INDIGENOUS AND RURAL WOMEN'S VOICES:

Recommendations to address Climate Security Risks in Colombia

2022

CONTENTS

ACRONYMS

AAS
Asociación Ambiente y Sociedad

BRIAD
Brigade for Assistance and Disaster Prevention (Brigada de Atención y Prevención de Desastres)

DICAR
Directorate of Carabineros and Rural Security (Dirección de Carabineros y Seguridad Rural)

EC JRC
European Commission's Joint Research Centre

FARC-EP
Revolutionary Armed Forces of Colombia-People's Army (Fuerzas Armadas Revolucionarias de Colombia- Ejército del Pueblo)

GCRI
Global Conflict Risk Index

GIWPS
Georgetown Institute for Women, Peace and Security

GSA
Gender self-assessment

IDEAM
Institute of Hydrology, Meteorology, and Environmental Studies
(Instituto de Hidrología, Meteorología y Estudios Ambientales)

IUCN
International Union for Conservation of Nature

NDC
Nationally Determined Contribution

NSAGs
Non-state armed groups
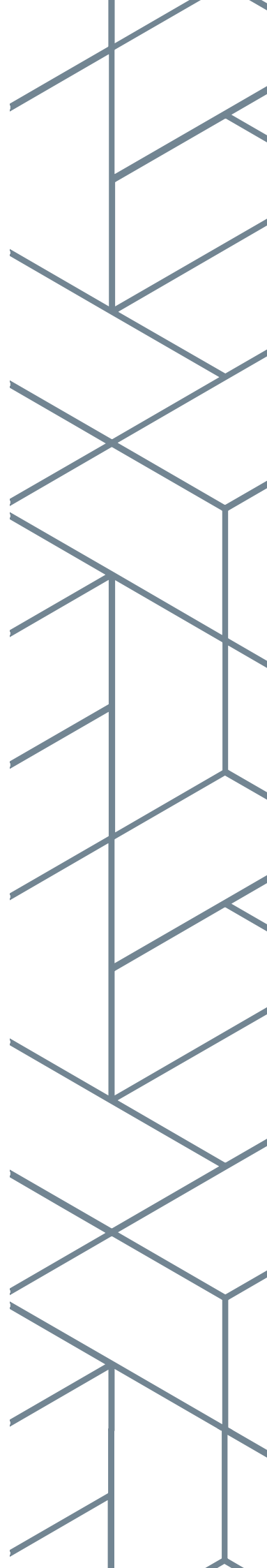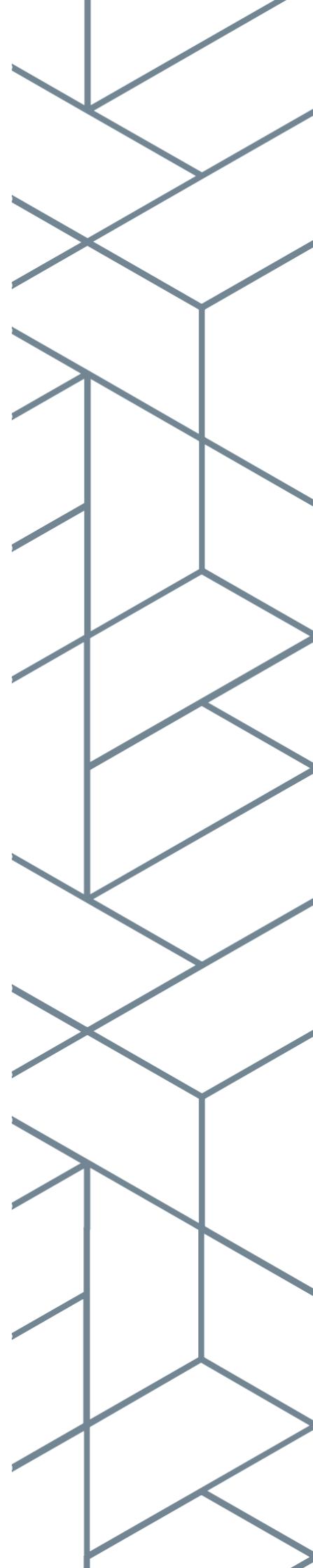
PONALSAR
Special Operations Unit in Emergencies and Disasters of the National Police of Colombia
(Unidad de Operaciones Especiales en Emergencias y Desastres de la Policía Nacional de Colombia)

PRIO
Peace Research Institute Oslo

SGBV
Sexual and gender-based violence

SINCHI
Amazon Institute for Scientific Research
(Instituto Amazónico de Investigaciones Científicas)

SSG
Security sector governance

UNEP
United Nations Environment Programme

UNFCCC
United Nations Framework Convention on Climate Change

UNIPEP
Police Unit for Peacebuilding
(Unidad Policial para la Edificación de la Paz)

TNP
Triple nexus prevalence
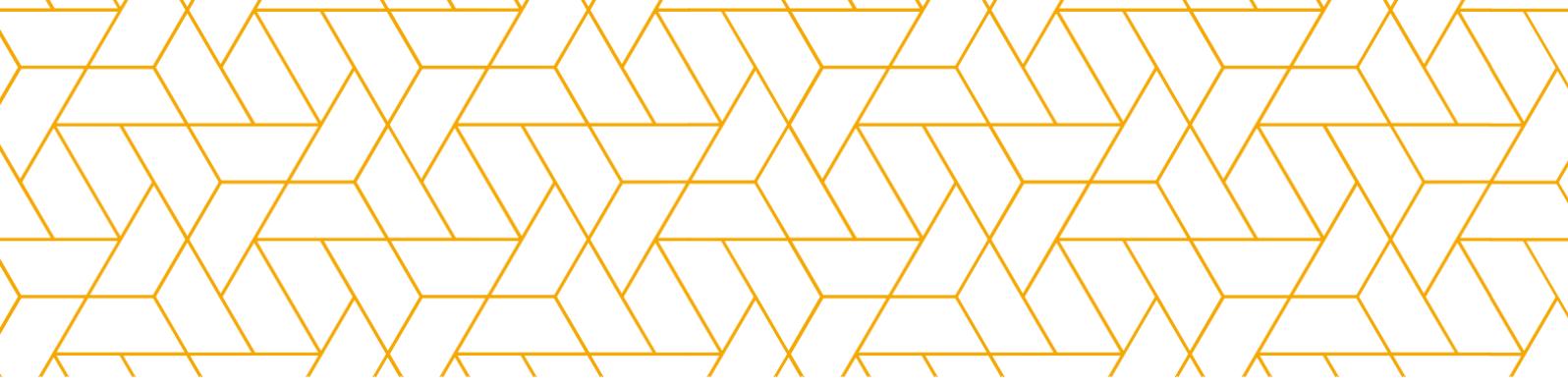
INDIGENOUS AND RURAL WOMEN'S VOICES:
Recommendations to Address Climate Security Risks in Colombia

EXECUTIVE SUMMARY

The existing climate crisis[1] has had devastating, differential, and gendered consequences on human security. Rural women, specifically, are disproportionately affected by climate-related issues due to their social roles and limited access to, use of, and control over resources, as well as access to justice and decision-making processes. International organizations have made some progress on measuring the differential impacts of climate-related issues on women's security at the global level to confront the effects of the climate emergency and advance gender at the intersection of security and the environment. However, despite this progress, most tools currently available are in the form of high-level or global indices, which are not always optimal for guiding local interventions. Tailored indicators can contribute to informing evidence-based local initiatives on disaster risk reduction and programming, in addition to fostering the security sector's delivery of gender- and climate-sensitive security, given the central role this sector plays in addressing the climate crisis.

From an **ecofeminist** perspective,[2] this pilot study aims to contribute to filling this existing gap by developing recommendations for designing local context-specific indicators to collect evidence on the impacts of the climate crisis on rural and Indigenous women's security conditions. Integrating this analytical lens allows for a better understanding of the connections between and among risks, and it is therefore a useful approach that can be replicated in other contexts.

The information gathered through these indicators can serve as essential input to inform policy and decision-making to address the needs of rural and Indigenous women, including those living in conflict-affected settings, as well as to develop sound recommendations for national and international actors. To do so, and in line with the principles of **participation** and **responsiveness of good Security Sector Governance (SSG)**, this study combined face-to-face participatory methodologies to involve rural and Indigenous women living in Putumayo, Colombia, as well as online interviews with female activists. One hybrid workshop was held with police officers from the Police Unit for Peacebuilding (UNIPEP, for its acronym in Spanish)[3] and the Directorate of Carabineros and Rural Security (DICAR, for its acronym in Spanish).[4] The participation of police officers and rural and Indigenous

---

1 In this project, "climate crisis" and "climate emergency" are used interchangeably. The use of *crisis and emergency* is preferred over the concept of *climate change because* it allows for a more precise account not only of the accelerated transformations that have taken place in the biosphere, but also of the severity, imminence, magnitude, and danger that human action entails in the elimination of ecosystems and depletion of resources for both communities and species.
**2** Ecofeminism is an approach that conceives of environmental issues as intrinsically interconnected with gender equality and social justice. Therefore, it draws connections between structural inequalities, the subordination of women and other marginalized groups (e.g., children, Indigenous communities, LGBTQI people, or Afro-descendant people), and the degradation and exploitation of natural resources. See Gaard, G. (2015). Ecofeminism and climate change. *Women's Studies International Forum, 49*, 20–33.
3 Environmental peacebuilding is one of the components of UNIPEP's peacebuilding model. In accordance with this component, UNIPEP is responsible (alongside other institutions) for contributing to preventing environmental crimes, managing socio-environmental conflicts, and implementing environmental awareness campaigns and activities aimed at the sustainable use of and protection of natural resources.
4 DICAR is responsible for planning, directing, developing, supervising, and evaluating activities to prevent and monitor crimes related to the environment and natural resources in Colombia. See https://www.policia.gov.co/direcciones/carabineros

women enabled reviewing and tailoring global indicators designed by international organizations with an eye to locally specific risks and mitigation strategies.

The project provided safe spaces for dialogue in which women with varying levels of activism and from different ethnic backgrounds spoke about their perceptions of security risks and the climate emergency's effects on their everyday life. A core part of these conversations was women's evaluation of the links between their individual and collective experiences with climate vulnerability and security, as well as their assessment of the applicability of global indicators to measure these experiences. The dialogues provided input for developing a list of proposed variables with an eye to developing local indicators. The list was then shared and discussed with active members of DICAR and UNIPEP who work on environmental peacebuilding in Putumayo in the Andean-Amazonian Piedmont and at the national level. The participation of members of the police forces who provide security in conflict and climate-affected areas also contributed to identifying areas where the local indicator data could be operationalized within the framework of good SSG. This study includes a brief description of the national context, the methodological approach and strategies implemented, the preliminary findings analyzed through the **lens of human security,** and a set of multilevel recommendations.

Unlike traditional approaches to security that are centered on violence and crime prevention, this study suggests that, in a historical era shaped by climate change, the priorities of communities and security providers are shifting. Rural and Indigenous women perceive security as closely related to the protection of ancestral practices, access to healthy and sufficient food, elimination of sexual and gender-based violence (SGBV), access to electricity and clean water, financial stability, protection of resources and the soil, as well as the protection of environmental activists and local organizations.

Some of the recommendations made at the intersection of climate-women-security to improve the human security of rural and Indigenous women include the promotion of comprehensive approaches to security and support for local environmental leaders and activists. National authorities can contribute through concrete actions such as ensuring the delivery of gender- and climate-sensitive security and improving women's land ownership. For its part, the National Police could create spaces for dialogue with rural and Indigenous women and enhance its training on the intersection between the environment and gender. Local communities could be supported in their efforts to transmit ancestral and environmental knowledge to younger generations, and to create opportunities to share experiences and tools with other grassroots organizations.

INTRODUCTION

The devastating consequences of climate change have driven species and communities into a climate emergency.[5] As a multi-faceted threat-multiplier, the climate crisis exacerbates existing vulnerabilities, disasters, and risks that, together, affect human security and stability.[6] Efforts to prevent and mitigate the pressing effects of the climate crisis on communities and states are multi-sectoral. This means that security and justice institutions, which play a central role in these efforts, will need to adjust their mandates and operations accordingly. If the climate response is integrated into national security structures and plans, governmental institutions will be better prepared to face the current climate crisis.[7]

When responding to climate security risks, it is key to acknowledge that, due to cultural and social constructs, the climate emergency has differential gender effects. Men, women, and people of nonbinary gender identities do not have the same expectations or the same levels of access to justice systems, use and control of resources, and engagement in decision-making processes.[8] This means that the climate crisis is experienced and coped with in different ways. Therefore, human security and the environment should be understood as inherently intertwined. Given that the largest proportion of the world's poor are women,[9] who depend on scarce and threatened natural resources as their main source of livelihood, women are more likely to face negative climate impacts.[10] The adverse effects of the climate emergency and ecosystem degradation have exacerbated existing inequalities faced by women and girls and aggravated their current conditions of food insecurity, further fueling migration,[11] tensions, and conflicts, as well as political and economic instability in fragile contexts.[12] Moreover, the decline in opportunities to access, use, and control natural resources has been accompanied by an increase in and diversification of situations of SGBV.[13] These disproportionate effects are even more serious for Indigenous women, who mostly live in rural and ancestral territories and depend on subsistence economies.

5 See p. 8 of Ripple, W. J., Wolf, C., Newsome, T. M., Barnard, P., & Moomaw, W. R. (2020). World Scientists' Warning of a Climate Emergency. BioScience, 70(1), 8-12. https://doi.org/10.1093/biosci/biz088
6 Barron, E. (2021, March 5). Climatizing Security: Sherri Goodman on Cimpatico. The Center for Climate and Security: Exploring the Security Risks of Climate Change. https://climateandsecurity.org/2021/03/climatizing-security-sherri-goodman-on-cimpatico/#more-25697
7 See p. 4 of DCAF - The Geneva Centre for Security Sector Governance. (2021). *Climate Change and its Impact on Security Provision: The Role of Good Security Sector Governance and Reform.*
8 See United Nations. (2012). Overview: Climate Change. UN Women Watch. https://bit.ly/3tVeerK
9 According to the World Bank, the male poverty rate is slightly lower than the female poverty rate in both rural (18.7% for women and 17.9% for men) and urban settings (5.7% for women and 5.4% for men) globally. See p. 10 of The World Bank. (2018). Gender Differences in Poverty and Household Composition through the Life-cycle.
10 OHCHR. (2019). *Analytical study on gender-responsive climate action for the full and effective enjoyment of the rights of women,* A/HRC/41/26, 1 May 2019, para. 4.
11 According to the Joint Data Center on Forced Displacement, women and girls represent 50.4% (n=20.7 million) of internally displaced people (IDPs) worldwide. Of these, 8.2% (n=3.4 million) are in the Americas. See https://www.jointdatacenter.org/literature_review/women-and-girls-in-internal-displacement/
12 See p. 9 of United Nations Environment Programme, UN Women, UNDP, & UNDPPA/PBSO. (2020). Gender, *Climate and Security: Sustaining Inclusive Peace on the Frontlines of Climate Change.*
13 See International Union for Conservation of Nature. (2020). *Gender-based violence and environment linkages: The violence of inequality.* https://portals.iucn.org/library/node/48969

Globally, despite the magnitude of this crisis and international pressure,[14] government actions to recognize the emergency and curb its consequences remain limited in scope and incipient in their approach from a gender perspective. Furthermore, there is still a lack of context-specific evidence[15] that considers the climate emergency's effects on individuals and communities experiencing intersecting forms of discrimination linked to conditions of poverty, disability, gender, ethnicity, level of activism, or access to resources.[16] One of the main challenges in assessing climate change is systematically tracking its scale and effects against a baseline that indicates how the effects are distributed within ecosystems and across segments of society, and to what extent response and mitigation actions are effective.[17]

To tackle this challenge, indicators are proposed as reference tools that use an index, measured or modelled data, to track variations, trends, and key variables of a phenomenon.[18] Reviewing and customizing indicators is, therefore, central to measuring and understanding how specific risks affect women and how these risks change over time in terms of severity, frequency, and extent. Likewise, evidence gathered through indicators may support programming and decision-making, including in the security sector, to address the needs of each segment of society.

The objective of this pilot study is twofold: first, to contribute to bridging this existing gap in providing recommendations to develop local context-specific indicators to collect evidence on the impacts of the climate crisis on the security conditions of rural and Indigenous women; and second, to highlight local knowledge on how security is conceived of by these women in climate- and conflict-disrupted settings. This study acknowledges that women are a heterogeneous group whose experiences vary depending on the intersection of their diverse identity markers, including age, ethnic group, and living spaces. Therefore, although the scope of this research is limited to the experiences of women in Sibundoy, it provides important insight to examining the interlinkages between climate, gender, and security at the local level.

Due to its rich biodiversity, the presence of multiple ethnic groups, environmental issues, and forms of violence and armed conflict, the Sibundoy municipality in Colombia's Putumayo department was used as a case study. Through a series of face-to-face workshops, participatory research involved 25 women between the ages of 19 and 66 settled in rural Putumayo,[19] who discussed their experiences living in climate- and conflict-affected areas. Of these women, 80% (n=20) belonged to five Indigenous groups: Kamëntšá/Kamsha, Quillancinga, Pastos, Inga, and Nasayigue. In addition, five female experts and activists were engaged via online interviews, and police officers from UNIPEP and DICAR, deployed in Putumayo and at the national level, were engaged through hybrid sessions that combined in-person and online participants. The narratives of women and security providers allowed us to critically review the gender dimensions of climate security risks and to provide recommendations to adjust global indicators to specific local realities.

The study is presented in four sections. Following this introduction, section 1 includes a brief description of the environmental and

---

14 In December 2020, during the Paris Convention's five-year anniversary celebration, UN Secretary-General António Guterres called on all counties to declare a "climate emergency" until carbon neutrality is achieved. See https://bit.ly/3ghqhrb
15 DCAF has also contributed to bridging this gap by conducting a multi-country study with women's rights organizations from Colombia, Mali, and Yemen. This study aimed to develop an understanding of how climate and women, peace, and security can be mutually reinforcing and how women's narratives and insights can guide international and national environmental and peacebuilding policy and programming. See DCAF. (2022). *Women Speak: The Lived Nexus Between Climate, Gender and Security.*
16 OHCHR, op. cit.
17 See p. 1695 of Kenny, M. A., & Janetos, A. C. (2020). National indicators of climate change, impacts, and vulnerabilities. Climatic Change, 163. https://doi.org/10.1007/s10584-020-02939-4
18 See p. 86 of Kenny, M. A., Janetos, A. C., & Lough, G. C. (2016). Building an integrated U.S. National Climate Indicators System. *Climatic Change, 135.* https://doi.org/10.1007/s10584-020-02939-4
19 Two women indicated that they arrived in Putumayo as internally displaced persons from neighboring departments, and another 13 women indicated that they moved to Sibundoy from other areas of Putumayo due to economic constraints or high levels of violence.

sociopolitical context in Putumayo. Section 2 showcases the methodology used to carry out the research, the data collection process, the implemented tools, and research strategies. The third section presents and analyzes the empirical findings through the lens of human security, analyzing all seven dimensions.[20] For each dimension, this study identifies indicators that could strengthen efforts to measure the impact of the climate crisis on women's security at the local level. Building on these three sections, the last part of this document offers a series of multilevel recommendations for international actors, national authorities, the National Police of Colombia, and local communities.

---

20 These dimensions of human security are environmental, economic, food, community, personal, political, and health as proposed by UNDP. (1994). *Human Development Report 1994: New Dimensions of Human Security*. http://www.hdr.undp.org/en/content/human-development-report-1994

1. CONTEXT

The Putumayo department is located in the Andean-Amazonian Piedmont of Southwestern Colombia, sharing an extensive border area with Peru and Ecuador. Putumayo is home to 369,332 people,[21] of which 50.29% are men and 49.71% are women, spread throughout 13 municipalities. It is estimated that 30,000 Indigenous people inhabit the department.[22] Putumayo contributes to roughly 0.33% of Colombia's GDP, with most of the economic activity centered on public administration and defense (33.4%), mining and quarrying (19.4%), and trade, restaurants, and hotels (15.7%).[23] Agriculture, livestock, and fishing represent 7.4% of economic activity, with bananas, manioc, corn, and rice as the main agricultural crops. Oil comprises 100% of Putumayo's exports, and insecticides represent the main import (25.9%).

Putumayo is an area of high biological diversity and ecological importance as it is home to 7,316 animal species, of which 168 are endemic.[24] More than 90% of the department is classified as rural territory,[25] which is highly vulnerable to floods. By August 2021, over 47,800 families had been affected by flooding across 12 out of the 13 municipalities, including four Indigenous communities. Landslides are common due to high levels of deforestation, steep slopes, strong rains, and recurrent floods. In 2020, Putumayo was the fourth-highest department in terms of deforestation in Colombia (13,141 ha).[26] Landslides and flooding often lead to the forced displacement of large groups. These frequent disasters have severe impacts on people's resilience and adaptation capacities as they affect their food security, economy, housing, health, water, and sanitation services.[27]

This department is the second-largest coca-growing region, accounting for 17% of national production.[28] Its strategic geographical position has played a central role in illicit actors' establishment of drug, gold, and coltan trafficking routes and multiple non-state armed groups (NSAGs)' territorial control and historical violence.[29] During the 1980s, several guerrilla groups operated in Putumayo, including the Revolutionary Armed Forces of Colombia-People's Army (FARC-EP). In

21 See p. 5 of Ministerio de Comercio, Industria y Turismo Colombia. (2021). *Información: Perfiles Económicos Departamento de Putumayo.* Oficina de Estudios Económicos. https://bit.ly/343GUEs

22 Putumayo is among the areas with the largest Indigenous population in Colombia. This department is home to 12 Indigenous groups: Kamëntšá, Siona, Murui Muinane, Koreguaje, Quechua, Embera Chamí, Pastos, Quillacingas, Yanacona, Inga, Camentsá, and Pijao. See Sistema Nacional de Información Cultural. (n.d.). Población Putumayo. https://bit.ly/3IWzcKR

23 Ministerio de Comercio, Industria y Turismo Colombia, op. cit., p. 11

24 Sistema de Información sobre Biodiversidad de Colombia (SiB). (n.d.). ¿Cuántas especies registradas hay en Colombia? Retrieved December 20, 2021, from https://cifras.biodiversidad.co/

25 Departamento Nacional de Planeación. (2014). *Definición de categorías de Ruralidad.*

26 See p.7 of IDEAM. (2021). *Resultados del Monitoreo de Deforestación año 2020 y primer trimestre 2021.* https://bit.ly/3IcULHe

27 United Nations Office for the Coordination of Humanitarian Affairs (OCHA). Alerta por Situación Humanitaria. Humanitarian Advisory Team, Equipo Local de Coordinación Putumayo. Retrieved August 2, 2021, from
https://www.humanitarianresponse.info/sites/www.humanitarianresponse.info/files/documents/files/manitaria%20inundaciones%20en%20el%20putumayo.pdf

28 United Nations Office on Drugs and Crime (UNODC). (2017). *Colombia: Survey of Territories Affected by Illicit Crops – 2016.* https://www.unodc.org/documents/crop-monitoring/Colombia/Colombia_Coca_survey_2016_English_web.pdf

29 See p. 34 of FIP, & Adelphi. (2021). *A Dangerous Climate: Deforestation, climate change and violence against environmental defenders in the Colombian Amazon.* WWF Germany.

the mid-1990s, paramilitary forces came to dispute control over the territory and the coca business with the FARC-EP.[30] Despite the 2016 signing of a Peace Agreement between the Colombian government and the FARC-EP, violence continues to be inflicted on communities by illicit actors that have taken over areas previously controlled by the FARC-EP.

The impacts of the conflict, which was triggered by the high concentration of land ownership and the presence of competing NSAGs and state armed forces, vary across population groups. It is estimated that 10% of women in Putumayo are widows, and 62% have lost an average of two children due to conflict-related violence.[31] Children and teenagers are also at high risk of forced recruitment by armed groups. Women, particularly those from Indigenous and Afro-Colombian communities, have been disproportionately affected by violence stemming from the armed conflict, experiencing SGBV, as well as psychological and physical violence. Additionally, women and girls represent 58% of the internally displaced population,[32] a situation that exposes them to further risks and violence.

Nevertheless, women in Putumayo have also been agents of change for the prevention of violence and forced displacement. They have called for alternative development options to illicit crops and have played a central role in advocating against policies that involved aerial fumigation of illicit crops with herbicides.[33]

One of the major concerns in the implementation of the Colombian Peace Agreement, which the participants of this study confirmed, is the security risk associated with women's activism.[34] Women involved in crop substitution and land titling programs or in the defense of human rights and the environment face intimidation and threats.[35] This is a particularly sensitive issue in Putumayo due to the large presence of coca crops and illegal actors. In 2020, 15 community leaders and human rights defenders (two women and 13 men) from Putumayo were murdered, 31 were physically assaulted, and nine received threats (one woman and eight men).[36] In addition, the pervasive structural and cultural violence to which women are subjected is often expressed in other forms of violence that are not reported or included in national statistics.

---

30 See p.46 of Centro Nacional de Memoria Histórica. (2012). El placer: *Mujeres, coca y guerra en el bajo Putumayo*
31 Bouvier, V. M. (2016). Gender and the Role of Women in Colombia's Peace Process. United States Institute of Peace and UN Women.
32 Ibid.
33 Ibid.
34 In line with Article 8 of UN Resolution 1325 on Women, Peace, and Security, the Colombian Peace Agreement included a gender perspective. In total, 130 out of its 578 stipulations are related to gender. See p. 18 of Barometer Initiative. (2019). *Gender Equality for Sustainable Peace. Second Report on the Monitoring of the Gender Perspective in the Implementation of the Colombian Peace Accord, Report 2.*
35 Kroc Institute and the International Accompaniment Component, UN Women, Women's International Democratic Federation, & Sweden. (2018). *Special Report of the Kroc Institute and the International Accompaniment Component, UN Women, Women's International Democratic Federation, and Sweden, on the Monitoring of the Gender Perspective in the Implementation of the Colombian Final Peace Accord.* https://peaceaccords.nd.edu/wp-content/uploads/2020/11/181113_Gender-Report_Final.pdf
36 Programa Somos Defensores. (2020). *In Evil Hour: Annual Report 2020: Information System about Aggression against Human Rights Defenders in Colombia – ISAAHRD.* https://drive.google.com/file/d/1QaCwSTrkScbsWA2H4gajBrfGvi_ya94j/view

2. APPROACH AND METHODOLOGY

The project was implemented by DCAF, together with its local partner Asociación Ambiente y Sociedad (AAS) and the National Police of Colombia, with financial support from the Ministry of Foreign Affairs of the Kingdom of the Netherlands. AAS is a Colombian NGO that has been working with women, youth, and local communities since 2012, promoting positive changes in policies, legal frameworks, and decision-making practices around environmental issues. AAS works from a human rights perspective in areas such as the Pacific and the Amazon regions, including the Putumayo and Caquetá departments.[37]

The targeted area to carry out the research activities was the municipality of Sibundoy, in Colombia's Putumayo department. Sibundoy was selected as a case study due to the existing climate security risks in the area, the presence of UNIPEP and DICAR, and AAS's access and relationships of trust with local actors. As a result of its committed work with local communities, the AAS team shares a great sensitivity for the customs of Indigenous communities living in Putumayo and has deep knowledge of Sibundoy's contextual and cultural particularities. This facilitated the selection of participants and the establishment of safe spaces for dialogue.

The partnership between DCAF and AAS allowed for merging complementary approaches. AAS offered its expertise on environmental issues and work with women's grassroots organizations, which DCAF complemented with its expertise working with the security and justice sector. DCAF was in charge of the project's overarching design and management, while AAS devised and conducted dialogues with rural and Indigenous women and interviews with experts and activists, in close coordination with DCAF. DCAF designed and facilitated the dialogue with active police officers.

2.1. Framework

In line with the principles of **participation** and **responsiveness of good SSG,**[38] this research privileged the engagement of rural and Indigenous women from different backgrounds to discuss climate security risks. By engaging them to share their lived experiences and expectations, the project aimed to collect insights to better understand women's security needs at the local level and to gather inputs to critically review and tailor existing indicators to measure security and gender conditions. Security provision can be more accountable, transparent, and effective when security institutions are sensitive to the differential needs of all groups in society and the population is engaged in the discussion of security issues, decision-making, and oversight.[39]

Women's climate security in this study is conceived of from an **ecofeminist epistemological perspective** that allows

---

us to analyze the relationships woven between natural resources, women's security, and their livelihoods from the perspective of interconnection and eco-dependence.[40] Ecofeminism recognizes a direct correlation between the exploitation of natural resources and the historical male dominance and subordination of women and vulnerable groups of society. According to this perspective, the climate crisis cannot be reduced to an issue which is inherently scientific; it must also consider the socio-cultural and historical contexts that have placed nature and women in a position of inferiority and discrimination.[41] Given human dependency on natural resources, human security cannot be understood as separate from the planet's ability to sustain interlinked ecosystems.[42] Moreover, approaching security from an ecofeminist lens supports recognizing women's differential experiences, roles, needs, and **ancestral knowledge** in the context of the global climate emergency. It can contribute to reducing the security risks they face, and thus establish conditions for peacebuilding and more inclusive decision-making processes.

Understanding climate security as an interconnected, gendered, and multi-layered experience also serves as a framework to examine impact indicators that can measure the compound risks caused by the interlinkages between 1) climate vulnerability and adaptation; 2) gender inequality; and 3) state fragility, conflict, and security. This approach makes it possible to identify differentiated levels of impacts and adaptation, as well as **community experiences and different worldviews** with respect to security and resources. All of these are central elements in efforts to create conditions for environmental justice[43] and could better equip government institutions to address climate security risks.

2.2. Research Process, Participants, and Methodological Strategies

This qualitative pilot study was carried out in three stages. The **first stage** consisted of a literature review of theoretical and public policy approaches in Latin America and other regions for measuring the impacts of the climate crisis on women's security, and the examination of existing indicator sets. The review highlighted a significant gap in existing indicator frameworks on how to address climate security risk from a gender perspective, especially at the local level.

Within the limited universe of available studies that explore these interlinked areas, the following four indicator sets were examined as a starting point to develop an initial framework with variables that could measure the specific local experiences of rural and Indigenous women in Colombia:

- A set of 18 indicators to measure the interlinkages between environmental issues and gender, developed by the UN Environment Programme (UNEP) and the International Union for Conservation of Nature (IUCN)[44]

- The Global Conflict Risk Index (GCRI) developed by the European Commission's Joint Research Centre (EC JRC),[45] which is made up of 24 qualitative indicators across five dimensions[46] that measure the probability of national and subnational violent conflict in the next one to four years

- The Women, Peace, and Security Index, made up of 11 indicators, developed by the Georgetown Institute for Women, Peace and Security (GIWPS) and the Peace Research Institute Oslo (PRIO)

40 See Salleh, A. S. (2017). *Ecofeminism as Politics: Nature, Marx, and the Postmodern* (2ⁿᵈ edition). Zed Books. Also see Shiva, V. (2016). *Staying Alive: Women, Ecology, and Development.* North Atlantic Books.
41 Miranda, C. (2019). Perspectivas desde el ecofeminismo frente al cambio climático y la Amazonía. *El Outsider, 5*, 15-29. https://doi.org/10.18272/eo.v5i0.1568
42 Lazard, O., & Youngs, R. (2021). The EU and Climate Security: Toward Ecological Diplomacy. https://bit.ly/3FvQ1ud
43 See p. 5 of UNDP. (2014). *Environmental Justice - Comparative Experiences in Legal Empowerment.*
44 UNEP, & IUCN. (2018). *Gender and environment statistics: Unlocking information for action and measuring the SDGs.*
45 European Commission Joint Research Centre. (2017). "Global Conflict Risk Index, Version July 2017." Retrieved in November 2021, from https://bit.ly/3fCOQi4
46 The GCRI Index's dimensions are political conditions; security understood as the existence of violent conflict within a state or border areas; social; economy; and geography and environment.

• The triple nexus prevalence (TNP), made up of 27 indicators to measure the impact of gender inequality, state fragility, and climate vulnerability, developed by IUCN with financial support from USAID[47]

The TNP offered a solid starting point to develop this research project given its proposed framework to assess the nexus between gender inequality, climate vulnerability, and state fragility at the national level. However, the information available in the international databases[48] utilized to measure the TNP is limited to examining these three variables at regional and local levels, and it leaves aside crucial variables that are present in the Colombian case study. For instance, the TNP does not include aspects such as women's financial inclusion, the impact of oil production on communities, or women's empowerment and participation in environmental governance. For this reason, three additional sets of indicators were reviewed and tailored to have a preliminary list of indicators to discuss with women.

During the **second stage,** methodological strategies to approach rural and Indigenous women and activists were developed, building on the theoretical review and the preliminary list of indicators identified and grouped by thematic areas. To ensure the security of the information shared by women and provide safe and open spaces for dialogue between peers, the study contacted women and police officers at different stages of the research process.

In total, this study involved 25 women between the ages of 19 and 66 from rural Putumayo. Of these women, 80% (n=20) belonged to the Kamëntšá/Kamsha, Quillancinga, Pastos, Inga, and Nasayigue Indigenous groups. Of the group of participants, 60% (n=15) stated that they were single mothers and 84% (n=21) indicated that they had been victims of crimes in the context of the Colombian armed conflict.[49]

Talking about impact indicators usually entails highly technical conversations, therefore it was fundamental to design and apply methodologies that translated complex concepts into easy-to-understand ideas. The methodology also needed to provide women with the possibility of reflecting on their own experiences when facing climate security risks while evaluating the pertinence of existing global indicators to measure their realities. Using a "do no harm" approach throughout the process, the conversations with women took place over two-day in-person workshops[50] held in Sibundoy in October and November 2021.

It is worth mentioning that the visual materials used in each activity helped to overcome barriers to participation for women with low literacy skills. During the first workshop, the women were engaged in a variety of participatory activities that aimed to compare the climate emergency's effects on their territory, elicit discussion, identify the root causes and consequences of those problems, and understand the characteristics and purpose of impact indicators. (Detailed information on the methodological tools used with these women is available in **Annex 1**.)

Building on the findings of the first workshop, the research team revised the initial list of indicators once again and disaggregated it into two levels: local and global impacts. At the second workshop, the researchers focused on discussing more in depth the links between climate vulnerability, gender inequality, and state fragility. During this visit to the field, methodological tools were implemented to invite women to reflect on access to resources; institutional actors; links

---

47 Boyer, A. E., Meijer, S. S., & Gilligan, M. (2020). *Advancing Gender in the Environment: Exploring the triple nexus of gender inequality, state fragility, and climate vulnerability.*
48 Such as the OECD's SIGI database, UN agencies' data, the World Bank, FAO, and the V-Dem Institute's Rights Database.
49 Crimes perpetrated by NSAGs such as forced displacement, homicide or forced disappearance of relatives, sexual violence, and land dispossession.
50 All measures to protect the participants and facilitators against COVID-19 were followed.

between gender, security, and climate; and climate adaptation (See **Annex 1**).

Additionally, the project included five experts and environmental activists[51] who were interviewed by AAS. The objective of these semi-structured interviews was twofold: first, to understand the experiences of women as leaders and environmental experts; and second, to jointly evaluate the indicator refinement process undertaken with rural and Indigenous women in Putumayo and the pertinence of existing indicators on gender inequality, climate vulnerability, and state fragility to track local realities.

Considering the central role played by the security sector in prevention, control, and environmental monitoring, the **third stage** of the research involved five active police officers including UNIPEP's head and two DICAR police officers. Since 2017, DCAF has established a long-standing relationship of providing technical support to the National Police of Colombia, ranging from support for gender issues to the use of police force, environmental peacebuilding, and media and security.[52] Through a series of meetings and one hybrid workshop held in Bogota in November 2021, AAS and DCAF presented the preliminary findings from the workshops held with rural and Indigenous women and engaged the police officers in a discussion of the impact indicators. The objective of involving police officers in the research was to complement rather than cross-check the ideas provided by rural and Indigenous women.

To simultaneously include both police deployed in Putumayo and at the national level, the research team implemented a hybrid methodology that combined in-person and online participants. To do so, DCAF and AAS met face-to-face with police officers in Bogota while Putumayo-based police officers connected via Microsoft Teams® at the same time. During the workshop, both groups interacted through the Miro® online collaborative whiteboard platform. The team of facilitators built on the existing tools used by the police to approach the indicators; analyzed a case study that incorporated situations highlighted by the women, including their interaction with governmental authorities; and reviewed the indicators by thematic area. (Detailed information on the methodological tools used with police officers is available in **Annex 2**.) These methodological strategies stimulated an interesting discussion on linkages and overlaps between climate change, gender inequality, and state fragility, as well as differential effects, the role of security providers and oversight institutions, and how those risks are measured with indicators.

The implemented methodology with all participant groups proved to be appropriate for identifying differentiated levels of impact and adaptation, as well as different worldviews with respect to security and natural resources and elements that can facilitate the development of context-specific indicators. All of these are central elements in efforts to create conditions for environmental justice.[53]

---

51 Interviewed environmental activists: 1) a biologist and international leader trained in sustainability; 2) a member of a protection group in the Sugamuxi province in the Boyacá department; 3) a member of an advocacy group for food security in Barranquilla in the Atlántico department; 4) an environmental activist from La Calera in the Cundinamarca department; and 5) a geographer, scholar, and environmental studies researcher.
52 DCAF signed a Memorandum of Understanding with UNIPEP in 2019, which is expected to be renewed in 2022. This new memorandum of understanding will cover areas such as environmental peacebuilding.
53 See p. 5 of UNDP. (2014). *Environmental Justice - Comparative Experiences in Legal Empowerment.* https://bit.ly/34ZE4Ab

3. FINDINGS

The empirical data collected in this study confirms that climate security is a gendered and multilayered experience. As such, the environmental and security concerns of female activists, as well as those of rural and Indigenous women, are conceived of and shaped according to their worldviews and customs, personal relationships, levels of organization, access to resources, and interaction with authorities and non-state actors. Identifying women's multilayered security concerns when experiencing the climate emergency is an entry point to adapt attitudes and on-the-ground programming when addressing climate issues. In fact, the research findings show that the women and police officers who participated in this study share similar perceptions about the consequences of the overlap between climate security and gender inequality in Putumayo.

The human security approach was used as a framework to deductively analyze the findings. This framework is composed of seven dimensions of security: **environmental, economic, food, community, personal, political, and health.**[54] Although all dimensions of human security are interdependent and must be understood as inherently intertwined with the environment, richer accounts were provided in some dimensions than in others. This imbalance does not reflect the level of importance of a certain dimension, but rather how difficult it was at times for the participants to link everyday experiences to the effects of the climate crisis amid historical situations of violence.

Developing the analysis through the seven dimensions of Human Security allows for a better understanding of how the climate crisis affects the different areas of women's lives.

This approach facilitates the development of thematic recommendations to design prevention mechanisms and mitigation strategies. In this effort, indicators are central to measuring effects and prioritizing intervention areas at the local and national level. Having tailored indicators could also support the development of an evidence base to inform local initiatives of disaster risk reduction and foster the delivery of gender- and climate-sensitive security by the security sector. Similarly, local indicators could assist in establishing effective governance mechanisms. These measurement tools can be used as entry points to facilitate peacebuilding, ownership of climate response plans, and dialogue between grassroots communities, authorities, businesses, and security actors to develop strategies and address security concerns.

3.1. Environmental Security

Flooding is the main environmental concern for the rural and Indigenous women who participated in this research. In the last ten years, the Sibundoy valley has suffered repeated flooding due to a sharp increase in rainfall known locally as the "winter wave" caused by climate change and the La Niña weather pattern. According to the research participants, due to extreme climate variability and deforestation, rainfall is not easy to predict. Flooding has become a recurring event that happens at least once a year, and the unpredictable nature of its occurrence leaves little room for adaptation and recovery. For the UNIPEP police officers involved in this study, extreme climate variability adds to the lack of access they and the communities have to local weather forecasting.

---

54 UNDP. (1994). *Op. cit.*

Along with damage to property and belongings, floods have contributed to landslides, the death of farm animals, crop damage, and the loss of native seeds. The orchards, known locally by Indigenous communities as chagras,[55] are a fundamental part of their ancestral practices, food security, and diet. However, given their destruction, women are facing difficulties accessing food, generating income, and maintaining their practices such as traditional medicine. Moreover, as will be discussed in section 3.2, environmental degradation has triggered migration. According to their accounts, the women are more concerned about the effects of flooding than other pressing issues such as the COVID-19 pandemic. For these Indigenous communities, the damage caused by excessive rainfall to intangible assets, such as their relationship with the land, cannot be compensated with cash or aid packages.

"In this 'winter wave,' there were more losses (...) the things that people lost and the consequences of every heavy rainfall cannot be compensated with a remittance or a mattress. This does not compensate for our relationship with the land; the community becomes contaminated, the level of the watersheds rises so much that the sewers are flooded."

[Before the community felt the climate crisis] "There were more native trees, more animals, healthier food cultivated, a lower population, greater care and protection, and less pollution."

Participants of workshops
in Sibundoy | 2021

For the Indigenous leaders, the existing networks they have built through their organizations and communities are central to protecting themselves, expanding their knowledge about the impact of the climate crisis, and mitigating the effects of disasters. However, the areas where these women are located continue to be underserved and there are no effective prevention mechanisms.[56] Nearly all the research participants reported that they do not have access to clean running water, reliable electricity, or gas. Most rural and Indigenous women collect firewood for cooking and, in cases where they have gas, some alternate it with the use of firewood to lower costs. Electricity, which is critical for household chores and connectivity, is often cut off for weeks during floods. This was noted as a security concern due to the impact on emergency relief and increased levels of vulnerability during weather events for women working from home and those working as day laborers on neighboring plots.

Unlike studies that have indicated how, in times of water scarcity, fetching water in rural and volatile contexts is a dangerous activity carried out mainly by girls and women,[57] this study found that there are nuances concerning this household division of labor in Sibundoy. While women perceived security risks in fetching water from nearby rivers due to the time children[58] spent alone at home and reported cases of sexual violence and murder, they also indicated that men and youth have been gradually organizing among themselves to carry out this household chore. **The increasing collaboration and solidarity between men and women could aid in the implementation of adaptation strategies to address climate security risk at the community level**. Moreover, this evidence illustrates how more gender-equal social relations may enable decreasing women's and girls' risk.

---

55 *Chagras or chakras* is a term used by Indigenous communities to refer to subsistence gardens where they grow food and sacred plants according to solar or environmental calendars.
56 The 2016 Colombian Peace Agreement enhanced the legal framework and brought institutional changes for the protection of human rights leaders and environmental defenders. However, insufficient resources and capacities at the municipal and local level (particularly in the areas most affected by violence) have prevented the effective protection of leaders and activists. See FIP, & Adelphi. (2021). Op. cit., p. 52.
57 For example, see Shrestha, S. C., Chapagain, P. S., & Ghimire, M. (2019). Gender Perspective on Water Use and Management in the Context of Climate Change: A Case Study of Melamchi Watershed Area, Nepal. *SAGE Open*. https://doi.org/10.1177/2158244018823078
58 Of the study participants in Sibundoy, 88% (n=22) indicated that they have children.

According to the head of UNIPEP in Putumayo,[59] there are gender differences when it comes to reporting environmental crimes to the police or participating in awareness activities. Women are more likely to report cases of animal abuse or wildlife trafficking, whereas more sensitive activities such as deforestation or illicit gold mining, mostly carried out by men, remain underreported. Similarly, although police officers stated that their interaction with Indigenous people in rural areas has been limited, in the areas where UNIPEP operates, women are more likely than men to engage in recycling or reforestation activities organized by local authorities and the police. Within the framework of the governmental goal to plant 1.8 million trees between 2018 and 2022,[60] UNIPEP and DICAR have led reforestation activities alongside environmental and educational authorities.[61]

The women who participated in this study expressed their interest in increasing their knowledge about environmental prevention and mitigation strategies to curb the effects of the climate crisis. Knowledge sharing could be an entry point to strengthen collaboration between civil society and local authorities.

Contributions to Rural Indicators on Environmental Security

Global indicators on climate vulnerability from the reviewed datasets put emphasis on measuring water stress, disasters, access to water and electricity, as well as the concentration of people in urban areas and species extinction rate. Based on the empirical data from this pilot study, alongside these variables, three additional elements were identified as relevant in any effort to address the needs of local communities in Sibundoy: 1) migration of household members triggered by changes in the environment and climate, disaggregated by age and sex; 2) changes in ancestral and traditional practices linked to the scarcity of natural resources and native seeds; and 3) environmental variability affecting local crop calendars.

Combined, this group of indicators can aid security sector institutions to identify and map the areas and groups that are more vulnerable to disasters. Likewise, security institutions with a mandate related to disaster prevention and response can use these tools to identify optimal timing for planning prevention activities and risk mitigation strategies. Local indicators can support determining priorities for contingency plans and emergency responses, as well as designing gender- and ethnicity-sensitive strategies. This would translate into local authorities' enhanced preparedness to confront disasters and an improved level of responsiveness, as one of the principles of good governance.

3.2   Economic Security

In Sibundoy, economic security concerns are closely related to the effects of flooding, crime, and armed conflict. As indicated in section 3.1, changes in rainfall patterns have affected planting and harvesting seasons, in turn decreasing crop yield and impacting food security. Although almost all research participants are engaged in agricultural activities, only 40% (n=10) are landowners. Not owning land hinders women's opportunity to access financial products and their capacity to save money, access insurance, and obtain loans. Furthermore, where women have been able to obtain credit, either directly or through their husbands, the flooding of their crops has resulted in their inability to repay bank loans.

Subsistence farming has become increasingly difficult, leading to the economically driven migration of men, abandonment of traditional orchards (chagras), and soil damage due to monocultures, pesticides, agrochemicals, and the expansion of the agricultural frontier in the Amazon foothills. In Putumayo, migration triggered by environmental and economic reasons is mostly led by men. As discussed in section 1, due to the presence of NSAGs

---

59 Meeting with UNIPEP, October 2021.
60 See https://bit.ly/33RkZjy
61 Such as Corpoamazonia, the National Community Surveillance Model, the National Army, SENA, Earth Ambiental, and the Colombian Agricultural Institute (ICA, for its acronym in Spanish).

and criminal organizations, coca crops are widespread in Putumayo. Rural and Indigenous women stated that men have had to migrate to work mainly as coca leaf scrapers in the quest for economic survival.

"Almost all of us are heads of household, precisely because our husbands have gone elsewhere to look for work. One of the problems in Sibundoy is that it is not easy to find a job (...) wages are very low. That is why even our children, who have completed their university education, prefer to go to Tumaco or Barbacoas to scrape coca, because what you earn in a day there takes up to two weeks here."

"The daily wage for a man is COP 30,000 pesos (7 CHF). We are paid COP 20,000 (4.7 CHF) pesos for the same work."

***Participants of workshops
in Sibundoy | 2021***

"Almost all of us are heads of household, precisely because our husbands have gone elsewhere to look for work. One of the problems in Sibundoy is that it is not easy to find a job (...) wages are very low. That is why even our children, who have completed their university education, prefer to go to Tumaco or Barbacoas to scrape coca, because what you earn in a day there takes up to two weeks here."

"The daily wage for a man is COP 30,000 pesos (7 CHF). We are paid COP 20,000 (4.7 CHF) pesos for the same work."

Participants of workshops in Sibundoy | 2021
Illegal actors have eroded and usurped the

fertile land from rural families to plant illegal crops.[62] According to the head of UNIPEP in Putumayo,[63] along with the environmental cost of illicit crops that require significant amounts of land[64] and water for their production, there are legal activities (e.g., oil extraction, gold mining) that also cause significant harm to the environment and are not duly prosecuted.

Legal loopholes and limited access to remote areas have contributed to the perpetration of environmental crimes that have a direct impact on the economy and safety of women and their families. Moreover, hundreds of people in Sibundoy have arrived either as internally displaced persons from southern Putumayo and neighboring departments, or as part of the unprecedented inflow of Venezuelan migrants that has taken place since 2018. The participants indicated that the population increase in their territories due to economic and environmental migration has put additional pressure on resources and has created crime-related security risks.

Women who struggle to secure land rights, financial products, and equal pay are directly impacted by male migration in their communities.[65] Due to the social division of roles, when men migrate, women experience an increased domestic workload burden and safety risks when they or their children are alone at home, as discussed in section 3.4. Furthermore, limited access to land and damage to crops have led women to seek out other economic activities (e.g., working as housekeepers in neighboring homes), working for low wages as day laborers on nearby farms, or working on leased land.[66]

Contributions to Rural Indicators on Economic Security

The global indicator sets reviewed during the first stage of this research include time spent on performing both reproductive and productive roles, access to land, and income inequality. Identifying gender dynamics

---

62 Interview, activist, November 2021.
63 Workshop, Bogota, November 16, 2022.
64 According to the National Police of Colombia, to plant one hectare of coca, it is necessary to deforest three hectares of tropical forest. See https://bit.ly/3JpqjtH
65 Of the study participants in Sibundoy, 52% (n=13) indicated that they are heads of households.
66 Of the participants in Sibundoy, 36% (n=9) indicated that they work on rented land.

and how they change over time and space (e.g., in rural and urban areas) is central to measuring the impacts of climate change. To tailor global indicators to the local realities of rural Sibundoy, this study suggests including four variables: 1) migration of household members triggered by economic reasons, disaggregated by age and sex; 2) economic sector in which household members are working after they migrate; 3) access to financial products, disaggregated by age and sex; and 4) number of female heads of households.

Integrating these indicators could provide information about women's financial inclusion and impacts on household composition and migration patterns by type of economy. This information could also contribute to mapping areas of vulnerability where security sector institutions can intervene to prevent illegal activities and crimes and design strategies and mechanisms to protect vulnerable populations.

3.3. Food Security

For rural and Indigenous women, difficulties in securing access to sufficient and nutritious food are the most pressing effects of the extreme changes in weather patterns. As mentioned in section 3.1, orchards (chagras) are frequently damaged by intensified rains, floods, landslides, and droughts. This has seriously undermined traditional self-subsistence systems. In addition, participants stated that the replacement of native seeds with genetically modified monocultures has changed traditional agricultural practices and deteriorated soil fertility and the quality of harvested products. Local crops such as peaches, tomatoes, and chilacuan[67] are increasingly difficult to harvest.

In addition, local ecosystems have degraded due to gold mining, logging, land clearing, and changes in land use. Women indicated that rivers have been contaminated by mining and agricultural waste, which prevents them from fishing and further restricts their food intake. Aerial fumigation of coca crops has also damaged other crops and affected the prospects for future cultivation. Furthermore, workshop participants linked fumigation to health problems. Altogether, these changes have led to a decline in crop yields, restricted food availability, and changes in traditional practices and eating habits. At the same time, women's capacity for income generation is affected, limiting their ability to purchase food and to cover other basic needs. This situation has a direct impact on women's health, as they often skip meals so their families can eat and experience increased stress levels and anxiety due to food insecurity and economic pressure.

"You can no longer go fishing in these streams because the fish are contaminated (..) The Blanco River, Naboyaco River, Mocoa River, San Pedro River, Guamuez River, and San Francisco River are all contaminated by rubbish and fungicides (..) there are rivers where gold has been found, and they are contaminated by the same things that men use in the mines, where they use a lot of mercury and damage the habitat of many animals."

"We used to grow a lot of peaches, Queen Claudia plums, chilacuan, tomato trees, apples that did not need fungicides. Once harvested, we would sell peaches; they were a healthy product (..) Now, the peaches come out with a worm inside, and the tomatoes dry out (..) even the chilacuan that was strong, all these were clean products."

---

67 *Chiluacan* is a sour yellow fruit that is used in desserts and home remedies.

> *"When there is no food, the mother is the first one to stop eating, and the children are fed first. Sometimes you cook a little, and you say that you have already eaten so that the children won't notice (…) or you go to a meeting or something, and if there is a snack, you bring it home with you."*
>
> ***Participants of workshops in Sibundoy | 2021***

Food insecurity is also a driver for migration and displacement. As previously mentioned, men often migrate to other areas in search of job opportunities, which are frequently found on illegal crop plantations. Women's resilience capacity to face these challenges is also weakened by limited access to financial services, which in turn affects land ownership. Consequently, when experiencing food insecurity, women are often forced to work as day laborers or relocate in an attempt to find fertile land. This brings additional challenges for women in terms of increased workloads (paid work and reproductive care) and their vulnerability to labor exploitation and other types of violence.

Contributions to Rural Indicators on Food Security

Indicators to measure household-level food security commonly focus on measuring food access and use, such as consumption, expenditures, coping strategies, and nutrition.[68] Given that food security is a multidimensional issue, the reviewed global indicator sets include impacts on food access, measuring variables such as disasters, water access and quality, land tenure, access to productive financial resources, and prevalence of undernourishment. Based on this study's empirical data, four additional elements should be considered when developing local indicators to measure the climate emergency's impacts: 1) number and composition of households dependent on subsistence agriculture; 2) proportion of food cultivated through traditional agricultural practices (use of chagras, native seeds, traditional medicine, and environmental calendar); 3) level of access to clean/sustainable agriculture technologies (monoculture vs. traditional crop area); and 4) level of usage of chemical fertilizers and fungicides over the previous growing season or year.

Combined, this group of indicators can aid security sector institutions to identify and map the geographic areas subject to greater food insecurity and improve coordination with other state institutions on strategies for providing effective responses to manage food security crises. Interinstitutional coordination and monitoring of changes in food security can help security sector institutions to prevent people's involvement in illicit economies and identify areas that may require increased security actors' presence to prevent crimes and abuses against vulnerable groups such as women, the elderly, and children.

3.4. Personal and Community Security

Climate change is known to increase tensions over resources and has been a driver of conflict, affecting both personal and community security. Although the human security framework conceives of personal and community security separately, for rural Indigenous communities, this conception does not always align with their worldview. Their identities cannot be separated from the community, which, in parallel, is closely tied to their territories and natural resources. To reflect this complexity, personal and community security are analyzed together in this section.

One of the main impacts of climate change on rural and Indigenous women's personal security in Putumayo is the increase in

---

68 See, for example, the World Food Programme.

structural, cultural, and personal violence. Intimidation and frequent threats against female environmental leaders are a clear attempt to eliminate their rights to advocate and participate in government platforms. They are also a manifestation of the existing structural violence against women. Some women who participated in this study are environmental activists who have been threatened over the past years. One of them indicated that her sister was assassinated due to her environmental activism.

Cultural violence against women, which is related to social values and worldviews that allow the existence of structural, physical, psychological, sexual, and gender-based violence to be ignored and justified, is exacerbated by the climate crisis.

The rural and Indigenous women who participated in this study have perceived an increase in domestic violence. For them, this is a result of the increased stress and pressure generated by food insecurity and loss of income due to the impacts of climate change on the agricultural sector. Because SGBV crimes do not fall within UNIPEP's mandate, it does not file these cases. The National Police of Colombia has assigned this responsibility to other units within the police. However, UNIPEP police officers indicated that victims rarely report domestic violence in Putumayo.

It is important to point out that, although domestic, sexual, and psychological violence against women occurs regardless of climate change, the environmental crisis aggravates existing levels of domestic abuse.

In addition, women and children that remain alone at home are more vulnerable to crimes such as robbery and theft, sexual violence, and kidnapping. However, the empirical data from this study also shows that, in some cases, when men migrate in quest of new economic opportunities, some women have felt relieved since those who inflicted abuse have moved out of the household. These experiences reflect the severity of gender-based violence in Putumayo and are a clear indication of the pressing need to mitigate the effects of climate change in order to reduce violence inflicted on women and children.
As indicated in section 3.1, flooding has led

"The peace process has been beneficial for us (…) here almost all of us have been displaced from the Bajo [Putumayo]. It is true that some areas are calmer, but now mining in the rivers and illegal logging are terrible throughout the department."

"Many times, they [the authorities] don't believe them either. I have heard them telling some of my friends that we are the ones to blame because of the way we were dressed, that we are the ones to blame for this happening."

"Of course, since men are not there, you are more exposed to security issues, although if, for example, you were subjected to domestic abuse, it is more beneficial when he leaves."

**Participants of workshops
in Sibundoy | 2021**

to migration and displacement, situations in which women are more vulnerable to sexual violence. The narratives of several women from Putumayo showed how sexual violence against women is pervasive in rural areas and perpetrated by both intimate partners and NSAGs. In addition, women described situations in which groups of men come to their communities to extract resources, and the women are verbally abused and forced to cook, clean, accommodate them, store their guns, or pass them off as family. For these women, situations that do not involve physical violence are not openly discussed or reported, since local authorities do not consider coerced labor or verbal abuse as legitimate acts of violence that should be reported or investigated.

Although the empirical data does not indicate the existence of violent disputes over natural resources at the community level

in Sibundoy, there are tensions between Indigenous groups and rural communities. These tensions revolve around access to clean water, use of land and forests, and the presence of outsiders exploiting their resources with licenses granted by governmental authorities. The risk of not addressing this type of grievance is that other groups may resort to direct violence to overcome these tensions, as has been the case in other areas such as southern Putumayo.[69]

Contributions to Local Indicators on Personal and Community Security

Security sector institutions play a key role in addressing and preventing violence and actions that endanger human lives. Recent studies demonstrate that, across the world, intimate partner violence is the most common form of violence against women, and only a small percentage of gender-based violence cases are reported to the police.[70] Such reluctance may stem from cultural norms regarding violence, but it is also a result of the lack of effective actions against perpetrators, high levels of impunity for SGBV, and lack of trust in authorities. Insofar as the climate crisis has created conditions that aggravate personal and community insecurity, it has contributed to violence against women.

Global indicators have measured women's personal security using access to justice, government effectiveness, social cohesion, and fragility as the main variables. However, community security is solely measured in terms of women's perceptions of safety when walking at night near the areas in which they live. This approach does not take into account rural lived realities and thus fails to capture the levels of insecurity that women may face at home from external actors, especially in

mining- and conflict-affected settings. This study found that, when measuring personal and community security in areas where Indigenous communities live, it is important to also consider the interconnected view of people as part of a group. Likewise, it is important to measure three additional variables: 1) tensions between communities over access to and use of natural resources; 2) security perceptions when staying at home; and 3) reported cases of verbal and physical aggression against environmental and community leaders and activists.

For the specific case of Colombia, having data on the level of violence exercised against local and environmental leaders, disaggregated by alleged perpetrators of the threats, is crucial to assess the impact of the climate emergency on women's security. Female leaders of environmental movements and organizations are particularly at risk of SGBV and murder when NSAGs or criminal organizations that engage in environmental crimes or illegal resource extraction are in their territories. Colombia is considered the most dangerous country in the world for those who defend environmental rights.[71] Most homicide victims have been Indigenous peoples, Afro-descendant communities, individuals defending land and environmental rights, and people involved in the Peace Agreement's implementation.

Local indicators can complement gender-responsive policing strategies and help to track the incidence of violence against women and provide an effective response to threats to women's security. They can also point to areas where increased tensions between groups may lead to violent conflict and be used for designing conflict de-escalation strategies. Having these indicators can also serve as great input to strengthen

---

69 See Santaeulalia, I. (2021, September 15). Colombia: the world's deadliest country for environmentalists in 2020. *El Pais*. https://english.elpais.com/usa/2021-09-15/colombia-the-worlds-deadliest-country-for-environmentalists-in-2020.html; Insight Crime. (2020, March 26). The Women Who Want to Leave Coca Behind in Colombia's Putumayo. https://insightcrime.org/news/brief/women-coca-putumayo-colombia/; and Fundación Ideas para la Paz. (2017). *Mujeres y la economía cocalera en Putumayo: roles, prácticas y riesgos.* https://cdn.ideaspaz.org/media/website/document/5a21a1163faf3.pdf
70 United Nations Department of Economic and Social Affairs (UN DESA). (2020). *World's Women 2020 – Intimate partner violence is the most common form of violence against women.* https://www.un.org/en/desa/world%E2%80%99s-women-2020-intimate-partner-violence-most-common-form-violence-against-women; Pan American Health Organization (PAHO). (n.d.). Violence against women. https://www.paho.org/en/topics/violence-against-women; Ekhator-Mobayode, U. (2020, May 19). Does armed conflict increase a woman's risk of suffering intimate partner violence? World Bank Blogs-Development for Peace: Solutions to tackle fragility, conflict, violence. Retrieved March 23, 2022, from https://blogs.worldbank.org/dev4peace/does-armed-conflict-increase-womans-risk-suffering-intimate-partner-violence
71 Global Witness. (2021). *Last line of defence.* https://www.globalwitness.org/en/campaigns/environmental-activists/last-line-defence/

community policing initiatives and security schemes to protect community leaders.

3.5. Political Security

The experiences described by the participants in Putumayo showed that entrenched gender inequalities can aggravate the negative effects of the climate crisis on women's rights. The climate emergency has affected their access to food, work, equal pay, land, clean water, and meaningful and informed participation in decision-making processes. Moreover, it has endangered their traditional and ancestral practices.

As mentioned in section 3.2, legal loopholes and limited access to remote areas have contributed to tensions and the depletion of natural resources by licit and illicit actors. Women perceive as unfair the licenses provided by environmental authorities to external actors and big companies to exploit the natural resources in their territories (e.g., oil extraction or water concessions[72]), while the government prosecutes community members for using resources, such as timber, for survival. **This tension over the use of natural resources has left women with the perception that there is no rule of law or equality, as those with wealth or political influence are favored in access to natural resources.**

The empirical data from this study suggests that women's perceptions of the security sector vary according to the type of institution. Workshop participants indicated that, although it is not always easy for them to differentiate between the roles played by the military and the police, they perceive the army more positively. This is mainly due to the active participation of Colombian National Army soldiers in disaster response during floods and landslides. On the other hand, there is a lower level of trust in the police in Sibundoy, mainly due to their limited

presence in rural areas and low levels of law enforcement.

As stated by the head of UNIPEP in Putumayo,[73] although the unit has led important environmental activities to prevent and monitor environmental crimes, its operational capacity to cover the entire department is still limited given its size, complexity, and the poor state of the roads. UNIPEP operates through a unit made up of four police officers based in the municipality of Mocoa with only one vehicle and little access to remote areas where most Indigenous people are located. UNIPEP officers pointed out that, given the police force's limited presence in rural areas, the police have tried to coordinate with some military units and other government institutions to strengthen law enforcement for environmental crimes. Nevertheless, coordination is still limited.[74] For the police officers, it is crucial to strengthen interagency cooperation to advance both law enforcement and peacebuilding efforts, and to improve disaster management.

The police officers who participated in this study indicated that, due to NSAGs', illegal loggers', and miners' presence and threats against civilians, there is little collaboration between civil society and the police. UNIPEP has nonetheless interacted with some Indigenous communities in urban areas and has started to approach environmental leaders to increase levels of confidence in the police.

Some women indicated that they do not have access to meaningful and informed participation in environmental decision-making. For them, there is a clear absence of spaces to participate and consent to measures that impact their livelihoods and ancestral practices. In addition, women's leadership is subject to constant intimidation and threats to their physical and emotional integrity, which undermines their right to participation in decision-making. Nonetheless, there were also nuances

---

72 Water concessions are permits granted by environmental authorities for the use of water resources (either from the surface or underground) for power generation or agricultural, industrial, or domestic use.
73 Workshop, Bogota, November 16, 2022.
74 The National Army, the Navy, the Air Force, and the National Police in Colombia have undertaken joint operations in Putumayo against illegal mining. See https://www.cgfm.mil.co/es/blog/ofensiva-de-las-fuerzas-militares-y-policia-contra-la-mineria-ilegal-en-el-sur-del-pais

in the information provided concerning women's participation in decision-making. Some men's lack of interest in participating in environmental spaces has opened room for women's participation since they have progressively taken men's spaces in some settings. In addition, as described in section 3.1, women are more likely to engage in recycling or reforestation activities organized by local authorities and the police.

"The defense of the territory means that leaders are subject to threats. We've had to organize ourselves, take care of each other to continue being leaders."

"We women are hardly ever invited to meetings at the mayor's office. We are invited just to appear in the photo and sign papers, but not to participate in projects' development."

"More and more women are being supported now, and at home, men often say that going to a meeting is a waste of time, so women take advantage of it, and we are in those spaces making the decisions."

**Participants of workshops
in Sibundoy | 2021**

Contributions to Rural Indicators on Political Security

The protection of the political dimension of human security is a multisectoral task, encompassing state and non-state security and justice providers, state oversight and management, and public and civil society oversight entities. In this regard, upholding human rights is one of the responsibilities of security sector institutions. It is also essential for delivering responsive, accountable, effective, and transparent security services. The global indicators from the datasets examined for this study include women's participation,

representation, and decision-making, as well as government effectiveness. The analysis of the local context and the empirical data on women's needs suggest the importance of incorporating three additional variables: 1) women's access to and level of participation in local environmental governance; 2) impact of oil production/gold mining on local communities' access to resources; as well as 3) women's access to justice when reporting environmental crimes and SGBV.

These indicators can help to identify areas with a need to intensify state presence; prevent and investigate attacks on environmental defenders; decrease impunity for SGBV and structural violence; facilitate access to justice; enhance environmental and human rights defenders' protection programs; and contribute to women's increased and secure participation in the public arena. These areas were also recommended in the United Nations Human Rights Council's thematic list of recommendations in the third cycle of the Universal Periodic Review.[75]

3.6. Health Security

Both mental and physical health issues were identified by rural and Indigenous women as related to the climate crisis. Food and economic insecurity, mainly as results of flooding, have contributed to distress, frustration, and anxiety. Furthermore, the lack of access to clean water due to intermittent service provision and high levels of contamination has created health and security risks. It also increases physical efforts when fetching water and women's risk of experiencing SGBV

"Women are at greater risk of diseases due to environmental causes and due to hormonal issues; they are more susceptible due to their daily routine and heavy work. Issues with menstruation or spots on the face come along, to which women are more vulnerable (...) what we do now is work earlier, and we've had to change our schedules (...) We get up earlier and go to bed at the same time as always, to be able to work in the fields when there is less sun."

"All the chemical residues from the monocultures are thrown into the pipes, and that affects everything. When I got here, many people had cancer and, well, that disease is inherited, but it is also caused by those chemicals."

Participants of workshops in Sibundoy | 2021

Climate change has also increased levels of solar radiation, affecting crops and women's daily routines. Some participants indicated that they had to start working during early hours to reduce sun exposure, while others indicated skin problems and heat strokes.

Likewise, these women also pointed to aerial fumigation of illicit crops with herbicides as the cause of physical ailments. Although, based on the data, it is not possible to conclude that other health issues identified by the participants, such as hormone imbalance or cancer, are solely the cause of the interlinkage between climate and gender, for Indigenous women, this imbalance reflects the climate emergency's effects. Health issues can affect women's capacity to participate in economic activities or decision-making processes while also decreasing their work efficiency, hence affecting their economic security.

Ancestral medicine, practiced and taught throughout generations, is a pillar of Indigenous and rural communities. However, the loss of traditional knowledge puts their health and traditions at risk. Although there is a health facility in Sibundoy, access is limited due to economic constraints, the hospital's limited capacity, the lack of experienced medical staff, and its location. When informed that transport and money are limited, civil organizations or firemen have provided transport for patients in a serious condition to health facilities, which suggests some level of support from institutions to facilitate access to services.

Contributions to Rural Indicators on Health Security

Among the main variables to measure the climate emergency's impact, the reviewed global indicator sets included three main variables: 1) mortality rates of women and children; 2) the number of people who went missing or died during hydrometeorological disasters; and 3) morbidity rates attributed to environmental causes (i.e., unintentional poisoning, poor air and water quality). Although it is challenging to attribute complex health issues to effects of the climate crisis, local indicators can serve to create baselines and to see the progression of health issues over time.

Based on the empirical data, it would be beneficial to have local indicators to measure the impact of the climate crisis on women, including 1) women's levels of psychological distress due to environmental issues and 2) physical impairment related to environmental and security issues (other than unintentional poisoning and poor air and water quality), disaggregated by sex and age. For example, this could include skin problems, consequences of sun exposure, etc.

To facilitate analysis, the variables identified in this study that could contribute to developing local indicators to measure the impact of the climate crisis on all the dimensions of women's security are grouped in Figure 1.

75 United Nations Human Rights Council. (2018). *Universal Periodic Review: Colombia (3rd Cycle – 30th Session).* https://www.ohchr.org/EN/HRBodies/UPR/Pages/COIndex.aspx

Figure 1: Variables identified at the local level that can contribute to developing rural indicators to measure the impact of the climate crisis on women's human security

1. Environmental Security

- Migration of household members triggered by changes in the environment and climate, disaggregated by age and sex
- Changes in ancestral and traditional practices linked to the scarcity of natural resources and native seeds.
- Environmental variability affecting local crop calendars.

2. Economic Security

- Migration of household members triggered by economic reasons disaggregated by age and sex
- Economic sector in which household members are working after they migrate
- Access to financial products, disaggregated by age and sex
- Number of female heads of households

3. Food Security

- Number and composition of households dependent on subsistence agriculture.
- Proportion of food cultivated through traditional agricultural practices (use of chagras, native seeds, traditional medicine, and environmental calendar)
- Level of access to clean/sustainable agriculture technologies (monoculture vs traditional crop area)
- Level of usage of chemical fertilizers and fungicides over the previous growing season or year

4. Personal and Community Security

- Tensions between communities over access to and exploitation of natural resources
- Security perceptions when staying at home
- Reported cases of verbal and physical aggressions against environmental and community leaders and activists

5. Political Security

- Women's access to and level of participation in local environmental governance
- Impact of oil production/gold mining on local communities' access to resources.
- Women's access to justice when reporting environmental crimes and SGBV

6. Health Security

- Women's levels of psychological distress due to environmental issues.
- Physical impairment related to environmental and security issues (other than unintentional poisoning due to poor air and water quality), disaggregated by sex and age

Source: Prepared by the author based on her research findings

4.RECOMMENDATIONS

This pilot study provided evidence on how the climate crisis has created differential consequences for women's human security at the local level. Acknowledging that women are not a homogenous group and that their experiences are shaped by their diverse identity markers including age, living conditions, and ethnic group, this study offers insights into elements that contribute to the security of rural and Indigenous women in Sibundoy. The research findings demonstrate that the women's perceptions of security amid the climate emergency go beyond traditional conceptions of security linked to crime reduction and the level of violence. Security is an interconnected, gendered, and multi-layered experience that is directly linked to land ownership, the preservation of ancestral practices, access to financial services, access to clean water and electricity, protection during disasters, the elimination of SGBV, healthy and sufficient food, and adequate provision of justice. Security is also dependent on the protection of the soil and natural resources. Therefore, designing indicators that are specific to the local context in order to collect evidence on the impacts of the climate crisis on the security of rural and Indigenous women can contribute to programming and institutional response.

Along with the recommendations made in section 3 on including additional variables when designing local indicators to measure women's climate security, the following recommendations emerged from the research findings. They intend to provide a number of entry points for governance-driven responses to climate- and gender-related security risks.

A. INTERNATIONAL ACTORS

- **Promote comprehensive approaches to security:** Multilevel and multidimensional approaches are central to addressing climate change. International donors and agencies can strive for multisectoral collaboration in the implementation of initiatives aiming to improve women's security in areas affected by the climate crisis. Moreover, gender and climate can be mainstreamed into programming and funding mechanisms. For instance, international funds for disaster risk management or climate change adaptation could be excellent opportunities to implement actions and plans that also help to advance gender equality at the local and national levels. When evaluating flooding or deforestation risks, data collection can include variables that allow identifying men and women's different capacities and vulnerabilities to act accordingly. Likewise, efforts to improve gender equality or reduce domestic violence can include environmental variables to identify threat multipliers that exacerbate violence against women in rural areas.

- **Support local initiatives aiming to build on alternative masculinities:** Hegemonic gender norms have encouraged men in most societies to dominate and subordinate women and people of other gender identities. Therefore, it is crucial to recognize alternative expressions of manhood and deconstruct social conceptions of masculinity related to ideas of superiority or bravery. Approaches that seek to build masculinities based on solidarity and equality can contribute to peacebuilding.[76] The empirical data suggests that the negative effects of the climate crisis are generating some gender-transformative effects in social relations between men and women living in rural and Indigenous areas. Support from international actors to enhance solidarity and build alternative

---

[76] See DCAF's experience with the Colombian police working on a peace-oriented understanding of masculinity: https://dcaf.ch/sites/default/files/publications/documents/BridgingTheDistance_Gender_Security_Colombia.pdf

masculinities could, therefore, contribute to gender equality and improve human security.

- **Assist local initiatives aiming to preserve ancestral knowledge and traditional practices:** International actors, in coordination with local stakeholders, can provide technical and financial support to women's organizations and initiatives striving for the preservation of traditional and Indigenous knowledge and environmental conservation. This could also include strategies or tools to document changes in women's security due to environmental changes. Moreover, multilateral efforts can support women's leadership and small businesses that may contribute to improving their economic security in the context of the climate emergency.

- **Continue to support local and environmental leaders:** It is crucial that international actors and UN agencies continue to advocate for the protection of social leaders and environmental activists. Likewise, international actors can provide a broader platform to voice the messages and concerns that activists are raising, especially in conflict-affected settings.

B. NATIONAL AUTHORITIES

- **Ensure the provision of climate- and gender-sensitive security:** The Colombian National Army and the National Police of Colombia have started to incorporate climate and gender components within some of their units. To ensure the sustainability of these efforts, it is crucial to mainstream these components into national security policies and plans and improve coordination between agencies. Moreover, it is vital for the military and the police to refrain from undertaking activities that contribute to aggravating climate change.

- **Approach security from a multidimensional perspective:** To ensure the security of rural and Indigenous communities, governmental authorities must implement effective mitigation strategies to prevent soil degradation, loss of traditional farming methods, water pollution, and the use of herbicides to tackle illegal crops. Improving food, health, and personal and community security can help reduce migration in rural communities and their engagement with illicit economies. In line with these efforts, it is paramount to continue working to establish alternative economic possibilities to reduce men and women's involvement in illicit crops in Putumayo.

- **Link SGBV and climate in response efforts:** Since there is a direct correlation between the exploitation of natural resources and the historical subordination of women, it is crucial that SGBV responses (including protocols and assistance mechanisms) are linked to climate change considerations. Likewise, it is essential that climate responses include gender and security considerations to address the underlying causes of the aggravated SGBV situation. By understanding these elements as mutually reinforcing, it is possible to provide comprehensive solutions to cross-cutting issues. In 2019, within the UN Framework Convention on Climate Change (UNFCCC), the Colombian government ratified its commitment to mainstream gender at all levels of climate change action. Consequently, the Ministry of Environment developed a toolkit on gender and climate change and a capacity building program for integrating a gender approach into climate change efforts. Likewise, in 2020, within its Nationally Determined Contribution (NDC) to tackle climate change, Colombia acknowledged the importance of gender equality, human rights, and the inclusion of underrepresented population groups when acting against climate change.[77]

---

77 Ministerio de Medio Ambiente de Colombia. (2020). *Actualización de la Contribución Determinada a Nivel Nacional de Colombia (NDC)*. MinAmbiente. https://bit.ly/3t2gon8

Beyond recognizing the links between gender and climate action and designing plans, it is crucial to implement mechanisms to monitor the effective implementation of actions towards climate mitigation and adaptation that strive for gender equality. In addition, gender should be mainstreamed in regional and departmental environmental governance mechanisms (locally known as nodes), implemented within the framework of Colombia's National Climate Change Policy.

• **Increase justice provision and access to information on SGBV and environmental issues:** The women in this study identified low levels of trust in authorities due to high levels of impunity for SGBV cases and a lack of effective actions against perpetrators. Therefore, strengthening law enforcement as well as justice provision is crucial, especially in rural areas. Governmental authorities should increase their efforts to disseminate information, especially in remote and rural areas, about reporting mechanisms for SGBV cases and environmental crimes. The newly created Specialized Group for the Protection of Families and Women in Putumayo, which involves police officers, the Colombian Family Welfare Institute (ICBF, for its acronym in Spanish), and family commissioners,[78] could increase its presence in rural and remote areas to disseminate information on reporting mechanisms, implement prevention campaigns, and receive case reports. In addition, these institutions can coordinate with UNIPEP and DICAR to provide information to families on environmental issues and to register cases where families and women are affected by the effects of climate insecurity.

• **Ensure connectivity in rural areas during natural and human-made disasters:** Increasing mobile phone coverage and alternative energy sources (e.g., solar panels) is critical to ensuring that communities living in remote rural areas can connect during disasters and emergencies. To do so, it is essential for governmental authorities to increase their coordination and collaboration with mobile service providers and the humanitarian sector. Moreover, the Colombian government can provide support to build satellite mobile communications systems, broadband satellite communication systems, and emergency telecommunications in areas that are prone to natural and human-made disasters such as Sibundoy.

• **Improve women's land ownership:** Land ownership and redistribution are key components of peacebuilding, poverty reduction, empowerment, and improving rural and Indigenous women's safety and food security. It is urgent to bridge the significant existing gap between men and women in terms of land access and ownership. Government authorities can provide women with subsidies and access to small and low-interest loans to increase their access to land, prioritizing heads of households.

• **Guarantee meaningful engagement and informed participation of rural and Indigenous women in decision making and governance processes:** Ensure that rural and Indigenous women are engaged in consultation, design, and oversight processes of projects on environmental and security issues that could affect their livelihoods and ancestral practices. Local authorities can improve women's engagement by coordinating with Indigenous authorities and women's organizations. When necessary, provide participation mechanisms that ensure anonymity to protect environmental leaders' safety.

---

78 In areas where the ICBF does not have delegates, local majors appoint lawyers (known as family commissioners) to provide support and protection to children and resolve family-related issues.

C. POLICE FORCES

- **Strengthen gender and environmental training:** One of the findings from a gender self-assessment (GSA)[79] carried out by the National Police of Colombia with DCAF's technical support between October 2019 and December 2020 suggested the need to strengthen police education on gender, human rights, diversity, inclusion, and SGBV. In addition, the importance of customizing training courses to the specific needs of each region was also identified.[80] In line with these findings and the empirical data from this study, police officers working at UNIPEP and DICAR could receive training on how environmental problems relate to and aggravate gender issues, livelihood opportunities, and SGBV. Understanding the interlinkages between gender, security, and climate vulnerability could strengthen responsiveness when providing security services, improve collaboration with other agencies, and strengthen prevention strategies.

- **Increase community confidence levels:** The research findings indicate that low levels of confidence in the police are strongly related to two elements: first, the perception of the absence of rule of law due to the unequal distribution of licenses to exploit natural resources that privilege external private actors over local communities; and second, the murder and threat of environmental activists and leaders. Although solving these issues requires interinstitutional efforts, the police can increase their levels of legitimacy by augmenting their presence in remote areas, their interaction with local communities,[81] and monitoring of poor environmental practices, including those of private companies. Increasing police presence would enhance police visibility, and it can be a first step in

fostering a sense of inclusion of women and local communities who feel distant from the state.

Moreover, UNIPEP can continue approaching environmental leaders and coordinate with other units and governmental institutions to provide protection when the personal security of activists, leaders, and communities is at risk. UNIPEP and DICAR can support local leaders by including them in consultations before prevention activities are carried out, supporting local natural resource management initiatives, and involving communities in strategies to prevent socio-environmental conflicts and environmental crimes.

- **Enhance coordination between the police and the National Army:** Due to NSAGs' presence, illicit crop economies, and disasters, it is recommended that the police strengthen their coordination with the National Army working in such areas. Coordination between these institutions can be brought to life by establishing clear reporting mechanisms between agencies, jointly organizing prevention activities with local communities, and cooperating better during disaster response. For instance, the Special Operations Unit in Emergencies and Disasters of the National Police (PONALSAR, for its acronym in Spanish) can coordinate joint actions during disasters in Putumayo with the recently created Brigade for Assistance and Disaster Prevention (BRIAD, for its acronym in Spanish) of the National Army.

Moreover, as the women who participated in this study indicated, the mandate and duties of the police and the army are not clear to them. To improve rule of law, accountability, and effectiveness, it is crucial for civil society to be able to distinguish the roles of each security

---

79 The gender self-assessment is a tool to evaluate a security sector institution's level of gender responsiveness. When implemented by institutions such as police forces, it enables them to reflect on their own practices and structures and to measure areas for reform, such as performance effectiveness; laws, policies, and planning: community relations; accountability and oversight; personnel; and institutional culture. See Bastick, M. (2011). *Gender Self-Assessment Guide for the Police, Armed Forces and Justice Sector.* DCAF.
80 See p. 19 of DCAF. (2021). *Autoevaluación de Género de la Policía Nacional de Colombia. Informe de Recomendaciones.* DCAF.
81 This recommendation is in line with one of the findings of the GSA carried out in Colombia by the National Police, which identified the need to strengthen communication and coordination with women's and LGBTI organizations, especially in the regions. See p. 23 of DCAF. (2021). *Autoevaluación de Género de la Policía Nacional de Colombia. Informe de Recomendaciones.*

sector institution. Through awareness sessions and visits, these institutions can aid civil society in distinguishing each institution's role and responsibility in addressing climate security risks.

- **Reinforce the capacity of UNIPEP and DICAR police officers deployed in rural areas:** As part of effective peacebuilding efforts, it is crucial to increase the financial allocation, material resources, and number of DICAR and UNIPEP police officers deployed to secure rural areas and reinforce their coordination with environmental institutions and justice providers. Moreover, deploying female police officers can contribute to building rapport with rural and Indigenous women.

- **Improve data analysis skills and access to information:** Together with financial, material, and human resources, it is key that police officers have access to information produced for local databases as well as data produced by national institutions on environmental issues (e.g., weather forecast, crop calendars, early warning systems for disaster risk) to better map and understand risks. Access to information must be coupled, nonetheless, with opportunities for the police to improve their analysis of key risks and plan for appropriate responses.

- **Create spaces for dialogue with rural and Indigenous women:** The interest expressed by the women who participated in this study in increasing their knowledge to curb the effects of the climate crisis could serve as an entry point to reinforce collaboration and increase confidence. The police could create ways to collaborate positively with women. UNIPEP and DICAR can implement, with DCAF's support, environmental crisis prevention workshops with women's grassroots organizations and assist in connecting them with other entities that could offer them training and tools (e.g., Corpoamazonia, the Amazon Institute for Scientific Research Institute [SINCHI, for its acronym in Spanish], international organizations, the Institute of Hydrology, Meteorology, and Environmental Studies [IDEAM, for its acronym in Spanish], or PONALSAR).

D. COMMUNITIES

- **Continue to transmit ancestral and environmental knowledge to younger generations:** Rural and Indigenous women in Putumayo have important knowledge and skills regarding the conservation and restoration of protected ecosystems and species, in addition to environmental compensation and traditional knowledge. In order to preserve traditional and ancestral practices, it is very important that women's organizations continue their current efforts to transmit their knowledge to children and young people. Younger generations can engage in certain activities such as identifying and establishing native seed banks, supporting the maintenance of local orchards (chagras), or cultivating medicinal and sacred herbs.

- **Share knowledge with other grassroots organizations:** Knowledge exchange with local and national civil organizations could provide rural and Indigenous women with a platform to access and share information. In Putumayo, women could also look for mechanisms to engage with communities and leaders in neighboring areas where there are high rates of deforestation (e.g., the Guaviare, Caquetá, and Meta departments) and exchange knowledge on deforestation and flooding mitigation strategies, employability options, as well as grassroots mechanisms to protect threatened environmental activists. By connecting with other organizations, rural and Indigenous women in Putumayo can strengthen their capacities to participate and influence decision-making processes and policies on climate, gender, and security.

- **Document changes produced by environmental insecurity:** Identifying changes in women's livelihoods and security is key to implementing customized and effective measures. Women's organizations in Putumayo can document individual and collective impacts related to interlinked climate vulnerability, gender inequality, and state fragility. The documentation of these changes in Sibundoy can take place

annually or twice a year and be guided by the occurrence of floods or landslides, changes in temperature, results of harvest and planting seasons, levels of violence in their territory, SGBV cases (reported or not to local authorities) perpetrated by intimate partners or NSAGs, etc. Local NGOs can use and customize existing tools and create baselines to document changes on the different dimensions of human security. This data can be provided to environmental decision-making processes, national and local networks of leaders and activists, NGOs, or governmental authorities.
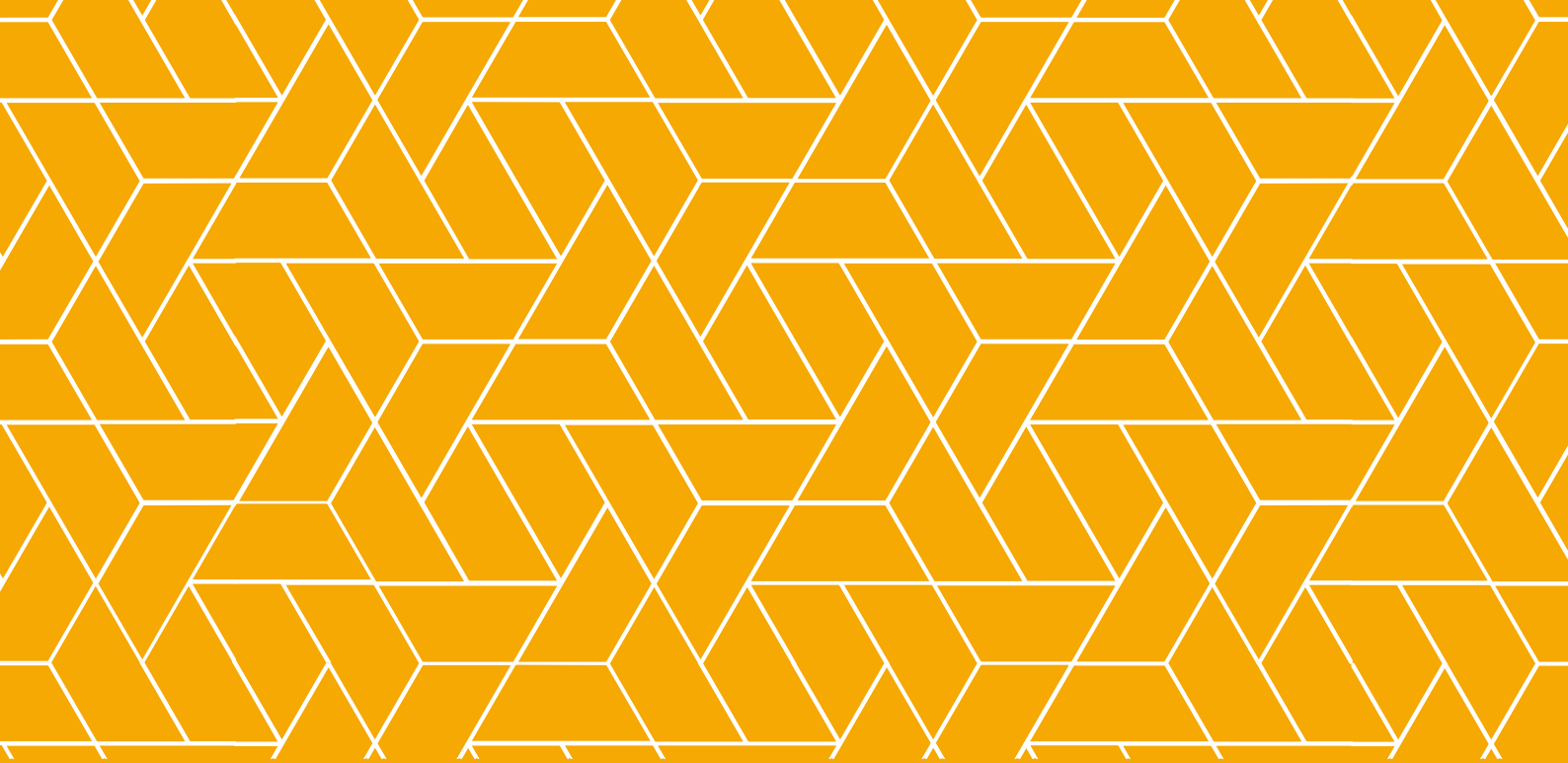
ANNEXES

Annex 1: Methodological Tools Used with Rural and Indigenous Women in Sibundoy

First Workshop

During the first workshop, three methodological tools were implemented to invite women to reflect on the climate security risks they have experienced:

- **Comparative tools:** The women were asked to compare what their territory looked like before and after the climate emergency. The indicators were translated into 30 statements to make it easier for participants to understand them (e.g., having a stable paid job, experiencing domestic violence, having access to water). Using drawings and writing down ideas, participants reflected on the extent to which those statements reflected their local realities and the intensity and frequency of changes in local ecosystems. The workshop participants also gave ideas of what they conceived of as climate change and mentioned initial thoughts regarding alterations in access to resources.

- **Images to elicit discussion:** To discuss the impact of environmental degradation, pictures of climate issues (e.g., disasters, water contamination, deforestation, droughts) and security problems (e.g., presence of armed actors, crime, domestic violence) were placed on the floor. Next to the images, cards were placed with labels of thematic areas related to human security (i.e., economic conditions, health, family relationships, community relations, everyday life, work, culture, public services), as well as male and female silhouettes. In groups, women were requested to identify situations that take place or do not take place in the territory and to identify the effects according to the thematic areas. Specific emphasis was placed on gender roles and impacts.

- **Problem tree:** Using an image of a tree, women were asked to identify the root causes of the increase of environmental risks for women's security in Putumayo, as well as the consequences of those problems.

- **"Indicator hive":** Using 20 hexagonal cards and guided by the facilitators, participants identified the characteristics and purposes of impact indicators (i.e., indicators should be clear, relevant, low-cost, measurable, and suitable). This activity was central to have a common ground with women for disseminating the thematic areas covered by the list of the preliminary indicators during the second workshop.

Second Workshop

During the second workshop, four methodological tools were implemented to invite women to reflect on access to resources; institutional actors; the links between gender, security, and climate; and climate adaptation:

- **Objects to elicit discussions:** Organized in small groups, women received stationery materials to create a doll. As part of the methodology, the amount of material distributed among the groups was not equal and the exchange of materials between groups was not allowed. This exercise served as a starting point to talk about access to natural resources, adaptation, and the need for gender equality when addressing environmental and security issues. Likewise, it served to elicit ideas on the importance of measuring the impact of the climate crisis on how local communities can benefit from having local indicators.

- **Role playing:** To approach issues related to state fragility, conflict, and security provision, the women were given the names of institutional and community actors. Each participant had to impersonate the assigned actor, and the group had to write down their thoughts about the actor. This exercise facilitated group conversations about the perception of security, how institutional actors including the security sector manage climate security risks, and trust levels.

- **Relationship identification matrix:** Organized in four groups, the participants received three paper sheets, each labeled with the name of the three areas examined in the study (gender, climate, and state fragility). The indicators were translated into statements to make it easier for participants to understand (e.g., having a stable paid job, experiencing domestic violence, having access to water). Women were then asked to read all the statements on the three sheets of paper and discuss to what extent those situations were interlinked. For instance, they had to discuss the links between water access and gender and security, or the links between "having access to oversight bodies" and gender and climate.

- **Strategy exercises:** The participants were requested to write out the strategies they have in place to adapt to climate change in their everyday lives and at the community level. After they had all their ideas on paper, they were asked to imagine that they had to cross a river by using only six of those strategies. The pieces of paper (strategies) had to be used as steppingstones by all members. This exercise opened up discussions about prioritization, the importance of multi-level strategies to adapt to climate change, and the importance of balancing and adapting to the needs of all segments of society.

Annex 2: Methodological Tools Used with UNIPEP and DICAR Police Officers

Three methodological tools were used to work with police officers:

- **Existing police tools:** One of the management indicators used by the Colombian National Police and the data produced for this indicator was used to explain the general notion of indicators and their purpose and importance. This exercise allowed the research team to translate technical indicator concepts into situations that were closer to police operations. Moreover, it aided the team of facilitators to compare the examined indicator with environmental issues and the role of security institutions.

- **Case study analysis:** Based on the climate security-related situations highlighted by the women, a fictional story was created and provided to the police officers. The story involved a family facing disaster situations, the presence of armed actors, environmental crimes, and interactions with the police and other government institutions. Police officers were asked to read the story and to identify risks, impacts, and responsible and affected actors. The insights from the discussion were written on virtual post-it notes using the online collaborative whiteboard platform Miro®.

  When all the ideas were on the whiteboard, police officers were requested to classify them into three groups: gender, climate, and state fragility. This exercise provoked an interesting discussion on how classifying effects and situations into only one group was not always easy given the linkages and overlaps between these categories of analysis. Moreover, it also elicited discussions on the differential effects of the climate emergency, its causes, the role of security providers and oversight institutions, and how those risks are measured through indicators.

- **Review of indicators by thematic areas:** Building on the case study discussion and given police officers' experience as security providers, the following conversation about the indicators focused on the elements listed from the case study as related to state fragility. Police officers were asked, based on their operational experience, to include situations that were not included in the list and that take place both in Putumayo and at the national level. The discussions held with the police allowed the facilitator team to explore security providers' approach to addressing issues related to environmental issues and women. Moreover, it opened the floor to identify areas where they believe their institution needs support, as well as good practices already in place.

REFERENCES

Barron, E. (2021, March 5). Climatizing Security: Sherri Goodman on Cimpatico. The Center for Climate and Security. https://climateandsecurity.org/2021/03/climatizing-security-sherri-goodman-on-cimpat

Barometer Initiative, Peace Accords Matrix, Kroc Institute for International Peace Studies, UN Women, FDIM, Sweden. (2019). *Gender Equality for Sustainable Peace. Second Report on the Monitoring of the Gender Perspective in the Implementation of the Colombian Peace Accord,* Report 2. https://peaceaccords.nd.edu/wp-content/uploads/2020/04/012820-GENDER-REPORT-DIGITAL.pdf

Bastick, M. (2011). Gender Self-Assessment Guide for the Police, Armed Forces and Justice Sector. DCAF. https://www.dcaf.ch/gender-self-assessment-guide-police-armed-forces-and-justice-sector

Bouvier, V. M. (2016). *Gender and the Role of Women in Colombia's Peace Process.* United States Institute of Peace and UN Women. https://www.usip.org/publications/2016/11/gender-and-role-women-colombias-peace-process

Boyer, A. E., Meijer, S. S., & Gilligan, M. (2020). *Advancing Gender in the Environment: Exploring the triple nexus of gender inequality, state fragility, and climate vulnerability.* International Union for Conservation of Nature and USAID. https://genderandenvironment.org/es/triple-nexus/

Centro Nacional de Memoria Histórica. (2012). *El placer: Mujeres, coca y guerra en el bajo Putumayo.* https://centrodememoriahistorica.gov.co/el-placer-mujeres-coca-y-guerra-en-el-bajo-putumayo/

Comando General de las Fuerzas Militares. (2021, December 8). Ofensiva de las Fuerzas Militares y Policía contra la minería ilegal en el sur del país. Retrieved February 21, 2022, from https://www.cgfm.mil.co/es/blog/ofensiva-de-las-fuerzas-militares-y-policia-contra-la-mineria-ilegal-en-el-sur-del-pais

DCAF – The Geneva Centre for Security Sector Governance. (2015). *Applying the Principles of Good Governance to the Security Sector* (SSR Backgrounder Series). DCAF. https://securitysectorintegrity.com/publication/ssr-applying-principles-good-governance-security-sector/

____. (2020). *Bridging the distance: Lessons learnt from a bottom-up approach to gender and security in rural Colombia.* DCAF. https://dcaf.ch/bridging-distance

____. (2021). *Climate Change and its Impact on Security Provision: The Role of Good Security Sector Governance and Reform.* DCAF. https://www.dcaf.ch/climate-change-and-its-impact-security-provision-role-good-security-sector-governance-and-reform

____. (2021). *Autoevaluación de Género de la Policía Nacional de Colombia. Informe de Recomendaciones.* DCAF. https://www.dcaf.ch/sites/default/files/publications/documents/GenderSelf-Assessment_Colombia_SP.pdf

____. (2022). Women Speak: The Lived Nexus Between Climate, Gender and Security. DCAF. https://www.dcaf.ch/women-speak-lived-nexus-between-climate-gender-and-security

DCAF, OSCE/ODIHR, & UN Women. (2019). "Policing and Gender," in *Gender and Security Toolkit.* DCAF, OSCE/ODIHR, UN Women. https://www.osce.org/odihr/442519

Departamento Nacional de Planeación. (2014). *Definición de categorías de ruralidad.* https://colaboracion.dnp.gov.co/CDT/Agriculturapecuarioforestal%20y%20pesca/Definicion%20Categor%C3%ADas%20de%20Ruralidad.pdf

Ekhator-Mobayode, U. (2020, May 19). Does armed conflict increase a woman's risk of suffering intimate partner violence? World Bank Blogs-Development for Peace: Solutions to tackle fragility, conflict, violence. Retrieved March 23, 2022, from https://blogs.worldbank.org/dev4peace/does-armed-conflict-increase-womans-risk-suffering-intimate-partner-violence

European Commission Joint Research Centre. (2017). "Global Conflict Risk Index, Version July 2017." Retrieved in Noviembre 2021, from https://bit.ly/3fCOQi4

Fundación Ideas para la Paz. (2017). *Mujeres y la economía cocalera en Putumayo: roles, prácticas y riesgos.* https://cdn.ideaspaz.org/media/website/document/5a21a1163faf3.pdf

FIP, & Adelphi. (2021). *A Dangerous Climate: Deforestation, climate change and violence against environmental defenders in the Colombian Amazon.* WWF Germany. https://climate-diplomacy.org/sites/default/files/2021-09/A%20Dangerous%20Climate.pdf

Gaard, G. (2015). Ecofeminism and climate change. *Women's Studies International Forum, 49,* 20-33. https://doi.org/10.1016/j.wsif.2015.02.004

Global Witness. (2021). *Last line of defence.* https://www.globalwitness.org/en/campaigns/environmental-activists/last-line-defence/

IDEAM. (2021). *Resultados del Monitoreo de Deforestación año 2020 y primer trimestre 2021.* https://bit.ly/3IcULHe

Insight Crime. (2020, March 26). The Women Who Want to Leave Coca Behind in Colombia's Putumayo. https://insightcrime.org/news/brief/women-coca-putumayo-colombia/

International Union for Conservation of Nature. (2020). *Gender-based violence and environment linkages:* The violence of inequality. https://portals.iucn.org/library/node/48969

Joint Data Center on Forced Displacement. (2020). *Women and Girls in Internal Displacement.* https://www.jointdatacenter.org/literature_review/women-a

Kenny, M. A., & Janetos, A. C. (2020). National indicators of climate change, impacts, and vulnerabilities. *Climatic Change, 163,* 1695–1704.

https://doi.org/10.1007/s10584-020-02939-4

Kenny, M. A., Janetos, A. C., & Lough, G. C. (2016). Building an integrated U.S. National Climate Indicators System. *Climatic Change, 135,* 85–96. https://doi.org/10.1007/s10584-016-1609-1

Kroc Institute and the International Accompaniment Component, UN Women, Women's International Democratic Federation, & Sweden. (2018). *Special Report of the Kroc Institute and the International Accompaniment Component, UN Women, Women's International Democratic Federation, and Sweden, on the Monitoring of the Gender Perspective in the Implementation of the Colombian Final Peace Accord.* https://peaceaccords.nd.edu/wp-content/uploads/2020/11/181113_Gender-Report_Final.pdf

Lazard, O., & Youngs, R. (2021). The EU and Climate Security: Toward Ecological Diplomacy. https://bit.ly/3FvQ1ud

Ministerio de Agricultura. (2020, March 9). Colombia: el camino a la reforestación de los 180 millones de árboles antes de 2022. AgroNet. https://www.agronet.gov.co/Noticias/Paginas/Colombia-el-camino-a-la-reforestaci%C3%B3n-de-los-180-millones-de-%C3%A1rboles-antes-de-2022.aspx

Ministerio de Comercio, Industria y Turismo de Colombia. (2021). *Información: Perfiles Económicos Departamento de Putumayo.* Oficina de Estudios Económicos. https://bit.ly/343GUEs

Ministerio de Medio Ambiente y Desarrollo Sostenible de Colombia. (2020). *Actualización de la Contribución Determinada a Nivel Nacional de Colombia* (NDC). MinAmbiente. https://bit.ly/3t2gon8

Miranda, C. (2019). Perspectivas desde el ecofeminismo frente al cambio climático y la Amazonía. *El Outsider, 5,* 15-29. https://doi.org/10.18272/eo.v5i.1568

OECD Development Centre. (n.d.). Social Institutions & Gender Index. https://www.genderindex.org/

OHCHR. (2019). *Analytical study on gender-responsive climate action for the full and effective enjoyment of the rights of women.* https://reliefweb.int/report/world/analytical-study-gender-responsive-climate-action-full-and-effective-enjoyment-rights

Pan American Health Organization (PAHO). (n.d.). Violence against women. https://www.paho.org/en/topics/violence-against-women

Programa Somos Defensores. (2020). *In Evil Hour: Annual Report 2020: Information System about Aggression against Human Rights Defenders in Colombia – ISAAHRD.* https://drive.google.com/file/d/1QaCwSTrkScbsWA2H4gajBrtGvi_ya94j/view

Ripple, W. J., Wolf, C., Newsome, T. M., Barnard, P., & Moomaw, W. R. (2020). World Scientists' Warning of a Climate Emergency. *BioScience, 70(1)*, 8–12. https://doi.org/10.1093/biosci/biz088

Santaeulalia, I. (2021, September 15). Colombia: the world's deadliest country for environmentalists in 2020. El Pais. https://english.elpais.com/usa/2021-09-15/colombia-the-worlds-deadliest-country-for-environmentalists-in-2020.html

Shiva, V. (2016). Staying Alive: *Women, Ecology, and Development.* North Atlantic Books.

Salleh, A.S. (2017). *Ecofeminism as Politics: Nature, Marx, and the Postmodern* (2nd edition). Zed Books.

Shrestha, S. C., Chapagain, P. S., & Ghimire, M. (2019). Gender Perspective on Water Use and Management in the Context of Climate Change: A Case Study of Melamchi Watershed Area, Nepal. SAGE Open. https://doi.org/10.1177/2158244018823078

Sistema de Información sobre Biodiversidad de Colombia (SiB). (n.d.). ¿Cuántas especies registradas hay en Colombia? Retrieved December 20, 2021, from https://cifras.biodiversidad.co/

Sistema Nacional de Información Cultural. (n.d.). Población Putumayo. https://bit.ly/3lWzcKR

The World Bank. (2018). Gender Differences in Poverty and Household Composition through the Life-cycle (Policy Research Working Paper 8360). https://openknowledge.worldbank.org/bitstream/handle/10986/29426/WPS8360.pdf?sequence=1&isAllowed=y

The World Food Programme. (2015, February 3). Food Security Indicators. https://www.wfp.org/publications/food-security-indicators

United Nations. (2012). Overview: Climate Change. UN Women Watch. https://bit.ly/3tVeerK

United Nations Department of Economic and Social Affairs (UN DESA). (2020). *World's Women 2020 – Intimate partner violence is the most common form of violence against women.* https://www.un.org/en/desa/world%E2%80%99s-women-2020-intimate-partner-violence-most-common-form-violence-against-women

United Nations Development Program (UNDP). (1994). *Human Development Report 1994: New Dimensions of Human Security.* http://www.hdr.undp.org/en/content/human-development-report-1994

____. (2014). Environmental Justice - *Comparative Experiences in Legal Empowerment.* https://bit.ly/34ZE4Ab

United Nations Environment Programme (UNEP), UN Women, UNDP, & UNDPPA/PBSO. (2020). *Gender, Climate and Security: Sustaining Inclusive Peace on the Frontlines of Climate Change.* https://www.unwomen.org/en/digital-library/publications/2020/06/gender-climate-and-security

United Nations Environment Programme (UNEP), & International Union for Conservation of Nature. (2018). *Gender and environment statistics: Unlocking information for action and measuring the SDGs.* https://www.unep.org/resources/report/gender-and-environment-statistics-unlocking-information-action-and-measuring-sdgs

United Nations Human Rights Council. (2018). *Universal Periodic Review: Colombia (3rd Cycle – 30th Session).* https://www.ohchr.org/EN/HRBodies/UPR/Pages/COIndex.aspx

United Nations Office for the Coordination of Humanitarian Affairs (OCHA). (2021, August 2). Alerta por Situación Humanitaria. https://www.humanitarianresponse.info/sites/www.humanitarianresponse.info/files/documents/files/alerta20situacic3b3n20humanitaria20inundaciones20en20el20putumayo.pdf

United Nations Office on Drugs and Crime (UNODC). (2017). *Colombia: Survey of Territories Affected by Illicit Crops - 2016.* https://www.unodc.org/documents/crop-monitoring/

Colombia/Colombia_Coca_survey_2016_English_web.pdf

United Nations Secretary-General. (2020, December 12). Secretary-General's remarks at the Climate Ambition Summit. https://www.un.org/sg/en/content/sg/statement/2020-12-12/secretary-generals-remarks-the-climate-ambition-summit-bilingual-delivered-scroll-down-for-all-english-version

V-Dem Institute. (n.d.). Varieties of Democracy. https://www.v-dem.net/