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# Editorial: Gendered impacts of climate change: women and transformative research, policy and practice

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## Editorial on the Research Topic

Gendered impacts of climate change: women and transformative research, policy and practice

## Introduction

Women, particularly those in poor and marginalized areas, will be more vulnerable to the impacts of climate change due to social, cultural, economic and institutional barriers. As climate change intensifies, it is important to increase the evidence on gender-differentiated vulnerabilities and exposure to climate change impacts and, ensure gender-responsive approaches to climate change that contribute to advancing just climate action.

Women hold central roles within families and communities, and their empowerment presents important opportunities for transformative climate action. Women's access to education, resources and participation in decision-making processes can help reduce greenhouse gas emissions and enhance community resilience in the face of climate change. Whereas, the need for a gender responsive approach in understanding climate and weather impacts is acknowledged, the challenge of limited research data to inform policy and interventions persists. There is a need to understand sector specific challenges as well as the appropriate communication channels and feedback mechanisms that enhance the capacity of both men and women to respond to climate change impacts.

The nine articles in this Research Topic highlight research that addresses gendered impacts of climate change and the gender-responsive climate change mitigation and adaptation approaches, particularly the critical role that women can play in enabling or advancing transformative and sustainable climate action. In this editorial we focus on actions to advance transformative action on the gendered impacts of climate change which are covered in three main themes as discussed below:

## 1. Research needs to advance gender-responsive climate change action

Several articles suggest that further research and analysis are needed to better understand the gender-differentiated risks and power dynamics in the context of climate change. This includes collecting and analyzing comprehensive sex-disaggregated data and indicators to identify gendered impacts of climate change and the gendered social constructs that underpin climate action (Awiti; Onyango and Maguire; Rainard et al.). An asset-based approach to understanding exposure and vulnerability to the impacts of climate change is critical to constructing gender-responsive interventions (Awiti; Oluoch et al.). Awiti and Brisebois et al. also call for more research on gender dynamics within households in terms of climate risk perceptions, roles and responsibilities, decision-making power, allocation of access and rights (temporary or durable).

In the perspective by Nagel and Lies, they contend that climate change research often conflates “gender” with “women” and thus tends to portray women primarily as passive recipients or victims of the unequal effects of climate change, while obscuring the underlying structural and systemic power relations in climate change research and policy. This was supported by Rainard et al., who contend that while sex-disaggregated data is useful, there is a need to broaden the analysis of gender and climate change to include men and consider the role of gender and power in the causes, comprehension, and control of climate change. Therefore, interdisciplinary research that integrates feminist epistemologies with climate change science and acknowledges the situational and intersectional gendered dimensions and the multifaceted nature of the interactions between gender equality and climate change action is needed (Nagel and Lies; Rainard et al.).

In their paper exploring the gendered dimensions of climate change and malaria risk, Onyango and Maguire, takes this approach to analyze how gender and intersectional factors shapes/influence exposure, vulnerability and response to climate change and malaria risk using the IPCC Risk Framework, Complex Risks Theory and Feminist Political Ecology to explore actions for reducing risk and mainstreaming gender action into policy and practice under the UNFCCC Gender Action Plan.

## 2. Strengthening the role of women in advancing transformative and sustainable climate action

Recognizing the significant role of women in transformative climate action, gender-responsive adaptation and mitigation require active inclusion and participation of women and other marginalized groups in climate action. Power has a significant impact on the development of adaptive abilities by serving as the primary explanatory framework for gendered power relations (Khanom et al.). Thus, categorizing women simply as a vulnerable group without acknowledging their role in climate change responses serves to emphasize women's needs while their leadership and active participation

are unsupported and not quantified (Awiti; Khanom et al.).

Including women in climate action has the potential to reinforce the efforts of policymakers and scientists by leveraging women's capabilities in negotiation and their perspectives on the social and human dimensions of climate change (Nagel and Lies). Furthermore, including women and Indigenous peoples as critical stakeholders in the development and implementation of nature-based solutions integrates the unique knowledge and skills that women and Indigenous people have which can contribute to the success of these solutions (Gaspers et al.). Consequently, they emphasize the importance of multinational funding mechanisms to support nature-based projects that include women as stakeholders. These efforts can contribute toward establishing group-based approaches to adaptation, which improve women's recognition at a community level, their access to and authority over productive resources and enhance the space for livelihood decision-making that promote their resilience (Brisebois et al.). For example, developing grassroots-level of women communicators can build their capacity for uptake and use of weather and climate information and increase their ability to secure their right to make decisions over productive resources (Awiti).

## 3. Strategies for mainstreaming gender into climate change policy

Through an extensive review of gender and climate change in Africa, Awiti, find that actions toward mainstreaming gender into policy are limited by the lack of shared understanding among policymakers or experts about what constitutes gender-responsive solutions to climate vulnerability and risk, and that even among key stakeholders, knowledge and understanding of the intersection between the socio-economic and political dimensions of gender and climate change are both limited and uneven. Furthermore, research often looks at women as a homogenous group and ignores the role of other social factors which may result in maladaptive, non-exclusive policies as detailed by Brisebois et al. and Rainard et al.

Mainstreaming gender into climate change policies and frameworks to allow for considerations of gendered impacts, exposure and vulnerability to climate change can be achieved by acknowledging intersectional equity and justice issues (Brisebois et al.; Husaini and Davies; Khanom et al.), inclusion of public opinion, that especially takes into consideration the awareness, attitude, and preferences of women (Oluoch et al.; Onyango and Maguire), establishing and enforcing women's legal rights to assets and resources and to participate equally in lawmaking and governance, including gender equity in access to and control over land (Awiti; Brisebois et al.), the use of technology for climate change adaptation and mitigation (Awiti), linking contextual research back into existing policy frameworks (Rainard et al.) and developing international and national frameworks that support strategies for boosting resilience and capacity within frameworks that include women's lived experience of climate change disasters (Husaini and Davies;

Khanom et al.). However, the lack of information, data, and measurement of women's participation in environmental decision-making processes remain a key constraint to advancing equal and meaningful participation by women in the environment and policy arena (Awiti). Law and policy need reframing to include women, ensure gender mainstreaming in climate finance, and effectively support women in climate adaptation and mitigation actions (Awiti).

## 4. Addressing the gendered impacts of climate change

The articles in this Research Topic individually and collectively highlight both the need to increase research evidence on the gendered impacts of climate change and to acknowledge the role that women can and do play in advancing transformative climate change and mitigation and adaptation actions. The evidence presented in these papers highlights the differential vulnerability of women to the impacts of climate change, however caution is emphasized on not treating women only as a vulnerable group and recognizing that women in general are more proactive and can be key stakeholders and agents of change in climate change research and action. In 2019 at CoP 25, Parties to the United Nations Framework Convention on Climate Change (UNFCCC) agreed to an enhanced Gender Action Plan (GAP) that set out objectives and activities under five priority areas to advance knowledge and understanding of gender-responsive climate action and its coherent mainstreaming in the UNFCCC, Parties, the secretariat, United Nations entities and all stakeholders at all levels. The articles in this special collection provide useful recommendations and strategies on how key actors and stakeholders can implement gender responsive climate change activities under the five GAP priority areas. More importantly these articles focus on strategies and pathways for advancing sustainable gender-transformative climate change mitigation and adaptation actions that are holistic and intersectional.

## Author contributions

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## Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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