



SUSTAINABLE
ENERGY
FOR ALL

COOLING FOR ALL AND GENDER

Towards Inclusive Sustainable Cooling Solutions

Welcome

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Presentation of the Knowledge Brief Findings

- Hannah Girardeau, Energy Specialist, Sustainable Energy for All
- Eduarda Zoghbi, Energy and Gender Consultant, Sustainable Energy for All
- Alice Uwamaliya, Energy Associate, Sustainable Energy for All

Panel Discussion and Q&A

- Axum Teferra, Associate Director, Kigali Cooling Efficiency Program at ClimateWorks Foundation
- Sasmita Patnaik, Gender Advisor, Water and Energy for Food South and Southeast Asia Regional Innovation Hub
- Nathyeli Acuna, Gender Specialist, World Bank Energy Sector Management Assistance Program (ESMAP)



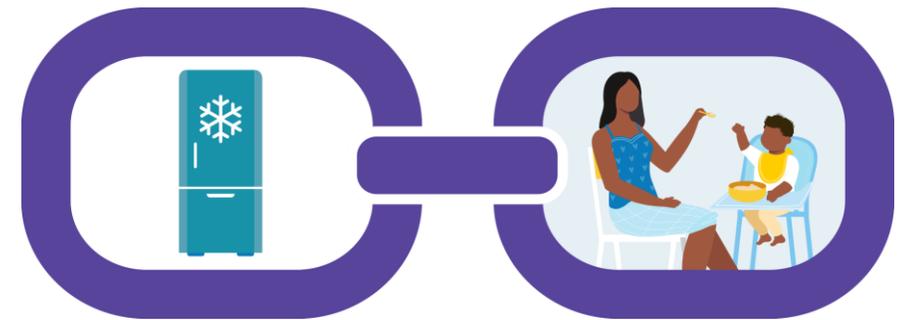
Physical response to heat

- Certain categories of people are more at-risk for heat-related health impacts, including young children, the elderly and pregnant women.
- Lived experiences where gender contributes to vulnerability increase risk of heat stress.
 - Pregnancy
 - Household responsibilities
 - Access to resources & services



Healthcare and nutrition

- Women face barriers to accessing healthcare and nutritious diets for themselves and their children.
- Healthcare facilities lack electricity for cooling services to mitigate risks for women and young children or support reliable medical cold chains for critical vaccine distribution.
- Within the household, ownership of a refrigerator has been linked to safer food preparation and childhood nutrition.





Recommendations to improve health and wellbeing through access to sustainable cooling

- Establish gender-responsive education and communication efforts to prevent impacts of extreme heat at local, municipal and national levels.
- Collect and measure data on sex-disaggregated access to cooling at local and national levels.
- Prioritize urban and rural poor for COVID-19 and other vaccine distribution, using non-medical venues to mitigate traditional constraints to healthcare access.
- Invest in and equip women with access to refrigeration technology and services to improve household nutrition and health.



Rural-Urban Divide

- The impacts of rural poverty and effects of climate change make it harder for women and men to access life-changing cooling services. Less than 15 percent of landowners are women, creating barriers to accessing credit or financing for home and agricultural solutions.
- Communities living in urban poverty often lack the means to cope higher temperatures in cities. Poor housing quality, insufficient incomes to purchase fans, and intermittent energy supply drive heat risk for a growing population.

Household and care responsibilities

- Heat-related impacts of indoor chores are expected to be borne by women, spending more time in the hottest parts of the home.
- Key decisions on household appliance purchases are often influenced by social and cultural norms as well as risk preference and spending habits.

The rural poor and urban poor in 54 countries are at high risk due to lack of access to cooling

318 million people in poor, rural settings

699 million in poor, urban settings



Recommendations to address poverty and household dynamics through access to sustainable cooling

- Apply a gender-based analysis to cooling initiatives at the household level to avoid unequal distribution of benefits.
- Increase survey data available to understand the benefits of enhanced access to cooling for women disproportionately burdened by household chores.
- Increase public and private investment in sustainable cooling solutions considering gender impacts and vulnerabilities, specifically targeting women for technology and services solutions decision-making.
- Finance women-driven cooling solutions, products and business models.



Agriculture and Fishing

- Agriculture is the most important source of employment for women.
- In fisheries, women tend to be involved in post-harvest activities, where quality losses often occur due to lack of access to refrigeration, resulting in lower incomes for traders and retailers.
- A key barrier to accessing cold chain for agriculture and fisheries faced by women is access to finance, which impacts affordability of efficient and advanced equipment and/or technological innovations.

Female share of economically active in agriculture



Source: FAO (2011). The state of food and agriculture

Gender equality in the agriculture sector needs to be addressed by implementing **labor standards including measures for informal workers** in rural areas, rural infrastructure, regulation of natural resource management and promotion of gender equity



Informal Employment

- Women working in informal settings such as outdoor street vending, domestic work and subsistence farming are at increased risk of heat stress on the job
- Informal settings are often more vulnerable workplaces for women, **with a higher chance for dehydration, and increased susceptibility to heat illness** specially during high-temperature days
- Women's incredibly high representation in informal sectors demand consideration and inclusive planning to diminish workplace cooling gaps.



Formal Employment

- Within formal employment settings, women and men both face potentially dangerous exposure to heat and the impacts of heat stress in certain industries.
 - Women: estimated 80% women make up the labor force of the textile, garment and footwear industry. **75% of the industry is based in the increasingly warm Asia-Pacific region.**
 - Men: comprise **90% of the construction and extraction workforce**. Workers specialized in roofing and road construction, have been shown to be **13x more likely to die from illness related to heat stress.**

Heat is one factor of workplace safety, but its conditions result in **lower levels of productivity, serious illness and increased vulnerabilities** for working women and men, thus increasing gendered cooling risk gaps.



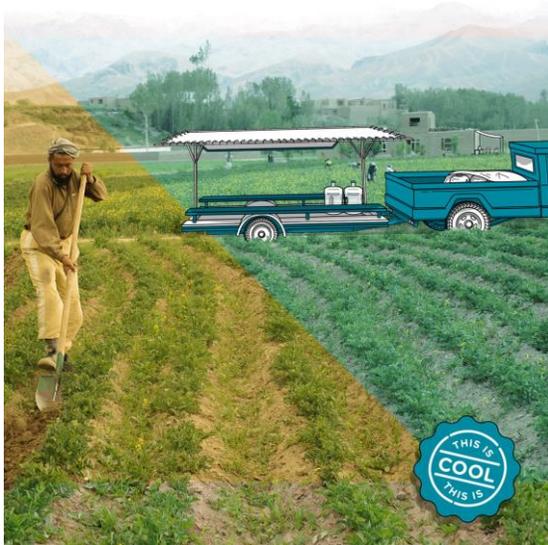
Recommendations to ensure safe and decent work through access to sustainable cooling

- Expand and enforce workplace protections, particularly for women-dominated occupations and sectors employing vulnerable populations, such as migrant workers.
- Increase investments in off-grid, solar-powered cold storage systems to reduce food waste and make more food available for subsistence and sales, ensuring food security and economic development while minimizing the adverse effects of conventional, fossil fuel-based agricultural value chains.
- Increase investment in sustainable cooling solutions that support both formal and informal workforces.

Agriculture cooling advancements

Mozambique, Nigeria, Pakistan and Sudan

- Women represent a large percentage of the agricultural workforce globally and are at higher risks of heat stress due to their time outdoors
- In food production and sales, refrigeration and food storage can support women increase their earnings and save time.



Domestic Labour Regulations

Brazil, India and Bangladesh

- Domestic work must be regulated to ensure labour rights and social protection for women working in households.
- Improvements in labour regulation are needed to upgrade work environment requirements.



Image source: BBC Brasil via Getty images



Image source: BBC

Cooling workforce

China and Indonesia

- Growing representation of women in the cooling workforce, particularly in the refrigeration and air conditioning industry.
- With growing demand for cooling, women are being encouraged to pursue careers in this increasingly important field.





Vulnerability and Poverty Data

- Sex-disaggregated data on poverty in rural and urban settings



Cooling Technology and Service Purchase and Use

- Intra-household decision-making power to purchase cooling appliances or services and beneficiaries



Women, Healthcare and Cooling

- Sex-disaggregated data on vulnerability to extreme heat, access to healthcare services and impacts of indoor air pollution



Women in the Informal Sector

- Understanding of women's participation in informal sector and cooling service needs



Women in the Workforce

- Women's representation in energy industry and cooling workforce



Call to Action – Key Recommendations

EVIDENCE: to better understand gender differences and impacts

- Conduct research and sex-disaggregated collection of data to support tracking access to cooling.
- Establish gender-differentiated measurement and evaluation of policies and initiatives.

POLICIES: supporting workplace safety, community heat planning and personal comfort

- Implement building codes and product standards and labels that support gender equality in achieving access to cooling.
- Implement heat action plans that support gender equality in achieving access to cooling in urban heat islands and extreme heat events.
- Expand enforceable workplace protections, particularly for women-led occupations and sectors employing vulnerable populations, such as migrant workers.
- Address gender equality and access to cooling in multilateral development programming.
- Champion employment gender equality to enable opportunities for women to be part of the solution and lead cooling progress locally.



Call to Action – Key Recommendations

INVESTMENT: to finance gender-transformative solutions

- Invest in solutions that remedy disparities considering gender impacts and vulnerabilities.
- Finance women-driven solutions, products and business models.
- Invest in vaccine distribution and medical services, increase outreach to vulnerable populations, and utilize non-medical venues to serve patients with access constraints.

COMMUNICATIONS: supporting attention and awareness raising

- Use #ThisIsCool to share information on sustainable cooling solutions.
- Support education of heat adaptability and communicate information to prevent impacts of extreme heat.

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Gender Advisor, Water and Energy for Food South and Southeast Asia Regional Innovation Hub

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Questions and Answers



KIGALI
COOLING EFFICIENCY PROGRAM



Schweizerische Eidgenossenschaft
Confédération suisse
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Confederaziun svizra

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Cool
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THANK YOU!



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