RISE
Reimagining Industry to Support Equality

WEAVING FAIRNESS:

How Women Workers Hold the Key to Climate Resilience in the Garment, Footwear, and Textile Sectors

August 2025

TABLE OF CONTENTS

1. Executive Summary

Climate change is already hitting the garment, footwear, and textiles sectors hard. Its impacts are rapidly compounding for both workers and businesses in countries like Bangladesh and Cambodia. Extreme heat, heavy rainfall and flooding, droughts, pollution, and other climate hazards are exacerbating existing factory problems and putting workers' lives and livelihoods, as well as business resilience, at immediate and long-term risk.

Climate change worsens existing challenges, which disproportionately affect women workers, and can lead to cascading consequences across workers' lives. In facilities with limited air circulation, for example, rising temperatures can make working conditions unbearable. Extreme heat causes dehydration and fainting putting workers' health at serious risk. It also reduces productivity and time on the job, resulting in immediate income loss for workers who are already struggling financially. Women workers often juggle factory jobs with unpaid care and domestic work, exposing them to heat and humidity for longer periods with less time to recover. To cite another example, flooded roads can delay workers' arrival at work, which can result in lost wages and cause them to be reprimanded by their supervisors, who are under pressure to meet strict productivity targets.

When workers struggle, productivity drops and absenteeism rises, which threatens both workers' well-being and business operations.

3 Critical Actions

Climate-resilient adaptation and mitigation measures that are inclusive of workers and consider the differing needs of women and men, in both process and outcome, can help the sector address intensifying climate impacts. These measures include:

- Improve factory environments to support workers in a changing climate
- Reimagine factory schedules, operations, and policies to manage climate disruptions
- Reinforce and sustain well-being and social protection systems to help workers navigate climate risks

About Why Worker-Centered Solutions Are Key to Climate Resilience

Developed through direct consultation with both women and men workers, factory managers, NGOs, funders, international buyers, worker unions and women's rights groups, this report highlights the consequences of climate change on all workers, while drawing attention to specific impacts on women—who make up most of the workforce and experience the greater challenges.

This report shows that climate adaptation and mitigation efforts will only have meaningful impact if they put workers first. As workers experience climate impacts personally, their insights can help design and implement solutions that actually work. By addressing these challenges through collaborative action, climate adaptation and mitigation can protect the majority of the workforce while strengthening business resilience.

FATEMA'S STORY

It's the rainy season in Dhaka (Bangladesh) and **Fatema,[1] a 36-year-old operator**, has been up all night, moving furniture onto tables and beds to protect her family's belongings from the floodwater seeping under the doors. By morning Fatema is exhausted, but she can't afford to miss a day's work at the garment factory a few neighborhoods over. Every day of wages matters when you are supporting your family.

"I had to walk to the factory through streets flooded with dirty water. ***In our factory's washroom, there is no soap available to clean our feet.*** *After a few days, my leg started to itch. Then it started to swell, which made working while standing impossible for me. I asked for a leave and went to the government hospital, as factory management suggested, but I didn't get any care. So my husband took me to a private hospital, where* ***I had to go through surgery, because my leg got infected****. This treatment cost me BDT 10,000.[2]* ***Factory management did not even grant me post-surgery leave****."*

Costly health issues are only part of Fatema's story. Flooding damaged her home and belongings, adding to her financial stress. Turning up at work late and tired, she couldn't perform at full capacity, which led to harassment from her supervisor and income loss, adding stress to her physical pain and financial anxiety.

[1] Name changed to ensure anonymity.
[2] At the July 2025 exchange rate, BDT 10,000 = USD $83. For comparison, the monthly minimum wage for workers in Bangladesh is BDT 12,500 (USD $103).

2. Context

The garment, footwear, and home textiles sectors are vital to Bangladesh's and Cambodia's economies, two of the most climate-vulnerable countries in the world.[3] Bangladesh could experience close to 100 days a year above 35°C by 2039, while Cambodia already averages 64 days above 35°C.[4] Geographic location, dependence on agriculture, fishing, and tourism, and widespread poverty amplify their risk.[5] Nineteen percent of adults in Cambodia and 21 percent in Bangladesh have lost income due to climate hazards.[6] Public policy efforts on climate change[7] in both countries include gender considerations, but enforcement remains weak. [8]

"**A climate hazard** is a climate condition with the potential to harm natural systems or society."- IPCC

Climate hazards include rising temperatures, unpredictable rainfall, flooding, and drought.

Climate Adaptation is the process of adjusting to the actual or expected climate and its effects to moderate harm or exploit beneficial opportunities (IPCC, 2022).

Climate Resilience is the capacity of social, economic, and environmental systems to cope with climate-related hazardous events, trends, or disturbances, responding or reorganizing in ways that maintain their essential function, identity, and structure (IPCC, 2022).

2.1 Women Workers Experience the Impacts of Climate Change Disproportionately.

Climate change is exacerbating long-unresolved problems in factories, as most businesses lack financing or processes to respond. As climate change deepens existing structural and economic inequalities, it further **threatens workers' rights, health, and livelihoods and the future of businesses.**

The large majority of garment and footwear workers are women (80 percent in Cambodia; 66 percent in Bangladesh). Half of Bangladeshi garment workers report feeling the impact of climate change through disease, heat, storms, and flooding, while 80 percent of Cambodian garment workers have reported climate change-related illness.[9]

Women often face low wages, poor working conditions, limited career growth, and persistent workplace violence and harassment. Climate change is worsening these challenges. **Women are more at risk globally of experiencing significant climate change impacts** as a result of social expectations and deep-rooted and long-standing inequalities.[10] They are 14 times less likely to

[3] Bangladesh ranks 173rd and Cambodia 149th out of 187 countries on the Notre Dame Global Adaptation Initiative's index.
[4] Thirty-five degrees Celsius is considered a threshold for the human body's ability to regulate temperature.
[5] In Bangladesh, 90 million people (over 56 percent of the population) live in high climate-risk zones. In Cambodia, climate change could increase poverty by 6 percent by 2040 and cost up to 9 percent of GDP by 2050.
[6] The World Bank. "Inclusive Digital Financial Services, Cambodia". Accessed August 26, 2025.
[7] The United Nations Framework Convention on Climate Change defines climate change as "a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods."
[8] A full list of policies is available in Annex 2 of this report.
[9] From an unpublished study conducted by CARE, Geres, and Alliance for Conflict Transformation (ACT).
[10] The Inter-governmental Panel on Climate Change defines risk as the interaction between climate hazards, exposure, and vulnerability of the affected human or ecological systems.

survive climate change disasters, according to a report by the UN Development Programme (UNDP).

Climate hazards are threatening the lives and livelihoods of workers'—especially women workers'. When women miss work or work at reduced capacity, they face immediate loss of income because few provisions currently exist to compensate workers for climate-related disruptions.

Climate hazards are also driving migration from rural to urban areas.[11,12] Often lacking agency in the decision to migrate, migrant women have fewer opportunities to negotiate contracts or advance at work and feel pressured to accept low wages.

To be effective, business strategies for climate adaptation must consider the realities women workers face. For example:

- Relocating factories to rural areas to escape heat or flooding may reduce climate risk, but it can also make commuting harder, especially if transport is limited or unsafe.
- Adjusting work hours to avoid extreme heat might improve conditions inside factories, but early-morning or late-night shifts can create safety risks and conflict with responsibilities at home.
- Offering training on climate resilience is valuable, but holding sessions during breaks or after work can exclude women who have caregiving duties.

2.2 Climate Change Impacts on Workers Have Hidden Business Costs.

When workers get sick, miss work, or can't operate at full capacity, factories face an immediate loss of productivity and income, which can affect their long-term prospects. **Yet few suppliers currently track these climate change-related costs**.

Business costs from climate change include:

- Productivity drops by 2 percent for every 1°C rise in temperature.
- In Bangladesh, climate change-related absenteeism rose by 2 percent, efficiency dropped by 8 percent, and productivity declined by 6 percent.[13]
- In Cambodia, 14 percent of workers miss production targets because extreme heat affects their physical well-being; 11 percent struggle to commute during extreme weather, which translates into increased absenteeism; and 38 percent reported income losses due to extreme weather.[14]

[11] In Bangladesh, most garment, textile, and footwear workers are internal migrants. In Cambodia, 76 percent of 902,000 internal displacements between 2008–2023 were flood-related.

[12] More than half of workers RISE interviewed in Bangladesh, and many in Cambodia, were climate change migrants.

[13] Mohammad Hayatun Nabi, Mehedi Hasan, Anika Tasneem Chowdhury, Farah Naz & Mosharop Hossian. *The impact of climate change on the lives and livelihoods of ready-made garment (RMG) workers: an exploratory study in selected readymade garment factories in Bangladesh.* BMC Public Health, 2023. Accessed August 26, 2025

[14] From a study conducted by CARE, Geres, and ACT.

Key industrial areas[15] are highly exposed to climate hazards. Infrastructure damage and supply chain disruptions cause financial losses. By 2030, heat and flooding could cost Bangladesh's ready-made garment (RMG) sector USD $27 billion and 255,000 jobs. Across Bangladesh, Cambodia, Pakistan, and Vietnam, RMG exports could drop by 22 percent.

Encouragingly, **studies show that climate adaptation and mitigation measures can protect profit and future jobs** and lead to productivity increasing by 2.66 percent each year by 2030,[16] which could increase more through people-centered strategies.[17]

2.3 Industry Net-Zero Efforts Can Have Unintended Consequences for Workers.

> *"I am concerned I might lose my job due to circularity, but I know circularity is important and necessary." —Woman worker (age 23), Kampong Speu province, Cambodia.*

Factory-level interventions to limit global warming rarely prioritize people and their needs. Low carbon[18] and circular approaches can offer decent jobs, but in the meantime, this transition affects existing jobs and livelihoods.[19] International buyers cannot ignore the potential impact on wages, given the increased capital expenses for factories.[20]

As new skills are required for emerging jobs, women risk being left behind when factory management prioritizes upskilling male workers in new technologies. Upskilling initiatives covering new technologies, energy systems, and circular production processes should be rolled out with explicit efforts to involve women. Delivered in partnership between factories, international buyers, governments, and international organizations, these programs can ensure women have the knowledge, tools, and safety training to use new systems. As these new technologies and work processes are implemented, special attention should be given to the risk of violence, harassment, and discrimination women face.

[15] Dhaka and Chittagong in Bangladesh; Phnom Penh and Kampong Speu and Kandal provinces in Cambodia, where many garment, footwear, and home textiles factories are located.
[16] A study in Bangladesh correlated a 1.41 percent increase in apparel worker productivity to reducing indoor temperatures by 2°C through cooling measures, including green or shaded roofs, ventilation, work breaks, and adequate water.
[17] According to stakeholders interviewed for this report.
[18] Environmental certifications tend to focus on basic requirements for energy efficiency, water, waste, and indoor environment.
[19] Margot Brent, Kate Coles, Cliodhnagh Conlon, Juliette Lemaire, Laura Macias, and Jacob Park. Keeping Workers in the Loop, Preparing for a Just, Fair, and Inclusive Transition to Circular Fashion. BSR and Laudes Foundation. Accessed August 26, 2025
[20] RISE interview with a civil society organization.

NADIA'S STORY
AND THE DOMINO EFFECT OF CLIMATE HAZARDS

Nadia's[21] husband is an Uber bike driver, which makes his job particularly susceptible to extreme weather changes and other climate hazards. When he can't work, Nadia has to bear the financial pressure.

> *"During heavy rain, heatwaves, or disasters, my husband can't go to work, so our family's income is always up and down." —Nadia, woman operator (age 25), Chattogram, Bangladesh*

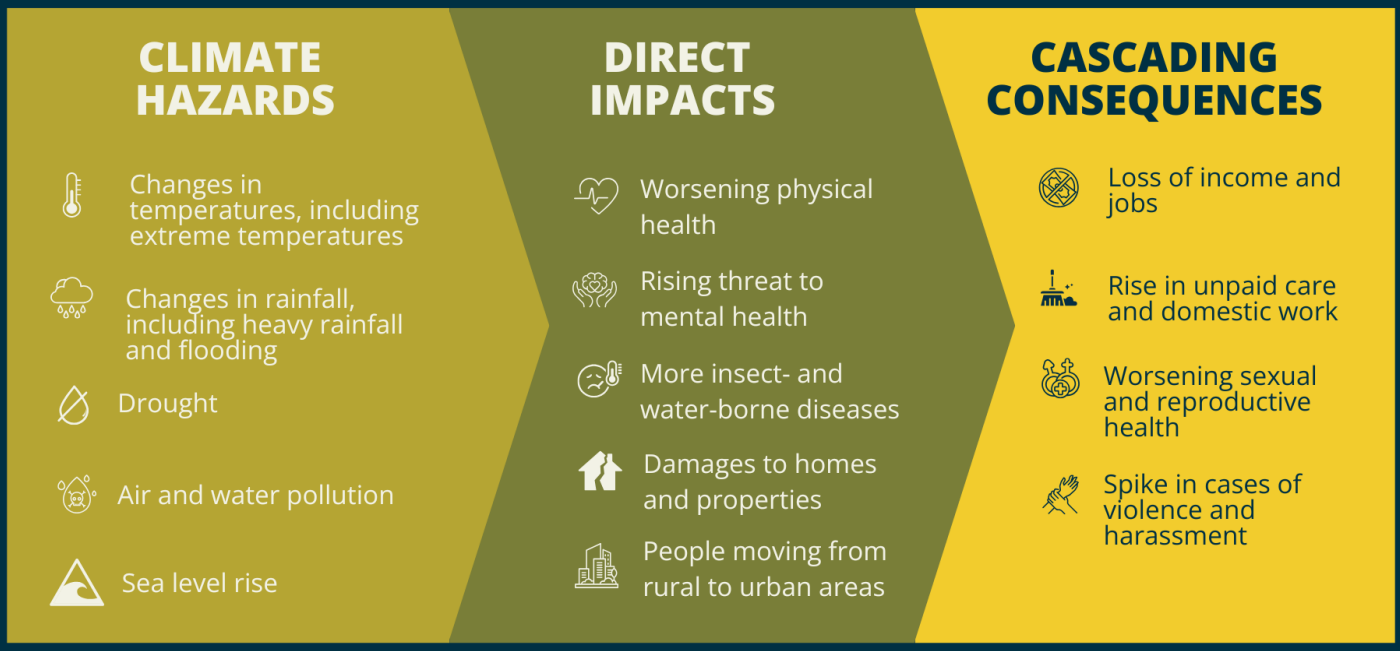
This unpredictable income puts Nadia under enormous stress because she is often the sole breadwinner. She can't afford to miss work, even if she is unwell. This financial pressure leads to additional health risks. Knowing her family depends heavily on her wages, Nadia avoids taking bathroom breaks because her factory has too few toilets for the number of women workers, and standing in a long queue costs precious work time. This increases her risk of developing a UTI, especially if there is a heatwave.

Direct impacts: Initial consequences on workers' lived experiences and day-to-day lives directly caused by climate hazards.

Cascading consequences: The systemic risks and vulnerabilities across worker experiences resulting from climate change.

Based on workers' testimonies, **the graphic below illustrates how climate impacts have a domino effect that spreads into every area of their lives**.

THE DIRECT IMPACTS AND CASCADING CONSEQUENCES OF CLIMATE CHANGE FOR WORKERS



[21] Name changed for anonymity.

3. How Climate Change Is Affecting Business and the Lives and Livelihoods of Workers

3.1 Every Climate Impact on Workers Translates into Business Costs

Climate change directly reduces factory output as workers struggle with heat exhaustion, arrive tired, and more likely to make mistakes or miss shifts due to illness and flooding. On hot and humid days, workers may produce 7–14 percent less, which leads to production and shipping delays and affects business continuity.

Lower productivity and increased absenteeism are not the only consequences of climate change for businesses. These also include:

- **Infrastructure damage**: Flooding and storms damage factory equipment, interrupt power supplies, and force expensive repairs as well as missed workdays and production delays.
- **Production disruption**: When workers can't get to the factory due to flooded roads or extreme weather, or when factories are damaged, delivery schedules risk falling behind.

However, some factories demonstrate that improvements are possible and can deliver positive business results. In Cambodia, some factories offer good cooling and heating systems, ventilation, safety training, or support with health challenges.[22]

3.2 How Climate Change Affects Workers' Well-Being

Climate change awareness

Although workers reported experiencing significant environmental changes, their awareness of what climate change means varies.

In Bangladesh, men and women workers under 25 were most likely to connect these changes to climate change issues, whereas some older women linked it to divine punishment.

> *"Climate events will happen more often in future." — Woman worker (age 24), Kampong Speu province, Cambodia*

> *"Climate change is caused by human daily activities such as deforestation, excessive use of plastic, using old machinery, and dumping waste into the environment." —Man compliance junior officer (age not specified), Kampong Speu province, Cambodia*

[22] CARE, Geres, and ACT's unpublished study of 12 garment factories.

Inadequate Water and Bathroom Facilities Lead to Illness and Missed Workdays

Sanitation facilities are often out of service during heavy rainfall, creating serious health and hygiene challenges and leading to loss of productivity.

> *"In the factory, we face issues such as lack of hygiene, insufficient clean water or unsafe water, unstandardized sanitation system." —Man compliance junior officer (age not specified), Kampong Speu, Cambodia*

Unequal access creates bigger issues for women and cause productivity bottlenecks. Although women make up most of the workforce, factories typically provide equal numbers of toilets for both men and women, resulting in women standing in long queues. Cultural taboos around women's bathroom needs worsen the situation because women feel less comfortable than men to take bathroom breaks during work hours.[23] As a result, women avoid drinking water[24] because they fear missing production hours if they need to take more bathroom and water breaks, which can lead to dehydration and illness.

> *"Refilling the water bottle takes 3–5 minutes, which can affect our production. Therefore, we are reluctant to take breaks for refills." —Woman operator (age 22), Dhaka, Bangladesh*

Diseases spread by insects[25] and contaminated water[26] can affect large portions of the workforce simultaneously. Water contamination during commutes and in factories adds to infection risks. Women face additional physical challenges during extreme heat and flooding. The combination of high temperatures, humidity, and the lack of access to bathrooms and adequate menstrual products increases the likelihood of women getting a urinary track infection (UTI) and skin problems. Pregnancy,[27] menstruation, and reproductive health lead to extra stress and worry. Women workers told us that due to rising healthcare costs they had to cut back on their own hygiene and health needs, especially menstrual hygiene.

Ventilation and Cooling Systems Don't Reach Everyone

Cooling inequalities impact productivity. Areas near management offices can be too cool while factory floors, where women primarily work, remain extremely hot.

> *"The factory cannot cope well with the increasing temperature." —Woman worker (age 29), Kampong Speu Province, Cambodia*

Heat exposure follows women outside their workplace. At home, many families avoid using fans to save on electricity costs. Commuting under the sun increases dehydration risk, while

[23] Men also have more freedom of mobility to visit bars, coffee shops, and outdoor spaces after work hours, providing opportunities to regulate body temperature and decompress.
[24] Potable water is paramount to prevent health impacts from excessive heat, yet access remains inconsistent, and while some factories offer saline water to prevent dehydration, it is not reliably available.
[25] A study from Bangladesh Institute of Labor found that 92 percent of workers reported increased mosquito and pest attacks.
[26] Sewage overflowing during flooding often leads to cholera and diarrhea.
[27] Winnie Fan and Marya G Zlatnik. *Climate Change and Pregnancy: Risks, Mitigations, Adaptation & Resilience.* Obstet Gynecol Surv., 2023. Accessed August 26, 2025.

sudden cold waves trigger illness and stress. Social expectations of modesty and sun protection can heighten heat exposure for women who wear long layers.

> *"My biggest worry is health issues caused by rapid weather changes from hot to cold and vice versa." —Woman worker (age not specified), Kampong Speu province, Cambodia*

Prolonged heat exposure creates health risks. It overwhelms the body's ability to regulate its temperature and get rid of excess heat and can lead to health challenges, such as cardiovascular, kidney, and lung disease, extreme fatigue, and even death.[28] Due to the increasingly hot and humid weather, workers are experiencing more headaches, dizziness, fainting, and skin issues. These health issues force workers to spend money they can't afford on medical care because social protection systems are often limited.

> *"After hours of working in the scorching heat, I fainted. I woke up in the hospital, where I stayed for two days." —Woman operator (age 35), Dhaka, Bangladesh*

Heat and Production Pressures Drive Gender-Based Violence and Harassment

Temperature spikes correlate with increased workplace violence and harassment as lower productivity on hot days is associated with higher rates of violence and harassment.[29]

While women workers are reluctant to speak about workplace violence and harassment, they experience more frequent aggression from factory supervisors because of climate change impacts such as tardiness and absence due to longer commutes during flooding or caretaking responsibilities.

> *"During the last rainy season, it suddenly started pouring down heavily one morning. I was late getting to the factory. The supervisor scolded me harshly in front of everyone. Because of that, I didn't even get a chance to dry my clothes and had to sit down and work in my wet clothes. When I couldn't meet the hourly target, the supervisor got angry again and started swearing at me." —Woman helper (age 22), Dhaka, Bangladesh [30]*

Rigid policies penalize late attendance, which climate change is making more likely due to disruptions like flooded and damaged roads. These policies discourage workers from taking breaks, even if they need to clean themselves after wading through floodwater during commutes.

The Mental Toll of Climate Change Is Significant

Climate change contributes to chronic stress, anxiety, fear of displacement, and increased domestic conflict, especially during floods and heatwaves. Women face higher vulnerability due to growing home and family responsibilities.

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[28] Outside the factories, air quality worsens during extreme weather, especially when it gets hotter in highly populated cities like Dhaka and Phnom Penh, which contributes to or exacerbates respiratory illnesses.

[29] Advancing Learning and Innovation on Gender Norms (ALIGN) includes "physical, sexual, emotional, verbal, and digital violence" as part of gender-based violence. In this instance, workers were mostly referring to scolding and shouting.

[30] Helpers occupy the lowest-paying jobs in factories, carrying out manual tasks such as cleaning, sorting, etc.

"The most direct impact of heatwaves on our health is increased anxiety and stress."
—Worker (gender and age not specified), Cambodia

3.3 Climate Change Creates Extra Work for Women at Home

Women workers bear the responsibility of extra domestic work, often waking early to cook and, as in Fatema's story earlier, staying up at night to protect their belongings from flooding. Some families don't have access to refrigerators, which means that during heatwaves, food spoils faster and women need to go food shopping and cook more frequently. Women are more likely to spend time doing housework, such as cooking and laundry, in hot and humid conditions.

"Women do more housework than we do. While we can go out to relax after coming home, women head straight to the kitchen." —Man quality inspector (age 35), Dhaka, Bangladesh

Increased incidence of health issues among family members, ranging from heat stress and dehydration to diseases, increase caregiving responsibilities for women, who are often responsible for supporting sick family members. As a result, they might need to skip work and lose their wages.

"When a child is sick, we must take time off to look after them, which is very stressful."
—Woman worker (age 47), Kandal Province, Cambodia

Climate change-related disruptions to work schedules, such as tardiness and missed shifts, which can be caused by primary caregiving responsibilities or flooding, lead to lost income and cause financial instability.

Women workers also noted that heat stress, financial pressures from missed work, and increased care responsibilities create tensions at home and contribute to domestic violence.

In addition, **workers noted that climate change-related disruptions drive up the cost of living** through rising food prices, healthcare costs, transport challenges, etc., increasing workers' stress.

4. Co-Creating Interventions: How to Address Climate Change Impact on Workers Now

Workers understand their working conditions better than anyone and therefore have unique insights to develop effective solutions to climate change impacts.

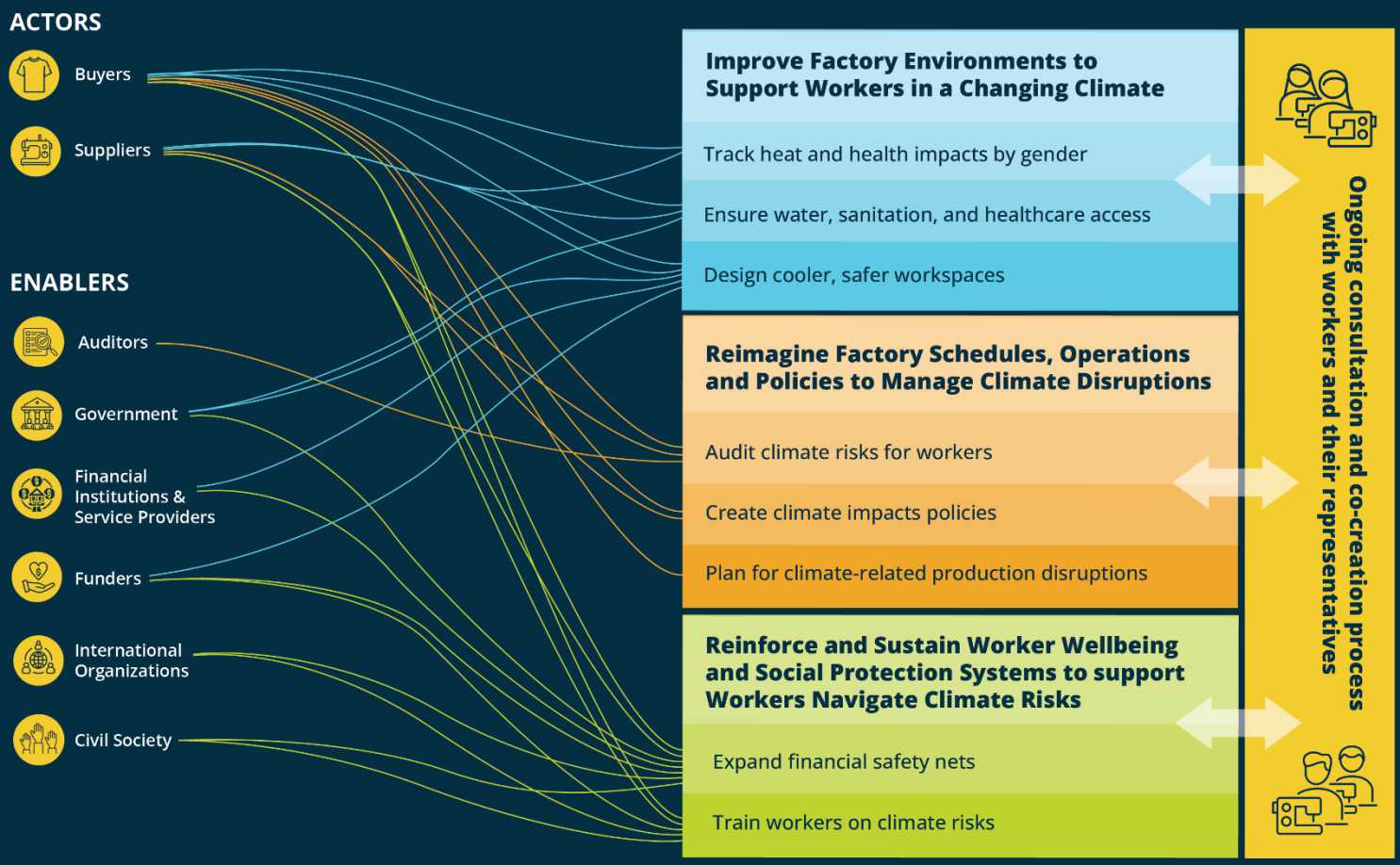
Through research and engagement, RISE and BSR co-designed strategic recommendations with stakeholders and workers across three key areas to address impacts on both workers and businesses. These solutions were developed through interviews with workers in Bangladesh and Cambodia; a multi-stakeholder workshop in Dhaka with workers, international buyers, suppliers, NGOs, funders, worker unions, women's rights groups, and industry actors; and complementary desktop research and expert interviews.

Partnering with workers, unions and their representatives throughout design, planning, and implementation ensures interventions meet real needs, avoid unintended harm, and remain grounded in local realities. Effective stakeholder engagement and social dialogue among workers, their representatives, factories, and governments is essential for shaping inclusive, climate-resilient workplaces. Concrete approaches include:

- **Actively engage women's rights organizations and women-led unions** to bring workers' lived experience into policy and decision-making spaces.
- **Include climate- and gender-related clauses in collective bargaining agreements,** such as providing protection from heat stress, flexible leave during extreme weather, a mechanism to address gender-based violence and harassment, and a mechanism to raise climate related grievances.
- **Ensure climate adaptation and mitigation is part of the labor union agenda** so that worker representatives can advocate for safer, more resilient workplaces.
- **Ensure women's meaningful participation in workplace safety committees** that include climate-related risks to help tailor responses to all workers' needs.

The following recommendations are primarily directed at factories and international buyers. However, the successful delivery of these interventions also depends on long-term investment, financing, and multi-stakeholder collaboration so that factories are not left to shoulder these responsibilities alone. In the process, we have also identified enablers for each recommended action who can help create the conditions necessary for meaningful and sustained impact.

INTERVENTIONS TO ADDRESS CLIMATE IMPACT ON WORKERS

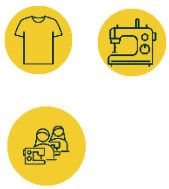


4.1 Improve Factory Environments to Support Workers in a Changing Climate

> *"The factory should insulate the roofs to reduce heat." —Man worker (age 28), Kampong Speu province, Cambodia*

> *"Providing proper sanitation and standardizing the clean water and drainage systems make conditions safer." —Man compliance junior officer (age not specified), Kampong Speu province, Cambodia*

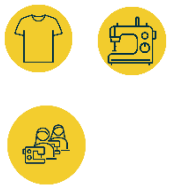
Suppliers and buyers have an immediate opportunity to address the impacts of climate change on workers and their business by improving factory infrastructure and technology. Funded in partnership with governments and NGOs, these targeted actions will lead to significant and rapid improvements, providing they account for workers' true needs and how women are affected differently than men.



Track temperature and health impacts to make better decisions

Monitoring real-time environmental conditions is the first step in making informed decisions. While some suppliers and international buyers are already collaborating to install real-time temperature, humidity, and air quality sensors to collect data, more factories need to adapt. That way, management and workers' representatives can track fluctuations across different workspaces and times of day and decide on immediate interventions and long-term planning. Factories can clearly display the results in real time, so workers are confident in the system.

To understand the differentiated impacts on diverse groups of workers, it is essential to collect data disaggregated by gender, age, disability, migration status, and other relevant factors. With informed workers' consent, factories can share anonymized data with unions, civil society, and government.

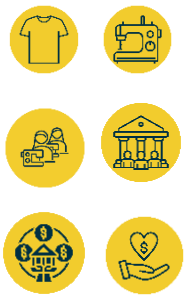


Support workers' health with sufficient clean water, safe bathrooms, and healthcare facilities

To support workers' health and maintain productivity, factories need to provide access to clean and safe water. Workers who get dehydrated or sick from contaminated water can't work properly. Factories can link water break frequency to heat rating so hydration increases when temperature spikes.

Factories need to **build accessible, safe, and private bathrooms with women workers in mind**, providing enough facilities in appropriate locations to match the high number of women workers. Building proper waste disposal systems, including trash cans and working toilets, is essential to maintain hygiene, especially during floods when the risk of waterborne illness is high.

Healthcare facilities need to be built in or near factories and remain operational during heatwaves, floods, and storms so that workers can get treated quickly.



Create cooler and safer factories while reducing energy costs

When factories are too hot, workers get unwell. **To keep workers cool and improve air quality while lowering energy costs, factories can implement simple greening solutions,** such as covering factory rooftops with plants and greenery and painting the roofs white to reflect sunlight.

In addition, **effective ventilation systems and air filters will cool down the entire factory and improve air quality**. Proper ventilation can also prevent diseases spread by mosquitoes, such as dengue and malaria, which become more prevalent with climate change, therefore reducing missed workdays for health reasons.

Case Study
Karupannya Rangpur Ltd. facility in Bangladesh

This handmade rug manufacturer redesigned its factory into a "green building" completely covered in vegetation. The changes led to an 80 percent reduction in electricity consumption and improved passive cooling and water drainage. It created shaded recreational areas for workers, 90 percent of whom are women. This demonstrates how infrastructure can be both climate-smart and worker-centered.

Build outdoor rest and recreation spaces that offer relief from heat and humidity. Shaded areas with seating and access to drinking water offer physical reprieve and a space to build social connection, which has mental health benefits. **Social cohesion plays a powerful role in resilience as workers who have a strong network can better face climate change together.**[31] In these spaces, women workers develop social networks to support each other with unpaid care responsibilities, including childcare, help each other with housing repairs, recognize health symptoms among each other, or coordinate safe commuting during extreme weather.

Financial institutions and governments play an important role in enabling suppliers to build this type of cooling infrastructure as they provide access to the necessary funding.

4.2. Reimagine Factory Schedules, Operations, and Policies to Manage Climate Disruptions

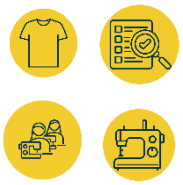
> *"The factory should consider policies for workers' salaries when climate incidents affect work." —Man worker (age 28), Kampong Speu province, Cambodia*

> *"Factories should have policies and provide benefits to workers when climate hazards affect their productivity or prevent them from working." —Man compliance junior officer (age not specified), Kampong Speu province, Cambodia*

As climate hazards become more frequent and severe, **factories need to reimagine and adapt their operational systems to ensure resilience**. Rigid factory policies and demanding production targets from international buyers worsen stress for workers when climate events

[31] For example, research in Cambodia found that union members experience less exposure to heat stress, indicating collective action can help protect workers from climate impacts more effectively than individual action.

disrupt their lives and workplaces. Climate policies must reflect workers' experience and adapt to seasonal realities, requiring international buyers and factories to stay flexible during climate disruptions.



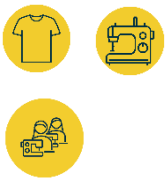
Include worker impacts of climate change in factory audits

Including climate-related risks in audits throughout the year provides a fuller picture of workers' conditions. Currently, factory audits rarely check whether workers are protected from heat, flooding, and climate-related illnesses,[32] leaving workers in vulnerable situations and businesses unaware of the risks.

Auditors, international buyers, factories, and worker representatives have an opportunity to align on capturing climate change impacts in social or environmental audits, including through gender-disaggregated data, while ensuring questions are relevant to workers.

Aligning on measurable environmental indicators, such as the Wet Bulb Globe Temperature (WBGT),[33] can help standardize factory expectations and fair responses to extreme heat. This includes mandating longer breaks or stopping work when it gets too hot while ensuring workers continue to be paid.

Heat measurement should account for the fact that women and men experience heat differently, including when cultural norms around dressing increase exposure (i.e., women wearing garments that cover more of the body) and should be factored into risk assessments and workplace protections.[34]



Create clear policies and procedures that support workers facing climate hazards

"Factories should show greater understanding when workers need leave due to health issues caused by climate change." —Woman worker (age not specified), Kampong Speu province, Cambodia

Suppliers can develop **robust and fair factory policies that include climate change clauses** and cover:

- The procedure in case of an emergency
- What happens when it gets too hot to work safely
- Water access, bathroom breaks, and rest during heatwaves
- The procedure for lateness or absenteeism during storms, flooding, family illness, or damage to household assets caused by a climate-related hazard
- Training in climate-related risks and adaptations through these clauses

[32] Mentioned by international buyers during RISE interviews.

[33] The Wet-Bulb Global Temperature (WBGT) has been consistently increasing in Bangladesh and Cambodia.

[34] Habibi P, Dehghan H, Haghi A, Shakerian M. *The Relationship Between Wet Bulb Globe Temperature and Physiological Strain Index in Muslim Women in Hot-Dry Condition in the Climatic Chamber*. Health Scope.2015;4(1):e19349. Accessed August 26, 2025

These policies should also include safe and trusted channels to report climate-related impacts. Complaints about heat stress tend to be ad hoc as there are no processes or systems in place to systematically capture these. To help address climate impacts, grievance mechanisms need to:

- Be widely known in the factory
- Make it easy to report climate-induced issues such as extreme heat, sanitation failures, or unsafe commutes
- Help track increases in violence or harassment linked to stress or production pressure during climate events, and
- Protect workers from retaliation

Flexible work arrangements can also play a key role. Suppliers and international buyers can explore adjusting shift schedules during high-heat or flood seasons to reduce exposure and commuting risks. Any change must be developed in consultation with women workers to avoid unintended consequences, such as increased insecurity during early or late commutes or added strain on unpaid domestic responsibilities.

Study Insight

An unpublished study by CARE, Geres, and Act found that of 12 garment, footwear, and textile factories, none of their social-protection policies accounted for climate impacts.

Establishing "relief teams" within factories to fill in for absent workers can allow employees to take the necessary time off without penalty. Factories that have piloted such systems report improved morale and reduced production delays.[35]

In addition to these policies and procedures, **governments have an important role to play in ensuring factories are meeting basic worker needs by establishing and enforcing labor laws and occupational health and safety policies and expectations**. Labor laws can explicitly cover climate-related risks, including protection for workers against heat and flooding with gender lenses.

Increase buyer-supplier collaboration around climate change

When buyers impose strict deadlines, even during flooding or heatwaves, factories can push workers beyond safe limits to fulfil orders. International buyers have an opportunity to manage this better and contribute to operational flexibility. They can:

- Adjust the timing of orders during climate events to relieve pressure on factories to maintain output at the expense of worker health and well-being
- Reduce financial strain by paying on time and avoiding last-minute cancellations so factories are not forced to cut corners or push workers beyond safe limits
- Plan for delays when extreme weather hits

[35] Stephanie Barrientos. *Gender and Work in Global Value Chains Capturing the Gains?*. Cambridge University Press, 2019

- Integrate factories addressing climate-specific impacts and needs as part of their supplier expectations

At the same time, it is important that **suppliers meet international buyers' expectations of global standards on decent work and worker well-being**, including access to clean drinking water, adequate bathroom facilities, and safe indoor air quality, taking into account how climate change might exacerbate the need for these basic provisions.

4.3. Reinforce and Sustain Well-Being and Social Protection Systems to Help Workers Navigate Climate Risks

> *"The government and civil society can play a crucial role by providing support—subsidies for medicine, essential supplies, and training on protection from climate-related risks." —Woman worker (age not specified), Kampong Speu province, Cambodia*

Building climate resilience across the garment, footwear, and textile industries requires stakeholders to **go beyond basic compliance and invest in systems that actively safeguard worker well-being—physically, mentally, and financially—over the long run**. The impacts of climate change are not limited to infrastructure or production. They affect the health, safety, and dignity of workers, with women bearing them disproportionately. A climate approach that protects workers while addressing environmental goals requires targeted support systems that address these risks.

Expand financial safety nets to support workers during climate shocks

When flooding damages workers' homes and belongings, when they fall ill during a heatwave, or when they miss work to care for family members affected by climate-related events, workers rarely have savings to fall back on and might need to take on loans.

Financial service providers, in partnership with financial institutions, investors, governments, suppliers, and international buyers can **develop innovative, affordable, and scalable climate-responsive financial solutions to help workers be more resilient in the face of climate change.** These solutions include:

- **Insurance schemes designed as part of a series of products that address multiple connected risks,** such as indexed parametric insurance schemes that automatically pay out when certain conditions are met and insurance programs provided by factories that offer health coverage or paid leave during extreme weather events or climate-related illnesses. These products must be easy to access because important documents may be lost during emergencies. Payouts need to be timely and efficient, so workers aren't left in the lurch.

- **Affordable financial products,** such as salary advances, and reliable remittance services for migrant workers who need to send emergency support to their families.
- **Low-interest loans and subsidies** so workers can improve roofing, elevate floors, install better drainage systems, and install fans or ventilation systems. These measures can improve living conditions and reduce heat-related illnesses and stress.
- **Worker welfare funds and cooperatives** that provide emergency financial assistance for healthcare needs, housing repairs, or income loss resulting from climate impacts through micro-finance institutions.

Workers will most benefit from financial products if they receive financial education to build their skills and confidence, and if they receive it in a way that takes into account how women and men might use the products differently.

These financial products and services complement governments' responsibility to provide access to universal social protection, including affordable healthcare and childcare, and ensure that climate-related insurance schemes meet the evolving needs of workers and the specific needs of women workers.[36]

Examples of Financial Protection for Workers

In India, the **Women's Climate Shock Insurance and Livelihoods Initiative (WCS) microinsurance program** provides direct income to informal women workers to compensate them for wages lost due to extreme heat. Payments are automatically issued when temperatures surpass a preset threshold. The program includes an early warning system to help women prepare for heat events and let them decide whether it's safe to work.[1]

In Bangladesh, the Employment Injury Scheme (EIS) pilot launched in 2022 by the government, employers' associations, and workers' associations is developing an improved income protection system for all 4 million RMG sector workers, while protecting employers from financial and reputational loss. Voluntary contributions from international buyers finance monthly pensions. While the program does not specifically address climate-related impacts, it offers a valuable model for how to support workers during times of crisis and can inspire climate-responsive approaches to worker protection.

Help workers stay safe during climate emergencies through training

"The government, civil society, and all stakeholders should strengthen or increase training related to the issues causing climate change and waste management practices for the people in the communities, especially those living around the factory." —Man compliance junior officer (age not specified), Kampong Speu province, Cambodia

[36] For instance, the Cambodian government has been expanding the scope of social protection, including covering more people, providing free healthcare access for members, and extending coverage to family members.

To raise awareness about climate risks, suppliers and international buyers can set up early warning systems and workplace education programs to train workers in factory protocols, emergency preparedness, and how to prevent and address climate-related health challenges.

Training, awareness, and worker well-being programs need to integrate climate content. This includes:

- **Awareness-raising of heat impacts on health**, including symptoms of different heat-related illnesses, personal or job-related risk factors (e.g., pregnancy, age, weight, heart disease, job-type), first aid (e.g., appropriate work/rest cycles, hydration, cooling methods), and the mental health impacts of climate-related stress
- **Disease prevention**, through education on diseases spread by insects or contaminated water (e.g., malaria, chikungunya, dengue, diarrheal disease, dysentery, cholera), prevention tactics at home and in the workplace (e.g., nets, long clothing, ventilation, safe use of mosquito repellant, running water, sanitation), and how to recognize and manage symptoms
- **Procedures for contacting factory management and medical services** in case of severe symptoms
- **The link between gender-based violence and harassment and heat and other climate hazards** to help workers, supervisors, and management understand the links between workplace violence and climate-related disruptions.[37]

4.4 How Unions, NGOs, Philanthropic Organizations, and Financial Institutions Can Collaborate with the Sector to Deliver Climate Resilience

None of these recommendations will work if they are implemented in a vacuum. While international buyers, suppliers, and governments lead the work outlined above (improve factory environments to support workers in a changing climate, reimagine factory schedules, operations, and policies to manage climate disruptions, and reinforce and sustain well-being and social-protection systems to help workers navigate climate risks), other organizations are crucial to the success of these efforts.

Engagement and involvement from **unions and worker representatives** is essential to bring forth the collective perspective from workers and elevate the voices of women workers. They can:

- Advocate for fair and inclusive workplaces in the face of climate change through worker networks and multi-stakeholder forums that may be less accessible to individual workers
- Promote collective bargaining mechanisms that integrate climate change impacts on workers, paying special attention to women's needs and equal representation in sectorial dialogues
- Strengthen workers' rights and protections to help avoid unintended impacts of the green transition on job availability, job quality, and wages

[37] The UN Spotlight Initiative works to prevent violence and discrimination through advocacy, capacity building, and technical assistance, and by ensuring the active participation of women and improving the quality and availability of gender-disaggregated data. The initiative is increasingly recognizing the role of the climate crisis in driving increased incidence of gender-based violence and urgently calls for the inclusion of gender-based violence into all levels of climate policy.

NGOs and international organizations can support the efforts of suppliers and international buyers by:

- Helping design worker-centered programs that account for the impacts of climate and the needs of women
- Providing factory management with adequate tools and expertise to leverage public and private climate financing
- Facilitating multi-stakeholder collaboration to promote alignment and partnership on designing and implementing climate solutions
- Supporting factories and civil society organizations in identifying and securing long-term funding opportunities for pilot solutions and systems change (e.g., worker cooperatives, collective insurance schemes, climate education platforms),
- Supporting international buyers and factories in ensuring pilots and solutions are scalable and led by women workers and local organizations, and
- Advocating for the integration of climate change into existing and future programs, worker well-being and sustainability initiatives to ensure they remain effective amid changing conditions

Philanthropic organizations and donors can invest in long-term solutions that strengthen social safety nets for workers and help them cope with the impacts of climate change. This work complements the role of governments and civil society organizations.

Finally, **financial institutions and investors** can leverage their relationships with international buyers and suppliers to encourage climate preparedness. For example:

- Investors and lenders can include both social and climate metrics in their investment decisions and due diligence processes while providing ongoing financial support to help factories meet new requirements.
- Financial actors can adopt investment decisions that support factories and international buyers to transition and increase their resilience.
- Financial actors can participate in blended finance mechanisms with public and philanthropic sources for factory infrastructure upgrades, green technology, and worker protection to help de-risk investments. Mechanisms may include concessional financing that provide loans or grants with more favorable terms (e.g., lower interest rates, longer payment periods), guarantees that protect investors from certain risks, or performance-based incentives that provide funding conditional on achieving select social or environmental goals (e.g., worker safety).

5. Conclusion—Toward Resilience

The impacts of climate change on the garment, footwear, and textiles industries are increasing due to productivity losses, infrastructure damage, and supply chain disruptions. However, by addressing these impacts through worker-centered solutions, these sectors have an opportunity to build a stronger, more sustainable industry that works for everyone.

The three critical recommendations outlined in this report protect workers while building the resilience the sector needs going forward. Workers and management should jointly consider and prioritize specific actions to implement each recommendation:

- **Build climate-resilient infrastructure** to keep workers safe and productive during extreme weather events. Factories can do that by implementing simple adjustments, such as installing cooling systems and providing access to clean water and toilets, and more comprehensive changes, such as building flood-resistant facilities designed in collaboration with women workers and their representatives, among other measures.

- **Update workplace policies** and develop clear rules that prioritize workers' safety. These can support workers when climate disasters strike so they won't risk pay cuts for being late to work due to flooding or harassment by supervisors when heat exhaustion affects productivity.

- **Create financial safety nets** that help workers recover from climate shocks. With insurance programs, emergency funds, and access to healthcare, workers and their families wouldn't have to choose between medical care and basic necessities.

Workers need to be part of the process, with special attention being paid to women workers, who make up the majority of the workforce and face the worst impacts. Their involvement going forward in both process and outcome will be key to solution effectiveness.

The evidence in this report and beyond shows that we can't achieve a transition that is both just and equitable unless we center women workers' voices and their experiences in the process.

Failing to address the impacts of climate change through a people-centered approach comes with significant business risk. Further efforts are needed, including collecting and analyzing factory-level data on the business costs of failing to address climate change impacts. Neither workers nor the sector can afford to delay action further.

With dedicated funding, expertise, and collaboration, implementation across the three recommendations is possible. Both existing workers' testimonies and qualitative data show that climate change is having devastating impacts on workers' lives—especially women workers—and on the sector. By acting now to build worker-centered climate change resilience, the garment, footwear, and textile industries will be in a stronger position to face the future.

6. About This Report: A Collaborative Effort to Map the Way to Worker-Powered Climate Resilience

To inform this report, RISE, in partnership with Consiglieri, CARE Cambodia, and BSR, engaged over 45 stakeholders, including NGOs, funders, worker unions, women's rights groups, and international buyers, suppliers, and industry associations. We also engaged 234 workers (60 percent women) and six factory managers in Bangladesh and Cambodia through participatory focus groups and interviews. RISE also consulted its members, including international buyers and suppliers, and hosted a roundtable and a multi-stakeholder workshop in Dhaka, Bangladesh.

This report was co-authored by Ariela Levy and Laura Macías with valuable contributions from the RISE and BSR teams, especially Shukrana Ahmed, Eileen Gallagher, Subindu Garkhel, Lucie Goulet, Smita Nimilita, and Christine Svarer.

Limitations

This study focuses on Tier 1 factories directly contracted by international buyers to produce final garments, textiles, and footwear. It does not capture the broader climate impacts experienced by workers across the wider supply chain, including Tier 2 and beyond (e.g., spinning, dyeing, synthetic fiber production, and raw material cultivation).

The findings reflect a limited sample of workers, factory managers, and stakeholders in Bangladesh and Cambodia and are not intended to be representative of the entire industry.

The interventions outlined are based on early discussions and require further engagement with workers and stakeholders to ensure they are practical, effective, and locally relevant. There is no one-size-fits-all solution. Interventions need to be tailored to local contexts. Systemic change will require collaboration across businesses, financial institutions, governments, civil society, and workers. Advancing these ideas will require additional funding, piloting, and dialogue. A targeted pilot focusing on one country and segment of the supply chain would help test and refine these approaches, with support from committed international buyers.

Annex 1: Existing Policies in Bangladesh and Cambodia

Both Bangladesh and Cambodia have ratified the Paris Agreement and submitted nationally determined contributions (NDCs)—Bangladesh in 2021 and Cambodia in 2020. These plans focus on emissions reductions and climate resilience. Some policies recognize gender or industry-specific needs, but implementation remains a challenge due to limited funding, weak coordination, and lack of gender-disaggregated data.

Efforts by the governments of Bangladesh and Cambodia to address climate and gender-related climate impacts include the following:

Bangladesh

- **The Climate Change Gender Action Plan (ccGAP)** complements the Bangladesh Climate Change Strategy and Action Plan (BCCSAP) by integrating gender needs and inclusivity and identifying interventions to address the unique vulnerabilities faced by women.
- **The National Adaptation Plan (NAP) 2023-2050** considers women and vulnerable groups high priority and advocates for their active involvement in planning measures.
- **The Bangladesh Climate Change Trust (BCCTF)** finances adaptation and mitigation projects, especially those that address needs of marginalized communities.
- **The Climate Promise—From Pledge to Impact**, a collaboration between UNDP and the Ministry of Environment, Forest, and Climate Change, focuses on driving a circular economy strategy, among other areas, including climate finance strategy, NDC investment plans, and net-zero pathways.

Cambodia

- **The National Green Growth Map (2009)** incorporates gender equality into green growth policies.
- **The Cambodia Climate Change Strategic Plan (CCCSP) (2014-2023),** which includes efforts to reduce gender-based vulnerabilities to climate impacts, notes that current adaptation efforts neglect the significant impacts of heat stress on labor productivity and recognizes that women are more at risk to climate change impacts, stating that it is important to prioritize their needs in adaptation and mitigation actions.
- **The Master Plan on Gender and Climate Change (2019)** strengthens gender mainstreaming across adaptation, mitigation, and disaster risk reduction investments.
- **The National Circular Economy Strategy and Action Plan (2021)** outlines Cambodia's approach to transitioning to a circular economy, aiming for sustainable development through efficient resource use and waste management. It recognizes the garment sector as a key industry that could benefit from circular economy approaches.