

Agency Acknowledged: The Representations of Women in National Adaptation Plans

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Abstract

To address the impacts of climate change, numerous countries have developed National Adaptation Plans (NAPs), which outline their goals, priorities, and strategies for mitigating the effects of our warming world. Within these plans, women are primarily framed as victims of climate change, with little recognition of their potential contributions to adaptation. While previous research has focused on their representation in NAPs, it has largely overlooked the underlying factors shaping these portrayals. Using a combination of textual and statistical analysis, this study explores the role of external support—specifically from international organizations such as the United Nations—in shaping how women are framed in NAPs. The findings suggest that countries receiving assistance from international organizations in creating their NAPs are more likely to acknowledge women’s agency in climate adaptation. However, contrary to expectations, the creation of the Enhanced Lima Work Programme on Gender (LWPG) which was intended to promote gender inclusivity in climate policies, did not significantly influence how women are portrayed in these plans. These results, while not robust, underscore the importance of international organizations like the UN in advocating for greater recognition of women's adaptive abilities in NAPs, while also highlighting that the Enhanced LWPG has not yet achieved the intended shift in framing women’s roles within NAPs.

Introduction

Climate change is undeniably one of the greatest threats humanity has faced and will continue to face—it has become the defining issue of our time (UN Security Council, 2021). As our planet warms, civilization will face more frequent natural disasters such as wildfires, flooding, extreme weather, outbreaks of infectious diseases, loss of arable land for food production, lack of fresh air and water, and a decrease in biodiversity (World Health Organization, 2015). While these effects of climate change are a global problem, the impacts are disproportionately felt by women which deepens the inequalities and vulnerabilities they already face, such as poverty, violence, lack of opportunities, and basic human rights (UN Women, 2022) table.

The Threat of Climate Change for Women

Around the world, and particularly in developing countries, women are responsible for the provision of basic needs for the family, which include but are not limited to, the collection of water, fuel or firewood, and food (Panda et al., 2015). These tasks become increasingly challenging, laborious, and time-consuming in a changing climate. In times of droughts, women, who are responsible for water collection, will find themselves walking longer distances to access clean water (Chingarande et al., 2015), forcing many to endure dangerous conditions (Shabib & Khan, 2014). It is estimated that women and girls around the world spend a collective 200 million hours collecting water each day, drastically impacting their ability to attend school, participate in community decisions, and grow their own independence (Women and water: A global crisis, n.d.).

In the aftermath of natural disasters, women, as caregivers, may find themselves searching for fuel alternatives, facing the economic effects of livestock and biodiversity loss, and in some cases going hungry to feed their families (Chingarande et al., 2020). Additionally, evidence shows that instances of sexual violence, exploitation, abuse, and trafficking can increase for women by up to 62% after natural disasters, as they are likely to be separated from their family and support systems and find themselves in crowded shelters where the usual protections and privacy of one's home are lost (Bartlett, 2008).

Furthermore, women are more exposed to the threats of climate change as they are likely to be poorer than their male counterparts due to wage disparities, the unequal costs of child rearing, and government policies (McLanahan & Carlson, 2001). Living in poverty positions individuals as more vulnerable to the effects of climate change, as they have fewer resources for adaptation and recovery from climate events, and their financial constraints limit their physical mobility (Shabib & Khan, 2014). Additionally, women living in poverty often face systemic barriers that prevent them from accessing credit and loans, hindering their ability to purchase property. Their healthcare, nutritional needs, education, and access to support services are frequently overlooked, further marginalizing them (Beijing +5—Women 2000, 2000). Poverty also limits women's agency, silencing

their voices in household and community decision-making, and restricting their ability to advocate for their needs (Beijing +5–Women 2000). These inequalities are compounded for women who belong to religious or ethnic minorities, or who are single mothers, as these intersecting factors often amplify social stigma and further diminish the support available to them, thus leaving them more vulnerable to climate change.

Women’s Agency

While women are more vulnerable to climate change than their male counterparts, they are also leaders in natural resource management and are at the forefront of those demanding climate action. Women and girls play a crucial role in water collection, particularly in households without piped water, where they are responsible for 80 percent of the task worldwide (Schmidt et al., 2024). This responsibility has generated invaluable and generational knowledge of local water systems, making women essential stewards of water resources and management. Women's traditional and Indigenous water knowledge is not only rich in cultural significance but also in geographic history and understanding, making them experts on local water systems (Ali et al., 2023). The United Nations has consistently emphasized that the success of sustainable water resource management depends heavily on the active participation of women at all levels of decision-making and implementation, highlighting women’s unique ability to contribute to the climate fight (United Nations Department of Economic and Social Affairs, 2004).

In the agricultural sector in developing countries, women make up nearly half of the workforce, and yet less than 20 percent of landowners are women (Winters & Schueman, 2024; Five Reasons Why Climate Action Needs Women, 2023). In many parts of the world, women's agricultural practices are rooted in tradition, and passed down between generations, keeping the knowledge of regenerative agriculture and resilience alive. The United Nations estimates that when women and men are provided with the same access to agricultural resources, women can increase their yields by 20 to 30 percent, reducing the need for agricultural land and leading to more sustainable farming practices. This boost in productivity is enough to increase agricultural output by 2.5 to 4 percent, thereby reducing world hunger by 12 to 17 percent (Winters & Schueman, 2024). Because of women's involvement and intricate understanding of agriculture practices, increasing their access to resources and land rights can promote more sustainable farming and conservation practices, as well as lift women out of poverty. When women can more freely generate income, they are better able to adapt to the effects of climate change, and therefore empowering women in agriculture has positive impacts on climate adaptation.

In addition to many women's generational knowledge and sustainable land use practices, studies have shown that nations with higher proportions of women in their parliaments, governments, and environmental decision-making spaces are more likely to ratify environmental

treaties and have stricter climate policies than other nations (Norgaard & York, 2005). In another study, it was proven that countries in the European Union where women hold high political power are the same countries with lower per capita carbon dioxide emissions (Koengkan et al., 2024). Additionally, research from the Women Leading on Climate campaign found that women are 2.5 times more likely to demand their government take action on climate change and twice as likely to engage civically on the issue of climate change than their male counterparts (Women leading on climate, n.d.). These studies and statistics show that women are capable of leading proactive and coordinated responses that are essential to fighting, mitigating, and adapting to climate change, highlighting the need for women in environmental decision-making spaces.

However, while research shows that women are critical to climate adaptation and mitigation, they are rarely formally recognized for their efforts and leadership. This disconnect between women's role in fighting climate change and their lack of recognition fueled this study which examines the factors that influence how women are referenced in National Adaptation Plans (NAPs)—documents outlining countries' goals, priorities, and strategies for climate adaptation. Specifically, this study answers the question of what country-level indicators cause countries to reference women's agency in adapting to climate change in their NAPs.

The study tests two main hypotheses: first, countries that created their NAPs later than 2019 are more likely to reference women's agency than those that did so earlier due to the creation of the Enhanced Lima Work Programme on Gender (LWPG) and its Gender Action Plan (GAP) in 2019, and second, countries receiving assistance from international organizations such as the United Nations Framework Convention on Climate Change (UNFCCC), United Nations Environment Programme (UNEP), the National Adaptation Plan Global Support Programme (NAP-GSP), or the National Adaptation Plan Global Network are more likely to include references to women's agency compared to countries that created their NAPs without such external support.

To explore these hypotheses, the study analyzes the use of the terms “women,” “woman,” “female,” and “girl” (and their plurals)¹ in NAPs from 42 countries, specifically looking at how often these references frame women as agents of change in the fight against climate change. Following this analysis of each NAP, statistical models with country-level control variables were run to test each hypothesis. The results suggest that countries that received assistance from international organizations such as the UNEP, the UNDP, or the NAP-GSP, in writing, editing, or preparing their NAPs reference women's agency more than those who did not receive such assistance. Additionally,

¹ In this study, there is a deliberate use of the words “women,” “woman,” “female,” and “girl,” while “gender” is deliberately not used. This is because using the comprehensive term “gender” eliminates the specificity that is being tested in the research question and hypotheses. Climate policies and NAPs are increasingly using terminology and frameworks such as “gender-sensitive” and “gender-aware” which recognize that men and women have different needs and interests, but that do not explicitly identify which gender is in reference. Therefore, this differentiation between “gender” and words that explicitly refer to the female sex are used to exclude any references to gendered climate concerns, priorities, and contributions.

the study found that the 2019 Enhanced LWPG and its GAP did not have the hypothesized impact on the way women are framed in NAPs.

This paper first explains the role of NAPs in climate adaptation, then reviews the existing literature on gender and climate adaptation planning, outlines the methodological framework for the study, and finally analyzes the results of the statistical tests.

National Adaptation Plans

National Adaptation Plans (NAPs) were established at the 16th Conference of the Parties (COP16) to the United Nations Framework Convention on Climate Change (UNFCCC) in 2010, held in Cancun, (National Adaptation Plans, n.d.). The COP recognized that developing countries, particularly the least developed countries (LDCs), are highly vulnerable to the impacts of climate change, and therefore, strategic action was needed. NAPs were designed to help these developing countries assess their vulnerabilities, identify risks, and explore adaptation options to make people, places, ecosystems, and economies more resilient to the ongoing impacts of climate change.

The COP also established the “NAP process”, which refers more specifically to the planning that goes into creating the NAP (rather than the content of the NAP itself) and mandated that the UNFCCC Least Developed Country Expert Group (LEG) develop guidelines to streamline this process (Hammill et al., 2020). The four guiding principles that the LEG created for the NAP process are critical for ensuring that gender considerations are built into the framework of each NAP. The principles are as follows: 1) establish a solid foundation, 2) identify the needs, options, and priorities for climate adaptation and integrate gender-sensitive approaches, 3) promote coordination among diverse stakeholders and sectors, and 4) create a monitoring and reporting system to identify the progress of NAPs and the areas for improvement (LDC Expert Group, 2012). It is critical that in the second guiding principle, parties are asked to complete their adaptation planning while integrating “gender-sensitive approaches”, highlighting the importance of gender in climate adaptation. Additionally, these principles aim to ensure that the NAP process is comprehensive, well-structured, and results in actionable plans.

In addition to the technical guidelines presented by the LEG, the COP agreed on a framework outlining the core principles (Decision 5/CP.17 National adaptation plans (FCCC/CP/2011/9/Add.1, 2011) that NAPs should strive to achieve:

1. Country-driven approach: NAPs should follow a country-driven, gender-sensitive, participatory, and fully transparent approach, taking into consideration vulnerable groups, communities, and ecosystems.
2. Science and knowledge-based: NAPs should be based on and guided by the best available science and, as appropriate, traditional and Indigenous knowledge, and by gender-

sensitive approaches, to integrate adaptation into relevant social, economic, and environmental policies and actions, where appropriate.

3. Flexible and non-prescriptive: The NAP process should not be prescriptive, nor result in the duplication of efforts undertaken in-country, but facilitate country-owned, country-driven action.

Women's Representation in Climate Policy and NAPs

Though literature surrounding NAPs exists on other topics, the framing of women in NAPs is a relatively new, limited, and evolving area of literature. Previously, many scholars have studied the disproportionate impact of climate change on women and the benefits and importance of including women in environmental governance, such as the studies referenced in the introduction to this paper (Koengkan et al., 2024). There is also a large body of literature on specialized and intrinsic knowledge that women have regarding water management, land use, adaptation, and environmental resilience, and how climate change mitigation cannot be successful without them (Lama & Wester, 2019). While there is some new literature on how women are framed in NAPs including looking at women being framed as agents of change, there are currently no academic papers that focus on the factors that cause countries to acknowledge women's adaptive capabilities in NAPs (Wredström, 2024; Singh et al., 2021). Because of this, this literature review covers a more general range of studies on the framing and mainstreaming of women in NAPs. The literature review ends with a study that is most similar to the one conducted here in that the author analyzed the references to women in NAPs, but differs as it lacks a global review of NAPs, and an attempt to understand why women are framed in different ways.

While it is widely agreed upon that women play a large role in environmental protection and adaptation, they rarely receive recognition within climate change policies (Koengkan et al., 2024). Singh et al. (2021) studied the framing of women in State Action Plans on Climate Change² in India through textual analysis and a gender recognition grading framework. Through their study, they identified three primary tracks that women fall into when referenced in State Action Plans: a) women as vulnerable and victims of climate change, b) women as caregivers, with a tendency to protect nature and engage in community activities, and c) women as active agents of change with key capacities to contribute to climate adaptation outcomes (Singh et al., 2021, p. 965). The framing of women as vulnerable and victims of climate change is criticized by Singh et al. for being the main representation of women in these State Action Plans, ignoring their potential to contribute to the fight against climate change. This criticism is echoed in Pearse's study on gender relations and climate change. Pearse argues that although women are particularly vulnerable to climate change,

² India's State Action Plans are the equivalent of National Adaptation Plans, but are specific to each of India's 28 states.

these vulnerabilities are not natural characteristics of women but rather the consequence of gender stereotyping and existing gender inequalities (Pearse, 2017). Through a study on how the discourses of gender and climate change are perpetuated and materialize through climate policy, Gay-Antaki (2020) adds to these arguments by highlighting the fact that although patriarchy is a leading reason for why women are homogeneously grouped as ‘vulnerable,’ there is danger in assuming it is the sole reason. Doing so would effectively erase blame from all other oppressive systems that women face such as racism, heteronormativity, colonialism, and social stigma. Gay-Antaki, Pearse, and Singh et al. would therefore agree that climate policy should integrate gender not just by adding women to predetermined agreements and frameworks, but also by creating new policies that address the multidimensional social disadvantages and vulnerabilities to climate change that women face and their historic exclusion from climate policy decisions.

Research from both Morgan et al. and Chingarande et al. explores the process of mainstreaming and including gender in NAPs. Morgan et al. (2019) assessed the alignment of each country's NAPs with the Paris Agreement by evaluating their adherence to Article 7. This article commits parties to global adaptation and states that “Parties acknowledge that adaptation action should follow a country-driven, gender-responsive, participatory and fully transparent approach...” (Morgan et al., para. 5). Through this analysis, they found that the countries that aligned their adaptation planning with the goals under the Paris Agreement have a more inclusive approach to adaptation in their NAPs, resulting in fewer trade-offs between environmental, social, economic, or gender equity goals. In Chingarande et al.’s (2020) paper on best practices for countries mainstreaming gender into NAPs, the authors highlight that all of the countries in their study have signed onto the Paris Agreement and agreed to its gender-equitable implementation (p. 6). Chingarande et al., (2020) through careful analyses of the planning process and creation of NAPs compared to how well they integrate gender, find that best practices for countries to mainstream gender into NAPs not only include committing to the Paris Agreement but also include 1) developing monitoring tools and guidelines, 2) promoting gender-focused climate change research for women, 3) creating platforms for sharing best practices in gender-responsive adaptation, and 4) collecting sex-disaggregated data on men’s and women’s contributions to National Adaptation Plans (NAPs) (p. 37).

In a study focused solely on the framing of women in NAPs, Wredström (2024) used textual analysis and a grading framework to analyze twelve NAPs from Sub-Saharan African countries. She assigned NAPs a grade (1-5) based on their level of gender consideration, with 1 indicating that gender was not included in the NAP, and 5 indicating that gender was included in the NAP “from objective down to action plan, with clear resources identified for implementation”. Out of the twelve NAPs that Wredström analyzed, eleven of them received either grade 2 or 3, showcasing very limited mentions of gender with no clear road map leading to any implementable adaptation policy, and one received a 4 indicating that gender is mentioned throughout the document with an implementation strategy, but with no mention of financial resources to achieve such goals (p. 34). The results of this

study show that gender considerations are not very well integrated into the NAPs from Sub-Saharan African countries, and that women are primarily framed as vulnerable, and are rarely acknowledged as being useful in the climate adaptation movement. Wredström (2024) also found no correlation between the number of times “woman” was used in the NAP and the grade that the NAP received. This highlights that referencing women does not necessarily cause women to be considered more comprehensively and equitably (p. 34).

The literature surrounding the framing of women in NAPs reveals significant gaps and opportunities for progress in integrating gender considerations into climate adaptation policies, specifically, NAPs. The studies reviewed highlight a critical disconnect between the recognition of women's roles and needs in climate resilience and the actual implementation of gender-responsive strategies within NAPs. While there is an emerging body of work that acknowledges women's vulnerability and potential as agents of change, the prevailing narrative often relegates them to passive victims of climate impacts.

The analysis underscores the necessity of a more nuanced approach that goes beyond merely recognizing women's experiences, to actively incorporating their insights and capabilities into adaptation frameworks. The findings of various studies indicate that while some countries have made strides in aligning their NAPs with global commitments such as the Paris Agreement, many still fail to operationalize gender equity in a meaningful way.

Through this literature review, there is a stark absence of discussion surrounding the factors that cause women to be included and recognized for their agency in NAPs. This review attempted to uncover literature on indicators of gender-sensitive and inclusive climate policy, analyses of whether the implementation of the Enhanced LWGP has had a positive, negative, or net neutral effect, and if partnerships with the United Nations or other organizations can shape a country's climate policy, but no such literature existed. These gaps in the scholarly debate have shaped the focus of this study, which seeks to identify country-level indicators that increase the likelihood of women being recognized for having the ability to contribute meaningfully to climate adaptation.

Methods

The research question at the heart of this paper is what factors cause countries to acknowledge women's agency in their National Adaptation Plans? The first hypothesis is that the longer after 2019 that countries created their NAPs, the more references to women's agency there will be. This hypothesis is theorized because of the shift surrounding gender and environmental policies in 2019. In 2019 at the 25th United Nations Framework Convention on Climate Change (COP25), the Enhanced Lima Work Program on Gender (LWPG) and its Gender Action Plan (GAP) were established under Decision 3/CP.25 (Report of the Conference of the Parties on its twenty-fifth session, held in Madrid from 2 to 15 December 2019, 2020). While the Enhanced LWPG and GAP

built on their predecessors, they created five new priority areas with clear objectives that aim to advance knowledge and understanding of gender-responsive climate action and its coherent mainstreaming in the work of the UNFCCC, Parties, the secretariat, and the United Nations (The Enhanced Lima Work Programme on Gender, n.d.). The five priority areas include

1. Increase capacity-building, knowledge management, and communication; integrate gender considerations into climate policy, and promote outreach, knowledge-sharing, and communication to advance women's leadership, gender equality, and effective climate action.
2. Gender balance, participation, and women's leadership; achieve and sustain the full, equal, and meaningful participation of women in the UNFCCC process.
3. Coherence: strengthen the integration of gender considerations within the work of UNFCCC constituted bodies, the secretariat, and other UN entities and stakeholders towards the consistent implementation of gender-related mandates and activities.
4. Gender-responsive implementation and means of implementation; ensure the respect, promotion, and consideration of gender equality and the empowerment of women in the implementation of the Convention and the Paris Agreement.
5. Monitoring and reporting; improve tracking of the implementation of and reporting on gender-related mandates under the Enhanced LWPG and its GAP.

While parties are not legally bound to follow and implement the guidance and goals of the Enhanced LWPG and the GAP, they have made formal commitments to do so. Therefore, the theory behind Hypothesis 1 is that parties that created their NAP before 2019 had not committed to gender inclusion in their climate policies, and those that created them after 2019 would have made the commitment to include gender considerations based on the agreed-upon Enhanced LWPG and GAP. Although the GAP does not specifically refer to adaptation, it refers more broadly to integrating gender considerations into "climate policy", and priority area "A" of the GAP specifically points to knowledge sharing and women's leadership.

The second hypothesis is that countries that received assistance from the United Nations Framework Convention on Climate Change (UNFCCC), United Nations Environmental Programme (UNEP), National Adaptation Plan Global Support Programme (NAP-GSP), National Adaptation Plan Global Network, or other organizations that assist in preparing, writing, or publishing NAPs will have more references to women's agency than those countries who created their NAP without outside assistance.

The theory for the second hypothesis was born from the idea that because organizations such as the UNFCCC and UNEP are more closely tied to the United Nations Sustainable

Development Goals³, the Enhanced LWPG and the GAP, and the numerous agreements that work towards gender equity, they are more likely to follow those guidelines, and will therefore influence the narrative and framing of women in NAPs when working with countries. Additionally, these outside organizations provide extra capacity for countries, enabling them to go beyond the basic requirements of creating gender-specific adaptation plans, by highlighting the pivotal role women play in leading climate action. Furthermore, these organizations can help emphasize the invaluable contribution of women's traditional knowledge in effective adaptation strategies.

Data Collection & Data Set Creation

As of October 20th, 2024, 59 parties had submitted NAPs to the UNFCCC, which are available for download from the UNFCCC website (National Adaptation Plans, n.d.). Out of the 59 NAPs, 42 are available in English. The 17 NAPs that are not available in English were eliminated from the study to eliminate language and translation-related barriers.

To analyze and test the hypotheses, a quantitative study was conducted in which an original dataset was built with country-level data assembled from multiple sources. The variables and their data collection processes for each are explained in depth below. After completing the dataset, textual analysis and coding were conducted with each NAP to determine how many total references to “women”, “woman”, “female”, and “girl”, and their plurals there were, as well as how many of these references acknowledge women's agency in climate adaptation. Lastly, linear regression models were run in RStudio, to show correlations between the two dependent variables (the number of references to women's agency, and the percentage of total references to women that reference their agency), and the independent variables.

The independent variable that most closely relates to the first hypothesis is how many years before, or after 2019 a NAP was created. This data was gathered by finding the date each NAP was published on the copyright page or elsewhere within the document. It is important to note that although NAPs are typically created for a set of years, the date they are published is often different. For example, Kenya's NAP is for 2015-2030, but was published in 2016 (Kenya National Adaptation Plan 2015-2030, 2016), and Bangladesh's NAP is for 2023-2050, but was published in 2022 (National Adaptation Plan of Bangladesh (2023-2050), 2022). As mentioned in the rationale for the first hypothesis, the Enhanced LWPG and its GAP were established at COP25 in November 2019 to increase the knowledge and understanding of gender-responsive climate action and its coherent mainstreaming in national and international climate plans, policies, reports, and frameworks. The creation and implementation of the LWPG and its GAP should affect how countries reference

³ United Nations Sustainable Development Goals (SDG) are 17 global objectives adopted by world leaders in 2015, embodying a sustainable roadmap for progress that leaves no one behind. The 17 goals highlight women's rights and empowerment, and SDG 5, Gender Equity works to “achieve gender equality and empower all women and girls.”

gender in their NAPs, and therefore the year each NAP was created and its closeness (before or after 2019) is coded as in Table 1, beginning in 2013 as that is the earliest year a NAP in the study was created.

Table 1

NAP Creation Year and the Coded Variable for “Years Before or After 2019”

Year NAP was Created	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Coded Variable	-6	-5	-4	-3	-2	-1	0	1	2	3	4

The “assistance” variable is most closely related to the second hypothesis and was determined by examining each NAP and noting any partnerships with entities outside the national government and committees of the country. As stated in the rationale for the hypothesis, partnerships and help from outside organizations, often the UNDP, UNEP, or NAP-GSP, are likely to influence the quality of content in the NAP and also push the agenda of gender equality. The partnerships with outside entities are listed on the NAP copyright page. Examples from South Sudan and Fiji are shown below in Figure 1. Once partnerships were identified, the “assistance” variable was coded as 0 if there were no partnerships, and 1 if there were partnerships in creating the NAP.

Figure 1

Examples of Partnership Pages in South Sudan and Fiji’s NAPs.

Adapted from Republic of Fiji National Adaptation Plan: A pathway towards climate resilience, by the Government of the Republic of Fiji, 2018, and First National Adaptation Plan for Climate Change, by the South Sudan Ministry of Environment and Forestry, 2021.



The data for the Gender Inequality Index (GII) was sourced from the United Nations Development Programme (United Nations, n.d.). The GII reflects gender-based disadvantages in three dimensions: reproductive health, empowerment, and labor market participation. It indicates the loss in potential human development due to gender inequality, with a scale from 0 (gender equality) to 1 (maximum disadvantage for one gender). This variable was included as it was theorized that countries' gender equality, or inequality, would likely influence the ways women are represented in NAPs. The GII was coded for the year the NAP was created, with the exception of NAPs created in 2023, as the GII data is only available until 2022 (in these cases the 2022 GII value was used)⁴.

The variable measuring how democratic a country is was sourced from the Electoral Democracy Index from the Varieties of Democracy database (V-Dem, n.d.). The scale is interval-based, ranging from 0 to 1 (0 being low electoral democracy, 1 being high electoral democracy). It is constructed by averaging two approaches: a weighted average of five indices—freedom of association, clean elections, freedom of expression, presence of elected officials, and suffrage—and a five-way multiplicative interaction among these indices (Coppedge et al., 2011) This variable was used because

⁴ Countries that created NAPs in 2023 that were coded with 2022 GII data: Bhutan, Canada, Mozambique, Pakistan, Papua New Guinea, Philippines, Serbia, Thailand, Trinidad and Tobago, and Zambia
 Countries with no GII data available: South Sudan, State of Palestine, Marshall Islands, Saint Vincent and the Grenadines, Kiribati, and Grenada

women often have more freedom in democratic countries, and therefore have more representation in decision-making spaces, and opportunities to be seen as leaders (Papada & Lindberg, 2022) The data was collected and coded for the year the NAP was created, to measure the political makeup and dynamic of each country when the NAP was created.⁵

The variable measuring the percentage of women aged 25+ who have at least completed lower secondary education (defined as grades 6-9), was sourced from the World Bank's World Development Indicators dataset (World Bank, n.d.). Education plays a large role in women's ability to adapt, migrate, and make decisions when faced with environmental threats, as it often determines their ability to read, write, generate income, advocate for themselves, and be independent. Studies have shown that girls' education can strengthen climate strategies in four ways: green leadership (female politicians are often more progressive than their male counterparts when it comes to making sustainable policies and environmental decisions for their countries), greater inclusivity (educating women promises a more inclusive approach to finding solutions to climate change), gender equality (education fosters greater gender equality within families, politics, and society, and countries with higher levels of gender equality have higher levels of environmental wellbeing), and growing resilience (studies have shown an increase in girls education leads to an increase in that countries resilience to climate change) (*Can educating girls fight climate change?*, 2022).

The data for the percentage of women aged 25+ who have at least completed lower secondary education is not available for every country, nor is it available for every year. As a result, the value from the year closest to the creation of the NAP was used⁶.

Data for the gross domestic product (GDP) per capita adjusted for purchasing power parity (PPP) and for the current international dollar variable came from World Bank Open Data (*World bank open data*, n.d.). This version of GDP data was used as it accounts for the differences in the cost of living between countries, standardizes currency values, and better captures the economic realities of countries with different structures. With GDP per capita PPP adjusted for the current international dollar, one can assess what people can actually afford to purchase with their income, confidently compare GDP across countries by eliminating distortions caused by exchange rate fluctuations, and make inferences about citizens' standard of living. Similar to the Electoral Democracy Index, the GDP data was collected and coded for the year the NAP was published⁷.

The data for "region," was gathered from the UNFCCC NAP submission website, which categorized each country as either: Africa, Asia-Pacific, Eastern Europe, Latin America and the

⁵ There is no "Electoral Democracy Index" data for Tonga, Saint Lucia, Marshall Islands, Saint Vincent and the Grenadines, Kiribati, or Grenada.

⁶ Spreadsheet with year of NAP creation vs. year of educational attainment data used Educational Attainment Data - Capstone. Additionally, there is no data on Educational Attainment, at Least Completed Lower Secondary, Population 25+, Female (%) for Argentina.

⁷ There is no available GDP Per Capita PPP (current international \$) data for Bhutan or South Sudan.

Caribbean, or Western European and Other States (*National Adaptation Plans*, n.d.). This variable helps provide important geographic information that correlates with the types and severity of climate change risks that a country faces, as well as their natural resource abundance, and cultural norms.

Textual Analysis and Coding

This study has two dependent variables (DVs). The first is how many times each NAP references women's agency in adapting to climate change, and the second is what percentage of the total references to the female gender are references to women's agency. These two dependent variables, while both measuring agency, do so in very different ways. The first DV simply measures the linear number of references to women's agency, while the second DV does so in a way that attempts to equalize the differences across NAPs. The second DV, being a percentage, allows for a more accurate comparison between NAPs as some might reference women 20 times, and reference their agency 4 times, or 20% of the time, while some NAPs might reference women 163 times, and reference their agency 4 times or 2.4% of the time.

To code the first dependent variable, the words "woman," "women," "female," and "girl" and their plurals were identified through a keyword search. Each instance of the words was read and analyzed in its context to assess if it framed women as having agency in the fight against climate change. The following are examples of references to "women" and how they were analyzed and coded:

"With respect to climate change, women are more seriously affected than men: they are more vulnerable to climate change because of their greater dependence on climate-related resources (due to their responsibility to provide or produce water and food)" (National Adaptation Plan to Climate Change (2022-2026), 2021, pp. 15-16).

This reference to "women" from the Democratic Republic of the Congo's NAP would NOT meet the criteria for referencing women's agency. In contrast, the following excerpt from Argentina's NAP reflects a clear acknowledgment of women's historical role in the preservation of natural resources, highlighting their agency:

"The historical role of Indigenous Peoples, particularly women, in the care, preservation, and rational use of common goods must be acknowledged. Hence, it is crucial to promote mechanisms for the participation of women and LGBTQ+ people in [environmental] decision-making processes" (National Adaptation Plan, 2022, p. 161).

The bolded reference to "women" was coded as one count of "women, woman, female, girls" being recognized as having agency and ability to contribute to climate change adaptation.

The second dependent variable was found by summing the total references to “woman,” “women,” “female,” and “girl” and all their plurals found during the keyword search, and dividing it by the first dependent variable, or the number of times women’s agency was referenced.

Table 2 provides an overview of the descriptive statistics for the dependent variables and the numerical independent variables in the dataset. This table shows the variation and composition in the data, which was calculated using RStudio.

Table 2
Descriptive Statistics for the Dependent Variables and the Numeric Independent Variables

Dependent & Numeric Independent Variables	Mean	Median	Standard Deviation	Min	Max
DV 1: Number of References to Women’s Agency	1.85	1	2.3	0	8
DV 2: Percentage of References to Women’s Agency Out of Total References to Women in NAPs	0.047	0.021	0.065	0	0.316
Difference from 2019	0.97	2	2.8	-6	4
Assistance	0.76	1	0.43	0	1
Gender Inequality Index	0.38	0.4	0.17	0.06	0.67
Electoral Democracy Index	0.5	0.52	0.21	0.13	0.89
Female Education	50.32	49.71	27	3.7	98.98
Total Number of References to “Women”, “Woman”, “Female”, and “Girl” and their plurals	37.09	20	40.11	0	163
GDP Per Capita PPP	13549.38	7923.055	14,356.13	1358.2	61,582.35

Table 3

Descriptive Statistics for the Region, the Categorical Independent Variable

Region	Africa	Asia Pacific	Eastern Europe	Latin America & Caribbean	Western European & Other States	
Number of NAPs per Region	13	16	4	7	2	

From this visualization in Table 2, one can see that the total number of references to the female gender in NAPs ranges from 0-163, with a comparatively low mean of 37.09, and a large standard deviation of 40.11, meaning that the total number of references to the female gender varies largely among NAPs. In contrast, the number of references to women’s agency in NAPs is low overall (0-8), with a mean of 1.85, which indicates that while NAPs might mention the female gender frequently, that does not necessarily mean there will be more references to women’s agency. Table 3 shows the descriptive statistics for the only categorical independent variable, region. Table 3 highlights that the majority of NAPs came from Africa or the Asia Pacific regions, two areas of the world particularly vulnerable to climate change.

Results and Discussion

The regression results for the first dependent variable, the number of references to women’s agency in NAPs, are presented in Table 4 and are analyzed below for the two hypotheses. The first hypothesis, the number of years before or after 2019 (when the Enhanced LWPG and its GAP were implemented) that a NAP was created, is proven to have no effect on the number of references to women’s agency in NAPs. The absence of statistical significance can be seen in Table 4, Models 1, 3, 4, 5, and 6. This result goes against what was hypothesized and is further explained in the discussion section.

Table 4

**Ordinary Least Squares Estimates with Standard Errors for DV #1, the
Number of References to Women's Agency in NAPs**

	<i>Dependent variable:</i>					
	Number of References to Women's Agency in NAPs					
	(1)	(2)	(3)	(4)	(5)	(6)
Years Before/After 2019	0.120 (0.128)		0.158 (0.125)	0.125 (0.134)	0.091 (0.137)	0.057 (0.133)
Assistance		1.519* (0.809)	1.669** (0.812)	1.297 (0.867)	1.345 (0.879)	0.947 (1.014)
Gender Inequality Index				4.111* (2.303)	5.665** (2.610)	1.391 (4.870)
Electoral Democracy Index					3.053 (2.220)	2.967 (2.993)
Female Educational Attainment						0.019 (0.024)
Total References to Women						0.028** (0.012)
GDP Per Capita PPP						-0.00002 (0.0001)
Asia Pacific						-0.359 (1.073)
Eastern Europe						-1.972 (1.791)
Latin America and the Caribbean						-2.485 (1.840)
Western European and Other States						-1.768 (3.398)
Constant	1.740*** (0.377)	0.700 (0.706)	0.432 (0.732)	-0.867 (1.078)	-2.983 (1.922)	-1.974 (3.236)
Observations	42	42	42	36	34	32
R ²	0.022	0.081	0.117	0.183	0.240	0.485
Adjusted R ²	-0.003	0.058	0.072	0.106	0.135	0.202
Residual Std. Error	2.305 (df = 40)	2.234 (df = 40)	2.217 (df = 39)	2.258 (df = 32)	2.264 (df = 29)	1.991 (df = 20)
F Statistic	0.880 (df = 1; 40)	3.522* (df = 1; 40)	2.587* (df = 2; 39)	2.389* (df = 3; 32)	2.290* (df = 4; 29)	1.712 (df = 11; 20)

Note:

*p<0.1; **p<0.05; ***p<0.01

In line with what was hypothesized, the results for the second hypothesis in Table 4⁸ suggest that there is a relationship between a country receiving assistance and the number of references to women's agency, but the results are not robust. In Table 4, Model 2, if a country received assistance, it is associated with a 1.519 unit increase in references to women's agency in NAPs at the 0.1 significance level. The "assistance" variable continues to be statistically significant in Table 4, Model 3 when controlling for the years before or after 2019 that a NAP was created and is associated with a 1.669 unit increase at the 0.05 significance level. However, the statistical significance of the

⁸ In Table 4 the GII is associated with an increase in the number of references to women's agency in NAPs, which suggests that if a country is more gender unequal according to the GII, there will be more references to women's agency. This finding contradicts what was theorized. Additionally, in Table 4, the variable measuring the total number of references to the female gender is associated with a small increase in references to women's agency in NAPs. This finding supported what was hypothesized—the more references there are to women, the more opportunities there are to highlight women's agency.

“assistance” variable disappears when controlling for more variables in Table 4, Models 4-6. These results are discussed in depth in the discussion section.

The regression results presented in Table 5⁹ are for the second dependent variable: the percentage of references to women’s agency out of the total references to women in NAPs. Similar to the results in Table 4, the first hypothesis—the number of years before or after 2019 that a country created its NAP has no effect on the percentage of references to women’s agency out of the total references to women in NAPs.

Table 5

Ordinary Least Squares Estimates with Standard Errors for DV #2, the Percentage of References to Women’s Agency Out of the Total References to Women in NAPs

	<i>Dependent variable:</i>					
	Percentage of References to Women’s Agency Out of Total References to Women in NAPs					
	(1)	(2)	(3)	(4)	(5)	(6)
Years Before/After 2019	0.004 (0.004)		0.005 (0.003)	0.005 (0.004)	0.005 (0.004)	0.007 (0.004)
Assistance		0.048** (0.023)	0.053** (0.022)	0.051** (0.025)	0.052* (0.025)	0.049 (0.032)
Gender Inequality Index				0.095 (0.065)	0.135* (0.075)	0.103 (0.154)
Electoral Democracy Index					0.074 (0.064)	0.061 (0.096)
Female Educational Attainment						0.002* (0.001)
GDP Per Capita PPP						-0.00000 (0.00000)
Asia Pacific						-0.039 (0.033)
Eastern Europe						-0.107* (0.057)
Latin America and the Caribbean						-0.097 (0.059)
Western European and Other States						-0.082 (0.107)
Constant	0.042** (0.011)	0.010 (0.020)	0.001 (0.020)	-0.030 (0.031)	-0.083 (0.055)	-0.085 (0.103)
Observations	42	42	42	36	34	32
R ²	0.034	0.100	0.153	0.222	0.263	0.467
Adjusted R ²	0.009	0.077	0.110	0.149	0.162	0.213
Residual Std. Error	0.065 (df = 40)	0.062 (df = 40)	0.061 (df = 39)	0.064 (df = 32)	0.065 (df = 29)	0.064 (df = 21)
F Statistic	1.389 (df = 1; 40)	4.433** (df = 1; 40)	3.535** (df = 2; 39)	3.050** (df = 3; 32)	2.593* (df = 4; 29)	1.840 (df = 10; 21)

Note: *p<0.1; **p<0.05; ***p<0.01

However, the second hypothesis, the assistance variable, is statistically significant in Table 5, Models 2, 3, 4, and 5. In Table 5, Model 2, if a country received assistance it is associated with a 0.048

⁹ In Table 5 the GII is associated with an increase in the number of references to women’s agency in NAPs, which suggests that if a country is more gender unequal according to the GII, there will be more references to women’s agency. This finding contradicts what was theorized. Additionally, in Table 5, the variable measuring female educational attainment is associated with a small increase in references to women’s agency in NAPs. This finding aligns with the literature on the correlation between women’s education and climate action. Lastly, Table 5 indicates that if a NAP was from Eastern Europe rather than Africa, it is associated with a decrease in the references to women’s agency in NAPs. This finding is likely due to the limited number of NAPs from the Eastern European region, and therefore requires further research.

unit increase in the percent point of women's agency at the 0.05 significance level. In Table 5, Model 3, if a country received assistance it is associated with a 0.053 increase in the percent point of references to women's agency at the 0.05 significance level when controlling for years before/after 2019 when a NAP was created; in Table 5, Model 4 if a country received assistance it is associated with a 0.051 increase in the percent point of references to women's agency at the 0.05 significance level when controlling for years before/after 2019 when a NAP was created, and the GII. In Table 5, Model 5, if a country received assistance, it is associated with a 0.052 increase in the percentage of references to women's agency at the 0.1 significance level when controlling for years before/after 2019 when a NAP was created, the GII, and the Electoral Democracy Index. These results are discussed in depth below.

In both Tables 4 and 5, the first hypothesis—the number of years before or after 2019 that a NAP was created, is proven to have no relationship with the number, or percentage, of references to women's agency in NAPs. This means the creation, agreement, and implementation of the Enhanced LWPG and its GAP did not have the theorized effect on countries' NAPs. This may be in part because the Enhanced LWPG and GAP are not legally binding, allowing countries to forgo their commitments to the text, without legal repercussions and little normative pressure. Additionally, because creating an NAP can be a multi-year project, some of the studied NAPs might have already been drafted when the Enhanced LWPG and GAP were created, and therefore the year an NAP was published might not accurately reflect the time the NAP was written. This uncertainty in the timeline could explain why the Enhanced LWPG and GAP do not have the theorized effect on NAPs. While these results mean that the Enhanced LWPG and GAP have been insufficient in promoting women's agency in NAPs thus far, further research is needed to determine if they have affected other types of climate policies, such as Nationally Determined Contributions, or sector-specific plans such as National Water Strategies. Additionally, to confidently rule out any correlation between the references to women's agency and Enhanced LWPG and GAP, further studies should consider the years when each NAP was in the drafting or creation process to accurately reflect its timeline with the Enhanced LWPG and GAP.

The results for the second hypothesis, whether or not a country received assistance, have a suggestive relationship in Tables 4 and 5, but the results are not robust. This means that countries that received assistance in writing or creating their NAPs have a positive relationship with the number of references to women's agency or have a larger percentage of references to women's agency, but the relationship is not consistently significant across all models. The results for assistance demonstrate that the involvement of international organizations such as the UNDP or NAP-GSP in helping a country prepare, draft, and publish its NAP can be effective in advocating for greater recognition of women's adaptive abilities in NAPs. There is also variation between the two dependent variables and the level of significance for the assistance variable. In Table 4 “assistance” is significant when it is the only variable being tested, or when the years before or after 2019 that a NAP was created is held constant. In Table 5, “assistance” is significant when tested alone, as well as

when controlling for the years before or after 2019, the GII, and the Electoral Democracy Index. This difference in results between the two dependent variables shows that if a country received assistance, it will not necessarily reference women's agency more, but it will reference their agency more in relation to how many times women are referenced in total. This is important because if an individual reads a NAP and the majority of the references to women are about their adaptive capabilities, the reader will have a different perception of women's ability to contribute to climate adaptation than if the NAP referenced women 100 times but only referenced their agency once.

Lastly, future research should measure the assistance variable not only based on whether a country received assistance or not, but also on how much assistance and in what form each country received the assistance. For example, Argentina received assistance in the form of monetary support from the UNDP and the Green Climate Fund (*National Adaptation Plan*, 2022), while Ethiopia received assistance in writing its NAP from the United States Agency for International Development (USAID), the International Institute for Sustainable Development (IISD), and the NAP Global Network (*Ethiopia's Climate Resilient Green Economy National Adaptation Plan*, 2019). The different levels of engagement from organizations assisting in countries' NAPs could lessen, or increase, their ability to impact the actual content of a NAP. Therefore, future research should differentiate between the different levels of assistance that countries received to more precisely measure the influence that these outside organizations can have on how women are portrayed in NAPs.

One limitation of this study is that the results were calculated with a very small sample size, which may have prevented the regression analysis from detecting some of the relationships that exist in the real world. Additionally, the missing data for certain countries and independent variables affects the sample size, as shown in the observations row of Tables 4 and 5. For instance, adding the Electoral Democracy Index variable in Model 4 of both tables decreases the sample size from 42 to 36. This is because 6 of the studied NAPs do not have Electoral Democracy Index data, and therefore they are dropped from the analysis. When adding all of the controls, the sample size further shrinks to 32, exacerbating the difficulty in accurately identifying true relationships between variables due to increased random variability, which can potentially cause misleading conclusions. To combat the small sample size, future research on NAPs should include a diverse team of researchers who are able to read and analyze NAPs in French, Spanish, and Portuguese, therefore eliminating the need to remove the 17 NAPs not available in English from the study. This would significantly increase the sample size and provide more comprehensive results.

Conclusion

As climate change continues to disproportionately impact women, it is critical to prioritize their voices and contributions to the conversations, plans, and programs on climate adaptation. This

study explored the relationship between the Enhanced LWPG and its GAP, and whether a country received support in developing its NAP, to understand why some countries highlight women's agency in climate adaptation in their NAPs while others do not. The findings reveal that countries creating their NAPs post-2019, following the introduction of the Enhanced LWPG and GAP, did not exhibit the expected increase in references to women's roles as agents of change. However, a positive relationship emerged between countries that received assistance in developing their NAPs and an increase in mentions of women's agency in NAPs. These results suggest that organizations like the UNDP and the NAP Global Network can play a role in shaping the language of climate adaptation plans, advancing gender equality goals, and ensuring that women's contributions and agency are recognized and integrated into NAPs.

References

- Ali, G., Basu, N., Chief, K., Feng, X., Muenich, R., Thompson, S., & Wescoat, J. L. (2023). A commentary on women's contributions in hydrology. *Journal of Hydrology*, 624, 129884. <https://doi.org/10.1016/j.jhydrol.2023.129884>
- Bartlett, S. (2008). Climate change and urban children: Impacts and implications for adaptation in low- and middle-income countries. *Environment and Urbanization*, 20(2), 501–519. <https://doi.org/10.1177/0956247808096125>
- Beijing +5–Women 2000: Gender equality, development and peace for the 21st century twenty-third special session of the general assembly, 5-9 june 2000. (2000, May). <https://www.un.org/womenwatch/daw/followup/session/presskit/fs1.htm>
- Can educating girls fight climate change? | WONDER Foundation. (2022, April 12). <https://wonderfoundation.org.uk/how-educating-women-and-girls-could-help-fight-climate-change/>
- Chingarande, D., Huyer, S., Lanzarini, S., Makokha, J. N., Masiko, W., Mungai, C., Njuki, J., Adera, E. O., Omolo, N., Wamukoya, G., & Waroga, V. (2020). Mainstreaming gender into National Adaptation Planning and implementation in Sub-Saharan Africa. CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS). <https://hdl.handle.net/10568/110699>
- Climate change ‘biggest threat modern humans have ever faced’, world-renowned naturalist tells security council, calls for greater global cooperation | meetings coverage and press releases. (n.d.). <https://press.un.org/en/2021/sc14445.doc.htm>
- Coppedge, M., Gerrig, J., Knutsen, C. H., Lindberg, S. I., Teorell, J., Altman, D., Bernhard, M., Cornell, A., Fish, M. S., Gastaldi, L., Gjerløw, H., Glynn, A., Hicken, A., Lührmann, A., Maerz, S. F., Marquardt, K. L., McMann, K., Mechkova, V., Paxton, P., Pemstein, D., von Römer, J., Seim, B., Sigman, R., Skaaning, S.-E., Staton, J., Sundström, A., Tzelgov, E., Uberti, L., Wang, Y.-t., Wig, T., & Ziblatt, D. (2021). V-Dem Codebook v11.1 [Data set]. Varieties of Democracy (V-Dem) Project. <https://www.v-dem.net/static/website/img/refs/codebookv11.pdf>
- Decision 5/CP.17 National adaptation plans (FCCC/CP/2011/9/Add.1). (2011). UNFCCC. https://unfccc.int/files/adaptation/cancun_adaptation_framework/national_adaptation_plans/application/pdf/decision_5_cp_17.pdf
- Ethiopia's Climate Resilient Green Economy National Adaptation Plan. (2019). Ethiopia's Environment, Forest and Climate Change Commission. https://unfccc.int/sites/default/files/resource/NAP_Ethiopia_2019.pdf
- Explainer: How gender inequality and climate change are interconnected. (2022, February 28). UN Women. <https://www.unwomen.org/en/news-stories/explainer/2022/02/explainer-how-gender-inequality-and-climate-change-are-interconnected>
- First National Adaptation Plan for Climate Change. (2021). Republic of South Sudan. <https://unfccc.int/sites/default/files/resource/South-Sudan-First-NAP%20.pdf>
- Five Reasons Why Climate Action Needs Women. (2023, March 8). <https://unfccc.int/news/five-reasons-why-climate-action-needs-women>
- Gay-Antaki, M. (2020). Feminist geographies of climate change: Negotiating gender at climate talks. *Geoforum*, 115, 1–10. <https://doi.org/10.1016/j.geoforum.2020.06.012>
- Hammill, A., Dekens, J., & Dazé, A. (2020). The National Adaptation Plan (NAP) Process. NAP Global Network. <https://napglobalnetwork.org/wp-content/uploads/2020/08/napgn-en-2020-NAP-Process-FAQs.pdf>
- Hemmati, M., & Röhr, U. (2009). Engendering the climate-change negotiations: Experiences, challenges, and steps forward. *Gender & Development*, 17(1), 19–32. <https://doi.org/10.1080/13552070802696870>
- Kenya National Adaptation Plan 2015-2030. (2016). Government of Kenya. https://unfccc.int/sites/default/files/resource/NAP_Kenya_2017.pdf
- Koengkan, M., Fuinhas, J. A., Auza, A., Castilho, D., & Kaymaz, V. (2024). Environmental governance and gender inclusivity: Analyzing the interplay of pm2. 5 and women's representation in political leadership in the european union. *Sustainability*, 16(6), 2492. <https://doi.org/10.3390/sui6062492>

- Lama, P., & Wester, M. (2019). Women as agents of change? Reflections on Women in climate adaptation and mitigation in the Global North and South. In C. Kinnvall & H. Rydström (Eds.), *Climate Hazards, Disasters, and Gender Ramifications*. Routledge.
- LDC Expert Group. (2012). National Adaptation Plans: Technical guidelines for the national adaptation plan process. https://unfccc.int/sites/default/files/resource/NAP_technical_guidelines_EN.pdf
- McLanahan, S. S., & Carlson, M. J. (2001). Feminization of poverty. ScienceDirect. <https://www.sciencedirect.com/topics/psychology/feminization-of-poverty>
- Morgan, E. A., Nalau, J., & Mackey, B. (2019). Assessing the alignment of national-level adaptation plans to the Paris Agreement. *Environmental Science & Policy*, 93, 208–220. <https://doi.org/10.1016/j.envsci.2018.10.012>
- National Adaptation Plan. (2022). Ministry for the Environment and Sustainable Development of the Argentine Republic. <https://unfccc.int/sites/default/files/resource/NAP-Argentina-2023-EN.pdf>
- National Adaptation Plan of Bangladesh (2023-2050). (2022). Ministry of Environment, Forest and Climate Change, Government of the People's Republic of Bangladesh. <https://unfccc.int/sites/default/files/resource/NAP-Bangladesh-2023.pdf>
- National Adaptation Plan to Climate Change (2022-2026). (2021). Deputy Prime Minister's Office, Ministry of the Environment and Sustainable Development, Democratic Republic of Congo. https://unfccc.int/sites/default/files/resource/DRC-NAP_EN.pdf
- National Adaptation Plans. (n.d.). UNFCCC. Retrieved October 27, 2024, from <https://unfccc.int/topics/adaptation-and-resilience/workstreams/national-adaptation-plans>
- Norgaard, K., & York, R. (2005). Gender equality and state environmentalism. *Gender & Society*, 19(4), 506–522. <https://doi.org/10.1177/0891243204273612>
- Panda, G. R., Shrivastava, S., & Kapoor, A. (2014). Climate change and gender: Study of adaptation expenditure in select states of india. In W. Leal Filho (Ed.), *Handbook of Climate Change Adaptation* (pp. 1–17). Springer Berlin Heidelberg. https://doi.org/10.1007/978-3-642-40455-9_127-1
- Papada, E., & Lindberg, S. I. (2022). Does Democracy Promote Gender Equality? V-Dem Institute. https://www.v-dem.net/media/publications/pb_37_aAwHJrz.pdf
- Pearse, R. (2017). Gender and climate change. *WIREs Climate Change*, 8(2), e451. <https://doi.org/10.1002/wcc.451>
- Report of the Conference of the Parties on its twenty-fifth session, held in Madrid from 2 to 15 December 2019 (FCCC/CP/2019/13/Add.1). (2020). UNFCCC. https://unfccc.int/sites/default/files/resource/cp2019_13a01E.pdf
- Republic of Fiji National Adaptation Plan: A pathway towards climate resilience. (2018). Government of the Republic of Fiji. https://unfccc.int/sites/default/files/resource/NAP_Fiji_2018.pdf
- Schmidt, I., Juani, A., & Alam, M. (2024, April). Transforming water security through women's leadership. FP Analytics. <https://fpanalytics.foreignpolicy.com/2024/04/10/women-water-security/>
- Shabib, D., & Khan, S. (2014). Gender-sensitive adaptation policy-making in Bangladesh: Status and ways forward for improved mainstreaming. *Climate and Development*, 6(4), 329–335. <https://doi.org/10.1080/17565529.2014.951017>
- Singh, C., Solomon, D., & Rao, N. (2021). How does climate change adaptation policy in India consider gender? An analysis of 28 state action plans. *Climate Policy*, 21(7), 958–975. <https://doi.org/10.1080/14693062.2021.1953434>
- The Enhanced Lima Work Programme on Gender. (n.d.). UNFCCC. Retrieved November 8, 2024, from <https://unfccc.int/topics/gender/workstreams/the-enhanced-lima-work-programme-on-gender#Priority-Area-E-Monitoring-and-reporting>
- United Nations. (n.d.). Gender Inequality Index. UNDP. Retrieved October 27, 2024, from <https://hdr.undp.org/data-center/thematic-composite-indices/gender-inequality-index>
- United Nations Department of Economic and Social Affairs. (2004). A Gender Perspective on Water Resources and Sanitation. https://www.un.org/esa/sustdev/csd/csd13/documents/bgground_2.pdf
- US EPA. (2022, October 19). Climate change impacts on agriculture and food supply. <https://www.epa.gov/climateimpacts/climate-change-impacts-agriculture-and-food-supply4>

- V-Dem. (n.d.). GDP_data - Google Sheets. Retrieved November 4, 2024, from https://docs.google.com/spreadsheets/d/1b2eeLFidinrj61kIoV1jWNKPz_YXg9rqeSGiF8XURg/edit?gid=851610459#gid=851610459
- WHO calls for urgent action to protect health from climate change – Sign the call. (2015, October 6). <https://www.who.int/news/item/06-10-2015-who-calls-for-urgent-action-to-protect-health-from-climate-change-sign-the-call>
- Winters, J., & Schueman, L. J. (2024, June 5). Why women are key to solving the climate crisis. One Earth. <https://www.oneearth.org/why-women-are-key-to-solving-the-climate-crisis/>
- Women and water: A global crisis. (n.d.). Water.Org. Retrieved November 10, 2024, from <https://water.org/our-impact/water-crisis/womens-crisis/>
- Women leading on climate. (n.d.). Women Leading on Climate. Retrieved December 10, 2024, from <https://www.womenleadingonclimate.org>
- World Bank. (n.d.). Educational attainment, at least completed lower secondary, population 25+, female (%) (cumulative). Retrieved October 27, 2024, from <https://data.worldbank.org/indicator/SE.SEC.CUATLO.FE.ZS>
- World bank open data. (n.d.). World Bank Open Data. Retrieved October 27, 2024, from <https://data.worldbank.org>
- Wredström, E. (2024). How do climate change adaptation plans consider gender? : An analysis of National Adaptation Plans in Sub- Saharan Africa. <https://urn.kb.se/resolve?urn=urn:nbn:se:lnu:diva-127214>