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## CAN GENDER EQUALITY HELP SOLVE CLIMATE CHANGE?

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### Climate Change and Gender

Is gender equality a key factor in tackling climate change? Many think so, and in this lecture Environment Professor Jacqueline McGlade will explain why in relation to UN Sustainable Development Goal 5 is to 'achieve gender equality and empower all women and girls'.

### Background

The world's poor are disproportionately affected by climate change and natural disasters, but climate change affects women and men differently. This trend is more pronounced the stronger the disaster.<sup>1</sup> Women and girls face particular vulnerabilities resulting from cultural norms and their lower socioeconomic status in society. Women's domestic roles often make them disproportionate users of natural resources such as water, firewood and forest products. As these resources become scarcer, women experience an increased work burden and may fall further into poverty as a result. Increasing population growth puts further pressure on resources.

Despite the vulnerabilities experienced by women and girls, they are often unable to voice their specific needs. This exclusion of women's voices also means that their extensive knowledge of the environment and resource conservation is untapped.

Women and men are not helpless victims of climate change but use various methods and strategies to adapt to climate change. It is increasingly recognised that empowering women, children and other marginalised groups is beneficial not only as a policy in itself, but also as a means of strengthening the effectiveness of climate change measures. However, strategies that are adopted are related to the social norms concerning what is acceptable for men rather than women.

What is clear is that when women are empowered and educated, they have more control over their lives and dedicate more resources to health and education than men<sup>2</sup>. But does gender also influence the way that environmental issues are solved, especially climate change?

In this lecture I shall talk about the differential impacts that climate change has on women and look at some of the manifestations and implications that this has on communities as well as the root causes and possible solutions.

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<sup>1</sup> Neumayer and Plumper (2007). The Gendered Nature of Natural Disasters: The Impact of Catastrophic Events on the Gender Gap in Life Expectancy, 1981–2002. *Annals of the Association of American Geographers*, 97(3), 2007, pp. 551–566

<sup>2</sup> <https://www.un.org/sustainabledevelopment/gender-equality/>



## Female storms are bad for your health

In 2014, Jung and colleagues published a paper<sup>3</sup> that indicated the following worrying phenomenon: gendered naming of natural disasters was tapping into gender stereotypes, with unintended and potentially dangerous consequences. Using archival data analysis and six laboratory-based experiments to look at the potential impact of the gender hurricane names in three areas – subjective predictions of hurricane intensity; delays to evacuation decisions; and intentions to follow an evacuation order. Reactions from the academic world were rapid and questioning of the methodology. They did not however look at the potential to reduce risk in the real-world by simply switching to a gender-neutral naming. The aim of naming storms comes from a desire to clarify, streamline and facilitate risk communications.

In the UK, the *Name our Storms* campaign led to the introduction of names in 2015, with the aim of raising awareness of the potential impacts of severe weather. Together with the meteorological service in the Republic of Ireland, and the Dutch national weather forecasting services, names are selected from suggestions sent in by the public, omitting Q,U,X,Y and Z, with an alternating male/female pattern used also by the USA since the 1970s. the full list for 2019-2020 list is: Atyiah, Brendan, Ciara, Dennis, Ellen, Francis, Gerda, Hugh, Iris, Jan, Kitty, Liam, Maura, Noah, Olivia, Piet, Róisín, Samir, Tara, Vince and Willow. Storms received names when there is a potential of medium or high impact from wind, rain and snow and an amber or red weather warning. If there was one simple fix to reducing at least some of the fatalities of extreme weather and climate related events it would be to use non-gendered names for storms!

## The Specificity of Losses

Enquire of rescue workers on the ground after a major storm or natural disaster as to whether there is a disproportionate impact on women and children and the answer is always yes<sup>4</sup>.

An earlier study by the London School of Economics and the University of Essex found that the worse the natural disaster, the bigger the gender disparity in its impact. The massive earthquake in Nepal was no exception.

Nearly five years ago, on April 25<sup>th</sup>, 2015, a massive 7.8 magnitude earthquake and violent aftershock struck near the capital of Nepal and levelled the city. It was so powerful that it shifted Mount Everest by more than one inch. It killed 9,000 people, injured an additional 22,000 people, and affected roughly one quarter of the country's population. Nearly 800,000 buildings were damaged or destroyed, leaving thousands to live outside with limited access to water and electricity. The earthquake not only destroyed homes, offices, and infrastructure but also disrupted social, economic, and political processes in the country. All told, the economic impact from the earthquake's damage was estimated at around \$7 billion.

More women and girls died in the quake than men and boys, according to the government of Nepal. Women who survived were also harder hit because of their disadvantaged economic and social standing.

In the days following, it quickly became clear that the resident population of survivors was predominantly made up of women. Women did not hesitate to respond to the crisis. Women's organizations leapt into action to mobilize volunteers and provide aid to survivors by distributing food, medicine, clothing, and monetary support. Many of these organizations paid special attention to the needs of women, delivering maternity and baby care kits and providing special care for pregnant women, lactating women, and adolescent girls. They offered psychosocial support, created safe space for women to gather, and connected survivors to formal humanitarian aid and legal services. These organizations worked quickly and built networks to maximize their reach. International actors played a significant role in providing relief, but Nepali women were often the first responders in communities affected by the disaster.

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<sup>3</sup> Jung, K., Shavitt, S., Viswanathan, M. and Hilbe, J.M. (2014) Female hurricanes are deadlier than male hurricanes. *Proceedings of the National Academy of science (PNAS)* 111(24):8782-8787

<sup>4</sup> Buckingham, S. and Le Masson, V. (eds) (2017) *Understanding climate change through gender relations*. Routledge, Abingdon.



In their communities, women took on additional responsibilities to care for their families and neighbours, including some traditionally “male” recovery activities. With little alternative, they set to rebuilding the houses in towns and villages and the infrastructure, gathering food, shelter, clothing, and medicine for themselves and their families.

The gender dynamics of Nepali society were already shifting before the disaster struck due to the number of Nepali men who were working overseas. With around seven percent of Nepalis—mostly men—living abroad, women often headed households and assumed sole responsibility for tending children, parents, and farms. Following the earthquake, it fell to many women to help clear houses and rubble, often considered a man’s job. They played a crucial yet underappreciated role in the relief efforts, in spite of the serious and disproportionate impact the earthquake had on women.

Following the earthquake, Nepali women faced many challenges. Many had lost their identification cards during the quake, which were required for receiving assistance, and had difficulty accessing humanitarian relief. Women were especially likely to lack proof of citizenship or proof of ownership of property, making it difficult for them to receive aid and regain access to their homes. In rural and urban areas alike, pregnant women, women with young children, women of certain castes, and widows were particularly affected by the earthquake, as they faced pre-existing physical, social, and cultural constraints. These constraints made it more difficult for them to access aid, regain their economic livelihoods, and re-enter public life.

Nepali women made up the majority of agricultural and informal sector workers, and so faced a severe income shock due to the loss of food stocks, livestock, and crop productivity. The government anticipated women’s recovery would take longer than men’s, given that women are burdened with domestic work and have limited access to economic resources and fewer alternate livelihood options.

Nepal is an extreme case of the gender specificity of loss. Current research on major disasters shows that women suffer disproportionately in comparison to most men when disaster strikes, with the elderly and poor more vulnerable than those with more mobility and those with greater access to resources.<sup>5</sup> There were 1.5 times as many women as men who died during the 1995 Kobe earthquake and three times as many women as men who died from the 2004 Asian tsunami. Of those individuals reported to have died in 2005 because of Hurricane Katrina, over a hundred from the state of Louisiana remain missing. At the same time, for over a hundred of the 1,464 fatalities confirmed as having taken place during or in the immediate aftermath (September and October) of the storm, the gender, race, age, and location of death are unknown or unavailable.

To learn more about what happened to women, particularly those who are low-income, the Institute for Women’s Policy Research conducted research within Louisiana, Mississippi, and Texas and found that women generally are at greater risk during disasters and their aftermaths because of multiple factors. Most importantly, women are more likely than men to live in poverty. At the time that Hurricane Katrina hit, 25.9 percent of women in New Orleans were living below the poverty line compared to 20 percent of men.

Poverty matters, because it limits resources that in turn allow more opportunities for escape, or survival when escape is impossible. Women interviewed were residents of New Orleans public housing at the time of Katrina, and few had cars, but under normal circumstances were able to get around the city by walking or by bus; when the city flooded after the levees broke, the women who could escape their homes were then stranded around the city, unless they were able to find someone with an undamaged vehicle who would help.

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<sup>5</sup> Molin Valdés, Helena. 2009. “A Gender Perspective on Disaster Risk Reduction.” In *Women, Gender, and Disaster: Global Issues and Initiatives*, Eds. Elaine Enarson and P.G. Dhar Chakrabarti, 18-28. Thousand Oaks, CA: Sage Press; United Nations Development Programme (UNDP), *Guide to Gender-Aware Post-Disaster Needs Assessment*, Cluster Working Group on Early Recover (CWGER), January 2010; Neumayer, Eric and Thomas Plümper. 2007. “The Gendered Nature of Natural Disasters: The Impact of Catastrophic Events on the Gender Gap in Life Expectancy, 1981-2002,” *Annals of the American Association of Geographers*, 97 (3), pp. 551-566.



Other factors worsen the situation for women<sup>6</sup>. Women in most regions share a greater responsibility for childcare than men and more often than men have the home as their workplace, with residences often of less stable construction than commercial or public buildings. Women who are pregnant or recovering from childbirth have limited mobility and face additional difficulties during disasters. Women also make up a greater proportion of the elderly, typically one of the groups with the highest mortality rates during disasters—especially when, as in the case of New Orleans, hospitals were not evacuated.

Women also face a high risk of gender-based violence (physical, mental and emotional violence perpetrated due to the gender of the victim) at the time of the disaster and during the immediate response and years that follow. In Nepal, many people were displaced from their homes and lived in large groups in tents or temporary shelters, which led to security and privacy issues for women and girls. In the case of Hurricane Katrina, the rate of gender-based violence (including sexual assault and domestic violence) in Mississippi rose from 4.6 per 100,000 per day when the hurricane hit the state, to 16.3 per 100,000 per day a year later while many women remained displaced from their homes and were living in temporary shelters and trailers. The rate declined again in subsequent years. As a result of all of these different situations and conditions, during or soon after most disasters, more women are endangered than men.

Yet in spite of this, women have continued the effort of rebuilding their homes and nation and even begun to assume new roles. As communities have moved from needing immediate aid to requiring long-term recovery assistance, women are taking the lead on rebuilding their communities and preparing for future crises. In Nepal, women are being trained as masons to help repair and reconstruct the houses, infrastructure, and cultural sites damaged by the earthquake. These training programmes focus on building structures that will stand up to future earthquakes. Women are also providing training and knowledge about how to mitigate the effects of a future disaster, spreading the word about how to earthquake-proof homes and conduct first aid in times of crisis.

### **The Specificity of Gender**

Often the losses of women resulting from localised disasters are invisible, or simply not measured. In her groundbreaking book, *Invisible Women*<sup>7</sup>, Criado Perez brings together case studies, stories and new research from around the world that highlights the ways women are ‘forgotten’ on a daily basis. From government policy and medical research to technology, media and workplaces, there is a lack of gender-specific data that has unintentionally created a world biased against women. The ways in which the world is designed for men are myriad; from the shape and size of mobile phones to the ways in which lists of missing persons following a disaster are compiled, women are woefully under-represented. This is one of the reasons why there is a focus on gathering of gender disaggregated data and statistics for the UN sustainable development goals.

There is also the fact that climate change is having a greater impact on those who are most reliant on natural resources for their livelihoods and who have the least capacity to respond to natural hazards, such as droughts, landslides, floods and hurricanes. In many developing countries, it is the poorest who face the highest risks and greatest burden of the impacts of climate change and that means women.

The point of raising this issue of naming is that it starts to put gender considerations into the popular discussions about the impacts of climate change. In the aftermath of severe natural disasters, as well as those of a more modest size, the greatest burden will be felt by the poorest and least protected. This points to a need for greater solidarity when fighting climate change.

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<sup>6</sup> Gault, Barbara, Heidi Hartmann, Avis Jones-DeWeever, Misha Werschkul, and Erica Williams. “The Women of New Orleans and the Gulf Coast: Multiple Disadvantages and Key Assets for Recovery Part I. Poverty, Race, Gender and Class.” 2005. Institute for Women’s Policy Research. Publication No. D464. Washington DC; Henrici, Jane. N. “Gendered Response to Disaster in the Aftermath of Haiti’s Earthquake.” *Anthropology News*, forthcoming October 2010; Neumayer, Eric and Thomas Plümper. 2007. “The Gendered Nature of Natural Disasters: The Impact of Catastrophic Events on the Gender

<sup>7</sup> Criado Perez, C. (2019) *Invisible Women: Exposing Data Bias in a World Designed for Men*. Chatto & Windus



Whilst women are at greater risk of climate-related issues such as extreme weather and destruction of biodiversity and ecosystems, they are also critical agents of change with the potential to strengthen climate resilience within their communities.

Women can and are playing a vital role in climate action responses due to their local knowledge of and leadership in sustainable resource management and leading sustainable practices at the household and community level. Unfortunately, their unequal participation in decision-making processes compound inequalities and often prevent women from fully contributing to climate-related planning, policymaking and implementation.

Women's participation at the political level has resulted in greater responsiveness to citizen's needs, often increasing cooperation across party and ethnic lines and delivering more sustainable peace. At the local level, women's inclusion at the leadership level has led to improved outcomes of climate related projects and policies. On the contrary, if policies or projects are implemented without women's meaningful participation it can increase existing inequalities and decrease effectiveness.

Parties to the UNFCCC have recognized the importance of involving women and men equally in UNFCCC processes and in the development and implementation of national climate policies that are gender-responsive by establishing a dedicated agenda item under the Convention addressing issues of gender and climate change and by including overarching text in the Paris Agreement. But all these policy plans and actions face a formidable enemy – discrimination and its stratification by gender, religion, sexual orientation, race and age.

### **Gender Discrimination and Climate Change**

One of the major ways that people can protect themselves from the extremes of climate change and more broadly is to manage land in a way which helps to avert catastrophic losses of life and natural resources<sup>8</sup>. Unfortunately, women are widely discriminated against in the area of land tenure. However, women are far less likely to be agricultural land holders; their share ranges from 0.8% in Saudi Arabia to 51% in Cabo Verde. The global share is 12.8%. In addition, 94 countries have customary, traditional or religious practices that discriminate against women, especially in owning land; yet 31% of working women are in agriculture. Only 21% of women received payments for agricultural products.

Climate breakdown and the global crisis of environmental degradation are increasing violence against women and girls, while gender-based exploitation is in turn hampering our ability to tackle the crises.<sup>9</sup>

Attempts to repair environmental degradation and adapt to climate breakdown, particularly in poorer countries, are failing, and resources are being wasted because they do not take gender inequality and the effects on women and girls into account. Campaigners calling for governments and institutions to take note, say that the impacts on women and girls must be at the heart of any viable strategies on the climate and ecology.

The International Union for the Conservation of Nature (IUCN) carried out what is understood to be the biggest and most comprehensive study yet of the issue, taking two years and involving more than 1,000 sources of research.

The report authors state: “We found gender-based violence to be pervasive, and there is enough clear evidence to suggest that climate change is increasing gender-based violence ... As environmental degradation and stress on ecosystems increases, that in turn ..creates scarcity and stress for people, and the evidence shows that, where environmental pressures increase, gender-based violence increases.”

As environmental stress linked to climate change increases, we can also see more women on the front lines. Sixty percent of respondents in the IUCN report from around the world, said they had observed gender-based violence among female environmental rights defenders, environmental migrants and refugees, and in areas where

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<sup>8</sup> Skinner, E. (2011). Gender and Climate Change: Overview Report. BRIDGE Cutting Edge Pack on Gender and Climate Change, Institute of Development Studies, Brighton

<sup>9</sup> IUCN 2020



environmental crimes and environmental degradation were taking place. More than 80 case studies clearly showed these links.

Gender-based violence was found to be the most pervasive but least talked about barriers facing conservation and climate work in many community organisations. The report found human trafficking rises in areas where the natural environment was under stress, with links between gender-based violence and environmental crimes such as wildlife poaching and illegal resource extraction. The illegal logging and charcoal trade in the Democratic Republic of Congo is linked to sexual exploitation. There are also numerous examples of gender-based violence directed against environmental defenders and climate activists, who try to stop the destruction or degradation of their land, natural resources and communities. Sexual violence is used to suppress them, undermine their status within the community and discourage others from coming forward.

Global warming and climate change is putting additional pressure on resources, as extreme weather, including heatwaves, droughts, floods and fiercer storms, grow more frequent and devastating. In most parts of the world, women are already disadvantaged and lack land rights and legal rights, so are vulnerable to exploitation. When the additional stresses caused by the climate crises bite, they are the first to be targeted. For instance, in some communities, young girls are married off as early as possible when the family faces hardship exacerbated by the climate. Globally, about 12 million more young girls are thought to have been married off after increasing natural disasters, and weather-related disasters have been shown to increase sexual trafficking by 20-30 percent.

Women and girls are also burdened with tasks such as drawing water and finding firewood, which are becoming scarcer in many areas under the ecological impact of our scramble for resources, and which expose them to further dangers of violence.

The time spent collecting water also diminishes women's overall ability to control their own time and participate in other activities including civic discourse. For example, in 61 countries where there is no access to water on premises, women and children are responsible for 73.5% of water collection; 150 million working days per year are spent fetching and carrying water in India, mostly by women; more than 40 billion working hours are lost in water collection each year. In rural Africa it takes an average of 24 minutes to get to a water source.

### **Feminist solutions to Climate Change**

Mary Robinson, former president of Ireland and UN high commissioner, is highlighting women around the world who are leading the fight against climate damage in the hopes of building a new global movement that will create "a feminist solution for climate change". Perhaps more revolutionary still, the new initiative, called Mothers of Invention, is light-hearted in tone, optimistic in outlook and presents positive stories in podcasts showcasing the work of grassroots climate activists at a local level, as well as globally resonant initiatives such as the legal challenges under way in numerous jurisdictions to force governments to adhere to the Paris agreement goals. Scientists and politicians feature alongside farmers and indigenous community leaders from Europe, the US and Australia to India, Kenya, South Africa and Peru.

As she says "Climate change is not gender-neutral – it affects women far more. So, this is not about climate change, it is about climate justice." With her collaborator, Irish comedienne Maeve Higgins, they are looking at the issues such as of social justice, and how they are bound up with feminism and the effects of climate change on the basis that A feminist solution to climate change involves everyone.

While women have important capacities as agents of transformation, they also have specific vulnerabilities that tend to be exacerbated in the presence of extreme weather events because they usually have fewer opportunities in accessing and controlling resources.

The Dominican Republic, which is among the ten nations most affected by climate events worldwide, and, in terms of gender equality, is the fourth most unequal country in Latin America and the Caribbean, after Haiti, Panama and Guatemala is proposing a range of actions under its climate response to Paris, including:



expressly apply the gender approach to disaster management (economic security, health security, physical security and sexual security of women are more threatened in disaster situations); combat the prevalence of diseases such as dengue, zika and chikungunya in women; include the gender and climate change approach in the draft Water Law; implement a permanent watershed reforestation plan in which women actively participate; strengthen the gender approach in fisheries sector policies (women have very little participation in the planning, programming and management processes of this activity); propose a specific financing line to support women-led forestry activities; design technical education projects aimed at women to teach them to build community infrastructure from waste; encourage the participation of women in the construction of sustainable infrastructure that is resilient to climate change; create technical training programs that empower rural women as leaders and as multipliers of environmentally friendly and climate-friendly production initiatives; include the gender and climate change approach in the legislation that regulates the tourism sector; train women in rural areas in the installation of renewable energy systems; recognize shared ownership,

### **Visibility through Gender Desegregated Data**

There is an urgent need for more information and data disaggregated by sex in all sectors to help policies, actions and solutions take root. Data determine how resources are allocated. Bad data lead to bad resource allocation. Criado Perez comprehensively makes the case that seemingly objective data can actually be highly male-biased, and that public spending, health, education, the workplace and society in general are worse off as a result. Climate change is no exception. If we want to build climate resilience, we need to bring the invisible half of the population, i.e. women, into decision-making, thinking and planning. Policymakers take heed.

<https://www.youtube.com/watch?v=YKmvdiXIDFI>

### **Some further references**

#### **Monitoring and evaluation**

The World Bank. (n.d.). 'Gender Informed Monitoring and Evaluation in Disaster Risk Management', Guidance Note no. 3.

#### **Toolkits**

International Union for Conservation of Nature (IUCN) and the United Nations Development Programme (UNDP). (2009). 'Training Manual on Gender and Climate Change', IUCN and UNDP

UNFPA and WEDO. (2009). 'Climate Change Connections: A Resource Kit on Climate, Population and Gender'

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