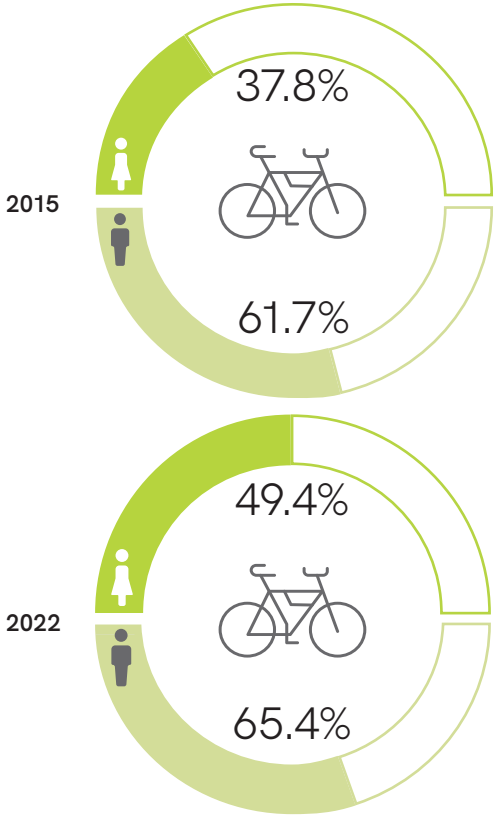
Main mode of transport used for commuting to the place of work or study



Source: Own elaboration based on INE, Survey on Essential Characteristics of Population and Housing

The main mode of transport used for commuting is the private motor vehicle (56% of women and 70% of men), followed by public transport (21% of women and 13% of men) and walking (20% of women and 13% of men).

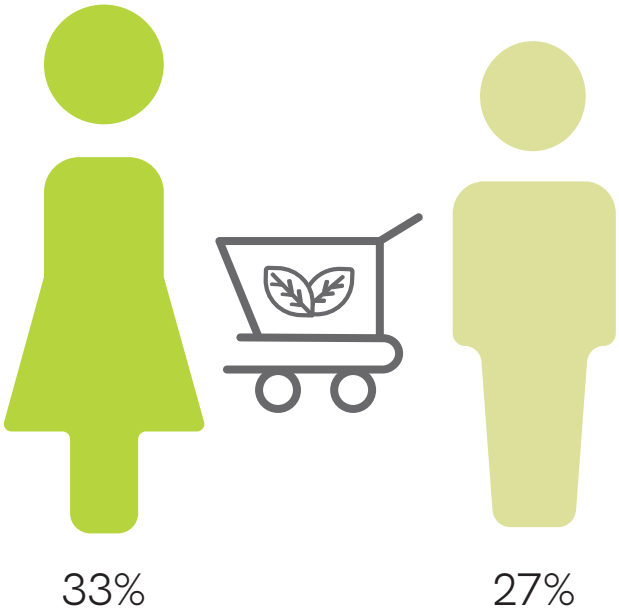
Increase in bicycle use



Source: Own elaboration based on RedBici, Bicycle Barometer

The proportion of women using bicycles has been progressively increasing from 37.8% in 2015 to 49.4% in 2022, while the proportion of men using bicycles increased from 61.7% to 65.4% in the same time period.

Consideration of environmental impact in purchasing decisions



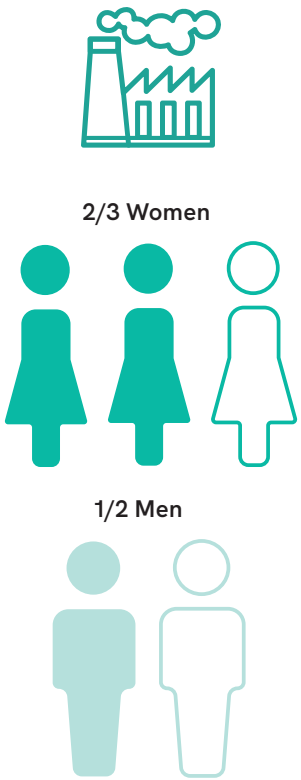
Source: Own elaboration based on the Flash Eurobarometer, The EU Ecolabel

In 2023, 33% of women considered environmental impact “very important” when making purchasing decisions, compared to 27% of men.

Women in the Ecological Transition 2025

Health

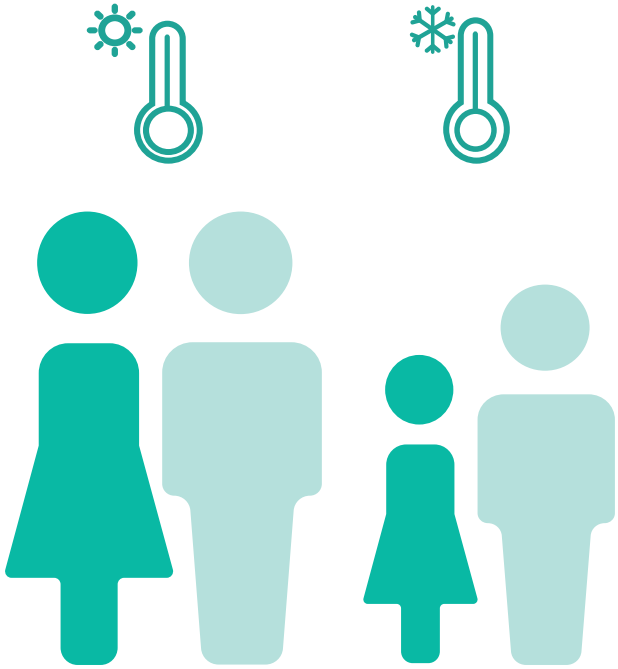
Perception of the severity of cardiovascular diseases consequence of air pollution



Source: Own elaboration based on the Special Eurobarometer, Attitudes of Europeans towards Air Quality (Spain data)

According to 2022 data, about two out of every three women consider cardiovascular diseases consequence of air pollution to be a very serious problem (compared to one out of every two men).

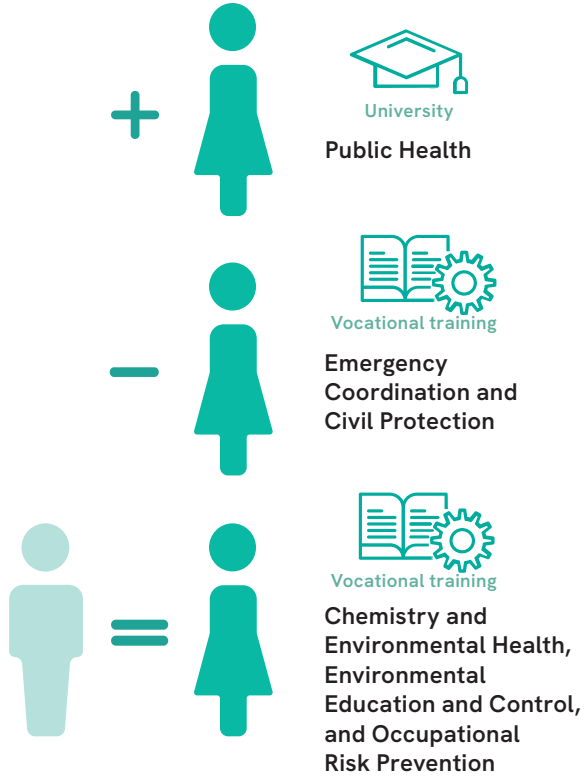
Deadly impact of extreme temperatures



Source: Own elaboration based on INE, Statistics on Deaths by Cause of Death

There are more deaths recorded from exposure to excessive natural heat than from exposure to excessive natural cold, but while the former tend to be distributed fairly evenly between women and men, the latter show a notable overrepresentation of men.

Share of female students in the total number of students in formal education programs related to environmental public health



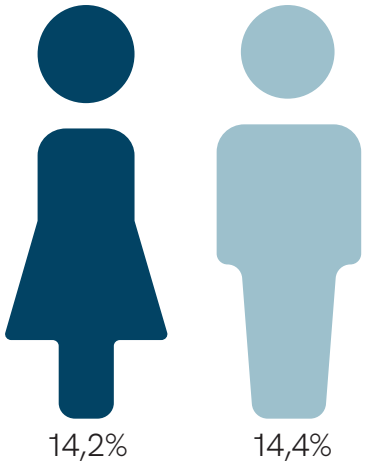
Source: Own elaboration based on MEFPD (EDUCAbase) and MICIU (UNIVbase)

Female students are overrepresented in Public Health at universities but underrepresented in Emergency Coordination and Civil Protection in vocational training. There is gender balance in Chemistry and Environmental Health, Environmental Education and Control, and Occupational Risk Prevention.

Women in the Ecological Transition 2025

Energy

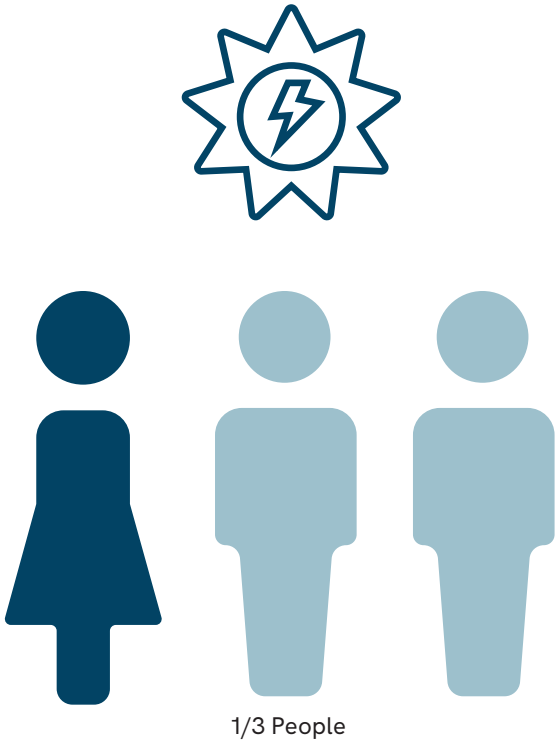
Energy efficiency improvements in households



Source: Own elaboration based on INE, Income and Living Conditions Survey

In 2023, one in seven households reported having made some improvement in the thermal insulation or heating system of the home or building in the last 5 years (14.2% when the household reference person is a woman, and 14.4% when the reference person is a man.

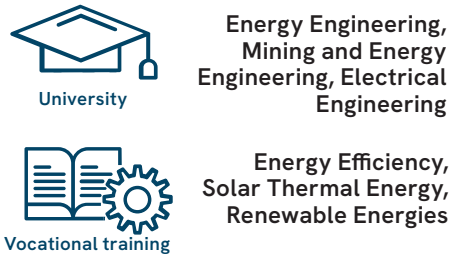
Share of women in employment in the renewable energy sector



Source: Own elaboration based on INE, Labour Force Survey (Q2)

In 2023, one out of every three people employed in the renewable energy sector was a woman.

Share of female students in the total number of students in formal education programs related to the energy sector



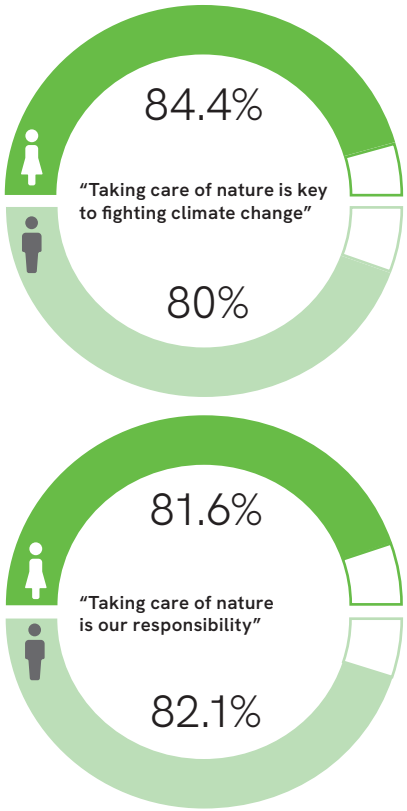
Source: Own elaboration based on MEFPD (EDUCAbase) and MICIU (UNIVbase)

There is a notable underrepresentation of female students in key educational and training areas for the energy transition, such as university studies in Energy Engineering, Mining and Energy Engineering, and Electrical Engineering, as well as in vocational training in Renewable Energies and in Energy Efficiency and Solar Thermal Energy.

Women in the Ecological Transition 2025

Biodiversity

Opinion on various reasons to halt biodiversity loss



Source: Own elaboration based on the Special Eurobarometer, Attitudes Towards Biodiversity (Spain data)

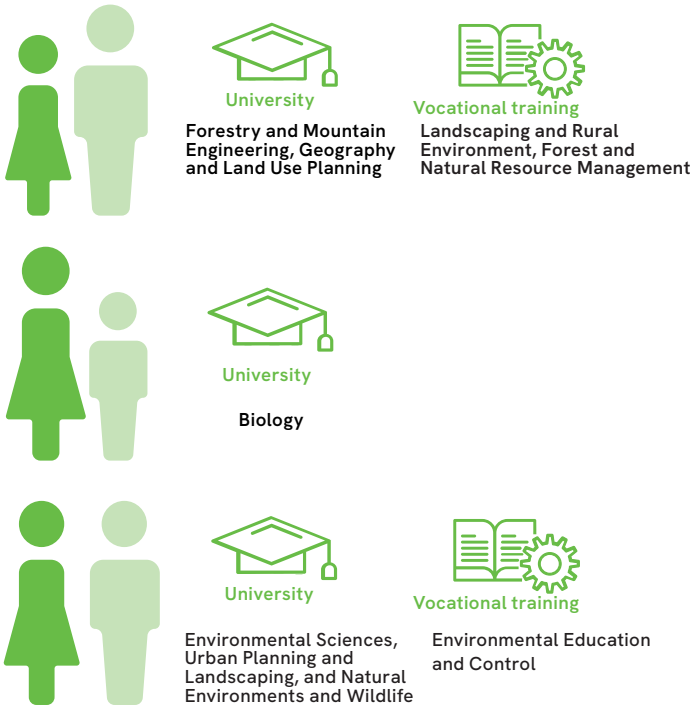
Around 80% of both women and men strongly agree with the statements "Taking care of nature is key to fighting climate change" (84.4% of women and 80% of men), and "Taking care of nature is our responsibility" (81.6% of women and 82.1% of men).

Share of women in employment in the sustainable forestry sector and in the management of protected natural areas

Source: Own elaboration based on INE, Labour Force Survey (Q2)

In 2023, women made up only around one in ten people employed in the sustainable forestry sector, but in the management of protected natural areas, women accounted for one in three.

Share of female students in the total number of students in formal education programs related to biodiversity, the forestry sector and the management of protected natural areas



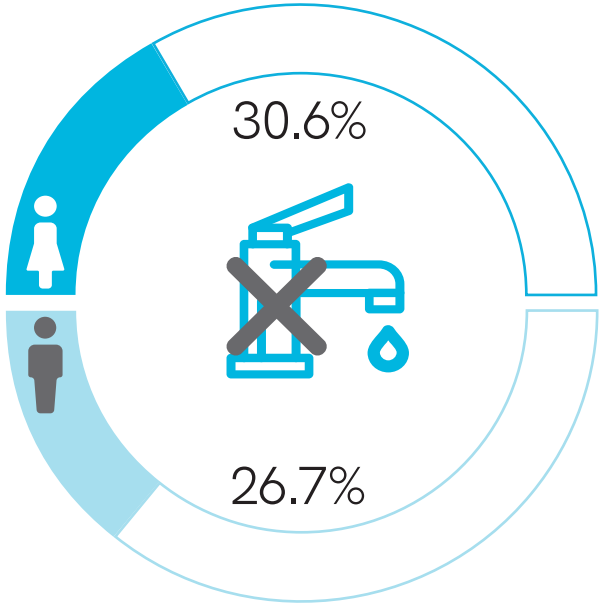
Source: Own elaboration based on MEFPD (EDUCAbase) and MICIU (UNIVbase)

In vocational training, female students are underrepresented in Landscaping and Rural Environment and in Forest and Natural Resource Management. At the university level, they are underrepresented in Forestry and Mountain Engineering, as well as in Geography and Land Use Planning, but are overrepresented in Biology. There is gender balance in university studies in Environmental Sciences, Urban Planning and Landscaping, and Natural Environments and Wildlife, as well as in vocational training in Environmental Education and Control.

Women in the Ecological Transition 2025

Water

Opinion that the single most serious problem facing the world is poverty, hunger, and lack of drinking water



Source: Own elaboration based on the Special Eurobarometer, Climate Change (Spain data)

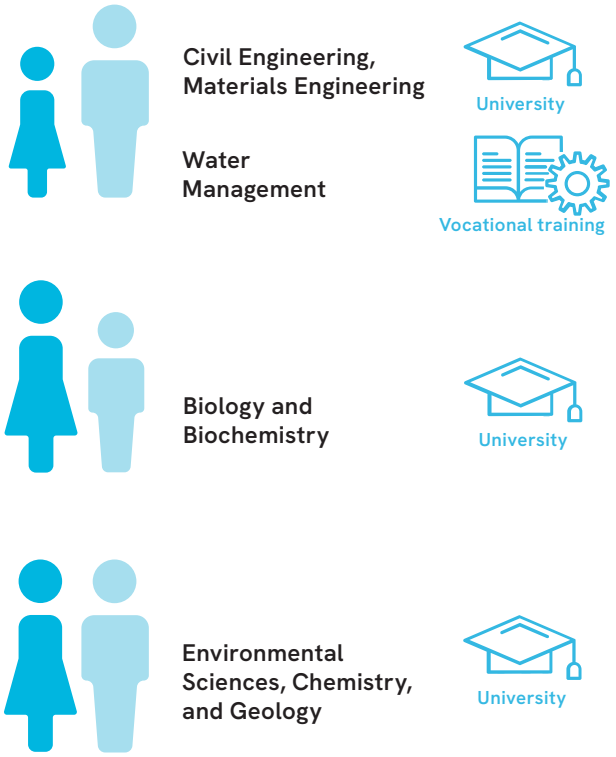
Women are more likely than men to consider "poverty, hunger, and lack of drinking water" as the single most serious problem facing the world (30.6% of women compared to 26.7% of men in 2023).

Share of women in employment in the sustainable water management sector

Source: Own elaboration based on INE, Labour Force Survey (Q2)

In 2023, only one in five people employed in the sustainable water management sector was a woman.

Share of female students in the total number of students in formal education programs related to sustainable water management



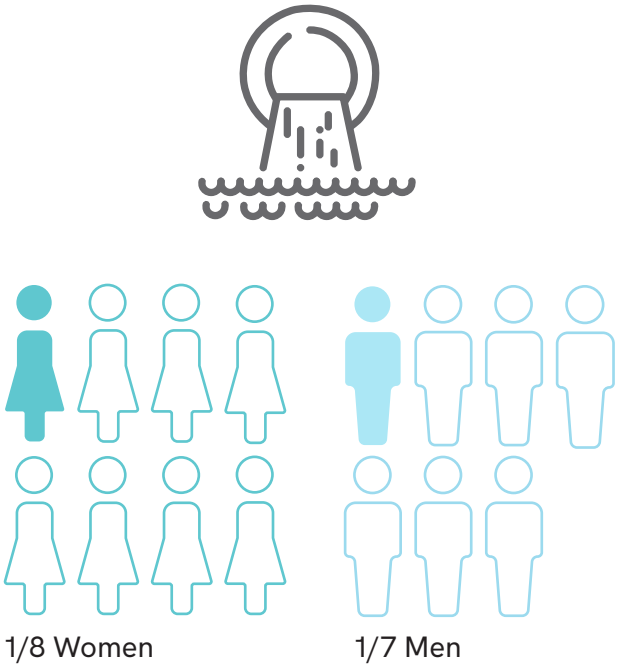
Source: Own elaboration based on MEFPD (EDUCAbase) and MICIU (UNIVbase)

Female students are underrepresented in vocational training in Water Management and in university studies in Civil Engineering and Materials Engineering, but overrepresented in Biology and Biochemistry. There is gender balance in Environmental Sciences, Chemistry, and Geology.

Women in the Ecological Transition 2025

Marine Environment

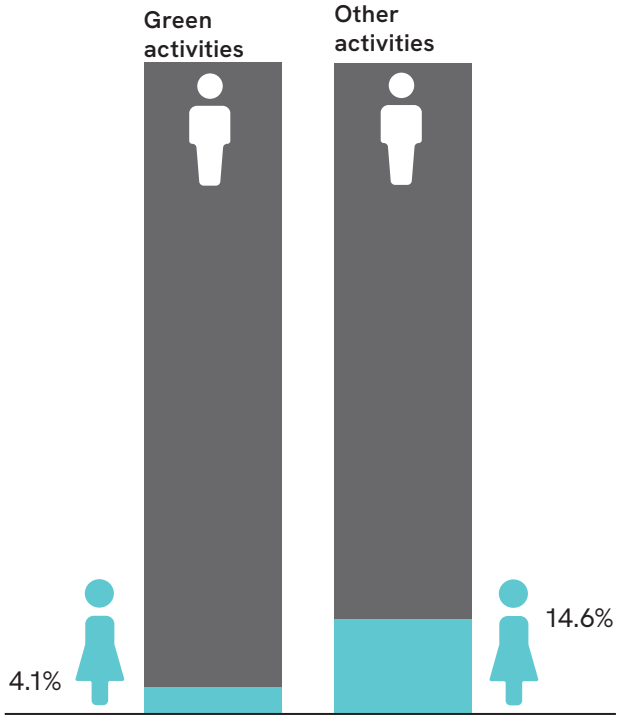
Perception of marine pollution



Source: Own elaboration based on the Special Eurobarometer, Attitudes of Europeans towards the Environment (Spain data)

One in eight women and one in seven men consider marine pollution to be one of the four most important environmental problems, according to 2020 data.

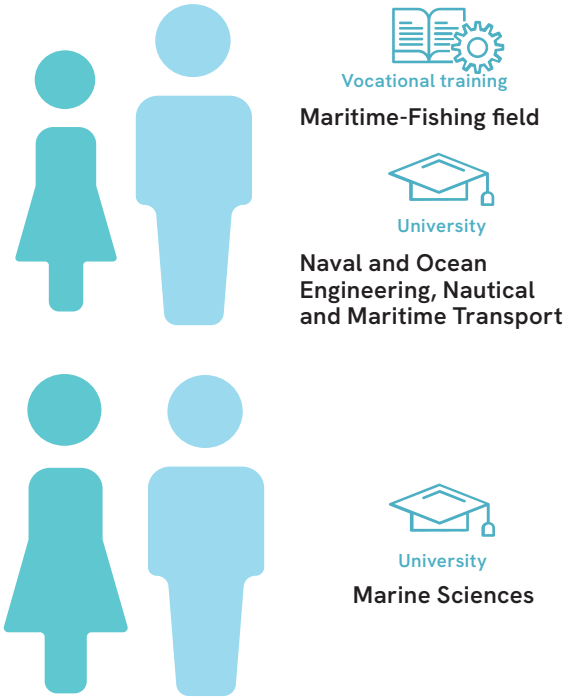
Share of women in Social Security affiliation to the Special Regime for Sea Workers (RETM) in green economy activities



Source: Own elaboration based on data from TGSS

In 2023, only 4.1% of affiliates to the RETM in green economy activities were women, compared to 14.6% in the rest of the RETM economic activities.

Share of female students in the total number of students in formal education programs related to the marine environment



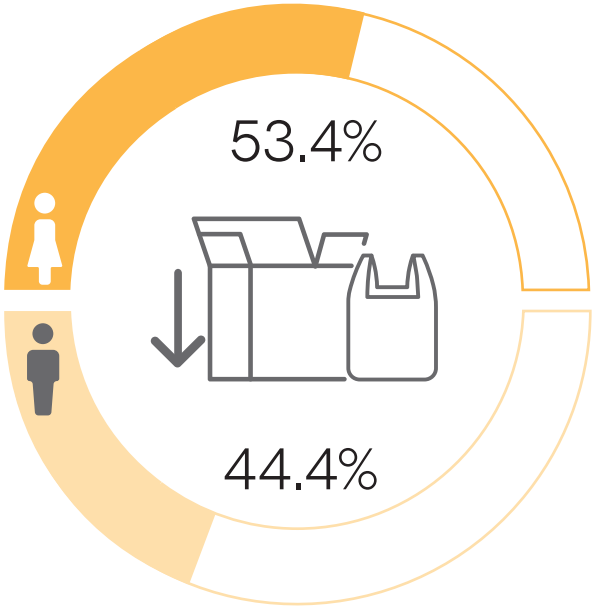
Source: Own elaboration based on MEFPD (EDUCAbase) and MICIU (UNIVbase)

In vocational training, female students are underrepresented in the Maritime-Fishing field. In universities, they are underrepresented in the fields of Naval and Ocean Engineering and Nautical and Maritime Transport. However, there is gender balance in the field of Marine Sciences.

Women in the Ecological Transition 2025

Circular Economy

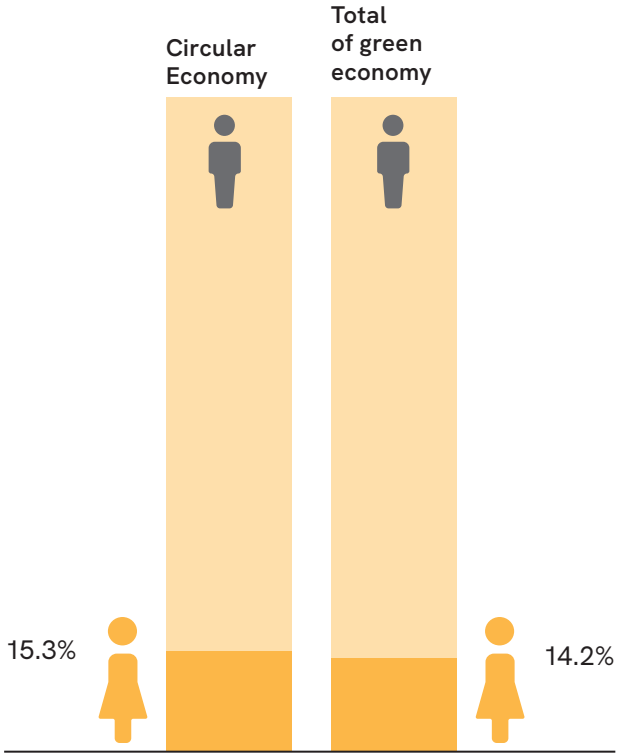
Reduction in the consumption of disposable items



Source: Own elaboration based on the Special Eurobarometer, Climate Change (Spain data)

In 2023, 53.4% of women, compared to 44.4% of men, say they always try to reduce their consumption of disposable items (e.g., supermarket plastic bags or excessive packaging).

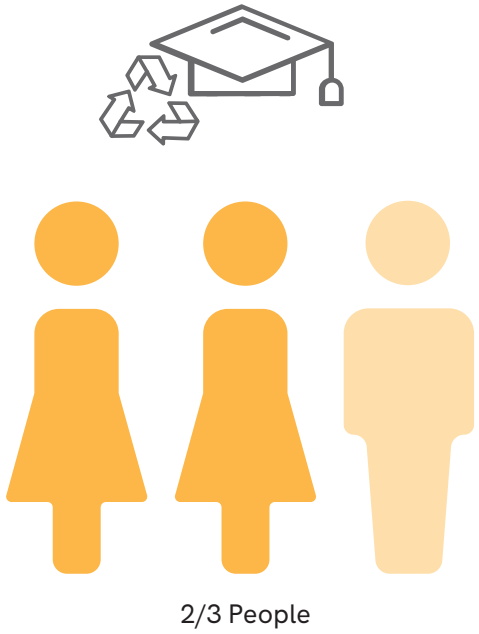
Share of women in employment in the circular economy, waste management and decontamination sector



Source: Own elaboration based on INE, Labour Force Survey (Q2)

In 2023, only 15.3% of those employed in the circular economy, waste management and decontamination sector were women, a percentage very similar to the proportion of women (14.2%) among the total number of people employed in the green economy.

Share of female students in the total number of students in Master's degree studies specifically focused on the circular economy



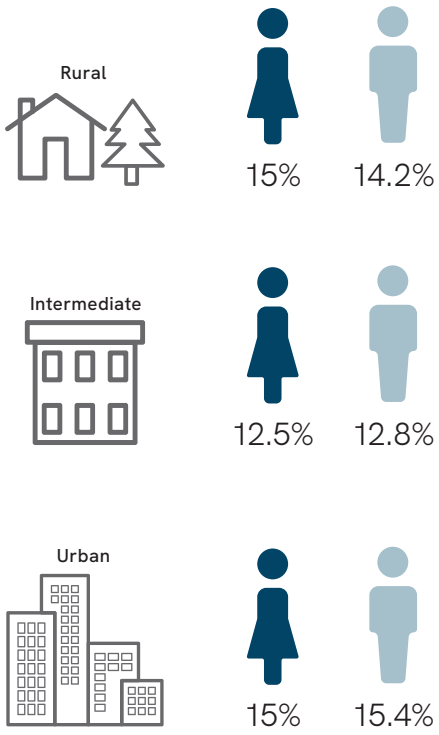
Source: Own elaboration based on MICIU, Student Statistics

Around two out of every three people enrolled in Master's degree studies specifically focused on the circular economy are women.

Women in the Ecological Transition 2025

Type of Municipality

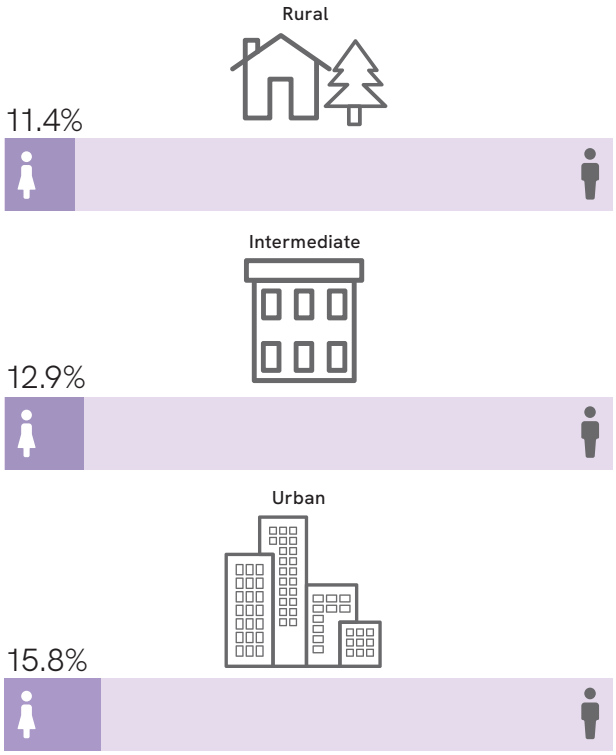
Energy efficiency improvements in households



Source: Own elaboration based on INE, Income and Living Conditions Survey

Only in rural municipalities the percentage of households reporting having made some improvement in the thermal insulation or heating system of the home or building in the last 5 years is slightly higher when the household reference person is a woman, compared to a man (15% of women vs. 14.2 of men in 2023). Conversely: 15% and 12.5% of female reference persons in urban and intermediate municipalities, respectively, compared to 15.4% y 12.8% of their male counterparts. Higher percentages for both women and men reference persons in rural and urban households, compared to those in intermediate municipalities.

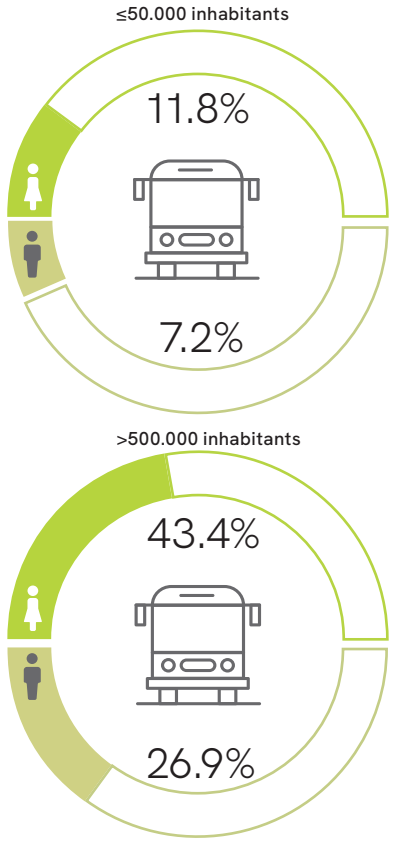
Share of women in employment in green economy activities



Fuente: Elaboración propia a partir de INE, EPA (2T)

The percentage of women employed in green economy activities tends to increase with the level of urbanization of the municipality: from 11.4% in rural municipalities, to 12.9% in the intermediate ones, and up to 15.8% in urban municipalities in 2023.

Priority use of public transport



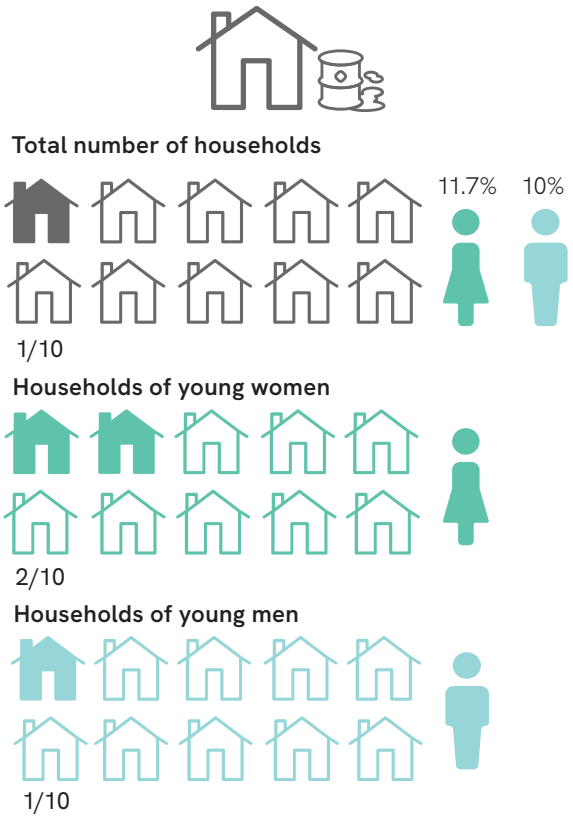
Source: Own elaboration based on INE, Survey on Essential Characteristics of Population and Housing

The priority use of public transport increases progressively with the size of the municipality, especially among women (from 11.8% of women in municipalities with ≤50,000 inhabitants to 43.4% in those with >500,000 inhabitants, compared to 7.2% and 26.9% of men, respectively).

Women in the Ecological Transition 2025

Age

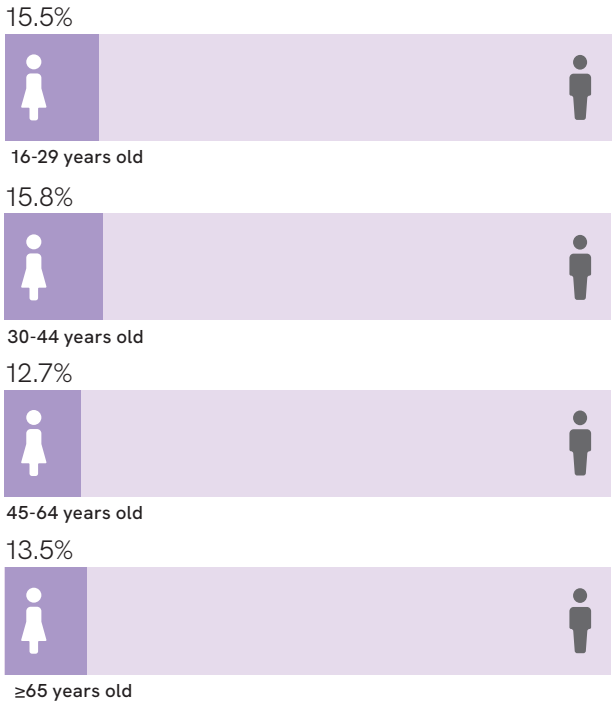
Pollution and other environmental problems in the dwelling surrounding area



Source: Own elaboration based on INE, Income and Living Conditions Survey

Young women who are household reference persons are more likely than their male counterparts to report that their dwellings are affected by pollution and other environmental problems in the surrounding area: two out of ten households in the case of women (17.3%) compared to one out of ten in the case of men (10.6%). Across all households, the analogous proportion is 11.7% when the reference person is a woman and 10.0% when it is a man, according to 2023 data.

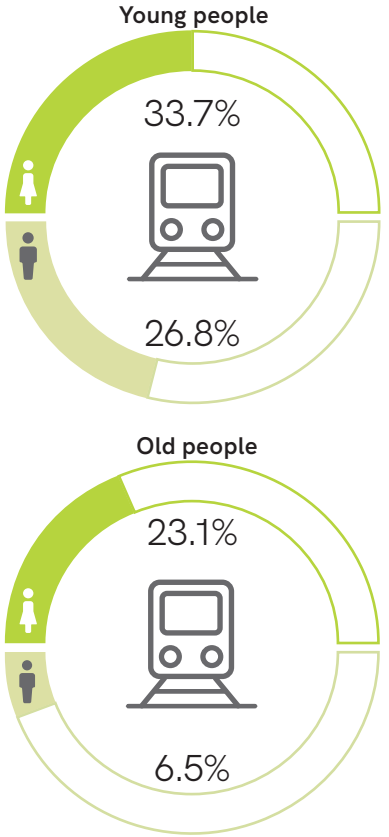
Share of women in employment in green economy activities



Source: Own elaboration based on INE, Labour Force Survey (Q2)

The percentage of women among those employed in green economy activities (14.2%) is slightly higher in younger age groups: 15.5% and 15.8% in the 16-29 and 30-44 age groups, respectively, compared to 12.7% and 13.5% in the 45-64 and ≥65 age groups.

Priority use of public transport



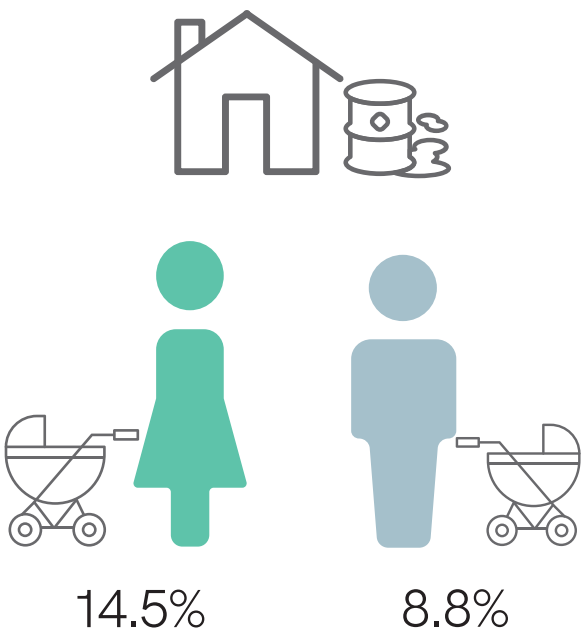
Source: Own elaboration based on INE, Survey on Essential Characteristics of Population and Housing

33.7% of young women, compared to 26.8% of young men, report primarily using public transport for their commute to their place of work or study. Among older individuals, 23.1% of women, compared to only 6.5% of men, indicate the same.

Women in the Ecological Transition 2025

Type of Household

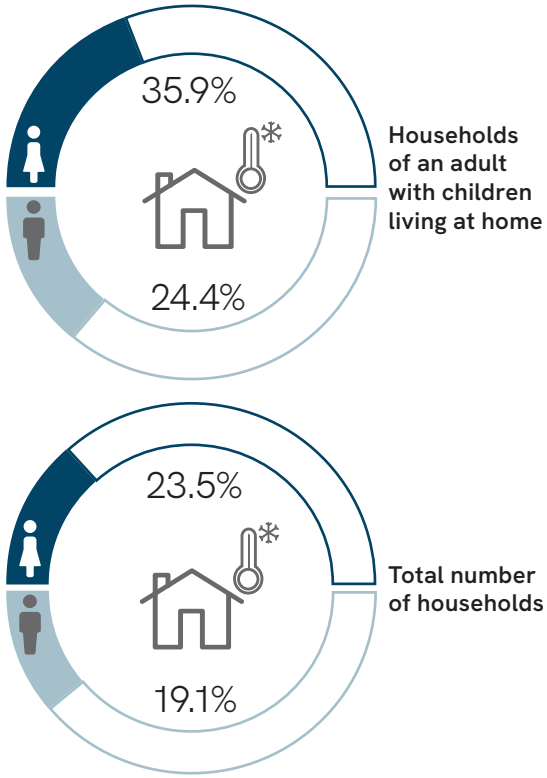
Pollution and other environmental problems in the dwelling surrounding area



Source: Own elaboration based on INE, Income and Living Conditions Survey

Households of an adult woman with children living at home are more likely than their male counterparts to report that their dwellings are affected by pollution and other environmental problems in the surrounding area (14.5% of women's households compared to 8.8% of men's households, in 2023).

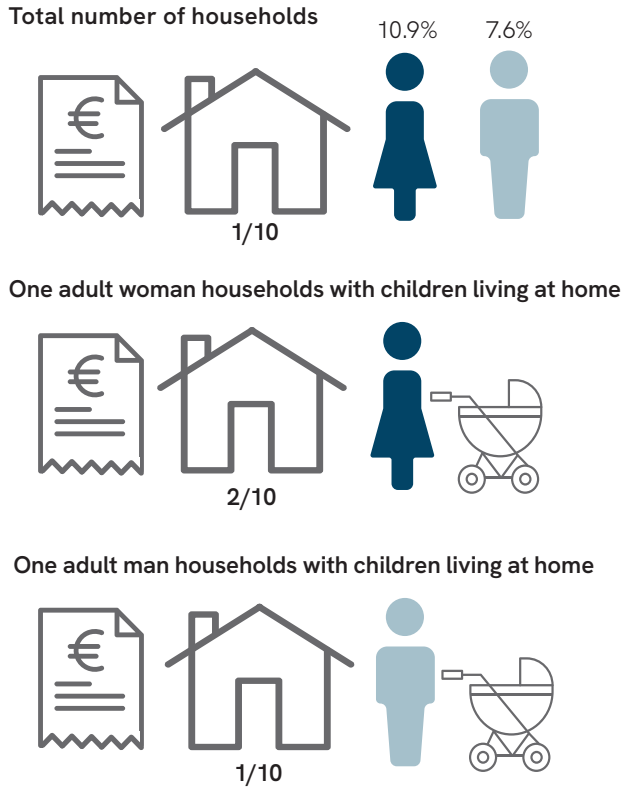
Energy poverty in winter months



Source: Own elaboration based on INE, Income and Living Conditions Survey

In 2023, households consisting of an adult woman with children living at home were the most likely to report that they cannot afford to keep their home at a sufficiently warm temperature during the winter months: 35.9% of these households, compared to 24.4% of their male counterparts, and 23.5% of all households where the reference person is a woman (19.1% when the reference person is a man).

Households social bonds to cover the payment of bills



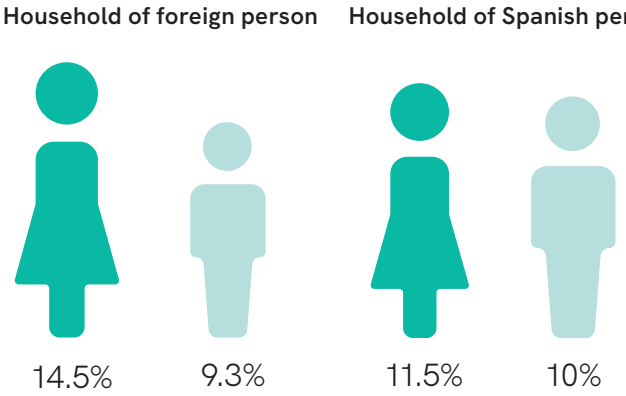
Source: Own elaboration based on INE, Income and Living Conditions Survey

Although one in ten households reported in 2023 receiving social bonds to cover the payment of bills for electricity, heating, gas, water, etc (10.9% when the reference person was a woman and 7.6% when it was a man), this figure rises to two in ten for households consisting of an adult woman with children living at home (compared to one in ten in the case of their male counterparts).

Women in the Ecological Transition 2025

Nationality

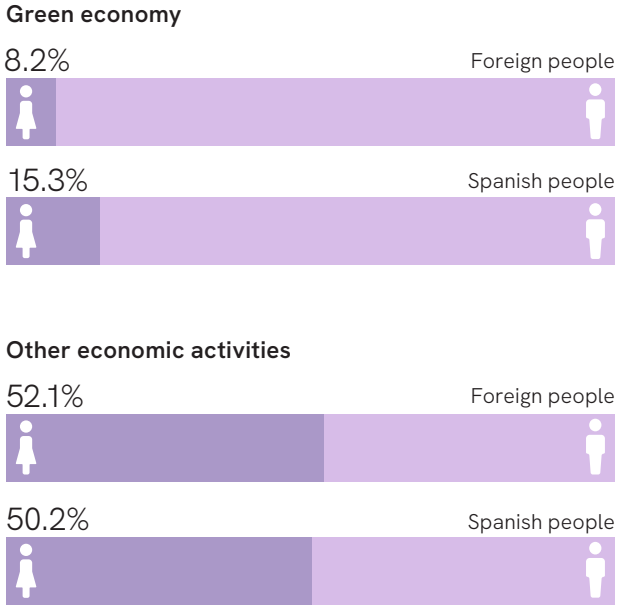
Pollution and other environmental problems in the dwelling surrounding area



Source: Own elaboration based on INE, Income and Living Conditions Survey

Foreign women who are household reference persons are more likely than their male counterparts to report that their dwellings are affected by pollution and other environmental problems in the surrounding area (14.5% of those women vs. 9.3% of these men). This percentage is also higher than that of their Spanish-national counterparts (11.5% of women vs. 10% of men), according to 2023 data.

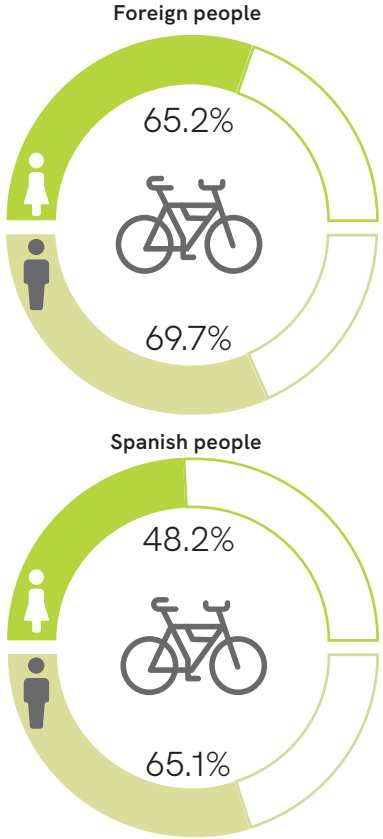
Share of women in employment in green economy activities



Source: Own elaboration based on INE, Labour Force Survey (Q2)

The underrepresentation of women in employment in green economy activities becomes accentuated in the case of foreign people, compared to Spanish people (the share of women among those employed in green economy activities is 8.2% vs. 15.3%, respectively, in 2023). Employment in the other economic activities is gender-balanced (the share of women is 52.1% and 50.2%, respectively, in the case of foreign and Spanish people).

Bicycle users



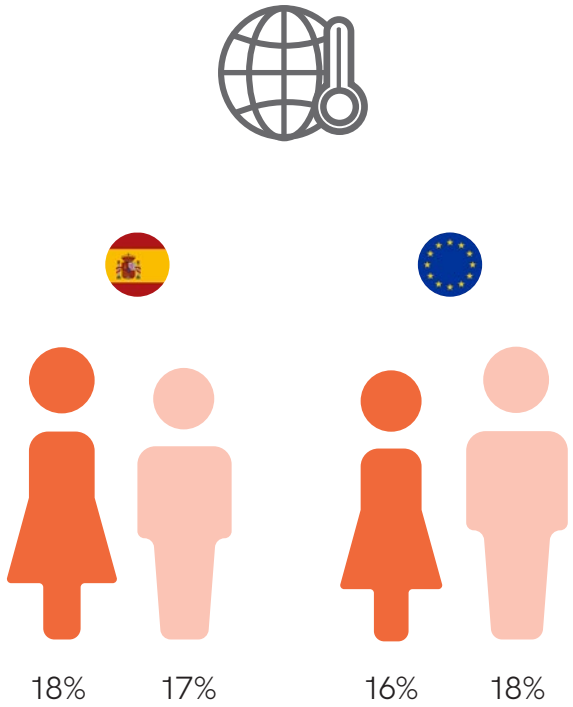
Source: Own elaboration based on RedBici, Bicycle Barometer

The percentage of women bicycle users is higher among foreign women (65.2%) compared to Spanish women (48.2%). However, this percentage of foreign women is slightly lower than that of foreign men (69.7%) and nearly equal to that of Spanish men (65.1%), according to 2022 data.

Women in the Ecological Transition 2025

Spain vs. EU-27 average

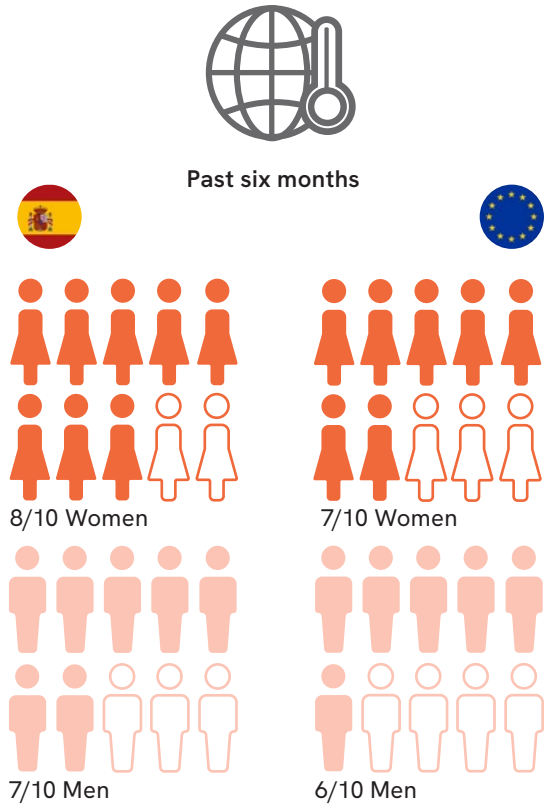
Perception of climate change as the single most serious problem facing the world



Source: Own elaboration based on the Special Eurobarometer, Climate Change

In both Spain and across the EU-27, around 20% of women and men consider climate change to be the single most serious problem facing the world: 18% of Spanish women and 16% of women in the EU, compared to 17% of Spanish men and 18% of men in the EU, according to 2023 data.

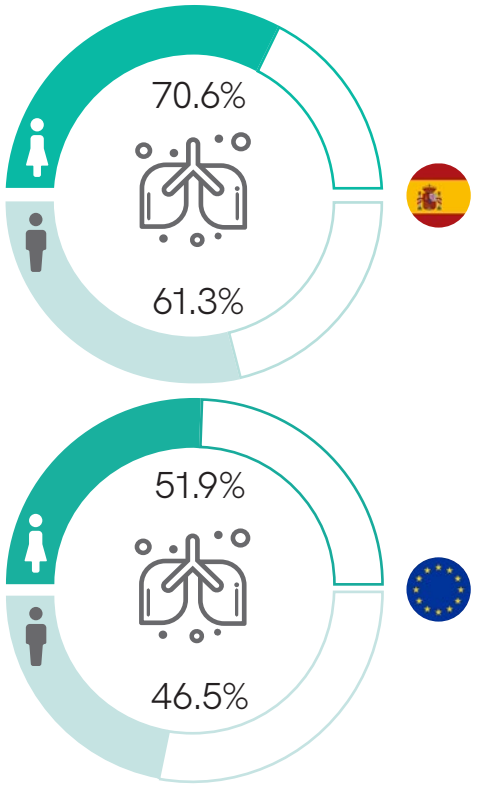
Personal action to fight climate change



Source: Own elaboration based on the Special Eurobarometer, Climate Change

The proportion of people who say they have taken action to fight climate change in the past six months is higher in Spain than the EU-27 average. In both cases, women are more likely to report taking action (8 in 10 Spanish women vs. 7 in 10 women across the EU) than men (7 in 10 Spanish men vs. 6 in 10 men across the EU), according to 2023 data.

Perception of the severity of respiratory diseases caused by air pollution



Source: Own elaboration based on the Special Eurobarometer, Attitudes of Europeans towards air quality

The percentage of people who consider respiratory diseases caused by air pollution to be very serious is significantly higher in Spain than the EU-27 average, according to 2022 data—both among women (70.6% of Spanish women vs. 51.9% of women in the EU) and men (61.3% of Spanish men vs. 46.5% of men in the EU).

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Women in the Ecological Transition 2025 is the first report in the new series *Women in the Ecological Transition*. This executive summary, beyond an introduction to the objectives and methodology of the report, highlights its general conclusions, which include those related to the quantitative analysis carried out by means of a gender indicators system on Women in the Ecological Transition, as well as other conclusions from a specific qualitative approach on Women and Circular Economy. Finally, it presents a set of infographics illustrating some of the concrete results from the quantitative analysis carried out.

2025

GOBIERNO DE ESPAÑA
VICEPRESIDENCIA TERCERA DEL GOBIERNO
MINISTERIO PARA LA TRANSICIÓN ECOLÓGICA Y EL RETO DEMOGRÁFICO