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# Climate Change Impact on Women's Vulnerability in Georgia

Study report



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# Executive Summary

**Introduction:** Climate change poses a multifaceted challenge with social, economic, environmental, and developmental repercussions, and its impacts are unevenly distributed, making it a matter of justice. Climate change exacerbates existing inequalities and disproportionately affects women, minority groups, and disadvantaged populations. Climate justice involves recognizing and addressing these unequal impacts and seeking to remedy injustices fairly. In the context of Georgia, understanding the social and gender impacts of climate change is essential, yet under-explored.

**Theoretical Concepts of Vulnerability and Resiliency:** Climate change's consequences necessitate considering gender-based disparities in vulnerability and adaptation. Mitigation actions focus on reducing future climate change, while adaptation involves modifying current or anticipated climate effects. Vulnerability to climate change is influenced by exposure, sensitivity, and adaptive capacity, which can vary across populations. While the resilience perspective emphasizes adaptability and transformative capacity. It is found that women are disproportionately affected by climate change due to disparities in access to resources and power.

**An Intersectional Approach to Gender and Climate Change:** Intersectionality considers the interplay of multiple dimensions of social stratification, emphasizing that a person's social position is influenced by various factors. It reveals how oppressions result from the interaction of multiple axes of power and challenges unitary or additive approaches. An intersectional perspective recognizes the dynamic and interconnected nature of social categories and their role in perpetuating power dynamics and systems like capitalism and patriarchy. Climate justice requires understanding the intertwined relationships between gender, power, and climate change. An intersectional approach provides a more comprehensive understanding of the complex and evolving power dynamics, leading to a more precise assessment of the social and political conditions that shape climate governance.

**Gender inequality in Georgia:** Women remain underrepresented in decision-making positions in political parties. Women's participation in local government has increased due to gender quotas in the Self-Government Elections of 2021, but they still face discrimination in employment. Gender disparities in labor market participation are also significant, with a much lower rate among women compared to men. The gender pay gap is a significant issue in Georgia, with women earning substantially less than men. Furthermore, women often face difficulties in accessing childcare services, which limits their ability to work.

A significant portion of Georgian women faces financial instability. Maternity protection policies are

inadequately implemented, leaving economically inactive and unemployed women vulnerable. Some women resort to international labor migration due to economic hardships. In addition, Georgia has one of the highest maternal mortality rates in the region due to inadequate healthcare, limited access to contraceptives, and early marriages. Domestic violence also represents a significant concern, with an increase in femicide cases. Many women report experiencing different forms of violence, including emotional, economic, and physical violence. Underreporting of gender-based violence is common due to factors such as shame, financial barriers, and fear.

**Methodology:** The methodology section of the research outlines the approach taken to explore women's vulnerabilities exacerbated by climate change impacts and trends in Georgia. The research aims to examine gender equality and women's roles in Georgian society, focusing on their access to and control of assets, as well as their decision-making roles. It seeks to understand how gender inequalities and traditional gender roles affect women's vulnerability to climate change impacts. The study explores the relationship between systemic issues in Georgian society, climate change, and women's vulnerabilities. It uncovers the impacts of climate change on women in both rural and urban areas. Nevertheless, the research looks for opportunities, traditional knowledge, and solutions from women's perspectives to empower them and enhance their resilience to climate change.

The research employs a mix of qualitative and quantitative research methods to account for the diverse climate and social dynamics, and group-specific vulnerabilities of women in Georgia.

**Desk Research:** General information about women's vulnerabilities to climate change and available data specific to Georgia is collected.

**Key Informant Interviews (KIIs):** Interviews were conducted with ministry representatives and gender experts who have knowledge of how climate change affects women in Georgia.

**In-Depth Interviews:** Detailed interviews with women from various backgrounds, including those with disabilities, ethnic minorities, environmental activists, and business owners, to understand the unique challenges they face and identify best practices. A total of 10 interviews were conducted.

**Representative Survey:** A large-scale survey of 760 interviews with women in rural and urban areas in Georgia was conducted to obtain quantitative data. The margin of error for the entire Georgia sample is 3.6% with a 95% confidence level. A probability sampling model was used, considering factors such as women's age and settlement type to ensure a representative sample.

# Research Findings:



## Observed patterns and impacts of the climate crisis by the women in Georgia

**Climate Change Effects:** Women in Georgia identified several severe effects of climate change, such as intensified droughts, soil erosion, increased strong winds, heat waves, unpredictable weather patterns, more frequent hailstorms, and shorter spring and fall seasons. They also noted the decrease in snowfall and weakening of frosts. While women in both urban and rural areas acknowledged climate change impacts, there were variations in their perceptions. Rural women reported feeling climate change more acutely and expressed greater interest in learning about it.

**Impact Categories:** The impacts of climate change varied between urban and rural areas. For example, droughts in rural areas led to reduced food supply, limited crop diversity, and decreased income, while in urban areas, they primarily affected health and food supply. Heatwaves had a significant impact on the health of women in both settings. Furthermore, women reported reduced safety and increased stress as notable consequences of climate change.

**Disaster Risks and response:** More than half of the survey respondents reported living in hazard risk zones, where events like droughts, strong winds, floods, and hailstorms frequently occur. These disasters caused damage to housing, infrastructure, agricultural lands, cultural heritage sites, pastures, and other buildings. It is found that women largely rely on family members or neighbors for assistance during disasters. Few would contact emergency management services or local self-government representatives, indicating the need for more robust disaster response systems. Furthermore, women expressed dissatisfaction with the lack of early warnings before disasters, emphasizing the importance of preparedness, especially when they have children.

## The position of women in Georgian society and the systemic problems that undermine their adaptive capacity to the climate crisis

**Gendered Aspects of Structural Inequalities and Vulnerability to Climate Change:** The text highlights how structural inequalities, such as disparities in employment, access to resources, and social services, disproportionately affect women in Georgian society. These inequalities hinder women from realizing their social rights and having a decent life, which, in turn, affects their adaptive capacity to external challenges, particularly the effects of climate change. Vulnerability is described as a structural condition, and the text explores the linkages between these inequalities and the climate crisis.

**Economic Conditions as a Determinant of Vulnerability:** Stable income is identified as a crucial indicator of women's socio-economic resilience and their ability to cope with the impacts of climate change. The text presents data showing that a significant number of women do not have stable income, relying on various sources such as state pensions, selling agricultural products, or remittances. It is revealed that many women's income is insufficient to meet their basic needs and does not exceed the national average monthly salary for women.

**Agriculture-Related Problems for Women:** The text indicates that only a small percentage of women derive personal stable income from selling agricultural products. Many women are engaged in agriculture for family consumption, and some face difficulties in this sector due to factors like limited access to resources and changing environmental conditions. The text also discusses how the roles and motivations of women and men in agriculture differ, reflecting varying layers of vulnerability to climate change.

**Problems Associated with Lack of Basic Social Services:** Access to basic social services is presented as a key determinant of women's resilience and their ability to cope with crises and climate change. The text discusses disparities in access to these services between central and peripheral settlements, affecting women differently. The lack of infrastructure, services, and healthcare facilities in rural areas is highlighted, along with the challenges posed by climate change in terms of mobility and access to services.

**Accessing Health Services:** Health-related issues are addressed, including the challenges women face in accessing healthcare services and the high cost of medicines. Issues related to a lack of qualified doctors, medical technology, and proper healthcare facilities in rural areas are mentioned. Some women express difficulties in accessing information about free health programs.

**Accessing Public Transport:** The text explores the problems associated with accessing public transport in both urban and rural areas, which impact women’s mobility and opportunities. Urban and rural differences in public transport availability and usage are discussed. Weather and climatic conditions are mentioned as factors influencing public transport usage, with adverse weather conditions often leading to delays.

**Water Supply Problems:** The text highlights water supply problems faced by women, particularly in rural areas, and how these problems intensify during the summer. Water scarcity affects agriculture, domestic activities, and overall quality of life. Women discuss the need to fetch drinking water and the challenges it poses, such as long distances to water sources and reliance on reservoirs.

**Access to and Control of Assets:** The report indicates that many women do not own private property or assets, with disparities between urban and rural areas. The distribution of land resources is discussed, with some families registering land in women’s names for financial reasons. The state’s selective approach to supporting families based on the size of land plots is mentioned, which could disproportionately affect women with smaller plots. Overall, the text highlights the gendered dimensions of climate vulnerability, particularly in terms of access to resources, services, and opportunities.

### Vulnerabilities of women in Georgia resulting primarily from or exacerbated by the impacts and trends of climate change

**Impact on Agriculture as a Category of Women’s Labor:** Women engaged in small-scale agriculture are particularly vulnerable to climate change. Rising temperatures and changing weather patterns necessitate increased effort and resources, especially for tasks like gardening and crop cultivation. These challenges disproportionately affect women since they are the primary participants in small-scale agriculture. Climate change disrupts agricultural production, leading to reduced yields, higher expenses, and the need for more labor. Women in agriculture often lack the resources and knowledge to adapt to these changing conditions. Only a small percentage use agricultural insurance, primarily due to a perceived lack of need, insufficient information, and high costs.

**Impact of Climate Change on Health:** Climate change affects women’s health, particularly those exposed to extreme temperature fluctuations and environmental hazards. Women with chronic diseases and disabilities are especially vulnerable, as they struggle to cope with the physical and health-related impacts of changing weather patterns. The women in focus groups describe how climate change can lead to increased blood pressure and stress, making them more reliant on medical care. Additionally, deteriorating air quality aggravates conditions for allergic women.

**Deteriorated Environmental Conditions:** Climate change contributes to environmental challenges, and the specific concerns vary between urban and rural women. Urban women worry about issues like air pollution, increased traffic, and haphazard urban development, which negatively affect their health and well-being. Access to natural and green spaces is vital for urban women and such spaces are dwindling in cities. Furthermore, access to healthy food is becoming more problematic and expensive. In contrast, rural women are concerned about environmental problems, some of them caused by industries, extractive activities, unsustainable use of natural resources, climate change, etc.

**Safety and Impacts on Well-being:** More than half of women living in areas prone to natural disasters have low incomes, which can hinder their preparedness and ability to adapt to climate change. Additionally, the survey shows that many households lack essential supplies to mitigate the risk and damage caused by disasters, such as first-aid items, hygiene supplies, and alternative sources of heating and lighting. Housing conditions are also a significant factor, with many women in both urban and rural areas facing issues like dilapidated houses, insufficient space, and a lack of infrastructure like sewage systems.

### Intersectionalities and group-specific vulnerabilities of women influenced by the impacts of climate change

The report identifies different statuses and identities of women, such as age, education, marriage, motherhood status, social status, and more. The analysis reveals that older and economically disadvantaged women are more vulnerable, with the connection between gender, income, and health conditions becoming evident. It highlights that more than half of women living in different hazard risk zones experience low income, which can hinder their ability to adapt to climate change. The text also points out the impact of climate change on the mental health of specific groups, such as internally displaced persons and eco-mi-

grants. It presents other group-specific vulnerabilities of women, such as ethnic minorities, queer, women with disabilities, etc.

### Role of political actors in addressing the climate change challenges faced by women

The analysis emphasizes the need for strong, inclusive, and gender-responsive climate governance. However, the text reveals that current institutions and organizations do not systematically address climate change risks for women, and Georgian legislation and climate policies lack gender sensitivity. There is also a lack of gender-disaggregated data to inform climate projects and policies. The text suggests that trust in these institutions is generally low among women, and there is a need for more active cooperation between state agencies and women, especially those from disadvantaged groups.

The text concludes by highlighting that the representation of women and minority groups in formal decision-making processes is low. It lists priorities for addressing the impact of climate change, such as sustaining environmental protection, strengthening agriculture, controlling the quality of constructions, protecting and restoring forests, and preparing disaster risk management plans. The participants also emphasize the importance of providing knowledge on climate-resilient agriculture, improving basic services in rural regions, and creating alternative eco-friendly productions. Decentralization of local self-government and responsive problem-solving on the ground are key priorities. Respondents generally have slightly higher trust in local self-government compared to other institutions. NGOs and media are found as important actors to fill gaps in regions with challenges accessing information and services, raising awareness about climate issues, conveying scientific information, and amplifying the voices of marginalized populations.

### Spaces and practices available to women in Georgia for addressing climate change-related vulnerabilities

**Supporting Neighborhoods and Informal Local Groups for Localizing Climate Action:** Neighborhoods are essential bonds for women, especially in rural areas. Urban neighborhoods with formal associations and chairpersons play a significant role in addressing local climate issues and interacting with local government. The existence of public gathering, cultural, and educational spaces strengthens local mobilization opportunities. Women often take active roles in local collectives and express initiatives regarding climate action. A substantial portion of respondents has engaged in civic activities over the past year, highlighting women's involvement in community matters.

**Empowering Women through Small-Scale Climate-Smart Production:** Women leading small-scale production is a strong example of empowerment. These women often overcome challenges to establish and expand their businesses, inspiring others. The use of traditional knowledge in production is common but may be vulnerable to climate change. Women express interest in various initiatives like waste recycling and sustainable resource use.

**Enhancing Cooperatives for Increasing Women's Resilience in Agriculture:** Cooperatives can increase agricultural resilience to climate change. They provide more resources, profits, and cooperative results, reducing climate risks. Cooperatives encourage women's participation, access to resources, and leadership opportunities.

**Upholding Activism for Climate and Environmental Protection and Regaining Ownership Over Public Spaces:** Activism can make a substantial difference in addressing environmental issues and providing women with opportunities to voice their concerns. Public expression and spaces to voice up opinions are limited, and even activists find it difficult to gain information about available spaces and procedures to be involved in formal decision-making processes of local, sub-national or national institutions. Therefore, activism can serve to increase the visibility of marginalized groups in the political arena. Activists often use public spaces such as squares for events to emphasize their importance. Barriers exist for marginalized groups in mobilizing and engaging in activism.

**Integrating Traditional Knowledge and Women's Agency in Climate Solutions:** Women's perceptions of nature and climate change are shaped by their rural or urban backgrounds. They reveal rich knowledge about managing natural resources, engaging with weather patterns, providing adaptation solutions to the climate crisis, and deep understanding of human-nature interaction. Women's knowledge and skills are crucial for maintaining cultural practices and sustainable use of resources.

# 01

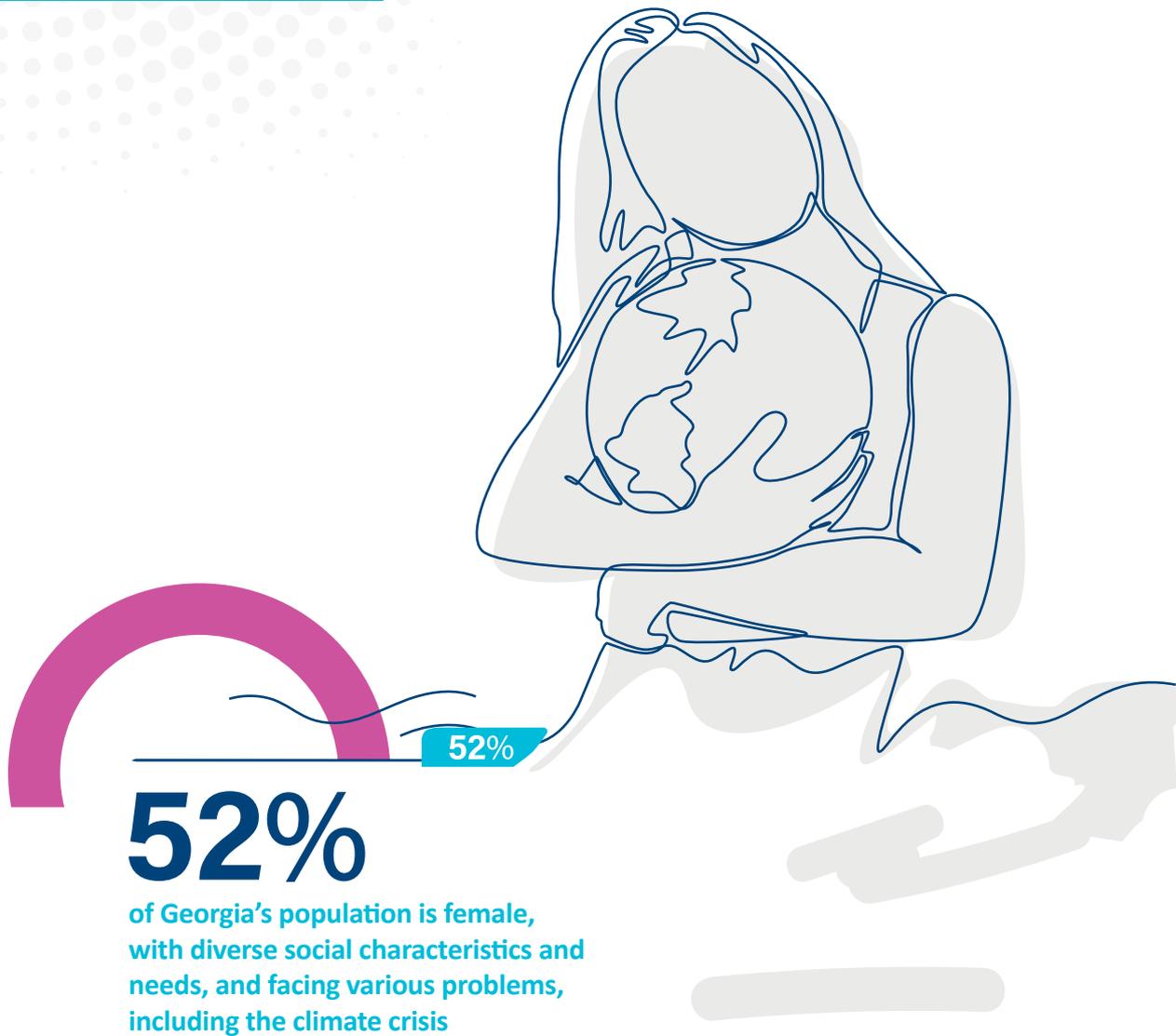
## Introduction





1

## Introduction



Climate change poses various social, economic, environmental and development risks for the world, resulting in localised and diverse consequences for Georgia. It is not solely an environmental issue; Instead, it is fundamentally a problem of justice too (Gardiner 2011; Shue 2014). Climate change affects everyone, but its impacts are not evenly distributed. It exacerbates existing systemic inequalities; and women, minority groups and other disadvantaged populations are disproportionately impacted by climate change (Nellemann, Verma & Hislop, 2011). Therefore, climate justice involves recognising and addressing the unequal and disproportionate impacts of climate change on individuals and communities and seeking to remedy resulting injustices in a fair and equitable manner (Sultana 2022).

Climate injustices have been created both historically and spatially, resulting in a disproportionate burden on communities and nations in the Global South, as well as marginalised communities in the Global North (Sultana 2022). Over the past few decades, the frequency and severity of disasters such as hurricanes/cyclones, floods, sea-level rise, heatwaves, wildfires, air quality, and land erosion have risen significantly in many parts of the Global South. However, these disasters are now also affecting larger areas of the Global North as climate change accelerates globally. As a result, the number of deaths, losses, displacements, and recovery costs has increased significantly, particularly among frontline communities (Ibid).

Understanding the social and gender impacts of climate change is essential for achieving climate justice; however, they are poorly investigated in Georgia. **52% of Georgia's population is female, with diverse social characteristics and needs, and facing various problems, including the climate crisis.** The Intergovernmental Panel on Climate Change (IPCC) sixth assessment report (IPCC, 2022, p. 12) states that “unsustainable land-use and land cover change, unsustainable use of natural resources, deforestation, loss of biodiversity, pollution, and their interactions, adversely affect the capacities of ecosystems, societies, communities and individuals to adapt to climate change”. According to the Fourth National Communication of Georgia to the UNFCCC, Georgia's climate has already considerably changed. The country's mean annual ground air temperature increased almost everywhere, creating significant risks for agriculture, health, geological processes, etc. (United Nations Development Program, 2021). As a result, for example, increased adverse effects on agriculture increase the burden on women's labour (Devidze, 2021).

Existing social and economic systemic challenges increase communities' exposure to the risks of the climate crisis. For example, the lack of diversification of livelihoods in rural communities of Georgia increases the vulnerability of the population dependent on agriculture as their main source of income. According to the Food and Agriculture Organization (FAO) of the United Nations Report, 59% of self-employed women are engaged in small-scale farming in Georgia (FAO, 2018). Furthermore, women living in rural areas are at high risk as they mainly perform household work, and their activities depend on the use of water and food; due to climate change, the decrease of these resources affects them first (Jost et al., 2016).

There are different social determinants of climate sensitivities, such as opportunities for political participation, social status, income, age, etc. According to the UNFCCC, Women's unequal participation in decision-making processes and labour markets compounds inequalities and often prevents women from fully contributing to climate-related planning, policy-making and implementation (UNFCCC, n.d). It is relevant for Georgia, too, as women, for example, from ethnic minority groups, face various obstacles to political participation (Open Society Georgia, 2019). Hence, understanding women's vulnerabilities exacerbated by climate change impacts, their access to and control assets, and the needs and spaces available for different groups of women in Georgia to act against climate change will be explored within this research. After analysing insights and experiences of diversified groups of women regarding the climate change impacts from various locations in Georgia, this study will enable the development of more gender-inclusive national and local climate policies.



# Theoretical framework and concepts





# 2

## Theoretical framework and concepts



Climate change has far-reaching consequences for societies, environments, and economies. Gender plays a significant role in vulnerability and adaptation, with women being disproportionately affected by climate change impacts due to gender-based disparities in access to resources, education, decision-making power, and other factors. In order to achieve climate justice, feminist perspectives and insights must be incorporated.

Despite progress made in gender and climate change research, there is still a need to address oversimplifications of the experiences of gendered groups with adaptation and vulnerability-reduction efforts. The chapter argues that understanding the relationship between climate change, adaptation, mitigation, and vulnerability requires an intersectional approach that takes into account power relations, social practices, and processes.

## 1 Adaptation, mitigation and vulnerability

The societal, spatial, and temporal consequences of climate change are differentiated when it comes to responses such as adaptation and mitigation. Mitigation pertains to decreasing future climate change, whereas adaptation is about modifying current or anticipated climate effects (Jerneck 2018). Adaptation may involve making changes in lifestyle, behaviours, and socio-economic structures, such as implementing measures to secure livelihoods, as well as making changes in land use and biodiversity management, such as adopting ecosystem-based approaches (Ravera et al. 2016). Adaptation can either be incremental to uphold a system or process or transformative to alter system attributes. Moreover, adaptation can be protective through implementing preventive measures against adverse impacts or opportunistic through seizing potential favourable effects of climate change (Ibid).

Resilience frameworks evaluate a system's capacity to adapt and endure expected and unexpected challenges and pressures without jeopardising its ability to perform and its potential to react and change (Thompson-Hall, Carr and Pascual 2016). When it comes to climate change, the overall resilience of social-ecological systems is influenced by the joint capability of social actors and ecological components to adjust to specific impacts (Ibid). In this regard, it is important to understand the actors' exposure to change, their sensitivity (i.e., the vulnerability to harm caused by change), and adaptive capacity (which refers to the possession of tools and resources for dealing with change as well as the ability to use them for adaptation) (Ibid.). These factors produce different environmental vulnerabilities.

In this understanding, adaptive capacity is a means of reducing vulnerability and is defined as the general ability to anticipate, absorb, accommodate, or recover from the effects of extreme events. However, it is important to examine how this adaptive capacity is distributed across different populations (Jerneck 2018). Jerneck (2018) notes, that populations that are both poor and highly exposed to climate events may face significant constraints in promoting their own adaptation and mitigation strategies. For example, sometimes climate change impacts will manifest as unique vulnerabilities, where specific parts of the population have varying exposure to particular climate stressors; In other cases, these impacts may result in differentiated vulnerabilities, where an entire population experiences the same exposure to a climate stressor but possesses different sensitivities and adaptive capabilities with respect to that stressor (Thompson-Hall, Carr and Pascual 2016).

Just like climate change itself, the responses to it (including adaptation) are also gendered. Its gendering varies "across scales, space and subjectivities" (Jerneck 2018, p. 629). If women are more susceptible to the effects of climate change, they may also face barriers in accessing resources and developing adaptive capacities to cope with these impacts (Ibid).

## 2 Gender and climate change

The World Health Organization (WHO) states that women are disproportionately affected by the consequences of climate change, such as droughts, floods, heavy rains, heat waves, and water scarcity (WHO, 2014). They are also at higher risk than men in terms of health and life expectancy. In addition, women have limited access to important information on weather patterns and crop management (Ibid). These vulnerabilities are not inherent to women's sex but rather stem from gender-based disparities in access to land, labour, decision-making power, and other resources (Jerneck 2018).

Research on the gendered aspects of climate change highlights the presence of structural inequalities that allow certain groups to access resources, education, and decision-making power, while simultaneously hindering others from doing so. Feminist scholars have been showing that climate justice cannot be achieved fairly or efficiently without incorporating feminist perspectives and insights (Kaijser and Kronsell 2014). Climate change causes more intersectional gender-based inequality and vulnerability

(ibid). Intersectional inequality here means that people have different identities (race, gender, class, sexuality, disability, and more) and that these identities intersect to shape their unique experiences of inequality (Crenshaw 1989). This will be explained in detail in the subchapters below. However, feminist scrutiny of climate justice extends beyond this. Feminist scholars analyse how changes in social and ecological conditions impact gender relations in a particular context in multiple ways (Sultana 2021).

Patriarchy dictates the ways in which resources are acquired, allocated, and utilised, as well as how work is categorised and divided into both productive and reproductive duties, and how social practices and obligations are constructed and met through language and discourse (Jerneck 2018). Here patriarchy refers to “a system of social structures, and practices in which men dominate, oppress and exploit women” (Walby 1989: 214). It is a system of social relationships. According to Walby, patriarchy consists of six components – “the patriarchal mode of production, patriarchal relations in paid work, patriarchal relations in the state, male violence, patriarchal relations in sexuality, and patriarchal relations in cultural institutions, such as religion, the media and education” (ibid). Here Walby implies that patriarchy operates at different levels, for example, at the economic level (the patriarchal mode of production and patriarchal relations in paid work), state level (women’s exclusion from access to state resources and power), and the levels of violence, sexuality and culture. It is possible to identify specific patriarchal practices within each of these components or structures (ibid).

Disparities in gender roles and responsibilities, ownership, and knowledge are prevalent in all societies and are major contributing factors to disproportionate and persistent social vulnerabilities in the face of climate change. These gender disparities are particularly evident in societies where traditional gender norms are upheld (Garcia and Tschakert 2022). For example, women might experience a “feminisation of responsibilities” and take on additional farm work on top of their already extensive responsibilities as smallholders, household managers, and family caregivers to cope with and adapt to climate change (Arora-Jonsson 2014). Here gender norms relate to social expectations and behaviours that reinforce gender inequality and limit individual autonomy and self-expression (Briggs and George, 2023). According to traditional gender norms, women are expected to take on the primary caregiver role. Patriarchal norms also impede women’s access to resources, education, and decision-making power for climate change adaptation. For example, women can be excluded from adaptation interventions and services (ibid).

### 3

## Power and agency

Despite the significant contributions made to the field of gender and climate change research, there is still a troubling tendency to oversimplify the experiences of gendered groups with adaptation and vulnerability-reduction efforts (Garcia and Tschakert 2022). While the definition of vulnerability is often linked to poverty, vulnerability is a complex concept that manifests differently in different circumstances. Enarson (1998) argues that vulnerability is not an inherent trait of an individual or community, nor is it solely a result of a single factor such as poverty, rurality, or gender. Instead, it is rooted in the patterns of social practices, power relations, and processes that place certain groups or individuals at a disadvantage, making them more vulnerable to risks and disasters (ibid). Since vulnerability is shaped by social factors, it is not only influenced by the individual’s circumstances before but also during and after a disaster or hazard. As a result, vulnerability is a structural, relational, and process-oriented condition rather than an individual or personal characteristic (Jerneck 2018).

Approaches to vulnerability are centred on actors and place significant emphasis on values, interests, agency, and knowledge (Adger 2006). The resilience perspective, which was outlined above, is a holistic approach that embraces complexity (Cote and Nightingale 2012). It puts emphasis on transformability,

which involves the capacity to establish a “fundamentally new system when the ecological, economic, or social structures render the existing system unviable” (Walker et al. 2004). One of the central points of contention between the vulnerability framework and the resilience perspective revolved around the treatment of agency and power (Ravera et al. 2016), which has been a fundamental strength of the vulnerability approach and has not been adequately addressed in resilience approaches (Cote and Nightingale 2012). Moreover, the latter approach has not addressed cultural values, which are also essential to the development and functioning of social-ecological systems (Ibid).

Feminist scholars (e.g., Tschakert and Tuana 2013) have offered several critiques of resilience and its relationship to conceptualisations of vulnerability. These critiques highlight the gendered dimensions of resilience discourse and emphasise the importance of considering power dynamics, intersectionality, and social structures in understanding vulnerability and resilience. Tschakert and Tuana suggest that dominant conceptualisations consider vulnerability to be undesirable. According to such conceptualisations, vulnerability should be minimised, while resilience is deemed positive and should be strengthened. Tschakert and Tuana suggest that vulnerability should not be framed as passive or negative, whereas being vulnerable implies susceptibility, exposure, or risk (2013). Instead, vulnerability should be conceptualised as the capacity to influence and be influenced, essentially a state of being in relation to others (Ravera et al. 2016). Consequently, the objective is not to promote invulnerability but to discover more effective ways of fostering relationships among people, both present and future, and between people and their environments (ibid).

It is true that women are more vulnerable to climate change. However, it is important to acknowledge that women are capable of responding to climate-related stressors or making decisions about them (Garcia and Tschakert 2022). It is important not to place excessive responsibility on marginalised and underrepresented groups (Garcia and Tschakert 2022). Interventions to support adaptation to climate change often reinforce stereotypes and disempower subject positions for women. Reinforcing perceptions of women as vulnerable and incapable can perpetuate gendered power imbalances (ibid). One example of interventions that can reinforce stereotypes and disempower women in the context of climate change adaptation is the distribution of cookstoves in rural India. The improved cookstove programmes advocated cooking with biomass-fuelled stoves and aimed at reducing women’s workload in cooking and fuel collection (Khandelwal et al 2017). However, it had some negative consequences for women, such as “girls being married off at younger age if not needed at home for fuel collection” (ibid: 20). Another negative consequence was that collecting wood was an opportunity for women to socialise (ibid). These negative consequences would have been avoided if local women were engaged in developing the programme with equal voices in decision-making. Considerable attention should be paid to women’s strengths, capabilities, and the unequal power dynamics that drive inequality (Aurora-Jonsson 2011). Despite women’s increased vulnerabilities and their causes, women continue to find ways to organise, renegotiate and cope with stressors. Greater attention is needed to address the structural factors and power relations that situate women in more vulnerable social locations; It is important to avoid overemphasising women’s roles as strong and capable agents. Essentialising women’s roles in this way can be just as harmful as portraying them as helpless victims (Garcia and Tschakert 2022).

Feminist scholars have long advocated for examining power structures and social constructions of inequality rather than focusing solely on the debate between structure and agency (Rocheleau et al 1996). To properly (Carastathis 2016) understand and address the different forms of oppression in each context, a thorough investigation of the contextual axes of differentiation is needed. It is important to keep in mind that vulnerable communities are not uniform, rather, they are gendered in an intersectional manner that considers other factors like class, race, indigeneity, migrant status, etc. (Garcia and Tschakert 2022). Using an intersectional subjectivities lens will enable us to examine power relations and agency and the processes that shape inequalities in more nuanced ways (Garcia and Tschakert 2022).

Intersectionality is a framework for comprehending the intricate interactions between various forms of social stratification, such as race, gender, class, sexuality, and more (Carastathis 2016). Intersectionality emphasises that a person's social position cannot be reduced to a single dimension, such as gender or race. Instead, it considers the interplay of multiple dimensions and recognises the complexity of lived experiences in a diverse world (Ibid). The intersectionality framework emphasises that social interactions of different social locations (e.g., race, gender, class, sexuality, age, disability, etc.) take place within a context of interconnected systems and structures of power. As a result of these complex interactions, interconnected forms of advantage and disadvantage, which are shaped by historical forces like colonialism, imperialism, racism, homophobia, ableism, and patriarchy, emerge:

Intersectional analyses, as knowledge generated from and about oppressed groups, unveil [...] structural, disciplinary, hegemonic, and interpersonal dimensions of power and reveal how oppression is constructed and maintained through multiple aspects of identity.

Dill and Zambrana 2009:7

Intersectionality rejects the reduction of oppression to a single foundational explanatory category, such as class. Instead, it argues that oppression results from the interaction of multiple, decentred, and mutually constitutive axes of power (Carastathis 2016). Moreover, intersectionality emphasises the simultaneous presence and interaction of multiple social positions. It challenges the unitary or additive approaches that prioritise one category and neglect or add others as if they were separate. Instead, intersectional approaches recognise that these categories co-constitute institutionalised practices and lived experiences. Simultaneity captures how oppressions are experienced simultaneously and theorises the convergence and interwovenness of systems of oppression (Ibid).

Thus, intersectionality is not solely concerned with incorporating numerous analytical categories or presenting an exhaustive list of factors that contribute to responsibility and vulnerability related to climate change. Rather, it seeks to broaden the perspective and consider which factors may be significant in a specific context. Moreover, the meaning and significance of social categories should not be considered constant or unchanging; rather, they should be understood in the particular historical and spatial context they are situated in, and as influenced by power dynamics. Social categories are seen as constantly being created and transformed, and this is fundamental to how intersectionality is conceptualised (Kaijser and Kronsell 2014). Therefore, it is extremely important to consider the process of constructing and negotiating social categories, as well as the potential variations in these categories. Kaijser and Kronsell note that in addition to recognising and comprehending power dynamics and their consequences, utilising an intersectional approach can provide insight into the formation of personal and collective identities, as well as how established categorisations are mobilised in political projects (Ibid).

Intersectionality from a feminist perspective is based on a feminist comprehension of power and knowledge creation. Feminist studies continue to be invigorated by anti-racist and post-colonial commentary, which, along with queer, masculinity, and disability studies, enriches our understanding of how norms are constructed, and power relations intersect (Kaijser and Kronsell 2014). Intersectionality serves as a common point or platform for feminist theorising, emerging in post-colonial and anti-racist feminism while related concepts have developed in various strands of feminist theorising, including ecofeminism, animal studies, and post-structural feminism (Ibid).

Also, intersectionality promotes inclusivity by making visible social locations and experiences that are often overlooked in essentialist and exclusionary constructions of categories. It challenges dominant power structures that may inadvertently exclude or marginalise certain groups, such as queer or people with disabilities (Carastathis 2016).

As previously mentioned, utilising classifications of individuals can lead to determinism and a failure to acknowledge the intricate and continually evolving power dynamics. Acknowledging that categories are not static but rather dynamic, changeable, and interconnected, an intersectional perspective moves beyond simply labelling categories and instead, explores how they are linked to larger power dynamics, institutional practices, political movements, and symbolic representations (Kaijser and Kronsell 2014). These power dynamics, institutional practices, and symbolic representations are underpinned by and used to sustain specific systems (for example, capitalism and patriarchy) that seem crucial to global responses to the impacts of climate.

## 5 Conclusion

Adaptation, mitigation, and vulnerability are essential concepts in understanding the societal, spatial, and temporal impacts of climate change. Feminist perspectives are crucial in ensuring that climate justice is achieved fairly and efficiently by analysing how changes in social and ecological conditions impact gender relations. Power relations, social practices, and processes that place certain groups at risk also contribute to vulnerability. Therefore, addressing power imbalances is essential to overcoming women's climate vulnerability.

The intersectional approach is essential to understanding the complex relationship between gender and climate change. It highlights the interconnectedness of social identity categories and power dynamics that contribute to unequal vulnerability and responsibility related to climate change. Intersectionality emphasises the need to recognise the significance of multiple factors in creating distinct forms of disadvantage and oppression. Ultimately, applying intersectionality to the examination of climate issues allows for a more comprehensive and precise understanding of the social and political conditions that shape climate governance.



# Gender inequality in Georgia

Climate Change Impact on Women's Vulnerability in Georgia

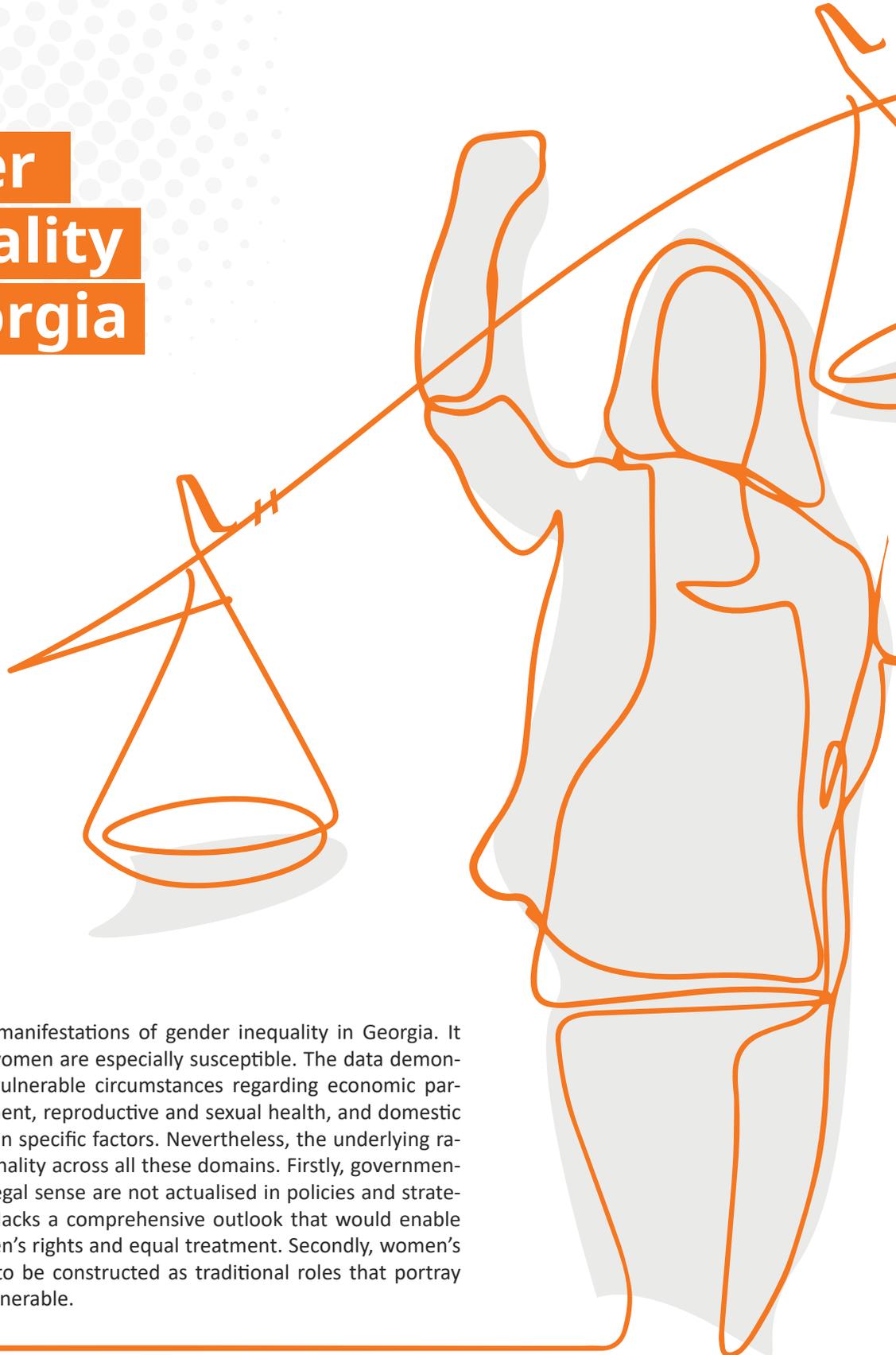




Photo by Natela Grigalashvili

# 3

## Gender inequality in Georgia



This chapter refers to manifestations of gender inequality in Georgia. It explores areas where women are especially susceptible. The data demonstrates that women's vulnerable circumstances regarding economic participation and employment, reproductive and sexual health, and domestic violence are grounded in specific factors. Nevertheless, the underlying rationales have a commonality across all these domains. Firstly, governmental commitments in a legal sense are not actualised in policies and strategies. The Government lacks a comprehensive outlook that would enable the realisation of women's rights and equal treatment. Secondly, women's gender roles continue to be constructed as traditional roles that portray them as passive and vulnerable.

## 1 Women's political participation and power

The introduction of the mandatory quota mechanism in the Election Code of Georgia, as a part of the Electoral Reform of 2020, was not followed by other measures to promote equal participation of women in politics. There are 27 women in the Georgian Parliament (19.3%) as of September 2023 (Parliament of Georgia 2023). Women's representation in the Ministries of Georgia is high; however, in some Ministries, the number is low (e.g., there are 38% of women employees in decision-making positions in the Ministry of Defence of Georgia and only 3,7% -in the Ministry of Internal Affairs of Georgia (Public Defender of Georgia 2022). Moreover, political parties do not have or have poorly defined internal party gender-related policies (UNDP 2022a). In addition, women in politics face "different types of criticism (age, appearance, personal life), which is less expected towards male candidates/politicians" (Ibid: 8). Moreover, women are less represented in decision-making positions in the political parties (UNDP 2022a).

Women remain underrepresented in local government, with men predominantly occupying decision-making roles. It is true that in the Local Self-Government Elections of 2021, women's political representation was increased due to the mandatory gender quotas: "In particular, in the Self-Government Elections of 2021, 31.4% (441) women were elected by the proportional list, and 7.6% (50) women were elected by the majoritarian system" (UNDP 2022a: 28). Women employed in the local municipalities are rarely employed on decision-making positions, due to gender-based discrimination (Public Defender of Georgia 2022). Often, they are employed as administrators or receptionists, without any decision-making opportunities.

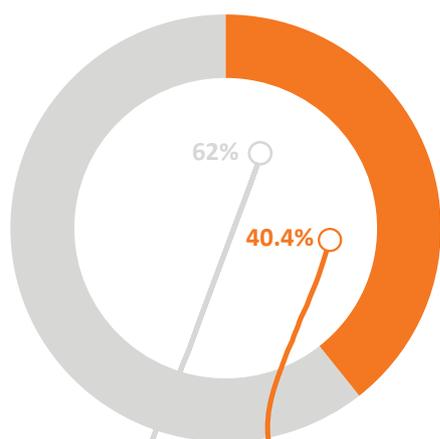
However, women are occasionally engaged in local politics in ways that go unaccounted for in the official statistics. For example, they attend public meetings and meetings in villages and are involved in identifying problems and articulating initiatives. They are mostly concerned with healthcare and social issues (Public Defender of Georgia 2020). However, Public Defender's office found out that such meetings take place extremely rarely (usually, before the elections) (Public Defender of Georgia, 2022). When they do, women usually do not have any information about the meetings, and they are attended by a few people. This is particularly problematic for women with disabilities and ethnic minority women, who often face challenges with attendance due to issues related to accessibility and limited access to information (ibid). Women are more active in another type of political arena, that is, civil society and NGO activism.

## 2 Women and labour market participation

According to the National Statistics Office of Georgia (2020), the concept of "participation in the labour market" is defined as either being employed or actively searching for employment. This measurement is determined by the labour participation rate. The data reveals a significant disparity in labour participation rates between genders, with a rate of 40.4% among women and a much higher rate of 62% among men, indicating that women are economically inactive.

Employment data from the National Statistics Office of Georgia (2020b) reveals that merely 33.9% of women are employed, while 16.2% are not. In comparison, 49.5% of men are employed, with 20.2% not currently working (ibid). Women's lower labour market participation is likely to contribute to the apparent low unemployment rate recorded in official statistics. The data suggest that women may have insufficient time to engage in paid employment, thereby resulting in lower participation rates. Interestingly, women with tertiary education exhibit a 20% higher likelihood of participating in the labour market than those without, yet remain less likely to do so than men regardless of education level (UN Women, 2018b, p. 21). It is noteworthy that women constitute a sizeable proportion of employees in sectors such as trade, education, healthcare, hospitality, and social work. However, men are overrepresented in physically demanding occupations and public transportation roles (Ibid).

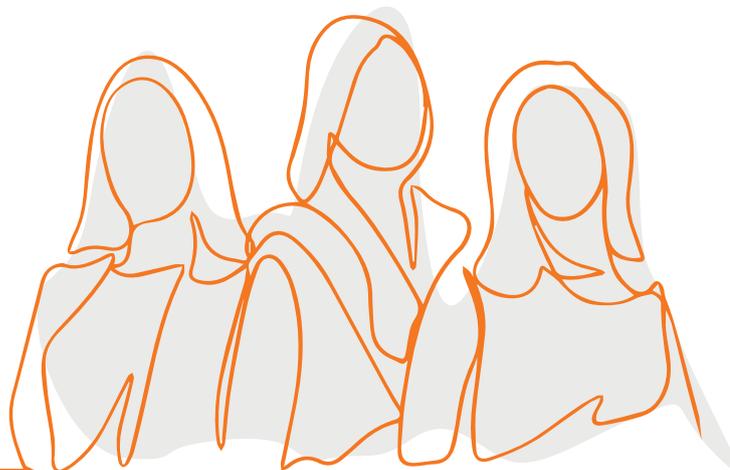
## The data reveals a significant disparity in labour participation rates between genders



One in four women identifies as a homemaker, according to the UN Women’s Report (2018a). Notably, 24% of women prefer to stay at home with their children, and one in five women not currently working indicated that their spouse opposes their employment. These circumstances are further complicated by a lack of accessible childcare services, which limits working mothers’ flexibility. For instance, schools close at 3 PM, kindergartens close at 6 PM, and the traditional workday ends at 6 PM (ibid).

One of the significant factors that contribute to women’s lower economic activity is the gender pay gap. As per the UN Women’s Report, many women cited inadequate remuneration as the reason for not being in the labour force (2018b). Women’s average earnings are substantially lower than those of men in Georgia. According to the National Statistics Office of Georgia, in 2019, women earned an average monthly nominal salary of 869.1 Georgian Lari (GEL) compared to 1361.8 GEL earned by men, indicating that men’s salaries were about 1.6 times higher than women’s salaries (National Statistics Office of Georgia, 2019). The pay gap was recorded as 41% in 2018, with Tbilisi reporting 43%, other urban areas 53%, and rural areas 26% (UN Women, 2018a). Alarming is the stagnancy of this gap over the past decade, suggesting that women’s position in the labour market has not significantly improved. Moreover, the results of a quantitative study conducted among 1364 women living in urban areas of Georgia showed that women received lower bonuses, benefits, and compensations than men (Bendeliani et al., 2014).

The gendered segregation of occupations remains a pressing concern in contemporary society, as evidenced by the disproportionate concentration of men in traditionally male-dominated professions, and conversely, of women in female-dominated sectors. This pattern of occupational segregation serves to reinforce gender-based inequality, with women experiencing limited access to resources, opportunities, and power in the labour market. In addition to the gender pay gap, informal employment is also a significant feature of the Georgian labour market. Informal employment refers to a range of work types, including agriculture, repair work, domestic work, and sales, and accounts for approximately 23% of the Georgian population (UN Women, 2018b). Women are particularly likely to work in the informal sector, with many engaging in agricultural work for 80 days more per year than men (Asian Development Bank, 2018). Moreover, even within sectors where women are more prevalent, they are frequently relegated to lower-level positions, with few opportunities for executive or decision-making roles (UN Women, 2018b). This gendered occupational segregation and the over-representation of women in informal employment highlight the persistent and multifaceted nature of gender-based discrimination in the Georgian labour market.



The absence of gender-sensitive government strategies represent a significant challenge to advancing women's economic empowerment. The current government has only implemented two projects with explicit goals of improving the economic status of women. The first initiative, known as the "Enterprise in Georgia" project, aimed to support manufacturers and entrepreneurs by instituting a quota system in which at least 20% of the beneficiaries in 2015 and 30% in 2016 should have been women (Sapari, 2017). The project largely succeeded in achieving this goal, but women were primarily granted funds for small and medium-sized enterprises. The second initiative, the Development of Cooperatives project, sought to empower women in rural areas. However, by 2017, only 27% of cooperative members were women, and a mere 8% of women held higher positions within cooperatives (Ibid). These findings underscore the need for gender-responsive policies that specifically target women and address the root causes of gender inequality in the labour market.

Governmental policies and programs lack adequate measures to address the challenges faced by workers with family responsibilities, and they are silent on gender discrimination in the workplace. Additionally, there is no mention of the minimum wage or pay equity for work, which further exacerbates the situation. Furthermore, women who are economically inactive, unemployed, underemployed, or involved in informal labour do not receive any financial assistance or protection from the State, rendering them economically vulnerable. The precarious economic circumstances that women experience in Georgia compel them to depart the country in search of employment opportunities elsewhere, as previously observed; indeed, there has been a rising trend of women engaging in international labour migration.

**3****Women and poverty**

Regarding women who do not engage in international labour migration, it is noteworthy that they often face a precarious financial situation. In particular, the World Bank Systematic Country Diagnostic Report (2018) indicates that nearly half of the Georgian population is at risk of poverty (UN Women 2020a). This is further evidenced by the fact that, in 2017, 33.7% of households perceived their economic status as poor, indicating that all demographic groups, with the exception of children, perceived their situation as worse than the actual monetary poverty rates (ibid). Women, in particular, are vulnerable in this context, as half of the female-led households (primarily consisting of widows and single mothers) lack labour income, relying instead on agricultural activities or social benefits. In addition, maternity protection policies remain inadequately implemented, failing to provide support for women who are economically inactive, unemployed, or working in the informal sector in the event of childbirth or adoption (ibid).

**4****Women and Health**

Georgia has one of the highest maternal mortality rates in the region, as documented by the World Health Organization (2023). This situation can be attributed to several factors, including substandard antenatal and perinatal care, a lack of adequate monitoring mechanisms, and insufficiency of health-care professionals. The absence of a systematic approach to postnatal services exacerbates the issue; visits to healthcare facilities after childbirth are not viewed as a crucial element of maternal healthcare.

Despite high abortion rates in Georgia, access to contraceptives remains limited. The absence of government policies to address this issue creates an unsupportive environment for family planning services, according to the Public Defender's Office of Georgia (2016). Neither State nor private insurance programmes include family planning consultations or services (Public Defender's Office of Georgia, 2019). Family planning services are also not integrated into primary healthcare, and limited access outside of Tbilisi exacerbates the issue.

The dearth of adequate knowledge about sexual and reproductive health amongst the youth in Georgia can be linked to the prevalence of early marriage in the country. In a study conducted by the Public Defender in 2020, 131 cases of early marriage were identified, out of which 20 cases resulted in school dropouts (Public Defender of Georgia, 2020). It should be noted that these cases of early marriage and related dropouts may not always come to the attention of the State, as some young girls may enter into marriage without any official record or notification to social services.

**5****Violence against Women**

The issue of domestic violence is a significant concern in Georgia. The country has seen an increase in cases of femicide, which the Public Defender of Georgia is monitoring as a gender-motivated crime. In 2018, there were 17 cases of femicide and attempted femicide (Public Defender of Georgia, 2020). The majority of these crimes were committed by husbands, partners, ex-husbands, ex-partners, or boy-friends (ibid).

According to the first nationwide study on domestic violence, which was conducted by Javakhishvili (2010), a considerable number of women (36%) reported experiencing coercive control from their husbands or partners, which included being forbidden from leaving the house or working. Emotional violence, such as threatening or humiliation, was experienced by 14% of women, while 6% experienced

economic violence, and 7% experienced physical violence (Javakhishvili, 2010). Another study conducted by UN Women (2017) indicated that approximately 14% of women aged 15-64 who had ever been in a relationship had experienced physical, sexual, or emotional violence.

In 2020, there were 18,482 calls made to emergency number 112 to report incidents of domestic violence, but only 10,321 restraining orders were issued, and prosecution was initiated in only 4,637 cases (Public Defender of Georgia, 2020). Also, it must be noted, that there is a reasonable expectation of underreporting the cases of gender-based violence globally (Palermo et al 2014). The reasons for underreporting may be:

The level of public awareness regarding services available for victims of violence against women in Georgia is inadequate. Women are not always able to accurately recognise various forms of violence, particularly with regard to economic and emotional abuse (Public Defender of Georgia, 2020). Women, upon recognizing the different forms of violence mentioned above, may choose not to report it; however, when they do decide to report it, they often receive inadequate responses from support services (including police) (Public Defender of Georgia 2018; Public Defender of Georgia 2020; Public Defender of Georgia 2022).

[...] shame and stigma, financial barriers, perceived impunity for perpetrators, lack of awareness of available services or access to such services, cultural beliefs, threat of losing children, fear of getting the offender in trouble, fear of retaliation, discriminatory and stereotypical attitudes toward victims in courts and law enforcement setting, and distrust of health care workers.

Palermo et al 2014: 603

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**Women are not always able to accurately recognise various forms of violence, particularly with regard to economic and emotional abuse**

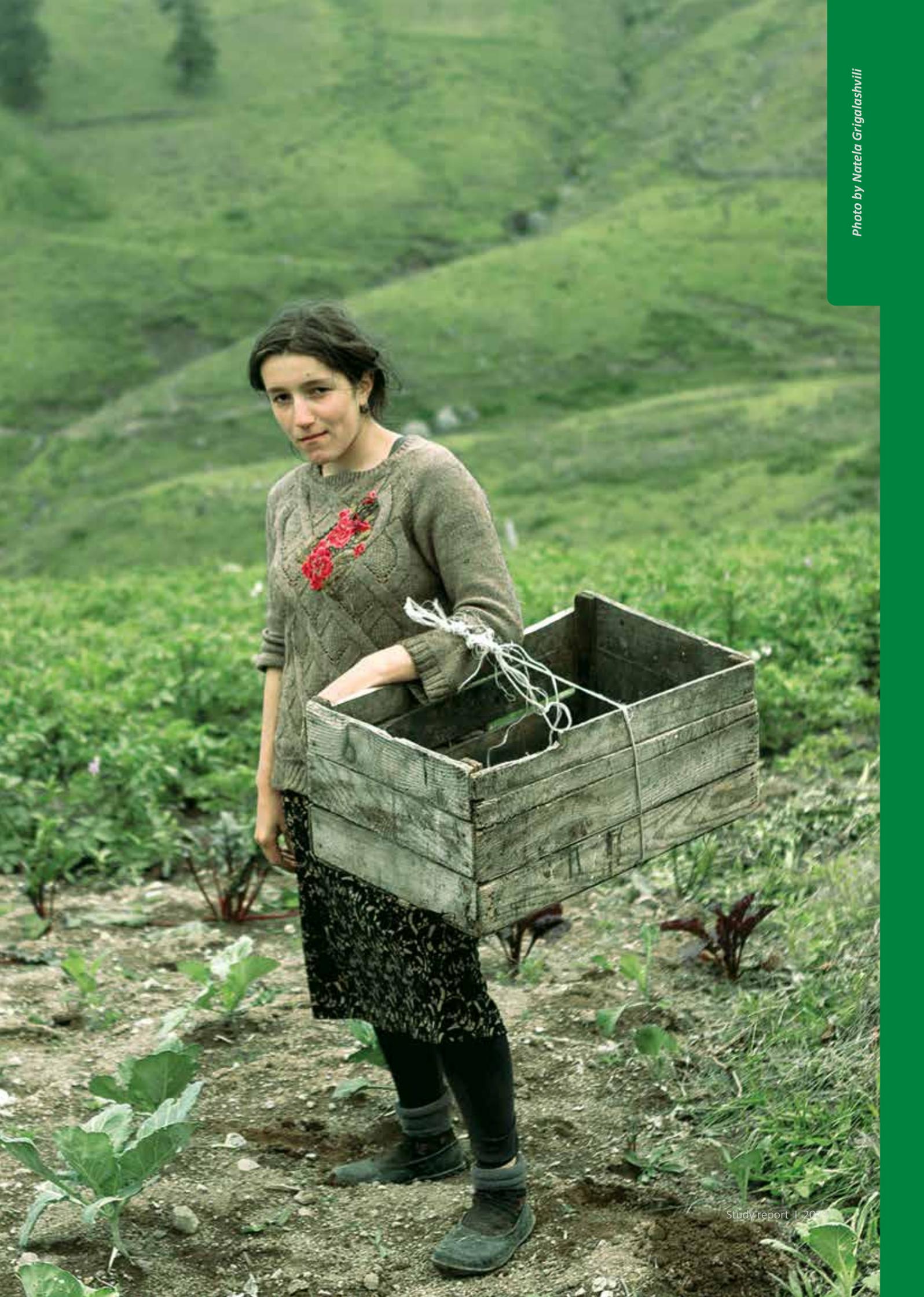
Public Defender of Georgia, 2020



# 04

## Social-climate sensitivity in Georgia





# 4

## Social-climate sensitivity in Georgia



### 1 Impacts of Climate Change in Georgia

The Fourth National Communication (FNC) to the UNFCCC (UNDP 2021a) offers a comprehensive scientific analysis of the impact of climate change on Georgia. This report identifies patterns of climate effects and sector vulnerabilities, highlighting the consequences on natural resources. Climate change has mosaic-like effects across Georgia due to its diverse climatic zones and land cover. Key climate indicators, including air temperature, precipitation, and annual wind speed, have experienced significant changes throughout the country. Over the past 30 years, the average annual ground air temperature has risen by 0.5°C compared to 1956-1985. During this period, western Georgia has seen increased precipitation while eastern Georgia has experienced a decline. Some areas have even witnessed a substantial 20% rise in precipitation. Additionally, although average annual wind speed has decreased across all seasons, certain regions have reported increased maximum wind speeds and their frequency.

Climate-induced changes have significantly affected environmental resources and components. Widespread soil erodibility caused by water and wind erosion has led to the degradation of agricultural land and forests. Climate change has accelerated glacier retreat, resulting in a reduction in the glacial area and the number of glaciers, particularly in eastern Georgia. Since Georgian rivers depend on glacier meltwater, rainwater, groundwater, and snow, changes in their volume have a direct impact on rivers and other surface water. For instance, the assessment indicates an increase in surface runoff in the Rioni River Basin but forecasts a significant future decrease. Furthermore, climate change has contributed to coastal erosion along the Black Sea and increased storm activity. Various meteorological events, including droughts, snow avalanches, floods, and strong winds, have become more frequent and intense. Particularly concerning are the increasing trends in both the frequency and intensity of natural disasters, such as floods and flash floods. These disasters are now occurring several times a year, with catastrophic floods happening every 5-6 years due to sharp increases in air temperature, snowmelt, and heavy rains. Natural geological processes like mudslides, landslides, and rockfalls have also expanded in scale and frequency. Forest fires pose a growing threat to ecosystems, protected areas, and species. Consequently, some species' populations have significantly dwindled (Chaladze 2012).

The FNC document highlights that changes in climate and environmental resources have created vulnerabilities in the agricultural sector. Livestock farming has been adversely affected, leading to a decline in milk production. Perennial, cereal, and vegetable crop quality and yield have also decreased, while pastures have degraded. Frequent meteorological and geological hazards have caused substantial economic losses by harming settlements, infrastructure, and agricultural lands, reducing people's sense of security, and causing stress, displacement, and fatalities. The report reveals that up to 70% of the country's territory and up to 60% of settlements are susceptible to varying degrees of hazards risk. There are up to 5,000 avalanche hotspots. In 2015, flooding in Tbilisi resulted in the loss of 22 lives, directly affected around 700 people, displaced 67 families, and caused extensive damage to homes, roads, communication systems, and urban infrastructure, including the Tbilisi Zoo (Global Facility for Disaster Risk Reduction and Recovery 2015). Climate change also damage Georgia's cultural heritage. The unpreparedness of state institutions to mitigate disaster risks, respond promptly, and provide early assistance exacerbates the impacts of climate change. For example, the tragic landslide in Shovi, Oni Municipality, in the Racha region of Georgia in August 2023 claimed the lives of 32 people, with emergency management services arriving at the disaster zone a full two hours after the event (civil.ge. 2023). These devastating consequences underscore the urgent need for proactive measures and climate-resilient policies to address the multifaceted challenges posed by climate change in Georgia.

## 2 Interrelation of climate and social vulnerabilities

Different social, political and cultural contexts, social and economic status, geographical location and climate change impacts in all areas of Georgia provoke different vulnerabilities between and across groups of people. Marginalised and socially vulnerable groups are more sensitive to climate change impacts. Here we understand marginalisation as a social construction, where power determines marginality (Cullen & Pretes 2000). In this sense, marginality is “a power relationship between a group viewing itself as a “centre”, and consequently viewing all minorities and nonmembers as marginal or “other” (ibid: 217). Marginality is usually defined by two conceptual frameworks – spatial and social marginality (Gatzweiler & Baumuller 2014). Social marginality is often based on characteristics such as gender, ethnicity, religion, sexuality etc.; and often, it can lead to spatial marginalisation of such groups (e.g., exclusion of marginal groups from privileged social spaces) (Cullen & Pretes 2000).

Marginalised and socially vulnerable groups are, but are not limited to, children and adolescents, the elderly, women, ethnic and sexual minorities, people with chronic diseases, eco-migrants, people with lower income, internally displaced persons and conflict-affected communities (UNFCCC 2018; Climate

Just n.d.). Therefore, understanding the needs and adopting an inclusive approach according to their circumstances is fundamental to assessing how climate change might influence them. For example, only one result of climate change, such as droughts, affects same age groups of women differently across the country. Map 1 below shows the different consequences of heat waves from 2021-2050 on women over 65 and below the poverty line (NALAG 2016).

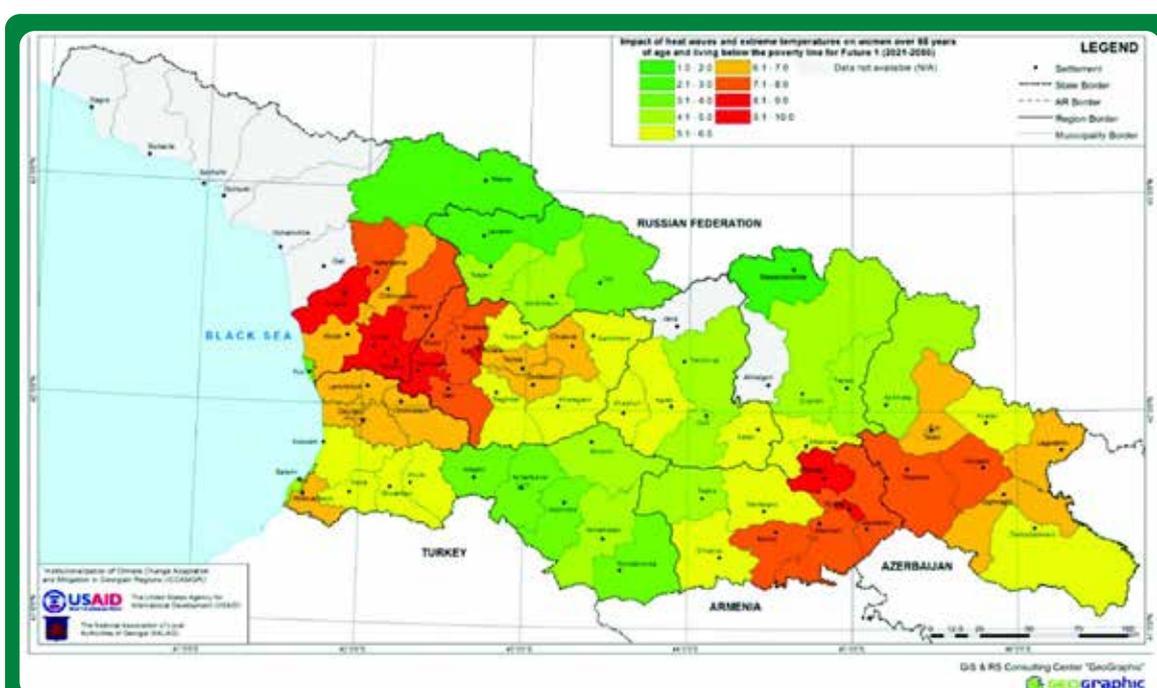
After analysing climate change patterns for Georgia from the scientific point of view above, we will discuss how climate and social vulnerabilities can be interlinked. On the one hand, we take in mind that the social and political dynamics give birth to certain forms of climate change vulnerabilities; on the other, climate change exacerbates social and economic problems and inequalities.

Over the past two decades, urbanization has increased in Georgia, which brought various changes in cities, especially in Tbilisi. As of 2018, around 58% of the population lives in urban areas, and half of it (approximately 1.1 million) lives in Tbilisi (Asian Development Bank 2021). Urbanization refers to the expansion of urban centres, which is associated with a modification in land cover, transforming natural land cover into dense concentrations of buildings, pavements and other surfaces. As a result, it creates urban heat island effects (Hulley 2012). It is relevant for Tbilisi and amplifies the effects of heatwaves; since the intensity, duration and occurrence of heat waves are more pronounced in Tbilisi than in other cities of Georgia (Keggenhoff et al. 2015). Intensified heat waves pose risks of serious illness and death (Im & Eltahir 2017). Being at risk for experiencing negative health effects and social-economic status are the main determinants of vulnerability to heatwaves. Therefore, the elderly, people with chronic illnesses and poor health conditions, and people with lower income groups are more exposed to risks of heat waves (Hajat, Kovats, & Lachowyc 2007; Lopez-Bueno et al. 2020). Air pollution in urban areas has already deteriorated health conditions, including in Tbilisi. Air pollution was identified as the main reason for 6,845 deaths in 2016 in Georgia (Public Defender of Georgia 2019). Furthermore, urban green spaces are essential to combat heat waves and air quality. However, the rate of green areas per capita is not determined yet in Tbilisi; in other cities, standards for evaluating the ratio are not approved either (ibid). In addition, housing characteristics are also crucial for people's resiliency to heat waves (Zuurbier et al. 2021).

Tbilisi's Resilience Strategy for 2030 mentions that the city is vulnerable to rainfall-related floods due to Tbilisi's geomorphology, imperfectly controlled construction, malfunctioning drainage system, etc. Tbilisi encounters problems of landslides, ground instability, and seismic activities (Resilience Office of Tbilisi City Hall 2019). Heatwaves' frequency and duration will also increase dramatically in Tbilisi and other major cities (UNDP 2021a). It makes city infrastructure, including public transport, sensitive to hazards and extreme weather. While public transportation is mainly used by women, students, lower-income people, and unemployed people (Babunashvili 2021), Climate change impacts will increase the exposure of marginalized people to additional risks.

Mountain communities are geographically marginalized, as they live in peripheries, far from the centres of social services, commerce, policy planning and power. They are not recognized as equal partners in policy planning and decision-making, nor are their livelihoods properly developed (FAO 2020). In Georgia, people still do not have equal access to water supply systems. Many people in rural settlements fetch water from wells and boreholes (ADB 2020). The absence of social and governmental support networks, healthcare services, adequate conditions of infrastructure (roads, sewage, drainage, bridges, buildings), decent housing, etc., undermine residents' capacities to mitigate or prevent the impacts of disasters. Harsh living conditions, lack of employment and educational opportunities cause a high outflow of young and economically active people from the mountains. Especially young and middle-aged women are missing in villages (Kohler et al. 2017; Tevzadze & Kikvidze 2016). Non-existence of social services including schools, ambulatories and hospitals, induce young and middle-aged women to re-settle in urban areas. Agriculture is a dominant source of income for people in rural areas, and mixed farming continues to play an essential role for livelihoods (Theissen et al. 2019; Tevzadze & Kikvidze 2016). It is noteworthy that in the high mountains of Georgia, people show a richer and wider variety of traditional knowledge of plant use than the other European regions, which represents a reservoir for food security, and socio-ecological memory and in some areas of Georgia, it has a meaning of cultural survival as well (Bussmann et al., 2016; Bussmann et al. 2017; Sosnovcová 2020).

Mobility and transport use are other pillars of climate sensitivity, especially for women. It hinders them from accessing services which are not provided in their communities. The rate of the daily movement of women in rural areas of Georgia is low compared to the city. Women's mobility directly depends on their income, and according to women, because of a lack of access to transportation, they often refuse employment. Only 19% of cars registered in Georgia are owned by women (Public Defender 2021). Municipal transport service operates only in 23 municipalities of Georgia and covers only about 8% (in total - 270) of settlements (Gender Equality Council of the Parliament of Georgia 2022). Due to this and other reasons, such as caring for the household and cultural values, most women can't leave the village. Hence, the lack of recreational areas in rural areas, the problem of unemployment, lack of water, etc., worry them more (Tabidze and Kochladze 2021). Only about 23% (800) of settlements have squares or playgrounds for children. The scarcity of places for children's entertainment further exacerbates women's time poverty (Gender Equality Council of the Parliament of Georgia 2022). Internet access rates are much lower in rural areas, which makes it difficult to access information and public participation (ibid). These findings underline the gender-blindness of service planning and decision-making, which leads to unhelpful mobility and transport policies. They also one more time point up the rigid gender roles, according to which women are considered to be primarily responsible for caring (Briggs and George 2023) and therefore accessing services (such as healthcare or recreation for children) on behalf of their family.



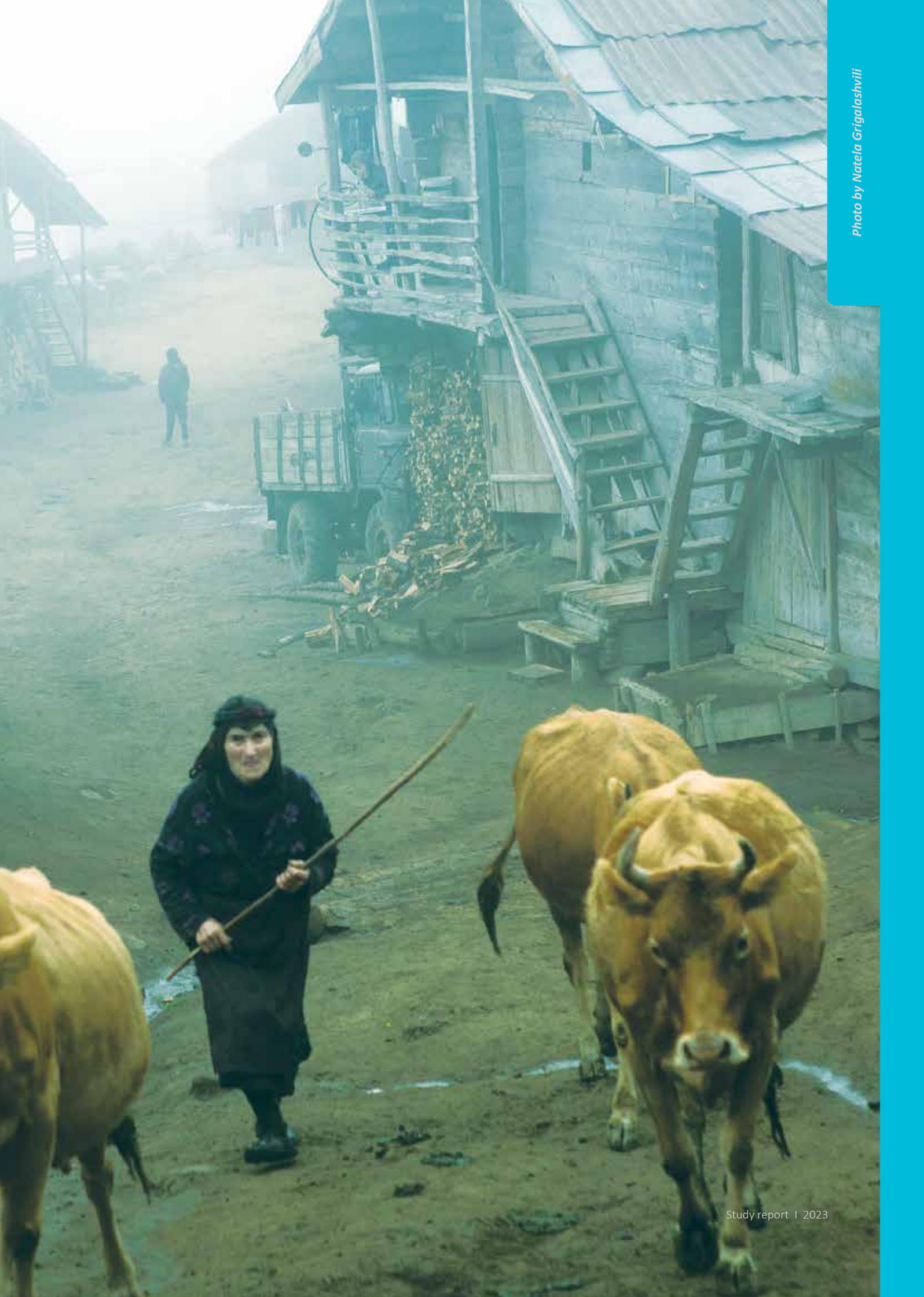
**Map 1.** Impacts of heat waves and extreme temperatures on women over 65 years of age and living below the poverty line for 2021-2050, 2015



# Methodology

Climate Change Impact on Women's Vulnerability  
in Georgia





# 5

## Methodology



### 1 Aim and research questions

The research explores women’s vulnerabilities exacerbated by climate change impacts and trends in Georgia. It aims to have a broader look at gender equality and women’s position in Georgian society, their access to and control of assets, and decision-making roles and how gender inequalities and tradi-

tional gender roles make women more or less vulnerable to climate change and its impacts.

The research unpacks systemic problems women face in Georgian society and how these problems and climate change are interrelated so that they define the vulnerabilities of women. It reveals the impacts of climate change and how they affect women (including their social, economic, cultural and political life) in rural and urban areas. Furthermore, the study looks for opportunities, traditional knowledge and solutions from women's perspective that can contribute to their empowerment and enhance their resiliency and adaptive capacity to climate change impacts and beyond.

Therefore, the research questions include the following:

- ▶ What is the position of women in Georgian society, their access to and control of assets, and decision-making roles and how that makes them more or less vulnerable to climate change and its impacts?
- ▶ What are women's specific vulnerabilities which are caused primarily or exacerbated by impacts and tendencies of climate change in Georgia?
- ▶ How are different groups of women influenced by climate change impacts and tendencies, which are group-specific vulnerabilities, and which are common ones?
- ▶ What are the spaces available for women to act on their climate change caused or exacerbated vulnerabilities based on Georgia's current context?
- ▶ What entry points exist, who is positioned to influence or make credible shifts within those entry points?

## 2 Research Methods

The climate of Georgia is very diverse, and so as the communities and power dynamics within communities. Therefore, depending on the settlement types (urban and rural) and women groups (ethnic minority, age groups, social status, income, education, etc.), climate vulnerabilities and risks might be different. That's why the study applies triangulation of qualitative and quantitative social research methods. The qualitative study ensures the harvesting of representative data and generalized patterns for women in Georgia in terms of resiliency and vulnerabilities to climate change. At the same time, qualitative research provides in-depth insights and focused approaches towards different social groups of women.

### 2.1. Qualitative research methods

**Desk Research:** The study includes conducting desk research to explore what is already known generally about the vulnerabilities of women to the effects of climate change and, specifically, what data already exists for Georgia.

**Key informant interviews (KIIs):** Four KIIs were conducted with representatives of ministries and gender experts during 27-31st of March, 2023. Key informants were people who know how climate change might affect women in Georgia and what spaces are available for women to act on their climate change-caused or exacerbated vulnerabilities based on Georgia's current context.

**In-depth interviews:** Qualitative research methods, in-depth interviews were also applied to collect the

data from other people and groups of women, which might not be covered through FGDs. However, their approaches and insights would help achieve the research aim. In-depth interviews were conducted with women with disabilities, ethnic minorities, environmental activists, eco-migrants, small-scale business (farms or enterprises) owners, etc. These women face various systemic political, environmental and social problems that might be exacerbated by climate change. Furthermore, they have different background that helped the research to find out positive practices for enhancing resilience, opportunities for climate advocacy and mobilization, further indicators for intersectional analysis and challenges for adapting to climate change. Therefore, ten in-depth online interviews were conducted via Zoom platform, during the 8-17th of May 2023. Each interview lasted approximately 45-60 minutes, and audio recordings and transcripts were made, pre-agreed with the respondent(s).

**Table 1:**  
Characteristics of the in-depth interviews’ respondents

Characteristics of the respondents	Number of respondents with this status
Environmental activists	2
Queer	1
Ecomigrant (from Adjara and Svaneti)	3
Women with disability	2
Internally displaced person	1
Farmer	2
Founder of agricultural cooperative	2
Entrepreneur	2
Conflict affected person	1

**Focus Group Discussions:** According to the Fourth National Communication of Georgia to the UNFCCC (UNDP 2021a, p. 30), “the most significant warming was observed in Samegrelo-Zemo Svaneti, Kakheti and Samtskhe-Javakheti, where the temperature increase was 0.4-0.70C. Against the background of the observed warming, there is a significant increase in the probability and duration of heat waves.” Precipitation patterns also changed; they increased in the west and declined in the east of Georgia. The consequence on agriculture is significant, which affects food production. For example, the influence of climate change on wheat and maize production in Dedoplistskaro and Zugdidi is substantial, and it is expected that the stress caused by high temperatures and humidity will increase on them. Furthermore, soil erosion in Georgia is one of the main causes of the degradation of agricultural land and added water erosion, which is particularly strong in Chiatura municipality. Geological and seismic activation of hazards, changes in forestry and land use are also interesting factors to keep in mind while addressing vulnerabilities. Due to all these and social factors (e.g. ethnic minorities), focus group discussions (FGDs) took place with women in these municipalities:

In total, 132 women participated in focus group discussions (FGDs) in 9 locations in Georgia. 7 FGDs were conducted with women from rural areas, 8 FGDs – with women from urban areas and 1 from Tbilisi. Participants with different social statuses (ethnic minorities, single mothers, mothers of children with disability, etc.), age and employment statuses were selected. FGDs helped the study to understand patterns of social and climate vulnerabilities of women in different climatic zones of Georgia. They were conducted from the 10th of April until the 4th of May, 2023. They have been recorded and transcribed.

**Table 2:**  
Information about conducted FGDs

Location	Number of FGDs	Number of participants	Date
Telavi	2	17	10.04.2023
Dedoflistskaro	2	17	11.04.2023
Marneuli	2	17	21.04.2023
Akhaltzikhe	2	15	24.04.2023
Tbilisi	1	8	28.04.2023
Chiatura	2	17	01.05.2023
Poti	1	9	02.05.2023
Mestia	2	16	03.05.2023
Zugdidi	2	16	04.05.2023

Data coding: After transcribing interviews and focus group discussions, they were coded, i.e., thematic/substantive names were assigned, based on which positions and attitudes voiced during the interview were organized. Data were clustered, and logical links were found between them. Then various and similar attitudes and patterns were analyzed.

## 2.1. Quantitative Research

Representative data helped the research to find a generalized picture of climate change impacts on women in Georgia, what are observed effects in regions of Georgia, whether systemic determinants influence women's vulnerabilities differently, what are the opportunities for adapting to climate change depending on their settlement type, etc. Therefore, 760 interviews were completed to have representative data by rural and urban settlement types. In this case, for the whole of Georgia, the margin of error is 3.6% with a 95% of confidence level. Additionally, the margin of error by rural and urban settlements is 5% with a 95% of confidence level. The fieldwork for collecting quantitative data for the research was held during 3-13 July 2023.

**Table 3:**  
Number of interviews and margin of error.

A representative survey by settlement types	The margin of error (for a 95% of confidence level)	Number of interviews
Rural settlements	5.0%	377
Urban Settlements	5.0%	377
<b>Georgia</b>	<b>3.6%</b>	<b>760</b>

## Detailed Sampling

A probability sampling model was used to select the respondents, namely cluster sampling using the primary stratification method. Sampling frame has been established on the proportional statistics of women age and settlement type distribution in Georgia, to ensure the randomisation and include both – young and non-young women in rural and urban areas.

At the initial stage, the selective population was distributed according to geographical division according to the regions of Georgia – which served as strata. Following strata rural-urban division of regions was held. After stratification, clusters were defined from the municipalities, and cities and villages were selected.

During the clustering process the Primary (PSU), Secondary (SSU) and Final (FSU) sampling units were identified.

- ▶ Primary Sampling Unit (PSU): Regions of - Tbilisi, Adjara, Guria, Imereti, Kakheti, Mtskheta-Mtianeti, Racha-Lechkhumi and Kvemo Svaneti, Samegrelo-Zemo Svaneti, Kvemo Kartli, Samtskhe-Javakheti and Shida Kartli region. They were divided into rural and urban strata.
- ▶ Secondary Sampling Unit (SSU): Household. Sampling points, initial household was chosen randomly within the settlement and interviewers moved from this initial address and select next household using a certain step between houses/apartments.
- ▶ Final Sampling Unit (FSU): Respondent. If there are more than one woman in the household -respondents (women) in the household were chosen with a closest birthday principle, to ensure the randomisation. If due to certain legitimate reasons it was impossible to interview selected respondents during first visit (respondents were not at home, she is busy, feel seek, etc.), interviewer was obliged to conduct at least one more visit; In case, after 2nd visit, interview was not completed, the household was be replaced by another one.

**Table 4:**

Proportional distribution of interviews by regions and age groups of women

By regions of Georgia	Number of interviews		
	Women in urban areas	Women in rural areas	Total
Tbilisi	190	10	200
Adjara region	34	30	64
Guria region	8	20	28
Imereti region	45	70	115
Kakheti region	10	60	70
Mtskheta-Mtianeti region	8	16	24
Racha-Lechkhumi and Kvemo Svaneti region	0	9	9
Samegrelo-Zemo Svaneti region	24	50	74
Samtskhe-Javakheti region	9	25	34
Kvemo Kartli region	34	50	84
Shida Kartli region	18	40	58
<b>Total</b>	<b>380</b>	<b>380</b>	<b>760</b>

By age groups of women	
18-29	155
30-44	188
45-64	255
65+	162
<b>Total</b>	<b>760</b>

### Preparation for the Fieldwork

The survey was carried out by the Institute of Social Studies and Analysis (ISSA) in close coordination with the Green Alternative. They worked on a survey questionnaire together. Additionally, pilot surveys were carried out in order to check the logical flow and formulation of questions in instruments. After finalizing the questionnaire, ISSA's interviewers were trained on the questionnaire's specificity, the study's protocol, their responsibilities and requirements (including ethics), type of the sample. Two monitors specially selected for monitoring verified the work conducted by the interviewers through a telephone survey to ensure the high quality of the interviewing process.

### Data Coding

During the fieldwork, the statisticians of ISSA developed an SPSS database based on the questionnaire. Statisticians cleaned, weighed and processed the data. Data Cleaning encompassed three sub-processes:

- ▶ Data checking and error detection;
- ▶ Data validation;
- ▶ Error correction.

In the last stage, the quantitative data were analyzed by using descriptive and analytical statistical methods.

# 06

## Data analysis and research findings





Photo by Natela Grigalashvili

# 6

## Data analysis and research findings



### 1 Observed patterns and impacts of the climate crisis by the women in Georgia

Based on the study, the report discusses the observed patterns and impacts of the climate crisis on women in Georgia. The findings highlight women's high sensitivity to climate change, with a strong willingness to learn more about climate change and its adaptation.

The survey disclosed that women's sensitivity to climate change is high enough, although they express willingness and readiness to know more about climate change and how to adapt to it. Among the most severe effects of climate change, women identify intensified droughts, soil erosion, increased strong winds and heat waves, unstable weather patterns, more frequent hailstorms, and shorter spring and fall seasons. Focus group participants added that unfortunately, there is no more snow and the frosts are not as strong as before, still, the cold days and late frosts are deepened. Also, the direction and strength of the winds have changed, and the weather has become more unpredictable.



*"It's either very cold or very hot, we don't have an in-between period, or it's summer or winter"*

*- a woman from Tbilisi*

*"Summer used to be longer in Poti and now it is not"*

*- a woman from Poti*

*"Frosts have escalated, and the cold lasts longer. It's mostly winter, short autumn and two months of drought"*

*- a woman from Akhaltsikhe*

The survey also showed that women's sensitivity to climate change is high, although they agree with the statements that they need more knowledge about climate change and how to adapt to it. There are slightly different trends in this regard between rural and urban women. It is noteworthy that women living in rural areas feel climate change more extensively and express a willingness to learn more about climate change related issues.

**Table 5:**

Means on assessing agreements on the statements on a 5-point scale by settlement type

Statement	Urban	Rural	Total
The climate in Georgia has significantly changed - it has worsened	4.12	4.44	4.25
Climate change negatively affects me too	3.58	4.12	3.80
More attention should be paid to reducing the risks and impacts caused by climate change in Georgia	4.12	4.22	4.16
Due to the severity of social problems in Georgia, less attention is paid to climate change	3.70	3.97	3.81
I need more information on what climate change is and how it affects us	3.45	3.78	3.58
I need more information on how to deal with the impacts of climate change	3.41	3.82	3.58
I need more information on what I can do to mitigate climate change	3.42	3.82	3.58

It is also worth noting that a significant part of the respondents found it difficult (or refused) to assess the impact of climate change concerning the following events: activation of landslide processes (28.1%) and avalanches (28.1%), sea level rise (25.7%), increase in floods/flash floods (24.0%), intensifying of forest fires (20.3%). This may be explained by a lack of knowledge about these events and their correlation with climate change, or by considering other factors as the main cause of these events.

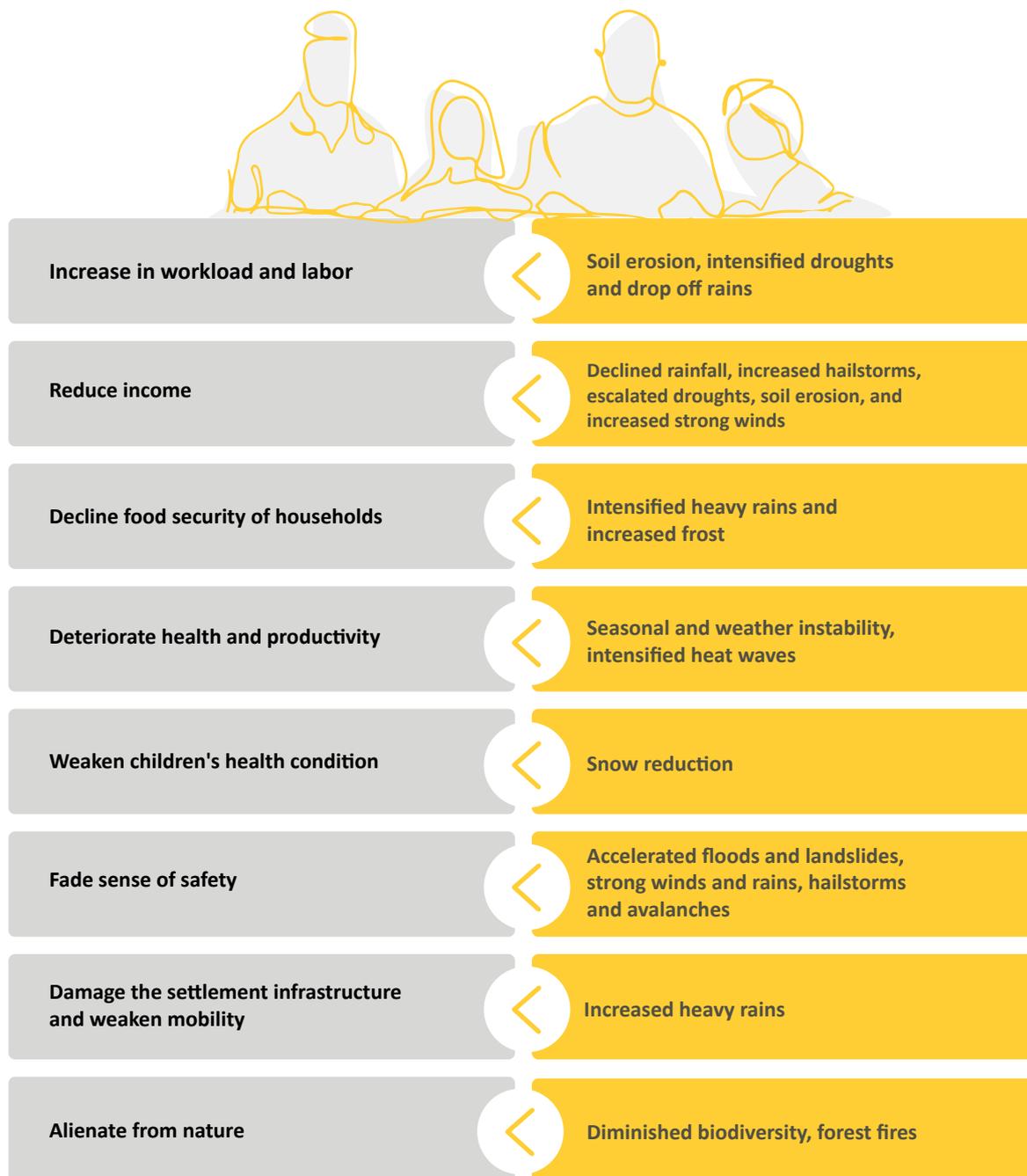
The naming of types of climate change impacts is significantly higher among women living in rural areas than in urban areas, although the processes caused by climate change and their consequences are manifested in different trends in rural and urban areas. For example, rural women are severely affected by drought, causing them to reduce their food supply (50.4%), grow fewer types of crops (46.8%) and reduce their income (44.3%). The impact of increasing droughts on women living in the city is more reflected in their health deterioration (40.9%), reduced work capacity (28.5%) and reduced food supply (22.8%). The impact of heat waves on the health of women living in cities (60.8%) and villages (39.5%) is even higher than that of droughts. The impact on the health of rural women is also probably high, yet,

they are more worried about stronger effects on agriculture. Impacts on reducing safety and increasing women’s stress are identified as significant consequences.

The summary of climate change manifestations and their consequences on survey respondents is given in the chart below. It shows the most prominent linkages found after analyzing the quantitative data.

**Chart 1:**

On the right the effects of climate change and their impact on respondents are shown on the left side



Climate change manifests itself through the occurrence and intensification of different hazards in different regions, although it often reveals itself in different forms at the same time. More than half (52.2%) of survey respondents state that they live in various hazard risk zones, mostly in drought, strong wind and hail-prone zones. More than half of these women state that disasters occur at least 3-4 times a year in their settlement.

Of the women who live in the hazard risk zone, they say that disasters damage housing (60.2%), communication (54.6%) and municipal (54.2%) infrastructure, agricultural lands (50.8%), cultural heritage sites (26.4%), pastures (19.7%) and other private buildings (18.9%).

According to focus groups, in general, it's prominent that peripheral settlements seem severely affected by disasters, because they are easily cut off from the already weakly connected urban centres, and the distribution of services and products becomes difficult. Focus group participants declared that the frequency of landslides escalates and brings various challenges and problems in settlements. However, not only as a result of disasters but also to avoid damage from it, locals face hardship to access services during a small wind or bad weather.



*"Food distribution is also sometimes hindered, delivery service cannot come up to our settlement when there is a landslide"*

– a woman from Mestia

*"I was personally affected by the landslide in this way: a group of 15 people came to me from Batumi for a week, exactly those days there were heavy rains, in the area of Khaishi, and when this landslide hit, they couldn't get out. There was also equipment and nothing could be done until the landslide started"*

– a woman from Mestia

Women explain that local geological and seismological conditions are poorly taken into account when building houses and other infrastructure, which is why the number of people vulnerable to disasters is growing.

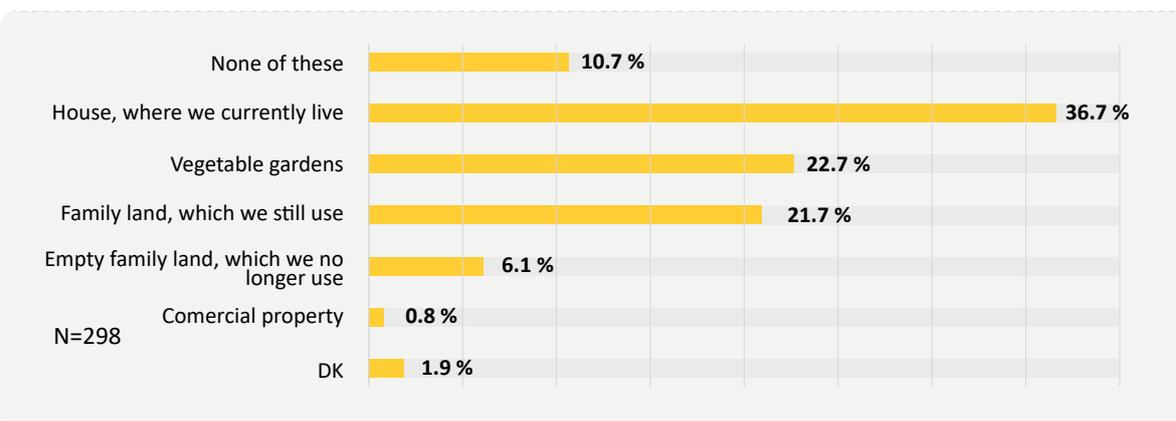
Cities are also vulnerable to disasters and due to strong winds streets get flooded, buildings and residences are damaged and movement is collapsed. However, the intense heat is also taking its toll on the settlements. For example, at the Dedoplistskaro focus group, it was said that "it's as if everything stops with us for those three months. Somewhere after 7 p.m., this heat turns into summer. July and August are difficult".

36.7% of women living in the disaster risk zone state that their house is located in the risk zone where they currently live; 22.7% have vegetable gardens, 21.0% - cultivated land, 6.1% - non-cultivable land, and 0.8% - private business facility.

**Chart 2:**

Properties of respondents' families situated in the hazard risk zones

**Property in Hazard Risk Zones**



About half of these women (47.2%) state that the local self-government is informed about the damage caused to them by the disaster and the existing risks. According to 29.2%, no agency is informed about it, and 19.9% find it difficult to answer. Only a small number of respondents talk about the assistance provided to them by state agencies. And almost half of them find it difficult to assess their satisfaction with the assistance provided.

According to the survey, the most severe impacts of disasters on women living in risk areas are reduced security (44.7%), reduced harvests (36.1%) and worsening psycho-social conditions (31.3%). 51.4% of the respondents would first contact a family member during a disaster, 18.9% a neighbour, and 12.7% - no one. The number of respondents who would contact the emergency management service (7.3%) or local self-government representative (6.2%) is low.

Focus group participants recall disasters and their traumatic experiences. For example, the death of people due to strong wind or a child catching false croup due to fear during flooding. They state that this trauma lasts for a long time and induces a sense of insecurity during wind and rain.



*"In 2012, there was a big storm in Telavi, I had a three-year-old child when the house got flooded. Only the wardrobe was dry and I stuffed the children there to save them. I'm very scared after that, my son got false croup and we spent the whole year in the hospital. Now he is big and doing well, but he is still afraid of wind and rain."*

*– a woman from Telavi*

Women are especially afraid of hail, which can destroy the entire harvest of their family, for example, even during harvesting time. According to the observations of women, the frequency, intensity and duration of hailstorms have raised. Additionally, the focus groups highlighted women's concerns about forest burning due to fires, as their recovery is a long process and it is time for the state to have a proper fire prevention system. It was mentioned that, for example, in the community of Latali, Svaneti, they have a special traditional bell, which is used for the alarm during a fire.



*"We support each other a lot, we know how to ring the bell and that is a sign that everyone should come out, men and women, old and young. Before the fire brigade and helicopter arrive, we extinguish it with our own hands. We have one church bell and the other is a ring for such alarm, it has a different sound and everyone understands that they have to come out."*

*– a woman from Mestia*

Disasters, like other crises, affect women with disabilities more roughly. Therefore, it is important to have action plans on how people with disabilities behave and how relevant parties act to help people with disabilities in these situations. These plans must be inclusive, as people with different types of disabilities may need different types of support. Respondents recall a positive example when a child with a disability was provided help to move to live near the school due to heavy snowfall in Upper Adjara.

In connection with disasters, women are dissatisfied that they do not receive advance notice, which would at least help ensure the safety of their children.



*"If you have a child, everything can be forgotten. During disasters, the only thing you want is to have a child in a safe place. At that time of disasters, you act by impulses and if you have a warning in advance, you get prepared"*

*– an ecomigrant woman*

## 2

## Position of women in Georgian society and systemic problems undermining women's adaptive capacity to the climate crisis

This chapter uncovers gendered aspects of structural inequalities in relation to climate change impacts. These structural inequalities such as employment, agricultural activities, and access to basic social services and important resources hinder women to realize their social rights and have a decent life. It shows that vulnerability is a structural condition and reveals linkages with the climate crisis. Some examples help to analyze how vulnerabilities are formed for women and various groups of women. They undermine women's adaptive capacity to additional external problems and enhance their exposure to the effects of climate change. Climate and social crisis cause the feminisation of more responsibilities and exacerbates their social, health and economic conditions. Quantitative data is mostly analyzed and correlation with other variables is significant according to the settlement types of respondents.

### 2.1. Economic conditions as an important determinant of vulnerability

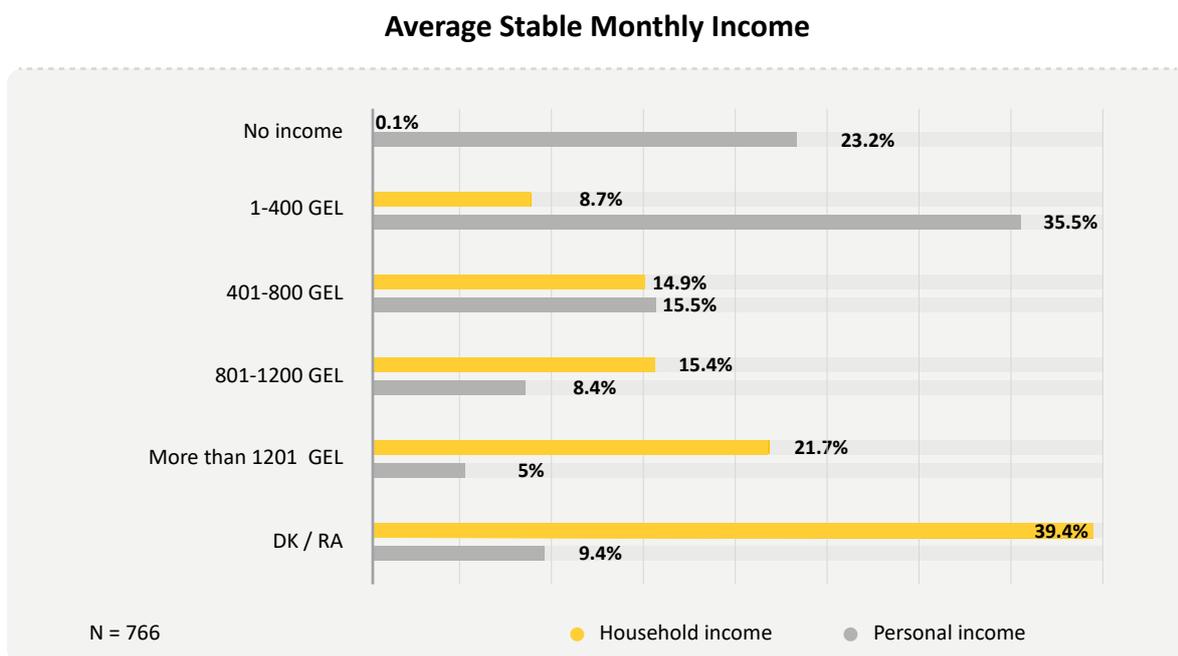
Stable income is an important indicator of women's socio-economic resilience, which is also related to resilience to climate change impacts. According to the focus group participants, personal income is a kind of guarantee of their independence for their labour potential, personal development, socialization, as well as other social activities. However, according to the survey, it is revealed that almost every fourth woman (23.2%) does not have a stable income, and almost every third woman (33.3%) has a source of stable income from a pension/allowance assigned by the state for various reasons (e.g. old-age pension, displaced persons' allowance, social assistance, etc.). The amount received from selling agricultural products is a source of personal stable income for only 2.8% of women. And for 5.9% of women, the source of income is a remittance received from family members or help received from relatives.

Almost half of the women with a stable income have a maximum monthly income of 400 GEL. 32.5% have income from 401 to 800 GEL, 11.5% from 801 to 1200 GEL, and 6.7% above 1201 GEL. 12.7% found it difficult or refused to state the amount of their income. According to the National Statistics Service of Georgia, the average monthly nominal salary for women in 2021 is 1055.5 GEL. According to the research, it is revealed that the income of the absolute majority of respondents does not exceed this figure.

As for their activities, a relatively large number of respondents are housewives (26.7%) and pensioners (26.1%). 14.3% are employed in the public sector, and 14.9% in the private sector. The number of self-employed women (2.3%) and entrepreneurs (2.9%) in the agricultural sector is very small. It should be noted that the income distribution varies slightly depending on the place of residence. It can be seen that the income of women in the city is relatively higher than in the village. 44% of women living in urban areas have an income higher than 400 GEL, and 32.2% in rural settlements.

The distribution of income sources and the amount of income of the respondents' families do not show a favourable picture of socio-economic consequences either. For 45.4%, the source of income is a salary or earned remuneration, for 35.5% a pension/allowance received from the state, for 6.6% the money received from the sale of agricultural products, for 8.5% a remittance from family members or relatives, only 0.9% have income from private business, while 2.9% refused or found it difficult to answer. The income of 8.7% of respondents' households is up to 400 GEL, 14.9% from 401 to 800 GEL, 15.4% from 801 to 1200 GEL, 14.6% from 1201 to 2000 and 7% more than 2001. It should be noted that 31.6% found it difficult to answer the question, and 7.8% refused to provide this information. Income distribution does not differ significantly by settlement type.

**Chart 3:**  
Average stable monthly income for women and their households



As for the issues of receiving and disposing of income, 52.7% of women say that they are responsible for financially contributing to the family; for 19.5% of them, this responsibility falls only on them. 43.3% of women share this responsibility with their spouse, 19.1% with other female family members, and 18% with other male family members. And, in terms of disposing of finances, a greater number of respondents, 76.1% say that they have to make this decision, and 14.7% of them say that they do it only by themselves in the family. Spouses of respondent women (56%), other male family members (25.2%) and other women (25.1%) participate in making decisions about household financial management.

According to the women participating in the focus groups, it is difficult for them to use the family income for their own needs, because the family income is so small that it is spent on the needs of the children and the basic needs of the family. Women with their income say the same, that their income is also used for the needs of the family. Low income, which these women say does not meet even the minimum needs of the family, deprives women and children of many opportunities, worsens their mental health and increases their vulnerability to various problems.



*“It’s the same in my case, I’m the breadwinner in the family, and my husband has been barely able to work for years, so we share all the income we have and use it for the family.”*

*“If you don’t have a job and income, you can’t buy things for personal use. There are a thousand things that a person needs, but cannot buy. I depend on family members. It is also very bad that you cannot develop personally. When you go to a new job, you learn something, you develop, you establish social relations.”*

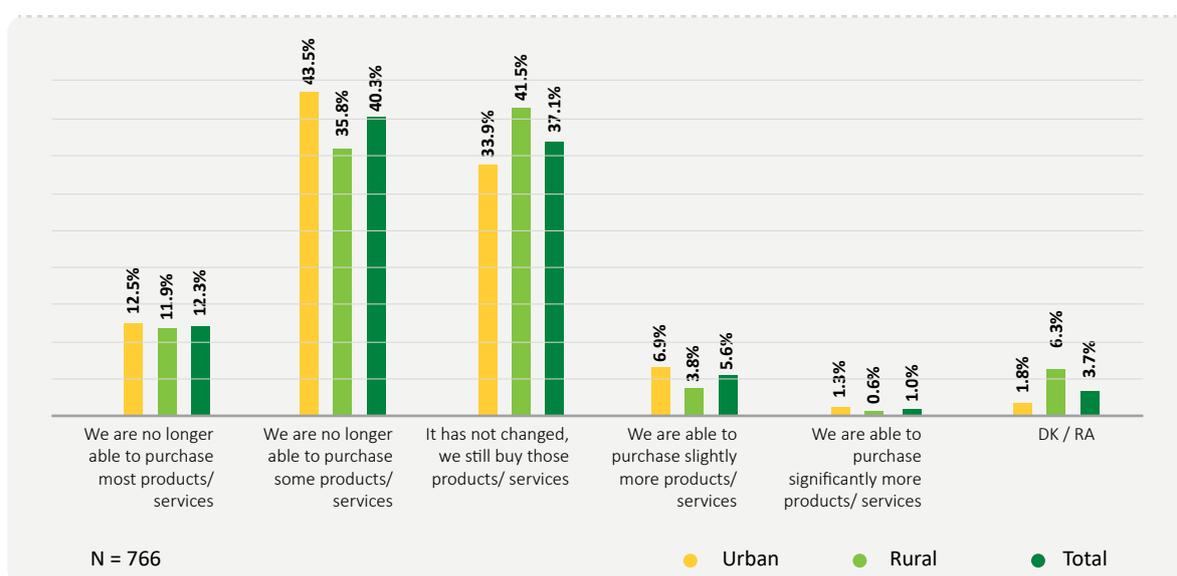
**– a woman from Chiatura**

More than half of the respondents (57.8%), when assessing the household’s economic situation, state that their income mainly provides food and clothing, while 30.3% say that their income/harvest is only for food. The economic situation of 5.8% is even worse, and only 3.8% of women say that they can buy expensive goods with their income. Depending on the type of villages and cities, this trend is similar.

More than half of women (52.6%) say they have been unable to purchase some or most of those products/services during the past 3 years. Only 6.7% say that their economic situation has improved and they can purchase more products/services. 37.1% say that their situation has not changed and they manage to buy the same products. According to the respondents, the economic situation worsened more for the families of women living in the city and remained more the same for the families of the respondents living in the rural areas. One of the participants of the focus group evaluates the psycho-social condition of women due to the difficult economic situation in her settlement as follows: “We, women, have a mask and inside the mask we have pain” - a woman from Chiatura. Over the last 3 years, in general, the economic situation of citizens has deteriorated significantly in connection with and because of the Covid-19 pandemic in the country. If a household’s economic stability is affected to some extent by external factors, it indicated their sensitivity and lack of resilience to such external systemic stresses as climate change.

**Chart 4:**

Changes in access of women’s households to purchase products and services over the last 3 years

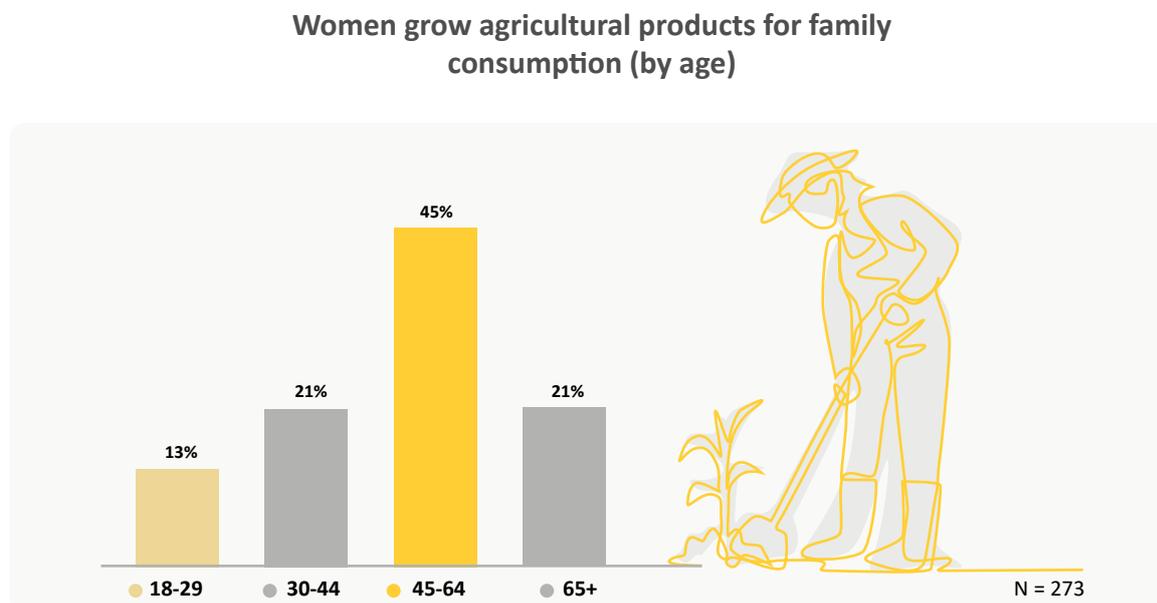


## 2.2. Agriculture-related problems for women

According to the survey, it is revealed that the money received from selling agricultural products is a source of personal stable income for only 2.8% of women. Yet, 30.8% of women are engaged in agriculture for family consumption, and 10.1% for the sale of products, including women who mostly live in urban settlements (9.6%). And about half of these women say that their spouse helps them in this activity. According to the survey, almost every 10th woman performs agricultural activities alone without the help of family members. 17.5% of respondents are responsible for household cattle care and 7.2% for irrigation water, and half of these women are also assisted by their spouses. It’s significant, that by age categories, mostly women aged 45-64 are engaged in agricultural production, followed by 30-44 (21.2%), more than 65 (20.8%) and 18-29 (13.1%).

**Chart 5.**

Age groups of women who are involved in agricultural production for family consumption.



Similarly, most of the women participating in the focus groups are engaged in agriculture, including women living in urban settlements. However, those women who are permanently employed in other sectors in the city, hardly engage in agriculture. And for some women living in rural areas, agriculture is a source of food production for the family and not a source of personal income, so they perceive agriculture less as employment. Nevertheless, there are women for whom agriculture is a field of interest as well as income. For some women, agricultural production is a supporting activity for tourism.

Importantly, the patterns, roles and motivations of women and men in agriculture are different, revealing different layers and perspectives of vulnerability to climate change. For example, men are employed in industrial production or outside the settlement, and because of patriarchal gender norms, as stated earlier, family and agricultural care are considered women’s activities. According to women, in those families where men do not live all the time, traditionally men’s activities have been left to them, for example, providing firewood and chopping, and watering.

**33** „Men have left the village to have an income, and the village is automatically looked after by women from start to finish.“  
– a woman from Chiatura

In agricultural activities, men generally perform work that requires physical exertion or handling machinery, such as ploughing, sowing, carrying sacks, etc. And dealing directly with the land and taking care of vegetables is mainly the duty of women. Also, men mostly engage in large-scale and monocultural production, for example, wheat production on hectares of land. While women perform small but diverse agricultural activities, both vegetable and grain growing, poultry and animal husbandry are mainly women’s activities. As a result, the crops grown by men are mainly produced for sale, while the products produced by women for the family cannot always be transformed into monetary benefits and remain hidden.

According to the focus groups, it is realized that on the one hand, the scarcity of jobs pushes women to engage in agriculture; On the other hand, it gives them opportunity to keep their primary care giving role for family and children. Accordingly, they attribute agricultural production to family work, in this way they stay in the family space and manage to provide family care as well.



*“If there was another job, anyone would go and work there, no one wants to “kill herself” on the land”*

*– a woman from Dedoflistskaro*

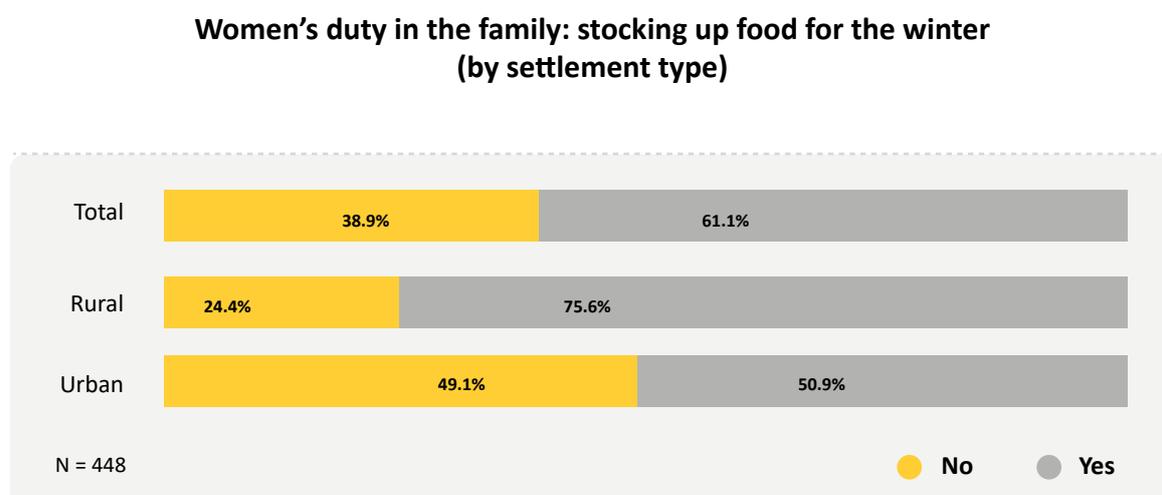
Among the women participating in the focus group, a tendency was voiced that some participants like to work with the land, still, they talk about various problems that hinder this activity for them and do not allow this production to develop more. For example, the key problems of irrigation water and production, as well as the dependence of this activity on environmental conditions and the scarcity of resources to boost productivity, “because you depend on what nature gives you” - a woman from Chia-tura. According to the women, climate and nature set both opportunities and limits for those engaged in bare-hand agriculture. According to the women, depending on them does not give a stable harvest. Women also point out the lack of knowledge about agriculture and say that they know mostly from their ancestors, however, “nature has also changed and we can’t do anything with the experience we had” - a woman from Latali. The participants’ account reveals the role of women as custodians of culture and the indigenous knowledge that often results from this role (Gubela 2019; Shiva 1992). Numerous researches mentioned above in literature review confirm the existence of indigenous knowledge that could be used for climate adaptation solutions.

It was revealed that the vast majority of women participating in the focus group hardly use pesticides. On the one hand, this can be explained by the fact that their production is small and they can grow products without pesticides by their own efforts. On the other hand, since they mainly produce this product for their family, their motivation is to grow healthy products as well. Several women living in the city mentioned that they have land plots and want to interact with the land and grow healthy products, but they do not know how to do it.

61.1% % of women prepare their own harvested and other family-stored food for the winter (e.g. canned food, dried fruit, etc.), which is mostly done by themselves (41.5%), others are also helped by other women in the family (34.1%) and then by their spouses (26.1%) or other male members (6.8%). By settlement type, more women (75.6%) in villages store food for winter, than in cities (50.9%).

#### Chart 6.

Distribution of women stocking up food for the winter by settlement type



### 2.3. Problems associated with lack of basic social services

Women's preparedness and readiness to cope with the crises and problems caused by climate change define their resiliency and adequacy of the response. Having accessible basic social services is the main determinant of women's resiliency which was also well-demonstrated during the COVID-19 pandemic. For example, "many women and girls with disabilities from the country's regions need to travel to the capital for medical assistance, which has not been possible due to movement restrictions" due to the outbreak of the virus (UN Women 2020b: 8). Along with various problems, the climate crisis also poses challenges to mobility due to changed weather patterns and intensified hazards, therefore enhancing problems of accessing basic social services and care especially in rural areas.

Significant disparities in access to basic facilities exist between central and peripheral settlements, affecting women in different ways. According to the focus groups, it is identified that living in the periphery is accompanied by problems of access to various basic services, harsh climatic conditions and a difficult natural landscape to live in, plus insufficient support from the state defines social-economic vulnerabilities of women and their families.

Women, regardless of where they live, are engaged in domestic work, taking care of the needs and development of children. According to the survey, 81.3% of women take part in decisions regarding daily family issues, and 16.8% of them take these decisions only by themselves. And, their spouses (55.7%), other female (25.9%) and male (22.3%) family members also participate in this responsibility. 36.7% of women take care of children daily, and only 16.0% of these women have to perform this activity. According to respondents, 26.6% of women living in cities and 15.4% of women living in villages are responsible for taking children to school, kindergarten and other classes. The difference can be explained by problems with access to public transport and kindergartens.

Problems of lack of infrastructure and services regardless of the needs of women and their children are significant. The problem of lack of infrastructure can also be found in cities, for example, according to the survey, there is no kindergarten in 14.8% of respondents living in rural areas, and in 7.1% of respondent's neighborhoods in urban areas. And, according to the research, it is clear that these problems are more acute for women living in rural areas. 6.3% of women living in rural areas do not have a school, 4.1% - have a driveway, 57.7% - have sidewalks, 43.5% - squares or parks, 40.5% - a neighbourhood/community gathering place, 35.4% - children's playground, 69.0% adapted infrastructure, 31.0% medical station, 53.9% ambulance, 17.0% grocery store. In cities, the lack of squares and parks was mentioned by 15.2% of women and the absence of public gathering places by 16.7%. During the COVID-19 pandemic, it was observed that due to the closure of schools, kindergartens and other institutions, women's burden and care work has significantly increased, worsened their mental health and increased gender-based violence against women (UNDP 2021). This shows the interrelation between having accessible service infrastructure for women and children and the resiliency towards the crisis. The climate crisis already reveals itself by hindering access to various services, especially in high mountains: "rural roads were closed for a week, schools were closed for almost a week when the landslide occurred", stated a woman from Mestia.

According to the analysis of the information from the focus groups, it is clear that in those settlements where families face many systemic problems and have limited access to various services and social goods, both women and men have to work hard physically. Social hardship causes families to face many problems and pushes them to migrate. Furthermore, infrastructure failures are interconnected and they limit access to many social goods. The existence of road infrastructure largely results in the absence or poor functioning of public transport, both of which hinder access to employment, health, education, trade and other services. Climate change deteriorates these problems.

According to  
focus groups...

*“There are two places in Lenjeri (Svaneti), where until the end of this landslide, the machinery is not able to clean the road. The road has been very damaged for many years now”*

– a woman from Mestia

The lack of guarantees of a proper and stable supply of internet and electricity also interrupts them from getting education, providing tourist services and creates other problems. These services are often interrupted due to bad weather conditions.

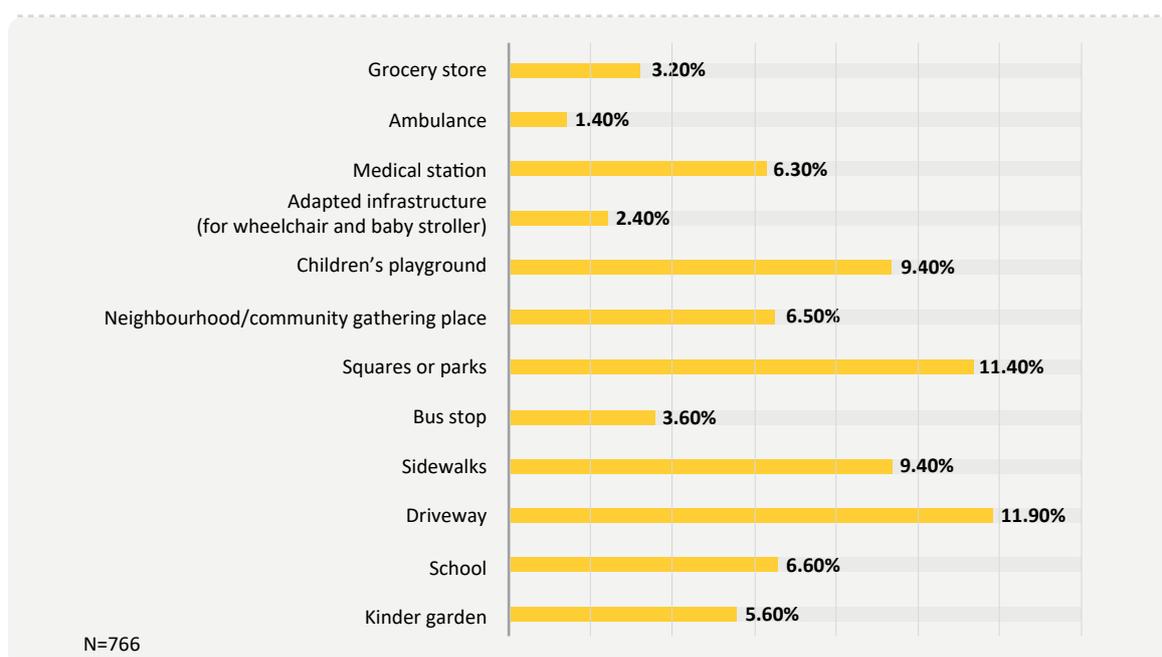
Lack of adapted infrastructure, swimming pool, sports activities and relevant infrastructure, educational, cultural and entertainment facilities and infrastructure were highlighted in all regions to varying degrees. However, the insufficient number of kindergartens proved particularly problematic for women. The problems of the absence/functioning of sewerage were mentioned in urban areas, not only in the villages, for example, in Marneuli and the settlement of IDPs.

It is worth noting that a small number of survey respondents say that in the last two years, access to various important infrastructures/facilities has been interrupted due to bad weather/climatic conditions (due to severe frost, heat, heavy rain or heavy snow). But, taking into account the trend of climate change and without implementing adaptation measures, the number of these women may increase significantly.

#### Chart 7:

number of respondents whose access to mentioned infrastructures/facilities has been interrupted due to bad weather/climatic conditions (due to severe frost, heat, heavy rain or heavy snow) in the last 2 years.

#### Interrupted access due to bad weather/climatic conditions in the last 2 years



### 2.3.1. Accessing health services

22.1% of survey respondents say they have a chronic illness or serious illness. 33.3% of respondents have minor health problems that are easily resolved/solvable, and 44.6% say they are practically healthy. The distribution of women's health according to the place of residence shows almost a similar trend. It should also be noted that according to the research, every tenth woman (10.1%) has reproductive health problems.

Most of the focus group participants, even young people, complain about health-related problems and talk about expanded diseases among their acquaintances. This is linked to the problems of access to health services, their mistrust and fear to consult a doctor, as well as the high cost of medicines, environmental problems, uncontrolled food quality, severe social conditions and deepened stress, as well as unpredictable, often changing weather caused by climate change, increased humidity, etc.



*"I'm 33 years old and I carry so many pills in my bag... I often get sick"*

*– a woman from Akhaksikhe*

The problems of access to health services include the lack of qualified doctors on the ground, in their municipal centres, and the limited and non-existent treatment of diseases on the spot. The regions do not have doctors of all profiles, for example, ophthalmologists and dermatologists, or they cannot perform the necessary tests. Going to Tbilisi is, on the one hand, related to increased financial costs. On the other hand, it is especially problematic for women living in the regions, because it is not easy for them to leave family activities and children, so it is difficult for them to go to a doctor in Tbilisi, and therefore they mostly try to postpone it.



*"We bide our time and wait until we get sick."*

*– a woman from Mestia*



*"Recently, my son wanted to have an allergy test, and we did not have access to this service. It is not done on-site here [in Dedoflistskaro]. We should have to go to Tbilisi for that."*

*– a woman from Dedoflistskaro*

According to the women, the problem is the lack of sufficient hospitals on the ground, the disorganization of the existing ones and the absence of the necessary medical technology. Consequently, even good doctors find it difficult to provide proper service. The availability of ambulances and reanobiles, their accessibility or their proper functioning is still a problem in some municipalities. For example, in Svaneti, they use the Zugdidi reanobile, and thanks to the citizens' activism, only now have they got approval that Svaneti will have this service. Ambulance service is delayed especially during bad weather.



*"One patient was seriously ill, a helicopter came to transport her/him and in the middle of the journey they got caught in a hailstorm and barely survived. The environment interferes a lot with everything."*

*– a woman from Mestia*

Women with disabilities emphasize the problems of providing adapted medical facilities and inventory, which increases the barriers of access to them.

According to respondents, lack of information on state programs (e.g. free screening programs on reproductive health) and low awareness of women are added to systemic problems. This problem is especially intense in ethnic minority groups. However, they mention that there were also trends of referrals and bribery to get quality service.



*“Many women do not know that doing a Pap test, for example, and other gynaecological services are free. Once I went to the doctor and when I told them I wanted to do a free Pap test, they were very angry. They didn’t do it for free.”*

– a woman from Marneuli

### 2.3.2. Accessing climate education

To protect oneself and others from disasters, it is essential to possess specific skills and knowledge. Gender stereotypes often reinforce a perception of women as having weaker and more passive character traits, which can be internalized through secondary education. Gender inequality is a prominent subject of research in contemporary academic literature, particularly concerning gender stereotypes present in educational contexts. This is notably observed in Georgian school textbooks and in the varying attitudes of teachers toward different genders. In addition to curricular influences, certain extracurricular factors also contribute to the formation of gender stereotypes (Tsiklauri 2016). Awareness of climate change solutions remains generally low. It’s important to increase public awareness of climate change solutions. Women are more concerned about the climate crisis than man, but their climate change awareness is still low (Kurdadze et. al. 2020). This gap could be attributed to the lack of specific programs addressing climate resilience for women.

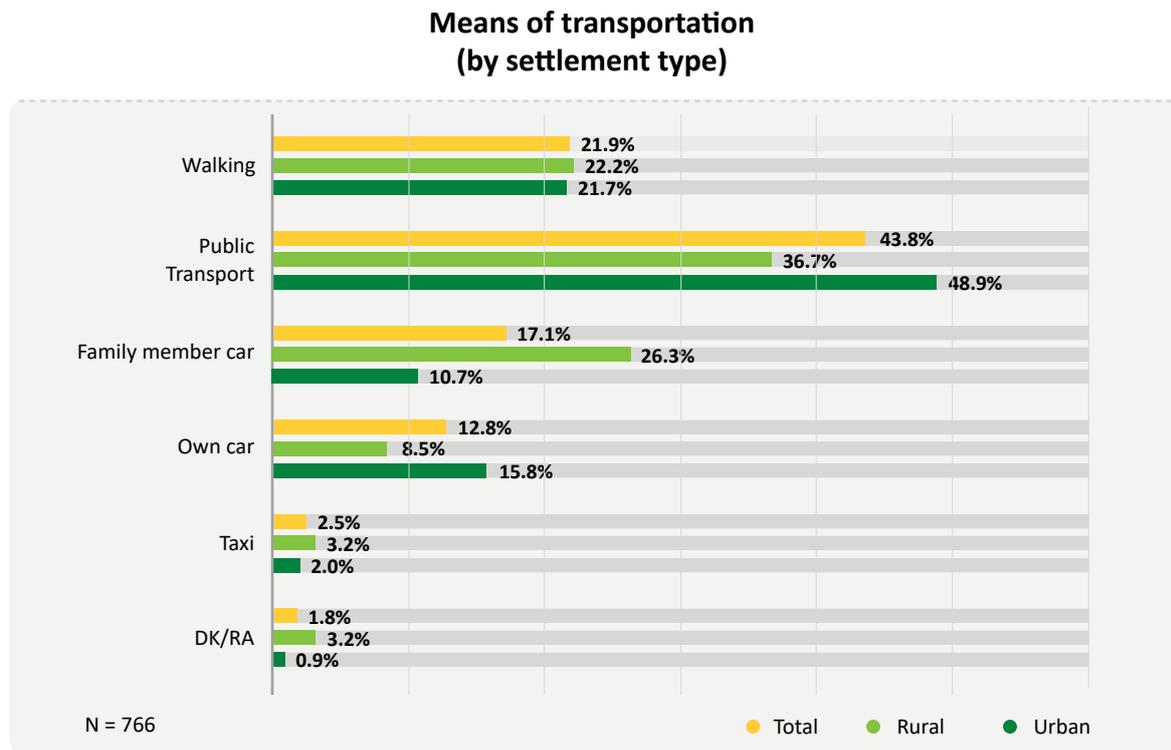
In the majority of women, a low rate of skills interesting for research was found. Only a quarter of respondent state that they know how to swim (23.9%), the same number say they know how to drive a car (24.7%) and 38.7% have fire extinguishing knowledge/skills. Nevertheless, more than half of the respondents (61.1%) can provide first aid. This ability may in part be due to being able to provide this support to their children when needed. It is worth noting that the possession of each of the mentioned knowledge and skills is higher among women living in cities than in rural areas. However, it is not clear here what women mean by, for example, providing first aid, and the rate of knowledge of providing this aid adequately may be even lower. Absence of adequate first aid education at secondary and higher education systems raises our doubts.

It is also important to know and understand how responders behave during a disaster. During the survey, we assessed only the behaviour of respondents during heat waves. It was identified that most women avoid going outside during severe heat (62.8%), take more liquid (55.6%), stay in a cool place (47.2%), and use air conditioners (41.4%). It is noteworthy that the use of air conditioners is higher in city-type settlements than in villages.

### 2.3.3. Accessing public transport

43.8% of respondents travel mainly by public transport. The number of these women is higher in the city (48.9%) than in the villages (36.7%). 21.9% of respondents walk and 17.1% travel by family member's car, 2.5% by taxi, and 12.8% by private car. It should be noted that more than a quarter of women living in rural areas (26.3%) travel by family member's car, and 8.5% by their car.

**Chart 8:**  
Main modes of transportation for respondents by settlement type



According to the survey, it is revealed that 30.7% of respondents living in rural settlements say that public transport runs from their settlement in the direction of the nearest city throughout the day with an interval of 1 hour or less, and the number of such respondents from which the transport in the direction of the city centre operate in this mode is 73.9%. 19.3% of women living in villages say that public transport in their settlement goes to the nearest city 1-2 times a week or not at all. And 15.4% of urban respondents say that the transport from their area to the city centre rarely (1-2 times a day or less often) or does not move at all.

During the last 12 months, 51.2% of urban women use public transport several times a week or more often, and 24.1% in rural areas. More than half of women living in rural areas (57%) use public transport less often (several times a month or less), and 42.4% of women live in cities.

Focus groups manifested problems associated with public transport for women, in cities or rural areas. Access to public transport is even more acute in rural areas because, according to women, most services and employment opportunities are in cities, and transport problems deprive them of many opportunities; or it makes these opportunities more expensive. Therefore, women need to use a taxi, which is expensive, or walk for kilometres. However, walking long distances is especially problematic for children to go to school, elderly women and women with health problems. They also find it difficult to deliver products to their homes by hand. These problems are especially exacerbated during bad weather. Furthermore, not all urban settlements have public transport, for example, Mestia and Dedoplistskaro. In other cities, including Tbilisi, movement by public transport is significantly delayed during bad weather.



According to  
focus groups...

*"It is two kilometres from here to my village, and if I want to buy something, there is no transport, and how will I be able to walk and carry products at this age?"*

– a woman from Chiatura

*"If there is no transport, children go to school on foot. Sometimes they get wet, it is about four to five kilometres to the main road."*

– a woman from Marneuli

82% of the respondents to the survey say that the use of public transport does not depend on the weather and climatic conditions for them. In contrast, 12.4% say that they use public transport during better or worse climatic conditions. The number of women in the city (14.7%) who said that their use of transport depends on the weather is slightly higher than in the village (9%). 5.6% found it difficult to answer this question or refused. 47.3% of the respondents are satisfied with the heating-cooling system in public transport, 35% are equally satisfied and dissatisfied, and 14% are dissatisfied. Satisfaction is relatively higher among urban women (52.1%) than rural women (40.3%).

### 2.3.4. Water supply problems

The problem of water supply is relevant for women in almost all focus group locations. This problem worsens in the summer, when the demand for irrigation, domestic and drinking water increases, and in fact, there is no longer an adequate supply of water for any purpose. This problem is relevant for urban women as well, but more pressing for rural women, so they need to be responsible for fetching drinking water (35.1% of rural and 12.1% of urban women).

The water problem creates many difficulties for families and often devalues their work because without irrigation and in intensified droughts, they can no longer grow crops. On the other hand, it is very difficult for women to perform household activities and maintain hygiene without water in the heat. They have to wait, stand in queues and fetch water. Some families have adapted to this problem, trying to adjust to the supply schedule and using reservoirs. Many families can afford to buy drinking water, because the quality of drinking water is also problematic, which affects health conditions.



*"We have been making a garden for three years, and all three years everything has been ruined. Irrigation water comes several times a week and we pay for it"*

– a woman from Chiatura



*"We have reservoirs and we use them economically, but they need to be filled. Besides, there are cattle in the village, you have to share them too."*

– a woman from Dedoplistskaro



*"Cars drive in the village and sell water, those of us who work and are at work when the water goes out, we either have to miss work to fill up, or we have to buy water. I live alone and distribute economically, sometimes a week has passed without filling the tank. It affects mental health a lot."*

– a woman from Dedoplistskaro

It should also be noted that due to climate change, along with the decrease in humidity and the increase in droughts, the need for land irrigation in settlements is increasing. This is coupled with women talk about the drying up of wells and rivers, hence the decline of water resources.

### 2.3.5. Importance of having supportive systems

When the social protection system is weak or absent for women, they find it important to have available support from the family. According to the research, it was found that the presence of family members' support, emotionally, financially or with labour, is a very important indicator of women's social resilience, which is also related to climate change resilience. Accordingly, elderly and single women with other health problems say that it is very difficult to cope with everything and prepare the household infrastructure without physical help during bad climatic conditions or disasters. Accordingly, these people are hoping for the help of their neighbours, although as it turns out, the outflow of families from the villages is high and only a few families or residents remain in the village. This increases their vulnerability even more because, in case of disasters or other needs, the number of people helping them decreases even more.



*I don't have child support and I can't work."*

– a woman from Akhaltsikhe

On the other hand, in the case of assistance from family members, women are more able to find employment and be socially active. This support was noted to be especially important for women with disabilities, mothers of children with disabilities, queer women and environmentalists. For women with disabilities, the support of family members is vital to overcome the physical and social barriers they face in society. According to the mother of a child with disabilities, the life of these mothers is often closely connected with the life of their child, and their employment or realization without a helper is truly impossible. In the case of queer women, if their family does not accept their identity, these women lose an important backing in the form of family, which would help them to overcome systemic problems and risks, including those caused by climate change. For activist women, emotional, physical and/or financial support of family members is important in certain cases, because activism requires a lot of voluntary and emotional work from these women, and sometimes this activity is even associated with various risks.



*"Queers living in the regions still prefer to leave their homes and go to Tbilisi, despite the lack of clean air and green environment. For example, I remember one queer girl who tries to come to Lagodekhi with her family less because it is a conservative environment and she prefers to be here."*

– a queer respondent

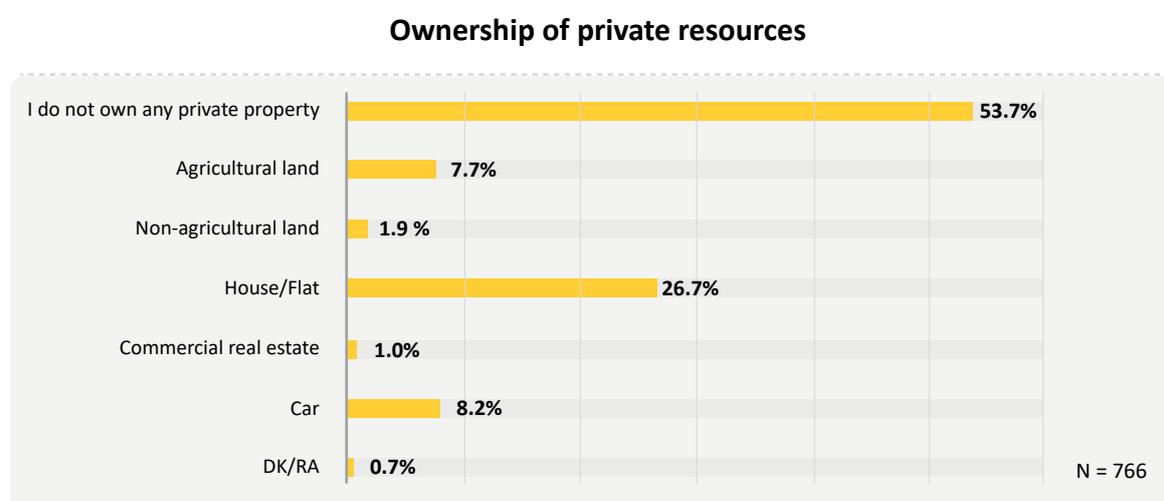
Supporting and standing by each other is an important factor for ecomigrant families. On the one hand, it is tough for eco-immigrant families to move out from the settlement without a neighbourhood, and the support of neighbours to start a new life eases the adaptation process. "Let's see if the village goes, we will go too," says an eco-migrant woman who still lives close to the landslide and her family finds it difficult to leave the village and the house.

## 2.4. Access to and control of assets

The distribution of resource ownership by women and their families is different. 53.7% of women say that they do not possess any private property (apartment, car, land, etc.) at all. 26.7% of women own a house/apartment, 8.2% - a car, 7.7% - agricultural land, and an even smaller number - other types of property (e.g. commercial property). The number of women in villages who do not dominate any property or own agricultural land is slightly higher than in the city. And among the women living in the city, ownership of an apartment and a car is slightly higher than in the village.

### Chart 9:

Types of private properties women own



Regarding the gender distribution of land resources, according to women, the current trend has changed and more women are getting land from their families than years ago. However, in Svaneti, they explain that traditionally women in dowries also received land, which is called “nachlash”, and married women had land in their native community. During focus groups with ethnic minority women, there was a tendency for families to register land in the name of women, because men have a bad loan history with banks, and this is the way to take out agro-loans. Women express less concern about not owning land from their families, which they explain by saying that “women are also brought up in such a way that we think how can I compete with my brother” – a woman from Mestia. Therefore, they consider it more important to dispose of land for family needs than official registration and belonging.

They also talk about the state’s selective approach to families with small and large land plots. According to them, state support suits families with larger land plots. This concerns women probably since, in most cases, small plots are cultivated by women and larger ones by men.

This chapter explores, revealed during the research, women's vulnerabilities which are caused primarily or exacerbated by impacts and tendencies by the climate crisis. It presents some aspects of women's exposure and sensitivities to climate change. Considering these aspects can help address inequality gaps and achieve climate justice.

Our analysis of the ways in which women interact with the labour market, education, health, and other domains serves as a testament to the potential of intersectionality as an analytical tool. However, it is crucial to go further and unravel how patriarchy, as a system of power, intersects with other systems of oppression to produce the vulnerabilities and disparities we observe in our study. Therefore, some specific vulnerabilities will be analyzed below in relation to the climate crisis.

### 3.1. Impact on agriculture as a category of women's labour

The type of work a woman is positioned to perform determines and exacerbates women's vulnerability to climate change. As mentioned above, women whose work is linked to environmental and climate conditions are found to be more vulnerable to climate change than women who engage in other types of work. Therefore, impacts on women who engage in small-scale agriculture will be discussed in this sub-chapter.



According to  
focus groups...

*"If we look at climate change and the role of women, the more intense climate change becomes, the more workload will stand up for women. To take gardening as an example, the higher the temperature, the more water is needed. 99% of the small fields are cultivated by women, where men are less involved."*

– a woman from Zugdidi

Climate change is making agricultural activities more demanding for women. The reduced harvest for the family indirectly undermines the economic position of women. Consequently, climate change makes the health and economic situation of women involved in agriculture even more vulnerable, taking into account that this activity is mostly performed by women who do not have a stable income of their own, and whose economic situation is not favourable.

Due to climate change, it becomes difficult and expensive to grow plants, it requires more work from women, and fewer and fewer quality products are produced. Seeds and seedlings become more expensive, although according to the women, they still have to sell their grown products cheaply. While selling them, little attention is paid to organic products or not, they still have to sell them cheaply. Also, they add, the harvested products are not stored for a long time, they spoil soon.

Climate dictates the timing of women's agricultural production, i.e. when to start sowing vegetables and when to harvest, although changing seasons make agriculture management difficult. For example, in Svaneti, it was said that nowadays they have to sow later, but instead, they start harvesting earlier. According to them, agriculture requires more knowledge to deal with the challenges posed by climate change. Women also report enhanced precipitation during the tillage period, which also affects vege-

table cultivation, and in the summer period, when the crop and soil already need moisture, there are strong heat and droughts. Or what survives these droughts, according to the women, is destroyed again by the autumn rains.



*“We have not picked potatoes in our family for 3 years. We get potatoes that are completely shrivelled due to droughts.”*

– a woman from Mestia

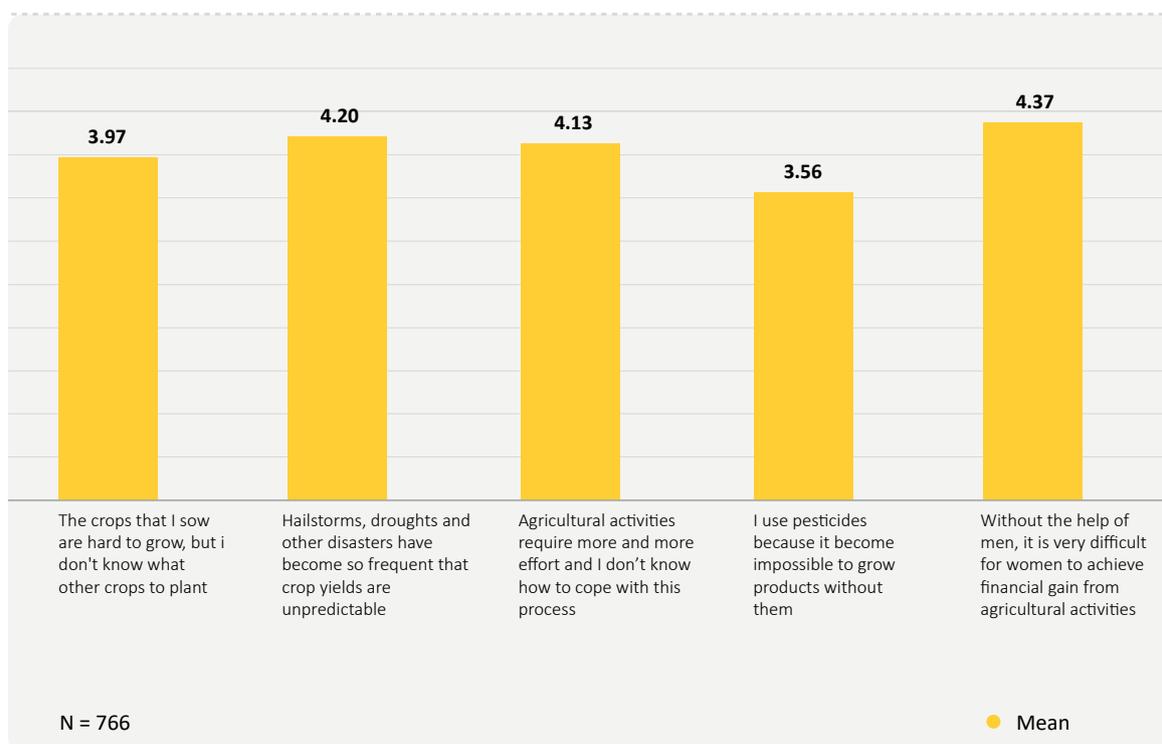
In addition to causing soil erosion, strong winds also affect crops in other ways. For example, in Zugdidi, where one of the main crops is hazelnut and they are collected mainly by women, strong winds coincide with the time of its harvest. Winds make the hazelnuts fall to the ground and scatter them.

The survey also proved that the impact of climate change on agriculture is alarming and women lack the knowledge and resources to adapt to it. The provisions in the table describe the vulnerability of agriculture and women to the challenges of climate change. The majority of women either strongly agree or simply agree with the statements that climate change has made the sector unpredictable, they do not know which products may be more productive under these conditions and how to cope with complicated agricultural activities, they use pesticides because it is otherwise impossible to grow products and emphasize the need to involve men in order to get financial benefits from this activity. It should also be taken into account that only 5.3% of the respondents’ families living in rural areas own agricultural machinery which may reduce the production of agricultural activities by women independently of men and increase their vulnerability to climate change.

#### Chart 10:

Agreeing on statements about climate change impacts on agriculture sector and women, by means on a 5-point scale

#### Agreeing on statements on a 5-point scale (by means)



Only 4.2% of the respondents say that they use agricultural insurance. Three main reasons for not having agricultural insurance were identified: its lack of need, lack of sufficient information and the high cost of agricultural insurance.

In addition to the work of women engaged in small-scale agriculture, the category of work sensitive to climate change can include other activities where women have to perform them in outdoor spaces regardless of climatic conditions. For example, outside trader women. Research on these issues and other groups of women would be interesting for future research.

### 3.2. Impact of climate change on health

It was also reported in the focus groups that the frequent changes in the weather patterns and the sharp temperature changes affect women, weakening their health and productivity. And for elderly women, women with chronic diseases and disabilities, the situation deteriorates significantly.



*“If the soil dries up during extreme heat, the same happens to our musculoskeletal system.”*

– a woman from Dedoflistskaro

It is vivid that climate change has a severe impact on the health of women whose living environment and their bodies are constantly negatively impacted, for example, by extractive industry; whose access to health services is low, such as low-income or no-income women, women living in the periphery and ethnic minority groups; elderly and chronically ill women, etc. The impact of climate change is also intense on women with disabilities because women using wheelchairs might have impaired thermoregulation, suffer from rheumatic problems, and may find high temperatures and heat waves difficult for them to bear.



*“From my personal experience, it’s very difficult for me to be outside in the summer because I can’t move my legs and my thermoregulation is disrupted, I feel hot all over my upper body and my feet can be frozen, so it gets worse in the summer.”*

– a respondent with disability

Women explain that frequent changes in the weather raise blood pressure, so sometimes their body has a pre-reaction to the weather fluctuation and they feel it. Women with chronic diseases state that in many cases they cannot cope with their body’s reaction to it even with medicines. Overall, climate change increases these women’s dependence on medical care. Also, the deterioration of air quality due to climate change amplifies the allergic-prone environment for allergic women.



*“I am very dependent on the climate, I know it in advance when I will be sick. The wind kills me, even if I take medicine sometimes it helps and sometimes it doesn’t.”*

– a woman from Telavi

### 3.3. Deteriorated environmental conditions

According to the research, it is recognised that the consequences of climate change are tied to environmental problems. Climate change exacerbates these environmental problems and/or, conversely, they deepen processes caused by climate change.

As a result of the survey, it was revealed that the environmental challenges faced by women differ depending on the type of their settlement. Women in the city are particularly worried about air pollution (49.5%), an increase in cars (44.9%) and intensive construction (27.9%). Urban women are also worried about the problems of chaotic development of the settlement, disordered sewage, pollution with household waste and lack of parks and squares were highlighted. According to them, these and other environmental problems worsen their (52.4%) and children's health (28.0%), their (28.6%) and children's (15.4%) sense of safety, increase stress (19.4%) and create women's mobility problems (19.9%).

The existence of proper natural and green spaces in the urban settlements for recreational purposes for themselves and their children is important for the women participating in the focus groups. As they declare, parks in urban places help them to be closer to nature, enjoy its aesthetics, socialize and cope with the summer heat. For example, in the IDP settlement, according to the respondent, the growth of trees relatively regulated the air temperature in summer. According to another woman, the presence of more trees in urban spaces would help them to walk more, which is very difficult in the summer without shade. Nevertheless, they express concern that not only in Tbilisi, but also in other cities, such spaces are decreasing, and access to them is also being restricted. For example, since the botanical garden in Zugdidi became paid, women and children use this space less. The presence of green spaces is especially important for women because today there are very few places in cities where women can take their children safely. It should also be noted that along with the lack of recreational spaces in urban settlements, according to respondents and focus group participants, access to healthy food becomes troublesome, their price increases and there is no quality control by the state.



*"It is becoming more difficult to find healthy food, there is no government policy on this, healthy food is very expensive, and the people who produce this food do not have any help from the government during disasters."*

– a queer woman

As for going on vacation far away from the city, according to women, it is becoming more and more a luxury option and less and less affordable for many. This also worries women with disabilities, because the infrastructure in the regions and resorts is not adapted. In particular, women from Tbilisi express their concern that the possibility of bringing children closer to the natural environment is diminishing, at the same time when such a natural environment almost no longer remains in Tbilisi. It also makes it painful for them to withstand the summer heat in the cities.



*"When you want to take your child to the fresh air, it shouldn't be worth the whole year's savings. There must be some places in the city where you can rest with the child."*

– a woman from Tbilisi

In contrast to the environmental problems voiced by rural women, a significant proportion of women living in rural areas are concerned about deforestation (27.1%), overgrazing of pastures (21.5%), fre-

quent use of pesticides (17.3%), absence of sewage system (14.5%), privatization of pastures, forests and other natural resources (17.3%) and loss of biodiversity (15.3%). For rural women, these and other environmental problems mostly reduce the types of agricultural production (30.9%) and food supply (26.7%), scale down family income (33.3%), affect their safety (31.6%), health (29.9%) and mental health (18.7%), expand their workload (19.0%) and decreases their productivity (20.8%).

According to the focus groups, the combined fierce social impact of environmental and climate change-induced and exacerbated problems is well illustrated for women by the example of industrial and mining activities. For example, in Chiatura, the current open-pit manganese mining conflicts with women's agricultural activities (e.g. families no longer have cattle because they are often lost in pits), damages residential houses, affects women's safety, worsens their health conditions (especially increased allergic background and oncological diseases) and mental health. According to the women, due to the current severe ecological situation, the social and economic situation worsened and the villages turned empty. Women describe systemic oppression by the state because it is unable to help these people and improve the local situation. Furthermore, they add that extractive activities have activated the existing landslide, which significantly damaged the villages.

Mining activities are also underway in Dedoplistskaro. According to focus group participants, northern winds have increased in the city due to climate change, mining is also taking place in the northern part of the city, and dust from open pits is intensifying throughout the city. According to participants from Poti, industrial pollution of the sea and air is high in Poti, due to which the contamination of heavy metals is increased in children, which was confirmed by laboratory research, and this deteriorates their health.



*"I tested a child in Tbilisi and the lead content in his body was high. Keep the child away from the environment, that's what doctors told me. And I took him to the village for a year, but how long I'll be there, we don't even know where this environment is getting polluted from exactly. Everything poisons this environment."*

– a woman from Poti

Women in Svaneti express their concern about deforestation. According to them, more sophisticated technologies, more licensing and increased demand for timber have accelerated the decline of forest cover, which they say affects the micro-climate. They add that micro-climate change is also connected to the hydropower plants in the region. As a result, they face increased winds and activated landslides in Svaneti.

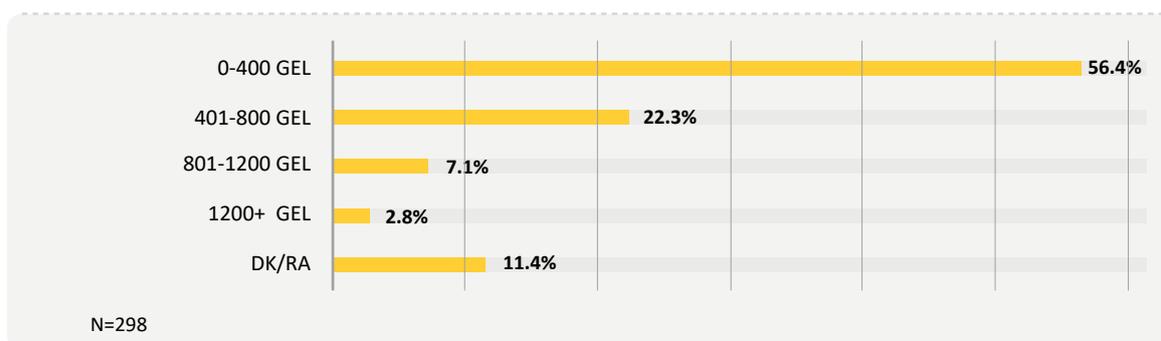
### 3.4. Economic conditions and impacts on well-being

The variables of income and age are correlated, and income decreases with increasing age. According to income, 81.9% of women aged 65 and over, 43.9% of 45-64-year-old women, 24.4% of 30-44-year-old respondents and 29.4% of 18-29-year-old respondents have an income of up to 400 GEL. The level of academic education decreases with the increasing age of the respondents, and women over 65 (13.1%) have the lowest percentage of higher education (incomplete or complete) among the respondents. Ownership of property is also interrelated with age and it can be seen that 56.2% of respondents aged 65 and over own property, 37% aged 45-64, 34.4% aged 30-44 and 24.7% aged 18-29.

More than half of women living in different hazard risk zones have low income which might undermine their preparedness and adaptive capacity to climate change. The income of 56.4% of women living in the hazard risk zone is up to 400 GEL, 22.3% from 401 to 800 GEL, 7.1% from 801 to 1200 GEL and 2.8% more than 1201 GEL.

**Chart 11.**

Correlation of women income and living in the hazard risk zones.

**Income of the women living in the hazard risk zones**

To mitigate the risk and damage of disasters, households should have some specific supplies. As a result of the survey, it was found that some types of items are less available in many families. According to women, 85.5% of them have first aid items sufficient for 3 to 7 days, 84.8% - have hygiene items, 67.8% - have a flashlight, candle or other means in case of a power outage, 67.5% - have non-perishable food, 47.2% - alternative means of heating, and 37.9% water. It is worth noting that first aid and hygiene items are available to a larger proportion of respondents living in cities than in villages, still, the rest of the supplies are larger in villages.

It is significant to consider housing characteristics for high resilience to climate change. Evaluating this requires measuring specific parameters, however, the study shows that half of the respondents living in the city (51%) have various problems related to housing, while in the village these problems were mentioned by even more (63.1%) women. The dilapidated condition of the houses, problems with drinking water supply, absence of a sewage system, insufficient space for living and use of firewood for heating or cooking were more evident problems. This can be explained by general economic and social hardship of women and their families, that many houses are old, not resilient to local climatic conditions and social well-being standards. On the other hand, it shows the need to introducing standards of resilience housing infrastructure. Climate legislation is practically not in existence, therefore, these standards and supporting schemes for vulnerable households have yet to be introduced.

## 4

## Intersectionality and group-specific vulnerabilities of women influenced by climate change impacts

Applying an intersectional approach helped the study to examine the relation of various vulnerabilities and investigate their exposure and sensitivities to climate change. As we explore the vulnerabilities experienced by women in the context of climate change, it is essential to analyse the systemic elements that underlie these disparities. As mentioned in the earlier chapters, intersectionality is not merely about recognising that different women experience different outcomes; it is about understanding how these outcomes are shaped by interconnected systems of power and oppression.

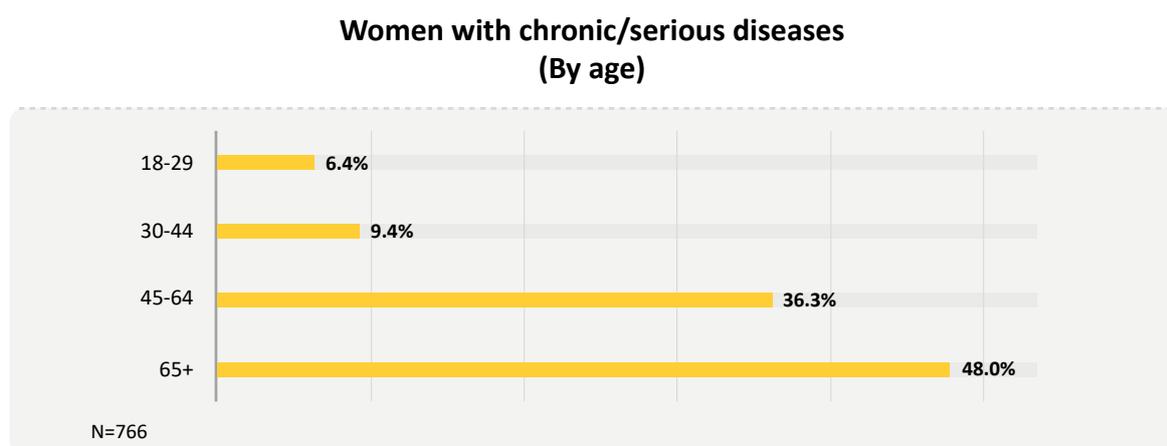
Several statuses and identities of women are identified through the research such as age, education, marriage, motherhood status, social status, etc. 20.2% of survey respondents are between 18-29 years old, 24.7% - 30-44 years old, 33.8% - 45-64 years old and 21.3% over 65 years old. As for academic education, 37.3% of respondents have received higher education, and 35.1% have completed secondary education. 20.2% of the highest level of education is secondary technical/secondary special education. It should be noted that more women living in the city have received higher education (47.7%) than in the village (24.5%). Furthermore, 63.0% of women are married, 17.5% are widowed, 12.9% are married, have never been married, 5.9% are divorced or separated from their spouse, and 0.5% live with their partner without civil or religious marriage.

During the last 12 months, every tenth woman lived alone, 18.2% with one more person, 42% with other 2-3 people, and 30.2% with 4 and more household members. 48% of the interviewed women have a child/adult under the age of 18 in their care or custody. By age, 77.4% of 30-44-year-old women (mostly 6-18-year-old adults) and 48.1% of 18-29-year-old women (mostly children under 2 years) have children under 18.

Health conditions, income and age variables are correlated with each other. This analysis shows the vulnerabilities of elderly and low-income women. It is revealed that 48% of the respondents with chronic and serious diseases are 65 years old or older, 36.3% are 45-64 years old, 9.4% are 30-44 years old, and 6.4% are 18-29 years old. Furthermore, it should be noted that chronic/serious diseases and minor health problems are also found in young people.

### Chart 12:

Women with chronic/serious illnesses and their age

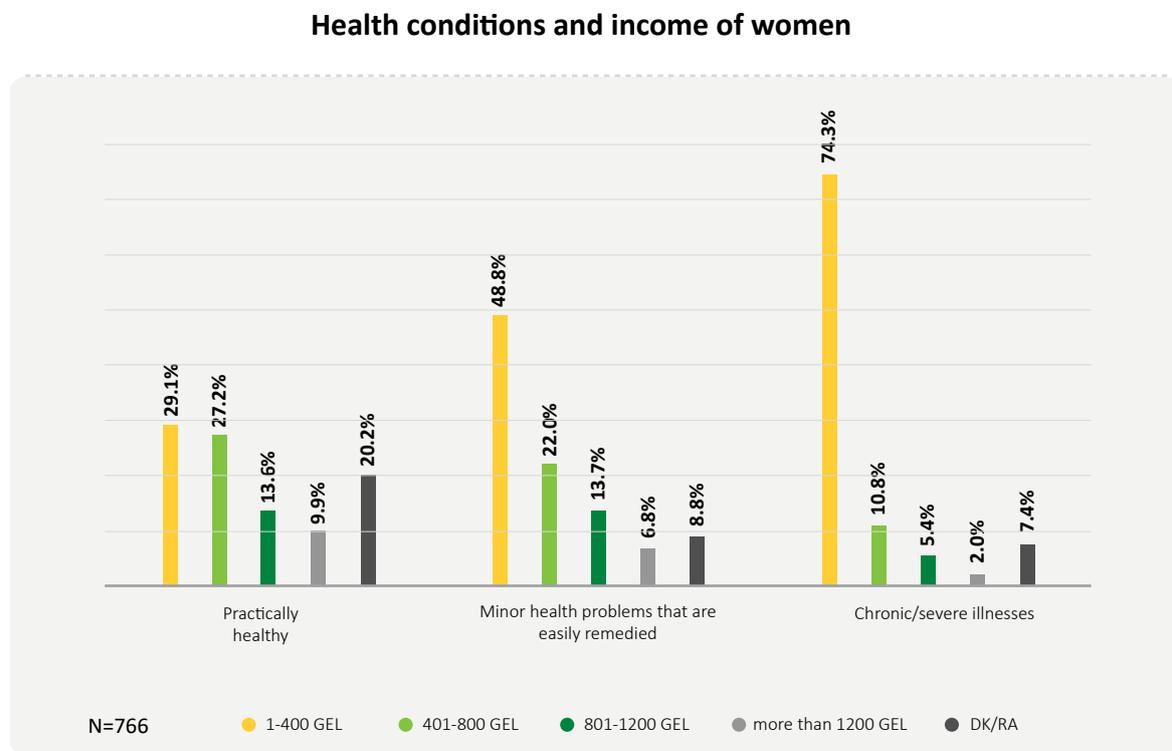


Intersectional analysis makes it clear that patriarchy, intertwined with other systems of power, such as capitalism, contributes to the vulnerability faced by older and economically disadvantaged women. This link between gender, income and health conditions is also visible from the following: according to the income variable, the monthly stable income of 74.3% of respondents with chronic/severe diseases

is up to 400 GEL, as well as 48.8% of respondents with minor health problems and 29.1% of practically healthy ones. To put it more clearly, 40.4% of respondents with income up to 400 GEL have chronic/severe diseases.

### Chart 13.

Health conditions and stable monthly income of women



The research highlights that more than half of women living in different hazard risk zones experience low income, which can undermine their preparedness and adaptive capacity to climate change. Here, an intersectional lens urges us to consider how multiple systems, including capitalism and patriarchy, intersect to perpetuate these disparities.

The degree of agreement on the statement - "Climate change negatively affects me too" increases according to the severity of the health conditions. The mean of agreement on the statement on a 5-point scale for practically healthy respondents is 3.45, respondents with minor health problems - 4, and chronic/severe diseases - 4.22. The mean on the same scale of the statement agreement by age also raises. Additionally, from the impacts of climate change, it was found that the impact of heat waves is high for all age groups, although this trend slightly increases among the elderly population. It is also a significant trend, that on the statements about what the respondents can do to stop climate change and how to avoid its effects, the means of agreement assessments are relatively higher among respondents aged 30-44 than among other age groups.

Some of the survey respondents belong to various disadvantaged or minority groups: 12.1% - chronic disease(s), 8.0% socially vulnerable (under the poverty line), 4.3% internally displaced women, 4.0% - ethnic minority, 2.0% single mother, 2.7% mother with many children, 1.2% women with disabilities, 1.2% a mother or supporter of a person with a disability, and 0.1% conflict-affected women. However, it was difficult to undertake statistical tests on this small group of women, therefore, other tendencies of accessing social and healthcare services for some of these groups are analyzed below based on qualitative data.

Access to services is especially problematic for ethnic minorities and women with disabilities due to specific barriers. It was noted by the representatives of ethnic minorities that due to their poor knowl-

edge of the Georgian language, it is difficult for them to receive various services and information locally in general. Non-adapted infrastructure and services limit their access to women with disabilities. The problems of educational and mobility services and the lack of adaptation to sexual and reproductive health services are particularly severe. The tendencies of violence against women with disabilities are high and the means of exercising the rights of these women are also limited. This also applies to access to finance, although most people with disabilities are under the supervision of others, and there are very few and weak practices for supporting these women in their independent lives.



*“In general, statistics is a big problem for us, we don’t even know how many people with disabilities there are in the country. The statistics are based only on the social package, that is, on those people who receive the social package.”*

– a woman with a disability



*“Such problems exist in many places: the bus is adapted, but not the infrastructure to get to the bus stop.”*

– a woman with a disability

As we explore the experiences of women with disabilities, ethnic minorities, and others, it becomes evident that access to services and resources is significantly limited due to systemic barriers. For instance, language barriers, non-adapted infrastructure, and limited access to healthcare services disproportionately affect these groups. Intersectionality compels us to consider how patriarchy and other power structures intersect with ableism, racism, and other forms of discrimination to create these barriers.

Low-income families have low access to social and healthcare services too. Also, for the population living in rural areas, from where it is difficult or impossible to travel by public transport, services are provided mainly in cities. Access to services and employment opportunities is also problematic for the queer community, especially in regions, compounded by cultural oppression.

Mental health problems are also observed in specific groups of women. It is clear that mental health problems are intense among IDP, conflict-affected and eco-migrant women. Meanwhile, for those people who are waiting for eco-migration status, along with deteriorating their mental health, access to basic services in the village does not increase and the quality of life of these women is very low. After resettlement, IDPs and eco-migrants talk about the difficulties of adaptation processes, including adapting to a new climate. According to respondents with disabilities, it is especially difficult for people with disabilities to relocate and it is important to integrate this aspect into the state policies.



*“It took me almost a year to understand that this is a new reality and I have to adapt it. I think that 6 months to 1 year is the most critical transitional stage. Then we realized that no one would leave anywhere, and we started to get used to it. Even now this adaptation continues. However, on a mental level, I have often heard from others and I am also like that that if I am in a dream, I am in Akhlagori.”*

– an IDP woman

An intersectional perspective reveals that mental health problems are prevalent among specific groups of women, such as internally displaced persons and eco-migrants. This emphasises that power dynamics related to climate-induced displacement and adaptation intersect with gender and income, ultimately impacting mental health outcomes.

## 5

## Political actors positioned to influence or make credible shifts for women and climate

Strong, inclusive and gender-responsive climate governance is crucial for achieving climate justice. Intersectional approach, needs and challenges of various disadvantaged and marginalized groups of women has to be taken into account while planning climate policies. However, it is revealed that none of the institutions or organizations works systemically on climate change and risks for women. Which institutions and how they can improve their work to respond to women's needs are discussed below. Additionally, the analysis will attempt to provide ways in which localizing climate action can be supported.

Furthermore, key informant interviews examined that Georgian legislation and climate policies are not gender sensitive. Even though they might mention terms such as "gender mainstreaming" or "women empowerment," they are not reflected in the action plans; neither relevant measures nor indicators are developed for tracking the progress. At the national level, there are various working groups for climate policies, yet no working group specifically on gender.

Respondents stated that there is a need for gendered-segregated data in general, which would help gender mainstreaming of climate projects and policies. Additionally, not only central institutions, local municipalities are not sufficiently informed about climate change either and usually do not know that they already work on adaptation to climate change impacts. For example, local municipalities usually build gabions to protect communities against flooding. However, their spending on these infrastructures is inefficient, and their quality is generally poor.

### 5.1 (Non)Responsiveness of institutions with the climate change risks

During the survey, it was revealed that the state, media, non-governmental or local organizations are less responsive to the needs of the respondents in terms of reducing the impact of climate change. It is also worth noting that a significant part of the respondents does not know or had difficulty evaluating the work of these institutions related to climate change, which may be because women do not have information about whether these institutions are working on climate change problems and what they are doing for it. For example, 40.2% of women do not know and/or found it difficult to answer when assessing the Ministry of Environmental Protection and Agriculture, Environmental Information and Education Center - 43.0%, Ministry of Regional Development and Infrastructure - 45.6%, civil society organizations - 45.5 % and international organizations - 45.2%, Parliament - 39.8% and political parties - 45.2%.

**Table 6:**

Women's feedback on how these institutions below respond to their needs due to climate change

Institutions & Organizations	Does not respond	Equally responds and does not respond	Responds	DK/RA
Local self-government	28.3%	22.6%	16.3%	<b>32.8%</b>
Parliament	32.2%	17.2%	9.2%	<b>41.4%</b>
Government	29.6%	20%	10.9%	<b>39.5%</b>
Ministry of Environmental Protection and Agriculture	25.3%	19.9%	13.2%	<b>41.7%</b>

Environmental Information and Education Center	24.4%	18.1%	12%	<b>45.5%</b>
Ministry of Regional Development and Infrastructure	26.2%	16.6%	8.9%	<b>48.3%</b>
Ministry of IDPs, Labor, Health and Social Protection	26.6%	16.6%	7.5%	<b>49.2%</b>
Ministry of Economics and Sustainable Development	25.6%	16.3%	8.1%	<b>50%</b>
Ministry of Education, Science, Culture and Sports	25.6%	16.9%	7%	<b>50.4%</b>
Emergency Management Service	23.9%	15.7%	14.8%	<b>45.5%</b>
Civil society organizations	25.8%	16.6%	8.6%	<b>49.1%</b>
International organizations	26.5%	17%	7.9%	<b>48.7%</b>
Media	23.8%	21.3%	14%	<b>40.9%</b>
Local action groups (LAG)	24.3%	13.3%	7%	<b>55.5%</b>
Religious organizations	27.4%	13.3%	5.7%	<b>53.6%</b>
Political parties	33.2%	13.6%	4.9%	<b>48.4%</b>

When evaluating the performance of institutions on climate needs on a 5-point scale, none of the institutions showed a strongly positive assessment, and this indicator is mostly in the average and below average area. Slightly higher than the average 2.5, was the assessment of the local self-government (average - 2.57), the emergency management service (average - 2.57) and the media (average - 2.54).

When asked which agency/institution respondents trust most to work on their needs to reduce climate change risks and increase their preparedness, the top answer was none (31.3%), followed by local government (28.0%). It should be noted that trust in local self-government is slightly higher among women living in rural areas (36.2%) than in urban areas (28.0%). The rest of the agencies earned the trust of only a small part of the respondents. In their article, McKay, Jennings and Stoker state that “in countries where development is low, living in a rural area is associated with higher levels of political trust” (2023: 3). They state that trust is generally higher in rural areas of developing world, including Southern and Eastern Europe (ibid). Thus, the observed difference in trust levels is predominantly linked to the urban-rural divide rather than being primarily attributed to gender.

The focus group participants convey that the state agencies and the parliament are responsible for solving their problems, yet, there is no political will at the level of any agency to solve environmental problems in the country in general. According to them, even the work of the Ministry of Environmental Protection does not have a systematic approach to environmental problems. In addition, they state, there is a need to strengthen legislation and enforcement against environmental destruction and femicide, and to extend work on women and climate issues. The active work of all organizations and agencies with relevant functions, expertise and roles is important on climate change issues.

According to the women, it is important to increase trust in state agencies and their more active cooperation with women and young people. It should be noted that the disadvantaged groups, and in this case, according to the queer activist, the majority of them have distrust towards state institutions and the government, which is caused by the hostile policies of the state towards the queer community. Additionally, activists have low expectations of lower-level decision-making agencies, because they believe that decisions and policies are managed top-down.

These findings are linked to the representation of women and minority groups in formal decision-making process. In the beginning of the report, we talked about women's representation in the state institutions and the government; as for the minority groups, the situation is even worse:

- ▶ **Ethnic minorities:** In Georgia, ethnic minority representation in Parliament is strikingly low, with only six ethnic minority MPs currently serving (Social Justice Centre, 2021). This underrepresentation extends even to regions where ethnic minorities make up the majority of the population (ibid). It's worth noting that the Civil Service Bureau does not systematically collect data on the ethnic composition of state institutions and government employees (UNDP, 2022b). However, Social Justice Centre conducted inquiries with several municipalities, revealing significant disparities in ethnic minority representation in local government offices. For instance, in Marneuli City Hall, where 91.4% of the population is composed of ethnic minorities, only 36% of employees are from ethnic minority backgrounds (Social Justice Centre, 2021). Similar discrepancies exist in Bolnisi Municipality City Hall (14% of employees vs. 69.1% ethnic minority population), Dmanisi Municipality City Hall (21% of employees vs. 66.9% ethnic minority population), and Tsalka Municipality City Hall (22% of employees vs. 53.5% ethnic minority population) (ibid).
- ▶ **Religious Minorities:** There is no separate official data for religious minorities; However, different reports talk about their employment trends. For example, it can be said that Muslim minorities are rarely employed in the governmental sector (Solidarity Community, 2022).
- ▶ **People with disabilities:** According to 2022 data, there are 240 people with disabilities employed in state institutions and the government, which is only 0.6% of total number of employees (Kilasonia 2022).
- ▶ **Queer people:** Due to the systematic discrimination of queer people in Georgia, there is no statistical information available in the country.

The five main directions on which the respondents would like the agencies and organizations to work in order to reduce the impact of climate change and increase their readiness were identified: sustain environmental protection (for example, protecting rivers and controlling air quality) (46.5%), strengthen agriculture and its adaptation to climate change (40.2%), control quality of constructions and their location (35.5%), protecting and restoration forests (26%), preparation of disaster risk management plans (24.5%).

The priorities of the participants of the focus groups coincide with the directions featured in the survey. According to the women, on the one hand, it is important to provide knowledge on climate-resilient agriculture to the local population, followed by empowering opportunities. Furthermore, there is a need for more sustainable management of natural resources, better use of water resources and rainwater collection in some places, support for soil and agriculture-related research, increasing information and resilience about hazards, sustaining the availability and information of the agriculture insurance system, restoring windbreaks, supporting the transition from monocultures to mixed production, etc.



*"After these trainings, the women of our village started growing crops that were not available to us before. For example, asparagus, artichoke, chicory... vegetables that we did not know how to grow and would not have been able to grow without this support."*

*– a founder of agricultural cooperative and eco-migrant woman*

According to the women, it is necessary to provide/improve basic services in the regions (electricity, rehabilitation of roads, public transport, etc.) and to create appropriate services for the development of their children in the regions. It is clear that it is important to improve the economic status of women and their families and create alternative productions for women that will reduce pressure on the en-

vironment (e.g. biogas production, plastic collection-recycling, etc.). It is also important to involve and hold more women in leadership positions.

Additionally, strengthening environmental protection was mentioned as a priority. Reducing and eliminating pollution in industrial and mining settlements and improving the condition of the environment (including rivers), creating recreational and protected areas, protecting existing/remaining biodiversity and green cover in urban settlements, and involving women, young people and children in these processes.

## 5.2 Local government as an important actor in improving climate governance

During the last 2 years, only 6.7% of the respondents turned to agencies or organizations to solve the problem caused or exacerbated by climate change: 9.4% of women living in rural areas and 4.7% in cities. The absolute majority of them applied to the local self-government. The main problems that the respondents turned to the agencies for solving were: asking for support due to damage to their or their family's property by the disaster (38.8%) and solving infrastructure problems (drainage channels, protective walls, water supply, etc.) (24.3%). A significant proportion of rural women also reported requesting local government support in response to crop damage caused by disasters and to improve the supply of irrigation or drinking water.

As mentioned above, respondents' trust towards local government is slightly higher than the other institutions. They would like local self-government bodies to work in different directions to reduce the impact of climate change on them. According to the research, 5 main directions were identified: increasing the natural cover in the settlement - 41.5%, providing adequate financial and other types of assistance to the population affected by disasters - 36%, reducing-prohibition of constructions in hazard risk zones - 31.5%, reinforcement of river banks 29.4% and regularization of public transport (including proper operation of the transport heating-cooling system) - 28.8%. It should be noted that among the 5 main directions for women living in rural areas, the mapping of disaster threats and risks was also included, while the reduction-prohibition of constructions in disaster risk zones was highlighted more among women living in the cities.

The respondents would like the work of local self-government bodies to reduce the risks and impacts of climate change in the following main ways: by allocating more budget to solve problems related to climate change (37.1%), by organizing more frequent meetings with the population (33.9%), by raising the qualifications of employees regarding climate change issues (31%) and by developing action plans related to climate change (29.6%).

Focus group participants would like to see strengthened decentralization of local self-government and appropriate work on real problems on the ground. In relation to some self-governments, it has been said that the problem may not be communication so much as listening to and solving citizens' problems.

To enhance the climate resiliency of vulnerable groups, it is also important to strengthen social services with different resources in local governments so that they can better support these groups. According to the respondents, for instance, the local self-government does not have complete statistics on people with disabilities, and therefore they do not help everyone who needs it. According to the women, there is a general need to plan policies adapted to women, and they associate this with the accessibility of public spaces. Because the decision is mostly made by men and the entire policy and project planning process is masculine, and public and green spaces are more of a concern for women and are perceived as a more feminine need, therefore, the arrangement of green spaces remains outside of this process.



*"We did not know that the pension belonged to my son at all, and when he turned 6-7 years old, then I found out."*

– a woman from Chiatura

Regarding environmental and climate issues, according to the activist respondents and focus group participants, the local self-governments see the picture of environmental issues and problems in a fragmented way and do not have a unified vision for the implementation of climate and environmental policies. Regarding environmental destruction, they face the problem of transferring responsibilities to private companies. However, as a result, the population suffers and neither the city hall nor the company takes responsibility for it.



*"The City Hall imposes an obligation on the company to negotiate with the private owner. They agree on the amount of compensation, sign, and beyond that, no one is responsible."*

– a woman from Chiatura

Additionally, women face this problem in general with public agencies, however, the problems of sustainability of decisions and implemented measures and unstable institutionalization are most visible with local self-governments.



*"Akhaltzikhe City Hall was one of the first signatories of the Covenant of Mayors. We had an agency that worked on these things. The mayor changed and he completely canceled this agency. He did not understand why it was needed, and then the Georgian government abolished the City Hall altogether."*

– a woman from Akhaltsikhe

### 5.3 Roles of non-governmental organizations for achieving climate justice

According to survey respondents, non-governmental organizations are doing little to address the needs they face due to climate change. However, focus group participants generally trust non-governmental organizations more, as they say, these organizations are political party-neutral and impartial, free to voice critical information, and have no vested interests in capturing government power, unlike political parties.



*"I don't have a problem with who will work on climate, but I trust non-governmental organizations more and they are neutral, so I have more confidence with them."*

– a woman from Marneuli

According to them, it is mainly from these organizations that they learn about environmental problems and reliable information about the state of the environment and its destruction, or consult with them about access to public information and participation in the decision-making process. However, neither of these organizations work actively and systematically on climate change topics.



*"A non-governmental organization investigated the contamination of children's bodies with lead and informed us."*

– a woman from Poti

According to respondents and focus group participants, especially in regions where there are high problems of access to information and services, “this gap is filled by non-governmental organizations that have representation in the regions” – said a woman with a disability, especially with vulnerable groups. However, they add that there are not many organizations at the local level.

According to focus group participants, organizations also need to reduce bureaucracy to increase access to their resources for more people. Also, they need to strengthen their work with people and actively listen to people’s concerns.

#### 5.4. Significance of climate communication through media

Women claim that they actively use social media and online platforms to find, share and mobilize information; Both young and old generation. However, in terms of the adaptation of agriculture to climate change and the proper management of agricultural activity in general, it can be seen that there is still an informational vacuum. Perhaps this can be explained by the fact that there is generally little information in the Georgian language in this regard in the virtual space.

Focus groups revealed both trends of watching or hardly watching television. Therefore, communication with people through television remains an important way to cover the climate change problem.

Focus group participants receive more information from the local media, which can be explained by the fact that listening to local information is a higher priority for them or that the women trust the information covered by the central media less. However, in some regions, it was found that local media and radio need support to be strengthened.

According to the women, it is important to raise awareness campaigns through the media and communicate scientific information to people about the environment and climate. But, in addition, media should serve to amplify the voices of the oppressed population, in expressing their problems and visibility.

## 6

## Spaces and practices available for women to act on their climate change caused or exacerbated vulnerabilities

This chapter promotes some practices the research found helpful to empower women and support them to strive for climate protection. Furthermore, it analyses concerns related to the limited spaces available for women to voice their social and climate-related concerns. Some formal opportunities exist for citizens to express the need and concerns, such as neighbourhoods in cities, attending public consultations, etc. When women find it difficult to address their concerns they mobilize and express protest. Using public green spaces as a space of mobilization was found as an important act for manifestation, carrying significance of claiming regained ownership over it. These practices and spaces discussed below require further investigation and finding ways to strengthen them on a systemic level.

### 6.1 Neighbourhoods and informal local groups for localizing climate action

The study found that the neighbourhood is a very valuable and important bond for women, especially in rural settlements. In urban spaces, there are neighbourhoods as formal associations that have chairpersons who are responsible for the administration of building/neighbourhood concerns and communication with City Hall/local government. Some of the focus group participants mentioned that infrastructural problems in the neighbourhood have been voiced and resolved by chairpersons. This may prove to be an important link for mobilizing the population on climate issues in urban settlements and involving them in localizing climate action; however, as can be seen, it is important to further strengthen these units.

Both in cities and in villages, it was revealed that it is important to have a public gathering, cultural and educational spaces, which would strengthen local mobilization opportunities.

Some of the focus group participants were chairpersons themselves and talk about the importance of all citizens' involvement in climate and environmental issues. According to the survey, respondents perceive that relatively active citizens in the respondents' settlement are mostly women (29.6%) and men (25.9%) over 30 years of age. Furthermore, the mean of agreeing on a 5-point scale on the statements about what the respondents can do to stop climate change and how to avoid its effects is relatively higher among respondents aged 30-44 than among other age groups.

31.8% of respondents have carried out at least one civic activity in the last 1 year. And, it can be seen that more women participated in the general meeting of the settlement (7.7%), in public meetings (7.3%), in solving the problems of the settlement (6.6%) and in discussing the budget of local self-government bodies (5.3%), etc.

### 6.2 Empowering women through the promotion of small-scale climate-smart production

Based on the qualitative data, it was revealed that leading small-scale farm or non-farm production can be a good example of women's empowerment. The small business holder respondents started their enterprise with many challenges, however, they successfully managed them, expanded production and employed other women. Donor organizations and government support are seen as crucial to start and establish an enterprise. Women tried to adapt to the project requirements, which led them to form the current production.



*“Many small-scale businesses are led by women, except wine cellars, probably because we are more observant, and we are not lazy and scared to try.”*

– an entrepreneur woman

These women have been inspired by the successful examples of others and now many people with startup ideas are contacting them to share their experiences. However, according to their observations, there is great scepticism towards women’s initiatives, and they also had to overcome this.

The use of traditional knowledge by women in production is interesting and often observed. However, the use of natural resources, such as collecting plants, makes this type of production somewhat vulnerable to climate change.



*“There were cases when we went to pick flowers and found them already blooming because the year started earlier and we could not pick them anymore. You should always check the weather. If the flower that blooms early, for example, is warmed up early, it should not be well-bloomed, it should be in the bud state to be useful for tea. Therefore, our business depends very significantly on these circumstances.”*

– an entrepreneur woman

According to the respondent, a big barrier for women is knowing the information needed to start a small business (e.g. registration process) and then to operate it (e.g. travel platforms from which to receive bookings). Therefore, social capital was found to be important for the respondent to get all the necessary information.

Focus group participants mentioned various ideas that they would like to lead in case of financial support. They see opportunities in waste recycling, sustainable resource use, organic production, etc.

### 6.3 Enhancing cooperatives for increasing resiliency of women involved in agriculture

Cooperatives can be a good solution to increase agriculture’s resilience to climate change. As respondents say, this opportunity increases human, land and financial resources to undertake these activities, increasing profits, cooperation and results, thus enabling increased production and reduced climate risks. Also, it provides an opportunity for equal development and not accumulation of production in the hands of a few people. It also allows for greater adoption of technology, which encourages more women to be involved.

Furthermore, it’s essential to highlight how these cooperative structures contribute to building economic and decision-making power among women in agriculture. This empowerment translates into greater agency in shaping agricultural practices, access to resources, and leadership opportunities. By fostering gender equity and inclusion, cooperatives become a driving force not only in building resilience to climate change but also in advancing women’s roles and influence within the agricultural sector.



*“In the case of establishing cooperative, the possibility of financing the initiative by the state increases.”*

– a founder of an agricultural cooperative



*“It is calculated that if you grow one culture, to be minimally profitable it should be cultivated on at least 20 hectares. And if you have one culture on 20 hectares, at least 10-15 families should unite to make their common activity profitable.”*

*– a founder of an agricultural cooperative*

According to one of the respondents, founding a cooperative is not difficult in itself, as much as gathering members, gaining their trust and persuading them for the activity: “I spent 4 months going from village to village to convince people to join the cooperative. The contribution should be minimal, 10 GEL” - said a founder of an agricultural cooperative. Nevertheless, at the same time, it can be seen that women are more active in the activities of the cooperative and express initiatives about future perspectives.

Despite the scepticism to start a common cause, they believe that this decision was effective: “What can be a better way to work as a team? Yesterday we planted 20,000 seedlings together. I probably would not be able to plant it in one month alone” - stated a founder of another agricultural cooperative.

This statement resonates with the essence of cooperation within these agricultural collectives. It illustrates the transformative power of collaborative effort and how it can lead to achievements that may seem unmanageable when undertaken individually. The outcomes speak about the effectiveness of their decision to work collectively. This success not only benefits the members directly involved but also holds the potential to encourage the broader community to embrace the cooperative model as a means to tackle shared challenges and achieve collective goals.

#### 6.4 Upholding Activism for Climate and Regaining Ownership Over Public Spaces

“Unfortunately, when you get used to something, you think it should be like that,” says the environmentalist respondent. However, through activism, great good can be achieved for women who do not know where to take their children; for nature, which is already expelled from urban spaces; for the microclimate and the healthy functioning of the settlement in general. Through activism, ownership can be returned to the population on the local environment and its planning.



*“They told me that it has been investigated and that this place has no value in terms of biodiversity, and the City Hall also told me that there are no problems here. But we did so many things, brought people, conducted research, collected video material...”*

*– an environmental activist*

Respondents and participants of focus groups think that women face different barriers than men in voicing their opinion, because women still try to take into account the opinion of male members of their family, and public expression can cause conflict with them, which is why they sometimes avoid it.

It was noted that women are mostly involved in environmental activism: “Maybe women are more concerned about this because, at the end of the day, women are still concerned about the question of where to take my child if they are not locked in the house all day” - said the environmentalist respondent.

Activism can be done not only through protest but also through non-traditional methods and showing alternatives. They believe that it is important to increase the inclusiveness of activism. According to the respondents, civil activism can also have the function of increasing the visibility of an oppressed group in the political field, for example, the queer community and people with disabilities. However, it was said that they face many systemic barriers to their mobilization and activism.

It is also worth noting that activists often use the natural environment to hold events, which for them is a political statement, “to return access to citizens and highlight the importance of such spaces, because such spaces often end up in the hands of developers and turn into commercial spaces, which are concreted in the end” – claimed the respondent. In addition, according to activists, there are fewer and fewer physical public spaces left where one can express problems and mobilize. Examples are given of the fenced area of the City Council and the protest of mothers for the right to medicine for their children with achondroplasia, who “were huddled somewhere in these barricades in front of the Council”. According to them, in addition to the protest, there are other opportunities to voice one’s problems, for example, raising these issues at the session of the City Council, although the activists are less aware of these opportunities.

## 6.5 Integrating traditional knowledge and agency of women in climate solutions

In the quotes voiced by women during the focus groups, their perceptions and attitudes towards nature and climate are interestingly articulated, which reveals their dependence on nature and attribution of agency to it. It is revealed that the environment is both enabling and setting limits for them.

**Chart 14:**  
Women’s quotes reflecting their attitudes and relationships with nature

- ▶ *I don’t know whether nature will give us a harvest or not*
- ▶ *We have no water, we are only hoping for rain*
- ▶ *We did not harvest enough corn to sell, nor did nature help us*
- ▶ *We don’t pay attention to what you might be afraid of. Because we are children of this nature, we grow up here*
- ▶ *We have to learn to live with the climate change*
- ▶ *By adapting to nature, we deal with what it gives us, we cannot go against it*
- ▶ *We depend on the climate.*



The observations of the women participating in the study and the impacts of climate change depend to some extent on their life experience with rural or urban types of settlement. Because most rural women have direct contact with the land and environment, climate change directly affects their bodies and lives, so their knowledge and observations of the environment are different. In urban spaces, nature's alienated attitude is manifested and it is difficult for some participants to realize the connection with the environment.

The experience of the IDPs is interesting, according to the respondent, the IDPs were mainly engaged in farming, "they love to work with the land" and it was very difficult for them to cope with life in an urban settlement. Therefore, some families bought land and continued to follow agriculture again.

Women's knowledge and skills are also important in maintaining cultural patterns, as well as sustainable use of natural resources and healthy lifestyles. Women mentioned that they collect various plants, berries, and mushrooms in the forest, which contribute to the food security of their family; In the case of some families, it is part of their production, they sell it or use it in family-type hotels; They are used for medical treatment and preparation of traditional dishes. However, according to them, climate change also affects these resources. They produce soap, Svanetian salt, tea, honey, woollen clothes, etc. They know sewing, traditional crafts-making, cheese production in the traditional way, etc. They mentioned that they updated modern dishes with old recipes, which implies the use of various local spices and plants.

Women's perception of their role in maintaining and reproducing the health of the planet and future generations was interestingly revealed. According to them, women's health as mothers of future generations is a guarantee of the functioning of this whole organism, for which maintaining a healthy environment, managing waste and reducing toxic substances in the environment are fundamental.



*"How can a woman give birth to healthy offspring if she drinks polluted water, eats polluted food and breathes polluted air? Everything we eat and drink, nothing fits the healthy environment standards."*

– a woman from Marneuli

# 07

## Conclusion



# 7



## Conclusion

Climate change exacerbates systemic issues for women in Georgia and introduces additional barriers and risks. It is a crisis that magnifies inequalities, restricts women’s access to services, and weakens their agency. The vulnerabilities of women to climate change are influenced by various social determinants. Therefore, an intersectional analysis and a comprehensive examination of climate risks are essential to comprehend climate sensitivities and injustices.

Our study encompasses the attitudes and needs of women from diverse social backgrounds. This approach aids in painting both a generalized overview of the vulnerabilities of women in Georgia and identifying group-specific susceptibilities. Understanding the underlying causes of women's sensitivities and lack of readiness for the climate crisis is imperative.

Specific climate risks for women differ depending on their settlement type and climatic zone. Nevertheless, irrespective of these factors, the income and financial stability of women are pivotal for their preparedness and adaptability to climate change. Our findings reveal that nearly a quarter of women lack a stable income, and approximately half of those with stable income earn a maximum of 400 GEL per month. Moreover, more than half of women residing in different hazard zones earn an income of up to 400 GEL. Another critical determinant of climate vulnerability is health conditions. Chronic and serious diseases, as well as minor health issues, afflict women of various age groups, with the majority of those affected being over 45 years old.

The type of work women engage in and whether it is influenced by climatic conditions are linked to their exposure to climate risks. Our study identifies agriculture as a vulnerable sector of women's employment. A lack of resources and knowledge to adapt agricultural practices to climate change, coupled with unpreparedness for intensified hazards and the absence of protective systems, present significant challenges for women. These challenges have far-reaching consequences for women's mental and physical health, the natural and living environment, and the absence of social support from either family or institutions.

Droughts, heatwaves, soil erosion, intensified rainfall, wind and hailstorms, seasonal weather instability, and diminishing biodiversity are the most frequently observed effects of climate change by women. These impacts detrimentally affect agriculture and food supply, income, health conditions, mobility, and access to services. In addition, landslides, flooding, and other disasters have devastating consequences on people's lives, housing, public infrastructure, and more.

Women require better access to information on climate change, its risks, and methods to enhance their preparedness and adaptation. Furthermore, they need adequate support from all stakeholders involved in climate governance. The study also uncovers useful practices, such as strategies for empowering women and protecting the climate, which can be fortified and complemented by other positive approaches to create a more climate-resilient future for women.

Throughout our research, it has become evident that climate change contributes to increased poverty, gender and social inequality, food scarcity, reduced access to essential social services, and worsened physical and mental health conditions among women and communities. However, climate legislation, adequate policies and supportive systems to mitigate climate change impacts on women are absent. It raises questions about whether the climate crisis should not be a top priority for the state and other stakeholders. While the climate crisis deteriorates the physical and social well-being of communities, women, and children, emphasizing the urgency of its address. Recognizing and addressing these challenges is crucial for bridging inequality gaps and promoting climate justice.

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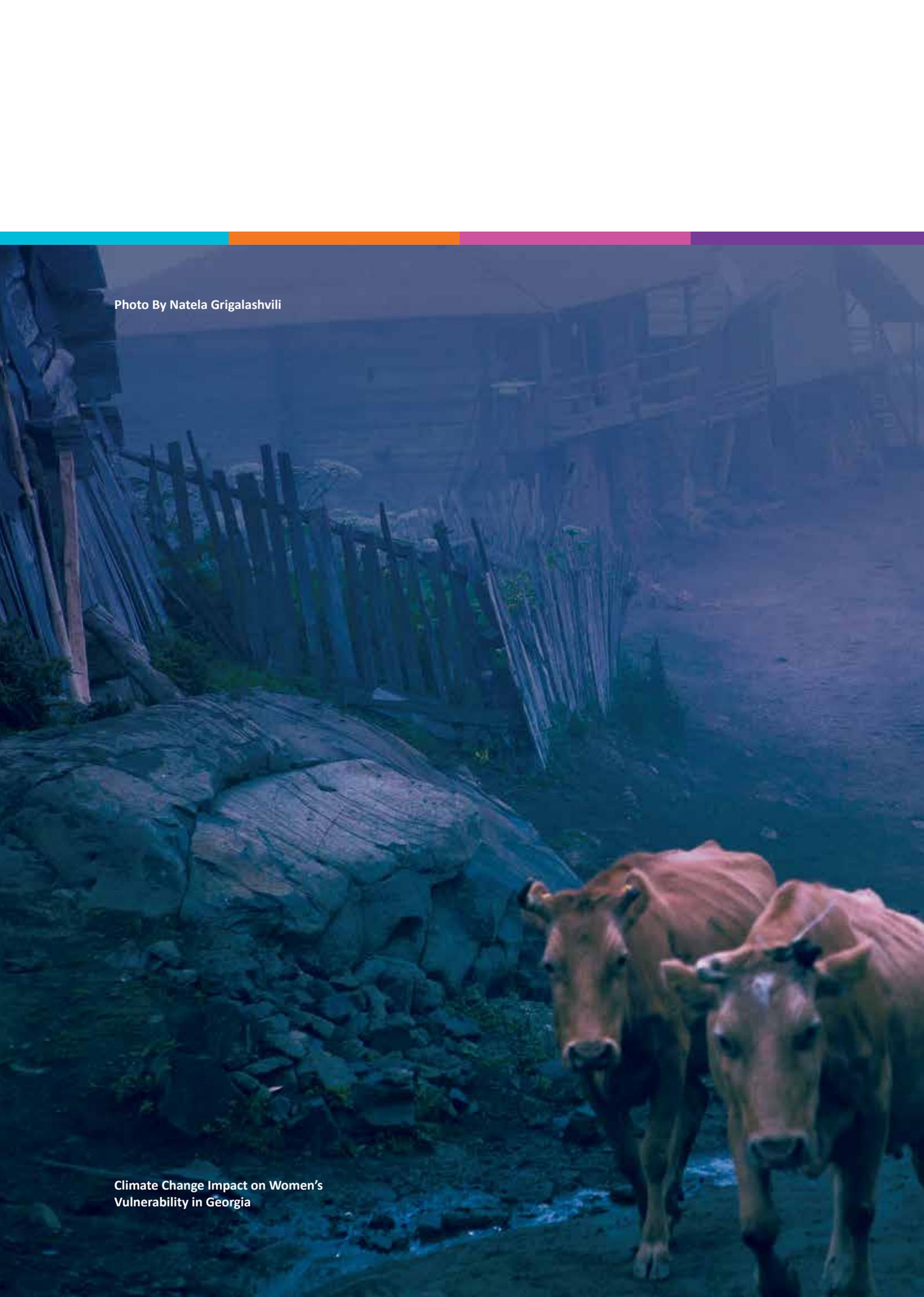
A photograph of a rural village in Georgia. In the foreground, two brown cows are walking towards the camera. The background shows a dirt road, a wooden fence, and several traditional wooden houses built on a hillside. The scene is captured in a slightly desaturated, blue-toned style. At the top of the page, there is a horizontal bar with four colored segments: cyan, orange, magenta, and purple.

Photo By Natela Grigalashvili

Climate Change Impact on Women's  
Vulnerability in Georgia