

POLICY BRIEF

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GENDER AND CLIMATE CHANGE RESILIENCE AND ADAPTATION: Review of literature and policy implications

EXECUTIVE SUMMARY

1. Introduction

Climate change (CC) has exerted mounting pressure on global resources. Consequently this had led to an increase in research spanning mitigation, adaptation and resilience (Bryan et al., 2017; Chersich & Wright, 2019; Opoku et al., 2021). CC, characterized by long-term shifts in temperature and weather patterns, has diverse effects on human settlements, agricultural productivity, the environment, human and animals' health, and energy resource-use. Despite being a worldwide phenomenon, the CC impacts are particularly pronounced in the global south due to the amplified vulnerability stemming from limited resources, inadequate infrastructure, weakened governance and institutions, and fragile economic and social systems. These factors hinder the effectiveness and slow down the adoption of interventions aimed at adapting to and building resilience against CC.

As South Africa has witnessed increasing climate and recurrent climate shocks in recent years, the need to explore policy interventions to enhance resilience and adaptation to CC has become imperative. This policy brief emanates from a study that assessed the gender responsiveness of climate change adaptation and resilience interventions within various livelihood sectors in the country. The primary objective was to inform policy by identifying gender gaps evident in the literature. Additionally, a literature review was conducted to assess effectiveness of CC interventions across various sectors: agriculture, health, human settlements, environment, energy, and migration. The focus on the gender responsiveness of current interventions is of paramount importance due to women's heightened vulnerability to CC shocks. The efficacy of interventions hinge on their ability to be beneficial, relevant, and accessible to women. Consequently, the brief commences with a general discourse on gender and climate change, identifying the vulnerabilities that women face in the context of climate change. Thereafter, a brief overview of the findings is presented, followed by the ensuing policy recommendations.

2. Gender and climate change

Approximately 42% of the households in South Africa are led by women.

This statistic underscores a necessity for gender responsive approaches in interventions aimed at mitigating, adapting, and building resilience against CC. In the context of this brief, gender responsiveness pertains to the facilitations of adoption, the degree of adoption, and involvement in formulating strategies and interventions for women. Extensive research has revealed that considerations have not been fully integrated into CC adaptation and resilience programs (Tantoh et al., 2021; Awiti, 2022; Kovaleva et al., 2022). This deficiency in gender-sensitive interventions inhibits women's engagement in devising pro-active and potentially effective mechanisms for adaptation and resilience, consequently, curtailing an opportunity to alleviate prevailing vulnerabilities to shocks (Hlahla et al., 2022). Many adaptation and resilience initiatives in developing countries tend to treat communities as uniform entities, disregarding inherent inequalities. Despite women's capacity to explore adaptive strategies to enhance their resilience, their social, economic, and power imbalances become a formidable obstacle in confronting CC shocks (Odunyi et al. (2019); Hlahla et al., 2022; Kom et al., 2022).

Social vulnerability-Women's vulnerability on a social level emanates from their family obligations. This circumstance reduces the time available for them to strengthen their resilience and adaptation to climate change. Especially in rural regions where patriarchal norms persist, and women encounter limited social mobility.

Economic vulnerability- A staggering 71% of African women in South Africa reside below the poverty line. Additionally, households led by women are 40% more impoverished than those under male management. Women earn 25% less than men, resulting in lower disposable incomes. Consequently, this impedes their access to and affordability of technologies and interventions aimed at mitigating CC shocks.

Power vulnerabilities- Widespread social exclusion prevails in many communities, where women remain excluded from household and community level-decision making processes. The absence of land and property rights further curtail their agency to make decisions and investments to enhance resilience and adapt to CC.

These vulnerabilities must be carefully considered during the formulation and execution of interventions aimed at fostering resilience and adaptation to CC.



By doing so, gender-responsive and sensitive interventions can be developed, fostering capacity for both women and male to effectively mitigate CC shocks.

3. Gender responsiveness of climate change adaptation and resilience interventions

Currently, a variety of interventions are being implemented across diverse livelihood sectors including human settlements, agriculture, environment, energy, and health. Their gender responsiveness was assessed through a combination of a desktop review and community workshops held nationwide. The specific focus of evaluation encompassed the sectors of human settlements, agriculture, environment, energy, and health.

Regrettably, the majority of interventions currently in place within the country lacks gender responsiveness. While interventions like spatial planning, early warning systems are accessible to both genders, the underlying implications reveal that women are disproportionately disadvantaged due to limited access to information, societal norms, and inadequate assets and financial resources. As such, women are unable to fully reap the benefits, rendering them unable to build resilience and effectively adapt to the shocks induced by climate change. Furthermore, the restricted involvement of women in community level decision-making exacerbates their difficulty in resource management to confront climate change shocks. Given that a significant portion of interventions require financial investments, income disparities within communities disproportionately deter women from adopting these interventions. Therefore, the subsequent section outlines policy and research recommendations derived

from outcomes of desktop reviews and engagements with community members and stakeholder.

4. Policy recommendations

Despite women's heightened vulnerability, their capacity for information sharing, and their inherency to contribute to nation-building can serve as valuable assets for the betterment of communities. The capacity of women to develop resilience and adapt to CC is not only to benefit themselves but can also have a positive spill-over effect on their immediate surroundings and future generations.

a. Training for practitioners and ground experts in spatial planning

Certain impacts of climate change encompass destructive floods that wreak havoc on homes and infrastructure. These incidents are often exacerbated by geographical slopes of the region and characteristics of the underlying terrain upon which these structures were erected. In response, affected communities often turn to community centres or places of worship for temporary shelter, while others opt to migrate to nearby locations. Hence, it is important for professionals and experts in spatial planning to undergo training aimed at crafting settlements that demonstrate resilience in the face of such shocks. The process of spatial planning should incorporate a comprehensive assessment of various factors, including topography considerations, historical and projected occurrences of shocks, as well as the distribution of households and demographic patterns. The planning and design stages must account for the anticipated shifts in population dynamics to ensure that the existing resources

can adequately accommodate the evolving needs of these communities.

b. Private and public partnerships

Addressing the issue of Greenhouse Gas Emissions necessitates the widespread adoption of flexible renewable resources including solar and wind energy. To mitigate against extreme temperature fluctuations in affordable housing, such as informal settlements, interventions developed by private companies are currently proving effective. Nonetheless, the implantation of these solutions demands substantial capital investments, which poses a significant adoption among women, primarily due to their comparatively lower incomes across rural, urban, and informal settlements (Bob & Babugura, 2014; Abegunde et al., 2019). In response, the collaboration between government bodies and private enterprises become imperative to amplify the availability of energy-efficient interventions that regulate heating and cooling within housing projects. This collaborative approach serves to alleviate the financial burden of individuals while simultaneously fostering a long-term resilience. By engaging in such partnership, the financial outlays associated with the adoption of these technologies can be minimized, thus contributing to enhance sustainability in the long-run.

c. Information exchange and dissemination

People hold diverse and levels of understanding regarding climate change. While some individuals are sceptical about its existence, others have personally witnessed the gradual shifts in their environment over time. Despite these varieties, a commonality persists in the form of inadequate knowledge about climate change, its repercussions, and the interventions aimed at adaptation and reliance building. The lack of awareness surrounding the impacts of climate change hampers societies from taking proactive steps and anticipatory measures to enhance their resilience against its effects. Consequently, there is a pressing need to enhance frameworks facilitating the exchange of information and the widespread dissemination of best practices across various livelihood sectors. Achieving this can be accomplished through a multifaceted approach, involving local social networks, telecommunications and engagements with local authorities. Through these avenues, the circulation of information can be effectively amplified, fostering a more informed and responsive society in the face of climate change challenges.

d. Local economic development

The substantial financial commitments necessary for infrastructure renewal, adoption of new sources of energy, and the incorporation of advanced technologies present formidable challenges for women. Given their comparatively lower earning in comparison to male counterparts and the higher rates of unemployment, women often encounter difficulties in meeting these financial demands. Consequently, there arises a critical imperative to bolster income generating

endeavours within communities. By fostering the development of income creating activities, women can attain the financial capability required to effectively adopt these interventions.

e. Indigenous Knowledge

Throughout the years, communities have drawn upon their indigenous knowledge to effectively counteract the repercussions of climate change. This has manifested in strategies like adapting planting seasons, cultivating alternative crops, and embracing diversification to encounter the pronounced fluctuating weather patterns over the time. These practices have significantly contributed to the resilience of communities against climate-induced shocks. Consequently, the integration of indigenous knowledge in intervention frameworks emerges as a vital factor. Inclusion of indigenous knowledge within intervention guidelines stand as paramount consideration. People are naturally inclined to heed the wisdom passed down through generations, largely due to its practicality, replicability, and cost-effectiveness. The incorporation of these time-tested practices not only acknowledges the value of indigenous knowledge but also capitalizes on its effectiveness in bolstering community resilience in the face of climate change challenges.

f. Gender focussed research

The imperative for comprehensive multidisciplinary research becomes increasingly apparent, especially considering wide ranging impacts of climate change on various livelihood sectors. The irreversible nature of many of these impacts underscores the urgency for evidence-based and context-specific studies. The approach is particularly crucial as the effects of climate change extend beyond immediate and reversible solutions. The necessity for an expanded body research, specifically focused on gauging the gender responsiveness of climate change interventions, cannot be understated. This research holds the potential to provide valuable insights that can guide the formulation of inclusive policies and programs. More gender aspects are necessary to be covered in the fields of energy, environment, health, and human settlements, as women are more vulnerable to impacts.

g. Community consultations

The active involvement of communities through consultations with government bodies and research institutions hold an immense significance. Their lived experiences should be incorporated into programs, interventions, and projects geared towards bolstering resilience against climate change. This inclusive approach ensures that the realities faced by women are duly encountered for, resulting in strategies that effectively cater to their needs and challenges.

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