

# Gender equality, employment and green transition: policies for inclusive development

## Colombia in the «Fair transition energy and green job creation» study

COUNTRY  
**COLOMBIA**



In recent years, Colombia has adopted a strategic vision to move towards a fair energy transition, understood as a process of transformation of the energy system that ensures respect for labour rights, social inclusion, environmental sustainability and territorial equity. This transition is based on fundamental pillars such as equity and democratization, including approaches to social, environmental and energy justice, as well as greater respect for ecosystems, better distribution of burdens and benefits and greater democracy regarding ownership, management and decision-making in the energy transition process. On the other hand, the principle of binding social participation is aimed at guaranteeing a greater impact to the people and communities affected and investment in knowledge to create alternative employment and economic.

use of natural wealth and social inclusion in a climate-friendly manner.” This policy is articulated in 5 strategic axes: Diversification of the economy through production of goods and services based on sustainable use of natural capital. Improved use of natural resources; Generation and strengthening of human capital to address the knowledge and expertise challenges generated by green growth; science actions, technology and innovation, and actions to achieve the inter-institutional coordination and articulation required for its implementation.

## 1. Public Policy Review

### 1.1. National policies for a just energy transition

\* **National Development Plan 2022-2026 (PND, 2023):** which declares Colombia as a “World Power of Life”, and prioritizes the decarbonization of the economy by expanding renewable energy sources and reducing dependence on fossil fuels.

\* The main objective of the [National Climate Change Policy \(PNCC\)](#) is to promote an integrated management of climate change that contributes to the sustainable

development of the country. This policy articulates efforts in greenhouse gas (GHG) mitigation, adaptation to climate impacts and institutional capacity building. Colombia is committed to reducing its GHG emissions by 51% by 2030 and achieving carbon neutrality by 2050. In addition, regional and sectoral plans have been implemented to integrate climate action into all levels of government and productive sectors.

\* **Green Growth Policy (CONPES 3834, 2018):** “It aims to boost the country's productivity and economic competitiveness by 2030, while ensuring the sustainable

\* [Colombia's National Determined Contribution \(NDC\) Update \(MinAmbiente, 2020\)](#): sets a goal of reducing GHG emissions by 51% by 2030 and commits the country to the principles of just transition, gender equality, Human rights and inclusion of vulnerable communities.

### 1.2. Instruments and Tools for the Implementation of the Energy Transition

\* [The Plan of Action on Gender and Climate Change in Colombia \(PAGCC-CO\)](#) defines the



## Gender equality, employment and green transition: policies for inclusive development



indivisible relationship between climate change and gender, establishing a road map that seeks to integrate Colombian women belonging to all social groups (including Afro-Colombian and indigenous women), in climate change mitigation and adaptation measures.

- \* [The Basic Diagnosis for the Just Energy Transition \(Ministry of Mines and Energy, 2024\)](#) provides an in-depth analysis on renewable technologies (solar, wind, biomass, geothermal), the challenges of the electricity sector and the social impacts of the extractivist model.

- \* [The National Green Business Plan 2022-2030](#) (MinAmbiente, 2022), seeks to strengthen

productive sectors with positive environmental impact by promoting sustainable value chains such as biotrade, ecotourism, circular economy, and ecosystem services.

- \* The Comprehensive Climate Change Management Plans (**PIGCCS and PIGCCT**) at [sectoral](#) or [territorial](#) level, allow an inter-institutional articulation in the implementation of policies for adaptation to and mitigation of climate change.

- \* [Law 2169 of 2021 or Climate Action Law](#), establishes mechanisms for the transition of the labor force towards sustainable activities, and explicitly recognizes the role of green employment in improving quality of life and social inclusion (Congress of Colombia, 2021).

### 1.3. Inclusion of the gender dimension in public policies

The inclusion of gender in sustainable development planning has been recognized by the Colombian government as a necessary condition to ensure a fair and successful transition.

[The Gender Equity Public Policy for Women \(CONPES 4080 of 2022; DNP, 2022\)](#): it is an eight-year strategic instrument (2022-2030) focused on closing structural gaps in access to resources, political participation, economic autonomy and redistribution of care work. This policy establishes cross-sectoral guidelines to incorporate a gender approach in all State actions, including those related to economic development,



employment, the environment and education. It is linked to the National System of Equality and Equity (SNIE) and the National Care System, recently created under the leadership of the Ministry of Equality and Equity (2023). This policy focuses on: a) the promotion of economic autonomy: increasing opportunities for women's economic autonomy by removing barriers and promoting their participation in productive sectors. b) Political participation and leadership: progress towards parity in the participation of women in elected positions and public sector management, as well as strengthening their leadership in communal settings. c) Health and Welfare: improving the physical and mental health of women through public interventions that respond to their specific needs. d) Prevention of violence: strengthen policies to prevent and address violence against women in a comprehensive manner, guaranteeing safe environments free from violence. e) Peacebuilding: Strengthening the role of women in peacebuilding and security agenda, within the framework of UN Resolution 1325. AND f) Institutional strengthening and cultural transformation.

[Policy on the inclusion of gender in work](#): to encourage the inclusion of gender in the workplace, the Ministry of Labour has implemented a policy on employment equity with a gender focus. This

policy aims to promote gender equality and equity in enterprises as a strategic element for competitiveness, Identify and reduce gender gaps through the promotion and adoption of gender-neutral labour practices and policies, and promote the redistribution of social roles by involving women in traditionally male workplaces and vice versa.

[Law 1496 of 2011](#) guarantees equal pay and remuneration for work between women and men, establishing mechanisms to eradicate any form of discrimination in the workplace.

Creation in 2023 of the [Ministry of Equality and Equity](#): the main objective of the ministry is to address social and economic inequalities affecting women, communities of African descent, indigenous people, LGBTIQ+ population and other vulnerable groups.

Feminist foreign policy through which Colombia undertakes to incorporate a gender perspective in its bilateral, multilateral and international cooperation relations.

Creation (2025) of the [National Care System](#), an initiative aimed at recognizing and redistributing unpaid care work, promoting gender equity and improving the living conditions of those responsible for care in the country.

## 2. Analysis of Opportunities and Potentials

### 2.1. Identification of policies that promote the employment of women in green jobs

[The National Green Business Plan 2022-2030](#) explicitly recognizes the need to design incentives and programs that ensure women and young people have equal access to these emerging sectors.

In this context, a number of policies and programmes are designed to facilitate their integration into working life:

The Green Jobs for Peace Program (MinTrabajo, 2017) promotes sustainable rural entrepreneurship in communities affected by armed conflict, with the active participation of peasant women and victims of displacement.

The Green Business Windows in the Regional Autonomous Corporations, which have accompanied more than 4,000 sustainable productive initiatives, many led by women (MinAmbiente, 2022).

### 2.2. Recommendations for Improving Gender Inclusion in Policies

To strengthen gender equity in the context of the green transition, the following recommendations are



proposed based on the literature review:

Include gender targets and indicators in climate, energy and labour policies.

Design specific calls and funding lines for women green entrepreneurs.

Promote gender-sensitive technical training programmes in areas such as renewable energy, waste management, sustainable agriculture and clean technologies.

Implement awareness campaigns on gender roles in traditionally masculinized sectors.

Promote the equal participation of women in territorial governance and local energy planning processes.

## Practices to highlight

- In Bogota, the Bioeconomy Hub has developed training programmes for young women in biotechnology, organic waste processing and sustainable product design (Green Employment Bogotá, 2024).
- In the Cauca region, Afro-Colombian women's associations are leading ecological restoration and biofertilizer production projects with a territorial and ethnic focus.
- In Magdalena Medio, women victims of the conflict have set up ecotourism and certified organic production companies, supported by SENAs Fondo Emprendedor and the Ministry of Labour.
- The **Public Employment Service's Green Talent Strategy**, which articulates the educational offer with the demand for technical and professional profiles in emerging green sectors (ILO, 2023).
- Community **solar energy initiatives in La Guajira**, which have incorporated Wayuu indigenous women as maintenance techniques for solar panels, micro-grid operators and community promoters (ILO, 2022).
- The **Bioexpo Colombia program**, a green business fair with a gender focus, which has made visible women's enterprises in natural cosmetics, sustainable fashion and organic agro-industry.

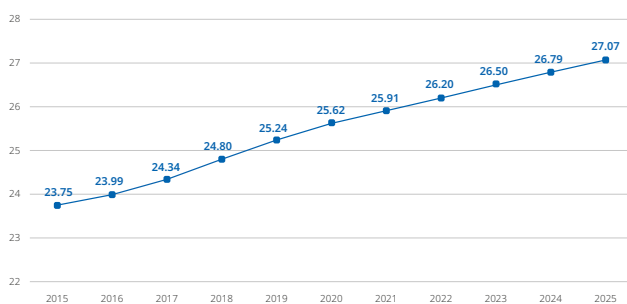


### 3. Datos estadísticos

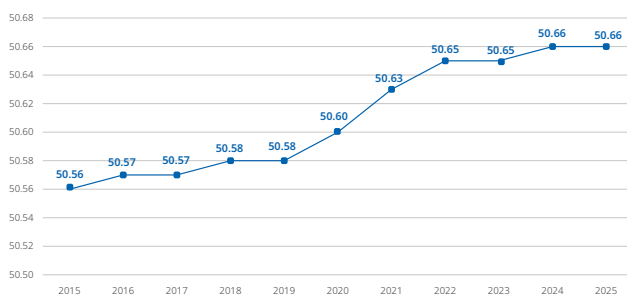
#### A. Demographic data

##### Population distribution statistics

###### Number of woman, millions

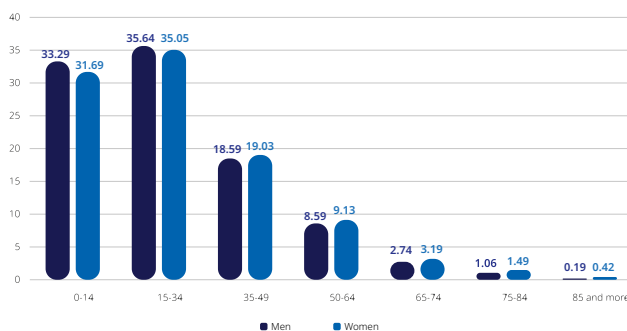


###### Percentage of woman



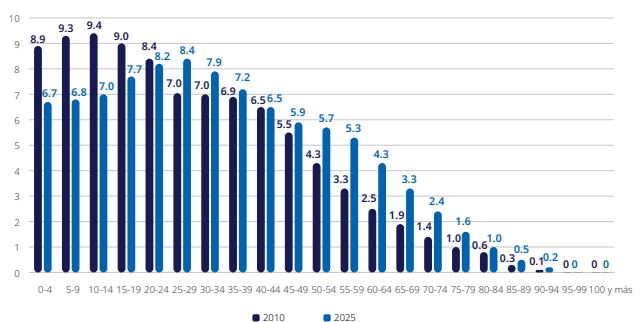
##### Population distribution statistics by age

###### Age distribution by sex, percentage



##### Age distribution statistics

###### Age distribution of the female population





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Ages	Women			Men		
	2000	2025	Difference in percentage points	2000	2025	Difference in percentage points
0-14	31.69	19.33	-12.36	33.29	20.68	-12.61
15-34	35.05	31.82	-3.23	35.64	33.20	-2.44
35-49	19.03	21.16	2.13	18.49	21.28	2.79
50-64	9.13	16.49	7.36	8.59	15.67	7.08
65-74	3.19	7.12	3.93	2.74	6.28	3.54
75-84	1.49	3.27	1.78	1.06	2.49	1.43
85 and more	0.42	0.82	0.4	0.19	0.40	0.21

### Interpretation of demographic data

**Distribution of the population by age and sex (2000 vs. 2025):** Colombia is undergoing a sustained process of population ageing. In 2000, 31.7% of women and 33.3% of men were in the 0-14 age group. By 2025, these figures are projected to fall to 19.3 per cent and 20.7 per cent respectively, implying a reduction of more than 12 percentage points in both cases.

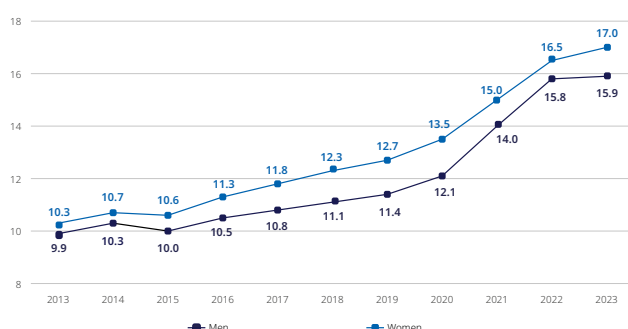
The older age groups show significant increases. For example, women aged 50-64 will increase from 9.1% to 16.5%, and men from 8.6% to 15.7%. The 65+ age group also doubles its relative weight, highlighting the growing future demand for specialized care, pensions and health services.

**Evolution of the percentage of women in the total population (2015-2025):** The proportion of women in the total population remains stable and slightly increasing, with a projected value of 50.66% in 2025. However, their over-representation in the older age groups underlines the need for gender-sensitive public policies in old age.

### B. Education level data

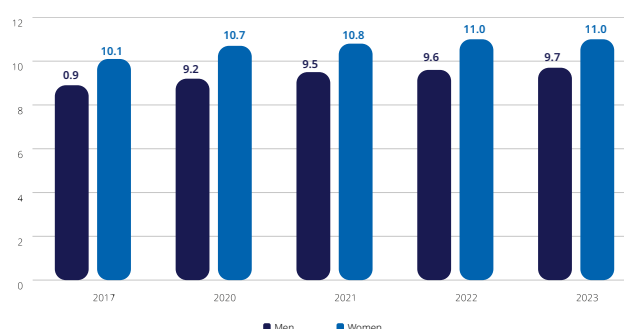
#### Educational attainment statistics

##### Percentage of bachelor, population 25+



#### Statistics on years of study

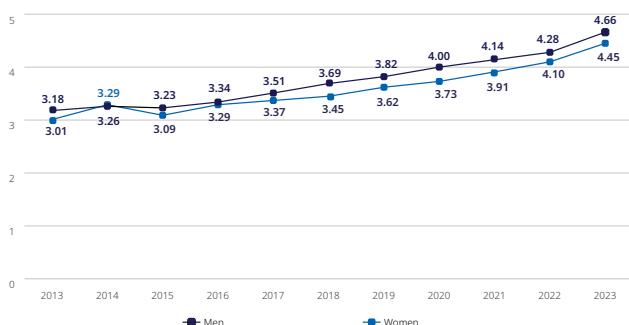
##### Years of education



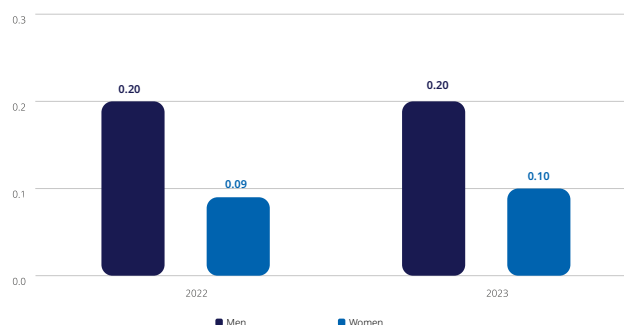


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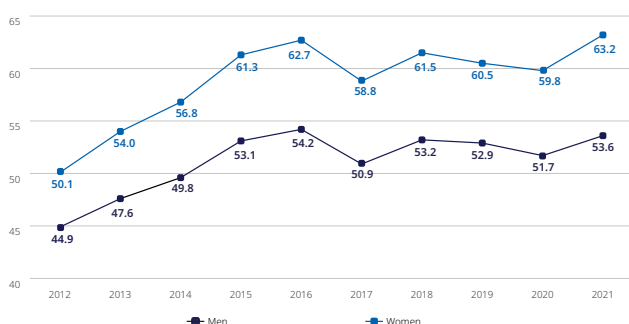
### Percentage of master, population 25+



### Percentage of PhD, population 25+



### Gross tertiary enrolment rate, percentage



### Interpretation of training data

**Access to tertiary education:** Colombia has a remarkable growth in the gross tertiary enrolment rate, with positive trends for both sexes. In 2021, women reached a rate of 63.2%, compared to 59.8% for men. This positive gap has been consolidated over the decade, indicating greater female participation in higher education.

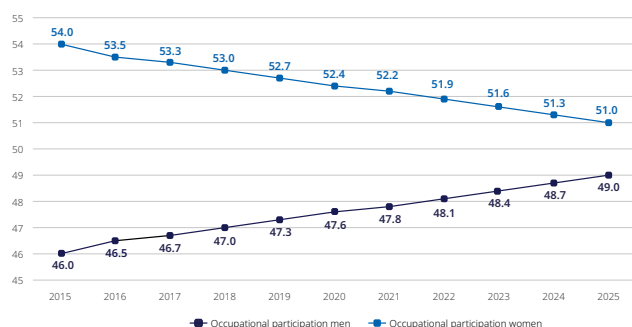
**Level of education achieved (bachelor's, master's, doctorate):** women have outperformed men in obtaining bachelor's degrees since 2016, and continue to show advantages in obtaining master's degrees. However, at the doctoral level, men still have a slight lead, reflecting persistent barriers to women's access to higher levels of academic education.

**Average years of formal education:** the average years of schooling have increased for both sexes. Since 2020, women have achieved parity with men, averaging around 11 years of formal education in 2023. This convergence suggests progress in terms of educational equity, although it does not yet translate into equality on the labour market.

## C. Employment data

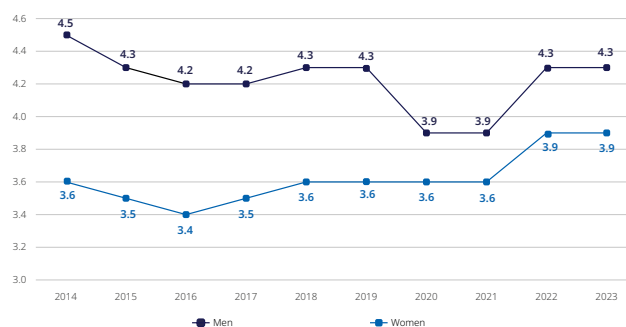
### Employment statistics

#### Economic participation rate, percentage

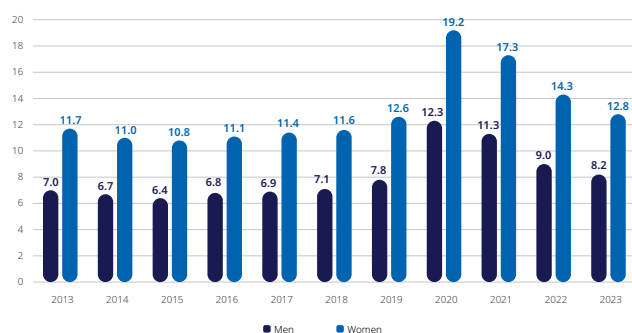


### Income Statistics

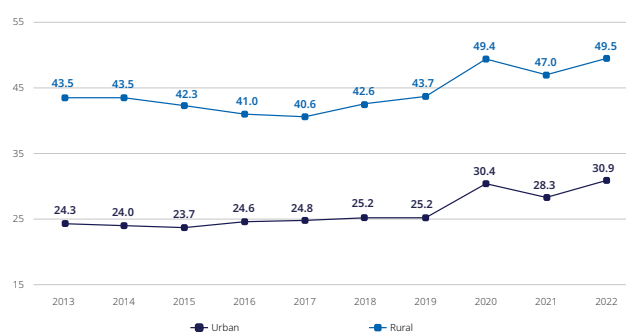
#### Average income, in multiples of the poverty line



#### Unemployment rate, percentage



#### Percentage of adult women dedicated exclusively to unpaid work



### Interpretation of employment data

**Economic participation rate:** the participation of women in the Colombian labour market is still lower than that of men. By 2025, women's participation is estimated at 49.0%, compared to 51.0% for men. Although the gap has narrowed over the last decade, structural inequalities that limit female employment persist.

**Unpaid work:** Unpaid domestic and care work remains a disproportionate burden for women. In 2021, 30.4% of urban women and 49.5% of rural women were dedicated exclusively to these tasks. In contrast, the incidence of this phenomenon among men is virtually non-existent, reflecting a deep-rooted sexual division of labour.

**Unemployment rate:** unemployment disproportionately affects women. In 2023, the female rate was 19.2%, while the male rate stood at 12.8%. This difference of more than 6 percentage points confirms the increased vulnerability of women in adverse work environments.





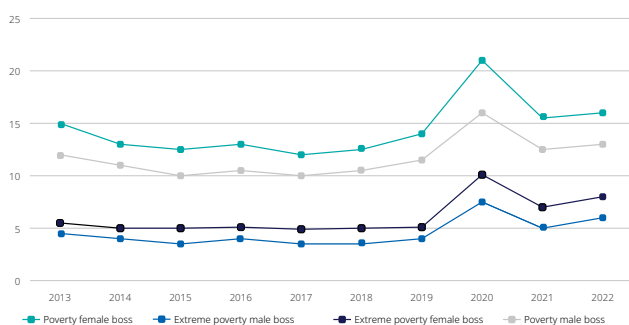
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**Earnings:** Women's average earnings are still lower than men's. In 2023, men exceeded 4.3 times the poverty line while women barely reached 3.6. This gap persists even among people with similar educational levels, reflecting structural discrimination in the labour market.

### D. Poverty data

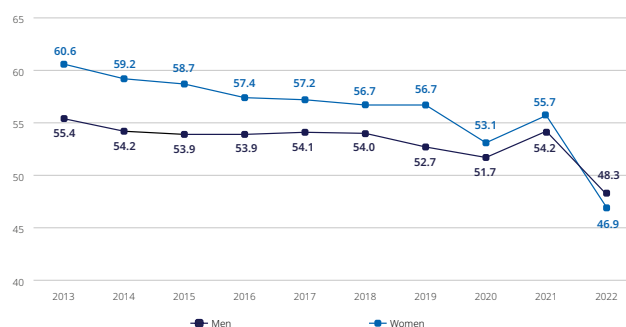
#### Statistics on poverty and extreme poverty

##### Poverty gap coefficient, percentage

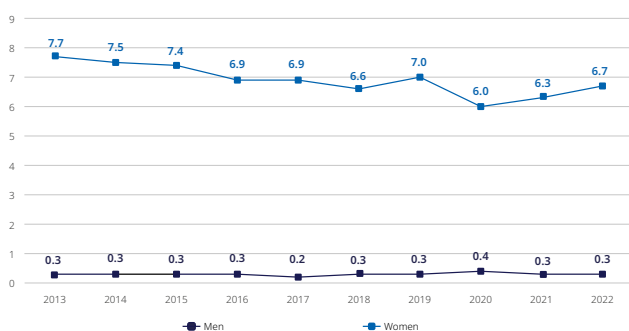


#### Employment and vulnerability statistics

##### Total employed in low-productivity jobs, percentage of urban employed population



##### Employment in domestic work, percentage



#### Interpretation of poverty and vulnerability data

**Low-productivity jobs:** In Colombia, women have a high presence in low-productivity jobs. In 2022, 55.7% of employed urban women were in this type of employment, compared to 48.3% of men. This precarious integration has a negative impact on their access to social protection, economic stability and labour mobility.

**Poverty gaps by type of household head:** female-headed households consistently have higher levels of poverty and extreme poverty. Between 2013 and 2022, these gaps have persisted, reflecting a combination of structural factors such as lower income, informal employment and the overload of unpaid work.

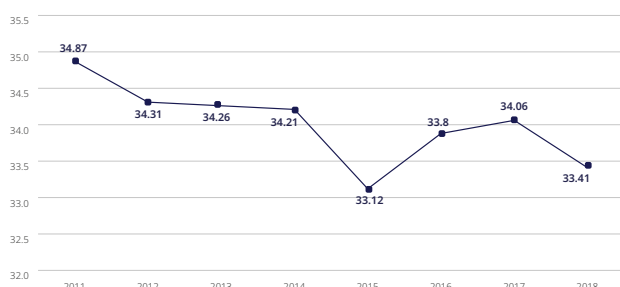
## Gender equality, employment and green transition: policies for inclusive development

**Employment in paid domestic work:** Paid domestic work is predominantly female. In 2022, about 6.6% of women were employed in this sector, compared to less than 0.3% of men. This type of employment is characterized by high levels of informality, low pay and poor social protection.

### E. STEM education and employment data in the energy and transportation sectors

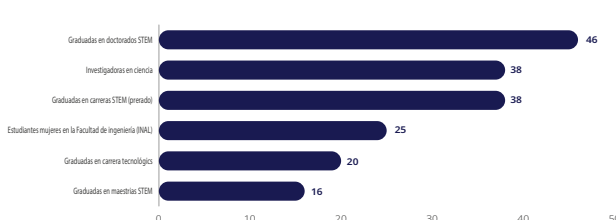
#### Graduate Statistics

##### Percentage of STEM graduates

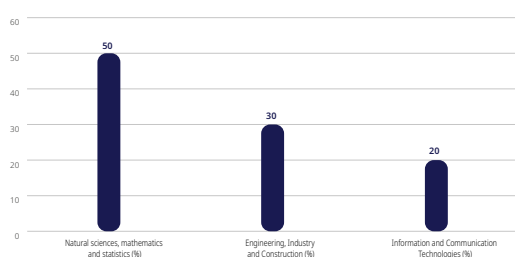


#### Student statistics by STEM major

##### Female Participation in STEM (2023-24)

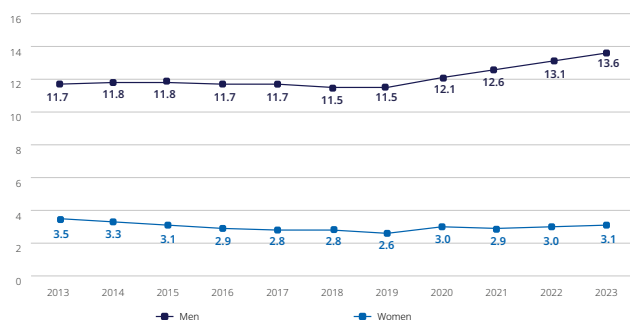


#### Participation of women in STEM careers (2022)



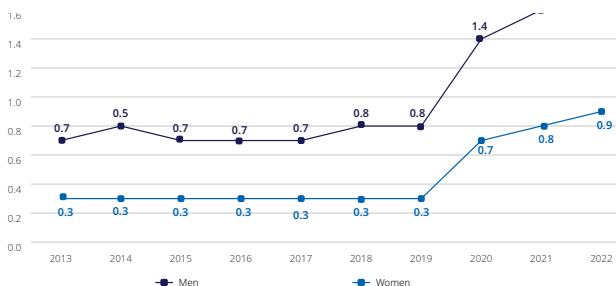
#### Transportation employment statistics

##### Population employed in transport, percentage



#### Energy employment statistics

##### Population employed in energy, gas and water, percentage





## Interpretation of training and employment data in STEM and strategic sectors

**Female participation in STEM careers:** Women's participation in STEM careers in Colombia is low, although it has shown a moderate improvement over the last decade. By 2022, women constituted about 30 per cent of the total in scientific and technical areas, with lower rates in engineering and information technology. This phenomenon limits women's access to high-skilled and well-paid jobs.

**Graduates in STEM disciplines:** Women represent a minority of graduates in STEM disciplines, although there has been progress in some areas such as natural sciences. However, cultural, institutional and educational barriers remain which restrict women's participation in these strategic fields.

**Employment in strategic sectors (energy and transport):** female participation in sectors such as energy, gas, water and transport is extremely low. In 2022, women accounted for only between 0.3% and 0.4% of the total number of persons employed in these sectors. This exclusion reveals a strong gender segmentation in the economy, especially in areas of high technological and economic value.

## General conclusions

**Persistent gap between educational attainment and employment opportunities:** although women have equaled and even outperformed men in education, this advantage is not reflected in equal opportunities in the labour market.

**Precariousness and informality of women's employment:** Women are over-represented in low productivity and informal jobs, preventing their access to adequate income and social protection.

**Unequal burden of unpaid work:** The full-time commitment of many women to domestic and care work remains a structural barrier to their economic autonomy.

**Exclusion from strategic sectors:** women are virtually absent from sectors such as energy, transport and technology, limiting their participation in future industries and decision-making spaces.