“The Future of Climate Science is Female: Empowering women and girls in science”

PGA-UNESCO joint hybrid event to commemorate International Day of Women and Girls in Science
22 February 2022, 10:00am to 11:00am, virtual event

CONCEPT NOTE

Across societies the impacts of climate change affect women and men differently. Women are often responsible for gathering and producing food, collecting water and sourcing fuel for heating and cooking. Droughts, floods, and heat waves intensified by climate change mean these tasks are becoming more difficult and time consuming, leaving women less time to pursue their education or other sources of income, and impacting their health.

Female farmers are responsible for 45 to 80 percent of food production in developing countries, but in half the countries of the world, they are denied land rights. They are also often prevented from borrowing money, which could enable them to access skills training, fertilizer, better seeds, and the tools that would help increase their crop yields. Extreme weather events such as droughts and floods have a greater impact on the poor and most vulnerable – 70% of the world’s poor are women.

The economic stress caused by climate impacts can also mean less money for medication and for pregnant women to get the care they need. Moreover, in natural disasters, more women than men die because they have less savings or property to deal with the impacts and must shelter in unsafe places. Lack of assets and restrictions on their human rights may also prevent them from moving to safer locations.

Despite women being disproportionately affected by climate change, they play a crucial role in climate change adaptation and mitigation. Women have the knowledge and understanding of what is needed to adapt to changing environmental conditions and to come up with practical solutions. But they are still a largely untapped resource. Restricted land rights, lack of access to financial resources, training and technology, and limited access to political decision-making spheres often prevent them from playing a full role in tackling climate change and other environmental challenges.
Unleashing the knowledge and capability of women represents an important opportunity to craft effective climate change solutions for the benefit of all. More female climate scientists in the mix could potentially mean an increased emphasis on understanding and providing solutions for some of these far-reaching implications of climate change. However, women scientists continue to face unequal access to resources and opportunity and are underrepresented in their fields, including climate science. Only about 30 percent of the world’s researchers are women, with fewer holding senior positions.

A 2019 Lancet report explored the systematic and institutional barriers to women in science. Women have less success in winning grant funding, hold fewer positions in academic publishing, and author papers less often. They also face outright discrimination. A 2020 study - “Challenges and coping strategies faced by female scientists - A multicentric cross sectional study”, found that women face additional challenges: 24 percent of 263 female scientists polled faced workplace sexual harassment, 71.5 percent faced work-related stress, and 46 percent experienced work-life imbalance. An article titled, “Unequal Effects of the COVID-19 pandemic on scientists”, published (15 July 2020) by the Nature Human Behaviour Journal showed that women scientists with children were particularly hard hit by the pandemic, and lost research time.

These inequities and specific obstacles women face help explain why there are only 122 women on Reuters Hot List of the world’s 1000 top climate scientists. Among the top 100 scientific papers in the last five years, less than half were authored by women, with only 12 papers having female lead authors.

However, there has been some progress for women climate scientists. When the Intergovernmental Panel on Climate Change’s (IPCC) first assessment was published in 1990, female authors comprised 8 percent; by 2021 their ranks had risen to 33 percent. In addition, for the IPCC’s Special Report on 1.5°C in 2018, female authors comprised 38 percent. The IPCC has developed a gender plan to increase these numbers by providing equal opportunities for participation and leadership, a gender-Inclusive environment, and more training and guidance to raise awareness.

Young female climate activists have helped to spur a global environmental movement. Women leaders have spearheaded the Paris climate agreement. And women in developing countries are transforming their communities by adopting sustainable practices. While climate change may have an unfair impact on women, it has also led them to seize the levers of power in a moment of intense uncertainty, to rewrite the rules of society when the current systems of power and economy no longer seem reasonable. As women gain more representation within decision-making bodies, countries are beginning to develop gender action plans that combine climate action with efforts to improve gender equality. However, we still have a long way to go.
Objective:

Acknowledging the significance of the involvement and participation of women and girls in science for the future of the world, the President of the General Assembly in partnership with UNESCO will hold an interactive dialogue with women and girl scientists from around the world who have provided invaluable knowledge, technology, or research in science in the fight against climate change.

Guiding Questions:

a. What are some of the challenges that you have encountered as women in science, particularly in the field of climate change, and how would you propose to address these challenges?

b. What advice would you give to the next generation of women scientists working in the domain of climate science?

c. What can we do to amplify the voices and contributions of women scientists?