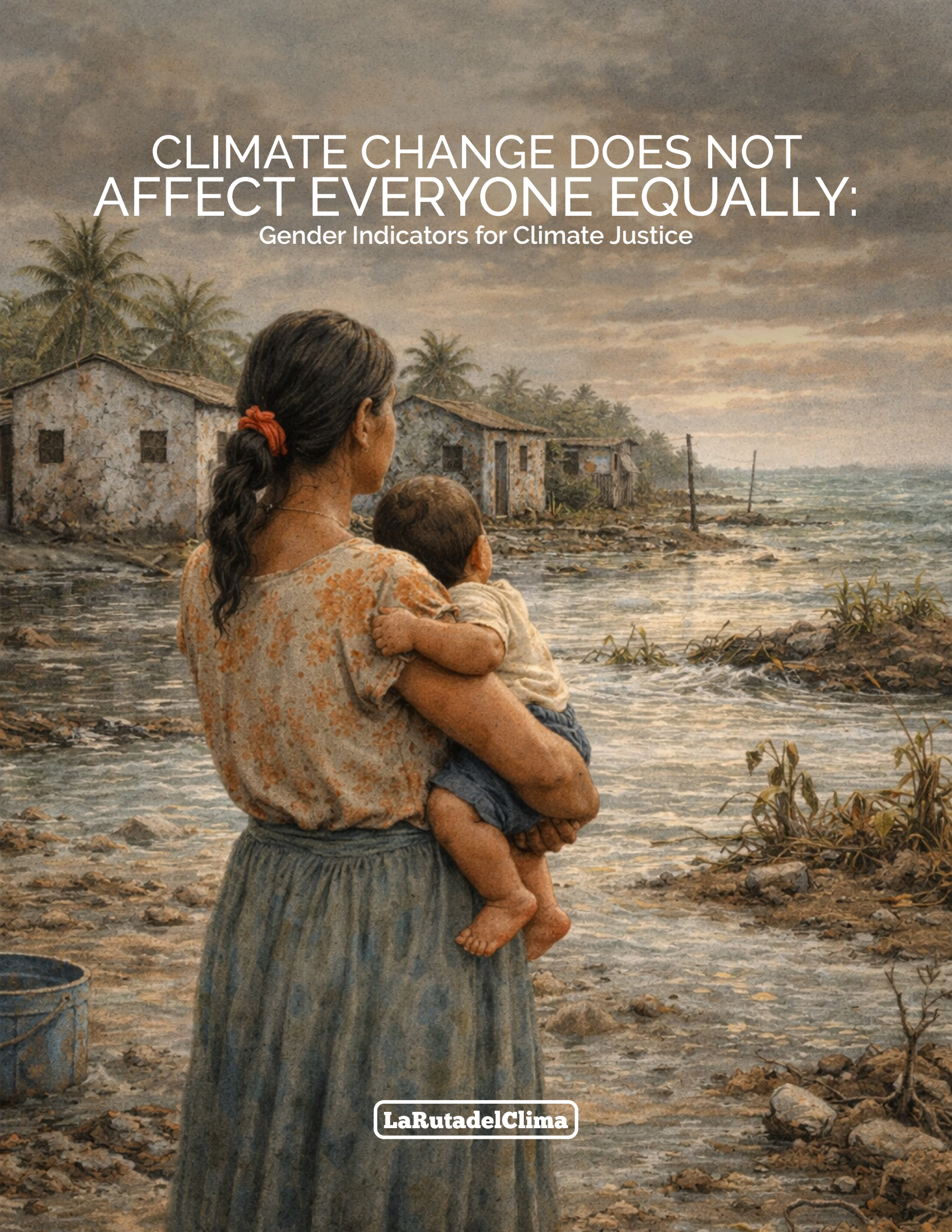


CLIMATE CHANGE DOES NOT AFFECT EVERYONE EQUALLY:

Gender Indicators for Climate Justice



LaRutadelClima

Credits

Publisher ©La Ruta del Clima –

Climate Change Does Not Affect Everyone Equally: Gender Indicators for Climate Justice; by La Ruta del Clima Association with technical and financial support from Gender and Environmental Data Alliance



ISBN: 978-9930-646-06-9

ISBN: 978-9930-646-06-9



Authors: Angélica Cordero Gamboa, Carol Fernández Herrera

Publisher: La Ruta del Clima

Graphic design, layout, and cover:

Image credits: La Ruta del Clima

Published in San José, Costa Rica 1st edition, November 2025.

This work is available under the Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International license.

The text of the license is available at: <https://creativecommons.org/>

Address to request the publication or download the text: www.LaRutadelClima.org La Ruta del Clima Association. San José, Costa Rica

Contents

Gender Indicators for Climate Justice	5
Gender and Climate	7
Why data and gender?.....	8
Gender indicators for measuring climate impacts related to damage and loss.....	10
1. Methodology	10
2. Gender Indicators Module	12
3. Results and Findings	13
3.1. Participant profiles.....	14
3.2. Care.....	20
3.3. Health.....	22
4. Lessons learned from the pilot	24
Gender and climate justice.....	25
Bibliographic references.....	26

Acronyms

UNFCCC: United Nations Framework Convention on Climate Change

STD: Sexually transmitted disease

GAP: Gender Action Plan

GI: Gender indicators

LRC: The Climate Route

MIG-LRC: Gender indicator module for measuring climate impacts related to damage and loss

PrEP: Pre-exposure prophylaxis

SIIC-LRC: Climate Impact Information System - The Climate Roadmap

ART: Antiretroviral treatment

HIV: Human immunodeficiency virus

WEDO: Women's Environment and Development Organization

Gender Indicators for Climate Justice

In 1990, a group of experts warned about the acceleration of climate change caused by greenhouse gases produced by human activities.¹ Today, 35 years later, in a scenario of climate crisis² in which the goal of not exceeding 1.5°C³ of global average temperature is becoming increasingly distant, we are seeing how climatic phenomena—both slow-onset and extreme—are becoming more intense and frequent. The world is experiencing heat waves, extreme temperature variations, changes in rainfall patterns, sea level rise, droughts, among others. These physical, atmospheric, and hydrometeorological events represent a risk and have direct impacts on socio-natural systems.⁴

Although climate change is a global phenomenon, its impacts tend to affect different populations and territories in different ways. This is due to the intersection of multiple social, economic, cultural, environmental, regional, and structural factors that determine the level of vulnerability and response capacity of a population and/or territory.

Within this framework, La Ruta del Clima (LRC), with the support of the Gender

Environmental Data Alliance (GEDA), developed a Gender Indicator Module for measuring climate impacts related to damage and loss (MIG-LRC). Based on the premise that the scarcity of data on damage and losses associated with climate impacts, with a gender perspective, exacerbates inequalities and widens the climate and gender gap by making needs, care burdens, and barriers to access to resources and decisions invisible.⁵ As background, LRC is implementing a Climate Impact Information System (SIIC-LRC) in Central America, using a community science approach, together with communities affected by climate impacts.

This system collects, processes, and reports data based on indicators that analyze various dimensions of loss and damage, and uses research methodologies and technological resources, including the P51 mobile application. During 2025, with the aim of strengthening the SIIC-LRC and generating inputs for decisions that contribute to the achievement of a more just world, LRC carried out research aimed at generating data on climate impacts with a gender perspective, adding to the use of information in transformative climate action on gender issues. This document presents key elements that resulted from the research: Creation of a module of gender indicators for measuring climate impacts.

1 Intergovernmental Panel on Climate Change (IPCC), *Climate Change: The IPCC Scientific Assessment* (Cambridge: Cambridge University Press, 1990)

2 In Advisory Opinion 32/25, the Inter-American Court of Human Rights recognizes the existence of a climate crisis. Inter-American Court of Human Rights, "Summary of Advisory Opinion OC-32/25," (May 29, 2025)

3 Global goal set out in the 2015 Paris Agreement. United Nations Framework Convention on Climate Change (UNFCCC), "Paris Agreement," in Report of the Conference of the Parties to its twenty-first session, held in Paris from November 30 to December 13, 2015: Addendum, FCCC/CP/2015/10/Add.1 (January 29, 2016), annex.

4 Intergovernmental Panel on Climate Change (IPCC), "Technical Summary," in *Climate Change 2022: Impacts, Adaptation and Vulnerability...* (Cambridge: Cambridge University Press, 2023)

5 This is a monitoring tool available for Android and Apple operating systems. The application is designed to generate a report based on the selection of a climate event that has occurred in the community. María Paula Calvo, Angélica Cordero, Adrián Martínez, Jennifer Rojas, and Adriana Vásquez, *Monitoring Damage and Losses: An X-ray of Central America* (San José, Costa Rica: La Ruta del Clima, 2024), PDF, <https://larutadelclima.org/wp-content/uploads/2025/03/Monitoreo-de-DyP.pdf>

Doña Andrea was born and raised in a community on the Pacific coast of Central America. She remembers her mother gathering shellfish in the mangroves, her father returning home happy with his catch, afternoons playing on the beach, and the mango jam her grandmother made every March.

Today, those memories seem like they belong to another time. The heat is overwhelming, the sea has erased the beach of her childhood, fish are scarce, and the old mango tree no longer bears fruit.

A few days ago, he attended a meeting organized by an NGO. There he learned that the changes that transformed his life have a name: the climate crisis. She heard talk of differentiated impacts, risk, and vulnerability. Then she thought of Marta and Juan, whose houses flood with every rain; of Tatiana, who is pregnant and whose well water is salty; of the children who no longer play on the beach; and of those who migrated to survive.

Doña Andrea left the meeting with a mixture of concern and hope. Concern because she understood that nothing that happens is a coincidence, and hope because she knew that if communities manage to record and make visible what they are experiencing—especially women: those who search for water, those who hold the household together when there is no fishing, those who migrate or resist—the story of their community will not remain silent in the face of the advancing sea and a climate crisis that shows no sign of stopping.

Gender and Climate

Gender is a sociocultural construct that organizes multiple dimensions of people's lives⁶, shaping practices, discourses, and meanings, and reproducing conventions within the male-female binary⁷.

It is therefore necessary to design, work on, and generate analyses of the impacts of climate change using methodologies that incorporate a gender perspective and are based on feminist and intersectional epistemologies.

From this perspective, it is understood that there are different systems of power and oppression (sex-gender, colonial, class, age, among others) that operate in an intersectional manner and exert different forms and degrees of inequality on populations⁸.

This produces differentiated life experiences, such as particular meanings and ways of relating to the other and our environments.

Due to these historical power relations, women and feminized bodies have faced greater structural inequalities.

This has contributed to the perpetuation of the gender gap in areas such as education, the economy, work, political participation, use of time, and access to resources,

placing women in a situation of greater vulnerability.

This historical situation of oppression explains why climate change affects women more than men.

This is even more evident when analyzed from an intersectional and colonial perspective, as it is recognized that indigenous women and girls, women of African descent, migrants, women with disabilities, older women, and those living in rural and/or remote areas face systemic vulnerabilities and violence.⁹

Thus, gender becomes an element that can limit the capacity to adapt and amplify the impacts of climate change on the lives of populations designated under the category of women¹⁰, , as well as gender-diverse populations that break with hegemonic sex-gender impositions.

Despite the fact that differentiated climate impacts, the greater vulnerability of women, and the call to address climate change from gender-sensitive approaches have been recognized by the United Nations Framework Convention on Climate Change (UNFCCC) through the Lima Work Program on Gender¹¹ and the Paris Agreement¹², weaknesses persist in their attention and incorporation.

6 Joan W. Scott, "Gender: A Useful Category for Historical Analysis," in *Gender: The Cultural Construction of Sexual Difference*, ed. Marta Lamas (Mexico: PUEG/UNAM, 1996).

7 Judith Butler, *Gender Trouble: Feminism and the Subversion of Identity* (Buenos Aires: Paidós, 2007)

8 Kimberlé Crenshaw, "Mapping the Margins: Intersectionality, Identity Politics, and Violence against Women of Color" *Stanford Law Review* 43, no. 6 (1991): 1241–1299.

9 María Lugones, "Heterosexualism and the Colonial/Modern Gender System," *Hypatia* 22, no. 1 (2007)

10 UN Women, "How Gender Inequality and Climate Change Are Interconnected," UN Women, April 21, 2025, <https://www.unwomen.org/en/articles/explainer/how-gender-inequality-and-climate-change-are-interconnected>

11 United Nations Framework Convention on Climate Change (UNFCCC), "Lima work program on gender," Decision 18/CP.20, Conference of the Parties, Lima, December 1, 2014, FCCC/CP/2014/10/Add.3, https://unfccc.int/files/meetings/lima_dec_2014/decisions/application/pdf/auv_cop20_gender.pdf

12 UNFCCC, "Paris Agreement," FCCC/CP/2015/10/Add.1, annex.

For example, there is a lack of statistical data available on losses and damages associated with climate impacts from a gender perspective. There are also difficulties in generating measurements and assessments that reflect these gender disparities¹³.

Furthermore, gender-sensitive approaches are not sufficient to address the profound gender inequalities in the context of climate change.

Policies, plans, strategies, and actions are needed that incorporate transformative gender perspectives, feminist and intersectional analytical frameworks, and committed and responsible parties.

Faced with these gaps in the climate agenda, various international organizations, governments, women's groups, non-governmental organizations, and research entities have promoted initiatives to integrate a gender perspective into climate action, based on the conviction that climate justice will not be achieved without gender justice.

Why data and gender?

The availability of data is essential for formulating effective actions targeting vulnerable populations, including girls and women. The absence of information makes it impossible to corroborate and compare realities, limits the identification

of gaps, and hinders the formulation of concrete solutions that integrate a gender perspective into responses to climate change.

Inequalities between men and women are blurred and remain hidden in the face of a climate reality that lacks statistical data with a gender perspective capable of accounting for the differentiated impacts of climate change on populations. The evidence linking gender and climate change is often limited and fragmented; it is an emerging and experimental field in Latin America¹⁴. In this context, strengthening the production, desegregation, and use of climate data with a gender perspective is a growing priority for many international organizations, governments, and research entities.

In addition, the Beijing Platform for Action (adopted in 1995) calls for increased production and use of gender statistics so that policies and accountability are based on data and evidence.

Likewise, the Lima Work Program on Gender and Climate Change and its Gender Action Plan¹⁵ establish specific mandates, for example:

¹⁶Priority Area A designates capacity building, knowledge management, and communication. Activity A.3 responds to strengthening capacity building for governments and other relevant stakeholders in order to collect, analyze,

¹³ United Nations Framework Convention on Climate Change (UNFCCC), "Enhanced Lima Work Program on Gender and its Gender Action Plan," Decision 3/CP.25, Conference of the Parties, Madrid, December 12, 2019, FCCC/CP/2019/13/Add.1 (annex), PDF, https://unfccc.int/sites/default/files/resource/cp2019_L03S.pdf

¹⁴ Working Group for the Development of a Guide for Mainstreaming Gender Perspectives in Statistical Production of the Statistical Conference of the Americas of ECLAC, Guide for Mainstreaming Gender Perspectives in Statistical Production (Santiago: ECLAC, 2024), 56. LC/CEA.12/12, <https://hdl.handle.net/11362/80635>.

¹⁵ UNFCCC, "Enhanced version of the Lima work program..." Dec. 3/CP.25.

¹⁶ UNFCCC, "Enhanced Lima Work Program..." Dec. 3/CP.25.

and apply sex-disaggregated data and gender analysis in the context of climate change, where appropriate.

Priority Area D addresses gender-sensitive implementations. Activity D7 aims to improve the availability of sex-disaggregated data for gender analysis, taking into account multidimensional factors, in order to better inform gender-sensitive climate policies, plans, strategies, and actions, as appropriate¹⁷.

In line with international commitments, we emphasize that data is the basis for effective advocacy, informed responses, and transformative and just climate action.

¹⁷ UNFCCC, "Enhanced Lima Work Program..." Dec. 3/CP.25.

Gender indicators for measuring climate impacts related to damage and loss

1.1. Methodology

The construction of the Gender Indicator Module for measuring climate impacts related to damage and loss (MIG-LRC) was based on a quantitative paradigm and created from a feminist epistemological position^{18 19} which recognizes that data is not neutral, while considering that it can be used as a tool to raise awareness and bring about change. From this position, the origin, form, and use of data are considered in intersection with other variables. The results are more than a percentage or a number; they are a narrative, a possibility, and a way of interpreting.

In addition, the MIG-LRC revisits key elements that have historically been linked to and problematized in discussions associated with the situation and/or experience of women, such as: the use of time, the sexual division of labor, the care economy, access to the public sphere, and participation.^{20 21}

In line with the above, the development of the MIG-LRC began with the identification of key needs and issues related to climate damage and loss and gender. This made it possible to define areas that require further study. The module was constructed following a three-phase methodological design: 1) research, 2) design, 3) piloting.

The phases of module construction are presented below.

1. Research

The process drew on two research techniques:

- **Literature review.** This allowed us to identify relevant theoretical frameworks and experiences on gender, citizen science, and climate damage and loss. This exploration not only provided background information, but also revealed gaps in information regarding the incorporation of a gender perspective into existing climate indicator systems. The analysis of academic and technical documents contributed to the development of a solid conceptual framework, which served as a reference for the selection of variables. A key learning from this stage was the recognition that, although there were previous experiences, many lacked community participation mechanisms, which reaffirmed the need to link technical knowledge with local knowledge.

- **In-depth interviews.** Five in-depth interviews were conducted with experts in gender, climate change, and participatory methodologies. These conversations provided contextual perspectives and concrete examples of how indicators

18 Donna J. Haraway, "Situated Knowledges: The Scientific Question in Feminism and the Privilege of Partial Perspective," in *Science, Cyborgs, and Women: The Reinvention of Nature*, trans. Manuel Talens (Madrid: Cátedra, 1995).

19 Sandra G. Harding, *Science and Feminism*, trans. Pablo Manzano (Madrid: Ediciones Morata, 1996)

20 Cristina Carrasco, Cristina Borderías, and Teresa Torns, *Care Work* (Madrid: FUHEM, 2011), PDF.

21 Silvia Federici, *Caliban and the Witch: Women, the Body and Primitive Accumulation* (Madrid: Traficantes de Sueños, 2010).

are applied in different contexts and methodologies for implementing the tool. The use of saturation criteria ensured that the information collected was sufficient to understand the predominant approaches and areas for improvement.

2. Design

Phase 1 provided input for the construction of gender-focused indicators and a tool for data collection and indicator measurement, created on the KoboToolbox platform. The tool integrated quantitative indicators and was enriched with observations from experts and communities. One of the most significant lessons learned is that the early integration of community feedback strengthens the legitimacy of the tool and prevents it from being perceived as imposed from outside.



3. Pilot testing

Given the development of a living and flexible process, the relevance of the indicators was tested through a piloting activity of the tool. The experience showed that certain indicators required adjustments and in their formulation. The piloting was implemented in Costa Rica during August and September 2025 in two formats:

Online data collection pilot. The online modality allowed the tool to be tested in a widely disseminated environment with access to participants with diverse profiles. Social networks and LRC media outlets were used for dissemination.

Face-to-face data collection pilot. The face-to-face modality was carried out through community workshops in rural and



coastal areas. This methodology enabled direct dialogue and fostered a space of trust that allowed for the collection of nuances invisible to the digital modality.

1.2 Gender Indicators Module

The MIG-LRC understands a gender indicator as a measurement tool for a specific social phenomenon that reflects inequalities, gaps, and barriers in terms of needs, living conditions, and gender inequalities in various categories of people's daily lives.^{22 23}

According to documents such as the Guide for the Development of Gender Indicators (IG)²⁴, the Methodology for the Construction of a System of Gender Indicators²⁵ and the Gender Perspective in Statistics for Equality Policies²⁶, gender indicators should:

- Be presented in a sex-disaggregated manner as a permanent, basic, and cross-cutting classification.
- Reflect gender issues for progress in equality and sustainable development.
- Be based on conceptual frameworks that reflect the diversity and comprehensiveness of the lives of women and men.
- Be free of gender stereotypes and biases.
- Break with knowledge frameworks based on androcentric perspectives.

- Establish relationships between gender conditions and situations of inequality or discrimination.
- Make women and their experiences visible.
- Raise awareness and create consciousness regarding situations of direct and indirect discrimination experienced between genders.
- Promote the adoption of more equitable policies and actions.
- Facilitate the availability of new tools for projects.

In line with the above, the Gender Indicators Module for Measuring Climate Impacts is designed as a complement to be integrated into the P51 mobile application. It seeks to highlight gender gaps in relation to both extreme and slow-onset climate events, covering categories related to sexual and reproductive health, care, community well-being, mobility, among others. It also allows for the identification of gaps through community sampling, the implementation of possible actions to minimize them, and informed decision-making for advocacy and political action.

- The proposed indicators are based on two approaches: climate damage and loss, and gender. From these frameworks, the module not only measures but also

22 Castilla-La Mancha Women's Institute. Guide to the Development of Gender Indicators (IG) (Toledo: Women's Institute of Castilla-La Mancha, 2010). PDF, https://institutomujer.castillalamancha.es/sites/institutomujer.castillalamancha.es/files/publicaciones/descargas/guia_para_la_elaboracion_de_indicadores_o.pdf

23 National Institute of Statistics (INE), Methodology for the construction of a system of gender indicators (Santiago, Chile: INE, 2019). PDF, <https://www.ine.gob.cl/docs/default-source/genero/gu%C3%ADas-y-documentos/documentos/metodologia-para-la-construccion-de-un-sistema-de-indicadores-de-g%C3%A9nero.pdf>

24 Castilla-La Mancha Women's Institute, Guide to the development of gender indicators

25 INE, Methodology for the construction of a system of gender indicators

26 Economic Commission for Latin America and the Caribbean (ECLAC), "Gender perspective in statistics for equality policies," n.d., PDF, https://www.cepal.org/sites/default/files/courses/files/4_2_perspectiva-genero-y-medio-ambiente.pdf

reflects the impact of climate events on communities using a data collection and analysis tool that documents experiences disaggregated by gender. At the same time, it allows for analysis of how, from a gender perspective, damage and loss reconfigure community dynamics, highlighting inequalities, vulnerabilities, and adaptation strategies that differ according to people's conditions and roles.

This module presents two types of indicators:

- Situation measurement indicators: these indicate the situation of men and women in a social context.²⁷
- Impact indicators: these show the direct or indirect effects of a phenomenon on the lives of men and women.²⁸

The indicators were constructed in accordance with the basic conditions of validity, reliability, sensitivity, comprehensibility, and accessibility.²⁹ They are operationalized through three levels of operationalization:

1. Data: This is raw information, unprocessed facts and figures that are collected and stored.³⁰

2. Indicators: Establish a relationship between two or more types of data, according to dimensions and variables that serve to develop a quantitative measure. This comparison yields a value, magnitude,

or criterion that is meaningful to the person analyzing it.³¹

3. Classifiers: Assign data to predefined categories or groups, based on patterns or characteristics defined according to the data set.

El MIG-LRC se compone de siete dimensiones: perfil sociodemográfico, trabajo, cuidado, salud (física, emocional y mental; sexual y reproductiva), bienestar comunitario, movilidad humana, atención y respuesta a eventos climáticos.³²

3. Results and Findings

The MIG-LRC pilot was implemented using a quantitative instrument on the KoboToolbox platform. This was used to collect information from 50 Costa Ricans who reported having experienced a climate impact in the last five years.

The instrument addressed seven thematic categories: socioeconomic, work, health, care, community well-being, mobility, and risk awareness.

This section presents some of the most relevant findings from this process, focusing on the general participation profile and the categories of health and care.

27 Castilla-La Mancha Women's Institute, Guide to developing gender indicators

28 Castilla-La Mancha Women's Institute, Guide to developing gender indicators

29 Mónica Dávila Díaz, Indicadores de género: guía práctica (Sevilla: Instituto Andaluz de la Mujer, 2005).

30 United Nations Statistics Division, Metadata for Statistical Data and Indicators, (New York: United Nations, 2025), <https://unstats.un.org/unsd/demographic-social/meetings/2025/migration-wk-sadc-20250317/06.Metadata.p>

31 Eurostat, Statistical Classifications – Overview, (Luxembourg: European Commission, 2024), <https://ec.europa.eu/eurostat/web/metadata/classifications>

32 Statistics Norway, Concepts and Definitions: Statistical Indicators, (Oslo: Statistics Norway, 2024), <https://www.ssb.no/a/english/metadata/definitions/concepts.pdf>

1.2.1. Profiles of participants

A total of 50 responses were obtained from Costa Rican residents in the country, 43 of which were from women (86%) and 7 from men (14%) (Image 1.).

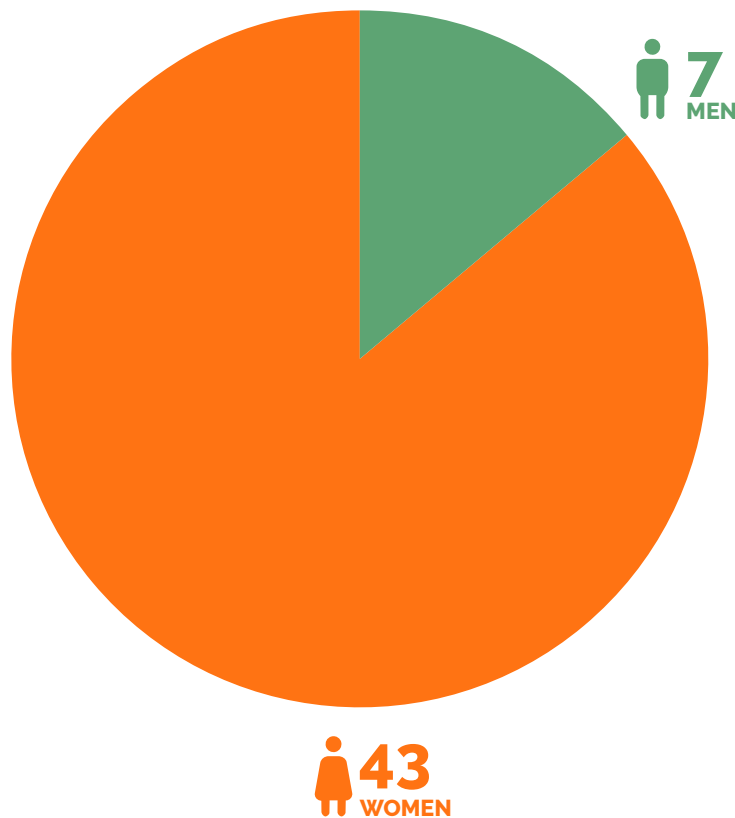
This disparity limits comparisons between the composition of the sample and should be considered in future applications of the MIG-LRC in order to implement measures that increase male participation.

The greater presence of responses from women suggests, on the one hand, a greater willingness on the part of this group to share their experiences related to climate impacts.

On the other hand, it reveals a sample bias in coverage³³ that needs to be corrected in future applications and taken into account when interpreting these results.

Image 1. Participation by gender

Participation in the Kobo survey by gender
Data taken from the Kobo tool conducted by La Ruta del Clima



Pilot test of an indicator module for collecting data on damages and losses with a gender perspective
Chart: La Ruta del Clima · Created with Datawrapper

³³ Pablo Cabrera-Álvarez, "Aggregated data to correct non-response and coverage biases in surveys," *Empiria. Journal of Social Science Methodology*, no. 49 (2021): 39–64, <https://doi.org/10.5944/empiria.49.2021.29231>

The information collected shows significant territorial diversity, which can be validated in the attached graph (Image 2). Coastal and rural areas had the highest participation.

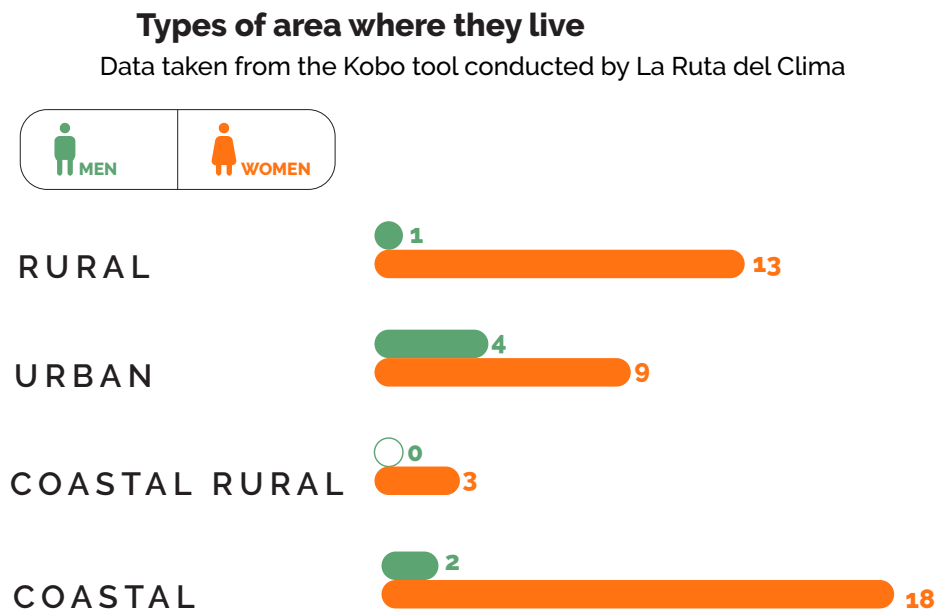
The data obtained from the pilot study shows high participation by women, especially from coastal and rural areas, who play a leading role in community documentation of the effects of climate change.

This reflects not only their greater exposure to the impacts, but also their interest in strengthening their capacities for climate action.

In view of these data, it is necessary to highlight a limitation of the pilot study: the instrument was applied in person (survey type) in two communities where LRC carries out activities and where participation is predominantly female. Other relevant demographic data to note are those associated with income, age, and employment.

The instrument used facilitated agile, secure, and gender-sensitive data collection, allowing for the identification of intersections between these variables that perpetuate patterns of vulnerability.

Image 2. Participants' area of residence



*Pilot test of an indicator module for collecting data on damages and losses with a gender perspective
Chart: La Ruta del Clima · Created with Datawrapper*

The women surveyed are mostly in the 25-34 age range, with incomes below ₡218,000 per month, and were mainly self-employed through entrepreneurship or informal economic activities, with the exception of women in urban areas, where incomes ranged from ₡466,000 to ₡2,500,000.

In contrast, men have higher incomes (₡466,000–₡751,000) and a higher proportion of salaried employment. Despite the low representation of men in the sample, this is not an isolated phenomenon and reflects structural gender gaps in access to resources and economic stability.

According to the 2024 National Household Survey (ENAH0), gender gaps in the distribution of per capita income in Costa Rica are evident. In urban areas, women are concentrated in lower-income households: in the first quintile (₡125,000 or less), they represent 54% of the population, while men constitute 46%.

As income levels rise, the proportion of women decreases to 41% in the highest quintile (more than ₡624,000).

This reflects the fact that urban women face greater restrictions in accessing economic resources, formal employment, and productive assets, factors that limit their ability to adapt and recover from extreme weather events such as urban flooding, heat waves, or landslides.

In rural areas, inequality is even more pronounced: men predominate in all quintiles, representing 58% in the lowest quintile and 74% in the highest. Rural women, on the other hand, are in the minority at all income levels.

This economic exclusion translates into greater exposure and reduced capacity to respond to climate impacts that affect rural livelihoods, where women often assume responsibilities for subsistence and care of their families without institutional or economic support.

Table 1. Per capita income quintile according to ENAH0 2024

Net household per capita income quintile						
Zone	H_Gender	Quintile I: ₡125.000 or less	Quintile II: More than ₡125.000 to ₡215.081	Quintile III: More than ₡215.081 to ₡353.889	Quintile IV: More than ₡353.889 to ₡624.000	Quintile V: More than ₡624.000
Urban	Male	46%	51%	52%	58%	59%
	Women	54%	49%	48%	42%	41%
Rural	Male	58%	65%	70%	69%	74%
	Women	42%	35%	30%	31%	26%

Taken from INEC. ENAH0 2024

With regard to reported climate impacts, women identified rising temperatures as the primary concern (17 cases), followed by changes in rainfall patterns (13 cases), storms (6 cases), and sea level rise (4 cases). Only one woman reported not having experienced any climate change-related impacts.

Men, on the other hand, mainly reported rising temperatures (5 cases) and changes in rainfall patterns (2 cases).

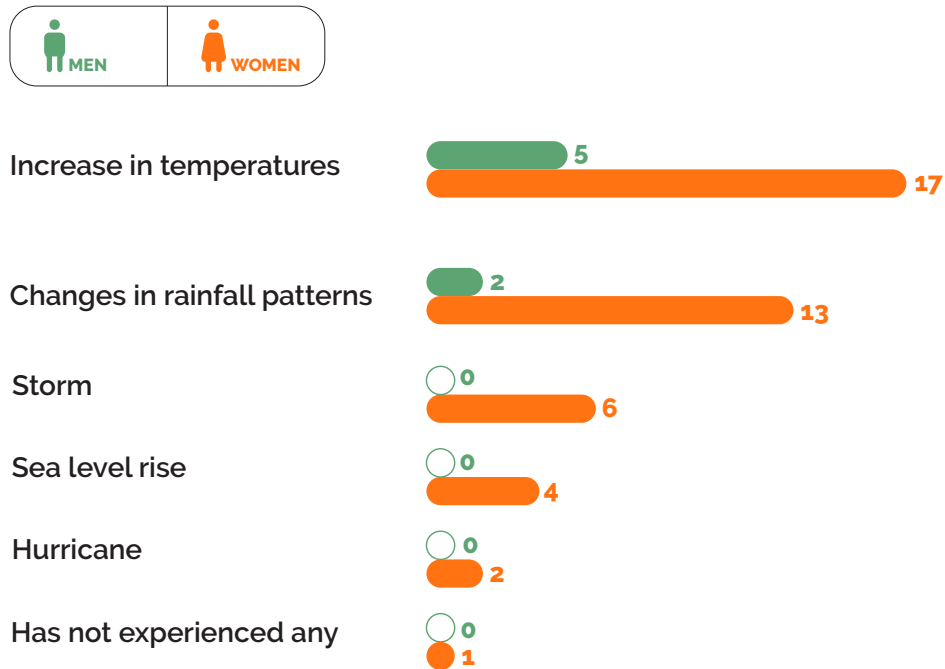
With regard to the climate events reported, participants cited rising temperatures (22 cases) and changes in rainfall patterns (15 cases) as the main events experienced in the last five years.

Women's responses showed greater identification of events; for example, six participants referred to storms and four to sea level rise.

Image 3. Reported climate events

Reported climate events disaggregated by gender

Data taken from the Kobo tool conducted by La Ruta del Clima



Pilot test of an indicator module for collecting data on damages and losses with a gender perspective

Chart: La Ruta del Clima · Created with Datawrapper

In relation to the impacts of climate events in the workplace, the MIG-LRC results show significant differences between genders: 15 women reported impacts that reached an average of 8 on a severity scale of 1 to 10.

This result indicates significant consequences for their livelihoods, stability, and economic autonomy. In contrast, men who reported impacts in this same area estimated an average impact of 5.

These findings correlate with data from the 2024 National Household Survey, which shows a labor structure that is strongly segmented by gender.

In urban areas, women are concentrated in occupations with less stability (such as administrative support (53%) and services or commerce (51%)), while men predominate in management, technical, and operational positions.

In rural areas, inequalities are even more pronounced: 93% of jobs in agriculture, forestry, and fishing are held by men, while women are mainly engaged in informal, low-paid, or unrecognized activities within the labor market.

This gender division of labor partly explains why women report higher levels of impact from climate events: their involvement in more precarious sectors increases their exposure to economic and emotional losses.

Men, although concentrated in the sectors most directly impacted by climate (such as agriculture or fishing), have greater access to stable income, assets, and economic networks, which reduces their perception of vulnerability.

Table 2. Occupation of the labor force. ENAHO 2024

ZONE	URBAN		RURAL			
H_Gender	Male	Female	Male	Female		
H_Workforce occupation	Executives and managers	73%	27%	Executives and managers	73%	27%
	Scientific and intellectual professionals	59%	41%	Scientific and intellectual professionals	60%	40%
	Mid-level technicians and professionals	69%	31%	Mid-level technicians and professionals	78%	22%
	Administrative support staff	47%	53%	Administrative support staff	67%	33%
	Service workers and shop and market salespeople	49%	51%	Service workers and shop and market salespeople	60%	40%
	Farmers and skilled agricultural, forestry, and fishing workers	96%	4%	Farmers and skilled agricultural, forestry, and fishing workers	93%	7%
	Officials, operators, and artisans in mechanical arts and other trades	81%	19%	Officials, operators, and artisans in mechanical arts and other trades	85%	15%
	Plant and machine operators and assemblers	96%	4%	Plant and machine operators and assemblers	99%	1%
	Elementary occupations	51%	49%	Elementary occupations	74%	26%
	Not specified	23%	77%	Not specified	0	0
Unemployed with no experience	24%	76%	Unemployed with no experience	19%	81%	

Taken from INEC. ENAHO 2024

1.2.2. Care

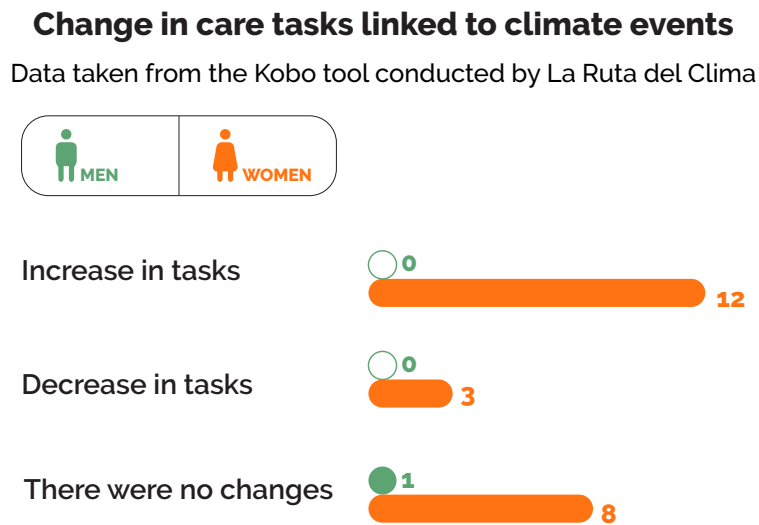
The care section was one of the priority categories included in this indicator module, with the aim of identifying changes in care dynamics that often remain invisible in everyday life, especially in the face of climate events. Its inclusion seeks to make these tasks visible and recognize the impact that disasters and climate crises have on those who assume care responsibilities, thus highlighting the overload and inequalities that are exacerbated in contexts of climate emergency.

A total of 24 people indicated that they currently perform caregiving tasks for minors, older adults, or people with disabilities. Of this group, 23 are women and only 1 is a man, reflecting the marked feminization of care work.

Despite the social and economic contribution of caregiving tasks, only one woman reported receiving financial remuneration for these tasks, showing that the vast majority of these tasks continue to be unpaid and under-recognized within community and family dynamics.

When asked about the impact of climatic events on caregiving tasks, the results indicate that 12 women reported an increase in the burden of care during the event, 3 reported a decrease, and 8 women and 1 man reported that their responsibilities remained unchanged (Image 4).

Imagen 4. Change in caregiving tasks and weather events



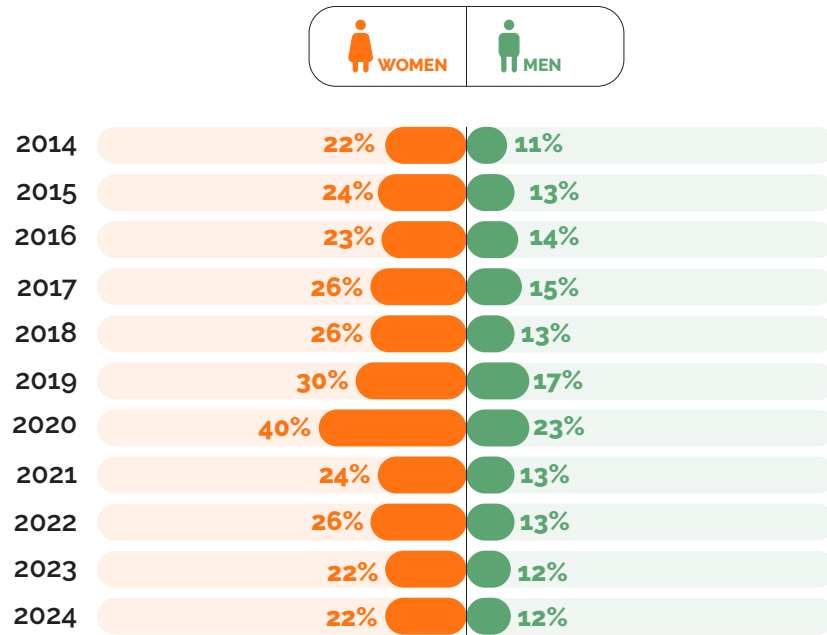
Pilot test of an indicator module for collecting data on damages and losses with a gender perspective
Chart: La Ruta del Clima · Created with Datawrapper

In the last decade, the proportion of women in Costa Rica who reported caring for children, people with disabilities, or older adults has been almost double that of men.

In 2024, women spent an average of 30 hours per week on these tasks, compared to 18 hours for men.

Imagen 5. Percentage of care work, disaggregated by gender

Percentage of women and men who reported in the ENAHO having cared for a minor or a dependent older adult during the previous week (at the time of the survey)



ENAHO 2014-2024 INEC | Created with Datawrapper

Image 6. Average number of weekly hours spent on care tasks during the last week, by gender

Average percentage of weekly hours spent on care tasks during the previous week, according to ENAHO 2024



ENAHO 2014-2024 INEC | Created with Datawrapper

In 2024, women in Costa Rica spent an average of 30 hours per week caring for their dependent relatives, while men spent only 18 hours.³⁴

These differences not only highlight an unequal distribution of time and domestic work, but also a structural vulnerability that is exacerbated by the impacts of climate change.

In the face of climate impacts such as prolonged droughts, floods, or loss of livelihoods, women often take on greater responsibilities in sustaining the household, searching for water and food, caring for sick or displaced family members, and organizing community responses ()³⁵

This increase in care burdens, which are often invisible and unpaid, represents a form of non-economic damage that limits women's autonomy, health, and participation in other social and productive spheres.

Health

The MIG-LRC includes a category related to health, pregnancy, and sexual and reproductive health, given the need to highlight the differentiated impacts that climate events can have in these areas, historically associated with women.

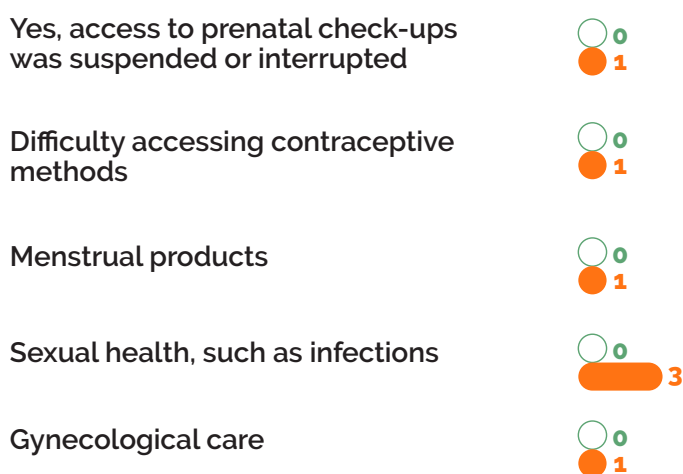
³⁴ National Institute of Statistics and Censuses (INEC). National Household Survey (ENAHO) 2024. San José, Costa Rica: INEC, 2024. <https://inec.cr/estadisticas-fuentes/encuestas/encuesta-nacional-hogares>

³⁵ UN Women, "Explainer: How Gender Inequality and Climate Change Are Interconnected," last modified February 27, 2022. <https://www.unwomen.org/en/articles/explainer/how-gender-inequality-and-climate-change-are-interconnected>

Imagen 7. Impact of a climate event on sexual and reproductive health

Impact of a climate event on sexual and reproductive health, disaggregated by gender

Data taken from the Kobo tool conducted by La Ruta del Clima



*Pilot test of an indicator module for collecting data on damages and losses with a gender perspective
Chart: La Ruta del Clima · Created with Datawrapper*

Within this category, the question was asked: “Did the climate event affect your sexual or reproductive health in any way?” The results to this question were from eight people (seven women and one man) who reported having experienced some type of related impact.

The main difficulties mentioned were related to vaginal and urinary infections and sexually transmitted diseases (STDs).

These can be exacerbated by poor sanitation, limited access to health services, water shortages, and increased stress or displacement resulting from climate events.

The results in this category underscore the importance of incorporating sexual and reproductive health indicators into climate damage and loss monitoring systems, as they show that during a climate event, women and/or people with the capacity to bear children are affected differently.

It is necessary to go beyond data collection and show how the impacts of the climate crisis reinforce structures of inequality regarding reproductive and sexual rights.

It should be noted that, in this category, the MIG-LC considers specific options related to difficulties in accessing hormone replacement therapy, preventive medication (PrEP) against human immunodeficiency virus (HIV), or antiretroviral therapy (ART).

This decision seeks to integrate an intersectional and inclusive gender approach, recognizing the diversity of gender identities, needs, and experiences that coexist within communities.

Finally, an indicator concerning pregnancy during climate events was also added, to which one woman indicated that she had been pregnant. She noted that the climate event had a significant impact on her well-being, affecting her mental health and causing episodes of anxiety and stress.

The collection of this information is key to incorporating a gender and comprehensive health approach into adaptation, climate response, and damage repair strategies, ensuring actions that recognize the differentiated and needs of women and pregnant people and promote their well-being and safety during and after climate events.

Lessons learned from the pilot

As we conclude the development process for the Gender Indicators Module on Damage and Loss (MIG-LRC), it is important to recognize that its pilot phase has certain limitations, as it does not cover the entire context, but only part of it. However, this exercise is a fundamental first step toward

recognizing the issues and making informed decisions from a gender perspective. Its implementation provides a glimpse of paths toward generating actions with a sensitive, responsive, and transformative perspective that contribute to the construction of more equitable strategies adapted to the realities of communities.

It was also found that the tool is particularly useful in a face-to-face survey model, especially in areas of greater vulnerability, where direct support facilitates in-depth explanation of each of the categories and promotes a clearer understanding of the questionnaire.

This type of interaction strengthens the participatory process, builds trust, and ensures better quality of the information collected.

The piloting of the MIG-LRC also provided significant insights into the behavior of the categories and indicators, as well as opportunities for improvement in its design and application.

These insights provide a solid basis for adjusting the instrument, enhancing its scope, and ensuring its relevance in future exercises.

Finally, it is worth highlighting the value of complementing quantitative information with a stage of qualitative data generation that integrates gaps and gives voice to the experiences of participants, allowing for a more complete and human reading of the differentiated impacts of climate change.

Gender and climate justice

The piloting of the Gender Indicators Module on Loss and Damage (MIG-LRC) seeks to confirm that the impacts of climate change are not distributed equitably, but are intertwined with structural gender, territorial, and socioeconomic inequalities. Women, especially those living in rural and coastal areas, are on the front line of exposure and response to climate events, not only because of their role in sustaining daily life, but also because of historical conditions of exclusion that limit their access to resources, income, and participation in decision-making.

The results of the MIG-LRC show that climate events intensify unpaid care workloads, affect health, and deepen economic and social gaps.

From a climate justice perspective, the module highlights the urgency of incorporating an intersectional gender approach into systems for monitoring, assessing, and responding to climate damage and losses. This involves not only collecting data disaggregated by sex and gender, but also recognizing the contexts, roles, and responsibilities that condition people's vulnerability and capacity to respond. The information generated provides valuable inputs to guide actions and strategies that are more just, equitable, and transformative.

The process also reaffirms that communities, and in particular organized women, are key actors in the production of climate knowledge. Their participation in documenting and analyzing impacts allows for the construction of evidence based on local realities and strengthens the

processes of redress and adaptation based on the right to participate in decisions that affect their lives and territories.

Workshop in Honduras on Loss and Damage

Finally, the lessons learned from the pilot underscore the need to continue strengthening the tool and complementing it with qualitative methodologies that delve deeper into people's narratives and experiences.

Only then will it be possible to construct indicators that more accurately reflect the human dimension of damage and loss and serve as a basis for climate reparations claims, while recognizing the right of communities to live in safe, healthy, and inequality-free environments.

Climate change, beyond being an environmental crisis, constitutes a crisis of justice that amplifies pre-existing inequalities and differentially affects women and people with diverse gender identities. In this context, contextualized, inclusive, and transformative actions are required that recognize these inequalities and promote the equitable distribution of resources, opportunities, and power.

To this end, the Gender Indicators Module (MIG-LRC) seeks to be a tool to support the development of more just, informed, and sensitive responses to the realities of communities facing the impacts of climate change.

Bibliographic references

- Butler, Judith. *Gender Trouble: Feminism and the Subversion of Identity*. Buenos Aires: Paidós, 2007.
- Cabrera-Álvarez, Pablo. "Aggregated data to correct non-response and coverage biases in surveys." *Empiria. Journal of Social Science Methodology*, no. 49 (2021): 39–64. <https://doi.org/10.5944/empiria.49.2021.29231>
- Calvo, María Paula, Angélica Cordero, Adrián Martínez, Jennifer Rojas, and Adriana Vásquez. *Damage and Loss Monitoring: An X-ray of Central America*. San José, Costa Rica: La Ruta del Clima, 2024. PDF. <https://larutadelclima.org/wp-content/uploads/2025/03/Monitoreo-de-DyP.pdf>
- Carrasco, Cristina, Cristina Borderías, and Teresa Torns. *Care Work*. Madrid: FUHEM, 2011. PDF.
- Economic Commission for Latin America and the Caribbean (ECLAC). "Gender and Environment Perspective." [Course material]. n.d. PDF. https://www.cepal.org/sites/default/files/courses/files/4_2_perspectiva-genero-y-medio-ambiente.pdf
- National Institute of Statistics (INE). *Methodology for the construction of a system of gender indicators*. Santiago, Chile: INE, 2019. PDF. <https://www.ine.gob.cl/docs/default-source/genero/gu%C3%ADas-y-documentos/documentos/metodologia-para-la-construccion-de-un-sistema-de-indicadores-de-g%C3%A9nero.pdf>
- National Institute of Statistics and Censuses (INEC). *National Household Survey (ENAH) 2024*. San José, Costa Rica: INEC, 2024. <https://inec.cr/estadisticas-fuentes/encuestas/encuesta-nacional-hogares>
- United Nations Framework Convention on Climate Change (UNFCCC). "Enhanced version of the Lima work program on gender and its gender action plan." Decision 3/CP.25. Conference of the Parties. Madrid, December 12, 2019. FCCC/CP/2019/13/Add.1 (annex). PDF. https://unfccc.int/sites/default/files/resource/cp2019_L03S.pdf.
- Inter-American Court of Human Rights. *Summary of Advisory Opinion OC-32/25*. San José: Inter-American Court of Human Rights, 2025.
- Crenshaw, Kimberlé. "Mapping the Margins: Intersectionality, Identity Politics, and Violence against Women of Color" *Stanford Law Review* 43, no. 6 (1991): 1241–1299.
- Dávila Díaz, Mónica. *Gender Indicators: A Practical Guide*. Seville: Andalusian Institute for Women, 2005.
- Eurostat, *Statistical Classifications – Overview*, (Luxembourg: European Commission, 2024), <https://ec.europa.eu/eurostat/web/metadata/classifications>

- Federici, Silvia. *Caliban and the Witch: Women, the Body and Primitive Accumulation*. Madrid: Traficantes de Sueños, 2010
- Working Group for the Development of a Guide for Mainstreaming Gender Perspectives in Statistical Production of the Statistical Conference of the Americas of ECLAC. *Guide for Mainstreaming Gender Perspectives in Statistical Production*. Santiago: ECLAC, 2024. LC/CEA.12/12. <https://hdl.handle.net/11362/80635>
- Haraway, Donna J. "Situated Knowledges: The Scientific Question in Feminism and the Privilege of Partial Perspective." In *Science, Cyborgs, and Women: The Reinvention of Nature*. Translated by Manuel Talens. Madrid: Cátedra, 1995.
- Harding, Sandra G. *Science and Feminism*. Translated by Pablo Manzano. Madrid: Ediciones Morata, 1996.
- Castilla-La Mancha Women's Institute. *Guide to the Development of Gender Indicators (GI)*. Toledo: Castilla-La Mancha Women's Institute, 2010. PDF. https://institutomujer.castillalamancha.es/sites/institutomujer.castillalamancha.es/files/publicaciones/descargas/guia_para_la_elaboracion_de_indicadores_0.pdf
- National Institute of Statistics (INE). *Methodology for the construction of a system of gender indicators*. Santiago de Chile: INE, 2019. PDF. <https://www.ine.gob.cl/docs/default-source/genero/gu%C3%ADas-y-documentos/documentos/metodologia-para-la-construccion-de-un-sistema-de-indicadores-de-g%C3%A9nero.pdf>
- Intergovernmental Panel on Climate Change (IPCC). "Technical Summary." In *Climate Change 2022: Impacts, Adaptation and Vulnerability. Working Group II Contribution to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change*, edited by Hans-Otto Pörtner et al. Cambridge: Cambridge University Press, 2023.
- Intergovernmental Panel on Climate Change (IPCC). *Climate Change: The IPCC Scientific Assessment*. Cambridge: Cambridge University Press, 1990.
- Lugones, María. "Heterosexuality and the Colonial/Modern Gender System." *Hypatia* 22, no. 1 (2007): 186–209
- Statistics Norway, *Concepts and Definitions: Statistical Indicators*, (Oslo: Statistics Norway, 2024), <https://www.ssb.no/a/english/metadata/definitions/concepts.pdf>
- Scott, Joan W. "Gender: A Useful Category for Historical Analysis." In *Gender: The Cultural Construction of Sexual Difference*, compiled by Marta Lamas, 265–302. Mexico: PUEG/UNAM, 1996.
- United Nations Statistics Division, *Metadata for Statistical Data and Indicators*, (New York: United Nations, 2025), <https://unstats.un.org/unsd/demographic-social/meetings/2025/migration-wk-sadc-20250317/06.Metadata.pdf>

- UN Women. "How Gender Inequality and Climate Change Are Interconnected." UN Women. April 21, 2025. <https://www.unwomen.org/en/articles/explainer/how-gender-inequality-and-climate-change-are-interconnected>
- United Nations Framework Convention on Climate Change (UNFCCC). "Paris Agreement." In Report of the Conference of the Parties on its twenty-first session, held in Paris from November 30 to December 13, 2015: Addendum, FCCC/CP/2015/10/Add.1. Bonn: UNFCCC, January 29, 2016.
- United Nations Framework Convention on Climate Change (UNFCCC). "Lima work program on gender." Decision 18/CP.20. Conference of the Parties. Lima, December 1, 2014. FCCC/CP/2014/10/Add.3. https://unfccc.int/files/meetings/lima_dec_2014/decisions/application/pdf/auv_cop20_gender.pdf



LaRutadelClima