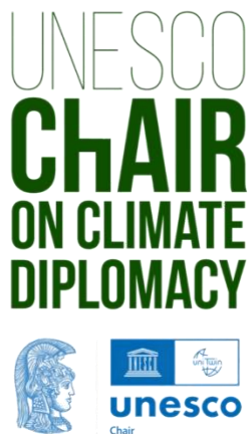


Climate change and gender: Policy recommendations for Greece

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Introduction

Climate change and the policies that respond to it uniquely impact women. As the world's governments seek to respond to environmental disasters and slow-onset climate change, they must account for the gender-based harms that arise from climate crises and ensure climate adaptation and disaster-response policies do not compound such harms.

The driving questions this brief seeks to answer are: (1) How do climate change and the policies designed to combat its effects uniquely impact women, and (2) how can humanitarian organizations improve gender mainstreaming in Greek climate adaptation policy?

This brief begins by outlining how women are uniquely impacted by climate change, climate adaptation policy, and disaster-response policy, highlighting the following vulnerabilities:

- Women are more likely to die in climate disasters due to insufficient response education and societal norms.
- Resource scarcity generates increased risk of gender-based violence and reduces time for paid jobs and education for women who collect resources for energy fuel and water supplies.
- Women face structural barriers to economic recovery from climate disasters and change.
- Disaster-response and climate adaptation policies fail to provide women equitable aid when they do not account for women's unique productive, social, and financial capacities.

The brief continues to examine how climate change impacts Greece, noting that the Mediterranean is warming faster than global averages. It goes on to explain emergent Greek climate adaptation policies, including the National Adaptation Strategy for Climate Change.

The brief concludes by offering four recommendations for humanitarian organizations to help increase gender mainstreaming in Greece's climate adaptation, disaster-response, and international-aid policy:

1. Conduct research into women's unique productive roles in each Greek prefecture.
2. Develop and advocate for a gender-mainstreaming policy guide.
3. Develop and disseminate disaster-response education materials that account for gender.
4. Advocate for gender mainstreaming in Hellenic aid foreign policy.

Background: Gendered harms of climate change and policy

Structural inequalities, differing social role expectations, and a lack of institutional knowledge surrounding gender-based productive roles render women more likely to suffer harm from direct impacts of climate change and less likely to benefit from climate adaptation and disaster-response policies. Certain adaptation policies that overlook women’s communal circumstances and roles compound gender-based harm. These policies are referred to as maladaptive. This section of the brief seeks to highlight areas in which women face unique vulnerabilities to climate change and illustrate potential harms of failing to gender mainstream climate adaptation and disaster-response policy.

Direct impacts of climate change

Women are more vulnerable to the direct impacts of climate change due to structural inequalities, gendered social expectations, and differing productive roles which inhibit their disaster-response capacity, access to resources, and economic resiliency.

Women are 14% more likely to die in environmental disaster events than men.¹ For example, in the 2004 Indian Ocean tsunami, women accounted for 70% of fatalities.² A number of factors contribute to this discrepancy: women may not receive disaster-response education due to illiteracy, lack of schooling, or other societal barriers; women are more often at home when disasters strike and become responsible for transporting children and elderly relatives; women are not taught to swim in certain cultures; and women across the globe are expected to wear clothing—such as layered, heavy fabrics or constricting shoes—that inhibits movement.³

Resource scarcity also generates risks for women, particularly in societies where they are responsible for collecting natural resources to supply daily energy and water needs. In the global south, increasingly severe and frequent droughts have limited many populations’ access to

¹ Asako Okai, “Women are hit hardest in disasters, so why are responses too often gender-blind?” United Nations Development Programme, 24 March 2022, https://www.google.com/search?q=Women+more+likely+to+die+in+natural+disasters&oq=Women+more+likely+to+die+in+natural+disasters&gs_lcrp=EgZjaHJvbWUyBggABEUyOTIGCAEQRRg70gEINDY4NmowajeoAgCwAgA&sourceid=chrome&ie=UTF-8.

² *Ibid.*

³ Sophie Eastaugh *et. al.*, “Why are women more affected by climate change?” *The Climate Question Podcast*, British Broadcasting Service (BBC), 28 May 2023, <https://www.bbc.co.uk/programmes/w3ct5bk0>.

drinking water and cooking fuels, forcing women to travel farther distances to find or collect resources. This leaves these women more vulnerable to gender-based violence on their journeys. For example, in a report on gender-based violence in Kaya, Burkina Faso, conducted by the United Nations, approximately half of all rapes occurred while women were collecting firewood.⁴ Traveling farther for resources also reduces the time women have to pursue education and paid work. This problem is exacerbated as traditional, scarce energy fuels are being substituted by resources such as firewood that require more time and labor to collect. In India, Bangladesh, and Nepal, for example, traditional biomass cooking fuels have become scarce, forcing women to rely on firewood, which requires, on average, 122 more hours a year to collect.⁵

Finally, women face structural barriers to economic recovery from climate disasters and climate change. Across the globe, women do not have equitable access to education, careers, credit and financial services, technology, and land ownership.⁶ Therefore, while men may secure loans to fix damaged property, pursue education to switch careers from a climate-impacted sector, or secure technology to adapt their enterprises to changing conditions, women often do not have such opportunities.

The Gender-Climate-Conflict nexus

Climate change further poses unique risks for women by compounding the risk of conflict, economic hardship, and political instability. Climate change is widely recognized in security studies literature as a “threat multiplier” that compounds state fragility and the risk of conflict by destabilizing political systems, decelerating agricultural production, inducing poverty, and exacerbating social unrest.⁷ Furthermore, embattled and unstable states are more vulnerable to the impacts of climate change, as they lack the resources and government centrality necessary to

⁴ Sam Mednick, “Can Alternative Energy Protect Women from Assault in IDP Camps?” Devex, October 1, 2021, <https://www.devex.com/news/can-alternative-energy-protect-women-from-assault-in-idp-camps-101707>.

⁵ Ewan Bloomfield, “Gender and Livelihoods Impacts of Clean Cookstoves in South Asia,” Practical Action Consulting, 2014, 1, <https://www.cleancookingalliance.org/binary-data/RESOURCE/file/000/000/3631.pdf>.

⁶ Senay Habtezion, “Overview of linkages between gender and climate change,” United Nations Development Program, News and Press Release, 17 April 2017, <https://www.undp.org/sites/g/files/zskgke326/files/publications/UNDP%20Linkages%20Gender%20and%20CC%20Policy%20Brief%201-WEB.pdf>, 5.

⁷ Jessica Smith *et. al.*, “The Climate-Gender-Conflict Nexus,” The Georgetown Institute for Women, Peace, and Security, 2021, <https://giwps.georgetown.edu/wp-content/uploads/2021/01/The-Climate-Gender-Conflict-Nexus.pdf>.

implement effective mitigation and adaptation strategies. There is therefore a negative feedback loop between climate change and conflict, with both generating harms that are made worse and more probable by the other.

State fragility and conflict cause universal harm, but they also exacerbate vulnerabilities and discrimination against women.⁸ Gender-based violence, such as forced marriage, rape, and sex trafficking are weapons of interstate wars as well as civil conflicts, as has been observed in the gang wars of the Central American Northern Triangle.⁹ Political and economic instability also limit public resources and reduce women's access to social systems such as healthcare, criminal justice, and reproductive health services, as has been observed by women's deteriorating education levels and lifespan in embattled Yemen.¹⁰

However, accounting for gender when fighting climate change not only ensures women's security and rights, doing so is advantageous for governments as well. States with higher gender equality consistently observe reduced risks of conflict and economic hardship and are more resilient when instability occurs.¹¹ Therefore, decreasing gender-based climate harm and increasing women's participation in combating climate change would likely not only decrease women's future vulnerability to climate change, doing so would also likely help mitigate state-wide conflict and insecurity.

Gaps in disaster-response approaches

Policies designed to combat the human and economic costs of environmental disasters can also perpetuate gender-based harm if they fail to account for women's unique social and productive roles. For example, climate information services that require reading or rely on technology may exclude women who are illiterate or cannot access reliable networks. Ghana, for example, devised a climate alert system that transmits information about floods and other weather conditions to

⁸ *Ibid.*

⁹ Anastasia Moloney, "Black Widow' gangs warned after El Salvador forced marriage bust," *Reuters*, 29 May 2019, <https://www.reuters.com/article/us-el-salvador-women-blackwidows-idUSKCN1SZ1ZR>.

¹⁰ International Committee of the Red Cross, "Yemen: Women and girls struggle to access essential healthcare," News Release, 7 July 2022, <https://www.icrc.org/en/document/yemen-women-and-girls-struggle-access-essential-healthcare>.

¹¹ Political and Peacebuilding Affairs, "Women, Peace and Security," United Nations, 2023, <https://dppa.un.org/en/women-peace-and-security>.

mobile phones. However, a study of the systems' users found that men were more likely than women to receive alerts and use them to mitigate climate risk.¹² This was attributed to the fact that men had access to financial resources needed to purchase phones, while women relied on their husbands' phones. Women in Ghana were therefore not only less likely to adequately prepare for extreme weather events, but those who worked in the agricultural sector were also less able to adapt and prepare their crops for incoming weather events, leading to a widening of the income gap between male and female Ghanaian farmers. A similar phenomenon was observed in India, where a weather pattern alert system delivered text-based warnings to phones in impacted regions. While women received these alerts at comparable rates to men, many women in impacted regions are illiterate and were unable to read the messages.¹³

Additionally, women often do not receive adequate disaster-response education. In societies where women do not attend school, community-based courses are rarely offered. Even when women can access education, trainings do not account for aforementioned gendered discrepancies, such as clothing that may inhibit women's ability to flee a building or swim.

Gaps in climate-adaptation policies

Climate adaptation policies can also perpetuate gender-based harm when they overlook women's unique productive roles and fail to ensure women receive proportionate adaptation benefits. In 2022, floods in Pakistan destroyed farmland across the country. Approximately 42% of Pakistan's population is employed by the agricultural sector. International aid organizations partnered with the Pakistani government to help impacted farmers recoup lost crop revenue, acquire education to enter new sectors, and fix recoverable infrastructure. Women account for approximately 80% of farm workers in Pakistan, but the majority do not have legal claims to the land or crops they work. Consequently, these women were unable to receive any compensation or aid following the floods, and many left Pakistan as migrants in search of work in Europe.¹⁴

¹² S. T. Partey *et. al.*, "Gender and Climate Risk Management: Evidence of Climate Information Use in Ghana," *Climatic Change* 158 (2020): 61–75, <https://doi.org/10.1007/s10584-018-2239-6>.

¹³ Clara Chiu *et. al.*, "Inclusive Adaptation: A Benefit Multiplier for Climate Action and Women, Peace and Security," The Georgetown Institute for Women, Peace, and Security, 24 August 2022, page 13, <https://giwps.georgetown.edu/wp-content/uploads/2022/08/Inclusive-Adaptation.pdf>.

¹⁴ Sophie Eastaugh *et. al.*, *op. cit.*

The risk of excluding women from adaptation benefits is particularly high in the agricultural sector, which is severely impacted by increasingly protracted and frequent droughts, changing rainfall patterns, and desertification. Women comprise nearly half of the agricultural labor force in the global south, yet they are also less likely to hold land and more likely to work informal jobs in the sector. In sub-Saharan Africa, for example, women perform 48% of agricultural labor, but account for only 15% of landholders.¹⁵

Beyond failing to ensure women receive comparable aid from climate adaptation programs, maladaptive policies compounded gender-based harm. For example, a recent policy in Bangladesh sought to adapt to increased flooding by removing floodplains. However, these floodplains provided the primary source of income and food for many landless, impoverished women in the region, who sold equipment to aquatic farmers and harvested aquatic plants for meals.¹⁶ In failing to research women's productive role in the region, this climate adaptation policy increased their insecurity, rather than eliminating their vulnerability to climate change.

The case of Greece: The need and opportunity for inclusive adaptation

Climate change in Greece

The Mediterranean is warming much faster than the global average, subjecting it to more severe and frequent temperature spikes, fires, and droughts than most regions.¹⁷ In Greece, this increasingly changing climate threatens both residences' security and economic prosperity. In 2021, more than 1,300,000 acres burned, reducing crop yields and agricultural income nationwide. Meanwhile, the 2018 fire in East Athens killed 104 people, making it the second deadliest wildfire of the twenty-first century. Greece consistently suffers the largest climate and disaster-induced economic losses of any EU country.¹⁸ In 2020, the losses amounted to 91 euros per

¹⁵ Clara Chiu *et. al.*, *op cit.*

¹⁶ Farhana Sultana, "Living in Hazardous Waterscapes: Gendered Vulnerabilities and Experiences of Floods and Disasters," *Environmental Hazards* 9, no. 1 (January 1, 2010): 43–53, <https://doi.org/10.3763/ehaz.2010.SI02>.

¹⁷ Yannis-Orestis Papadimitriou, "Greece must make up for lost time in climate adaptation," *Clean Energy Wire*, 16 March 2023, <https://www.cleanenergywire.org/factsheets/greece-must-make-lost-time-climate-adaptation#:~:text=The%20%E2%80%9CLIFE%2DIP%20AdaptInGR%20%2D,Climate%20Adaptation%20Strategy%20in%202026>.

¹⁸ European Environment Agency, "Losses from climate change: €145 billion in a decade," Eurostat, 24 October 2022, <https://ec.europa.eu/eurostat/web/products-eurostat-news/-/ddn-20221024-1>.

resident, and this number is only expected to grow.¹⁹ A report issued by the Bank of Greece in 2023 corroborated an earlier estimate that, without new adaptation and mitigation policies, climate change will likely cost Greece 577-701 billion euros by 2100.²⁰ Greece's agricultural sector, which employs more than 500,000 people on predominantly smallholding farms, is the most vulnerable sector to climate-related loss due to heatwaves, droughts, desertification, CO2 concentration, and rainfall patterns that inhibit crop growth and livestock grazing.²¹

Greek policy

Because of Greece's unique vulnerabilities, global green policy goals, and commitments to aligning with EU climate initiatives, the Greek government has adopted nation-wide adaptation and mitigation programs. In 2016, the government adopted the first National Adaptation Strategy for Climate Change (NSACC), which instructed each of the 13 prefectures to propose a local adaptation strategy. These strategies are expected to be submitted for approval by 2026. In 2016, Greece also received funding for local-level adaptation projects by the European LIFE project. Additionally, in 2021, Greece created a new Ministry of Climate Crises and Civil Protection. In development is a National Council for Adaptation to Climate Change, which will function within the Ministry to oversee climate adaptation policy development, implementation, and monitoring. A representative from The Ministry for Rural Development and Food will sit on the council to oversee adaptation in the severely impacted agricultural sector.

A window of opportunity

The fact that Greece is still developing its adaptation strategy offers a unique window of opportunity for introducing gender mainstreaming into the nation's policies. The government has established a system, infrastructure, and funding for adaptation, but concrete policy has yet to be implemented. If officials act soon, they can account for gender in Greece's adaptation policies

¹⁹ *Ibid.*

²⁰ Bank of Greece, "The Environmental, Economic and Social Impacts of Climate Change in Greece," June 2011, https://www.bankofgreece.gr/publications/ClimateChange_FullReport_bm.pdf.

²¹ Christos Tsadilas, "Impact of Climate Change on the Primary Agricultural Sector of Greece: Adaptation Policies and Measures," *Earth*, 2023, 4, 758-775, <https://www.enainstitute.org/wp-content/uploads/2023/10/earth-04-00041-v2.pdf>.

from the onset, rather than attempting to rectify discrepancies in the future as many countries must now do. It is therefore paramount that climate adaptation policymakers in each of the 13 prefectures understands and accounts the unique productive roles of women in their regions, particularly in the agricultural sector, to ensure gender parity in adaptation benefits and avoid maladaptive projects.

Gender mainstreaming adaptation policy is not only in the best interests of women for Greece, but the country as a whole. Inclusive adaptation, that is, adaptation policy that accounts for gender discrepancies, is a benefit multiplier; when women are involved in climate adaptation, and when policies ensure women receive comparable benefits, policies are more effective, and nations experience fewer climate-related economic losses.²² This effect is further supported by research that shows societies with greater gender equality are more peaceful and stable, and therefore better prepared to respond to climate change.²³ In essence, when women benefit from climate adaptation, their countries benefit as well.

Recommendations: The role of humanitarian organizations

While Greece has begun devising strategies for nation-wide climate adaptation, increasingly common climate disasters and the impending risk of slow-onset harms such as desertification make it critical that these policies are implemented as soon as possible and account for regional and local particularities. If Greece can account for these needs now, the country will have a better chance at preventing future harm and building resiliency, rather than simply responding to the inevitable crises and slow-onset harms of climate change.

Humanitarian organizations can play a crucial role in advocating for regionally-specific, gender-mainstreamed, resilience-oriented policies. Such organizations can conduct independent research, present fact-based arguments for certain strategies, and advocate for policies across government departments to ensure common understanding and guidelines for implementation. Humanitarian organizations also benefit from being able to operate domestically as well as internationally, enabling them to identify global trends and apply these lessons to domestic contexts. In Greece, this will enable them to examine gender discrepancies in the impacts of

²² Clara Chiu, *op. cit.*, page 13.

²³ Political and Peacebuilding Affairs, *op. cit.*

climate change, share their findings across the prefectures, and advocate for holistic and informed climate adaptation policies nation-wide.

Recommendation 1: Conduct research into women's unique productive roles in each prefecture

Humanitarian organizations can facilitate gender mainstreaming in Greece's National Adaptation Strategy by conducting research on women's unique productive roles throughout the nation. In October 2023, a report was published outlining how each Greek region is differently impacted by climate change, highlighting, for example, which crops are most vulnerable.²⁴ Similar research should be conducted into the unique productive roles of women in each of Greece's prefectures, and how these roles may be impacted by climate change. Without understanding women's needs, governing officials in the prefectures will be unable to adequately account for them in their adaptation strategies. It is critical that women living and working in the studied regions participate in, if not lead, research design and results collection.

Recommendation 2: Develop and advocate for a gender-mainstreaming policy guide

Once research into the gendered dynamics of production is complete, it is recommended that humanitarian organizations devise and advocate for a gender-mainstreamed adaptation policy guide for each of the 13 prefectures. These guides should include information about how women may be uniquely impacted by climate change and how policies could ensure they receive equitable benefits from adaptive policies. They should also warn of maladaptive policies, and highlight sectors in which such policies are likely to be devised. As with research, women from the relevant regions must be involved in writing the policy guides, as their perspectives are essential in helping to determine their own needs. Once these guides are devised, humanitarian organizations should advocate for their use with local and national government officials, potentially by organizing seminars or disseminating the guides to relevant contacts.

²⁴ Christos Tsadilas, *op. cit.*

Recommendation 3: Develop disaster-response education materials that account for gender

Humanitarian organizations can additionally create disaster-response education materials that account for gender. While Greece has achieved near-gender-parity in education access, the government does not offer gender-based disaster-response training. Humanitarian organizations can develop easy-to-read or illustrated guides that instruct women on how to respond to different disasters, such as fires and floods, given their unique circumstances. For example, these guides could include warnings about heavy fabrics, such as skirts, that can inhibit swimming, and instructions for how best to assist family members in evacuating a home threatened by fire. These guides should also be distributed in Greece's refugee camps and to aid organizations that serve refugees, such as the Melissa Network.

Recommendation 4: Advocate for gender mainstreaming in Greek aid foreign policy

Finally, humanitarian organizations can look beyond Greece to help gender mainstream adaptive and disaster-response policies abroad. Hellenic aid is responsible for devising and carrying out Greece's foreign aid programs, including those that help foreign nations respond to climate disasters. Humanitarian organizations should advocate for gender-mainstreaming research to be conducted during foreign aid policy formulation, ensuring the participation of women in the aid-recipient regions.

Conclusion

While harmful effects of climate change pervade the globe, Greece faces unique and urgent challenges as a "hot spot" Mediterranean nation with a robust agricultural sector. Yet, unlike many of the nations discussed in this brief that are currently most severely affected by climate change, Greece is not embattled in domestic or international conflicts and possesses the resources and stability needed to implement robust, gender-mainstreamed climate adaptation policies. Notably, Greece's status as a European Union member state provides the country substantial monetary and institutional support to research, develop, and implement expansive new strategies. If Greece takes advantage of its alarming yet opportune circumstances, it would not only prevent undue harm to many women and bolster Greece's capacity to withstand and combat climate change, but it would

enable Greece to serve as a global leader and set international standards for identifying, mitigating, and fighting gender-bias in climate-change policy. If countries such as Greece neglect gender in this crucial policy space, they not only risk subjecting a significant portion of the global population to undue harm and compromising years of progress in gender equality, but indeed inhibiting the global fight against climate change.