

# Gender and Inclusion in the Green Agenda: Where Are We, and How to Move Forward?

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## → Gender and inclusion in the green agenda: where are we, and how to move forward?

According to the Intergovernmental Panel on Climate Change, unless effective actions are taken to reduce greenhouse gas emissions, global temperatures will rise or exceed 1.5 degrees centigrade within 20 years.<sup>[1]</sup> This rise threatens to increase floods, hurricanes, heat waves, melting ice, and more extreme temperature events. In Latin America and the Caribbean, [current emissions trends threaten inevitable and, in many cases, irreversible changes](#),<sup>[2]</sup> such as the disappearance of the Caribbean coral ecosystem, a reduction in the size of glaciers in the tropical zone of the Andes, or the loss of biodiversity and integrity of ecosystems.

The economic repercussions of climate change will be considerable. Unless drastic and immediate measures are taken, the scenario of a 2°C increase in average temperatures above pre-industrial levels could imply an approximate cost for the region of [US\\$100 billion annually](#)<sup>[3]</sup> by 2050. Estimates for the Caribbean indicate that

the damage from natural disasters caused by climate change amount to 2.5%<sup>[4]</sup> of annual GDP, while the thermal stress caused by increased heat waves could result in a loss of [2.5 million](#)<sup>[5]</sup> jobs in the region by 2030, particularly affecting workers in agriculture, construction, and street vending.

The transition toward a future of zero net emissions is not only a global commitment to stabilize climate change, but also represents an important opportunity for job creation in the region. Assuming structural changes in current consumption and production patterns, it is estimated that by 2030, [15 million net jobs will be created in Latin America and the Caribbean](#)<sup>[6]</sup> in sectors such as sustainable agriculture, forestry, solar and wind energy, manufacturing, and construction. These jobs will support the transition towards environmental sustainability and preservation of the environment while generating significant social and economic benefits in the region.

## → Climate change and its effects on the lives of women, indigenous and Afro-descendant populations



Differential risks from climate change impacts are determined by variations in vulnerability and exposure within and between societies. These inequalities are reflected in income and wealth but also in gender, education, race, and ethnicity profiles. It is noted that the intersections between these profiles with power dynamics, socioeconomic structures, and social expectations result in climate impacts being experienced very differently by women, indigenous populations, and other local communities.<sup>[7]</sup> It also highlights missed opportunities for action when women's agency<sup>1</sup> or indigenous knowledge in policy development and decision-making is not fully harnessed. Box 1 shows some examples of how these populations are particularly affected by climate change.

1. Understood as the ability of women to define their goals and act on them.



## CLIMATE CHANGE RISKS FOR WOMEN AND DIVERSE POPULATIONS

### Global data

- 80%<sup>2</sup> of persons displaced by climate disasters are women.<sup>[8]</sup>
- Women and children are 14 times<sup>3</sup> more likely to die during a natural disaster than men.<sup>[9]</sup>
- People with disabilities have special needs in the event of evacuations during natural disasters. In situations of natural disasters and humanitarian emergencies, women and girls with disabilities are less likely to have access to recovery, rehabilitation, or justice services.<sup>[10]</sup>
- Indigenous peoples are among the most vulnerable groups in the context of climate change due to, among other factors, the following: their high levels of poverty; tendency to settle in areas more vulnerable to climate change; high dependence on the quality and quantity of water and sanitation services; high dependence on the quality and quantity of natural resources for economic activities and livelihoods; and political marginalization that reduces representation and participation in key decision-making for the stability of their ecosystems and social wellbeing. The traditional gender roles within many communities exacerbate the risks of climate change for indigenous women.<sup>[11]</sup>
- Women in rural areas tend to be primarily responsible for obtaining water, fuel, and processing food. These tasks are intensified in contexts of economic crisis, environmental degradation, and natural disasters.<sup>[12]</sup>

### Data for Latin America and the Caribbean in rural communities

- 58 million women in Latin America live in rural areas, but only 30% are landowners.<sup>[13]</sup> [In the Caribbean](#), less than a third of agricultural land is in the hands of women.<sup>[14]</sup> Beyond legal ownership,

2. This data point is not supported by rigorous empirical evidence.

3. IDEM

women continue to be discriminated against in the access, use, transfer, and inheritance of land.<sup>[15]</sup> This situation reduces their decision-making power, including applying for aid to improve and protect their land or implementing climate mitigation measures such as tree planting, increasing their vulnerability to food insecurity, natural disasters, and economic instability.

- [Climate change gradually increases the time and distance required to collect firewood](#); an activity mainly carried out by women and children in rural areas that still rely on this type of fuel to cook food and heat their homes. For women, this situation not only limits their availability of time to dedicate to more productive activities but also increases their exposure to the risk of violence as they are further displaced in their search for firewood.<sup>[16]</sup>
- Even though more than 40%<sup>4</sup> of the people working in the agricultural sector in the region are women, their food insecurity is greater than that of men.<sup>[17]</sup>
- Increasing water scarcity, rising temperatures, and changing seasonal patterns affect agricultural and livestock production and the availability of food harvested by indigenous people and Afro-descendants in Latin America and the Caribbean. These effects of climate change not only threaten their livelihoods, food security, and health but also their cultural integrity due to the erosion of confidence in solutions provided by traditional cultural authorities.<sup>[18]</sup>

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4. Decent jobs: jobs that provide fair wages and a safe workplace, workers' rights, protection, and social dialogue.

## → Women, indigenous and Afro-descendant populations as mitigation and adaptation agents

The [two main strategies](#) to address climate change are mitigation (intervention to reduce greenhouse gas emissions) and adaptation (strengthening capacities to cope with climate change). The role of women and diverse populations is key to enhance both strategies.<sup>[19]</sup>

### → The role of women

Globally, there is evidence that companies with 30% or more gender diversity on their boards of directors are more successful at containing the growth of carbon emissions (0.6%) than those with no women (3.5%).<sup>[20]</sup> This is because companies with diverse boards of directors have better strategies for climate governance, more investments to improve energy efficiency, and better environmental reporting than companies without gender diversity on their boards. Women's [participation](#) in leadership roles is linked to improving mitigation and adaptation policies to climate change. For example, when women are involved in decision-making for water management programs, those programs are seven times more efficient than when women are not involved.<sup>[21]</sup>



The participation of women in public decision-making spheres increases the commitment of countries to environmental policies. A study on gender equality and environmentalism at the country level found that, in 130 countries, nations with a greater proportion of women in parliament are more likely to ratify environmental treaties than other nations.<sup>[22]</sup> Likewise, a study from 2019 found that female representation leads countries to adopt stricter climate change policies and that, because of this, representation of women in parliament translates into lower carbon dioxide emissions.<sup>[23]</sup>



Available evidence suggests that women and diverse groups are pivotal in driving the processes of decarbonization and bolstering resilience to climate change. Their possession of ancestral knowledge, which enhances the sustainable management of natural resources, coupled with their leadership skills, further solidifies their capacity as catalysts for climate action.

Climate change adaptation strategies employed by women and men in rural areas tend to be different. A descriptive study of rural Bolivia shows that men adopt more resource-intensive adaptation strategies while women adapt by using resources more efficiently. Specifically, while men tend to focus on interventions at scale, migration, or the search for opportunities for day laborers, women focus on improvements and innovative practices such as sowing new crops and searching for alternative water sources.<sup>[24]</sup>

[In the case of forest conservation](#), women's specific knowledge of biodiversity can contribute to monitoring species, forest restoration, and soil management, contributing to sustainable forest management. In addition, implementing a gender perspective in efforts to maintain and restore forests enhances forest resources sustainability and local conflict management.<sup>[25]</sup>

There is evidence for the importance of incorporating gender into scenarios that assess future climate impacts, emphasizing the relevance of tackling gender inequality in policies aimed at fostering climate-resilient to reduce gaps in the short term.<sup>[26]</sup> Women and girls are agents of change who are making a difference in mitigation and adaptation processes. Increasing their representation in governments and decision-making positions can accelerate efforts against climate change.

### → **Role of indigenous and afro-descendent communities**

Indigenous and Afro-descendant communities play a vital role in global and regional climate action. These groups represent almost half of the rural population of Latin America,<sup>[27]</sup> occupy about 35% of the region's forest area and have collective ownership or usufruct rights in 65% of these areas.<sup>[28]</sup> Due to this, the effective inclusion of indige-



nous and Afro-descendent people is critical for the implementation of strategies against climate change.<sup>[29]</sup>

The evidence available for 14 countries in Latin America, Africa and Asia shows that forests managed by indigenous and Afro-descendent communities experience less deforestation and accumulate more carbon.<sup>[30]</sup> A comprehensive review for countries in Latin America and the Caribbean points to the same result: in general, forests located in indigenous territories have shown to be conserved better than those without their presence. Moreover, in many cases, it has been found that these territories avoid deforestation as well or are better than protected areas that do not have indigenous populations. One of the factors that explain this situation is the indigenous culture and traditional knowledge that supports the management, exploitation, restoration, and monitoring of forests, as well as adaptation to new situations.<sup>[31]</sup>

A cost-benefit analysis in Colombia, Brazil, and Bolivia concluded that the economic costs associated with guaranteeing the security of tenure in indigenous territories are 5 to 42 times lower than the average cost of carbon capture and storage at coal and gas power plants.<sup>[32]</sup> Guaranteed tenure of these territories is not only a less costly option for reducing CO<sub>2</sub> emissions but also an effective alternative to strengthening cooperation between communities, promoting job creation, and generating more income to support social programs they benefit from (e.g., education or health programs). According to the IDB's climate change [action plan](#) 2021-2025, the traditional ecological knowledge of these groups is an essential asset for climate resilience and should be valued and preserved.<sup>[33]</sup>

## → Green jobs, gender gaps, and inclusion of diverse populations

The transition toward a net-zero emissions economy could create [15 million jobs in Latin America and the Caribbean by 2030](#).<sup>[34]</sup> The creation of these jobs and fair transition towards a greener economy have the potential to reduce inequality and improve labor market conditions while protecting the region's natural environment.

Especially through the creation of green jobs that generate opportunities to transform the economy, orienting it towards environmentally sustainable solutions and reducing the economic and environmental costs.



### WHAT IS A GREEN JOB?

The ILO<sup>[35]</sup> defines green jobs as decent jobs<sup>5</sup> that directly contribute to environmental sustainability, either by producing environmental goods or making more efficient use of natural resources. According to this definition, green jobs make it possible to:<sup>[36]</sup>

- Increase the efficiency of energy and raw materials consumption.
- Limit greenhouse gas emissions.
- Minimize waste and pollution.
- Protect and restore ecosystems.
- Contribute to climate change adaptation.

Based on this definition, some countries have provided the first estimates of the populations working in green jobs in their economies. For example, evidence for Argentina shows that in 2015, 7% of wage earners worked in green jobs in the formal sector. These, in turn, were concentrated in

5. Decent jobs: jobs that provide fair wages and a safe workplace, workers' rights, protection, and social dialogue

the manufacturing (38%), transportation (29%), agriculture, livestock, forestry, and fishing (9%) sectors, as well as in water supply and waste management (7%). In terms of gender, the data suggest a significant gap: in 2015, only 13% of green jobs corresponded to women.<sup>[37]</sup> Other countries that have an approximation of green jobs are Mexico,<sup>[38]</sup> Paraguay,<sup>[39]</sup> Uruguay<sup>[40]</sup>, and Peru.<sup>[41]</sup>

Given that some green jobs require specific skills, governments are beginning to project which professions should be promoted to fill these jobs. For example, in Costa Rica, green jobs are related to Environmental Engineering, Environmental Civil Engineering, Food Science, Environmental Design, Nanotechnology, Electromechanics, Software Development, Industrial Design, Agronomy, Biotechnology, Biology, Veterinary, and Forestry Engineering.<sup>[42]</sup>

The lack of consensus on the definition of “green jobs” is a major limitation for the measurement and comparability of this concept at a regional level. Current measures are based on different criteria for capturing what is considered a “decent job” –a central concept in the ILO’s definition of green jobs– and use different categories of sectors of the economy related to the green economy. Additionally, and despite the importance of generating disaggregated data to understand the behavior of green jobs by gender, disability, and ethnicity,<sup>[43]</sup> the current data do not yet capture this level of detail.

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Green jobs represent opportunities for women and diverse populations to reduce inequalities and increase their incomes.<sup>[44]</sup>

[In the region](#), it is expected that the creation of jobs in the primary sector will be centered on agriculture and plant-based food production, and forestry.<sup>[45]</sup> To take advantage of these opportunities, women and diverse populations can create natural resource-based [enterprises](#)<sup>[46]</sup> using technology to increase agricultural production, participate in and lead water<sup>[47]</sup> and land management,<sup>[48]</sup> and engage in [biofuels production](#)<sup>[49]</sup> and [forest protection](#).<sup>[50]</sup>

Opportunities also point to the construction, manufacturing, and renewable energy production sectors. [100,000](#) jobs are projected to be gained in the [renewable energy sector](#).<sup>[51]</sup> To

increase the representation of women and diverse populations in this sector, it is important to emphasize increasing the job skills needed skills for these technical positions. In the services sector, jobs are being created in ecotourism, electric mobility, public transportation, and waste management.

## → Gender gaps and inclusion in Latin America

As part of the region's transition to a zero-emissions economy, gender and inclusion gaps exist in the distribution of current and projected jobs. For this reason, it is necessary to promote an inclusive process that allows for the participation of all women and diverse populations.

- **More than 80%** of the new jobs created by decarbonization programs will be in sectors that are currently male-dominated, given the existing occupational gender segregation in our region.<sup>[52]</sup>
- In 2019, 78 million people worked in one of the key sectors for the transition to the green economy, 72% of whom were men and 28% women.<sup>[53]</sup>
- In 2020, the participation of women in the renewable energy workforce was around 32%, compared to 22% for the energy sector as a whole.<sup>[54]</sup>
- **In 2018**, more than 39 million workers were employed in the agriculture, livestock, forestry, and fishing sectors, of which only 22% were women.<sup>[55]</sup>
- Only 14% of women hold salaried jobs in the fishing sector, most of which are temporary and without benefits, such as health insurance or retirement funds.<sup>[56]</sup>



- In addition, there is a high rate of informality among the most vulnerable populations in the region. In 2020, the informality rate among Afro-descendants and indigenous people living in rural areas in the agricultural sector reached 87%; and among women, 91.6%.<sup>[57]</sup>



In any case, these labor gaps are also the result of imbalances that begin in the educational system. Even though women have a majority representation among university students within disciplines such as science, Technology, Engineering and Mathematics (STEM), they only represent 35% of the student body.<sup>[58]</sup> An [IDB study](#) found that women who opt for STEM careers tend to specialize in disciplines such as Natural Sciences, Agriculture, and Veterinary, while their participation is considerably lower in Engineering and Computing Sciences Programs. Additionally, this study shows that among women graduates, there is a higher proportion that does not pursue professional careers in these occupations.<sup>[59]</sup>

This occupational and educational segregation contributes to reinforcing social imageries about the existence of gaps in the men's and women's talent,<sup>[60]</sup> something that has an early impact on the perception of girls about their future opportunities. Data from the PISA test show that from a

very early age, girls lose interest in STEM professions and imagine themselves working in professions in the field of health to the detriment of professions linked to science or mathematics.<sup>[61]</sup>

For these reasons, improving the opportunities for women and diverse groups in green jobs will require a broad set of actions. These policies should promote cultural changes regarding gender stereotypes while working in parallel to improve access to knowledge and develop specific skills required for green jobs.



## GENDER GAPS IN GREEN EMPLOYMENT: WHAT DO LINKEDIN PROFILES TELL US?

One of the most recent efforts for conceptualizing and measuring green jobs was made by LinkedIn in its Global Green Skills Report 2022.<sup>[62]</sup> Drawing on information from more than 800 million professional profiles worldwide, LinkedIn defines and quantifies key concepts for understanding the role of human capital in the global green transition<sup>6</sup>:

- **Green skills:** skills that favor the environmental sustainability of economic activities (e.g., pollution mitigation, waste management).
- **Green jobs:** jobs that require workers who have green skills (such as technical-level jobs in the solar panel sector).
- **Greening jobs:** jobs that can be performed without green skills but require some level of green skills (e.g., Sustainable apparel manufacturing, or data analyst in a related field).
- **Green talent:** a LinkedIn member is said to have “green talent” if he or she has included at least one green skill in his or her profile and/or is working in a green job or a “greening job”<sup>7</sup>.

The overall analysis of these concepts suggests an increased demand for green talent to meet the challenges represented by climate change and the transition to low-carbon economies. This transformation is gradually observed in LinkedIn’s hiring trends, which, since 2019, have shown a greater inclination towards green talent. In fact, global data shows that, over the last three years, the annual growth in the rate of hiring users with this type of talent through this platform was higher than the growth of the total hiring rate in most economies. However, green jobs still represent a minority share of jobs. Global estimates from LinkedIn indicate that in 2021 only 10% of the hires registered on the platform were towards green jobs or jobs in the green transition.

6. The data presented in this box are not representative of the entire active population in the labor market. A study carried out by the World Bank and LinkedIn (2018) concludes that the platform has a greater representation of young people with at least a university degree. Additionally, women are overrepresented on the platform compared to traditional national statistics. Finally, LinkedIn data is better at representing job skills in business and knowledge-intensive sectors. A final clarification is that the data collected are self-reported by users

7. The information provided by LinkedIn does not list all green jobs or skills, and the company does not provide this detailed information due to confidentiality issues

Globally, LinkedIn data suggests the presence of a gender gap in green talent reporting. In 2021 for every 100 men on the platform reporting green talent, only 62 women reported this talent. This gap has remained stable since 2015, although the platform shows an increase for both women and men in the percentage of people reporting having a green job or skill. Between 2015 and 2021, the green talent pool of women grew from 6.4% to 8.9%, while for men, this measure moved from 10.3% to 14.2%. These trends present variations at the regional level and by country.

The data for seven Latin American and Caribbean countries<sup>8</sup> show that the gap in the region is slightly larger than in the rest of the world. On average, in these countries, for every 100 men who report having green talent, there are 58 women. This indicator improved by only 2% in 6 years from 2015 to 2021. However, Colombia and Costa Rica register greater progress. On average, between 2015 and 2021, for every 100 men with green talent, Colombia went from an annual average of 64 to 68 women (a growth of 5.92%), while Costa Rica went from an annual average of 58 to 61 women with green talent (an increase of 4.74%).

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8. Argentina, Brazil, Chile, Colombia, Costa Rica, Mexico, and Peru.





## GET INSPIRED: WHAT TYPES OF INITIATIVES ARE BEING IMPLEMENTED IN THE REGION?

Several initiatives in the region seek to strengthen the presence of women, indigenous peoples, Afrodescendants, and people with disabilities in climate change mitigation and adaptation efforts through green jobs. Some of these efforts are highlighted below:

- [The Mbaracayu Educational Center \(CEM\)](#). In Paraguay, the Moisés Bertoni Foundation launched an initiative in 2008 to provide quality education to adolescent girls to build local capacities in the area of influence of the Mbaracayú Forest Nature Reserve. Some of its results are that between 2009 and 2017, 243 rural girls, including indigenous girls, have graduated from the CEM with a technical degree in environmental sciences, positioning themselves as agents of social change and sustainability leaders in their communities.
- [“Feminist electrification” \(Haiti\)](#). The women-led organization EarhSpak seeks to increase the participation and benefits that rural women receive through infrastructure planning, training, support for local women-led enterprises, domestic energy use, and availability of community resources.
- [The Forestry Investment Program \(Guatemala\)](#), financed by the IDB, aims to improve the forest cover through women’s access to forestry incentives.
- [The BRIDGE program](#) focused on developing human capital by promoting gender equality to meet the future demand for technicians, professionals, and entrepreneurs in the sustainable energy and ICT sectors. The program covered Jamaica, Barbados, and Trinidad and Tobago.
- [Multipurpose Drinking Water and Irrigation Program for the Municipalities of Batallas, Pucarani, and El Alto \(Bolivia\)](#). With financing from the IDB, a project was carried out that promotes female entrepreneurship and enables them to participate in new productive activities, strengthening the community’s adaptation strategy.
- [Canadian Climate Fund for the Private Sector of the Americas \(C2F\)](#). The Canadian Climate Fund (C2F), managed by IDB Invest, is a co-financing fund that invests in climate-friendly private sector projects in Latin America and the Caribbean. In its second phase, the US\$175 million funds seek to invest in projects that enable environmentally sustainable technologies and practices in all sectors, focusing on the empowerment of women and vulnerable groups.

- [Green employment for people with disabilities is based on hydroponics \(Uruguay\)](#). This program aims to promote the creation of green jobs and the social inclusion of people with disabilities through training in the area of hydroponic production.
- [Economic Empowerment of Women in the Green Industry \(Peru\)](#). The program seeks to establish a green industry and gender mainstreaming policy framework to increase women's participation in the industry as leaders, entrepreneurs, and professionals.
- [Green Jobs Training \(Colombia\)](#). The ILO offered a six-week course to the Association of Afro-Indigenous Professionals of La Guajira to participate in the training course "Towards a greener and fairer employment recovery strategy in Colombia", within the framework of the Pact for Green Jobs and Just Transition signed in 2019 by the Ministry of Labor and the ILO Office for Andean Countries.

## → How to move forward?

The academic literature on this subject is incipient, and there is still a long way to go. Understanding that what is not measured does not exist, it is necessary to invest in statistics and specific data disaggregated by gender and diverse population groups. Likewise, the development of impact evaluations should be promoted to understand the scope of the programs being implemented or implemented in the future. The following are some of the pending points to advance a research agenda

Rigorous evidence is needed on the impacts of climate change on the health, security, opportunities, and overall wellbeing of women and diverse population groups. Generating granular data for these populations is essential to drive effective climate action with a gender and diversity lens. There is a particular need to document the effects of climate change on people with disabilities and to identify and measure inclusive solutions that have the capacity to empower people with disabilities as agents of change. In general, there is still a lack of rigorous evidence to identify effective solutions that target and focus on women and diverse population groups.

On the other hand, it is important to understand the role of women and diverse populations in the climate change agenda. Evidence is needed on programs and interventions that seek to enhance the role of these populations in advancing the agenda towards a zero-emissions economy. For example, there is a need to know the role of indigenous and Afro-descendant communities in conserving and restoring environmental assets. It is also necessary to understand the potential and opportunities of the bioeconomy in the region to promote economic alternatives that favor biodiversity preservation while at the same time generating economic opportunities for indigenous and Afro-descendant populations.

One area of interest in this agenda is to explore how the inclusion of digital tools or behavioral economics tools can be used to improve mitigation and adaptation programs for vulnerable populations, such as women and diverse populations. It is also important to delve deeper into the role of access to finance for rural women to understand the extent of their contribution to the preservation of natural resources. It is necessary to understand the role of women's leadership in both the private and public sectors in the efficient use of energy, investment in renewable energy sources, and the design and implementation of programs.

Finally, to ensure that the creation of green jobs in the region is inclusive and participatory, sources of rigorous information on the subject must be increased. Progress needs to be made in the collection of data disaggregated by gender and diverse groups of the population. Increasing the understanding of how policies that promote these jobs affect labor markets of women and diverse populations. In this sense, it is relevant to understand the effectiveness of actions that promote skills that take center stage in the green economy, as well as the labor market insertion of women and diverse populations in sectors with greater potential for the generation of green jobs.



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