



---

**XXII Meeting of the Forum of Ministers  
of Environment of Latin America and the Caribbean**

1-2 February 2021

**Distribution:**  
Limited

29 January 2021  
**Original:** English

## **Analysis Document**

# **Gender and the environment: a preliminary analysis of gaps and opportunities in Latin America and the Caribbean**

**Regional Group on Gender and Environment of the Forum of Ministers of  
Environment of Latin America and the Caribbean**

## EXECUTIVE SUMMARY

Gender equality and women's empowerment are globally recognized priorities, matters of fundamental human rights, and prerequisites for sustainable development (IUCN, 2018; World Economic Forum, 2015). Understanding the gender-environment nexus is not only key to analysing social and environmental inequities and barriers to sustainable development, but to unlocking options for transformative action, as well.

Changes in the environment affect women and men in different ways. It is a problem made worse by women having less access to economic resources, education and legal rights. The only way to identify and implement the best policies for the environment and sustainable development is to close this gender gap. However, there is a lack of reliable data available for decision makers.

During the XXI meeting of the Forum of Ministers of Environment of Latin America and the Caribbean, 2018, ministers agreed to consider the gender perspective in environmental policies considering the gaps and opportunities of the region in the context of the implementation of the Sustainable Development Goals. The 4<sup>th</sup> UN Environmental Assembly adopted in 2019 a decision to promote gender equality, and the human rights and empowerment of women and girls in environmental governance (UNEP/EA.4/RES.17, 2019) and requested UN Environment to facilitate the collection of data and of lessons learned.

In line with these agreements, this report explores some connections and gaps between the environment and gender. The data and case studies included in this document explain how gender differences and traditional roles, considered as women's ones, affect all sustainable development areas and the rights, decisions and the access of women to water, energy, food security, forests, sustainable consumption and production. Consequently, the report also shows how the inequalities between women and men, expose women to specific environmental threats and vulnerabilities. The report focused in those themes in which data evidence the existence of specific gender gaps on environmental issues. However, it also points out the need to further research the existence of these gaps in relation to other environmental topics such as biodiversity conservation and sustainable lifestyles.

The document also highlights the role of women in addressing environmental gaps from a gender perspective with some specific and positive examples from the region, as well as suggests a way forward in the framework of the regional work of the Forum of Ministers of Environment.

Copyright © 2020, United Nations Environment Programme.

### **Reproduction**

This publication may be reproduced, in whole or in part, and in any form for educational or non-profit purposes without special permission from the copyright holder, provided the source is cited. UNEP would appreciate receiving a copy of any publication that uses this publication as a source.

### **Suggested citation**

UNEP, 2020. Gender and the environment: a preliminary analysis of gaps and opportunities in Latin America and the Caribbean. United Nations Environment Programme. Panama City: PNUMA.

### **Main authors, coordination and editing**

Coordinator: Piedad Martin.

Collaborating authors and researchers: Pamela del Canto, Lise Cazzoli, Debora Gomes Galvao, Selina Gard, Stephanie Lukins, Elsa Mejia Mordt, Mario Peiró and Jennifer Sheffield.

Editing and technical revision: Piedad Martín, Pilar Román, Elsa Mejía Mordt y Adrian Cardona.

**Peer review:** Jillian Campbell (UNEP), Molly Gilligan y Laura Sabater (IUCN).

**Contributions:** Officials of the Ministry of Environment: Magdalena Caretti, Erika Gonnet y Erica Bravo from Argentina; Erika Zavala Oropeza from México; Marleny Oliva y Anabely Escobar from Guatemala; Noralma Gruezo Betancourt from Ecuador; Meilin León, Javiera Fabiola Zarate y Paula Fuentes from Chile. All are members of the regional Group on Gender and Environment of the Forum of Ministers of Environment of Latin America and the Caribbean.

### **Credits**

© Maps, photographs and illustrations as specified within.

The digital version of this publication is available on the UN Environment website (<https://www.unep.org/events/unep-event/xxii-forum-ministers-environment-latin-america-and-caribbean>)

## Contents

No.	Page
EXECUTIVE SUMMARY	2
1. INTRODUCTION	5
2. The gender-and-environment nexus: identified issues in the region	8
2.1. Right to land and women’s role in agriculture	9
2.2. Women in fisheries	14
2.3. Women in small scale mining	17
2.4. Women’s role defending environmental rights	21
2.5. Disaster risk and climate change impacts	23
2.6. Sustainable consumption and production and waste management	28
2.7. Women in environmental decision making	31
2.8. Access to water and sanitation	36
2.9. Access to clean cooking energy	41
2.10. Access to energy	43
3. Conclusions	48
4. Recommendations	50
General references	52
References per topic	53

## 1. INTRODUCTION

The Forum of Ministers of Environment of Latin America and the Caribbean was established in 1982 and holds meetings every two years. The 33 countries of the region are invited to participate with the goal to address priority regional topics related to environmental issues and sustainable development. UN Environment is the secretariat of the Forum and works towards finding innovative solutions for our current environmental challenges in order to achieve the Sustainable Development Goals (SDG).

During the XXI meeting held in Buenos Aires, Argentina, 9-12 October 2018, ministers discussed topics regarding pollution, decarbonization and sustainable use of natural resources, amongst others. The Ministerial Declaration of Buenos Aires includes for the first time the agreement:

*“To consider the gender perspective as a significant variable for the development and implementation of public policies on environmental issues, considering the gaps that are present in the region today and the opportunities that arise from the exchange of experiences on this matter to meet the 2030 Agenda requirements and the Sustainable Development Goals (SDGs)”.*

The 4<sup>th</sup> UN Environmental Assembly adopted a decision to promote gender equality, and the human rights and empowerment of women and girls in environmental governance (UNEP/EA.4/RES.17, 2019) recognizing the role that women play as managers of natural resources and agents of change in safeguarding the environment. Member States also requested UN Environment to facilitate the collection of data and of lessons learned from Member States and other stakeholders on the progress made in achieving gender equality and the empowerment of women and girls in local, national and global environmental policies, programmes and initiatives.

In line with these agreements, this document provides an overview of existing gender gaps in environmental matters. The document was presented during the intersessional meeting of the Forum in Barbados, in the third trimester of 2019, with the aim to introduce a comprehensive examination of the region and guide future national and regional efforts to tackle environmental problematics with an integrated gender approach.

Inequality between men and women, or the term gender gap as it is applied in this document, refers to any disparity or imbalances between women and men’s conditions in society. Inequality between men and women can be found in many spheres, both public and private, and are usually understood in terms of disparate economic empowerment, educational attainment, health conditions and political representation (UN Women Glossary). This document applies this concept of gender gaps to interactive relations with the environment, ranging from access to natural resources to exposure to chemicals and hazards and participation in environmental decision-making processes. The persisting traditional societal structures, norms and practices perpetuate imbalances and restrict women’s ability to exit situations of inequality, something that is also affecting their role in environmental management matters (UN Environment, 2016).

Socially constructed roles, specifically gender based division of labour, dictate the ways in which women and men relate and interact with their surrounding environment. This establishes relations towards natural resources, in turn determining how different environmental risks and threats such as resource degradation, climate change or disasters affect women and men. The differentiated relations inevitably mean a discrepancy in perceived priorities, the seriousness of environmental problems and the

appropriate interventions. Due to the established gender roles, women and men often have very different capacities and approaches to tackle environmental problematics (UN Environment, 2016).

Countries and institutions have recognized the importance of a gender sensitive approach in tackling environmental challenges and have included it in national plans and international agreements. As of today, gender equality is a concept that has been mainstreamed into most Multilateral Environmental Agreements (MEAs). The three principal Rio Conventions, Biological Diversity (CBD), Climate Change (UNFCCC), and Combat Desertification (UNCCD), as well as the Basel, Rotterdam and Stockholm Conventions (BRS) and the major environmental financial mechanisms including the Global Environment Facility (GEF), the Green Climate Fund (GCF), the Climate Investment Funds (CIF), and the Adaptation Fund, all have guiding frameworks to ensure women's equal participation and ensure that their implementation is gender sensitive.

Moreover, in the context of climate change, the Paris Agreement recognized that adaptation to climate change and capacity building for mitigation should be gender-sensitive, participatory and fully transparent in order to close gender gaps and successfully address the threats of climate change both for men and women. Within the framework of sustainable development, the SDGs facilitate gender actions including specific gender goal and targets, and integrating gender targets within other goals related to social, economic and environmental issues with explicit indicators and sex-disaggregated data and analysis (UN Environment, 2016).

## Gender gaps:

Pervasive gaps persist between women's and men's ability to realize the full spectrum of their rights, including in their access to and control over resources, in unpaid work burden, health and safety, and political voice, among other interconnected issues.

## Some examples:

- Women and girls experience extreme levels of poverty disproportionately to men and boys: Of more than 1 billion people living in the deepest levels of poverty, women are widely considered to be the majority.
- Vast differences exist between women's and men's land tenure: globally less than 20% of all landholders are women. Women had the same legal rights as men to own and access land in only 28 of the world's countries.
- While the total size of the global illiterate population is shrinking, the female proportion has persisted: Women make up two-thirds (493 million) of the 774 million illiterate adults (15 years and older) in the world, and among youth, more than half are girls (76 million of a total 123 million).
- When women are paid for a job, they earn on average 10% to 30% less than men for work of equal value: It is estimated that at the current rate of progress it will take 75 years to make the principle of 'equal pay for equal work' a reality for women and men.
- Women also have less access to labour markets, especially formal markets: In 2013, the male employment-to-population ratio stood at 72.2%, while the ratio for females was 47.1%.
- Women bear the burden of unpaid care work: Women devote one to three hours more a day to housework than men; two to ten times the amount of time a day to care (for children, elderly, and the sick), and one to four hours less a day to market activities. In the European Union for example, 25% of women report care and other family and personal responsibilities as the reason for not being in the labour force, versus only 3% of men. This directly and negatively impacts women's participation in the labour force. Decision-making spheres across all levels remain unbalanced: As of September 2015, only 22% of all parliamentarians are women, a small increase from 11.3% in 1995.
- High-level decision-making on the environment is inequitable, too: According to InterParliamentary Union (IPU) 2014 data, women hold approximately 17% of the total ministerial positions worldwide, but in 2015, according to the Environment and Gender Index (EGI), women held only 12% of top ministerial positions in environment-related sectors.

## Gender mainstreaming:

Officially, in 1997, gender mainstreaming is defined as: The process of assessing the implications for women and men of any planned action, including legislation, policies or programmes, in all areas and at all levels. It is a strategy for making women's as well as men's concerns and experiences an integral dimension of the design, implementation, monitoring and evaluation of policies and programmes in all political, economic and societal spheres so that women and men benefit equally and inequality is not perpetrated. The ultimate goal is to achieve gender equality.

Source: Aguilar, L., Granat, M., & Ownen, C., 2015. Roots for the future: The landscape and way forward on gender and climate change. DC: UICN & GGCA.







## 2. The gender-and-environment nexus: identified issues in the region

In 2016, UN Environment launched the Global Gender and Environment Outlook GGEO (UN Environment, 2016), identifying major areas with considerable gender gaps. It identifies gender inequality as one of the main challenges to advance the environmental dimension of sustainable development, as it has negative impacts on access, use and control of natural resources, as well as the right to a clean, safe and healthy environment for all. Moreover, the report explores how the differentiated environmental relationships sustain established gender roles that perpetuate inequality.










Based on available information and evidence in the region on gender gaps related to environment, its relations with the Sustainable Development Goals and the topics identified in the G-GEO, ten key topics were determined and are developed in this document (Table 1).

The availability of data and information was a fundamental variable to sustain the identification of this set of preliminary regional gender gaps in relation to the environment. The authors acknowledge that these are not all environmental issues in which women play an important role or are affected and identify in the conclusions of the document further issues that would need to be explored and that are critical in terms of data generation. This demonstrates the limitations in the availability of information by gender in Latin America and the Caribbean (LAC) and confirms the need for further research on this topics.

Table 1. Gender gaps on environmental matters identified in LAC and their relationship with the Sustainable Development Goals.

Gender gap	Environmental issue	Sustainable Development Goals
Rights to land and natural resources management	Right to land and women's role in agriculture	
	Women in small scale mining	
	Women in fisheries	
	Women's role defending environmental rights	
Well-being and climate change	Disaster risk and climate change impacts **	
	Sustainable consumption and production and waste management	



Gender gap	Environmental issue	Sustainable Development Goals
Access to energy, water and sanitation	Access to water and sanitation	 
	Access to clean cooking energy	 
	Access to energy	 
Environmental governance and participation (cross-cutting to all of the above)	Women in environmental decision making	  

\*Health has been considered a cross-cutting issue and, therefore, health implications are included in several gaps.

\*\* All these environmental issues and gender differences can have an impact on SDG 13 (Climate Action), considering that women are not only especially vulnerable to climate change, but also agents of change to tackle this global challenge.

The information presented in this document will be the basis for further analysis on how to advance in gender and environment regional policy and agenda, and for identifying topics for which there is still not enough evidence for decision-making.





The following points address each one of the gaps identified above structured as follow:

- I. General introduction on the relevance of the topic in the region;
- II. Presentation of the data and research that sustain the existence of gender inequalities in relation to the environment for that particular topic; and
- III. An example of a good practice in reducing the gap existing in the region.

## 2.1. Right to land and women’s role in agriculture

Economies in Latin America and the Caribbean are largely dependent on primary commodities and natural resource-based manufactures for income, namely from agriculture, minerals, hydrocarbons, forestry, livestock and aquaculture (ECLAC, 2018). The extractivist economic model based on large-scale and intensive natural resource exploitation, gained momentum in the 1990s as part of the Washington Consensus structural adjustment policies. It was made possible by the historically ubiquitous and extreme land concentration in the hands of few landowner, strong tax incentives for investments in large-scale projects and weak environmental protection laws, all of which serve to secure private interests at great social and environmental costs. As a result, on average, the largest 1% of farms hold 51.19% of land, and although smallholdings account for the majority of total agricultural holdings, the smallest 80% occupy less than 13% of land (Oxfam, 2016).

## Right to land and women's role in agriculture

SDGs	SDGs Indicators	
	1.4.2	Proportion of the total adult population with secure land tenure rights, with legally recognized documentation and who perceive that their land rights are safe, by sex and type of tenure.
	2.3.2	Average income of small-scale food producers, by sex and indigenous condition.
	5.a.1	Proportion of total agricultural population with property rights or secure rights to agricultural land, disaggregated by sex.
	5.a.2	Equal rights of women to property or control of land.
	15.6.1	Number of countries that have adopted frameworks, legislative, administrative, and policies to ensure fair and equitable distribution of benefits.

In addition to land concentration, land tenure in the LAC region is also characterised by increasing subdivision of land to sell, state land ownership and inheritance practices, all adding to the vulnerability of small landholders. Indigenous and farmer populations are the most vulnerable and affected by such land tenure inequalities, as land is often one of the most important assets, as it provides food security and economic stability. In Latin America and the Caribbean, family agriculture represents 81% of agricultural enterprises and provide an estimate between 27% and 67% of total agricultural production.

Furthermore, intensive agricultural practices do not only bring forth large land concentration and land grabbing, but also land degradation, water scarcity, and biodiversity loss, all factor which affect these populations (IPS, 2018). Evidence shows that land security is correlated with higher levels of agricultural production as well as agricultural investment, and consequently greater economic wellbeing<sup>1</sup>. Moreover, due to the costs and complexity of the regularization process, many small-scale agricultural activities operate without a formal land title, leaving them vulnerable to land-grabbing practices. Land grabs are a common problem, particularly salient in Argentina and Brazil (ECLAC, FAO, IICA, 2012). Consequently, smallholders are driven out of their land to accommodate different types of extractivist activities, including large-scale monocultures of flex crops (i.e. soy, sugar, oil palm, eucalyptus), stimulated by intra-regional and international demand.

## Related gender gaps

Gender inequalities in land rights are pervasive. Not only do women have lower access to land than men. They are often also restricted to so-called secondary land rights, meaning that they hold these rights through male family members. An international comparison of agricultural census data shows that less than 20% of landholders are women. The situation is particularly grim in Western and Central Africa as well as the Near East and North Africa where generally less than 10% of landholders are women. Numbers are only slightly higher in Asia. In Eastern and Southern Africa and in parts of Latin America, women seem to have somewhat better access to land. In some countries up to 30% of individual land titles are held by women. Only in a few countries land is almost equally divided between women and men. Latvia and Lithuania top the list with more than 45% of land titles being held by women. Women's low access to land thus prevails across countries with different social, cultural and economic backgrounds. Indeed, differences are often greater within regions than between them.<sup>1</sup>

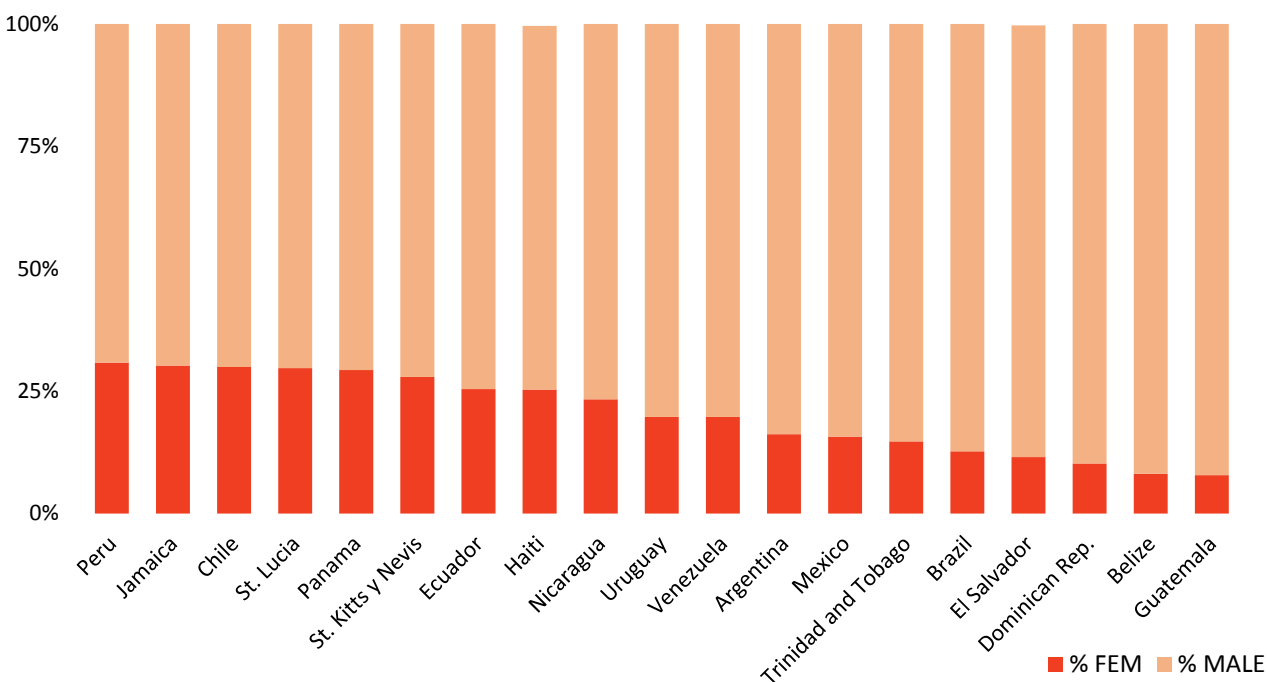
Figure 1. Women share in the agricultural economic active population (%).



Most countries in Latin America and the Caribbean provide for equal land rights between men and women, yet the reality is often far removed from that stated in legal frameworks. Available data confirms that women are at a disadvantage to men, regarding land rights and tenure, technical assistance and education. In LAC region, less than 18% of landholders are women therefore the gap is extremely wide<sup>ii</sup>. Moreover, women who do own land are more likely to not have legal documents proving their ownership<sup>iii</sup>, as compared to men who own land. Beyond legal ownership, women are also discriminated in their access, use, transfer and inheritance of land. Agriculture still represents a considerable proportion of women's economic and subsistence activities<sup>iv</sup>, and subsequently in household and national food security and nutrition. However, on average, women only head 16% of smallholdings (FAO, 2017) and along with tenure insecurity, their plots are systematically smaller than that of men and of inferior quality and therefore productivity.

<sup>1</sup> FAO, 2010. Gender and Land Rights. Understanding complexities; adjusting policies. [http://www.fao.org/economic/es-policybriefs/briefs-detail/en/?no\\_cache=1&uid=40497](http://www.fao.org/economic/es-policybriefs/briefs-detail/en/?no_cache=1&uid=40497). Database.

Figure 2. Distribution of Agricultural Holders by Sex in Central & South America (i).



Source: FAO. (i) Data produced through census or national/union statistics, depending the country. The year corresponding to each data varies (1998-2011) and maybe some are dated. This is the most updated data available in FAO.

Women represent 20% of the agricultural workforce in LAC<sup>v</sup>, yet fewer than 12% benefit from state agrarian reform processes and subsidies (Oxfam, 2000) and receive 14.5% of agricultural extension services (FAO, 2018). In addition to receiving fewer extension services and their yields are on average 25% lower than that of men, in part due to lower quality lands (FAO, 2011). Furthermore, because they lack land tenure documents, which are considered guarantee and requisite in legal and credit processes, it is difficult for women to access bank loans which further inhibits their ability to invest in productive resources.

Food insecurity is also a problematic that statistically, affects women more than men. In the region, 8.4% of women find themselves in food insecurity in comparison with 6.9% of men. This translates to some 19.2 million women versus 15.1 million men (FAO, 2018). In this context, differentiated agricultural policies as well as training programs focused on women would not only result in higher income and agricultural productivity, but also ameliorate food insecurity for particularly vulnerable demographics, specifically rural women (FAO, 2018). Some studies estimate that reaching gender equality within the agricultural sector would mean an increase of yield on women’s farms by 20% to 30% and increase total agricultural outputs by up to 4% in developing countries (UNCCD).

Rural women are often characterized by their overburden, mainly caused by the traditional gendered division of labour. In addition to working the land, they are often solely responsible for childcare, sick care and elder care. It is estimated that they spend up to a quarter of their time on such non-paid reproductive tasks (ECLAC, 2014), making it difficult for them to engage in education, leisure activities, community organization or any political involvement. Nonetheless, they have become main actors in movements for resources and land defence and conservation<sup>vi</sup>.

### **A positive example: The Landless Worker's Movement in Brazil**

Indigenous and peasant women have been calling for land reform and recognition for decades, in some cases achieving policy change or public programs. The women within the Landless Worker's Movement (MST) and the Peasant Women's Movement in Brazil have organized not only to achieve comprehensive land reform, but also to be recognized, by law, as citizens and farmers. This undocumented state, many of the women within the movements found themselves in, did not only limit their access to land, but also access to any sort of aid, credit and rights as workers. They have organized marches and protests aimed to change their legal status as well as in attempt to stop megadevelopments that threatened their livelihoods. Today, MST as an organization possess legal right over land plots which they have utilized as communal lands, sometimes granting specific access to other women's organizations as seen in the Cooplantás cooperative.

Cooplantás is a women's cooperative which produces organic medicinal herbs following agroecological practices on a settlement managed by MST in Sao Paulo since the early 1990s. What started as the sporadic production of a healing ointment made from the Capuchin Herbaceous plant has now evolved into a structured operation composed of 30 women who cultivate tens of medicinal varieties such as chamomile, calendula, horsetail, melissa and many more. They formalized in 2009 and have since entered a partnership with the Ministry of Health, private entities and universities, to produce and commercialize their medicinal products. The project is also subsidized by the government and has now begun the process to build a factory to process tealeaves and tea bags for sale.

### **Gender and environment initiatives in Argentina**

With the support of the Ministry of Environment and Sustainable Development, various initiatives are being implemented to integrate gender and environment. The following "TICCA" projects (territories and areas conserved by indigenous peoples and local communities) incorporate a gender perspective in their formulation, are at an initial stage and involve in their implementation governmental actors (National Parks Administration and National Institute of Indigenous Affairs), the academy (Faculty of Agricultural Sciences of the University of Buenos Aires) and indigenous communities of the Ocloya people:

- Integral Management Plan for the Mapuche community territory. Lanin National Park, Neuquén.
- Biodiversity protection for good living. Ocloya People, Calilegua National Park, Jujuy province.
- Protection of the Menvko (mencos) of the Mapuche Community Lof Kinxikew, sites of high biodiversity value-ixofijmogen. Nahuel Huapi National Park, Neuquén Province.

In particular, the **project "Protection of Biodiversity for Good Living"** can be considered a good practice in biodiversity conservation with a gender perspective. It is implemented in protected areas in the territory of the Aboriginal Communities of the Ocloya People. It has been presented by the Council of Delegates of the Aboriginal Communities of the Ocloya People, within the framework of a strategic plan of action for the benefit of the Aboriginal Communities of Laguna de Tesorero, Tiraxi, Tilquiza, Las Capillas and Normenta Pacha, of the Ocloya People in the Jujuy province.

Due to events that put the integrity of the territory of these communities at risk, it is considered vital to count on women and men who are aware and prepared to accompany and restrain in the best possible way these challenges. They have the mission to prevent, mitigate and compensate adverse impacts on the population and the environment, developing territorial actions for the conservation and sustainable management of their natural and cultural heritage. In this context, it is important to highlight that the role of women is considered to be 50/50, i.e. to share the responsibilities of implementing this project with equal responsibilities.

The implementation of this proposal includes: on the one hand, a coordinated work with the referents of the Calilegua National Park with whom it was agreed to carry out workshops on themes related to the care of the territory and its biodiversity, and on the other hand, the development of a product according to the specific needs of each aboriginal community: Tilquiza (a garden centre and a physical space for awareness-raising); Normenta Pacha (a community tea house); Las Capillas (a greenhouse for native plants); Laguna de Tesorero (a place for ancestral ceremonies); Tiraxi (differentiated containers for recycling and acquisition of communication equipment); and Ocloya youth (recognition as Community Guardians).

Another interesting example in Argentina is the **National Action Plan on Forests and Climate Change**. In the framework of the work on safeguards established by the UNFCCC for REDD+, the UN-REDD National Programme has been working on the development of a guide to mainstream the gender approach in the Plan's implementation stage.

## 2.2. Women in fisheries

Globally, the fishery and aquaculture sector directly employ 200 million people, most of whom operate at the artisanal or small-scale level. It is estimated that 70% of global fishery production in fact comes from small-scale and artisanal operations<sup>vii</sup>. This makes small-scale and artisanal fishing important factors when attempting to reduce food insecurity, malnutrition and alleviating poverty<sup>viii</sup>. However, in Latin America and the Caribbean, 95% of fisheries are industrial<sup>ix</sup>, and countries like Chile and Peru, have the largest industries. In fact, the region is estimated to provide 24% of the world's global fisheries produce<sup>x</sup>. Nonetheless, small scale fisheries are estimated to employ some 2 million people in the region<sup>xi</sup> and still play an important role for national economies. In the Caribbean region, fisheries employ some 350,000 people and represents 4.3% of the region's workforce. Small-scale fisheries are included in this number and constitute a large part of the region's economic stability and food sovereignty<sup>xii</sup>.




The world's and the region's marine populations are being threatened by several anthropogenic factors. Industrial overfishing, increasing temperatures, ocean acidification and drilling for petroleum are amongst the most prevalent threats to fish stocks and other marine organisms<sup>xiii</sup>. This does not only make the fishery sector unstable and vulnerable, but also threatens regional and national food security and livelihoods<sup>xiv</sup>. Inevitably, small-scale fishers are the most affected by such changes in fish stock and are often forced towards non-sustainable and/or illegal fishing practices or other employment sectors<sup>xv</sup>.

Though fisheries are an important entry point and opportunity towards advancing gender equality and increasing effective sustainable fisheries management, the sector is still challenged by pervasive inequalities, including Gender-Based Violence (GBV). Fisheries programming tends to not include

considerations towards the elimination and prevention of GBV, constituting a lost opportunity and potential risk as programming can unintentionally exacerbate vulnerabilities. Worldwide, 35% of women have experienced some type of GBV in their lifetime. In the fisheries sector, structural inequalities and harmful social norms put women and girls in vulnerable situations, where they may be affected by and exposed to violence and abuse. GBV negatively affects the long-term health, well-being, and productive capacity of survivors, creating consequences that extend beyond the survivor to her family and community. Some fishing communities are also hotspots for HIV/AIDS, with HIV infection rates 4 to 14 times higher than national averages<sup>2</sup>.

Economic development initiatives are often skewed toward highly concentrated industrial sectors and the same remains true for the fishery sector. For instance, in Chile, it is reported that the Angelini-Longueira Law on fishing grants private renewable 20-year concessions, crowding out 90% of fisherpersons of fish catch quotas<sup>xvi</sup>.

## Women in fisheries

SDGs	SDGs Indicators	
	2.5.1.b	Conservation of plant genetic resources for food and agriculture.
	5.a.2	Equal rights of women to property or control of land.
	14.b.1	Degree of application of a legal, regulatory, regulatory or institutional framework that recognizes and protects access rights for small-scale fisheries.
	14.c.1	Framework for the conservation and sustainable use of the oceans and their resources.
	14.4.1	Proportion of fish stocks whose levels are biologically sustainable.

## Related gender gaps

Women are present in the wild-caught fisheries sector in a wide range of roles. The FAO estimates that women comprise 15% of the workforce involved in harvesting and fill 90% of the jobs in fish processing, which includes activities such as canning and gutting. Since women represent a significant part of the fisheries workforce, the sector represents a high-impact opportunity for women's economic and social empowerment. Evidence shows that interventions to improve women's entrepreneurial and negotiating skills have strengthened women's livelihoods through increased income and agency, as well as better social and health outcomes<sup>3</sup>.

<sup>2</sup> Siles, J. et al. 2019. Advancing Gender in the Environment: Gender in Fisheries - A Sea of Opportunities. IUCN and USAID. Washington. USA.

<sup>3</sup> Idem.

Globally, although the fisheries sector is generally perceived as being a masculine activity, it is in fact almost equally represented by women and men, when both primary and secondary sectors are taken into account<sup>xvii</sup>, this is also true for the artisanal and small-scale fisheries sector. Despite the involvement of women throughout the fisheries value chain, they often hold lower paying and unstable jobs. Production is largely the domain of men, while processing and commercialization that of women. In Latin America and the Caribbean, on average, women represent 19% of the primary fisheries sector workforce, although there are considerable variances amongst countries. For instance, in the sector, women represent 72% of the work force in Colombia, but only 21% in Paraguay<sup>xviii</sup>.

When involved in the production stage, women often operate fewer and smaller boats or canoes in lagoons and rivers and tend to be engaged in pre and post-harvest activities such as mending nets, quality control, fish and shellfish cleaning<sup>xix</sup>. Many female workers are responsible for the collection and marketing of their own products<sup>xx</sup>, making their livelihoods extremely vulnerable to market fluctuations as well as to resource depletion. Only 14% of women in the sector occupy salaried positions, which are mostly temporary so female workers often lack benefits such as health insurance or retirement funds due to the temporal or informal nature of their employments. This has economic implications for them, such as women having low access to credit and loans in this sector<sup>xxi</sup> and because their contribution to the sector is undervalued, most women do not receive technical trainings, training in microenterprises or co-financing to improve their productivity in the sector<sup>xxii</sup>.

Given the fluctuating labour demand in the sector, most women opt to be involved in other complementary activities such as agriculture, to sustain their families. In addition, women often cover most reproductive responsibilities, dictated by preconceived societal gender roles. Leaving them with little time left to engage in leisure, recreational activities, or community organization.

### **Case Study: The algueras of Pichilemu (Chile)**

In the context of decreasing fish stocks and ecosystem disruptions, artisanal and small-scale fishers throughout the region, are harshly affected. In response, the Latin America and Caribbean Parliament (PARLATINO), adopted the world's first model law on small-scale fisheries in 2017. It establishes a reference framework for countries to develop their national laws in accordance to sustainability measures for the sector, as well as a clear gender approach for the enhanced recognition of women's contribution and further inclusion<sup>xxiii</sup>. The law recognizes women and indigenous rights regarding fisheries, pointing out that these demographics are an important part of the fisheries sectors and sometimes might be at a disadvantage. Moreover, it pushes government to adopt direct differentiated policies to promote gender equity<sup>xxiv</sup>.

In the coastal city of Pichilemu, located in Chile's central O'Higgins region, women have traditionally worked the glacial Pacific waters as hand gatherers of seaweed (algueras) and shellfish, contributing to their households' food security and economic stability. However, women's productive role had been dismissed by local men, whose patriarchal views ascribed women to housework. Women's work was also undervalued by the State and received little to no support. Hence, women activity was kept informal, non-remunerated, and any income derived from their activity was solely controlled by male partners, keeping women economically dependent and in times, in situations of exploitation (Valenzuela, 2012). In 1998, a group of algueras, led by Lidia Jimenez, decided to take a stand against the deep-rooted discrimination they experienced from their male counterparts and the resulting poor working conditions. They met with the National Women's Service in Rancagua to raise awareness of women's silent work and presented the idea of a seaweed and shellfish women's union. The initiative



received a favourable response and the union was established in 2001. The decision was met with reprisal from men who physically harassed women and even tried to attempt against Lidia’s life.




The union proved to be a catalyst for algueras’ empowerment. In 2006, they were awarded an area for their sole exploitation and received proper diving gear and fishing equipment. They were able to assert their productive roles and gain a seat at meetings with other union leaders in the fishery sector. The algueras take turns to watch over their affected area and adopt sustainable harvesting methods, for example, not using knives so that algae can continue to grow and not harvesting shellfish species before maturity to ensure their reproduction. When interviewed, Lidia asserted that their view is different from that of men’s short-sighted ‘Bread for today, hunger for tomorrow’ approach<sup>xxv</sup>.

## 2.3. Women in small scale mining

Globally, artisanal and small-scale mining operations employ between 20-30 million people, providing livelihoods for over 100 million<sup>xxvi</sup>. Although estimates are hard to make due to low reporting rates, high informality and illegality, the artisanal small-scale mining (ASM) sector in Latin America represents a significant economic activity as well as large production rates<sup>xxvii</sup>. Primarily concentrated in Bolivia, Brazil, Colombia, Ecuador and Peru, engagement in the sector is often essential in many areas where economic activity options are limited<sup>xxviii</sup>. Moreover, it can also be a part of households’ livelihood diversification strategy, complementing other sources of income such as agriculture<sup>xxix</sup>. Informality characterizes the ASM sector, exposing workers and neighbouring communities to health and safety hazards.

At the mine level, the use of rudimentary equipment and lack of safety gear is the norm, especially among the self-employed. The lack of security management exposes women and men to fatal workplace accidents from landslides or mine crumbling and contact with minerals and their dust can generate respiratory and gastrointestinal diseases. ASM has also been deemed to have high environmental costs and is often regarded as unsustainable, due to the high rates of mercury and other toxic chemical use<sup>xxx</sup>. Although ASM often has positive effects for workers and communities, such as economic and social development, many times it brings along high rates of crime, prostitution and health issues<sup>xxxi</sup>.

### Women in small scale mining

SDGs	SDGs Indicators	
  	3.9.1	Mortality rate attributed to household and ambient air pollution.
	3.9.3	Mortality rate attributed to unintentional poisoning.
	6.3.2	Proportion of bodies of water with good ambient water quality.
	8.3.1	Proportion of informal employment in non-agriculture employment by sex.

## Related gender gaps

The impacts of extractive activities are gender differentiated primarily because women and men play different roles in households and communities in almost all societies. They have access to different resources and control of different assets, as well as different rights and responsibilities. Even among women in a community, roles, positions and status vary according to age, income and ethnicity. Consequently, women's capacity to seize the opportunities provided by new large-scale extractive projects vary, as do their abilities to cope with the risks and fall-outs from these developments. A human rights impact assessment and other social risk assessments should always include an assessment of gender impacts. A gender impact assessment can also be used when planning or reviewing company community benefit-sharing agreements, community development plans or company-community consultation and decision-making mechanisms<sup>4</sup>. Communities where extractive activities are developed, often lack mechanisms to ensure their representation and participation in the decision-making process<sup>xxxii</sup>.

As most artisanal and small-scale miners (ASM) in the world tends to operate in the informal economy, its contributions to local and national development are typically invisible to most decision makers, government, and the general public. Nevertheless, its impact can be significant in mining villages, regions, and countries. At the household and community level, ASM provides rural employment options and results in reduced rural-urban migration. Also, miners' incomes are often reinvested in agriculture or used to stimulate other small businesses, while revenues from ASM and spinoff ventures often play an important role in helping local families meet their health and development needs. Among the more than 20 million ASM active around the world, the proportion of women miners was estimated at about 30 percent in 2003; their involvement may now be much higher. Women make up well over 10 percent to even more than 50 percent of miners in some Asian countries.

In Latin America, they comprise approximately 10–30 percent; in Africa, women may make up anywhere from 40 to 100 percent of the workforce. In Central African Republic, using conservative multiplier effects, as much as USD\$144.7 million may be injected into the economy from informal artisanal diamond mining revenues and spin-off economic enterprises. In Liberia there are an estimated 50,000–75,000 artisanal diamond miners, of whom about 10–20 percent are women, most of whom pan for gold at diamond sites. If half of their combined income is spent on local goods and services, more than USD\$13.5 million may be injected into local economies, creating markets for locally grown or supplied products and increasing the cash component of household incomes. In Mongolia Over 60,000 artisanal miners (about 30 percent of whom are women) of gold, coal, fluorspar, and other minerals are estimated to contribute over USD\$811 million per year to the country's GDP. An additional estimated \$505 million is spent each year in local economies near mining activities. About 600,000 Mongolians (almost 20 percent of the population) may rely to some extent on ASM. In Uganda Almost 200,000 women (45 percent) and men (55 percent) are engaged in artisanal mining of gold, tin, coltan, wolfram, and a range of industrial minerals.

The average miner is estimated to contribute almost 20 times more to GDP than those employed in farming, fishing, and forestry. In addition to working directly in mining, women often work part time at informal mining operations and occupy ancillary roles (e.g., as cooks and service providers). Because

---

<sup>4</sup> Hill, C, Madden, C & Collins, N., 2017, A Guide to Gender Impact Assessment for the Extractive Industries, Oxfam, Melbourne.

women are more frequently associated with transporting and processing materials, as opposed to digging, they are not always identified as miners. Women's involvement is often invisible, because it frequently takes place in the domestic sphere. There thus may be significant discrepancies between the estimated and actual numbers of women involved in ASM. Furthermore, women typically have intensive domestic responsibilities—typically working four to eight hours more than men per day—which adds to their workload; this is largely unrecognized and undervalued<sup>5</sup>.

Like men, women often resort to ASM direct or indirect activities driven by high levels of poverty, lack of other economic options and the profits these activities bring<sup>xxxiii</sup>. Women and men's tasks will vary according to the nature of their integration and situation along the value chain. At mine level, whether self-employed or member of a mining cooperative, while most men engage in mine extraction work, most women recover the tailings of mining activities in quarry or alluvial work, transport, and wash minerals. The mineral processing and refining stages are often attributed to women who are perceived as more meticulous for handpicking like emeralds from rock fragments in Brazil, amalgamation and amalgam decomposition in gold extraction. Men tend to dominate the commercialization of minerals, while women are often dependent on buyers who then resell to processing plants. In mining cooperatives, men generally hold managing roles, while women provide administrative, cleaning and food preparation and health services<sup>xxxiv</sup>.

This gendered division of labour also exposes women to highly toxic chemicals such as mercury and cyanide through bare hand manipulation and vapours in the mineral processing stages, especially during small-scale artisanal gold mining. Although south and central America are considered to have comparatively environmentally friendly techniques, the use of these harmful chemicals has been reported in Bolivia, Ecuador, Brazil, Peru and Nicaragua<sup>xxxv</sup>. Exposure to these hazardous substances can cause neurological, optical degeneration and chronic exposure can even be fatal<sup>xxxvi</sup>. Moreover, mercury bioaccumulates in aquatic organisms and also biomagnifies throughout the food chain. This can be particularly harmful for pregnant women, the development of the fetus and newborns and even cause sterility<sup>xxxvii</sup>, even if they are not directly involved in mining activities.

Finally, mining communities, which generate a high influx of men, often see an increase in violence and crime such as human trafficking, gambling, alcohol, drug abuse and rape<sup>xxxviii</sup>. Women who work in the mine or in bars can be found to engage in sex work, including in bonded and forced labour. Unsurprisingly, sexually transmitted diseases, including HIV are prevalent amongst these communities<sup>xxxix</sup>. There have also been instances of reported child prostitution in these newly established communities, where thousands of girls are even victims of human trafficking<sup>xl</sup>.

All the factors mentioned previously, added to the fact that women are mostly or completely in charge of domestic chores and care work, results in extreme disadvantages. Not only do women have the lowest paying jobs with highest exposure to harmful chemicals, but they are also exploited during sex work and care work. This exploitation sometimes hinders women from working full time in the mine or prevents them from getting proper rest<sup>xli</sup>.

---

<sup>5</sup> Eftimie, A., Heller, K., Strongman, J., Hinton, J., Lahiri-Dutt, K. and Mutemeri, N., 2012. Gender Dimensions of Artisanal and Small-Scale Mining. A Rapid Assessment Toolkit. The World Bank & Gender Action Plan.

## Some positive examples from the region

In a study carried out by 'Solidaridad' the conditions of different groups of women miners in Bolivia was assessed. The team carried out surveys amongst women who worked with private enterprises, within cooperatives and individually and found major distinctions. They found that women who worked within cooperatives carried out a wide range of activities from surface and underground mine work, to actual organizational and administrative tasks. Moreover, significant differences were found in regards of women's health and safety measures.

Women in the cooperative reported that 78% had health insurance versus only 6% of individual workers, likewise 67% of women in the cooperative had some sort of retirement fund or retirement insurance, while just 5% of individual workers had one. In terms of safety measures, 75% of individual workers reported having no safety equipment at all and when they did it was restricted to boots and in very rare occasions gloves. Women operating in a cooperative reported having gloves, boots, helmets, goggles working clothes; 13% reported having none. There is a clear improvement of both working and social conditions from women who work within a cooperative<sup>xliii</sup>.

Another example of sustainable small-scale mining is the Oro Verde initiative in Colombia. This initiative was developed by the Condoto Iró community council and have now received their fair trade and fair mined certificate for ecological gold. The initiative is part of efforts by the Afro-Colombian to preserve their ancestral knowledge and cultural identities. They have implemented artisanal mining techniques paired with sustainable natural resource and sustainable agriculture, prohibiting the use of toxic chemicals and implementing strict ecological restoration practices<sup>xliiii</sup>. The community also stresses the importance of sustainable and responsible use of hydraulic resources, so that these can be used for other subsistence activities and recreation. Parallel to this initiative there have been several projects focused on food security and sovereignty as well as children's and environmental programs<sup>xliiv</sup>.

### Chile's good practices in the field of gender and environment

Chile recognises the differentiated impacts of environmental problems in women and men, and the role that women play as agents of change in addressing them. Consequently, it has proposed to incorporate the gender approach in a cross-cutting manner in the actions promoted by the Ministry of Environment. Specifically, within the framework of its UNFCCC COP25 Presidency, Chile promoted the gender approach, particularly with the update of the Lima Work Programme and its Gender Action Plan (2020-2024); the organisation of a gender technical workshop; the launch of the Formal Network of Women Negotiators; and the High Level Event on Gender Justice for Climate Change and Biodiversity.

Institutional arrangements within the Ministry include:

- a. **Gender Equality Commission:** with the purpose of incorporating the gender approach in the management, design, implementation and evaluation of policies.
- b. **Gender and Climate Change Roundtable:** together with the Ministry of Women and Gender Equality, with the aim of incorporating the gender approach in climate change policy instruments.
- c. **Inter-institutional group on gender and climate change:** this working group was formed in 2019,

together with the Ministry of Foreign Affairs (COP25 Gender Negotiating Cluster) and the Ministry of Women and Gender Equality.

In January 2020, the Ministry of Environment designed the Draft Framework Law on Climate Change, which includes a principle of equality, in order to ensure a fair allocation of burdens, costs and benefits, with a gender focus and special emphasis on sectors, communities and vulnerable ecosystems to climate change. It also establishes that a gender perspective must be applied in citizen participation processes. It also determines that the regulations that will govern the formation of the Scientific Advisory Committee for Climate Change will include considerations of transparency, excellence, impartiality, gender, among others.

For its part, the process of updating the Nationally Determined Contribution integrates the gender approach as follows: (i) A **social pillar on just transition and sustainable development**, whose implementation conceives a cross-cutting criterion of "gender equity and equality". (ii) A specific contribution of the **adaptation pillar** to deepen and update existing vulnerability and risk studies and analyses, considering the gender approach. (iii) **Means of implementation** that include the mainstreaming of a gender perspective in climate change policies, programmes, plans and actions.

The country developed a **checklist for integrating a gender perspective into climate change management instruments**<sup>6</sup>, composed of 18 criteria to be applied in the design (or update), implementation and evaluation stages of any kind of climate change management instrument. Finally, **other sectorial gender and climate change initiatives include**: (i) the National Strategy on Climate Change and Vegetation Resources; (ii) the Energy+ Women's Plan; (iii) the Strategy for Strengthening of the Capacity for Climate Change Adaptation in the Fisheries and Aquaculture Sector; (iv) the Report on Women and Men in the Fisheries and Aquaculture Sector in Chile; and (v) the National Platform for Disaster Risk Reduction.

## 2.4. Women's role defending environmental rights

Worldwide, activists and social movement leaders are often targeted victims of violence and repression; environmental activists are not the exception. A record number of 207 environmental defenders were killed in 2017 for protecting their land, wildlife and natural resources, 60% of these cases occurred in the Latin American and Caribbean region. These cases are often seen in remote villages or deep within rainforests<sup>xlv</sup>, where rule of law is limited<sup>xlvi</sup>.

Based on the number of deaths, Brazil has been the most dangerous country to be an environmental defender in the last decade, with an average of 42 killings per year between 2012 and 2017<sup>xlvii</sup>. According to Global Witness<sup>xlviii</sup>, 57 people were killed in Brazil in 2017, 80% of them while protecting the natural riches of the Amazon. This number includes three massacres that resulted in the murder of 25 activists<sup>xlix</sup>. Other countries that also rank high in environmentalist murders are Colombia, Mexico and Peru. Although the number of assassinations has declined, the growing active repression of civil society has restricted what activists can say and do. This widespread violence against defenders is partly




---

<sup>6</sup> <https://mma.gob.cl/wp-content/uploads/2020/07/GENERO-5.pdf>

rooted in a culture of impunity and corruption, that is often characteristic of the remote communities where this occurs. These conflicts often arise from a lack of compliance with customary and collective land rights and the exclusion of communities from other decision-making processes and require a joint effort to find a solution<sup>i</sup>.

Some milestones have been achieved in the region in terms of environmental defenders' rights and protection. The Escazú Agreement was adopted in March 2018, aiming to strengthen capacities and cooperation amongst the region. The treaty is the first environmental treaty that contains specific provisions for the protection of defenders of human rights in environmental matters<sup>ii</sup>. In March 2019, the UN Human Rights Council passed a resolution regarding Environmental defenders as Human Rights defenders. The resolution was passed unanimously and recognized Environmental defenders as necessary players in the path for sustainable development. It also recognized the right to a clean, healthy, safe and sustainable environment. The main point was to urge States to step up their fight against impunity during instances of attacks, harassment and assassinations, even when the private sector was involved<sup>iii</sup>.

### Women's role defending environmental rights

SDGs	SDGs Indicators	
	4.7.1	Degree to which i) education for world citizenship and ii) education for sustainable development, including gender equality and human rights, are incorporated at all levels of a) national education policies, b) plans of study, c) teacher training and d) student evaluation.
	12.8.1	Extent to which (i) global citizenship education and (ii) education for sustainable development (including climate change education) are mainstreamed in (a) national education policies; (b) curricula; (c) teacher education; and (d) student assessment.
	16.7.2	Proportion of population who believe decision – making is inclusive and responsive, by sex, age, disability and population group.
	16.10.1	Number of verified cases of killing, kidnapping, enforced disappearance, arbitrary detention and torture of journalist, associated media personnel, trade unionist and human rights advocates (including environmental defenders) in the previous 12 months.

### Related gender gaps

In 2016 it was estimated that globally, nine out of ten murdered environmental activists were men, despite these number, it was found that women were victims to gender-specific threats such as sexual violence, harassment of their families and discrimination within their communities<sup>liii</sup>.

The LAC region is rife with socio-environmental conflicts. The competition for the use of natural resources, that are increasingly scarce such as water and productive soils, in addition to impacts on the environment, generate large asymmetries amongst communities, disrupting access to goods, natural resources and territory and increasing inequalities. Projects related to energy generation, big scale agricultural production and large infrastructure are bound to find resistance from particular groups who perceive a threat to their livelihoods, aesthetic values over land, access to natural resources and, in definitive, their human rights.

Women are often seen at the forefront of such movements. Scholars have found a couple explanations for this phenomenon. Based on their societal roles, women are often responsible for natural resources management, leaving them in charge of water, food, agricultural territory and firewood, among others<sup>liv</sup>. This direct tie to natural resources, resources that in turn are vital for their personal and community's survival, leads women to perceive threats differently. They have a different understanding of what a mega project like a dam might mean for their community and their daily activities. These struggles are often related to the protection of their livelihoods, rather than mere environmentalism. Another explanation is the role women often hold as caregivers not only of their families but the entire community. Women are often responsible for taking care of children, the elder and the sick. A sociological study carried out in Guatemala among the Kaqchikel people, found that women perceived their own activism as care work, often motivated by concerns towards their children and communities' well-being<sup>lv</sup>.

Women engaged in the defence and protection of natural resources, the environment, community lands and indigenous territories, are regularly subjected to an array of violent repression methods<sup>lvi</sup>. They are particularly vulnerable to violence, intimidation, and sexual assault<sup>lvii</sup> as well as threats to their family's safety<sup>lviii</sup>. Moreover, these defenders are often discredited and victims of defamation campaigns, often questioning their commitment to their families and society as wives, mothers, and women. The criminalization of social protests, labelling the defenders as "national enemies" to justify abuse, harassment, imprisonment, even torture and assassinations is also a common method of repression<sup>lix</sup>. Women activists in Mexico and Central America are statistically in higher risk of being attacked and murdered, than in other countries of the region – particularly activists involved in indigenous and environmental conflicts<sup>lx</sup>.

### **The Mothers of Ituzaingó in Argentina**

An example of environmental social movements led by women is the case of the Mothers of Ituzaingó in the province of Córdoba, Argentina. This group of women fights against the use of agrochemicals and the advance of agribusiness in a town, Ituzaingó, which as a result of the advance of the agricultural frontier, is surrounded by large monoculture plantations<sup>lxi</sup>. The Mothers of Ituzaingó have been documenting the incidence of cancer, infantile malformations and abortions for years, which they attribute to the agrochemicals associated with this form of intensive agriculture<sup>lxii</sup>. Throughout the process the Mothers organized demonstrations, conferences, anti-fumigation campaigns, and published materials to inform the public of the imminent dangers of these pesticides. Despite the smear campaigns and threats received, her work resulted in the adoption of municipal ordinances that prohibit the spraying of areas on all common lands in the city. In 2012, they contributed to the conviction of a producer and a pilot for illegal spraying on land near residences that compromised the health of the inhabitants. Its founder, Sofía Gatica, received the recognized Goldman Environmental Award for her fight against pesticides<sup>lxiii</sup>. Thanks to their pressure, the Mothers also prevented the installation of a transgenic corn seed processing plant in the town of Malvinas, Córdoba<sup>lxiv</sup>.

## **2.5. Disaster risk and climate change impacts**

Latin America and the Caribbean region face a plethora of environmental issues and challenges, ranging from deforestation to pollution and resource depletion. In the last decade, the region has seen an increase in environmental policy and specifically a development of mechanism to implement such

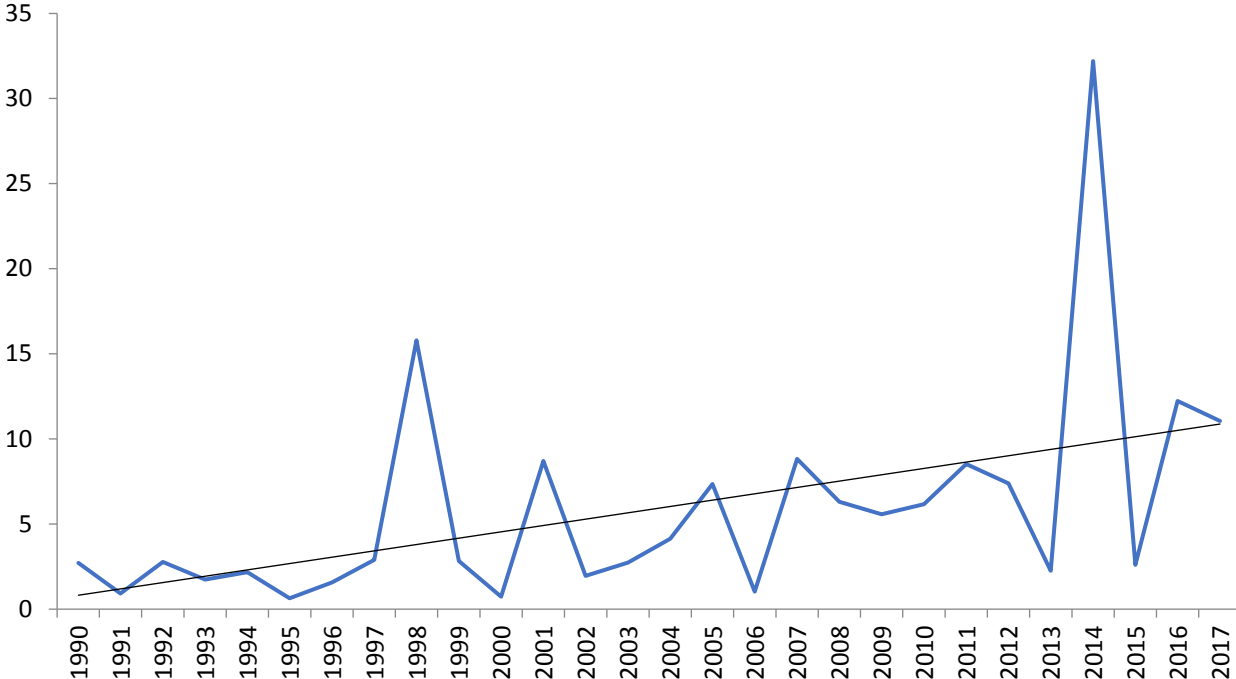
policies. Globally, the 1972 United Nations Conference on the Human Environment marked a turning point, as the issue of environmental degradation and sustainable development were put on the forefront of public and political spheres.

Aligned with the above, sustainable consumption and production patterns are largely determined by efforts to reduce the creation of waste and ensure its safe and appropriate disposal and management. Latin America and the Caribbean region generate approximately 10 percent of global waste. At least 541,000 tons are produced daily in LAC and 90% of this waste is not reutilized<sup>lxv</sup>. Regional analysis reports estimate that almost one third of waste generated ends up in open air dumps, resulting in water, soil and air pollution as well as threatening communities' health<sup>lxvi</sup>.

Moreover, it is estimated that 50% of waste produced is organic, which damages potentially recyclable materials when they are not properly separated and treated<sup>lxvii</sup>. Globally, solid waste management accounted for around 3% of global greenhouse gas (GHG) emissions in 2010 (IPCC). These open dumps also represent a health issue for workers that operate in or in their vicinities. Recycling and reutilization are also a major challenge.

By the other hand, disasters, which are increasing in intensity and frequency<sup>lxviii</sup>, have severe consequences across the LAC region. Vulnerability is associated with poor land-use planning, poverty, rapid urbanization and ecosystem degradation<sup>lxix</sup>. Climate change is increasing the intensity and frequency of floods, storms, wildfires, extreme weather conditions, landslides and more<sup>lxx</sup>. Moreover, growing natural resource scarcity may lead to disputes, especially but not only in territories with weak governance and communities with a history of conflict, which can also lead to migration and displacement<sup>lxxi</sup>. Globally, since 2008, disasters stemming from natural hazards have displaced an average of 24.6 million people each year<sup>lxxii</sup>.




Figure 3. People affected by climate disasters in LAC 1990 – 2017 (millions of people).



Source: CEPALSTAT.



## Disaster risk and climate change impacts

SDGs	SDGs Indicators	
	1.5.1 11.5.1 13.1.1	Number of dead, missing and affected people directly attributed to disasters per 100,000 inhabitants.
	1.5.2	Direct economic losses attributed to disasters in relation to global gross domestic product (GDP).
	1.5.3 11.b.1 13.1.2	Number of countries that adopt and apply National disaster risk reduction strategies in line with the Sendai Framework for Disaster Risk Reduction 2015-2030.
	1.5.4 13.1.3	Proportion of local governments that adopt and apply local disaster risk reduction strategies in line with national strategies disaster risk reduction.
	13.3.1	Number of countries that have incorporated climate change mitigation, adaptation to it, reduction of its effects and early warning in the curricula of primary, secondary and tertiary education.

Latin America and the Caribbean are particularly vulnerable to meteorological hazards such as hurricanes and floods, as well as geological threats including landslides and earthquakes. Small island developing states are particularly vulnerable to disasters and climate change<sup>lxxiii</sup> as they are in hazard-prone regions, relatively isolated, and have populations concentrated on coastal areas<sup>lxxiv</sup>.

Conflicts and disasters cause internal displacement and forced migration that bring alarming problems related to violence, food and water security, and health. In this context, disasters are the result of the realization of the hazardous event combined with the vulnerability of the population and the adaptive capacity. The populations' vulnerability refers to socio-economic conditions of the demographic, such as income and housing infrastructure. In addition, a country's adaptive capacity refers to the state's preparedness to deal with a disaster, including emergency response, action plans and technologies<sup>lxxv</sup>.

### Related gender gaps

Disasters can occur suddenly (rapid onset: typhoons, earthquakes, volcanos) or gradually (slow onset: droughts). They affect millions of people. In 2013, disasters disrupted the lives of about one hundred million people and caused economic damage valued at almost USD 120 billion. Over the last decade, they affected nearly 2 billion people and caused damage evaluated at a staggering USD 1.7 trillion. These figures probably understate their real impact, particularly in smaller countries. Small-scale disasters (that cause fewer than 10 casualties) account for some 90 per cent of the number of disasters every year. Though they do not trigger an international response, their local effects can be serious. According to the United Nations International Strategy for Disaster Reduction (UNISDR): 'Widely unreported small-scale disasters and risks, such as localized flooding, landslides and wildfires, have a persistent, ongoing, debilitating impact on the poor and the vulnerable, especially women, children, the

elderly, persons with disabilities and minorities<sup>7</sup>. Climate change has a disproportionate impact on women and children, who are 14 times more likely than men to die during a disaster<sup>lxxvi</sup>. Moreover, security and health challenges are exacerbated by poverty, cramped urban centres, corruption, and the resulting rise of disease and death during times of crisis. Crises often breakdown the public health infrastructures,<sup>lxxvii</sup> reduce the physical health of survivors with injuries, intensify chronic diseases, and decrease access to the health services<sup>lxxviii</sup>.

Gender-Based Violence (GBV) prevalence, as well as its form, vary significantly from country to country, adding physical, psychological and emotional suffering of those affected by them. For example, 'the rate of gender-based violence (including sexual assault and domestic violence) in Mississippi rose from 4,6 per 100,000 per day, when Hurricane Katrina hit the state, to 16.3 per 100,000 per day a year later, while many women remained displaced from their homes and were living in temporary shelters and trailers'. More recently, 'New Zealand police reported a 53 per cent increase in callouts to domestic violence incidents over the weekend of the Canterbury earthquake' in April 2010. In Guatemala, an evaluation in June 2010 found that psychological violence increased from 7 per cent before the storm to 22.5 per cent during and 19 per cent after it. In Haiti found that most victims of sexual violence before the earthquake were young women, but that after its older women as well as young girls and were at risk<sup>8</sup>.

Vulnerability and impact of risks are different for women and men. Studies have shown that women are more vulnerable to disaster risks than men. They also tend to experience higher rates of sexual and gender-based violence during disasters. This is particularly noticeable in the aftermath of disasters when large groups of the population are placed together for emergency care and shelter. Domestic violence, forced marriage, human trafficking, and forced prostitution are also more likely to occur during disasters. Climate change and disasters influence the prevalence, distribution and severity of new and re-emerging diseases. The susceptibility of women and girls to disease (such as cholera and malaria<sup>lxxix</sup>) is heightened as a result of inequalities in access to food, nutrition and health care as well as social expectations<sup>lxxx</sup> that women will act as primary care-givers<sup>lxxxi</sup> for children, the elderly and the sick. Moreover, these social norms that dictate women as caregivers, adds substantially to women's material and emotional workloads<sup>lxxxii</sup>. Considering that rural women in Mexico, Guatemala, and Ecuador contribute 80% of their total time spent in households to unpaid care work, including direct care and household chores<sup>lxxxiii</sup>, one can conclude the rigid differences between men and women's work during disasters.

### **Good examples from the region**

As mentioned earlier, situations of crisis exacerbate pre-existing gender inequalities<sup>lxxxiv</sup>. As climate change worsens causing increased frequency and severity of natural disasters and sea level rise, so will the effects on women. In addition, climate change is expected to result in increased conflicts, which will intensify the risks for women. In Latin America, approximately 75% of the population is estimated to live in disaster risk areas<sup>lxxxv</sup>. And while the region has the highest gender-based violence in the world<sup>lxxxvi</sup>, there is limited data related to the experiences of women and girls during and after disasters and conflicts. Only 20% of countries report progress regarding inclusion of a gender perspective in disaster

---

<sup>7</sup> International Federation of Red Cross and Red Crescent Societies, 2015. Unseen, unheard: Gender-based violence in disasters Global study. Geneva.

<sup>8</sup> Idem.

risk reduction planning, 23% report they have measures to include gender perspective in recovery plans and only 15% have conducted vulnerability assessments<sup>lxxxvii</sup>. For example, after a 2010 flood in Bolivia, women from 15 to 59 years old increased domestic work by five hours a day and were compensated by the government with a wage as an economic activity<sup>lxxxviii</sup>.

The challenge of increased gender-based violence and vulnerability during disasters and conflicts is quite complex due to the ongoing violence against women across the region, as well as complications related to economic standing, age, and race. A multi-faceted, inter-agency effort must implement a gendered-approach to disaster preparedness and include disasters and conflicts in the analysis of gender-based violence in the region. One positive aspect is that some governments, such as Cuba<sup>lxxxix</sup> are providing training on disasters and gender-based violence.

The “Strengthening the Early Warning Hydrometeorological System” (FORSAT) project in Cuba was developed by the Civil Defence System in conjunction with national institutions, territorial governments and international actors such as UNDP. FORSAT focused on the inclusion of a gender approach in disaster response plans as well as related tools. Amongst these efforts are questionnaires, educational material and workshops focusing on the inclusion and consideration of women’s specific risks and needs before, during and after disasters. This included sensitization workshops for involved actors and institutions that lead the application of disaster response plans and tools. Moreover, the project has promoted women’s direct involvement in climate monitoring activities and has provided workshops for women involved in disaster response action<sup>xc</sup>.

## **PAGCC – PERU**

The Peruvian Government, in collaboration with the Global Gender Office of the International Union for Conservation of Nature (IUCN), marked an important milestone by announcing its commitment to develop the Gender Action Plan and Climate Change of Peru (PAGCC-Peru), recognizing the importance of incorporating the gender approach in the process of planning actions to face the effects of climate change<sup>9</sup>. The plan aims to guide government actions to attain successful adaptation and mitigation to climate change based on women’s and men’s differentiated needs and capabilities, directly referencing a gender approach. As part of the plan’s core is a push for more in-depth reflection and conscience on gender inequities and its implications as well as the importance of valuing women’s inputs on natural resources management and conservation. The participative character of this plan aimed to inform and include all affected and involved actors in the climate change and gender dialogue. The goal was to strengthen knowledge and promote dialogue about these highly intertwined topics. This dialogue allowed government actors to identify stakeholders’ priorities, needs and concerns, and gives the plan validity as well as a strong connection to civil society. Through cooperation between government actors and international institutions, eight priority areas were identified, including forests, energy, solid waste and disaster risk reduction, amongst others. Concrete actions for the implementation of the PAGCC have included workshops, public forums, public consultations and meetings with sectors involved in the identified priority areas.

---

<sup>9</sup> Ministerio de Ambiente, Ministerio de la Mujer y Poblaciones Vulnerables. Plan de Acción en Género y Cambio Climático del Perú (PAGCC-Perú). Documento preliminar.

## 2.6. Sustainable consumption and production and waste management

Considering the lack of statistics of current global consumption and production patterns, which contribute to the rapid depletion of natural resources and ecosystems, as well as to the generation of waste and gas emissions, there is still a need to strengthen the knowledge base regarding gender differentiated sustainable consumption patterns in SDG 12. UN Environment developed a list of proposed indicators to measure sustainable consumption and production, but the final list proposed did not include gender considerations. The measurement of the sustainable dimension of consumption and production is still largely genderblind and gender statistics do not widely exist. In the region, Mexico has been making promising strides in the inclusion of the gender perspective in environment statistics and exemplifies important lessons and best practices for enabling conditions necessary for gender-environment statistics<sup>10</sup>.

Regional, national and local strategies for integrated waste management remain underdeveloped and underfunded. Among the world's 50 largest active dumpsites, eight of them are in the LAC region; five sites in Peru, one in Brazil, one in Bolivia and one in Argentina (Waste Atlas Partnership, 2019). Moreover, it is estimated that only 23% of waste goes to sanitary landfills – the most effective option in avoiding harm to the environment where recycling and alternative processing arrangements are not economically viable.

Improper waste management practices are driven by the high costs of waste management, typically too high for LAC countries to afford and require infrastructure far beyond current capacity. However, the appearance of informal waste pickers<sup>11</sup> is a common trend in LAC, especially in big cities. It is hard to make accurate estimates on the numbers of waste pickers in the region, due to the informality and fluctuation of the sector but estimates calculate some 4 million people who participate in such activities<sup>xci</sup>. Their establishment in large cities has significantly increased recycling rates throughout the region<sup>xcii</sup>.

These activities are also beneficial for local governments as they create inputs for several value chains. Informal recyclers are estimated to contribute between 25%-50% of all recycled materials in LAC. Moreover, they elongate the productive life of landfills, cut transport costs as well as bringing environmental and health benefits such as reduction of greenhouse gas emissions and removal of toxic materials<sup>xciii</sup>.

Coming from the poorest and most vulnerable strata of society, these workers are often autonomous, stigmatized and undervalued<sup>xciv</sup>. Lack of legislation and programs to protect these informal workers leaves them vulnerable to poor working conditions, harassment and poor infrastructure (IEMS, 2014). Ineffective waste disposal practices and open dumps in LAC have dramatic negative impacts on health, sanitation and environmental quality, not only for workers but for neighbouring communities. The health problems of waste pickers are severe and often lead to premature death. Open-air burning and

---



<sup>10</sup> UNEP and IUCN, 2018. Gender and environment statistics: Unlocking information for action and measuring the SDGs. UN Environment, Nairobi, Kenya.

<sup>11</sup> Informal waste pickers or recyclers refers to the collection, classification, cleanup, transport or transformation of recyclable materials outside of the formal system.

the disposal of waste in bodies of water exacerbate health and ecological damages; this has been seen in Bolivia, Belize, Nicaragua, Honduras, and Panama, amongst others (MDPI, 2008). Such conditions may lead to asphyxiation, respiratory diseases, chronic liver and kidney diseases, brain injuries, cardiovascular and cancer related diseases (DeMatteo, 2013).

However, when recycling efforts count with institutional and governmental support, proper organization can lead to the creation of new jobs within the formal sector, reduction of solid waste and promotion of circular economies<sup>xcv</sup>. In 2009 and 2010, Peru and Brazil were the first countries in the region to establish national solid waste laws which recognized informal waste pickers and protected their rights. This was a significant step to formalize the sector, promoting self-organization, education campaigns and legislation. Colombia and Chile have since also established specific laws concerning waste pickers and recyclers<sup>xcvi</sup>.

### Sustainable consumption and production and waste management

SDGs	SDGs Indicators	
 	11.6.1	Proportion of urban solid waste collected periodically and with an adequate final discharge with respect to the total urban solid waste generated, broken down by city.
	12.5.1	National recycling rate, in tons of recycled material.

#### Related gender gaps

Regional data is missing, but country estimates give us a picture of the scale of these populations. In Brazil, there are over a quarter million waste pickers, 33% of whom are women (Global Alliance of Waste Pickers, 2019), while in Quito, Ecuador, there are 2,400 informal recyclers, of which 70% are women<sup>xcvii</sup>. Although in some cities they might count with equity or even overrepresentation in terms of participation in the sector, they often lack the necessary tools and social protection in their jobs<sup>xcviii</sup>. Female recyclers face a wide range of inequalities and threats while on the job. Studies have found that female recyclers have access to less valuable recycling materials than men, that do not only represent less income, but also have higher health risks<sup>xcix</sup>. Under these conditions, women are especially unsafe, and men consistently earn more than women waste pickers (WIEGO, 2018; Dias, 2011). Poor women are also more likely to transition into waste picking to subsist as they make up most of the informally employed. Another recurring theme for female pickers is sexual violence and harassment, as well as the lack of social support for childcare, forcing them to bring their children to work<sup>c</sup>.

Women and children are most exposed to the harmful effects of poor waste management because they remain close to their homes, and thus are exposed to the smoke from the common practice of burning waste throughout the day, make them more vulnerable to harmful substances because their endocrine system is disproportionately impacted by chemicals, causing breast cancer and reproductive problems. In addition, women have more fatty tissue than men and undergo so-called 'windows of susceptibility' such as pregnancy and menopause (WECF, 2006). Occupational exposures to chemicals used in the plastics industry may contribute to the development of breast cancer and reproductive problems. Waste pickers are exposed to synthetic chemicals, especially plastics, that have been identified as mammary carcinogens and endocrine disrupting chemicals, and their work environment is often heavily contaminated with dust and fumes (DeMatteo et al. 2013).

## **The recyclers associations of Arequipa (Peru)**

At the domestic level, government interventions are necessary to build the appropriate infrastructure for waste management and the promotion of “green jobs”, with support from international organizations. Through cooperation with the Ministry of Environment and Ministry of Women and Vulnerable populations in Peru, the UNDP and UN Environment Poverty-Environment Initiative (PEI) began the Integrated Solid Waste Management for Sustainable and Inclusive Development project. An integrated and inclusive management plan for solid waste is a valuable opportunity not only to improve environmental issues within cities, but also tackle social problematics. The incorporation of recyclers or waste pickers into the waste value chain is fundamental to ensure safe access to materials, transport, storage and commercialization. In addition, trainings and workshops with a gender approach are pivotal to address issues of harassment and access to resources. The project had two main aims, bettering institutional capacity to create policy, plans and budgets for the waste management sector and applying waste management models with emphasis on gender and social inclusion.

The project was implemented in the municipality of Arequipa with the support of the national government, where 85% of recyclers are women and 50% of them work on the streets. The PEI project contributed to the creation and strengthening of several plans and tools, such as the national solid waste plan (PLANRES), the municipal solid waste plan (PIGARS) which was specific to Arequipa, a gender socioeconomic diagnosis to determine inequalities, gaps and opportunities; and a guide to mainstream gender into municipal solid waste plans<sup>12</sup>. Moreover, the project contributed to the strengthening of the national solid waste informational system (SIGERSOL) and aligned it with PLANRES, to ensure the gender and poverty inclusion among the indicators to be measured.

Formal assessments of the project concluded that formalization of green employment such as recyclers and waste pickers were a success, and currently the country is carrying out a census of the existing waste pickers to enhance their working conditions. Additionally, the creation of training materials for capacity building were distributed to both institutions and workers were also a core component of the project<sup>ci</sup>. Finally, workshops to strengthen social capacities with a gender equality focus for recyclers have been held in the community, training over 200 recyclers, both men and women.

### **Ecuador's gender and environment approach and initiatives**

One of the new constitutional rights in Ecuador is "to live in a healthy and ecologically balanced environment that guarantees sustainability and good living, *sumak kawsay*" (Art. 14). The national Constitution also recognises that: "the *pacha mama*, where life reproduces and takes place, has the right to full respect for its existence and the maintenance and regeneration of its vital cycles, structure, functions and evolutionary processes" (Art. 71). Ecuador's State model assumes equality among people as a priority, since the approval of the 2008 Constitution as a component of the Good Living Regime. It also establishes that the State will guarantee, formulate and execute policies with a gender focus to achieve equality between men and women.

---

<sup>12</sup><https://www.muniarequipa.gob.pe/descargas/gestionmanejoresiduos/GuiaInclusionAspectosSociales/GU%C3%8DA%20INCLUSION%20ASPECTOS%20SOCIALES%20EN%20PMRS.pdf>

**National Development Plan 2017 - 2021:** the Plan's Objective 6 is aimed at developing productive and environmental capacities to achieve food sovereignty and a good rural quality of life, a better distribution of land, and ensuring equitable access to technical, financial, commercial and human resources. To this end, women and men's equal participation is essential to reduce inequality gaps and restore women's access to natural resources, water, land and decision-making.

**National Biodiversity Strategy:** considers the equality and non-discrimination principles based on gender, articulated with the rights granted to nature mentioned above.

**Equality Law:** in 2014, the National Equality Councils Organic Law was approved, with the aim to establish the institutional and normative framework of the National Equality Councils and to regulate their purposes, nature, principles, integration and functions.

**National Council for Gender Equality:** it is the body responsible for ensuring the enforcement and exercise of constitutional rights and international human rights instruments. It is also responsible for the formulation, mainstreaming, observance, monitoring and evaluation of public gender policies (Art. 156 of the 2008 Constitution).

**National Agenda for Gender Equality:** this is the strategy for mainstreaming the gender equality and non-discrimination principles, both in public management and for the empowerment of the subjects of rights.

**Management of the Ministry of Environment and Water:** in the Ministry, the institutionalisation of the gender equality approach is based on the fact that the environment is articulated by different gender logics in the use, administration and control of natural resources. Women of diverse peoples and nationalities respond to a stereotyped structure of roles, which assign them unpaid domestic work, caring responsibilities and the production for self-consumption. The institutionalisation of the gender equality approach is a process that allows the development of regulations and procedures. Likewise, it has ensured the inclusion of gender considerations in Ecuador's first Nationally Determined Contribution (NDC).



**Proamazonia:** this programme seeks to, among others: improve the situation and position of women in socio-environmental processes, promoting the conservation of biodiversity, forests and ecosystem services, as well as productive processes to address climate change.

## 2.7. Women in environmental decision making

Within the region this change has been seen through the institutionalization of environmental management, including important changes in public policy and judicial systems. The creation of Environmental Ministries has been crucial for this change and has allowed for comprehensive and applicable environmental policy, creating mechanism with political power and incidence. In addition to the establishment of official environmental ministries, some states have created environmental tribunals and even integrated "rights of the environment" and the concept of sustainable development in their national Constitutions (UNEP and CEPEI, 2018) (Gobernanza Ambiental y la Agenda 2030).

A particularity within the region are the Caribbean states, some of which have opted to merge their environmental departments with ministries responsible for financial and economic decisions and policy. This provides environmental departments with resources, funds and the political power necessary to implement effective policy. However, one concern is that in these instances, economic interests might be prioritized, leaving environmental issues in the background, hindering a truly integrated sustainable development approach (Gobernanza Ambiental y la Agenda 2030).

### Women in environmental decision making

SDGs	SDGs Indicators	
	5.1.1	Determine whether or not there are legal frameworks to promote, enforce and monitor gender equality and non-discrimination.
	5.5.1	Proportion of seats held by women in a) national parliaments and b) local governments.
	5.5.2	Proportion of women in management positions.
	16.7.1	Proportions of places (disaggregated by sex, age, persons with disabilities and population groups) in public institutions (national and local legislative assemblies, public administration, judiciary), compared to national distribution.
	16.7.2	Proportion of population considering that decision-making is inclusive and responds to their needs, broken down by sex, age, disability and population group.

### Related gender gaps

Culture is critical in shaping gender roles in any given context, determining how society values the opinions and work of women and men, and creating barriers or opportunities to realizing women’s rights. Culture can offer women and men a source of strength, empowerment and social wellbeing, which can be drawn on for positive changes towards achieving gender justice. All cultures change over time, including in response to a variety of external influences, and within a single cultural context there is often a diversity of views about what that culture is or should be. Therefore, companies should ask themselves whose version of “culture” they are receiving to and whose interests are being represented (and excluded). Are they listening to the views of women when it comes to culturally justified discrimination and exclusion of women? What are the social norms that may exclude women from public life?

A 2014 assessment reported that the percentage of women in parliamentary seats was 28% in Latin America and 14% in the Caribbean. Moreover, women represented 23% of ministerial posts in LA and 15% in the Caribbean, and participation in local governments is even lower<sup>cii</sup>. This general trend can be seen across political sectors, including the environmental sector. The global Political Empowerment gender gap reflects low representation of women in all political roles and a particularly sporadic presence of women among heads of state<sup>ciii</sup>. At the global level, only 12% of environmental sector



Ministers are women<sup>13</sup>civ. In the LAC region, in 2018, out of 33 countries, eight have women at the head of environmental ministries. Although, this number is about twice as high as the global percentage, there is still much room for improvement. The inclusion of women in the decision-making process is necessary to ensure that the diverse perspectives and experiences of women are included, and innovative solutions might be provided.

One main problem is countries underreporting on gender participation in Environment and Gender Information (EGI) platform, although we have the data on environmental ministers, participation at lower levels is still unclear. To solve this information gap, the EGI team continues to analyse tens of thousands of policy and programme documents, rosters and websites to create new data spanning the environmental sector to convey the value of gender responsive environmental conservation and sustainable development. By providing cutting edge evidence-based data and knowledge products<sup>14</sup>. The EGI found that, although women are still largely underrepresented in the environmental decision-making process, representatives of Green Parties and NGO representatives are closing up the gap. Globally, the highest performing indicator was 'Nationally Elected Green Party Leaders', of which women constituted 48%. This indicator is important as it allows women to directly influence policy framework and national agendas (EGI).

Moreover, the EGI concluded that women's perspectives are necessary for the effective governance and conservation of natural resources, as they can provide diverse experiences as fishers, farmers, heads of households and more (Environment and Gender Index, UICN & UN Women). When they are excluded from the decision-making process, their particular and specific concerns are left out of consideration, exacerbating even more the dramatic effects of climate change and natural resource degradation. Women are often seen at the forefront of environmental movements; however, data is missing on women's participation in community councils and other forms of local government.

### **Example**

All Multilateral Environmental Agreements make now specific mention to guiding frameworks which aim to ensure women's equal participation. In 2014, the Conference of the Parties (COP) to the United Nations Framework Convention on Climate Change (UNFCCC) adopted the Lima Work Program on Gender. The program was developed to guide the effective participation of women within the bodies established under the Convention. Parties of the Paris Agreement recognized that adaptation to climate change and capacity building for mitigation, should be gender sensitive, participatory and fully transparent in order to close gender gaps and successfully address the threats of climate change.

In addition, the UNFCCC has demonstrated important links to gender equality and the empowerment of women through recent decisions, such as in its 2017 Gender Action Plan, which was updated within the framework of COP25 for a period of five years (UNFCCC, 2019). By the other hand, in the last few years, EGI data has informed national policymaking and programming in more than 25 countries around the world that have partnered with IUCN to develop national climate change gender action plans (ccGAPs),

---

<sup>13</sup> <https://genderandenvironment.org/resource/egi-womens-participation-in-global-environmental-decision-making-factsheet/>

<sup>14</sup> [https://portals.iucn.org/union/sites/union/files/doc/egi-brochure\\_web.pdf](https://portals.iucn.org/union/sites/union/files/doc/egi-brochure_web.pdf)

biodiversity strategies and action plans (NBSAPs) and REDD+ Roadmaps, all of which aim to recognize and serve the differentiated needs and capacities of women and men<sup>15</sup>.

### **Gender outcomes of the UNFCCC COP 25**

The 25th Conference of the Parties to the United Nations Framework Convention on Climate Change (UNFCCC), chaired by Chile and held in Madrid, had among its mandates the review and renews two instruments on gender and climate change: the "Lima Work Programme on Gender" adopted at COP20 in Lima and its "Gender Action Plan" adopted at COP23 in Fiji. Under the leadership of the Chilean presidency, both objectives were successfully achieved by the Parties, as stated in Decision 3/CP.25<sup>16</sup>, strengthening and consolidating both instruments in a single decision. Among the most remarkable of this decision elements are:

1. Extends its validity to a total of 5 years (until 2024, with a mid-term review in 2022).
2. Fully reflects the agreed human rights and just transition language in the Paris Agreement.
3. Significantly strengthens capacity building for governments and other stakeholders in mainstreaming a gender perspective in the formulation, monitoring, implementation and review, as appropriate, of national climate change policies, plans, strategies and actions, including Nationally Determined Contributions, National Adaptation Plans and national communications.
4. Improves and strengthens the implementation of gender-responsive climate action at all levels (international, national and sub-national).
5. Integrates funding considerations both to share experiences and support capacity building on gender budgeting, to raise awareness of available financial and technical support, to promote the strengthening of gender mainstreaming in climate policies and actions, and to facilitate access for grassroots women's organisations, indigenous peoples and local communities.
6. Promotes gender-sensitive technology solutions to address climate change.
7. Promotes the full participation and leadership of women and girls in science, technology, research and development.
8. Protects and preserves local, indigenous and traditional knowledge and practices in different sectors.
9. Supports the collection and consolidation of information and expertise on gender and climate change in sectors and thematic areas, as well as invites the identification of experts and the enhancement of knowledge platforms on the subject, as needed.
10. Invites the involvement of women's groups and national women's and gender institutions in the process of developing, implementing and updating climate policies, plans, strategies and actions, as appropriate, at all levels.
11. Calls for improved availability of sex-disaggregated data for gender analysis to inform climate policy and action.

---

<sup>15</sup> Idem.

<sup>16</sup> Both the PTLG and its PAG are contained in the Decision, pages 6 to 15. The full English version is available at the following link on the UNFCCC website: [https://unfccc.int/sites/default/files/resource/cp2019\\_13a01E.pdf](https://unfccc.int/sites/default/files/resource/cp2019_13a01E.pdf)

It is stressed that women make significant contributions to domestic, local, national, regional and international economies and to environmental management, disaster risk reduction and resilience to climate change at different levels. The Paris Agreement also recognizes that adaptation to climate change must be guided by the best science available and must ensure that all women have significant opportunities to participate in policymaking and development planning.

In order to ensure that women and girls have equal opportunities to participate, lead and engage in decision-making in disaster risk reduction and climate change activities, the Committee on the Elimination of Discrimination Against Women recommends that States Parties take some specific actions:

- A: Adopt policies to ensure that at least 40% of its delegates to the Assembly are women and to gradually increase to 50% in the coming years;
- B: Develop programs to ensure women's participation and leadership in political life;
- C: Ensure women's equal representation in forums and mechanisms for disaster risk reduction and climate change at community, local, national, regional and international levels to enable participate in and influence the development of disaster risk reduction and climate change policies, legislation and plans and their implementation;
- D: Strengthen national gender and women's rights institutions, civil society and women's organizations and provide them with adequate resources, skills, and authority to lead, advise, monitor and carry out strategies to prevent and respond to disasters and mitigate the adverse effects of climate change; and
- E: Allocate adequate resources to build women's leadership capacities and create an enabling environment to strengthen their active role in disaster risk reduction and response and climate change mitigation at all levels and across all relevant sectors.

The secretariats of the Rio Conventions – UNFCCC, CBD and UNCCD – have been in turn identifying and developing opportunity for joint for between parties and stakeholder to tackle gender issues. Efforts include trainings and capacity buildings to effectively promote women's empowerment and participation.

Moreover, specific country policies have been developed to address climate change with a gender approach, in accordance to multilateral environmental agreements between parties. The climate change gender actions plan (ccGAPs) do not only aim to address women's specific priorities, needs and threats but also stress the importance of taking into consideration their knowledge and experiences to develop innovative and comprehensive conservation, mitigation and adaptation plans. Countries in LAC with ccGAPs include Costa Rica, Panama, Dominican Republic, Peru, Cuba and Mexico.

Even though these conventions have been adopted, for the most recent COPs, the CBD has the highest female participation rate, with an average of 43% of government delegates, office members and NGO representatives. The UNFCCC has an average of 36% and UNCCD has an average of 30%<sup>17</sup>.



While progress is being made, no process has achieved gender parity in the Secretariat and in convention bodies, and Parties often still underreport, especially substantively, gender-specific information within reporting mechanisms (IUCN, 2016; Gilligan & Sabater, 2017). Therefore, for more concrete and meaningful progress, action programs, budgets and strategies need to be at different levels of governance - local and subnational, national, regional and international - in order to ensure an effective and human rights-based approach to governance, disaster risk reduction and climate change. Thus, we stress that as citizens, women are crucial to good governance in the green economy, but have little influence, as few hold management positions in the public or private sector. For example at this time, it is important that gender issues are included in the nationally determined contributions (NDC) update process and its implementation.

## 2.8. Access to water and sanitation

Universal access to safe drinking water is a fundamental human right as well as part of the SDGs. It is a necessary natural resource for an array of basic human needs and activities, such as health, agriculture, and cultural activities. In Latin America and the Caribbean, the increasing pressure of human activities and climate change on natural resources, such as increased rainfall variability, human-induced water salination<sup>cv</sup>, and poor water management practices and infrastructure development, is affecting people’s access to enough quality water. Though 95% of the region’s population had access to improved drinking water services in 2015 “34 million still used unimproved drinking water sources”<sup>cvi</sup>.

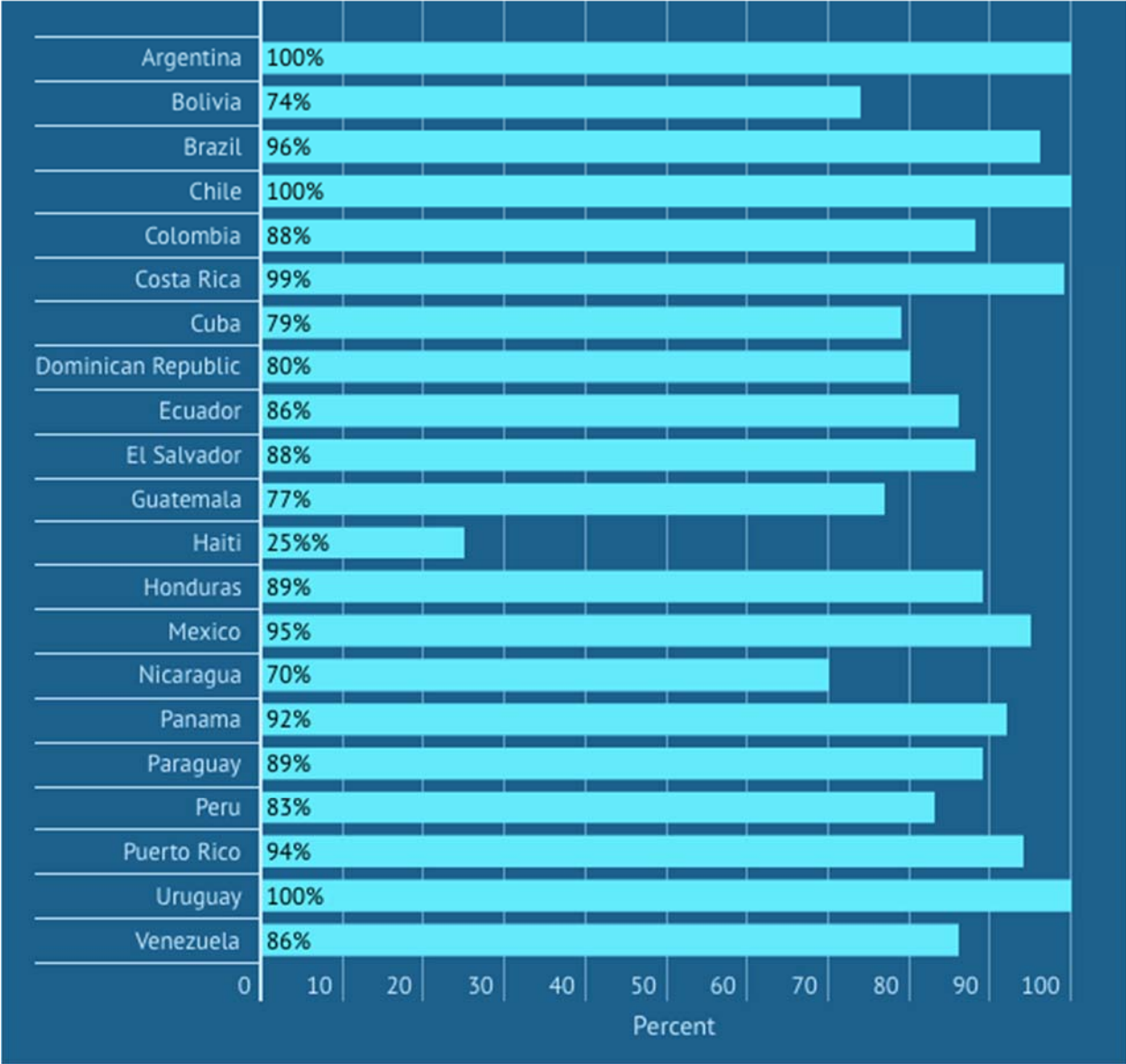
Discrepancies in water coverage within and between countries are also prevalent, with 89% of South America’s population benefiting from piped water on premises, compared to 27% in rural Central America and rural Mexico, and 38% in the rural Caribbean regions. Within national boundaries percentages also vary widely, Mexico is a great example of these discrepancies as the national percentage of the population with access to piped water is 95%, while in rural areas, as mentioned earlier, this percentage is dramatically lower<sup>cvi</sup>.

### Access to water and sanitation

SDGs	SDGs Indicators	
	3.9.2	Mortality rate attributed to unhealthy water, poor sanitation and lack of hygiene (exposure to unhealthy water, sanitation and hygiene services for all).
	6.1.1	Proportion of population using managed drinking water supply services without risk.
	6.b.1	Proportion of local administrative units that have established operational politics and procedures for the participation of local communities in water and sanitation management.

<sup>17</sup> [https://portals.iucn.org/union/sites/union/files/doc/egi-brochure\\_web.pdf](https://portals.iucn.org/union/sites/union/files/doc/egi-brochure_web.pdf)

Figure 4. Ready access to tap water (%).



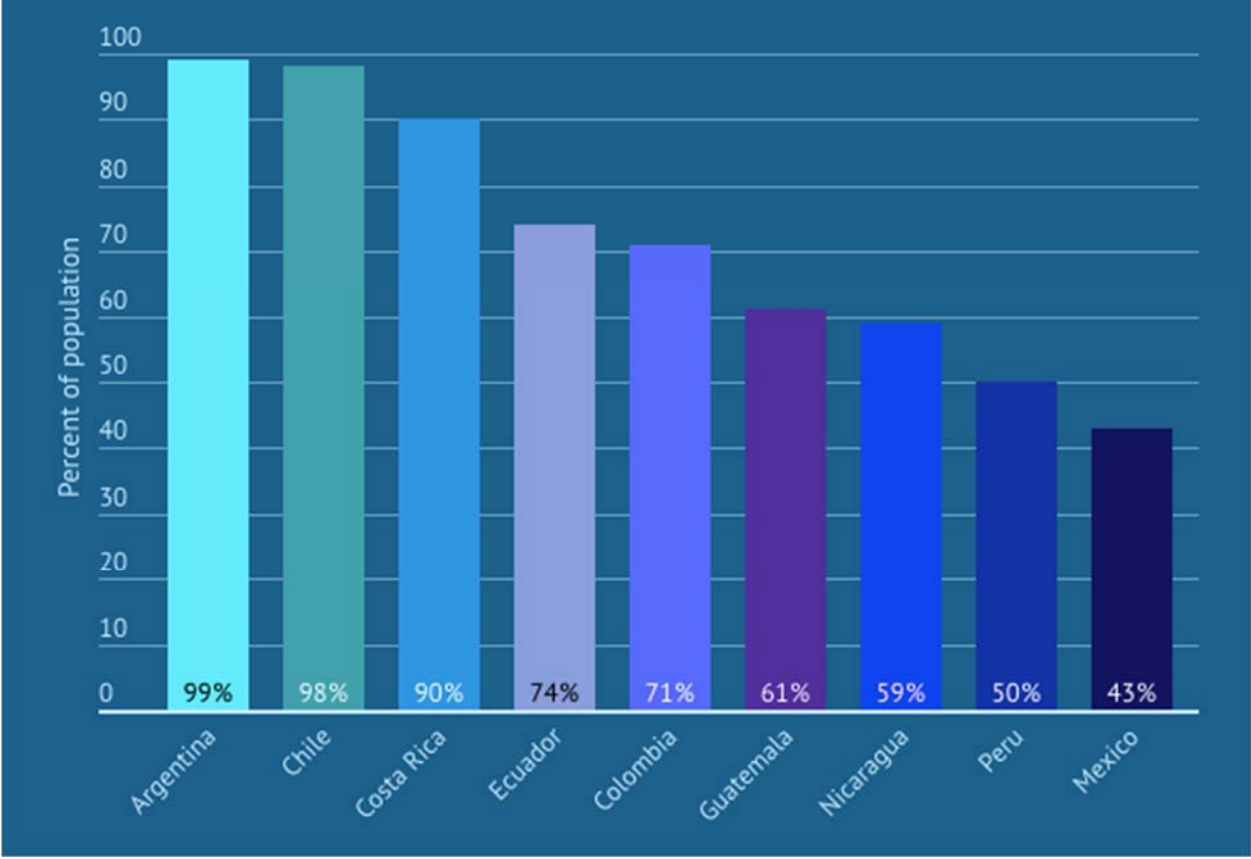
Source: Progress on Drinking Water, Sanitation and Hygiene: 2017 Update and SDG Baselines.

Related to the terminology regarding water quality (improved drinking water and unimproved drinking water vs. piped water, safely managed drinking water), it is important to explain that improved water access or tap water access does not mean water safely managed (on premises, available when needed and free of contamination). In Mexico, for instance, only has 43% of its population with access to safely managed drinking water<sup>cviii</sup>, and in some of the countries like Haiti, Barbados and Belize close to half of the population has potable drinking water<sup>cix</sup>.

On the other hand, in 2017, the estimated number of people in the region lacking potable water was 126,218,292; it particularly affects already marginalized populations living in rural areas and indigenous people in several countries<sup>cx</sup>, representing about 20% of Latin America’s overall population. Furthermore, access to piped water, although facilitating many daily activities, does not necessarily mean access to clean drinking water.

**Related gender gaps**

Figure 5. Percentages of population with access to safely managed drinking water.



Source: Progress on Drinking Water, Sanitation and Hygiene: 2017 Update and SDG Baselines.

In most developing countries, water collection for domestic use is considered a feminine duty at household level<sup>cxii</sup>. In LAC, this applies mainly to women living in rural areas, where drinking water services are considerably lower than in urban areas. Overall, the gendered nature of water collection results in three types of impact:

**1) Losses in women’s productive time for income-generating activities**

According to the UN Global Gender Outlook, water collection represents 40 billion hours used globally every year in water collection. This increases the burden of non-productive activities for Latin American and Caribbean women. Due to factors such as non-remunerated household, care and agricultural work, “about 40% of women over the age of 15 do not have their own income despite working on a daily basis”<sup>cxiii</sup>. According to the FAO<sup>cxiii</sup>, this issue is further compounded by an increased “feminization” of agriculture in LAC; “in Chile and Panama, for instance, three out of ten farms were run by women”<sup>cxiv</sup>. Given the increased pressure on water resources, and the ensuing vulnerability of the agricultural sector, this could further increase the burden of water collection on women for both household and productive purposes. Furthermore, the burden of water collection can also drive girls away from school, as girls in lower income homes, especially in rural areas, conduct the bulk of domestic chores and parents might perceive school as secondary and distracting from essential tasks<sup>cxv</sup>.

## 2) Health implications

Studies have found that carrying water from the source to home, does not only take up valuable productive time, but also presents a burden on women's and girl's body and mind. Problems might appear in the vertebral column, from carrying heavy weight for long distances as well as increased stress during times of water scarcity<sup>cxvi</sup>. Since women are also often considered care-givers, they are at greater risk of experiencing psychological distress and overburden during and after water contamination<sup>cxvii</sup>. It is estimated that approximately half a million children die every year due to diarrheal diseases, often caused by unsafe water and poor sanitation. In addition, 50% of global malnutrition can be linked to poor water quality, causing diarrhea and intestinal worms<sup>cxviii</sup>. Data has also found a direct link between water quality and maternal health. Countries that have invested in improvements on access to clean water also tend to show a significant decrease in maternal mortality rates<sup>cxix</sup>. Moreover, the decreased availability of water, indeed, may result in a "fall in agricultural output" and also lead to under- or malnutrition<sup>cxx</sup>, particularly affecting women and children.

## 3) Increased risk of sexual and gender-based violence (SGBV)

The UN Global Gender Outlook (2016)<sup>cxxi</sup> further notes that "walking to remote locations to collect water for drinking, cooking and clothes-washing or to use WASH facilities, particularly after dark, puts women and girls at risk of harassment, sexual assault and rape". Though no comprehensive study has been conducted on the relationship between water scarcity and SGBV in Latin America, gender and sexual violence is a widespread problem in the region, affecting women (and others) in domestic and public spheres.

### Positive examples

Honduras is the second poorest country in Central America, and it is estimated that some 638,000 people lack access to safe drinking water, with rural communities facing the most challenges. To tackle these risks and create new opportunities, the NGO Water.org has been implementing a WaterCredit program since 2013, with the aim to provide rural households, particularly women, with loans to build water and sanitation infrastructures on the house premises, through partnerships with local financial institutions (Water.org). They have been working with private partners on a direct impact program, which includes the construction of a community water system, and introducing health and hygiene education in the community. The project is aimed to provide some 3,600 people in the communities of Mejocote and Montana Verde improved access to water. This will not only positively affect the entire community in terms of access to cleaner water and hygiene education but have great impact on women's and girl's time poverty, freeing up time and allowing them to engage in productive, educational and/or leisure activities. In Peru, the Water.org's WaterCredit lending program started in 2015 and has helped reduce the burden of water collection for rural women and also disburse loans for indoor bathrooms, water and sewerage connections, improved sanitary installations and tanks for water collection and storage<sup>cxxii</sup>.

Another example is Grenada's pioneering in climate change adaptation through community-based projects. The School for Special Education, run in its vast majority by women, has started a program for rainwater-harvesting, drip irrigation and solar power for a farm on their campus. The project is not only designed to tackle the often-occurring water shortages, but also promotes healthy alimentation and ensures food security for students, faculty, staff and the community in general. Moreover, the project

represents an opportunity for students who are “differently able” to participate in an income generating activity as some of the harvests are sold in local markets and to the nearby Sandals hotel<sup>cxxiii</sup>.

### **Gender and environment initiatives in Mexico**

**(i) Gender mainstreaming in the Conservation for Sustainable Development Programme:** It is estimated that between 80% and 85% of rural property in the country is in men hands. Therefore, this programme modified the requirement to prove legal ownership of land, to eliminate a historical barrier that prevented women from accessing the programme's support . It also established qualification criteria that favour applications from women and indigenous people, and established the obligation of beneficiaries to promote equal participation. Likewise, at least one woman must participate in the monitoring committees; and in the rules of operation, discriminatory practices against women or indigenous groups are sanctioned. As a result, between 2006 and 2019, women's participation in productive and restoration projects increased from 32% to 53%.

**(ii) Good practices in gender mainstreaming in National Forestry Commission programmes:** the Commission has implemented affirmative measures, such as: provide additional points for applications submitted by women; support for the implementation of projects operated by women through the acquisition of machinery or infrastructure for forest products; facilitate access for women without legal ownership of forest land; and on-going training and capacity building for institutional staff in gender mainstreaming.

**(iii) National Atlas of Climate Change Vulnerability:** the Atlas has a special section on gender gaps, based on the identification of variables disaggregated by sex and at municipal level, with the aim of providing a national overview of the of women and men in relation to: health; education; income; and unpaid work.

**(iv) Agrobiodiversity project:** This initiative has shown that in the agro-biodiversity sector, women are the ones that carry out most of the processing and trade of these products.

**(v) Mexico's National Biodiversity Strategy and Action Plan 2030:** the strategy includes 19 lines of action, 50 actions and 44 specifications that make direct reference to the inclusion of women in the management and use of biodiversity. In 2018, 45 initiatives were identified related to the use and management of biodiversity with a gender perspective.

**(vi) Adaptation to the impacts of climate change in coastal wetlands of the Gulf of Mexico:** this project was developed with an Ecosystem-based Adaptation approach, and a social and gender focus. Adaptation measures were designed based on a differentiated diagnosis of the vulnerability of men and women, and the identification of the differentiated way in which they both relate to natural resources.

**(vii) Coastal Watershed Conservation in the Context of Climate Change:** Gender was mainstreamed in the project from its initial design. Women's participation in activities was ensured through the promotion of their leadership, as well as mechanisms to ensure participation in decision-making. The project considered a baseline of gender perceptions through participatory processes; and gender and climate change indicators were established in the project monitoring and evaluation frameworks.

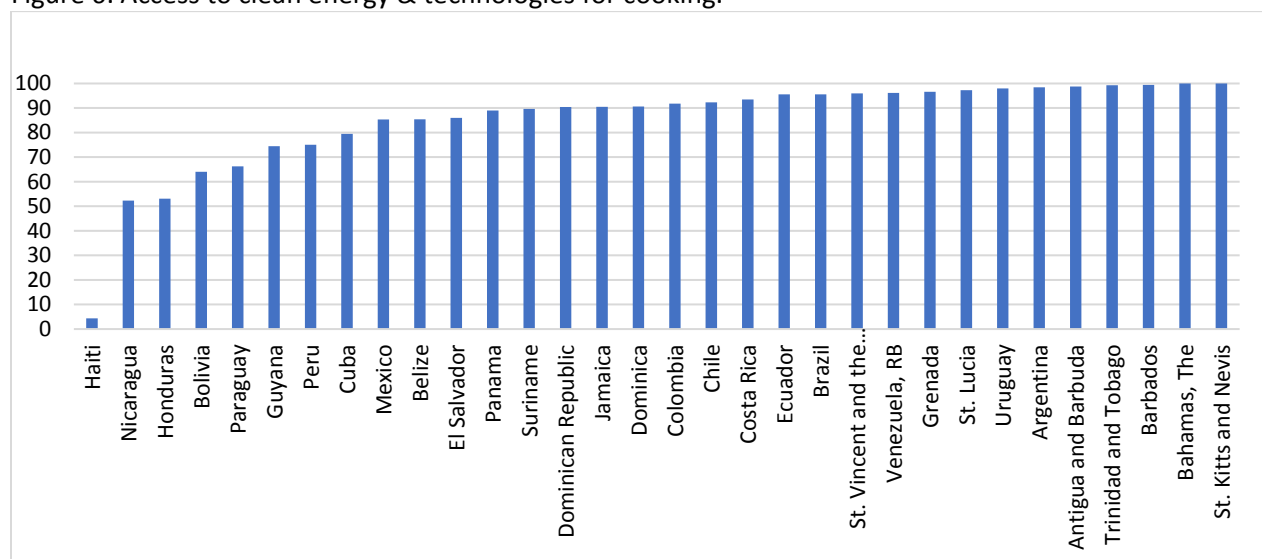


## 2.9. Access to clean cooking energy

According to the WHO, some 3 billion people still cook using solid fuels such as wood, crop waste, animal dung and coal. In Latin America and the Caribbean, it is estimated that 90 million people, about 13% of the population according to World Bank data from 2016, still rely on these solid fuels for cooking, mainly due to a lack of access and high prices of other cleaner technologies<sup>cxxiv</sup>, but also cultural factors. The prevalence of this issue represents both an environmental threat as well as a health threat for communities and individuals exposed. Although large scale depletion of forest has not been found to be directly correlated to the collection of fuelwoods, as most fuelwood is collected from the roadside or agricultural lands, local and regional air pollution are prevalent due to these practices<sup>cxxv</sup>. Scholars point out that 80% of air pollution in southern Chile came from firewood combustion<sup>cxxvi</sup>. Although not all of this fuelwood was used for purposes of cooking, it sheds light on the gravity of these actions<sup>cxxvii</sup>. The industrial production of charcoal and coal for cooking have been found to lead to large scale deforestation, resulting in land degradation and depletion of resources<sup>cxxviii</sup>.

It is estimated that globally 3.8 million people a year die prematurely due to illness and complications related to solid fuel use for cooking. Many of these individuals are children, who are more susceptible to air pollution<sup>cxxix</sup>. Among the health complications caused by indoor air pollution are pneumonia, chronic obstructive pulmonary disease, stroke and lung cancer. Moreover, the burden of carrying heavy firewood for long distances can result in musculoskeletal damage<sup>cxxx</sup>.

Figure 6. Access to clean energy & technologies for cooking.





Source: World Bank, 2016.

On the other hand, health concerns regarding this issue are clearer and widespread. The Geo 6 report states that air pollution is the largest environmental threat to public health in the Latin American region, causing an array of health problems. Burning of biomass releases harmful gasses such as benzene, carbon monoxide and Sulphur oxide, all gases that contribute to climate change, air pollution and are harmful for human health. The problem is not only related to these harmful gases, but with the size of particulate released when improper burning of fuelwood occurs. 2.5 micrometer particulate matter is the most dangerous, as it is inhalable and can even enter your bloodstream, causing several cancers and respiratory diseases<sup>cxxxi</sup>.

Also, access to clean and affordable energy is central to most aspects of human life today, including education, economic development, food security, health – all basic to achieve the SDGs. Moreover, there is a clear correlation between access to clean energy and several “quality of life” indicators, such as life expectancy, literacy and fertility rates<sup>cxxxii</sup>.

### Access to clean cooking energy

SDGs	SDGs Indicators	
	3.9.1	Mortality rate attributed to household and ambient air pollution.
	7.1.2	Proportion of the population whose primary source of energy are clean fuels and technologies.

### Related gender gaps

Research has concluded that in Latin America, as well as most developing regions, women are still largely in charge of cooking and feeding their families. A report published by FAO found that what characterizes rural women is that on average they tend to work more hours than men but get less paid hours<sup>cxxxiii</sup>. Being mostly responsible for household activities does not only limit women from developing other aspects of daily life such as economic activities or leisure time, but also, in this context, negatively affects their health<sup>cxxxiv</sup>. Women, especially lower income and rural women, are exposed to indoor air pollution for consecutive hours every day, having severe effects on their health. The WHO estimates that, globally, 60% of all premature deaths involving household air pollution were amongst women and children. They have also concluded that women exposed to solid fuel smoke are on average two times more likely to develop obstructive pulmonary diseases than other women. This also disproportionately affects infants and young children, of whom women are responsible for<sup>cxxxv</sup>. This creates an extra burden as they must care for an ill child. Solving this problem would not only require cleaner and safer forms of fuel and cooking technologies, but also a redistribution of tasks within the traditional family structure.

### A good example

Although providing all low-income and rural families with gas or electricity kitchens might be an unattainable goal, there are several other methods available to better their cooking conditions. For example, a project developed in Nicaragua by ASOFENIX, a non-profit NGO, aimed to better living conditions and improve sustainability by modifying already existing solid fuel kitchens and introducing new models. Most of their models required basic building materials and have simple designs that allow for traditional cooking methods to be maintained while reducing the amount of firewood used and redirect harmful smoke through a chimney. Through public-private partnerships, ASOFENIX arranged partial and in some cases total financing for the construction of these kitchens and mobilized personnel to carry out workshops in these communities about proper use of the new equipment and sustainability practices. After just six months from the installation of the kitchens, 96% of families, within that community, reported improvements in their health, especially for women, children and elders. Other similar projects implemented throughout the region have had similar results. A partnership project developed by the UNDP and the Peruvian government, installed over 150,000 improved cookstoves and estimated that greenhouse gas emissions would be reduced by one megaton per year per stove. The

Peruvian government estimated that the project would avoid the emission of 41,000 tons of CO<sup>2</sup>, just in the La Libertad region<sup>cxxxvi</sup>. This would equal the amount of CO<sup>2</sup> absorbed by one thousand trees for one year. Another project implemented by ENVIROFIT in México estimated that the reduction of firewood use would be from 60%-70%<sup>cxxxvii</sup>.

Other positive outcomes of the ASOFENIX project included a reduced spending in time or money to attain fuel wood, reduced heat and soot in the kitchen, and a considerable reduction in time used for cooking. Moreover, the project implemented several workshops on gender equality and gender norms, as well as financing programs to promote female entrepreneurship<sup>cxxxviii</sup>. In Mexico, a proposed composite indicator based on the national time-use survey module on rural activities, provides an effective alternative to assess women’s and men’s reliance on natural resources, including on the collection of forest products, fishing and hunting. Mexico has its own classification of activities related to the production of goods for household consumption, including: breeding of farmyard animals; firewood collection; plants, mushrooms, flowers and wild fruits collection, fishing and hunting; planting, tending and harvesting a garden patch; water collection and storage; and other household improvement activities (UN Environment & IUCN. 2019).

ATEC International, a local enterprise, assists lower income households to invest and install biogas pipeline and a bio-digesters, often connected to their own animal sheds. This initiative has resulted in lesser economic burden, in the long run, less time occupied by household chores as well as decreased deforestation and GHG emissions.

## 2.10. Access to energy

In the Latin American and Caribbean region, about 7% of homes live without grid-connected electricity<sup>cxxxix</sup>. Some countries such as Brazil or Costa Rica have virtually 100% electricity access, while others like Haiti fall far behind with approximately 38% of electricity access<sup>cxl</sup>. In total, it is estimated that some 31 million people currently live without grid connected electricity in their homes<sup>cxli</sup>. The vast majority of these households are located in remote rural communities, where schools, health centers and other services also lack clean, basic electricity services. Living without connection to energy complicates an array of day-to-day activities for women, men and children, such as educational activities, domestic chores, agricultural activities and leisure activities.

### Access to energy



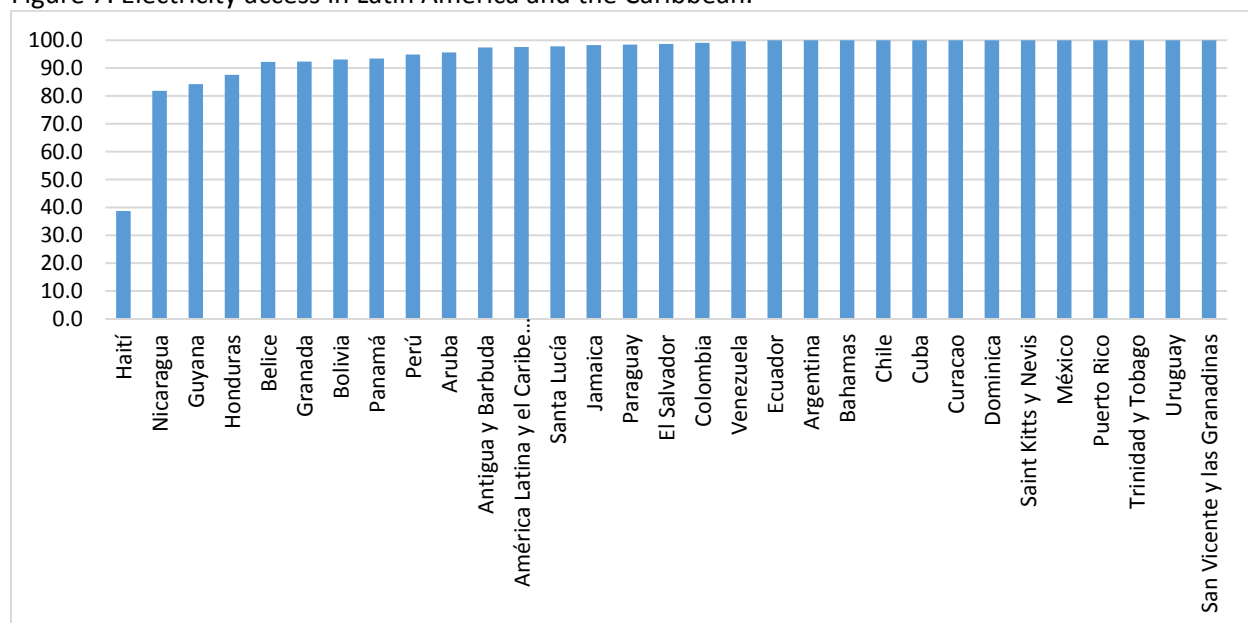
SDGs	SDGs Indicators	
 	4.a.1	Proportion of schools with access to a) electricity (...).
	7.1.1	Proportion of the population that has access to electricity.
	7.2.1	Proportion of renewable energy in total final energy consumption.

Figure 7. Electricity access in Latin America and the Caribbean.



Source: World Bank, 2016.

### Related gender gaps

Women tend to be disproportionately affected by this problematic in contrast to men. Men and women perceive energy needs differently as gender and societal norms essentially define their needs. For instance, men tend to view access to electricity in terms of leisure and perhaps education for their children, while women view it as an improvement in health and a reduction in workload and time spending. For example, higher levels of lung and eye diseases due to the longer hours of exposure to smoke and particulates in smoky kitchens experienced by women compared to men. Also, fuel collection reduces the time women have available for contributing to other aspects of livelihood strategies, and girls are frequently kept away from school to assist their mothers. Energy interventions are available which could do much to reduce the drudgery involved in these daily household activities. For example, the human energy in grain preparation could be simply substituted by a electric milling machine. The whole issue of women’s time and effort saving (reduction of drudgery) seems not to receive the attention it deserves. This might be attributed to the fact that decision-makers and planners are not fully aware of the situation regarding women’s physical labour. Women’s survival tasks, based on their own metabolic energy inputs are, like biomass, invisible in energy statistics. Consequently, the development of labour-saving devices, which could contribute significantly to women’s wellbeing, is not high on the agenda<sup>cxliii</sup>.

For women, living without connection to the energy grid complicates basic tasks and translates into more effort and time invested in cleaning, washing and food preparation and preservation. As well as setting restrictions on time used for studying and night-time activities<sup>cxliii</sup>. Women are usually responsible for gathering energy resources, especially when biomass is the primary energy source. This task usually takes up many hours of the day and is being extended by increasing pressure from climate change, resulting in fatigue and possible physical injuries<sup>cxliiv</sup>. This means women will encounter “time poverty”, reducing the hours available to develop economic activities or leisure activities. Moreover,

young girls might be forced to leave school in order to help at home with the heavy chores, resulting in a clear disparity of opportunities between boys and girls.

The energy-poverty nexus has distinct gender characteristics. Of the approximately 1.3 billion people living in poverty, it is estimated that 70% are women, many of whom live in female-headed households in rural areas<sup>18</sup>. Brazil accounts for the majority of the installed power capacity in Latin America and the Caribbean (37%), while Mexico, the Andean Zone, and the Southern Cone each represent about a fifth, and Central America and the Caribbean represent 4% and 3%, respectively. On a sub - regional basis, Brazil, Mexico, and the Southern Cone have close - to - universal electricity access. However, the size of Brazil and Mexico's populations is reflected in the amount of people without access in each country: 3.4 million and 2.4 million, respectively. In the Andean Zone, Bolivia and Peru are the outliers with access rates of 78% and 86%, and 2.3 million and 4.3 million people without electricity, respectively. Central America has the highest number of countries at or below the regional average, including Honduras, Nicaragua, Guatemala, El Salvador, and Panama, which together are home to just over 8 million people without access. The largest outlier in the Caribbean and in the region as a whole is Haiti, with only 15% electricity coverage and 8.6 million people without access<sup>19</sup>.

Because Latin America and the Caribbean depends on hydropower for 50% of its electricity, water availability is a major concern. The latest IPCC report discusses some of those impacts. A 20% reduction in runoff is projected for Central America's Lempa river basin, which could continue to limit hydropower production in the region, with a potential reduction in capacity of 33 – 53% by 2070 – 2099. Studies for the Sinu - Caribe basin in Colombia also project a reduction in capacity of up to 35% due to higher levels of evaporation, even with increases in rainfall. Chile, Argentina and Brazil are expected to suffer capacity reductions as well. In contrast, higher levels of precipitation in Ecuador's Paute River basin are projected to increase hydropower generation capacity there.

### **A positive example**

Involving women in electrification/energy projects is key in order to take into account their specific needs. Several initiatives throughout the region have managed to increase access to electricity in rural and remote areas while succeeding in reducing gender inequalities. For instance, the PELNICA project in Nicaragua, was designed to address energy needs in seven departments. It aimed to directly supply 102,000 people with access to energy, including individuals in the construction process, providing workshops on sustainable energy use and entrepreneurship, and promoting the participation of women in the development and decision-making process of the project. The project concluded in 2014, six years after its initial phase and provided the following observations and conclusions:

---

<sup>18</sup> Clancy, J; Batchelor, S. and Skutsch M. 2003. The Gender-Energy-Poverty Nexus: Finding the Energy to Address Gender Concerns in Development. DFID Project CNTR998521.

[https://www.researchgate.net/publication/237232946\\_The\\_Gender-Energy-](https://www.researchgate.net/publication/237232946_The_Gender-Energy-Poverty_Nexus_Finding_the_Energy_to_Address_Gender_Concerns_in_Development)

[Poverty\\_Nexus\\_Finding\\_the\\_Energy\\_to\\_Address\\_Gender\\_Concerns\\_in\\_Development](https://www.researchgate.net/publication/237232946_The_Gender-Energy-Poverty_Nexus_Finding_the_Energy_to_Address_Gender_Concerns_in_Development)

<sup>19</sup> Flavin, C.; Gonzalez, M; Majano, A.; Ochs, A.; da Rocha Oliveira, M. and Philipp Tagwerker. 2014. Study on the development of the renewable energy market in Latin America and the Caribbean under the IDB climate change evaluation. BID. <https://publications.iadb.org/publications/english/document/Study-on-the-Development-of-the-Renewable-Energy-Market-in-Latin-America-and-the-Caribbean.pdf>

Through the realization of the “*Creando condiciones para la equidad de género en proyectos públicos de electrificación rural*” (“Creating conditions for gender equity in public rural electrification projects”) pilot project, women found that after gaining access to electricity their daily chores were significantly reduced in time and effort. Amongst the tasks mentioned by beneficiaries, that were improved by this project, were grinding corn, facilitated by the instalment of several electrical mills, preparation of food and food storage. Moreover, the project has significant effects on children’s and even adults’ education as it allowed for the creation of night-time study groups, mothers helping children with homework and even the installation of equipment such as radios and TV’s in schools<sup>cxlv</sup>. The project also had major impact for the community as it counted with fund to give out small loans for women who desired to start small businesses.

This project could serve as an example of possible initiatives to implement throughout the region to minimize the previously presented gender gap.

### **Gender and environment initiatives in Guatemala**

The Ministry of Environment and Natural Resources (MENR) considers existing gender inequalities in Guatemala as an important challenge in environmental management and climate action, as those affect women and men differently.

To address this, the State is obliged to develop policies, strategies, plans and actions with differentiated approaches to ensure women and men have equal access to the use and conservation of natural goods and services, and thus the gaps of exclusion and marginalisation that exist in the Guatemalan population are reduced.

Gender mainstreaming in environmental and natural resource management, and in addressing the effects of climate change, must consider the different power relations, the roles assigned to women and men, and their different needs. Therefore, in any design, monitoring, evaluation and updating of planning and budgeting frameworks, a gender analysis must be carried out to recognise social, institutional and economic differences.

Based on the above, the MENR is engaged in an institutional effort to fulfil national and global commitments associated to the Sustainable Development Goals (SDGs), particularly Goal 5 on Gender Equality.

#### **Instruments available to the MENR for gender mainstreaming:**

1. **MENR’s Environmental Gender Policy**, which seeks to promote equity and inclusion of women and men working for the protection, conservation and improvement of natural goods and services, by effectively incorporating a gender perspective in the Ministry’s environmental policies, strategies, plans, programmes, projects and instruments.
2. Work plan for the Incorporation of Gender Considerations in the National REDD+ Strategy.
3. Strategy for Mainstreaming Gender Considerations in Climate Action and in support to the Nationally Determined Contribution (NDC).

4. Gender Promotion Group (institutional).
5. Environment and Gender Roundtable (inter-institutional).
6. National Policy for the Promotion and Integral Development of Women and Equal Opportunities Plan 2008 - 2023. Governmental Agreement No. 302-2009.

### 3. Conclusions

It is now widely agreed upon amongst academia and policy makers that integrating gender sensitive approaches is necessary to achieve equitable societies, it is not a question of why, but of how. This document aims to justify the importance of mainstreaming a gender approach within environmental public policy and action. As a preliminary identification of where this action would be most relevant, the following conclusions can be highlighted:

- I. During this research we were able to identify the major gaps in the region that had available disaggregated data and identified themes related to rights to land and natural resources, access to energy and water, wellbeing, climate change vulnerability, sustainable consumption and production and participation in environmental decision making. All these gaps are determined and exacerbated by traditional gender roles, often being directly related to gendered divisions of labour, women's relation and interaction with resources and accepted interactions between men and women.
- II. In addition to the main gaps, throughout the document we identified several cross-sectional themes that reappeared several times. Vulnerability to the effects of climate change, differentiated health impacts and gender-based violence were amongst the recurring cross-sectional topics found through our research.
- III. Data gaps at this nexus, however, are persistent. Limited collection, dissemination and application of gender-environment statistics, including at national level, affects decision makers' and practitioners' knowledge and capacity to develop and adopt well-informed and effective policies and programming at all levels (UN Environment, 2016). Through the process of elaboration of this document, several areas where disaggregated information was not available were identified using non-disaggregated available data as well as research in other regions of the world. These likely existing gaps need further related research to truly understand the depth of issues such as the effects of poor sanitation systems, sustainable consumption and production patterns, the use of public transport, food access, nutrition and food security, and differentiated vulnerability to urban air pollution, all of which have shown to have different effects on women and men in regions such as Asia and Africa.
- IV. Within the framework of the 2030 Agenda and its Sustainable Development Goals, closing gender gaps and addressing gender inequalities is deemed central to achieve a truly sustainable development and maintain peaceful and prosperous societies. Failing to address such gaps within the gender-environment nexus, would set back one of the core commitments of the SDGs – leaving no one behind. This is particularly true for women who are already in a vulnerable position such as lower-income, indigenous and peasant women.
- V. Some central actions have been established as pivotal to successfully close the gender gaps. First, equal access to resources and decent jobs is necessary to achieve female empowerment and begin to close the economic gap and achieve economic independence. It is important to note that integration in the work force does not necessarily mean empowerment as many times jobs available are in sub-par conditions and do not result in economic independence. Moreover, necessary steps are to be taken to promote and ensure both public and private participation of women in decision making processes. These will be discussed in the recommendations section.



- VI. As mentioned in the introduction of this document, great strides have been made to incorporate a gender approach in environmental international agreements, conventions and secretariats. In fact, the Multilateral Environmental Agreements already provide often legally binding mandates dictating the necessity of promoting gender equality within the environmental sector. Environment and sustainable development agreements, including the 2030 Agenda, have made significant strides recognizing women's rights and mainstreaming of gender equality and women's empowerment. Many of these MEAs have adopted Gender Action Plans (GAPs) encouraging, or mandating, the collection of sex-disaggregated data and the use of gender indicators. Despite such efforts, no process has yet attained gender parity in the Secretariat and convention bodies, and Parties often still under-report, especially substantively, on gender-specific information within reporting mechanisms (IUCN, 2016; Gilligan & Sabater, 2017).
  
- VII. Many of the identified gaps in this document, as well as those which could not be analysed due to lack of information, although having clear environmental links, often fall beyond the jurisdiction and areas of work of environmental ministries. It is therefore necessary to extend future actions far beyond the environmental scope and to coordinate efforts with all concerning sectors, both public and private. Some of the identified links include the economic sector, civil protection, energy, public work and education, amongst others.

## 4. Recommendations

Through the research, elaboration and revision of this document, UN Environment identified preliminary major gaps, conclusions and recommendations for the region. These recommendations are aimed at policy makers, government actors, stakeholders and international entities to better mainstream and implement comprehensive gender approaches in environmental legislation, project implementation and research.

- **To recognize that not all women are the same or have the same priorities and needs regarding economics, social and environmental gaps.** Identifying vulnerable and marginalized demographics is necessary to successfully implement social programs or projects, in line with the ‘leave no one behind’ pledge of the Agenda 2030. In the region, reinforcing discrimination and exclusion variables (age, sex, sexual orientation, ethnicity, socio-economic status and disable status) should be particularly considered. Inequality is reinforced in the case and women and girls by belonging to indigenous or afrodescendants groups, by migratory conditions, disabilities, and others. These communities ought to be included in the process identifying their priorities and needs as well as during the development and implementation of the solutions.
- **Strengthen national capacities in the areas of data collection, assessment and disaggregation to further identify and properly characterize existing gaps and to enhance gender equality and women’s empowerment to understand current disparities to then develop evidence-based policies and programmes.** Disaggregated data would also enhance monitoring of public policies and projects, identifying good practices and significant impacts. Promoting awareness and sensitization is the first step to successfully integrate a gender approach beyond technical mentions within policy. Data is essential for these processes including the collection of sex-disaggregated data to gather information about how women and men interact with and rely on their environments. Although several specific gaps have been identified with available data, there is a need to further develop research in the area and statistics and information that can support the further identification of inequality gaps in issues such as sustainable consumption and production, biodiversity management, natural resources use, among others. Direct synergies can be established at this regard with the production and monitoring of indicators of the Sustainable Development Initiative for Latin America and the Caribbean (ILAC) as they already consider the possibility of disaggregation by sex.
- **Strengthen cooperation between gender and environment ministries (and others) and statistical systems to better monitor progress towards the achievement of the SDGs as well as the evident necessity to coordinate with other ministries and the private sector.** The collaboration between ministries and statistical systems is often weak and because ministries are often responsible for reporting SDGs progress, there is a disconnection with statistical systems, thus the need for more collaboration. Gender mainstreaming mandates across ministries and within the statistical system strengthen the understanding of the gender-environment nexus and the collection of gender statistics. Regional information shows that most government policy regarding sectorial topics such as energy, forestry or biodiversity do not include mentions to gender or apply a gender sensitive approach. Moreover, gender policies do not tackle cross-sectional topics. In this sense, concrete actions such as the ccGAPs are necessary to not just mention but integrate a comprehensive gender approach into policy and legislation.

- **Define and adopt an action plan, setting objectives, timelines and expected results for future efforts and develop and implement tools to mainstream gender in policies, national plans and local initiatives** (including encouraging gender-sensitive budgets, removing gender biases within public sector organisations, and recognising the important roles played by women both in national economies and during conservation, adaptation and mitigation efforts). Within this action plan the role of the Ministries of Environment needs to be defined, outlining coordination with other ministries and sectors as well. In addition, in order to close gender gaps and truly influence positive changes in traditional gender norms it is necessary to not only mainstream a gender approach within legislation at all levels, but to include communities in this process. Through the implementation of workshops and capacity building initiatives palpable change within the communities' structures could be achieved, rearranging gendered divisions of labour and hence women's workloads.
- **Utilizing existing international commitments, in conjunction with strong national policies and frameworks across sectors, is key to enable gender-responsive environmental management.** The Multilateral Environmental Agreements and the SDGs provide a strong starting point, agreed and prioritized by the international community, to measure progress toward sustainable development. Unlike the previous MDGs, the SDGs framework make a concerted effort to highlight the interlinkages among topics, particularly by mainstreaming gender and environmental considerations throughout. There are entry points for gender considerations and sex disaggregation that are, as of yet, utilized including in environmental related targets and indicators (see 1.4.2, 2.3.2, 4.a.1, 5.a.1, 5.a.2, 13.b.1), therefore revealing great potential for strengthened attention to gender mainstreaming by prioritising sex disaggregation, gender indicators and gender-responsive methodologies for collection, analysis and use. Additionally, some environment indicators include sex-disaggregation as one of the possible ways to disaggregate data in their methodological notes. The same applies to the indicators of the Sendai Framework for Disaster Risk Reduction that include clear references to disaggregated data by sex; also, UN Environment and IUCN already provides a list of gender-environment indicators based on the SDGs that can be included in national statistics systems and, as part of the project, conducted capacity building in three pilot countries (including Mexico).
- **Further compile successful initiatives and/or projects that have been implemented in the LAC region or other geographical locations with similar cultural, environmental and economic conditions.** This is important not only to replicate in other location but to scale them up to the policy level and support successful implementation.
- **The are several pending key policy-relevant questions:**
  - What social forces are producing the changes seen in the environment, and are they gender-dependent?
  - What are the large-scale consequences of ongoing environmental changes for social systems and human security, and are these consequences gender differentiated?
  - What do future projections and outlooks look like, are they gender-differentiated, and will there be different outcomes for women and men?
  - What actions could be taken for a more sustainable future that would position women and men as equal agents in taking such actions? and
  - Which socio-economic factors could shape different outcomes and responses for women and men?

## General references

- CEDAW (Committee on the Elimination of Discrimination against Women), 2018. General Recommendation No. 37 on Gender-related dimensions of disaster risk reduction in the context of climate change. [https://tbinternet.ohchr.org/Treaties/CEDAW/Shared%20Documents/1\\_Global/CEDAW\\_C\\_GC\\_37\\_8642\\_E.pdf](https://tbinternet.ohchr.org/Treaties/CEDAW/Shared%20Documents/1_Global/CEDAW_C_GC_37_8642_E.pdf)
- Economic Commission for Latin America and the Caribbean (ECLAC), 2018. International Trade Outlook for Latin America and the Caribbean. Santiago de Chile. [https://repositorio.cepal.org/bitstream/handle/11362/44197/5/S1801069\\_en.pdf](https://repositorio.cepal.org/bitstream/handle/11362/44197/5/S1801069_en.pdf)
- Economic Commission for Latin America and the Caribbean (ECLAC), 2014. Las encuestas sobre uso del tiempo y trabajo no remunerado en América Latina y el Caribe: caminos recorridos y desafíos hacia el futuro. Santiago de Chile.
- Economic Commission for Latin America and the Caribbean (ECLAC), Food and Agriculture Organization (FAO) and Instituto Interamericano de Cooperación para la Agricultura (IICA), 2012. Perspectivas de la agricultura y del desarrollo rural en las Américas: Una Mirada hacia América Latina y el Caribe. <http://repiica.iica.int/docs/B2993e/B2993e.pdf>
- Food and Agriculture Organization (FAO), 2019. The State of the World's Biodiversity for Food and Agriculture. <http://www.fao.org/3/CA3129EN/CA3129EN.pdf>
- Food and Agriculture Organization (FAO), 2018. Panorama de la Seguridad Alimentaria y Nutricional en América Latina y el Caribe.
- Food and Agriculture Organization (FAO), 2017. Atlas de las mujeres rurales de América Latina y el Caribe: Al tiempo de la vida y los hechos. <http://www.fao.org/3/a-i7916s.pdf>
- Food and Agriculture Organization (FAO), 2014. Agricultura familiar en América Latina y el Caribe. <http://www.fao.org/docrep/019/i3788s/i3788s.pdf>
- Food and Agriculture Organization (FAO), 2011. The State of Food and Agriculture 2010-2011: Women in agriculture Closing the Gender Gap. <http://www.fao.org/3/a-i2050e.pdf>
- Food and Agriculture Organization (FAO). Pesticide Registration Latin America & the Caribbean <http://www.fao.org/pesticide-registration-toolkit/tool/page/pre/registrations/latin-america--the-caribbean>
- InforMEA (United Nations Information Portal on Multilateral Environmental Agreements), 2019. List of National Focal Points, Ministries of Environment LAC, UN Environment. <https://www.informea.org>
- IPS, 2018. Latin America Makes Headway Against Land Degradation, 30 January 2018. <http://www.ipsnews.net/2018/01/latin-america-makes-headway-land-degradation/>
- IUCN and UN Women, 2015. Environment and Gender Index. [https://portals.iucn.org/union/sites/union/files/doc/egi\\_factsheet\\_desicion\\_making\\_web\\_sept2015.pdf](https://portals.iucn.org/union/sites/union/files/doc/egi_factsheet_desicion_making_web_sept2015.pdf)
- López, María C., 2011. "VEM, TEÇAMOS A NOSSA LIBERDADE. Mujeres líderes en el Movimiento Sin Tierra (Ceará-Brazil)", PhD thesis in social and cultural anthropology, Universidad Autónoma de Barcelona. [https://www.unccd.int/sites/default/files/relevant-links/2019-03/IWD\\_poster\\_3.pdf?fbclid=IwAR1fdNmY2ZgAXKkL8H0BqUIkUUURLzrx9-3vxzqyUi0VBbF3xZnFuFER\\_0c](https://www.unccd.int/sites/default/files/relevant-links/2019-03/IWD_poster_3.pdf?fbclid=IwAR1fdNmY2ZgAXKkL8H0BqUIkUUURLzrx9-3vxzqyUi0VBbF3xZnFuFER_0c)
- Movimento Interestadual das Quebradeiras de Coco Babacu (MIQCB), Brazil. <https://www.miqcb.org/>
- Organización Panamericana de la Salud. PLISA Plataforma de Información de Salud para las Américas. [http://www.paho.org/data/index.php/es/?option=com\\_content&view=article&id=515:indicadoresvz&Itemid=347](http://www.paho.org/data/index.php/es/?option=com_content&view=article&id=515:indicadoresvz&Itemid=347)
- Oxfam. 2016. Unearthed: Land, Power and Inequality in Latin America. [https://www.oxfam.org/sites/www.oxfam.org/files/file\\_attachments/bp-land-power-inequality-latin-america-301116-en.pdf](https://www.oxfam.org/sites/www.oxfam.org/files/file_attachments/bp-land-power-inequality-latin-america-301116-en.pdf)

- The Urgent Action Fund of Latin America, 2015. Women Defending the Territory Experiences of Participation in Latin America, Revolution Assumes the Face of Women from Latin America: Struggles of the Mothers of Ituzaingo Against Environmental Contamination by Monsanto in Cordoba, Argentina. [https://issuu.com/fondodeaccionurgente-al/docs/territorio\\_engl](https://issuu.com/fondodeaccionurgente-al/docs/territorio_engl)
- UN Environment, 2019. UNEP/EA.4/RES.17. 4th UN Environmental Assembly, Decision 17. Promote gender equality, and the human rights and empowerment of women and girls in environmental governance. <http://wedocs.unep.org/bitstream/handle/20.500.11822/28481/English.pdf?sequence=3&isAllowed=y>
- UN Environment & IUCN. 2019. Gender and environment statistics: Unlocking information for action and measuring the SDGs.
- UN Environment and Cepei, 2018. Environmental Governance and Agenda 2030 [https://wedocs.unep.org/bitstream/handle/20.500.11822/26756/Governance\\_2030\\_LAC.pdf?sequence=4&isAllowed=y](https://wedocs.unep.org/bitstream/handle/20.500.11822/26756/Governance_2030_LAC.pdf?sequence=4&isAllowed=y)
- United Nations, 2015. Sendai Framework for Disaster Risk Reduction 2015 - 2030. United Nations. [http://www.preventionweb.net/files/43291\\_sendaiframeworkfordrren.pdf](http://www.preventionweb.net/files/43291_sendaiframeworkfordrren.pdf)
- UN Women, 2018. The Global Gender Gap Report. [http://www3.weforum.org/docs/WEF\\_GGGR\\_2018.pdf](http://www3.weforum.org/docs/WEF_GGGR_2018.pdf)
- Women's Participation in Global Environmental Decision Making. [http://www.wocan.org/sites/default/files/EGI\\_factsheet\\_desicion\\_making\\_web\\_sept2015\\_0.pdf](http://www.wocan.org/sites/default/files/EGI_factsheet_desicion_making_web_sept2015_0.pdf)

---

## References per topic

- <sup>i</sup> Food and Agriculture Organization (FAO). 2017. Atlas of Rural Women in Latin America and the Caribbean. <http://www.fao.org/3/a-i7916s.pdf>
- <sup>ii</sup> Food and Agriculture Organization (FAO). 2018. The Gender Gap in Land Rights. <http://www.fao.org/3/i8796EN/i8796en.pdf>
- <sup>iii</sup> Ibid.
- <sup>iv</sup> Food and Agriculture Organization (FAO). 2014. Agricultura familiar en América Latina y el Caribe <http://www.fao.org/docrep/019/i3788s/i3788s.pdf>
- <sup>v</sup> Food and Agriculture Organization (FAO). 2017. Atlas of Rural Women in Latin America and the Caribbean. <http://www.fao.org/3/a-i7916s.pdf>
- <sup>vi</sup> Food and Agriculture Organization (FAO). 2017. Atlas of Rural Women in Latin America and the Caribbean. <http://www.fao.org/3/a-i7916s.pdf>
- <sup>vii</sup> Food and Agriculture Organization (FAO). 2016. El Rol de la Mujer en la Pesca y Acuicultura en Chile, Colombia, Paraguay y Perú. <http://www.fao.org/3/a-i5774s.pdf>
- <sup>viii</sup> Food and Agriculture Organization (FAO) 2018. The State of the World Fisheries and Aquaculture Meeting the Sustainable Development Goals. <http://www.fao.org/3/i9540en/i9540EN.pdf>
- <sup>ix</sup> Food and Agriculture Organization (FAO). 2016. Factsheet on Promoting gender equality and women's empowerment in fisheries and aquaculture. <http://www.fao.org/3/a-i6623e.pdf>

- 
- <sup>x</sup> United Nations Environment Programme (UNEP). 2018. Latin American and Caribbean Countries Champion Marine Conservation. <https://www.unenvironment.org/news-and-stories/story/latin-american-and-caribbean-countries-champion-marine-conservation>
- <sup>xi</sup> Food and Agriculture Organization (FAO) 2018. The State of the World Fisheries and Aquaculture Meeting the Sustainable Development Goals. <http://www.fao.org/3/i9540en/I9540EN.pdf>
- <sup>xii</sup> Caribbean Regional Fisheries Mechanism. 2014. CRFM statistics and information report for 2014
- <sup>xiii</sup> Food and Agriculture Organization (FAO). 2018. The State of the World Fisheries and Aquaculture Meeting the Sustainable Development Goals. <http://www.fao.org/3/i9540en/I9540EN.pdf>
- <sup>xiv</sup> Ibid.
- <sup>xv</sup> IPS, Industrial Fisheries Crowd out Artisanal Fisherpersons in South America. 2015. <http://www.ipsnews.net/2015/06/industrial-fisheries-crowd-out-artisanal-fisherpersons-in-south-america/>
- <sup>xvi</sup> IPS, Industrial Fisheries Crowd out Artisanal Fisherpersons in South America. 2015. <http://www.ipsnews.net/2015/06/industrial-fisheries-crowd-out-artisanal-fisherpersons-in-south-america/>
- <sup>xvii</sup> Food and Agriculture Organization (FAO). 2016. El Rol de la Mujer en la Pesca y Acuicultura en Chile, Colombia, Paraguay y Perú. <http://www.fao.org/3/a-i5774s.pdf>
- <sup>xviii</sup> Ibid.
- <sup>xix</sup> Pereira. 2002. Women in fisheries in Latin America. <https://www.worldfishcenter.org/content/women-fisheries-latin-america-0>
- <sup>xx</sup> Food and Agriculture Organization (FAO). 2016. El Rol de la Mujer en la Pesca y Acuicultura en Chile, Colombia, Paraguay y Peru. , <http://www.fao.org/3/a-i5774s.pdf>
- <sup>xxi</sup> Ibid.
- <sup>xxii</sup> Pereira. 2002. Women in fisheries in Latin America. <https://www.worldfishcenter.org/content/women-fisheries-latin-america-0>
- <sup>xxiii</sup> PARLANTINO. 2017. Ley Modelo de Pesca Artesanal o en Pequeña Escala del Parlamento Latinoamericano y Caribeño. [http://www.parlatino.org/pdf/leyes\\_marcos/leyes/ley-modelo-pesca-artesanal.pdf](http://www.parlatino.org/pdf/leyes_marcos/leyes/ley-modelo-pesca-artesanal.pdf)
- <sup>xxiv</sup> Ibid.
- <sup>xxv</sup> Valenzuela. 2012. Las algueras de Pichilemu. <https://pepaperiodista.wordpress.com/2012/06/12/las-algueras-de-pichilemu/>
- <sup>xxvi</sup> IIED, 2013. <https://www.iied.org/iied-shines-light-small-scale-mining>
- <sup>xxvii</sup> IGF. 2018. Global trends in artisanal and small-scale mining: A Review of Key Number and Issues. <https://www.iisd.org/sites/default/files/publications/igf-asm-global-trends.pdf>
- <sup>xxviii</sup> IIED. 2003. Small-Scale Mining: Challenges and Opportunities. <https://pubs.iied.org/pdfs/9268IIED.pdf>
- <sup>xxix</sup> Hinton et al. 2003. The Socio-Economic Impacts of Artisanal and Small-Scale Mining in Developing Countries, Chapter 11: Women and Artisanal Mining: Gender Roles and the Road Ahead, Ed. G. Hilson, Pub. A.A. Balkema, Swets Publishers, Netherlands. <http://siteresources.worldbank.org/INTOGMC/Resources/336099-1163605893612/hintonrolereview.pdf>
- <sup>xxx</sup> IIED. 2003. Small-Scale Mining: Challenges and Opportunities. <https://pubs.iied.org/pdfs/9268IIED.pdf>
- <sup>xxxi</sup> Ibid.

- 
- xxxii Global Witness. 2018. At What Cost? Irresponsible business and the murder of land and environmental defenders in 2017. <https://www.globalwitness.org/en/press-releases/deadliest-year-record-land-and-environmental-defenders-agribusiness-shown-be-industry-most-linked-killings/>
- xxxiii Solidaridad, Mujeres Mineras en Bolivia Una Mirada a su Realidad Socioeconómica. 2018. [https://www.solidaridadsouthamerica.org/sites/solidaridadsouthamerica.org/files/publications/solidaridad-mujeres\\_mineras\\_en\\_bolivia.pdf](https://www.solidaridadsouthamerica.org/sites/solidaridadsouthamerica.org/files/publications/solidaridad-mujeres_mineras_en_bolivia.pdf)
- xxxiv Hinton et al. 2003. The Socio-Economic Impacts of Artisanal and Small-Scale Mining in Developing Countries, Chapter 11: Women and Artisanal Mining: Gender Roles and the Road Ahead, Ed. G. Hilson, Pub. A.A. Balkema, Swets Publishers, Netherlands. <http://siteresources.worldbank.org/INTOGMC/Resources/336099-1163605893612/hintonrolereview.pdf>
- xxxv IGF. 2018. Global trends in artisanal and small-scale mining: A Review of Key Number and Issues. <https://www.iisd.org/sites/default/files/publications/igf-asm-global-trends.pdf>
- xxxvi Hinton et al. 2003. The Socio-Economic Impacts of Artisanal and Small-Scale Mining in Developing Countries, Chapter 11: Women and Artisanal Mining: Gender Roles and the Road Ahead, Ed. G. Hilson, Pub. A.A. Balkema, Swets Publishers, Netherlands. <http://siteresources.worldbank.org/INTOGMC/Resources/336099-1163605893612/hintonrolereview.pdf>
- xxxvii IGF. 2018. Global trends in artisanal and small-scale mining: A Review of Key Number and Issues. <https://www.iisd.org/sites/default/files/publications/igf-asm-global-trends.pdf>
- xxxviii Hinton et al. 2003. The Socio-Economic Impacts of Artisanal and Small-Scale Mining in Developing Countries, Chapter 11: Women and Artisanal Mining: Gender Roles and the Road Ahead, Ed. G. Hilson, Pub. A.A. Balkema, Swets Publishers, Netherlands. <http://siteresources.worldbank.org/INTOGMC/Resources/336099-1163605893612/hintonrolereview.pdf>
- xxxix IIED. 2003. Small-Scale Mining: Challenges and Opportunities. <https://pubs.iied.org/pdfs/9268IIED.pdf>
- xl David Hill, The Guardian. 2016. Goldmining in Peru: forests razed, millions lost, virgins auctioned. <https://www.theguardian.com/environment/andes-to-the-amazon/2016/may/01/gold-mining-in-peru-forests-razed-millions-lost-virgins-auctioned>
- xli IGF. 2018. Women in Artisanal and Small-Scale Mining: Challenges and opportunities for greater participation. <https://www.iisd.org/sites/default/files/publications/igf-women-asm-challenges-opportunities-participation.pdf>
- xlii Solidaridad. 2018. Mujeres Mineras en Bolivia Una Mirada a su Realidad Socioeconomica. [https://www.solidaridadsouthamerica.org/sites/solidaridadsouthamerica.org/files/publications/solidaridad-mujeres\\_mineras\\_en\\_bolivia.pdf](https://www.solidaridadsouthamerica.org/sites/solidaridadsouthamerica.org/files/publications/solidaridad-mujeres_mineras_en_bolivia.pdf)
- xliii Alianza por una Minería Responsable. 2010. First ever Fairtrade and Fairmined Ecological Gold from Condoto, Oro Verde. <http://www.responsiblemines.org/en/uncategorized/colombia-first-ever-fairtrade-and-fairmined-ecological-gold-from-condoto-oro-verde/>
- xliv <https://www.equatorinitiative.org/2017/07/11/mineria-artesanal-ancestral-programa-oro-verde/>
- xlv Global Witness. 2018. At What Cost? Irresponsible business and the murder of land and environmental defenders in 2017. <https://www.globalwitness.org/en/press-releases/deadliest-year-record-land-and-environmental-defenders-agribusiness-shown-be-industry-most-linked-killings/>
- xlvi Ibid.
- xlvii Ibid.
- xlviii Ibid.

---

<sup>xliv</sup> Ibid.

<sup>li</sup> Ibid.

<sup>lii</sup> CEPAL. 2018. The Escazú Agreement: An Environmental Milestone for Latin America and the Caribbean. <https://www.cepal.org/en/articles/2018-escazu-agreement-environmental-milestone-latin-america-and-caribbean>

<sup>liii</sup> UN National Assembly. 2019. 40<sup>th</sup> session of the Human Rights Council.

<sup>liiii</sup> Global Witness. 2017. Defenders of the Earth report.

<sup>liv</sup> Kiran Singh. 2015. "Women and their role in natural resources: a study in western Himalayas" International Journal of Research – Granthaalayah, Vol. 3, No. 10: 128-138.

<sup>lv</sup> Hallum-Montes, Rachel. 2012. Para El Bien Común. "Indigenous Women's Environmental Activism and Community Care Work in Guatemala." Race, Gender & Class, vol. 19, no. 1/2, pp. 104–130. JSTOR, [www.jstor.org/stable/43496862](http://www.jstor.org/stable/43496862)

<sup>lvi</sup> Global Witness (2018). At What Cost? Irresponsible business and the murder of land and environmental defenders in 2017, <https://www.globalwitness.org/en/press-releases/deadliest-year-record-land-and-environmental-defenders-agribusiness-shown-be-industry-most-linked-killings/>

<sup>lvii</sup> CEMDA (2016). Emerging practices of States regarding the protection of environmental defenders in Latin America and the Caribbean, <http://www.cemda.org.mx/wp-content/uploads/2016/11/PRACTICA-EMERGENTESeng.pdf>

<sup>lviii</sup> Red Latinoamericana de Mujeres Defensoras de Derechos Sociales y Ambientales (2018). Informe sobre la situación de riesgo y criminalización de las defensoras del medioambiente en América Latina, [https://www.redlatinoamericanademujeres.org/images/red\\_mujeres/recursos/publicaciones/cartilla6.pdf](https://www.redlatinoamericanademujeres.org/images/red_mujeres/recursos/publicaciones/cartilla6.pdf)

<sup>lix</sup> Red Latinoamericana de Mujeres Defensoras de Derechos Sociales y Ambientales (2018). Informe sobre la situación de riesgo y criminalización de las defensoras del medioambiente en América Latina, [https://www.redlatinoamericanademujeres.org/images/red\\_mujeres/recursos/publicaciones/cartilla6.pdf](https://www.redlatinoamericanademujeres.org/images/red_mujeres/recursos/publicaciones/cartilla6.pdf)

<sup>lx</sup> IACHR (2017). Indigenous Women and their Human Rights in the Americas, <http://www.oas.org/en/iachr/reports/pdfs/IndigenousWomen.pdf>

<sup>lxi</sup> Secretariat of the Stockholm Convention (16 October 2009). <http://chm.pops.int/Convention/Media/Pressreleases/POPRC5Geneva16October2009/tabid/640/language/en-US/Default.aspx>

<sup>lxii</sup> The Urgent Action Fund of Latin America, Women Defending The Territory Experiences of Participation in Latin America, Revolution Assumes the Face of Women from Latin America: Struggles of the Mothers of Ituzaingo Against Environmental Contamination by Monsanto in Cordoba, Argentina, 2015. [https://issuu.com/fondodeaccionurgente-al/docs/territorio\\_engl](https://issuu.com/fondodeaccionurgente-al/docs/territorio_engl)

<sup>lxiii</sup> Goldman Environmental Prize, <https://www.goldmanprize.org/recipient/sofia-gatica/>

<sup>lxiv</sup> The Urgent Action Fund of Latin America, Women Defending The Territory Experiences of Participation in Latin America, Revolution Assumes the Face of Women from Latin America: Struggles of the Mothers of Ituzaingo Against Environmental Contamination by Monsanto in Cordoba, Argentina, 2015. [https://issuu.com/fondodeaccionurgente-al/docs/territorio\\_engl](https://issuu.com/fondodeaccionurgente-al/docs/territorio_engl)

<sup>lxv</sup> [https://wedocs.unep.org/bitstream/handle/20.500.11822/26436/Waste\\_Summary\\_EN.pdf?sequence=2&isAllowed=y](https://wedocs.unep.org/bitstream/handle/20.500.11822/26436/Waste_Summary_EN.pdf?sequence=2&isAllowed=y)



- 
- <sup>lxvi</sup> [https://wedocs.unep.org/bitstream/handle/20.500.11822/26436/Waste\\_Summary\\_EN.pdf?sequence=2&isAllowed=y](https://wedocs.unep.org/bitstream/handle/20.500.11822/26436/Waste_Summary_EN.pdf?sequence=2&isAllowed=y)
- <sup>lxvii</sup> *Ibid.*
- <sup>lxviii</sup> Andreas Miles-Novelo, Craig A. Anderson. *Climate Change and Psychology: Effects of Rapid Global Warming on Violence and Aggression*. *Current Climate Change Reports*, 2019; DOI: 10.1007/s40641-019-00121-2
- <sup>lxix</sup> Sudmeier-Rieux et al., 2017. Introduction: exploring linkages between disaster risk reduction, climate change adaptation, migration and sustainable development. In K. Sudmeier-Rieux, M. Fernández, I. Penna, M. Jaboyedoff & J. Gaillard, eds. *Identifying emerging issues in disaster risk reduction, migration, climate change and sustainable development*, pp. 1–11. Cham, Switzerland, Springer International Publishing.
- <sup>lxx</sup> International Federation of Red Cross and Red Crescent Societies, 2018. *Disasters and Displacement in a Changing Climate: The Role of Asia Pacific National Societies*. <https://media.ifrc.org/ifrc/wp-content/uploads/sites/5/2018/12/2018-IFRC-Climate-Change-Disasters-Displacement-Report-LR.pdf>
- <sup>lxxi</sup> Swedish International Development Cooperation Agency (2017). *The relationship between climate change and violent conflict*, <https://www.sida.se/contentassets/c571800e01e448ac9dce2d097ba125a1/working-paper---climate-change-and-conflict.pdf>
- <sup>lxxii</sup> Irish Red Cross, 2018. *Disaster Displacement Information Sheet*. <https://media.ifrc.org/ifrc/wp-content/uploads/sites/5/2018/03/IDL-Information-Sheet-No.5-Disaster-Displacement-February-2018.pdf>
- <sup>lxxiii</sup> Gheuens, J.; Nagabhatla, N.; Perera, E.D.P. Disaster-Risk, Water Security Challenges and Strategies in Small Island Developing States (SIDS). *Water* 2019, 11, 637. <http://inweh.unu.edu/disaster-risk-water-security-challenges-and-strategies-in-small-island-developing-states-sids/>
- <sup>lxxiv</sup> Sjöstedt, M., & Povitkina, M., 2017. Vulnerability of Small Island Developing States to Natural Disasters: How Much Difference Can Effective Governments Make? *The Journal of Environment & Development*, 26(1), 82–105. <https://doi.org/10.1177/1070496516682339>
- <sup>lxxv</sup> CAF, 2014. *Vulnerability index to climate change in the Latin American and Caribbean Region*. <http://scioteca.caf.com/handle/123456789/509>
- <sup>lxxvi</sup> UN Women, 2019. *SDG Fact Sheet from the report, Turning Promises into Action: Gender Equality in the 2030 Agenda for Sustainable Development*, <http://www.unwomen.org/-/media/headquarters/attachments/sections/library/publications/2018/sdg-report-fact-sheet-latin-america-and-the-caribbean-en.pdf?la=en&vs=3555>
- <sup>lxxvii</sup> Aginam, Obijiofor, 2011. *Health and Human Security in Emergencies*, United Nations University, <https://unu.edu/publications/articles/health-and-human-security-in-emergencies.html>
- <sup>lxxviii</sup> Pourhosseini, S. S., Ardalán, A., & Mehroolhassani, M. H. 2015. Key Aspects of Providing Healthcare Services in Disaster Response Stage. *Iranian journal of public health*, 44(1), 111–118. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4449997/>
- <sup>xii</sup> PEI (UNDP, UN Environment), 2014. *Cuando los desastres se quedan*. [http://www.do.undp.org/content/dominican\\_republic/es/home/library/poverty/cuando-los-desastres-se-quedan.html](http://www.do.undp.org/content/dominican_republic/es/home/library/poverty/cuando-los-desastres-se-quedan.html)
- <sup>lxxix</sup> World Vision, 2018. <https://www.worldvision.org/disaster-relief-news-stories/venezuela-crisis-facts>
- <sup>lxxx</sup> Bradshaw, S., 2013. *Gender, Development and Disasters*, Edward Elgar Publishing.
- <sup>lxxxi</sup> UN HRC (United Nations Human Rights Council), 2009. “Promotion and Protection of All Human Rights, Civil, Political, Economic, Social and Cultural Rights, Including the Right to Development.” A/HRC/12/24.
- <sup>lxxxii</sup> WHO. [http://www.searo.who.int/entity/gender/topics/disaster\\_women/en/](http://www.searo.who.int/entity/gender/topics/disaster_women/en/)

- 
- <sup>lxxxiii</sup> Ortega, Liudmila, 2012. “Las relaciones de género entre la población rural de Ecuador, Guatemala y México”, serie Mujer y Desarrollo, Nº 56 (LC/L.3561), Santiago de Chile, Comisión Económica para América Latina y el Caribe (CEPAL).
- <sup>lxxxiv</sup> Grupo interagencial para la igualdad de género y el empoderamiento de las mujeres en América Latina y el Caribe, 2015, [https://www.americalatinagenera.org/es/documentos/post2015\\_fichas/Reduccion.pdf](https://www.americalatinagenera.org/es/documentos/post2015_fichas/Reduccion.pdf)
- <sup>lxxxv</sup> UNFPA, 2011. Gender-based Violence and Natural Disasters in Latin America and the Caribbean, <https://lac.unfpa.org/sites/default/files/pub-pdf/UNFPA%20version%20ingles%201.pdf>
- <sup>lxxxvi</sup> UNDP, 2017. From Commitment to Action: Policies to End Violence Against Women in Latin America and the Caribbean.  
<http://www.latinamerica.undp.org/content/dam/rblac/docs/Research%20and%20Publications/Empoderamiento%20de%20la%20Mujer/UNDP-RBLAC-ReportVCMEnglish.pdf>
- <sup>lxxxvii</sup> Grupo interagencial para la igualdad de género y el empoderamiento de las mujeres en América Latina y el Caribe, 2015. [https://www.americalatinagenera.org/es/documentos/post2015\\_fichas/Reduccion.pdf](https://www.americalatinagenera.org/es/documentos/post2015_fichas/Reduccion.pdf)
- <sup>lxxxviii</sup> CEPAL, 2014. Manual para la Evaluación de Desastres, [https://repositorio.cepal.org/bitstream/handle/11362/35894/1/S2013806\\_es.pdf](https://repositorio.cepal.org/bitstream/handle/11362/35894/1/S2013806_es.pdf)
- <sup>lxxxix</sup> Ministerio de Inclusión Económica y Social, 2017. Violencia basada en género en Emergencias: Manual de Capacitación, [https://reliefweb.int/sites/reliefweb.int/files/resources/R1.2\\_Manual\\_VBG.pdf](https://reliefweb.int/sites/reliefweb.int/files/resources/R1.2_Manual_VBG.pdf)
- <sup>xc</sup> UNDP, La Integración del Enfoque de Género en Proyectos de Gestión de Riesgo de Desastres. <http://americalatinagenera.org/newsite/index.php/es/informate/informate-noticias/noticia/3655-cuba>
- <sup>xci</sup> <https://publications.iadb.org/es/publicacion/13984/avances-y-desafios-para-el-reciclaje-inclusivo-evaluacion-de-12-ciudades-de>
- <sup>xcii</sup> [https://wedocs.unep.org/bitstream/handle/20.500.11822/26436/Waste\\_Summary\\_EN.pdf?sequence=2&isAllowed=y](https://wedocs.unep.org/bitstream/handle/20.500.11822/26436/Waste_Summary_EN.pdf?sequence=2&isAllowed=y)
- <sup>xciii</sup> <https://publications.iadb.org/es/publicacion/13984/avances-y-desafios-para-el-reciclaje-inclusivo-evaluacion-de-12-ciudades-de>
- <sup>xciv</sup> <https://publications.iadb.org/es/publicacion/13984/avances-y-desafios-para-el-reciclaje-inclusivo-evaluacion-de-12-ciudades-de>
- <sup>xcv</sup> <https://publications.iadb.org/es/publicacion/13984/avances-y-desafios-para-el-reciclaje-inclusivo-evaluacion-de-12-ciudades-de>
- <sup>xcvi</sup> <https://publications.iadb.org/es/publicacion/13984/avances-y-desafios-para-el-reciclaje-inclusivo-evaluacion-de-12-ciudades-de>
- <sup>xcvii</sup> <https://publications.iadb.org/es/publicacion/13984/avances-y-desafios-para-el-reciclaje-inclusivo-evaluacion-de-12-ciudades-de>
- <sup>xcviii</sup> <https://publications.iadb.org/es/publicacion/13984/avances-y-desafios-para-el-reciclaje-inclusivo-evaluacion-de-12-ciudades-de>
- <sup>xcix</sup> <https://publications.iadb.org/es/publicacion/13984/avances-y-desafios-para-el-reciclaje-inclusivo-evaluacion-de-12-ciudades-de>
- <sup>c</sup> <https://publications.iadb.org/es/publicacion/13984/avances-y-desafios-para-el-reciclaje-inclusivo-evaluacion-de-12-ciudades-de>
- <sup>ci</sup> UN Environment, 2018. Gender approach applied to integrated solid waste management in Peru.

- 
- cii <http://americalatinagenera.org/newsite/index.php/es/nuestro-trabajo/gobernabilidad-democratica/33-paridad-en-la-politica>
- ciii [http://www3.weforum.org/docs/WEF\\_GGGR\\_2018.pdf](http://www3.weforum.org/docs/WEF_GGGR_2018.pdf)
- civ Climate Institute, 2019. Can Improving Women’s representation in Environmental Governance Reduce Greenhouse Gas Emissions? <http://climate.org/can-improving-womens-representation-in-environmental-governance-reduce-greenhouse-gas-emissions/>
- cv Barlow, M., & Clarke, T., 2004. The Struggle for Latin America’s Water. *NACLA Report on the Americas* 38 (1), 38(1), 15–43.
- cvi WHO and UNICEF, 2016. Inequalities in sanitation and drinking water in Latin America and the Caribbean.
- cvi *Ibid.*
- cvi *Ibid.*
- cix World Bank, 2017. World Bank Open Data. <https://data.worldbank.org/region/latin-america-and-caribbean>
- cx *Ibid.*
- cx *UNEP, 2016. Global Gender and Environment Outlook.*
- cxii FAO, 2017. Rural women – a key asset for growth in Latin America and the Caribbean. <http://www.fao.org/in-action/agronoticias/detail/en/c/501669/>
- cxiii FAO, 2011. The Role of Women in Agriculture. <http://www.fao.org/3/am307e/am307e00.pdf>
- cxiv FAO, 2017. Rural women – a key asset for growth in Latin America and the Caribbean. <http://www.fao.org/in-action/agronoticias/detail/en/c/501669/>
- cxv Stromquist, N. P., 2001. What Poverty Does to Girls’ Education: The intersection of class, gender and policy in Latin America. *Compare: A Journal of Comparative and International Education*, 31(1), 39–56. <https://doi.org/10.1080/0305792002003015>
- cxvi Rico, M. N., 2010. Women in Water-related Processes in Latin America : Current Situation and Research and Policy Proposals. *International Journal of Water Resources Development*, 0627. <https://doi.org/10.1080/07900629849097>
- cxvii *UNEP, 2016. Global Gender and Environment Outlook.*
- cxviii WHO, 2008. Safe water, better health.
- cxix IISD, 2015. Global Goals and the Environment: Progress and Prospects.
- cxx Kronik, J., & Verner, D. (2010). Indigenous Peoples and Climate Change in Latin America and the Caribbean. World Bank. <https://doi.org/10.1596/978-0-8213-8237-0>
- cxxi *UNEP, (2016). Global Gender and Environment Outlook.*
- cxii *Water.org* <https://water.org/our-impact/honduras/>
- cxiii *UNEP, 2016. Sustainable Development in Practice: Applying an integrated approach in Latin America and the Caribbean.* [https://wedocs.unep.org/bitstream/handle/20.500.11822/21542/sust\\_dev\\_practice\\_EN.pdf?sequence=4&isAllowed=y](https://wedocs.unep.org/bitstream/handle/20.500.11822/21542/sust_dev_practice_EN.pdf?sequence=4&isAllowed=y)
- cxiv Troncoso, Karin, and Agnes Soares Da Silva, 2017. “LPG Fuel Subsidies in Latin America and the Use of Solid Fuels to Cook.” *Energy Policy*, vol. 107, 2017, pp. 188–196., doi:10.1016/j.enpol.2017.04.046

- 
- <sup>cxxv</sup> IEA (2006), "Energy for Cooking in Developing Countries", in World Energy Outlook 2006, OECD Publishing, Paris, <https://doi.org/10.1787/weo-2006-16-en>
- <sup>cxxvi</sup> <http://www.uss.cl/ciencias-salud/contaminacion-mala-combustion-lena/>
- <sup>cxxvii</sup> Segun studio de la Universidad San Sebastian de Chile de 2018.
- <sup>cxxviii</sup> IEA (2006). "Energy for Cooking in Developing Countries", in World Energy Outlook 2006, OECD Publishing, Paris, <https://doi.org/10.1787/weo-2006-16-en>
- <sup>cxxix</sup> World Health Organization, Fact Sheet. 2018. <https://www.who.int/news-room/fact-sheets/detail/household-air-pollution-and-health>
- <sup>cxix</sup> Ibid.
- <sup>cxixi</sup> EPA.
- <sup>cxixii</sup> Keeping the promise: realizing the Millennium Development Goals for persons with disabilities towards 2015 and beyond. Report of the Secretary-General. United Nations.
- <sup>cxixiii</sup> <http://www.fao.org/3/a-i7916s.pdf>
- <sup>cxixiv</sup> Wang, Xiaoping, et al., 2013. What Have We Learned about Household Biomass Cooking in Central America? 01 Jan. 2013.
- <sup>cxixv</sup> World Health Organization, Fact Sheet. 2018. <https://www.who.int/news-room/fact-sheets/detail/household-air-pollution-and-health>
- <sup>cxixvii</sup> [http://www.latinamerica.undp.org/content/rblac/en/home/ourwork/climate-and-disaster-resilience/successstories/improving\\_cook\\_stoves\\_and\\_access\\_to\\_energy.html](http://www.latinamerica.undp.org/content/rblac/en/home/ourwork/climate-and-disaster-resilience/successstories/improving_cook_stoves_and_access_to_energy.html)
- <sup>cxixviii</sup> <https://envirofit.org/envirofit-supports-victims-storm-earl-clean-energy-cookstoves/>
- <sup>cxixviii</sup> UICN, 2015. Cocinas saludables en los hogares y negocios familiares rurales y urbanos de Nicaragua".
- <sup>cxixix</sup> International Energy Agency (IAE). World Energy Outlook 2011. Paris: International Energy Agency, 2011.
- <sup>cxl</sup> Electricity access in InterAmerican Development Bank Member Countries, 2012. Source: Majano, 2014.
- <sup>cxli</sup> International Energy Agency (IAE), 2011.
- <sup>cxlii</sup> Clancy, Joy S., M. Skutsch, S. Batchelor, 2003. The Gender-Energy-Poverty Nexus.
- <sup>cxliii</sup> Creando Condiciones para la Equidad de Género en Proyectos Públicos de Electrificación Rural. Energia.org, 2014.
- <sup>cxliiv</sup> Access to Energy in Low-income Communities in the Latin America and Caribbean Region: Lessons Learned and Recommendations. International Finance Corporation, 2013.
- <sup>cxliiv</sup> Creando Condiciones para la Equidad de Género en Proyectos Públicos de Electrificación Rural. 2014.