

Editorial

Climate change is upon us all, and its impact is not gender neutral. The climate crisis exacerbates existing inequalities, disproportionately affecting vulnerable populations due to intersecting factors like gender, age, race, class, and poverty. For instance, rising temperatures and rainfall patterns invariably affect everyone, though some people are more severely impacted due to their intrinsic vulnerabilities. Women, especially those belonging to poor households and disadvantaged races and classes, face unique threats. Interestingly, women are at the forefront of facing the threats and taking climate action, but discriminatory power structures limit their representation in the decision-making process.

Addressing gender and intersectionality in relation to climate change is fundamental to realizing climate justice, which essentially requires a fair and equitable distribution of the burdens and costs of climate change among individuals through an inclusive policy framework and cohesive risk reduction planning. The climate crisis has gradually become a global concern that has exacerbated and deepened existing inequalities. Women and girls, in all their diversity, are often impaired by discrimination that expresses itself in a gender-specific distribution of resources, representation, and rights. Therefore, women are insufficiently represented in local and national-level decision-making processes, especially among underdeveloped communities and countries.

The impact of climatic changes is generally unpredictable. Contemporary events have demonstrated that a change in climate conditions poses a significant threat to humans, particularly in terms of risks to life, security, and livelihoods. Resource-poor families rely more frequently on ecosystem services, and a deteriorated environment adversely affects them. Thus, climate change has varying consequences for women due to differences in social responsibilities and access to economic resources in different communities. Literature highlights that women are the most vulnerable citizens of developing nations and, in most cases, face enormous challenges due to climate change and disasters. Several studies have shown mounting evidence that climate change effects are gendered, and women are highly vulnerable during and after climatic disasters.

The role of women in climate action involves adaptation processes stemming from their societal responsibilities, including their roles in production, reproduction, and various community services. Against this backdrop, women's participation at all tiers of decision-making and development planning is essential and can significantly improve the outcomes

of climate projects and policies. Therefore, it is important to ensure that women have the necessary support and resources to participate fully in climate action. Hence, removing the systemic barriers and inequalities women face is significant, as it results in limited access to resources, credit, technology, employment, and economic opportunities. Empowering women and disadvantaged groups may enable them to make a more significant contribution to addressing the climate change outcomes.

Recently, intersectionality has become a widely used term, coined by Professor Kimberlé Crenshaw in 1989, which has drawn the attention of social scientists, particularly in the context of women's rights. The Oxford Dictionary defines intersectionality as "the interconnected nature of social categorizations such as race, class, and gender, regarded as creating overlapping and interdependent systems of discrimination or disadvantage". Intersectionality recognizes that everyone can have their own experiences of discrimination and oppression, and we must consider everything and anything that marginalizes people, such as gender, race, class, sexual orientation, and physical ability. Analyzing situations through an intersectional lens would help address inequalities and injustices faced by women. Gender justice is at the heart of an effective climate policy.

The project titled “Gender, Intersectionality and Climate Change: From Scientific Evidence to Action” recognizes the Role of Gender in Climate Action. United Nations Organizations (UNOs) and other national-level organizations recognize the underlying issues of gender and intersectionality in relation to climate change adaptation and human well-being, as they relate to the processes and implementation of climate policies. It can be argued that promoting inclusive and fruitful development would lead to more effective policies and strategies that consider the diverse perspectives and experiences of women and men, thereby promoting gender equality and resilience to climate change. To mark the recognition of the role of gender in climate action and to better understand the gaps and interlinkages between climate and gender, the National University of Sciences & Technology (NUST) Islamabad worked together with a range of local as well as international institutions, experts, academicians, researchers, and policymakers to choose the thematic areas for a conference. It launched a call for papers for oral as well as poster presentations. The invited papers were based on original research findings with a special focus on climate-induced gender issues in developing countries. All climate actions aim to contribute to climate-resilient and sustainable development.

The International Conference on Gender, Intersectionality, and Climate Change on September 24-25, 2024, was hosted by the National University of

Sciences and Technology (NUST), Islamabad, co-sponsored by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ). The scientific committee selected 18 papers for presentation in the technical sessions out of 93 abstracts and 39 short-listed full-paper submissions. Additionally, a photo competition was held, showcasing 17 photos related to the conference themes. To share the findings of these studies with a broader group of stakeholders, GIZ and NUST jointly made efforts to bring out this Special Issue of NUST Journal of Social Sciences & Humanities (NJSSH) with the theme, “Gender, Intersectionality, and Climate Change”. Although the invited papers for the conference were reviewed by the scientific committee comprising faculty from the School of Social Sciences and Humanities (S3H), the papers published in this special issue passed through a process of two (one local and one international) peer reviews. This special issue aims to bring together an exceptional collection of papers addressing the critical issue of gender and intersectionality in coping with the menace of climate change, employing innovative and scientifically rigorous methods. It seeks to bring forth important policy and program recommendations that, if acted upon, would improve the well-being of people in Pakistan. Given the breadth of topics covered in this Special Issue, the Editorial is to introduce the contents briefly rather than discuss a subject in-depth. This Special issue contains a policy perspective from one of our keynote speakers, Professor Muhammad Sajjad, who outlined strategies for fostering inclusive resilience building and enhancing strategies for a resilient Pakistan.

The first research article, by Qadeer et al., analyzes Pakistan’s energy system from a mitigation standpoint, highlighting both renewable and nonrenewable energy sources. The analysis offers valuable insights into the environmental implications of various energy production methods. It suggests finding ways to increase the use of renewable energy through planning land use and implementing sustainable energy projects to mitigate climate change and associated risks. The second article by *Yasmin, Sherbaz, and Irshad* finds that female labor force participation increases the household's ability to withstand climate change risk to its human security. The study recommends increasing female labor force participation at the household level to enable them to play a more profound role in combating climate change risks. The paper by *Batool, Zahra, and Ishaq* analyzes the status of knowledge, attitude, and practice regarding extreme weather events, and the findings reveal that the majority of participants had good knowledge about extreme weather events and claimed to adopt a good attitude to reduce the risks of climate change and its threats. The study suggests that agencies should introduce environmental interventions and

take pragmatic measures to raise awareness among participants, enabling them to cope with extreme weather events.

The following few articles cover the topic of adaptation to cope with the challenge of climate change and the need for a gender inclusive policy framework. *Batool and Zulfiqar* examine the relationship between climate change adaptation factors and gender, as well as their impact on maternal health. The study identifies physical, emotional, and psychological loads placed on pregnant women due to climate change and disasters, including healthcare accessibility issues, emotional strain, and sociocultural stressors. This research highlights the importance of gender inclusion in climate adaptation measures and the need to address maternal health in development policies. In the following article, *Khursheed and Bokhari* examine the maternal health of women from a legal perspective in the context of climate change adaptation. The paper provides a comprehensive review of Pakistan's climatic policies, identifying challenges to policy design and implementation, including gender-based inequalities, inadequate healthcare infrastructure, and the limited role of women in decision-making, to strengthen women's resilience to climate change.

In the following article, *Ahmad et al.* develop the dynamic nexus among climate change adaptation policies, gender-inclusive socio-demographic characteristics, and climate swap funding. The study finds that women empowerment is crucial in climate change adaptation policies. In the succeeding article, *Mushtaq and Afzal* analyze the impact of women's empowerment on green economic growth and vulnerability to climate change in South Asia. The effect of women's empowerment on green economic growth is most evident in women's leadership, mentoring, networking in multidisciplinary activities, and the utilization of female human capital through women's entrepreneurial skills. In the final article, *Ogunsakin and Ilemikun* examine the role of gender inclusion and partnerships in reducing the impacts of climate change in Northern Nigeria, which is prone to desertification, heatwaves, and extreme rainfall. The study suggests that gender inclusion and partnership are crucial for effectively implementing national government policy. Therefore, it highlights a gender-responsive, inclusive, and synchronized policy framework that aligns with other policies aimed at reducing the impacts of climate change in Northern Nigeria. The final article by *Lakhia et al.* studied the impact of knowledge and resources among the 'Climate Champions' selected and trained by Pathfinder International under the *Surmi* project implemented in selected districts of Sindh. The study shows that climate champions can be the change agents in climate-affected communities

through advocating for equitable health services and combating harmful gender norms, including gender-based violence.

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