



Women's resilience and participation in climate governance in the agri-food sector: A strategic review of public policies.

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Overview

The primary objective of this working paper is to examine the extent to which women's full and effective participation in climate change policies at different scales; defined at the level at which a policy is implemented, including macro, meso and micro; improves women's resilience to climate change and environmental hazards based a review of the literature. Given that women are vulnerable to climate change in unique ways and make important contributions to increase the climate resilience of the agri-food sector, it is imperative for governments to design and enact policies to alleviate gendered constraints and build women's resilience capacities in line with the Sustainable Development Goals (SDG). The SDGs provide a goalpost for strengthening women's voice and agency in climate resilience. In particular, SDG 5.5 which "seeks to ensure women's full and effective participation and equal opportunities, defined as meaningful involvement and exertion of influence, for leadership at all levels of decision-making in political, economic and public life." Improving women's full, effective, and meaningful participation in the policy process is a critical pre-condition to increasing women's resilience to climate change and disaster risk. As such, one of the central conclusions of the 65th Commission on the Status of Women (CSW65) reaffirmed the need for government policies to champion women's full and effective participation and leadership in climate change governance. The review emphasizes government policies that promote women's agency and voices in climate change resilience at multiple scales; national frameworks for integrating gender in climate policy, and women's resilience capacities in the agri-food sector. Importantly, and when data allows, the review also details how and under what conditions these policies succeed in enabling women to acquire voice and agency in climate change resilience through specific well-being outcomes.

Key words: Public policy, governance, agency, voice, participation, leadership, women's empowerment, gender, climate change, resilience, agri-food systems, Global South.

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List of acronyms

AFS: Agri-Food Systems

CGIAR: Consultative Group on International Agricultural Research

COP: Conference of Parties

CSW: Commission on the Status of Women

FAO: Food and Agricultural Organization of the United Nations

FACJ: Feminist Action for Climate Justice

GCCAP: Gender and Climate Change Adaptation Plans

IPCC: Intergovernmental Panel on Climate Change

LAPA: Local Adaptation Plans of Action

NABARD: National Bank for Agriculture and Rural Development

NAP: National Adaptation Plans

NAPA: National Adaptation Programme of Action

NAPCC: National Action Plan on Climate Change

NDC: National Determined Contributions

NDP: National Development Plans

REDD: Reducing Emissions from Deforestation and forest Degradation

SAPCC: State Action Plans on Climate Change

SDG: Sustainable Development Goals

SSA: Sub-Saharan Africa

UNFCCC: United Nations Framework Convention on Climate Change

WEDO: Women's Environment & Development Organization

1 Introduction

The adverse impacts of the climate change emergency are global, yet unequal. Climate change has differential effects across geography, sectors, and people based on their social identities, including gender (Schipper et al., 2022). Climate change impacts are particularly devastating to agri-food systems (AFS) in the Global South, partly because food production remains rain-dependent (Food and Agriculture Organization of the United Nations [FAO], 2019; Intergovernmental Panel on Climate Change [IPCC], 2014, 2021). AFS comprises a multitude of sectors (e.g., crops, livestock, forestry, aquaculture, fisheries) and economic activities that altogether contribute to the production, processing, and distribution of food and food products for consumption along the agri-food value chains (Campanhola & Pandey, 2019; Degieter et al., 2022). Despite the general vulnerability of the Global South and AFS to climate change, women in some regions are particularly vulnerable to the negative impacts of climate change, given a combination of higher exposure to climate hazards, high levels of gender inequality, and higher dependence on natural resource-based livelihoods (Doss, 2017; Koo et al., 2022; Louis & Mathew, 2020).

Structural and systemic gender inequalities and norms continue to marginalize women and limit their active involvement and decision-making in the AFS, especially in the Global South (Adzawla et al., 2019; Lawson et al., 2020). Also, women's climate resilience is hindered by a lack of access to productive resources; less access to services like climate information, extension, and finance; and lower human and social capital leading to lower adoption of climate-related technologies and practices that women prefer and benefit from (Bryan et al., 2017, 2023; Kristjanson et al., 2017; Onwutuebe, 2019; Theis et al., 2019; Yadav & Lal, 2018). Moreover, patriarchal norms limit women's ability to respond effectively to climate change or exercise agency in the selection of climate change responses that they prefer (Nyantakyi-Frimpong, 2019). That notwithstanding, women are not partial victims of climate change and societal norms, therefore, they should not constantly be victimized (Cornwall & Rivas, 2015; Daze & Hunter, 2022). Women have unique preferences, experiences and skills that are valuable for climate change adaptation, mitigation and resilience (Alam & Rahman, 2018; Daze & Hunter, 2022; Doss, 2017; Harper et al., 2013; Najjar, 2015). Thus, public policy actions are warranted to support women in alleviating the structural gender norms and improving their resilience in the AFS.

Public policies are crucial for strengthening women's resilience to climate change and promoting their leadership in climate change governance (Kironde et al., 2021; Rai et al., 2021; Singh et al., 2021). This is because public policies shape the socio-economic and political environment for the distribution of resources and participation in decision-making. As such, it is imperative for government policies and interventions to go beyond targeting women to ensure that they benefit from climate resilience initiatives and have opportunities for empowerment (Johnson et al., 2018). Well designed and implemented, policies should simultaneously address the underlying structural gender-related inequalities including harmful norms that negatively affects women's adaptive and resilience capacities and address the negative impacts of climate change across AFS by building resilience capacities and maximizing well-being outcomes including food security, nutrition, environmental security, and women's empowerment and gender equality, see Figure 1 (Eastin, 2018; Huyer & Partey, 2020).

Figure 1 presents a conceptual framework that illustrates how equitable public and private sector approaches developed in response to climate shocks, long-term stressors and natural disasters, as well as characteristics of the enabling environment, can influence resilience capacities at multiple scales including the individual, household, community, organizational (or meso), and national or regional levels. Equitable approaches focus on increasing opportunities for women's empowerment and leadership in climate change and disaster risk governance and in the design, implementation and monitoring of programs. Public policies and programs that boost women's resilience capacities, such as increasing their access to resources and services, and expanding economic opportunities, can lead to more effective climate responses and ultimately improve well-being outcomes for women, their families, and the environment. Well-being outcomes have implications for future resilience capacities and responses to future climate shocks and stressors. Thus, these pathways of change demonstrate potential avenues for accelerating women's resilience to climate change over time. However, the framework also acknowledges potential tradeoffs across well-being outcomes as well as over time. For example, increasing women's agency over natural resource decisions may not always improve environmental outcomes (Doss et al. 2018).

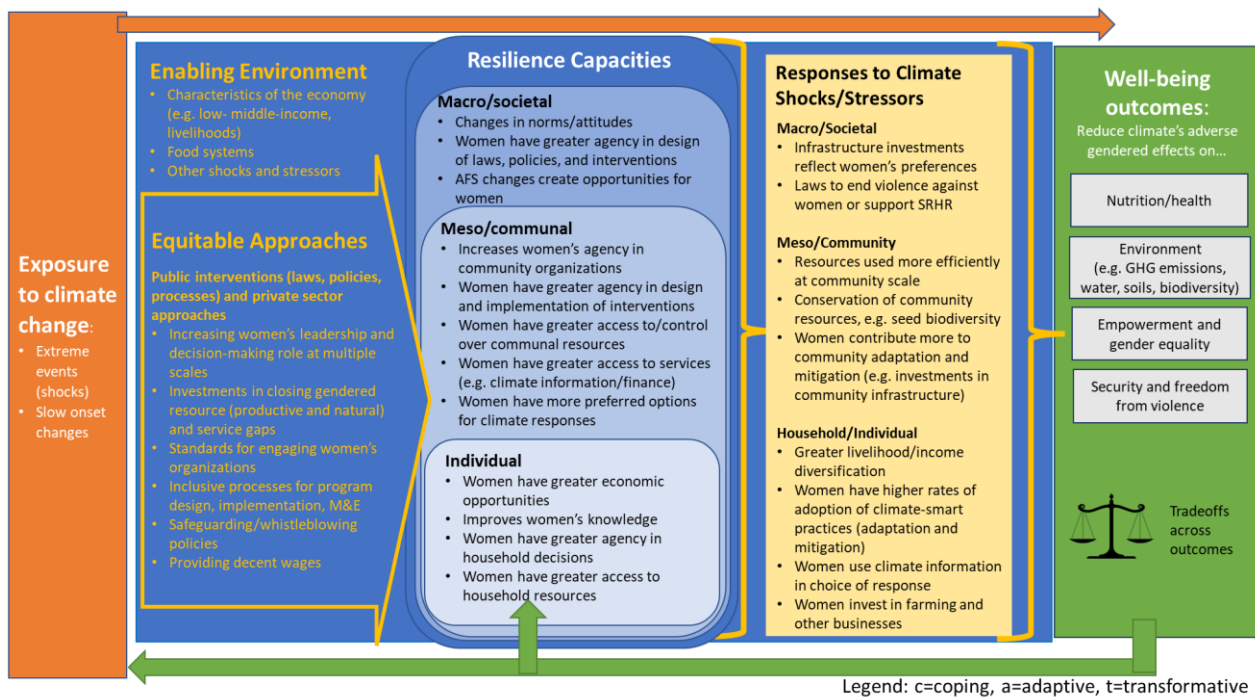


Figure 1: Conceptual framework of gender inclusive policies and interventions for climate change resilience

Several studies (see Hathaway, 2020; Lawson et al., 2020; Nyantakyi-Frimpong, 2019; Versey, 2021) emphasize the need for a nuanced understanding of climate and environmental risk vulnerabilities based on intersectional identities based on individual characteristics and experiences of power, privilege and oppression by women across different scales¹ (i.e., macro, meso and micro) and contexts. For example, women's level of climate change vulnerability depends on their livelihood activities such as farming, their access to and management of natural resources, migration status, and ability to participate in community projects, among many factors (Lawson et al., 2020; Nyantakyi-Frimpong, 2019). One study in India found that, amid changing seasonal patterns of temperatures and erratic rainfall, workloads mainly increased for women in rainfed farming households because of the fluctuating crop yields and increase in travel distance to collect fuel wood, which adversely affected their health (Mhaskar, 2010). In a similar vein, Najjar and Baruah (Forthcoming) found that in Southern and Central Tunisia households' dependence on rangelands for livestock grazing has reduced over the years due to droughts, which led women in households with high male outmigration to stall feed their livestock which has considerably increased their workloads

(Najjar & Baruah, Forthcoming). Another example of intersectional vulnerability among women is illustrated in the quote from a woman in Ghana: "I'm a woman, but I'm also a widow. When it comes to adapting to drought, I've different kinds of experiences being a widow than if I'd a husband. So, it's different. Every woman's experience is different" (Nyantakyi-Frimpong, 2020: 1543). In these instances, if policy considerations are solely focused on the general vulnerability of women, the intersectional susceptibility of women in rainfed farming households will be missed, and their needs will be unmet (Rao et al., 2019; Nyantakyi-Frimpong, 2020). Similarly, individuals and sub-groups facing social disadvantages including racism, economic inequalities and sexism, may be more susceptible to climate change impacts and one-size-fits-all policies would prove ineffective. Therefore, policy responses must consider such intersectional vulnerabilities to make climate change responses more equitable and reach the most vulnerable sub-groups in society.

Despite their intersectional vulnerabilities, women have important contributions, preferences and innovations for how they respond to climate change, which can lead to greater resilience and effective

¹ Scale in this context is the level at which a specific policy is implemented, irrespective of where the policy is made. Macro level policies refers to broader societal level policies including international and national level policies and agreements; Meso refers to more sub-

national/regional/state/provincial level policies; Micro refers to policy at the very local/community/individual level. Since public policies are rarely targeted at individuals, micro here is more appropriately applied to community level public policies and development plans.

climate and AFS policies. It is well documented that rural women in the global south play key roles in environmental and natural resource management (See Alam & Rahman, 2018; Doss, 2017; García, 2013; Harper et al., 2013; Hemachandra et al., 2018). Women are vital stakeholders in building the resilience of the AFS to climate change and disaster risks (Kovaleva et al., 2022). Furthermore, some studies have suggested that women may perform better as crisis and disaster management leaders. Garikipati & Kambhampati (2021) found that during the COVID-19 pandemic, jurisdictions led by women had better outcomes in managing the pandemic. Also, women leaders were thought to be more effective by people working with them (Zenger & Folkman, 2020). However, public policies do not adequately include women's perspectives and leadership in policy design and implementation, limiting the effectiveness of policy responses to climate change. Current global negotiations and policies over climate change and disaster risk management reflect the unequal world economy, where mostly powerful men and the Global North who participates and contributes to climate change mitigation, adaptation and resilience policies, limiting the influence of women and actors from the global south. It is evident that women's participation and agency in climate change and environmental risk decision-making at multiple scales are limited, as also indicated in Fig 2 for example, (see also Hemachandra et al., 2018; Lee & Zusman, 2018; Rai et al., 2021). While women's participation and leadership in decision-making do not always translate to pro-women climate change resilient policies. There is evidence that women's participation in environmental governance can help tune policies to the intersectional needs of different women and, in so doing, increase women's resilience capacities and alleviate gender norms that limit women's access to productive resources (Nyantakyi-Frimpong, 2019; Versey, 2021).

This working paper reviews the extent to which inclusive climate policy processes and policies reduce power imbalances and provide women with opportunities to increase their social, economic and political capacities to participate meaningfully in climate and disaster risk governance at multiple scales (see Figure 1 Climate change and disaster risk governance broadly refer to all purposeful diplomacy, mechanisms and measures established and steered by the state or other international authorities to manage socio-economic systems to build capacities, mitigate and adapt to climate change and other forms of environmental risk (Jagers & Stripple, 2003). There are

multiple actors, including state (i.e., government ministries, institutions, regions and cities) and non-state (e.g., business and civil societies) actors in climate and disaster risk governance (Hsu & Rauber, 2021). This review focuses on formal public policies and initiatives of state actors that support women's increased agency and leadership in decision-making processes at various levels of climate and disaster risk governance as well as the implications of such policies for women's disaster risk preparedness and climate change resilience in AFS. These include public institutions, ministries and other entities that represent the national government, local governments as well as state and private sector/civil societies partnerships. The next section (i.e., section 2) of the review provides details of the review approach, search term, and criteria for inclusion. The results of the review are presented in section 3, which is divided into themes (including women's status and roles in climate change policy making, national plans and frameworks for integrating gender in AFS policies, policy approaches for increasing women's full and effective participation² and leadership, policy approaches for increasing women's resilience capacities) and sub-themes (including international commitment to advancing women's agency in climate change governance, women's decision-making and leadership at local level, national adaptation plans of action, nationally determined contributions, national development plans). A discussion of the review findings and conclusions are presented in sections 4 and 5, respectively.

2 Methods

The objective of the review is to assess public policies in the global south to understand women's full and effective participation in climate change and disaster risk governance, as well as public policies that improve women's climate change and disaster risk resilience, especially in the AFS. Considering the scope of the review, we used peer-reviewed articles and grey literature. Peer-reviewed articles included qualitative, quantitative, mixed methods and systematic reviews that assess gender mainstreaming and women's agency and leadership in climate change and disaster risk management. The grey literature mainly included government climate and gender policy documents (e.g., National Determined Contributions, National Adaptation Plans, Gender and Climate Change Adaptation Plans) and working papers.

² Women's full and effective participation is understood as a meaningful involvement and exertion of influence by all relevant diversity of women at all levels of the process of decision-making (REDD+, 2021). This is often used with similar terms such as

meaningful participation which also emphasizes women's representation beyond numbers (i.e., numeric description) to include more tangible outcomes in decision making where women's concerns are heard and taken onboard based on merit and equally as men (UN Women, 2018)

The review draws good practice from both systematic (i.e., less biased and more transparent and replicable methodology) and narrative reviews of grey and peer-reviewed literature from 2010 to 2022. For peer-reviewed literature, we designed a search criterion based on selected keywords and their synonyms, as seen in Tables 1 and 2 (Table 2 in the appendix). Relevant papers that examine public policies on gender and climate change/disaster risk were purposively selected from the search results from databases including Web of Science, Scopus and Google Scholar. Also, we screened through the bibliography sections of sampled articles to find other relevant peer-

reviewed policy documents and reports that did not appear in the search. We also searched through google search engine, ministry websites and other data repositories (e.g., the CGIAR) for government and stakeholder reports on public policy and women’s agency and leadership in climate change and disaster risk governance using a specific combination of words for each theme as seen in Table 2 in the appendix. The geographic scope of the review was the Global South, with a particular interest in Nigeria, India and Malawi. Figure 2 presents the main countries and the number of literature covered in this review.

Table 1: Search words for specific themes

Theme	Number of papers	Search Term words
Women’s status and role in climate change policymaking at multiple scales	30	policy; decision; women; gender; climate; disaster risk; agency and voice; agrifood
National plans and frameworks for integrating gender in climate change and AFS policies	10	policy; national plan; women; gender; climate governance; disaster risk; agency and voice; full and effective participation; agrifood
Approaches for increasing women’s full and effective participation and leadership in policy processes	12	policy; leadership; gender; women; full and effective participation; meaningful; climate change; resilience; agrifood
Policy approaches for increasing women’s resilience capacities	14	policy; women; gender; climate; women; leadership; climate change; resilience; agrifood trade; nutrition; health

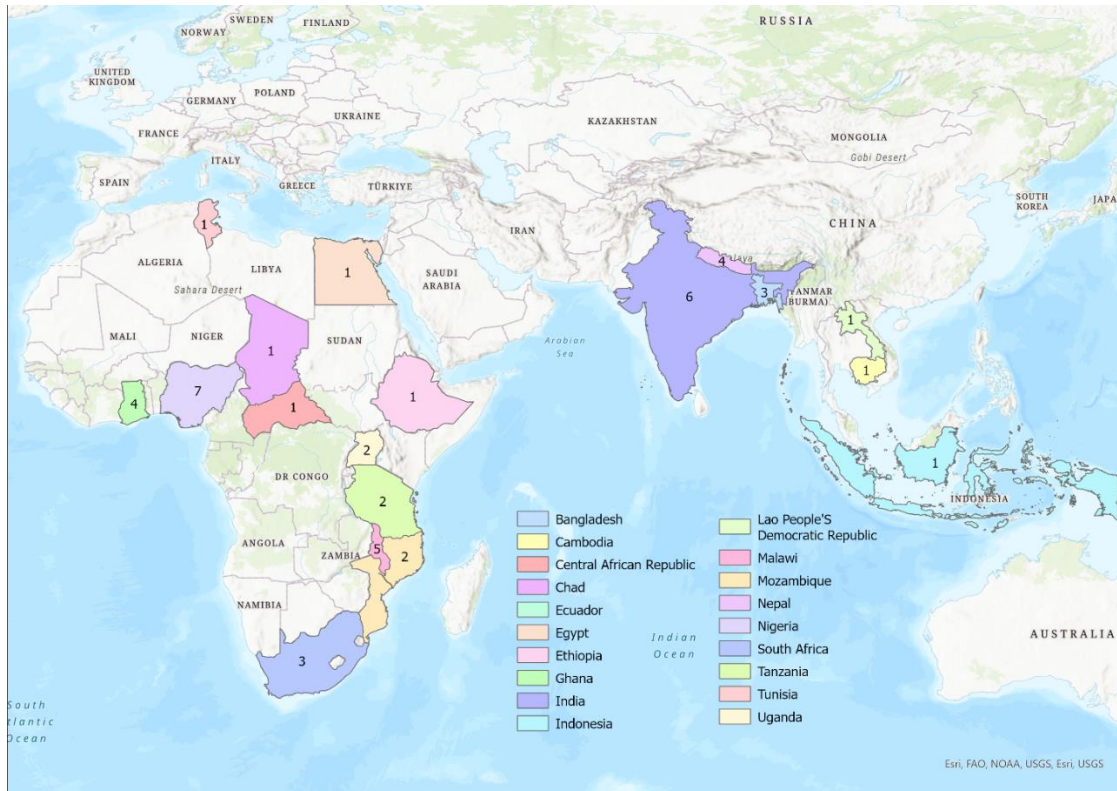


Figure 2: Geographic coverage and extent of evidence review

3 Results

Given the sharpened focus of the international community on increasing women’s voice and leadership in policy processes at multiple scales, it is important to identify policy interventions and approaches that achieve these aims. This review also highlights the instrumental value of building women’s meaningful participation³ in climate change governance in terms of welfare improvements such as food security, nutrition, empowerment, freedom from violence and poverty reduction. This section is divided according to themes and sub-themes. The overarching themes and related sub-themes were determined based on patterns in the literature. The main themes (shown in Table 1) include women’s role in decision-making at multiple scales; national frameworks for integrating gender into climate policies; policy approaches for increasing women’s participation and leadership in climate change policy processes; policy initiatives for increasing women’s resilience capacities; and the extent to which policies improve welfare outcomes among women. These themes are not mutually exclusive. To illustrate, women’s status and role in climate change adaptation and resilience building directly shape the goals and indicators of policy approaches for increasing women’s participation and leadership in climate change policy processes. The themes of national frameworks for integrating gender into climate policies and policy initiatives for increasing women’s resilience capacities are distinct but also closely

related as national level commitments to strengthening resilience and well being more generally.

3.1 Women’s status and role in climate change policymaking at multiple scales

Women are not adequately represented in the climate change decision-making processes, from local initiatives to international climate change negotiations. To illustrate, despite increased policy commitments and activities to promote gender equality, the percentage of women in national delegations at international treaties marginally increased from 30% to 38% between 2009 to 2021 (UNFCCC Secretariat, 2021), indicating a less than 10% increase in more than a decade (see Figure 3). Similarly, the percentage of heads of delegations in the Conference of Parties (COPs) who were women increased from just 10% in 2009 to 13% in 2021, with a decrease of 9% in 2015 and the highest being 26% in 2017 (United Nations Framework Convention on Climate Change [UNFCCC] Secretariat, 2021; Women’s Environment & Development Organization [WEDO], 2022).

At COP15 in 2009, 19 of the 193 Heads of Delegation (10%) were women. At COP26 in 2021, 26 of the 194 Heads of Delegation (13%) were women.



Percentage (%) of Women as Heads of Delegation (per year)

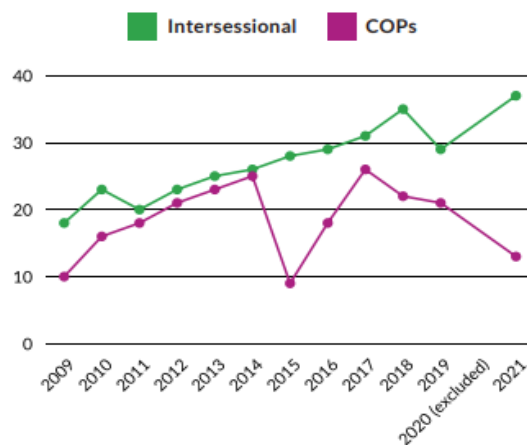


Figure 3: The participation and leadership of women in the United Nations Framework Convention on Climate Change (UNFCCC) from 2009 to 2021.

Source : (UNFCCC Secretariat, 2021; WEDO, 2022)

³ Meaningful participation here is understood as “a multifaceted set of elements to realize the tangible and urgent demands that women not only be present, but that their concerns are heard and taken on board,

they have the opportunity to articulate their contributions and expertise, to ensure that gender perspective and analyses inform and shape peace processes, and that outcomes benefit the whole of society.” (UN Women, 2018: 11).

Climate change discussions at the international level do not adequately address the marginalization of women nor the need to integrate women into leadership and decision-making positions of environmental and ecological institutions that spearhead these climate change adaptation and resilience discussions, despite the urgent need to more effectively and quickly address the growing climate crisis (Collins, 2022; Gay-Antaki, 2020). The participation of women in these national delegations is low but also differs by region. Women's participation tends to be highest among Latin American, Eastern European, and Western European delegations, usually between 45% – 50%, with the lowest levels of participation in African and Asian delegations, often between 30% – 35% as

seen in Figure 4 (WEDO, 2022). Thus, while some regions are making progress towards empowering women to participate in and lead climate discussions on the international stage, more sustained efforts are needed in Africa and Asia. Given the current trend of women's participation in these delegations, WEDO (2022) posits that gender equality in national COP delegations will not be achieved until 2040, and gender equality in COP Heads of Delegation will not be achieved in the immediate future, despite the numerous commitments. For more sustainable change, policies must seek to integrate gender in national climate change policies and initiatives, especially in Asia and Africa.

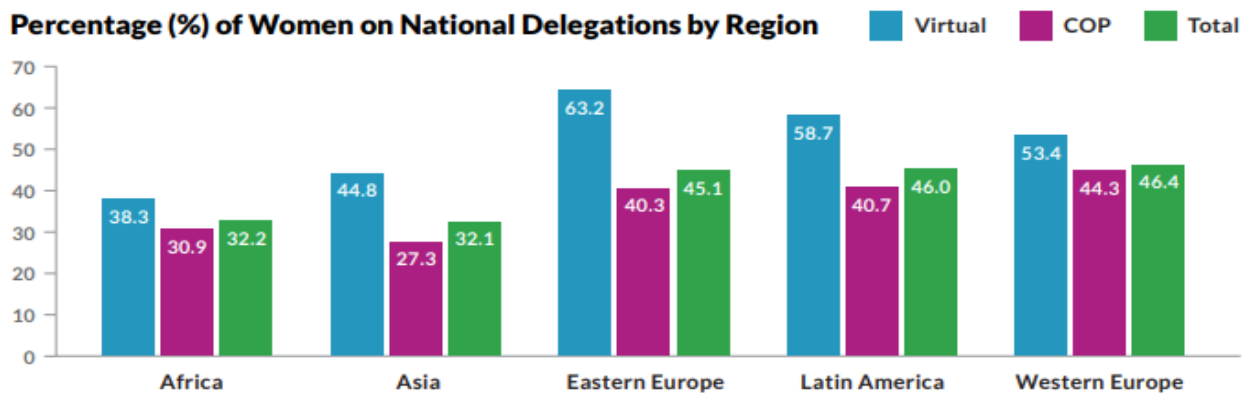


Figure 4: Percentage of women on national delegations by region
 Source: (UNFCCC Secretariat, 2021; WEDO, 2022)

3.1.1 International commitments to gender integration in national climate change policies

In this section, we outline international commitments to which many countries, particularly member states of the United Nations which includes 193 sovereign countries, are held accountable for strengthening women's agency and leadership in building resilience to climate change. Most of the gender empowerment and women's leadership in climate change policies in the global south are informed by international frameworks (e.g., the Paris Agreement, UNFCCC, NDCs etc.), especially at the national level, which concurs with (Kovaleva et al., 2022; Remteng et al., 2021). For example, an analysis of gender strategic programmes towards implementing Africa Nationally Determined Contributions showed that nearly 85% referenced gender with some provisions on improving women's climate change resilience and promoting their opportunities for leadership in climate change governance (Remteng et al., 2021). At the regional level, Western Africa had the highest referenced gender actions programmes of 41%, Eastern Africa with 25%, Southern Africa with 15%, Central Africa with 8% and North Africa with 6%. Countries with support from the international community also introduced a range of other policy

initiatives emphasizing gender and women's capacity building for climate change resilience (Kovaleva et al., 2022). While most of these countries have convincing policy actions embedded in their national policies that seek to improve women's resilience to climate change and promote their meaningful participation in climate and disaster management, the implementation of the inherent policy action is a subject of debate.

Also, SDG 5.5 aims to "ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life." The attainment of SDG 5.5 is determined based on specific indicators including the number of women in political positions —indicator 5.5.1, which refers to the proportion of seats held by women in a country's national parliament, ministerial positions, and local governments. The second indicator (5.3.2) is the number of organizations with women in key managerial decision-making roles (United Nations, 2016). Also, the central priority theme in the 65th Commission on the Status of Women (CSW65) was "Women's full and effective participation and decision-making in public life, as well as the elimination of violence, for achieving gender equality

and the empowerment of all women and girls” (CSW, 2021). Thus, discussions on women's empowerment and gender mainstreaming in climate change policies have transcended women's tokenistic involvement to more meaningful participation and leadership in all sectors.

The CSW (2021) emphasized that amid the climate change emergency, there is an urgent need to promote women's full and effective participation and leadership in decision-making processes related to climate change mitigation and adaptation and to acknowledge that women and girls are vital and active agents of change who contribute to climate change resilience, adaptation and mitigation (CSW, 2021). It is also paramount to integrate a gender perspective in the design, management and implementation of climate change, disaster risk reduction and other environmental policies including ensuring that these strengthen women's resilience capacities (CSW, 2021; Hemachandra et al., 2018).

Climate-specific policies which are targeted toward resilience and disaster risk management include the Sendai Framework for Disaster Risk Reduction 2015-2030. The framework emphasizes that women's participation is critical in the effective design of disaster risk plans and implementing gender-sensitive disaster risk reduction policies and programmes that adequately strengthen women's risk preparedness as well as their capacity to engage in alternative livelihoods in post-disasters (UN General Assembly, 2015). Beyond participation, the Sendai framework also indicates the need to promote women's leadership in disaster risk preparedness and management.

Participatory climate change policies and action plans with local communities have been developed and adopted by countries to build climate change resilience and disaster preparedness plans that are well suited to address local needs and preferences (Lee & Zusman, 2018; Nagoda & Nightingale, 2017; REDD+, 2021). However, some of these participatory initiatives still marginalize vulnerable groups, including women, due to unequal power relations in local communities (Agarwal & Bina, 1994; Nagoda & Nightingale, 2017). Nagoda & Nightingale (2017) illustrate how participatory climate change initiatives fail to promote meaningful inclusion of women and address their underlying vulnerability in the district of Humla in Northwestern Nepal. In this case, the design and implementation of these policies at the national, regional and local levels were shaped by unequal power relations, which influenced differential vulnerability patterns at the village level. Nepal has a relatively successful model of participatory

development schemes, and its National Adaptation Programme of Action (NAPA) and Local Adaptation Plans of Action (LAPA) place great importance on grassroots voices and participatory planning (Nagoda & Nightingale, 2017). However, vulnerable and marginalized groups are often less likely to influence decision-making processes despite their presence in participatory planning discussions (Nagoda & Nightingale, 2017; Ojha et al., 2016).

Multiple and intersecting forms of discrimination and marginalization are barriers to women's full and effective participation and leadership in climate change governance (Yadav & Lal, 2018). Overcoming this challenge requires a nuanced approach that caters to the needs of women in all their diversity. However, a growing body of literature (see Acosta et al., 2019; Ampaire et al., 2020; Bryan et al., 2023; Huyer et al., 2020) indicates that climate change policies have generally failed to adequately account for the intersectional social identities and vulnerabilities of women in both the policy-making and implementation processes. The integration of women's intersectional social identities in climate change policies has been slow at the global level (Huyer et al., 2020), and the situation is no different at the local level.

3.1.2 Women's decision making and leadership at the local levels: The role of policy

Despite the commitment to gender equality as part of international agreements and the subsequent increase in gender integration in national policies, these policy goals are often not realized given barriers at the local level. Entrenched patriarchal traditions continue to preserve specific privileges of men, especially in rural areas of Sub-Saharan Africa (SSA) (Onwutuebe, 2019), where the patriarchal attitudes and beliefs about women's participation in socio-economic developments are culturally entrenched and perpetuated in climate change and disaster risk management initiatives (Amugsi et al., 2016; Nyantakyi-Frimpong, 2019). Women play crucial roles in climate change adaptation, mitigation and resilience because of their key roles in agri-food management, disaster risk reduction, forestry and water management and health (Doss, 2017). Despite awareness of women's contribution, women's full, effective and meaningful participation is yet to be realized in climate change and disaster risk governance and policy making (Ampaire et al., 2020). However, it is essential to capitalize on international and national climate policy trends to harness the energies of women in improving climate change and disaster risk resilience at the

local level. There are examples where promoting women’s leadership within their communities contributes to climate and disaster risk resilience in Bangladesh, Indonesia and Nicaragua, forest governance in India and Nepal, and coping with drought in the Horn of Africa (Arnold et al., 2014; Dankelman, 2008; García, 2013). In Mozambique, women have demonstrated effective leadership in their communities to address and adapt to the adverse impacts of climate change, including helping to devise early warning systems and reconstruction efforts (Ministry of Environment, Republic of Mozambique, 2014)..

Land is one of the most critical resources for responding to climate change, especially in rural communities dependent on agricultural production and other natural resource-based livelihoods (e.g., pastures, forests, water for irrigation etc.). This issue of expanding land rights illustrates how national policies often fail to translate into meaningful changes at the local level. In many countries in SSA, patriarchal traditions portray men as the beacon of hope and continuity of family and community descent leading to patterns of land ownership, land tenure systems and inheritance laws and norms that discriminate against women (Onwutuebe, 2019). As

shown in Figure 6, only a small share of women have sole land ownership across many countries. Malawi appears as an exception where more women solely own land compared to men, due to the matrilineal inheritance systems rather than formal government policy. However, land owned by women in Malawi is often smaller in area and of lower quality for agricultural production (Burke & Jayne, 2021).

While policies are often drafted to increase women’s land rights, these policy actions are often not accepted at the local level (Namubiru-Mwaura, 2014). For example, in China, women are equally legally entitled to access and control land as men, but community level decisions frequently exclude women from exercising these rights. Women’s land rights are often obtained through male family members, which places women in a subordinate position (Behrman, 2017; Namubiru-Mwaura, 2014). Similarly, the Mozambique 1997 “Lei de Terras” (land laws) grants women access to land and properties. However, “traditional courts, which most rural women use, still consider the man the head of household and therefore the rightful authority over land” (Kimani, 2012).

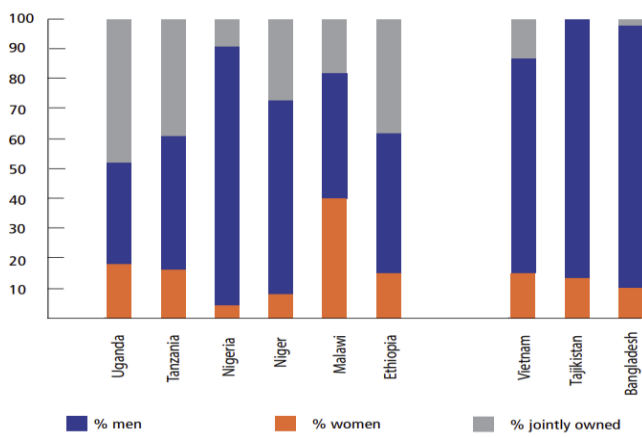


Figure 5: The distribution of agricultural land area owned by gender
Source: FAO (2018)

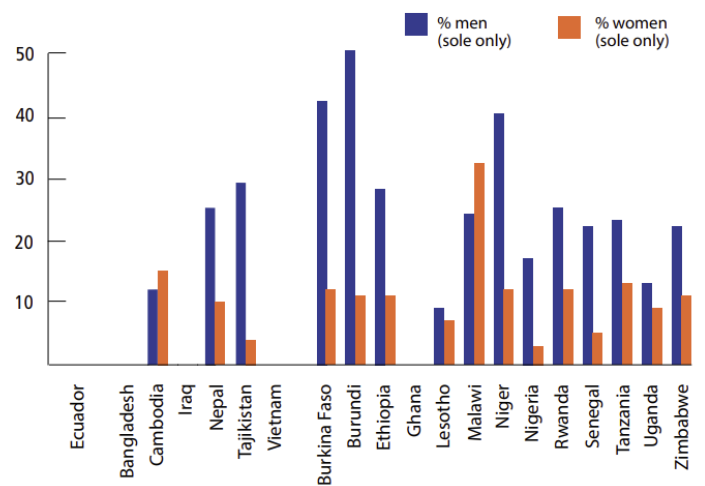


Figure 6: The percentage of women and men whom solely own land
Source: FAO, (2018)

Namubiru-Mwaura (2014), stipulates that women's land rights can be deemed complete when three conditions are met; women's rights are legally recognized, socially acceptable and enforced by an external authority. However, in the rural context of SSA, women's land rights are legally recognized by law but not socially recognized nor enforced. Thus, realizing equal land rights for women will require comprehensive policy action at multiple scales and long-term national frameworks for gender integration in climate change policies.

3.2 National plans and frameworks for integrating gender in climate change and AFS policies

Some government climate and environmental policies are born out of international frameworks such as the Paris Agreement (e.g., Nationally Determined Contributions). Governments also use international frameworks such as National Adaptations Plans as a foundation for developing their climate change and disaster response strategies. Therefore, most national policies of countries in the Global South regarding gender and climate change align with international agreements and frameworks. These international agreements/frameworks also provide guidelines for integrating gender and the extent to which these are adopted and implemented varies. This section reviews examples of government policies and initiatives aligned with these international frameworks and the extent to which and how they promote women's resilience or participation in climate resilience strategies.

3.2.1 National Adaptation Plans (NAPS)

The NAP process guides countries in the Global South to identify their medium- and long-term adaptation needs and develop and implement strategies and programs to meet those needs. The NAP process plays a crucial role in promoting stakeholder participation, including women's groups and gender-focused organizations, in decision-making related to adaptation. Some countries are conducting gender analyses as part of their NAP process to gather evidence on the intersection of gender and climate change. Additionally, the NAP process includes the development of

monitoring and evaluation systems for adaptation, which allows for the collection of detailed data and tracking of progress on gender-specific issues. There have been some promising initiatives and commitments from countries towards integrating gender in NAPs. Ghana and Côte d'Ivoire made commitments to incorporate gender into their NAP processes at the Generation Equality Forum and have since made progress in this regard (see Box 1).

Box 1: Progress in integrating gender into NAP process

In July 2021, at the Generation Equality Forum, the International Institute for Sustainable Development and the Secretariat of the NAP Global Network, pledged to collaborate with governments interested in promoting gender-sensitive climate action. This commitment was made in partnership with two governments, Côte d'Ivoire and Ghana, which are already demonstrating leadership in this area. This commitment is aligned with the blueprint for action on Feminist Action for Climate Justice (FACJ), which aims to enhance the resilience of women and girls to disaster risks through the use of NAP processes. Since making this commitment, the International Institute for Sustainable Development has worked with eight countries to incorporate gender-responsive approaches into their NAP processes

Approximately 75% of National Adaptation Plans (NAPs) identify women as a particularly vulnerable group. Some recent NAPs, such as South Sudan's, discuss the relationship between gender inequality and vulnerability to climate change. The review of new NAPs submitted in 2020-2021 found that a limited number of recognized women as a stakeholder group in the adaptation planning process. However, there has been an increase in the number of NAPs that recognize women as agents of change in adaptation planning processes (see Figure 7), with about half of all NAPs now acknowledging the importance of including women and considering their experiences in these processes (Daze and Hunter, 2022).

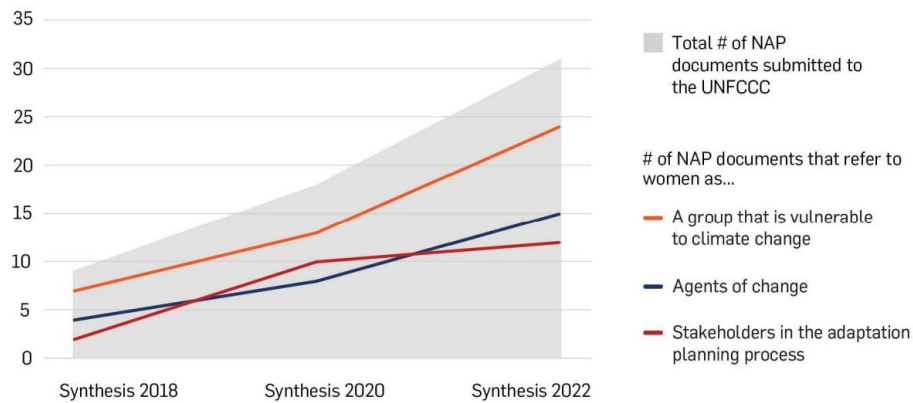


Figure 7: The portrayal of women in NAP documents.

Source: (Daze & Hunter, 2022)

The NAP of Central African Republic's addresses gender as a cross-cutting issue and includes specific activities, such as incorporating gender analysis in risk and vulnerability assessments, raising awareness of gender and social issues related to climate change, and integrating gender considerations in capacity-development processes for the NAP (République Centrafricaine, 2022). A gender analysis was conducted to support the gender-responsive implementation of the NAP and identified issues such as gender-based violence, barriers to land tenure for women, and lower education enrollment for girls that must be taken into consideration. The gender analysis also made recommendations for gender-responsive implementation of the NAP, including building the capacity of gender focal points in relevant government ministries and supporting women's entrepreneurship in the agricultural sector (République Centrafricaine, 2022; Daze and Hunter, 2022). The need for gender expertise throughout the implementation process was also emphasized.

Suriname's National Adaptation Plan aims to reduce gender and other social inequalities through adaptation efforts. A sector adaptation strategy and action plan for the water resources sector was developed with a focus on gender-responsive adaptation and includes a set of concept notes outlining priority adaptive measures that consider gender and integrates gender into the monitoring, evaluation, and learning framework. This framework includes specific indicators and guidance on evaluating outcomes with consideration of gender issues, as well as examination of ways to increase participation in decision-making in the water resources

sector for underrepresented and vulnerable groups (Government of Suriname., 2019).

Related to the NAPs is the National Adaptation Programme of Action. These are action plans that outline specific activities and measures that countries can take to adapt to the impacts of climate change. NAPAs are a precursor to NAPs and provide a foundation for developing more comprehensive and longer-term adaptation plans.

3.2.2 National Adaptation Programmes of Actions (NAPA)

National Adaptation Programmes of Action (NAPAs) are usually vehicles for countries in the Global South to identify and channel funds to the most appropriate and urgent climate change and disaster risk adaptation needs through the United Nations Framework Convention on Climate Change (UNFCCC). A vital component of the guidelines for NAPAs⁴ is a need for a participatory and meaningful engagement⁵ of women at national, regional and local levels. The guidelines also emphasize and acknowledge that climate change impacts are gendered, necessitating the integration of gender in macro, meso and micro climate change strategic action plans.

Recently, there has been an increased number of NAPA documents that acknowledge women as active agents of change in climate change and disaster risk resilience. Almost half of NAPAs now recognize that including women and recognizing their lived

⁴ NAPAs focused on short-term adaptation needs and priorities, while NAP process seeks to identify and address medium- and long-term adaptation needs. The NAPs are intended to build on the NAPAs

⁵ Meaningful engagement is used in this review as synonymous to meaningful participation, which involves women's representation beyond

numbers (i.e., numeric description) to include more tangible outcomes in decision making where women's concerns are heard and taken onboard equally (UN Women, 2018).

experiences can improve climate change and disaster risk adaptation processes (Singh et al., 2021). For instance, Liberia's NAPA indicates that even though women are most vulnerable to climate change and other environmental impacts, "their unique knowledge and perspectives also provide opportunities for inclusive, equitable, and efficient adaptation responses and coping strategies" (Environmental Protection Agency, 2021, p. 65). Also, India has a hierarchy of national (e.g. National Action Plan on Climate Change or the NAPCC) and sub-national climate action plans (e.g. State Action Plans on Climate Change or SAPCCs), implemented through sectoral policies and projects (Singh et al., 2021). SAPCCs (e.g., Uttarakhand, Tripura) build on previously successful programs such as women's role in forest protection, indicating that women-led programmes would likely be pro-women – improve women's resilience to climate change and environmental disasters. (Singh et al., 2021). Also, some national and state action plans view women as having specific capacities to contribute to climate change and disaster risk resilience outcomes and ought to be included in governance. For example, about 4 SAPCCs in India promote the increased agency of women and their social positioning by highlighting how they are vital actors in spearheading inclusive, participatory and effective climate change adaptation and resilience. (Singh et al., 2021).

3.2.3 Nationally Determined Contributions (NDCs)

Another international framework governing climate change actions at the national level is the Nationally Determined Contributions (NDCs). The NDCs were born out of the agreement at the Conference of the Parties COP 19 in 2013, the Paris Agreement, wherein countries across the world pledged to reduce greenhouse gas emissions and adapt to climate change (IPCC, 2014). Each signatory country is expected to submit an intended nationally determined contribution every five years. The strategies and approaches in the NDCs are primarily geared toward climate change adaptation, mitigation, capacity building, and other human development outcomes, including women's active participation and livelihoods improvement (Remteng et al., 2021).

The provisions of the NDCs have recently been a motivating factor for several countries and institutions to support women and pro-women agencies to participate in climate change mitigation policy decision-making. Nigeria's updated NDC states that improving gender equality is a longstanding commitment of the Federal Republic of Nigeria. Some of the action plans include providing agro-processing and storage facilities for women smallholder farmers to minimize postharvest loss and food waste; mainstreaming gender in forest management by documenting

women's participation in forest resource management; training women community nurses to address climate-related diseases; training women on the construction of efficient wood stoves and small biogas stoves; building women's capacity in water treatment and community-based water quality monitoring at the state and rural levels (Federal Government of Nigeria, 2021). However, some of these initiatives and policy directions may tend to reinforce gender-based stereotypes of women's roles, while limiting their ability to engage in activities considered associated with men. Ghana also has a gender provision in the NDC. For each NDC policy action and climate objective, there is a corresponding gender responsive rating of either high (4-5), medium (2-3) and low (0-1) that indicates gender priority in the policy action (Ministry of Environment, Science, & Technology and Innovation [MESTI], 2021).

3.2.4 National Development Plans (NDPs)

NDPs are usually short-term, or long-term action plans that guide the overall development of countries across all sectors including climate and environmental change. Gender considerations and action strategies are often incorporated into NDPs in specific sectors, including climate change and disaster risk governance. For example, in Tanzania, the Women and Gender Development Policy was part of a national strategic development plan that emphasized gender equality and equal opportunities for women in all sectors, including climate change mitigation and adaptation (Kironde et al., 2021). These NDPs include the National Development Vision 2025 and the National Strategy for Growth and Reduction of Poverty (NSGRP II), also known as MKUKUTA II.

Nigeria has also exhibited a commitment to inclusive economic development by increasing women's participation in the agri-food sector and addressing socio-cultural barriers to gender parity through National Development Plans such as the Gender Policy in Agriculture in 2016. This was adopted to significantly decrease women's vulnerability in agriculture and minimize unequal gender power relations (Federal Ministry of Agriculture and Rural Development, 2016). The policy identified structural challenges that hinder equal opportunities for participation and leadership in agriculture. As part of the initiative, microfinance banks were created to provide women access to financing to improve their involvement in agri-business and build food security and exports among women. However, this policy and its related plans and programs had only limited funding to comprehensively address the challenges women face in the agricultural sector (Federal Ministry of Agriculture and Rural Development, 2016). for gender equitable policies to truly alleviate the underlying structural barriers that limit

women's participation in agriculture and build their resilience to climate change, such policies must be backed by a sufficient budget, and comprehensive monitoring and evaluation of program implementation to ensure that these programs are effective and sustainable.

3.3 Approaches for increasing women's full and effective participation and leadership in policy processes

While the above sections have outlined policy frameworks and processes for addressing climate change and the extent to which gender has been integrated into these, which approaches are effective to reach, benefit, and empower women through these policies remains an open question. Evidence from a limited number of case studies suggests some promising approaches are emerging that improve women's participation in climate change policy processes. We highlight a few examples in this section including the using quotas, capacity building and incentives to promote women's participation in climate change policy processes. The review indicates that most of the countries (e.g., Nigeria, Malawi, India, Mozambique, Nepal etc.) in the Global South are increasingly designing policies and action plans that seek to promote women's full and effective participation and opportunity for leadership in climate change governance and disaster risk management

3.3.1 Quotas to increase women's participation in climate change policy and initiatives

Governments have increasingly used quotas through policy actions that require committees, institutions and ministries to accept a specific number of women, primarily aimed at improving women's resilience and voice. Though contested, Cook et al. (2019) suggest that more progressive gender quotas ⁶can lead to equity in climate change and environmental sustainability policy initiatives. For example, The Uganda Climate Smart Agriculture Programme (2015–2025) contains policy actions to ensure increased participation of women and youth by 50% and 20%, respectively in CSA initiatives. Similarly, Tanzania's Environmental Management Act (2004) mandates that about 30% of the Environmental Management Boards board members be women (Ampaire et al., 2020). While quotas are important in women's participation in climate change governance, policies should prioritize improving women's resilient outcomes equally.

⁶ Gender progressive quotas here involve women's engagement in decision making beyond just numbers but the benefits they drive in the form of well being outcomes (Lau et al., 2021).

The Government of the Republic of Mozambique recognized that promoting climate change resilience and gender equality are mutually beneficially. In response, the country was a trailblazer in becoming the first country in the world to create a Gender, Environment and Climate Change Strategy and Action Plan in 2010 (Ministry of Environment, Republic of Mozambique, 2014). So far, the first strategic action plan has delivered essential results. Similarly, the Nigerian National Climate Change Policy recognizes women as crucial climate stakeholders with unique knowledge and capacities to contribute to resilient communities (Department of Climate Change, Federal Ministry of Environment, 2021). The policy aims to encourage and support women's participation and leadership in various agencies and bodies that address climate change. The policy institutionalizes inclusive, participatory decision-making processes to reflect women's voices as ecosystem managers under increasing insecurity and that they are meaningfully engaged in planning and implementing long-term climate change adaptation interventions. The policy further posits that policies will likely fail if they are not informed by the perspectives of women through either their meaningful engagement or leadership in the policy process (Department of Climate Change, Federal Ministry of Environment, 2021). Therefore, the policy aims to ensure that women participate equally and actively⁷ alongside men and are enabled to take up leadership positions throughout the climate change management processes (Department of Climate Change, Federal Ministry of Environment, 2021).

Similarly, the Kenya Strategy for Mainstreaming Gender in Climate Change requires governance structures of national climate change institutions (e.g., the Climate Secretariate) to have a balanced representation of women and men in managerial and decision-making positions at all levels (e.g., technical and thematic working groups) as well as financial institutions responsible for financing pro-women's climate adaptation and resilience initiatives (Ampaire et al., 2020). Policies regarding street trading policies in SSA are often characterized by excessive regulation, despite the importance of this livelihood activity for poor women in many contexts (i.e., an livelihood and risk diversification strategy). However, there are a few cases of cooperative policies and programs between street traders and local and national governments. An example is the case of street trading policy in the inner city of Warwick, South Africa. The city council collaborated

⁷ Equal and active participation is not specifically defined in the 2050 Long-Term Vision for Nigeria nor how that will be achieved by way of policy specific actions or activities.

with street traders (who are mostly women) to develop inclusive street vendor management (Skinner, 2016). Street vendors significantly contributed to the council decisions by serving as committee members and in product groups (Skinner, 2016). Some of the significant aspects of the initiative included the construction of pedestrian footbridges linking the bus terminals, trains, and taxis to the city centre that were large to accommodate street vending. And the construction of a traditional medicine market with tailored facilities for selling clay and beadwork (Skinner, 2016).

There are arguments in favour of using quotas to increase women's representation. One argument is that quotas can be an effective way of overcoming deeply entrenched cultural and social barriers that prevent women from participating fully in political and economic life (Cook et al., 2019; O'Brien & Rickne, 2016). Quotas can also serve as a temporary measure to speed up the process of achieving gender balance in decision-making bodies, which might otherwise take a long time due to slow cultural change.

However, the use of quotas for women empowerment is equally faced with criticism. One critique is that quotas can be perceived as unfair or even patronizing, as they may be seen as implying that women are not capable of achieving representation on their own merit (Krook & Norris, 2014). Quotas may also lead to the superficial representation of women, rather than genuine empowerment. Quotas can result in the selection of women who are not fully representative of the diversity of women's experiences and perspectives. This can be particularly problematic if the women selected under the quota system are not able or willing to use their positions to advocate for the rights and interests of women.

Quotas for women's representation can be an effective means of advancing gender equality and empowering women, but they should not be viewed as a panacea and must be implemented carefully to avoid negative outcomes. Additionally, quotas should be part of a larger plan for promoting gender equality rather than being treated as a replacement for more comprehensive changes to socio-cultural systems.

3.3.2 Increasing women's capacities to participate in decision making

Governments and non-governmental organizations have also implemented programs to build the capacity of women to participate in climate change policies and interventions. These programs can include training, mentorship, and networking opportunities to help women gain the skills and knowledge they

need to engage effectively in climate change decision-making processes.

The Bangladesh Climate Change and Gender Action Plan acknowledge the necessity of engaging women in meaningful development and implementation of community disaster risk assessments as well increasing their active participation in disaster planning at the national level (Hasan et al., 2019; Ministry of Environment and Forest: Government of the People's Republic of Bangladesh, 2013). Though the guidelines for women's active participation and leadership in disaster risk governance are unclear, the Standing Order on Disasters indicates that the Ministry of Women's and Children's Affairs ought to ensure women's active participation in disaster management activities. It also reiterates a need to provide women with general and special knowledge and expertise to increase their capacities, resourcefulness and productivity, which can further alleviate structural barriers to leadership in disaster risk management (Hasan et al., 2019).

Nepal's Disaster Risk Reduction Policy (2018) explicitly calls for the effective participation of women in all processes, levels and structures of disaster risk reduction and planning despite the preceding acts and regulations not following through with the policy call. Since policies are often a call for action, ignoring this renders public policies ineffective and unable to be translated into on-the-ground activities and programs (Rai et al., 2021). The Hyogo Framework for Disaster Risk Reduction (2005-2015) is a vital international framework that emphasizes a holistic, gender equitable approach to disaster risk management and considers women's distinct roles as agents of change. The framework includes several excerpts and references, such as training women to increase their capacities for leadership and meaningful participation in disaster risk management, gender-sensitive early warning systems and the need for a gender-sensitive approach to all disaster management and assessment policies and initiatives.

3.3.3 Incentives to ensure women's participation in decision making

Public policies can have incentives or motivating factors for institutions and government ministries to integrate gender into climate change and disaster risk governance. For instance, Uganda's Climate Smart Agriculture Programme (2015–2025) is an action plan with the core mandate of ensuring increased active

participation of women⁸ in climate smart agricultural process, which is essential for improving smallholder farmers (particularly women) resilience to climate change. The policy promoted the use of equity certificates as a way to motivate local governments to incorporate gender empowerment actions into local development plans and strategic objectives. A certificate of equity is used to assess local government development plans and budgets for incorporating a gender perspective. In order to be eligible for funding from the Ministry of Finance, these plans and budgets must meet certain standards for promoting women's involvement and representation. The purpose of this requirement is to ensure that women are included and given equal opportunities in these development efforts. Though, there is no documentation of the success of such equity certification in Uganda, similar gender certifications in Ecuador have been noted to strengthen the wellbeing and rights of women farmers in their agricultural sector and beyond (see Reynolds, 2021). According to Reynolds (2021), gender-based fairtrade certification increased women's social, economic, and physical capital and addressed the unequal power relations between men and women farmers to promote gender equality in the Ecuador flower plantation.

3.4 Policy approaches for increasing women's resilience capacities

One of the key objectives of gender integration in climate change policies is to improve women's resilience capacities at multiple scales. At the macro level, this may include changes in gender norms and greater agency in the design of and implementation of public policies. This spectrum of policies includes increasing women's access to productive resources and services; women's human capital development and economic development; and addressing harmful gender norms.

3.4.1 Increasing women's access to productive resources and services through policy

In rural communities, access to productive resources in the form land, capital, and information are essential for increasing resilience to climate change and other environmental disasters. As such, improving women's access to and control over these communal resources through policy provisions goes a long way toward improving their resilience. For example, the Tanzania Land Policy provide policy provisions to ensure women's rights to inherit and acquire land. However, it does not legislate land ownership between spouses as land inheritance is governed by customs and

traditions (Kironde et al., 2021). Also, the Uganda Forestry Policy recognizes gender-differentiated access to forest resources; encourages women and youth to increase their tenure security and actively participate in decision-making over forest resources (Ampaire et al., 2020). The National Land Policy of Uganda further provides policy requirements for the protection of women's and children's rights to inherit and own land (Ampaire et al., 2020).

As shown earlier in Figures 5 and 6, Malawi represented one of the only countries where women significantly owned land, mainly through customary laws (see Box 2). One of the key objectives of the Malawi Gender Policy is to 'ensure equal participation and involvement of women and vulnerable groups in the management of natural resources, environment and climate change' (Ministry of Gender, Children and Community Development, 2015: 31). This includes the promotion of women's participation in water management, a crucial aspect of climate change resilience in Malawi.

Box 2: Women's land rights and ownership in Malawi

Customary systems have regulated both matrilineal and patrilineal land in Malawi. In a matrilineal system, women inherit land with, uxorilocal marriage arrangements whereas in a patrilineal system, sons inherit land with virilocal arrangements. It has been argued that in matrilineal systems, women have better access to land. Most of northern Malawi (representing more 50% of the country) practice the matrilineal ("chitengwa"), which may partly explain why Figure 6 showed more women to own land in Malawi (Mutangadura, 2004) solely. This is likely more of favourable customary practices than because of government policies. Also, Burke & Jayne (2021) have illustrated that most of the lands own by women are less-fertile lands, coupled with low quality input (e.g., quality and fertilizers), which will likely not translate to high productivity for women. Also, it will be important to understand the average size of the land women own compared to men. Women may own mostly small parcels of land while men own larger land parcels on average.

⁸ Uganda Climate Smart Agriculture Programme has an equity certificate that is used to evaluate local government development plans and budgets for gender mainstreaming, who must qualify to receive this funding from

the ministry of finance. This is intended to ensure women's inclusive participation.

There are also policies that seek to improve women's access to services such as climate information, extension services and credit to facilitate their productivity and increase their resilience capacities. The National Gender Policy of Nigeria aims to increase the participation of women in decision-making processes at all levels by providing them with information and access to institutionalized credit (The Federal Ministry of Women Affairs and Social Development, n.d.). It also aims to restructure the banking system to promote gender equality in access to bank loans and other financial assistance, while also ensuring that micro credit is an additional source of financing for women's businesses rather than the main source. The National Climate Change Policy of Nigeria aims to enhance the capacity of Agricultural Extension Workers in gender analysis and mainstreaming, in order to provide better support to women through revitalized extension services, capacity building, and technology transfer approaches. (Department of Climate Change, Federal Ministry of Environment, 2021). It also aims to offer extension services to registered Small and Medium Enterprises (SMEs) owned by women in core poverty groups, to facilitate information exchange and problem identification.

3.4.2 The role of policy in promoting women's human capital development and economic empowerment

One of the keyways policies improve women's resilience is through capacity-building programs that increase their technical knowledge and human capital to engage in income-generating livelihoods. For example, through policy actions of the Gender, Environment and Climate Change Strategy and Action Plan, over 12,000 women have been trained in the sustainable use and management of environmental and natural resources, and 36 communities have been trained on effective and sustainable approaches to preventing and controlling forest fires and planting drought-resistant crops (Ministry of Environment, Republic of Mozambique, 2014). The training provided to women positioned them as stakeholders, drivers of change and beneficiaries of crosscutting environmental management in sectors including water, agriculture, health and climate mitigation in Mozambique (Ministry of Environment, Republic of Mozambique, 2014).

Also, the Government of India has relevant policy programs that aim to empower women in agri-preneurship⁹ and agri-business. For example, the Swamajayanti Gram Swaraj gar Yojana (SGSY) initiative by the Ministry of Rural Development strategically targeted women self-help groups to provide training and facilitate

their access to financial resources to improve their health and nutrition (Bonny et al., 2023). Another instance is the Kundumnashree (See Box 3 for details), a poverty reduction initiative that improves women's livelihoods and mitigates gender violence using a human rights approach. The initiative engages women at the local level through neighbourhood groups and local area/community development societies (Bonny et al., 2023). The primary goal of the Kundumnashree programme is the technical and financial empowerment of women to succeed in their economic and social lives, including agribusiness (Bonny et al., 2023). An example of a success story of the Kundumnashree initiative is the Nutrimix — a cereal-based powder mix (e.g., wheat, jaggery, coconut, soya, groundnut, Bengal gram) started through the initiative in 2007, which simultaneously provides women with alternative income and nutrition (Bonny et al., 2023).

Box 3: The Kerala State Poverty Eradication Strategy (Kudumbashree) in women economic empowerment

Kudumbashree meaning 'prosperity of the family' is the Kerala State Poverty Eradication Mission launched on 17th May 1998. The Mission aims to eradicate absolute poverty among women under the leadership of Local Self Governments formed and empowered by the 73rd and 74th Amendments of the Constitution of India. The Mission operates by organizing the women into community-based organizations. The Mission follows a process approach rather than a project approach. It has been recognized as an effective strategy for the empowerment of women in rural areas: bringing women together from all spheres of life to fight for their rights or for empowerment. Kudumbashree differs from conventional programmes in that it perceives poverty among women not just as the deprivation of money, but also as the deprivation of their fundamental rights. The poor need to find a collective voice to help claim these rights.

According to Kandathil et al. (2022), the Kudumbashree programme surpasses similar poverty eradication programmes elsewhere with regard to creating economic empowerment, given its numerous successes. They also recognize the programme as different from traditional anti-poverty programmes because of Kudumbashree's unequivocal emphasis on the participation of women in decisions that involve their livelihood.

⁹ Agri-preneurship refers to entrepreneurship in agriculture.

Further, the initiative, Harnessing Climate Change Mitigation Initiatives to Benefit Women exemplifies a multi-country public-private partnership for building women's resilience to climate change. The project was initiated by the Asian Development Bank (ADB) in Cambodia, Lao People's Democratic Republic (PDR) and Vietnam following the international climate change policy direction of promoting transformative changes through multi-level interventions (Lee & Zusman, 2018). The project had the same objective across signatory countries but was different in structure and mode of implementation in each of the countries. For example, in Lao PDR, the project helped women increase their capacities and skills in assembling and marketing clean cooking stoves¹⁰. In doing so, a vital component of the project was recognizing that women are not passive recipients of goods but contribute significantly to the manufacturers and supply chains. The initiative included hosting women from disadvantaged homes for nine months of comprehensive capacity-building training (Asian Co-benefits Partnership (ACP), 2016; Lee & Zusman, 2018). The local women took the lead throughout the project's conceptualization and implementation.

3.4.3 Policy approaches for addressing harmful gender norms

Norms are the standards of (in)appropriate behaviours for a group of people with a shared identity. Members of a community are often expected to adhere to social norms to maintain a sense of belongingness. As such, the values and behaviours deemed appropriate for women in rural areas inadvertently affect climate change policies and women's capacity to respond to climate change (Acosta et al., 2019). Gender norms and stereotypes are often more precarious when translated into formal policies and development plans. For example, Acosta et al. (2019) highlight a sub-section of the Uganda sub-counties Kasasa and Lwanda development plans:

"Because it is mostly women are engaged in this business [agriculture] and they are naturally weak, they cannot do much. They end up producing very little and at times they are limited by the scarcity of land. This ultimately means that very little will be earned from this business and therefore low income for the households. Men should also wake up and start involving themselves in agriculture in their households if poverty is to be kicked out of the sub-county in particular and Uganda in general." (Kasasa LG, 2015; Lwanda LG, 2015 found in Acosta et al, 2019)

¹⁰ Though Harnessing Climate Change Mitigation Initiatives to Benefit Women had a degree of success in building women's economic capacities, it is also important to note that such initiatives may unintendedly perpetuate gender stereotypes by limiting women to occupations (e.g., the stove making) that are considered 'feminine' while deterring them from venturing into occupations deemed 'masculine'.

Such unfounded stereotypes make it imperative for public policies to specifically target harmful gender norms that portray a one-sided narrative of women as vulnerable and 'weak'. However, there are some policies and development plans that seek to acknowledge gender norms but most of these policies do not have strategic goals for addressing these harmful gender norms. For example, the Development Plan of Dwaniro, Uganda, acknowledged that women's views are generally neglected in decision-making, yet their views are crucial for the county's development (Acosta et al., 2019). Similarly, the Nigerian Action Plan on Gender and Climate Change acknowledges women's roles in climate resilience and seeks to target sexism¹¹ (see Box 4).

Box 4: The Nigeria Action Plan on Gender and Climate Change: Addressing Gender Norms

The Nigeria Action Plan on Gender and Climate Change The action plan also adopts the United Nations' Framework Convention on Climate Change (UNFCCC) principles including ensuring women's equal participation in decision-making and implementation around adaptation and mitigation and ensuring that women have the opportunity to serve as agents of change at different levels of the adaptation and mitigation process (Department of Climate Change, Federal Ministry of Environment, 2021a). The policy action also encourages men's support, participation and cooperation to take shared responsibility for the elimination of sexism and also to redefine oppressive gender norms.

Further, the Malawi Gender Policy also has provisions that seek to strengthen gender mainstreaming in agriculture, food and nutrition security and encourage women's participation in all economic development processes. The policy specifies that it aims to eliminate all food taboos, cultural practices and eating habits geared towards marginalizing women and adversely affecting their nutritional security (Ministry of Gender, Children and Community Development, 2015).

3.4.4 The extent to which climate policies improve women's well-being outcomes

Public policies related to gender and climate change are often targeted at improving specific well-being outcomes such as

¹¹ The Nigerian Action Plan on Gender and Climate Change only indicates that it is part of its mandate to tackle sexism but there are no clear guidelines and budgetary allocation for implementing such policy actions.

women's nutrition/food security, health, freedom from violence, and education. Improving these outcomes can inevitably improve the livelihoods of women, increasing their resilience to environmental stressors such as climate change. Such policies include the National Action Plan on Gender and Climate Change of Nigeria¹² that specifically target the health of women, as seen in Box 5 and the Kerala State Poverty Eradication Strategy (Kudumbashree) in Box 6 (Bonny et al., 2023; Federal Ministry of Environment, 2020; Kumar et al., 2021).

Box 5: The Nigeria Action Plan on Gender and Climate Change: Implications for Health Outcomes

The action plan seeks to enhance the capacity of healthcare professionals to handle climate-induced diseases, especially among women, and reduce mortality due to climate-related diseases. This includes policy actions such as training and employing more women health workers to respond to women health needs; implement mobile health services in hard-to-reach communities; increase budgetary allocation specifically to address women's health; and establish a disease surveillance system in communities to be managed mainly by women.

The action plan also sought to train and fund women as entrepreneurs in the water management sector at the state and rural level. This includes training women in plumbing, water plant treatment, community-based quality monitoring system and service provisions at state and rural levels.

Also, violence and abuse targeted at women thwart their ability to engage in productive ventures and, by extension, adapt and become resilient to climate change. According to Masson et al. (2019), women's experience of violence impacts their health status and livelihoods, which hinders climate change resilience at the individual, household and community levels. Thus, mitigating gender-based violence is crucial for women's resilience capacities and must be a primary focus of public policies. An example of policies that tackle gender-based violence is the Kerala State Poverty Eradication Strategy (Kudumbashree), as seen in Box 6.

Box 6: The Kerala State Poverty Eradication Strategy (Kudumbashree): Mitigating Gender-Based Violence

In 2011, the Kudumbashree program strategy and by-laws were revised to ensure more autonomy and linkages of women's economic activities with services for social defence and gender-based violence prevention. Through the initiatives, women's self-help organizations act as deterrents and watchdog mechanisms against violence (Bonny et al., 2023; Pat, 2005). As a result, women have reported a significant reduction in violence against women and increased respect for women (Kumar et al., 2021; Siwal, 2009).

Policies such as the Nigeria National Gender Policy and the National Climate Change Policy have sought to promote women's well-being outcomes by increasing their access to productive services such as information, extension services and credit (Department of Climate Change, Federal Ministry of Environment, 2021; The Federal Ministry of Women Affairs and Social Development, n.d.). For instance, the Nigeria National Gender Policy aims to improve the banking system to provide equal access to financial assistance for men and women, including loans from banks. Additionally, the policy aims to ensure that microcredit is a supplementary source of funding for women's businesses rather than their primary source of financing. Similarly, the National Climate Change of Nigeria seeks to build the capacity of extension officers on the intersectional needs of women farmers. This help provide bespoke extension services to the diversity of women needed to improve crop yield and women's resilience capacities. Table 3 in the appendix further presents some selected approaches that seek to improve specific wellbeing outcomes among women in the Global South.

¹² While the National Plan on Gender and Climate Change of Nigeria explicitly have gender provisions targeted at women's health outcomes, there is inadequate policy actions to achieve these goals aside indicators for the attainment of the goals such as; the number of women employed

in tackling climate related diseases, increased budgetary allocation on women health, and health surveillance system for women's health monitoring. Also, the review did not find any documentation of implementation for these policy provisions.

4 Conclusion

This working paper reviewed government policies at multiple scales (macro, meso and micro) that build women's resilience to climate change through capacity building/training, alleviating harmful gender norms, improving access to productive resources and ensuring full and effective participation. This paper also examines approaches to promote women's full and effective participation and leadership opportunities in policy processes at all levels. Most climate change and disaster risk management policy documents of countries in the global south have gender provisions that seek to ensure women's participation and leadership in climate change and disaster risk decision-making and increase women's resilient capacities. Policies also aim to increase women's resilience through technical skills training, expanding access to resources and services and supporting alternative livelihoods (Bonny et al., 2023; Kumar et al., 2021; Siwal, 2009). The review further highlighted nuances in the desired outcomes of government policies. The main priority areas included women's effective participation and leadership as a means and women's climate change and disaster resilience as wellbeing outcomes. Government policies that promote women's leadership or full and effective participation in climate and disaster risk governance explicitly or implicitly had women's leadership as either a means, an outcome or both.

Some local policies or initiatives have empowered women to lead in entrepreneurial settings and built their confidence to lead in environmental and climate change governance (e.g., Kundumnashree in Kerala, India). However, there are still gaps between policy provisions and their implementation, with social norms often impeding the implementation of national policies at the local level and insufficient budgets limiting the effectiveness of policy plans.

National policies are often a laid-out course of action, however, institutions of countries in the Global South are under-resourced and plagued with corruption and mismanagement along with patriarchal entrenchment. While policy documents may have promising action plans to alleviate the gender constraints that limit women's resilience to climate change or promote their leadership in climate governance, there is still a bridge between policy document provisions and implementations. A multitude of factors, such as lack of ownership over implementation agendas among national institutions, multiple ministries dealing with issues concurrently without sufficient coordination, cumbersome and ineffective communication, tensions between the stakeholders,

lack of clarity in the assignment of responsibilities and inadequate financial and human resources account for the policy implementation gaps (Averchenkova et al., 2019). In the Global South, especially in Africa, most national policies are based on international frameworks and usually rely on foreign aid to implement such policy actions and provisions. The lack of domestic capital mobilization for policies often hinders effective implementation. There was virtually no documented performance of the action plans stated in most national policies except the Mozambique Climate Change and Gender Action Plan. However, it is possible that there is a lack of data and information (e.g., M & E reports) on the policy implementation process to track the success or failure of these climate change resilience policies.

Government policies can also be instruments that perpetuate women's exclusion instead of promoting their participation, which often leads to the failure of supposed gender equitable policies to improve the resilience of women (see Devkota et al., 2022; Nagoda & Nightingale, 2017; Tsige et al., 2020). A significant barrier to full and effective inclusion in climate change policy-making are unequal, entrenched power relations. Overcoming this challenge requires deep engagement with actors embedded in context-specific social, cultural and political systems, which are sometimes undesirable for international donors spearheading gender policies (Nagoda & Nightingale, 2017). As such, promoting technocratic and apolitical outcomes may usually be legitimized through 'local participation' as a safe course of action or cover for women's participation in climate change policy. Internationally-informed climate change policies are plagued with politics of representation and primarily emphasize technocratic framing that sometimes circumvents sociocultural and political contestations for tokenistic inclusive and participatory processes (Ojha et al., 2016).

There is a limit to the extent public policies can promote women's leadership, especially in settings where leaders are elected. According to Nagoda & Nightingale (2017), prior participation of women in institutions significantly predicts the future participation of other women but not women's leadership, especially when leaders are elected. This suggests that while most policies increasingly have quotas to include women in climate change governance and disaster risk management institutions, women's leadership in such institutions may remain elusive due to the unequal playing field with men. Men remain the majority of power players in climate change and disaster risk governance and may gravitate to support and advocate for other men when leadership positions arise (Chauke & Ndaba, 2020).

The paper suggests the following considerations for public policies to effectively improve women's climate change and disaster risk resilience and promote their meaningful participation in climate change governance.

- ✓ Policies must focus on local resource mobilization for more context-specific local implementation spearheaded by both men and women alike. The failure of women's empowerment in climate change policy in the Global South is partly due to dependence on international sources of funding and foreign aid, which is unsustainable.
- ✓ There is a need for coherence in all national, regional and local policies to improve women's resilience to climate change. For instance, NDCs must be anchored to NDP, NAPS, NAPAs and other Gender Policies. It is also essential to cooperate with other agencies in monitoring frameworks for each ministry and budget planning cycle and for the performance metrics to include policy harmonization and integration.
- ✓ Successful and effective gender and climate change policy implementation also requires renewed political and institutional commitments and unified leadership from the

government. The mandate of agencies responsible for implementing such policies must be made clear with continual support, irrespective of government or institutional leadership changes.

- ✓ Climate change policy and women's climate change resilience should be pursued alongside the promotion of women's full and effective participation and leadership in the design, implementation of evaluation of policy actions. However, it is critical to note that women's leadership in climate change and disaster risk policies does not necessarily translate to favourable outcomes that improve women's resilience to climate change and disasters.
- ✓ Most of the policies and national plans use gender quotas for women's empowerment. Quotas are vital to increasing women's representation in climate change policy and programmes. However, it should be used alongside more comprehensive approaches (e.g., targeting gender norms and building women's leadership capacity) and not a panacea for women's empowerment.

5 References

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6 Appendix

Table 2: General search combinations

1	“policy” OR “bill” OR “legislation” OR “regulation” OR “national plan” OR “policy-blind”
2	“gender equality” OR “gender mainstreaming” OR “gender transformative” OR “gender-responsive” OR “gender integration” OR “gender-just” OR “women’s participation” OR “women agency” OR “women” OR “women’s voices” OR “gender-sensitive” OR “women’s representation” OR “women’s rights” OR “women’s leadership”
3	“climate change” OR “adaptation” OR “climate-resilient” OR “climate finance” OR “climate resilient” OR “climate innovation” OR “vulnerability” OR “climate shocks” OR “climate stressors”
4	“food” OR “livelihood” OR “poverty” OR “agri-food” OR “water” OR “forest” OR “livestock” OR “irrigation” OR “agriculture”
5	“global south” OR “developing countries” OR “developing world” OR “Nigeria” OR “Malawi” OR “India”
Search combinations	I AND 2 AND 3 AND 4
	I AND 2 AND 3 AND 4 AND 5
Inclusion and Exclusion Criteria	
Global south (Nigeria, India and Malawi must be included)	
Rural areas	
2010 - 2022	

Table 3: Selected policy approaches for increasing women’s resilience capacities and wellbeing outcomes.

Policy approach	Effect on resilience capacity	Women’s Wellbeing outcome	Country (Scale)
Protecting women's rights to accessing natural and productive resources. Equal access to and use of community resources. Increasing women's leadership and in climate and environmental decision making	Increasing women's access to and control of communal resources and services, as well as expanding their economic opportunities, leads to more diverse livelihoods and better options for adapting to climate change.	Nutrition, Entrepreneurship, financial empowerment, climate change adaptation and mitigation	India (Micro and Meso)
Agriculture-based gendered development among smallholder users of climate-smart agricultural technologies	Agricultural technologies and machinery better fits women’s needs in agricultural production	Access to information, extension services and food security	Ethiopia (Macro)
Closing the gender gaps in access to natural and environmental resources and services.	Women have greater access to/control over natural and productive resources. Women have greater access to services (e.g., climate information and finance)	Water security,	Mozambique (Macro and Meso)
Equal rights and women's participation in environmental and agricultural decision making and policy	Increased women’s involvement and participation in natural resource, environmental degradation and climate change management	Freedom from gender-based violence and women empowerment in decision making. Food and nutrition security	Malawi (Macro)
Inclusive processes for gender and climate change program design and implementation	Women's access to financial instruments and capacity development and involvement on alternative technologies. Integrate Climate change and gender in national health policy and programs,	Food security, social protection, health and disaster risk management	Bangladesh (Macro and Meso)

Source: (Bonny et al., 2023; Ministry of Environment, Republic of Mozambique, 2014; Ministry of Gender, Children and Community Development, 2015; Ministry of Environment and Forest: Government of the People’s Republic of Bangladesh, 2013; Tsige et al., 2020)



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