



Ethical  
Trading  
Initiative

ETI INSIGHTS

# Webinar series



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Trading  
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ETI INSIGHTS

# Climate change:

Addressing extreme  
heat impacts  
for workers



[www.ethicaltrade.org](http://www.ethicaltrade.org)



**For human rights, for better business**

## **Introducing ETI**

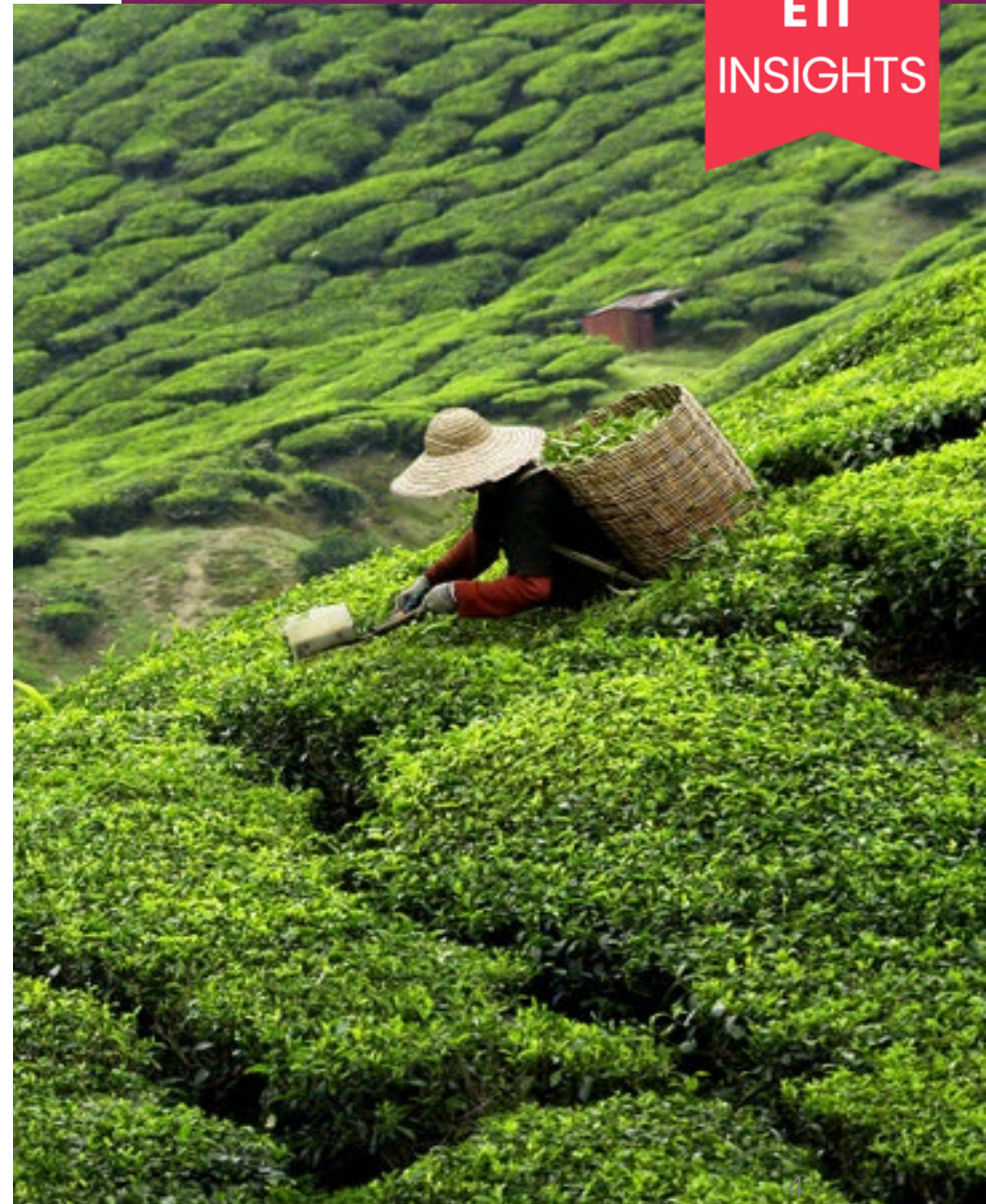
- **Membership organisation founded in 1998**  
Owner of the ETI Base Code
- **Leading tripartite human rights organisation**  
NGO, trade union and company members
- **Practical advice, guidance and implementation** Approach aligned with UNGPs and human rights legislation
- **Convening in a safe space**  
Brings all key stakeholders to convene to address salient human rights issues in supply chains



## Extreme heat webinar

# Housekeeping

- **This session is being recorded.**
- **Public webinar: we're not using Chatham House Rules.** Things you say may be quoted!
- **Please use Q&A function to ask questions and share reflections throughout.** We'll gather your questions and put these to our panellists during the discussion.



## Webinar agenda

### 1. Introduction

George Williams, ETI

### 2. Dr Laurie Parsons and Dr Pratik Mishra

Measuring and mitigating oppressive heat in work settings in Cambodia

### 3. Pauline Watine, Ethical Apparel Africa

Managing heat risk through collaborative action with workers in Ghana

### 4. Steve Craig, Unite the Union

Trade Union experience of managing heat risk

### 5. Panel discussion

Moderator: George Williams



**Dr Laurie Parsons**  
Reader in Human  
Geography at  
Royal Holloway,  
University of  
London



**Dr Pratik Mishra**  
Post Doctoral  
Researcher at  
Royal Holloway,  
University of  
London



**Pauline Watine**  
Social Impact &  
HR Director, Ethical  
Apparel Africa

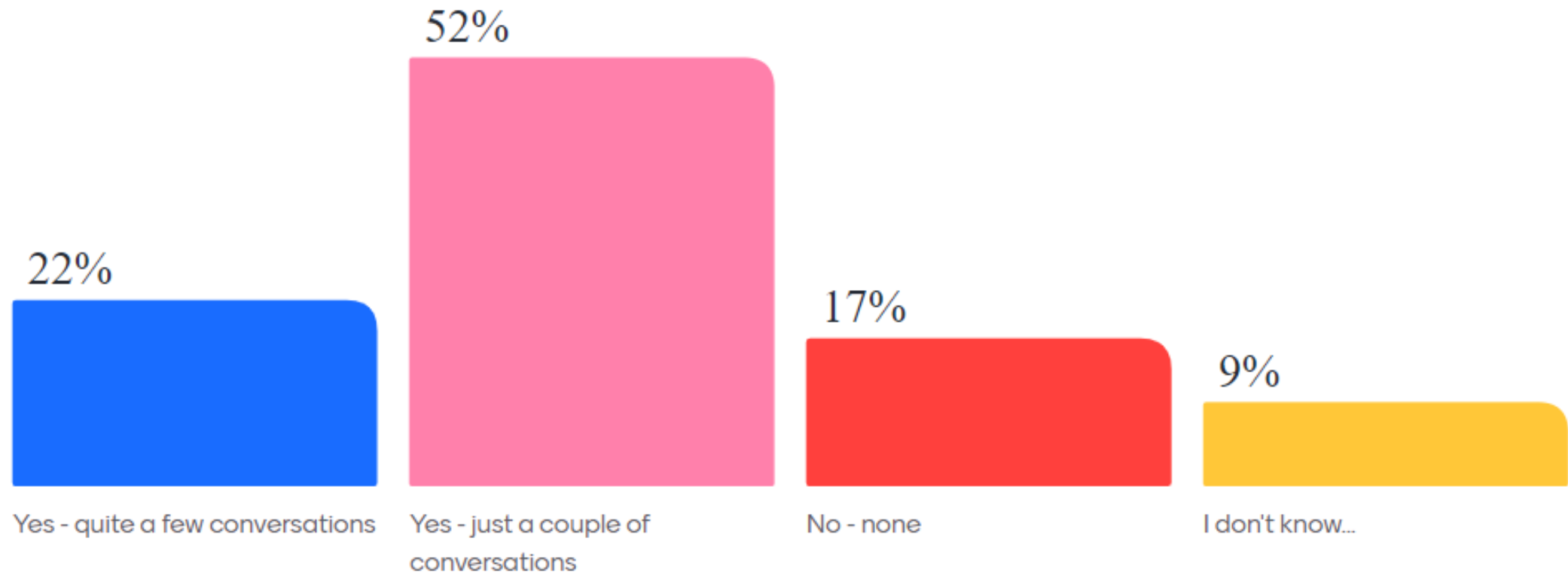


**Steve Craig**  
National  
Development Officer,  
Unite the Union



**George Williams**  
Just Transitions  
Advisor, ETI

Over the last year, have you had conversations with supply chain partners about workplace temperatures and how to ensure these are safe?



[Login to edit this Menti](#)

# Extreme heat

**“2024, with the hottest day on record, and the hottest month on record. This is almost certain to be the hottest year on record, and a masterclass in climate destruction.**

*Families running for their lives before the next hurricane strikes. Biodiversity destroyed in sweltering seas.*

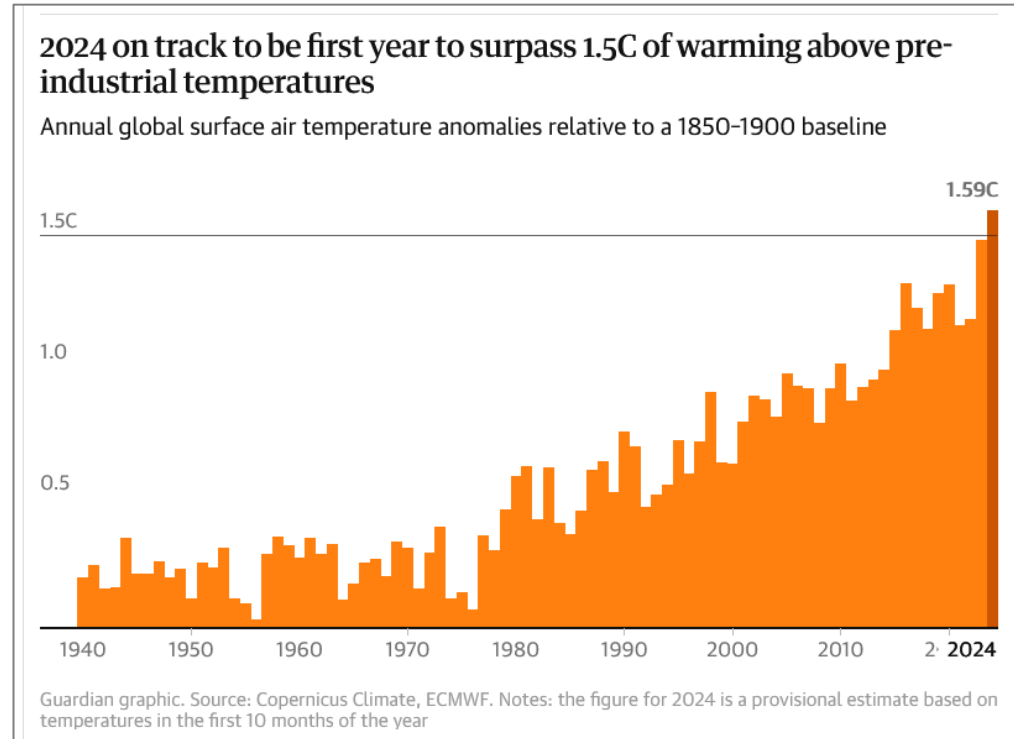
**Workers and pilgrims collapsing in insufferable heat. [...]**

**And all these disasters and more are being supercharged by human made climate change, and no country is spared.”**

Antonio Guterres – 12<sup>th</sup> Nov 2024



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# Extreme heat Impacts on workers

- ILO: 70% of workers globally face climate change-related health risks.
  - >2.4 billion people likely to be exposed to excessive heat on the job.
- Cornell Uni research: # days over 35° C by 2030:
  - Delhi – 164 days
  - Cairo – 118 days
  - Dhaka – 70 days
  - Tirupur – 51 days
  - → billions of \$ of lost earnings

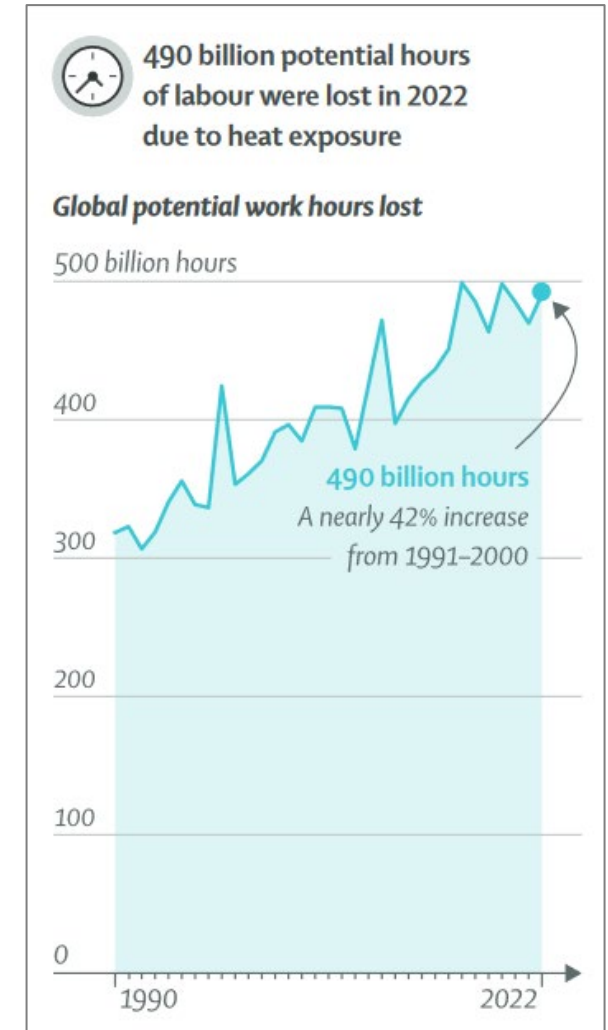


Image above from [www.thelancet.com](http://www.thelancet.com)





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# Climate Change:

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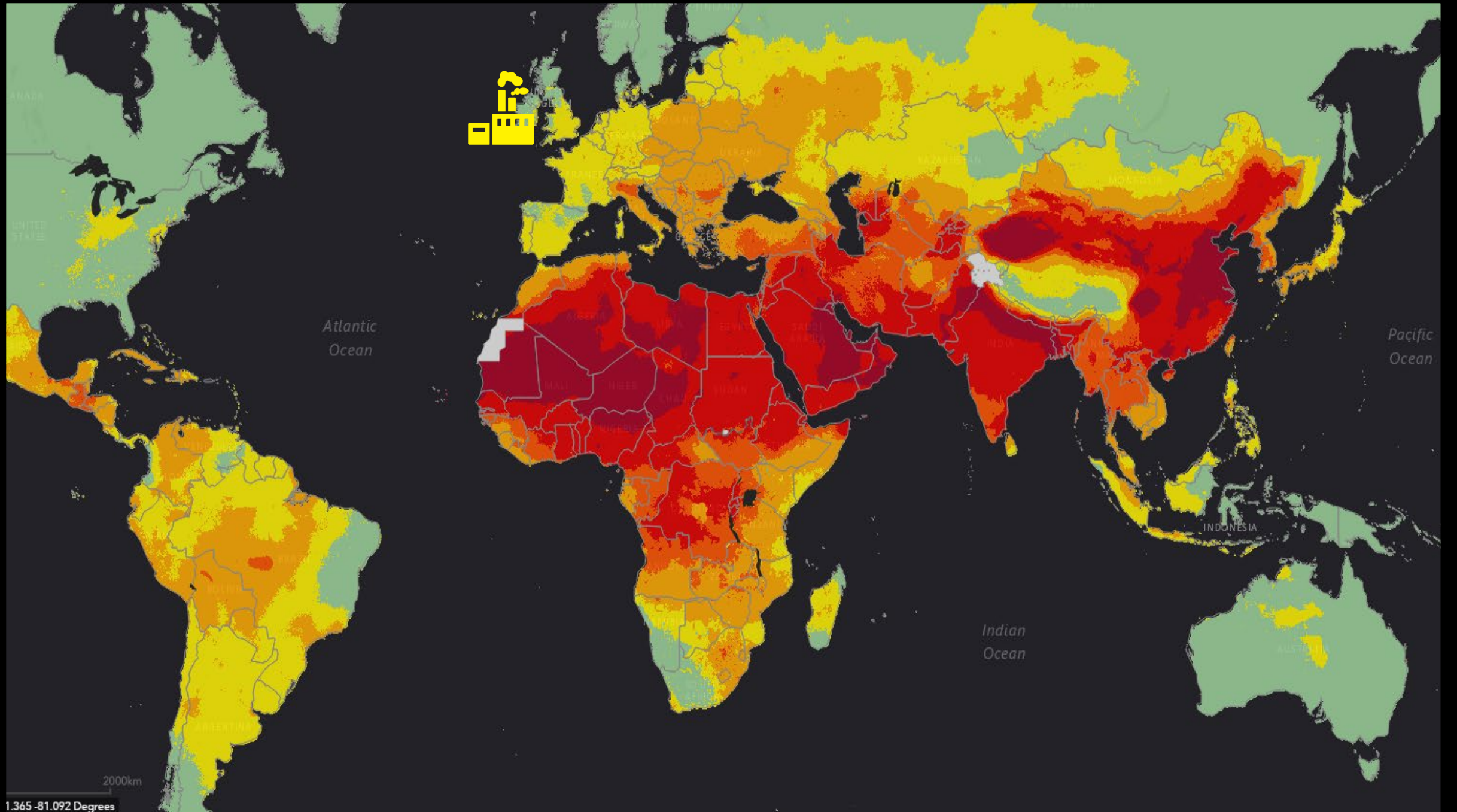




# **Worker Heat Stress under Climate Change:**

## **Challenge and Opportunity**

**What does climate change have to do with work?**

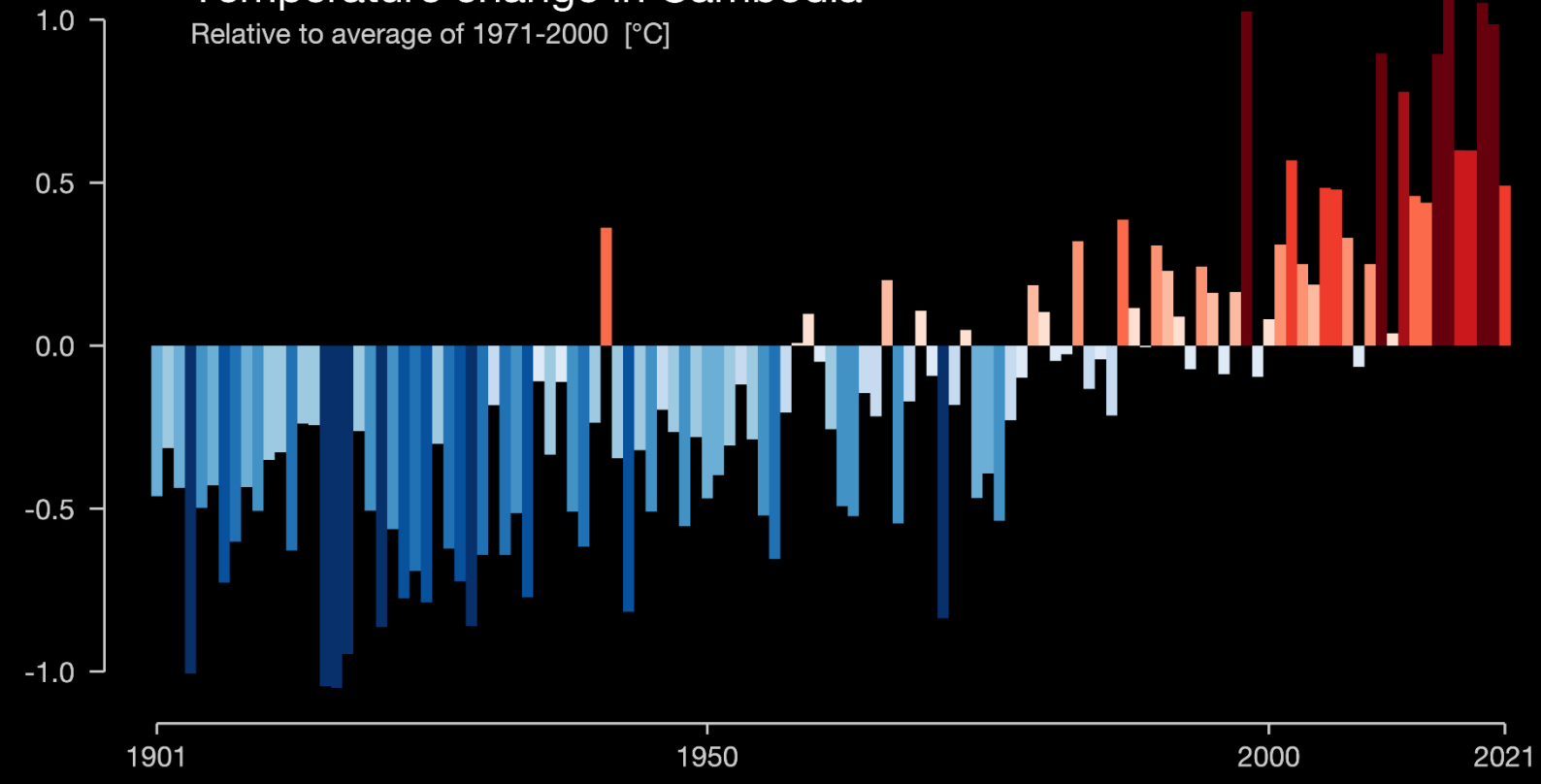


1.365 -81.092 Degrees



### Temperature change in Cambodia

Relative to average of 1971-2000 [°C]





*'It was not sizzling like this in the past, 10 years ago. Nowadays, it is burning from 9 AM. In Cambodia, we have flooding and many other things...the weather has changed dramatically. In my opinion, it is because of climate change'*

*(Sarath, union representative in Cambodia)*

# **How heat affects the working body**



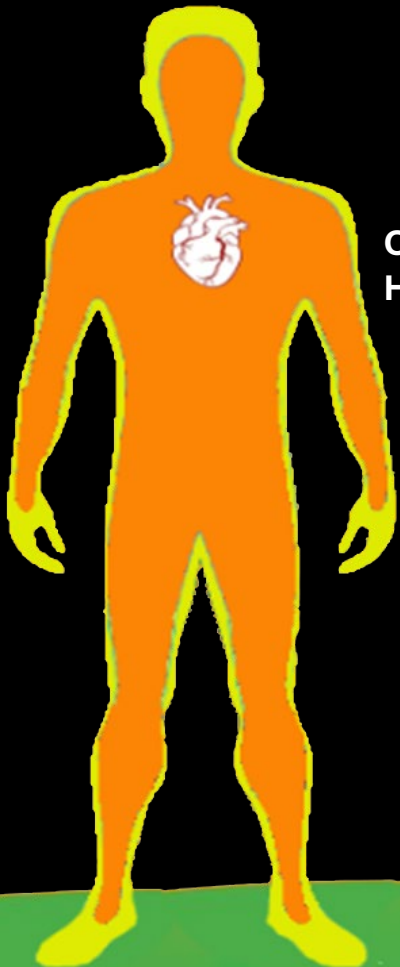
# The heating body

Body is fast to heat and heat loss is slow to start during work

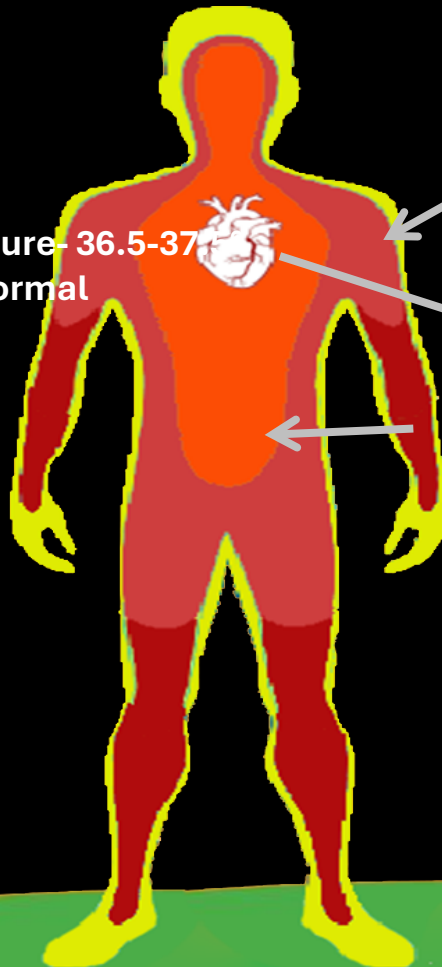
### Body Before work

### Body at start of work.

### Body heat loss during work Overheated body



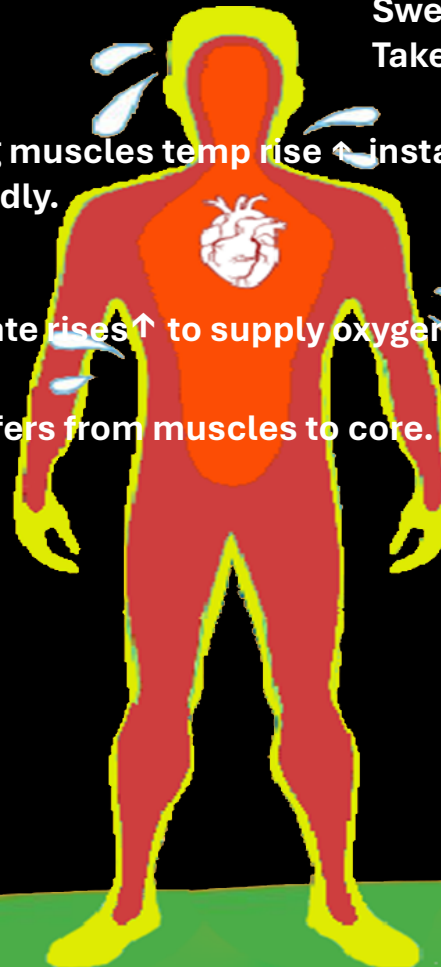
Core Temperature- 36.5-37°  
Heart Rate- Normal



Working muscles temp rise ↑ instantly and rapidly.

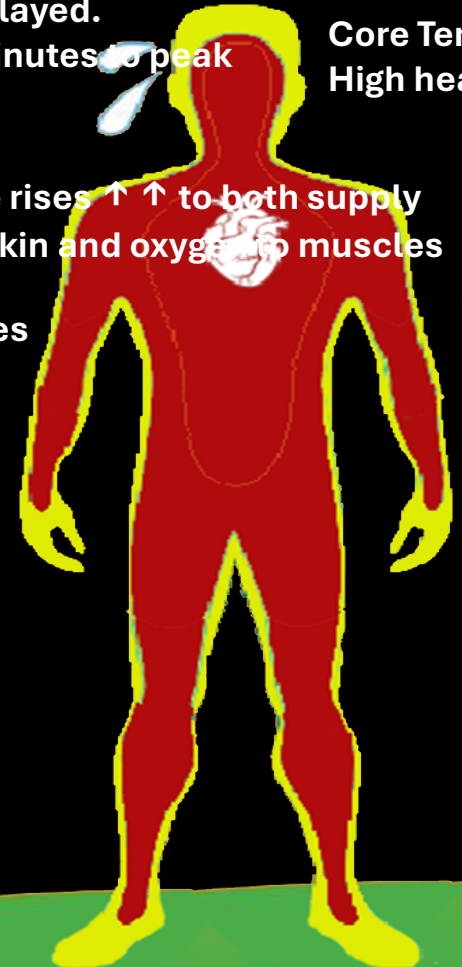
Heart rate rises ↑ to supply oxygen to muscles

Heat transfers from muscles to core.



Sweating is delayed.  
Takes 30-60 minutes to peak

Heart rate rises ↑ ↑ to both supply blood to skin and oxygen to muscles



Core Temp >38°  
High heart rate





# The resting body

Body is slow to cool during rest as sweating stops and heat stored in muscles keep core hot

Resting Body just after work

Body after 60-90 minutes of passive rest

Cooled body from Rest



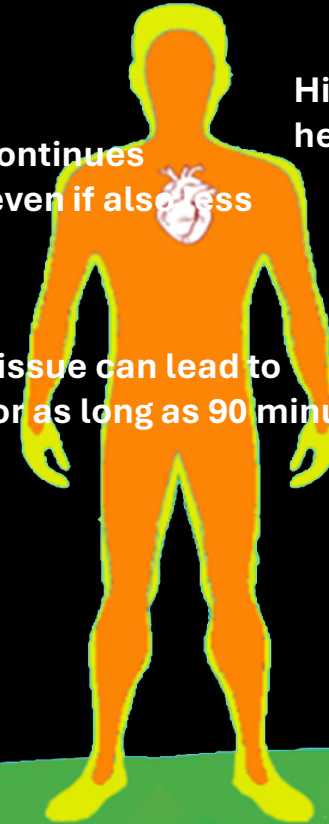
Heat production from working muscles rapidly decline

However also, rapid decline in heat loss from sweating



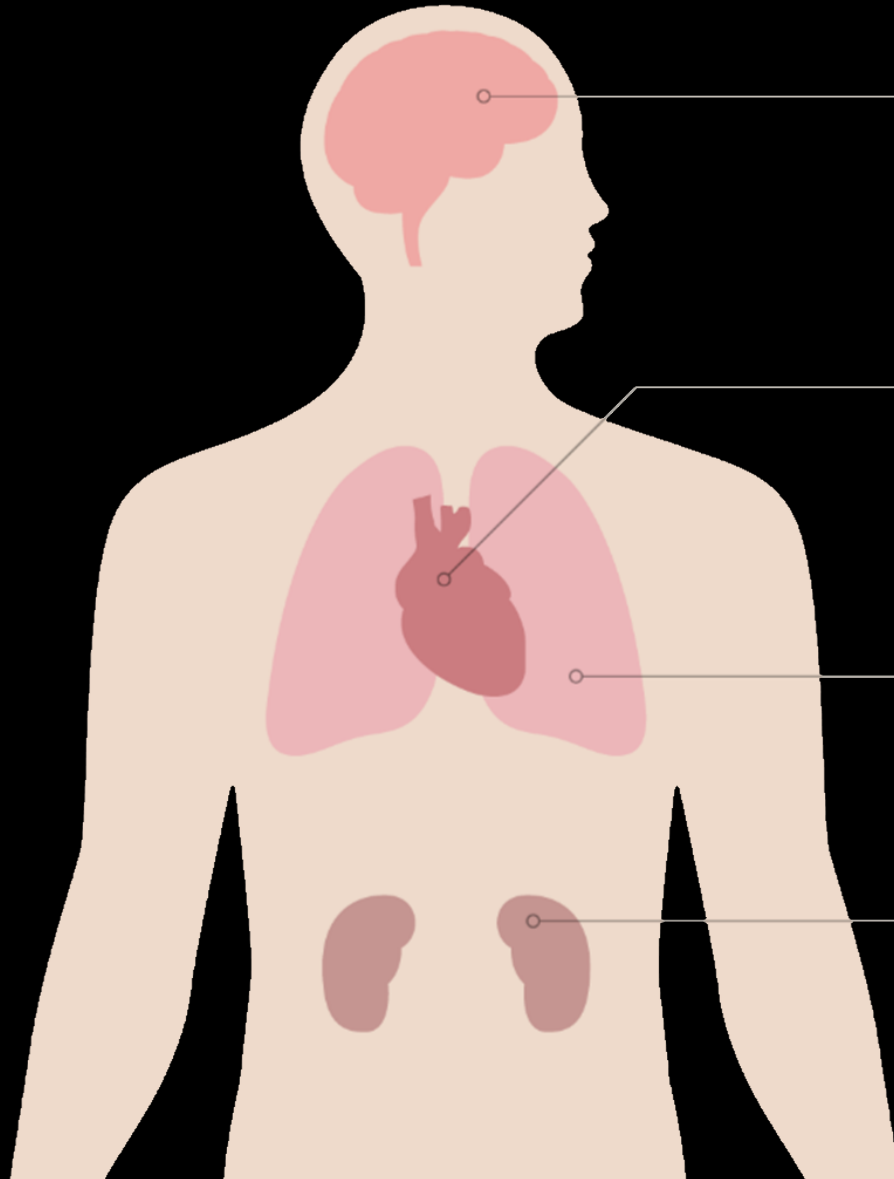
Overheated core  $>38^{\circ}$  continues  
There is less heat loss even if also less heat production.

Heat stored in muscle tissue can lead to increase in core temp for as long as 90 minutes



High core temperature from heavy work reduces much slower

# Heat stress impacts



## Brain

Headache, nausea, dizziness, irritability, loss of coordination, confusion, delirium, anxiety, loss of consciousness, seizures, stroke, coma

## Heart

Rapid heartbeat, irregular heartbeat, reduced bloodflow to the heart, heart attack

## Lungs

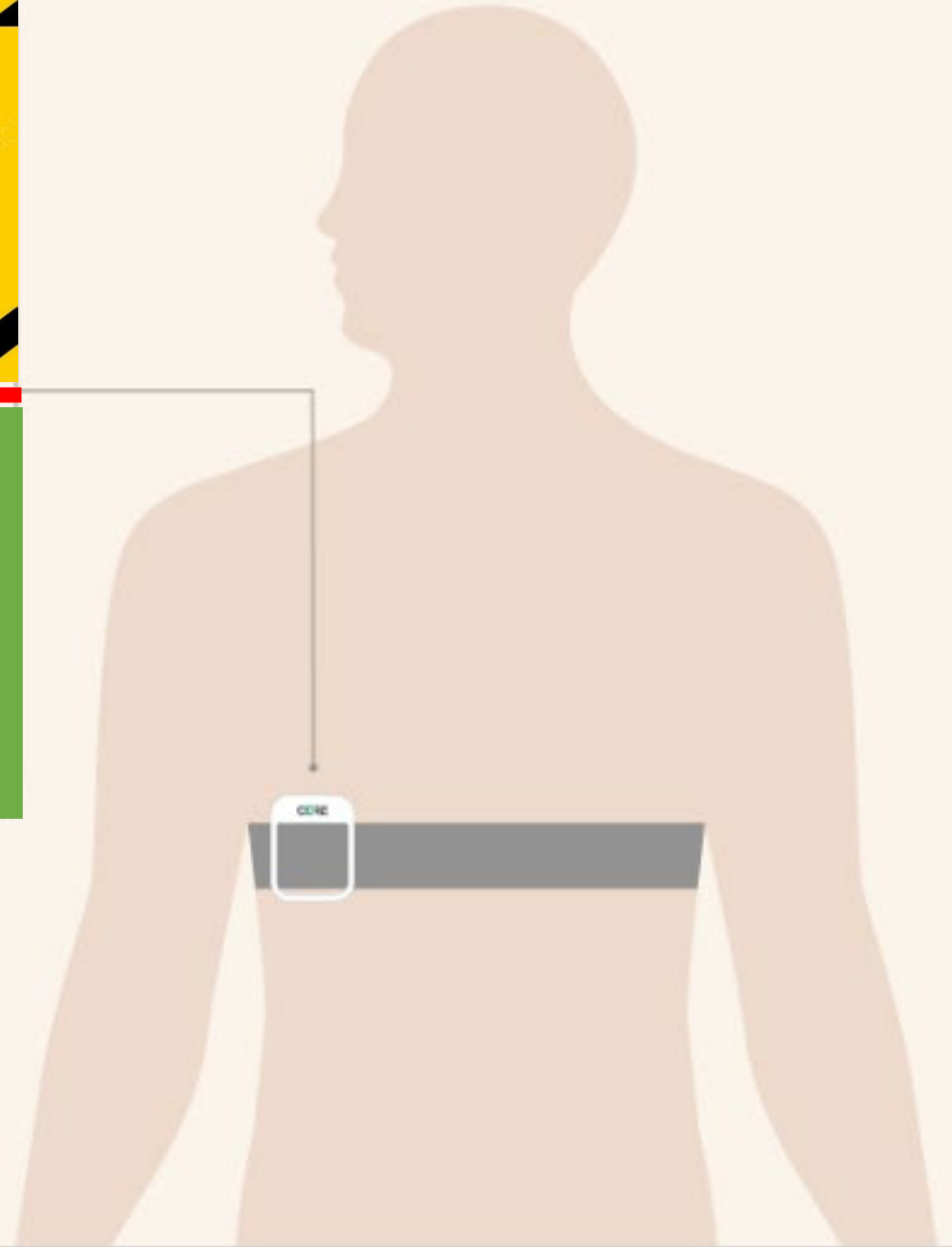
Increased breathing rate, worsened allergies and asthma, worsened chronic obstructive pulmonary disease

## Kidneys

Kidney disease, kidney failure

**How can we tackle this problem?**





**Our study compares the percentage of time that different workers spend excessively hot**



**%**



## **METHODOLOGY**

**788 WORKERS**

**6 LOCATIONS: Phnom Penh, Kampong Saom, Poipet/ Banteay Meanchey, Kampong Speu, Kampong Chhnang, and Svay Rieng**

**6 MONTHS**

**1 DAY OF MONITORING:**

- **Interviews**
- **Daily survey**
- **Thermal monitoring during working hours**

# Heat Stress and the garment Sector



# Working at high temperatures reduces productivity

Core temperature at safe levels សីតុណ្ហភាពស្នូលនៅកម្រិតសុវត្ថិភាព



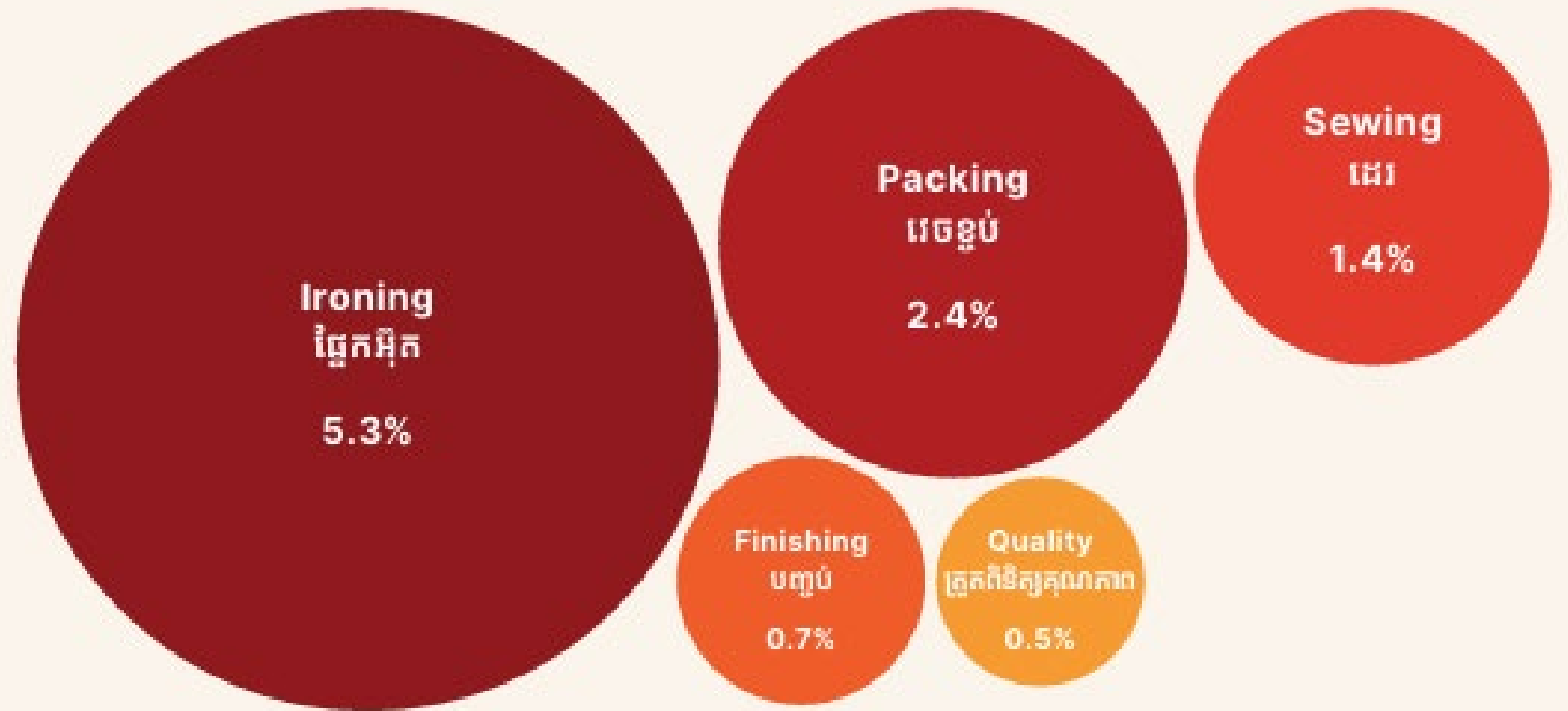
Core temperature at unsafe levels សីតុណ្ហភាពស្នូលនៅកម្រិតមិនសុវត្ថិភាព



Garment worker productivity is significantly impacted by core temperature. Garment workers achieved 87% of their productivity targets at safe core temperatures, compared with 61% at unsafe core temperatures. This equates to a 30% decline in mean productivity.

ផលិតភាពរបស់កម្មករកាត់ដេរ គឺរងផលប៉ះពាល់គួរផ្តល់ឱ្យកត់សំគាល់ដោយសីតុណ្ហភាពស្នូល។ កម្មករកាត់ដេរបានសម្រេចនូវ ៨៧%នៃគោលដៅផលិតភាពនៅសីតុណ្ហភាពស្នូលសុវត្ថិភាព ដោយប្រៀបធៀបនឹង៦១%នៅសីតុណ្ហភាពស្នូលមិនមានសុវត្ថិភាព។ នេះស្មើនឹងការធ្លាក់ចុះ៣០%នៅក្នុងផលិតភាពជាមធ្យម។

**Which activities have the highest risk of heat stress?**



# **Heat Stress amongst informal food sellers**

**Which activities have the highest risk of heat stress?**



# Heat stress amongst informal food sellers peaks in May

January មករា

0.1%

February កុម្ភៈ

1.6%

March មីនា

2.8%

April មេសា

1.6%

May ឧសភា

4.9%

June មិថុនា

1.1%

July កក្កដា

1.8%

Informal food sellers experience peak heat stress in May, when they spend 4.9% of working time at unsafe core temperatures.

អ្នកលក់អាហារក្រៅប្រព័ន្ធធារាសាស្ត្រខ្ពស់កើនឡើងខ្ពស់ជាងគេនៅខែសីហា នៅពេលដែលពួកគេចំណាយពេល ៤,៩% នៃពេលវេលាធ្វើការនៅសីតុណ្ហភាពមិនមានសុវត្ថិភាព។

**Heat Stress amongst transport workers**

# Heat stress amongst transport workers peaks in March

Heat stress through the year\*

ភាពតានតឹងនៃកម្ដៅពេញមួយឆ្នាំ\*

January មករា

1.0%

February កុម្ភៈ

4.6%

March មីនា

8.2%

April មេសា

4.4%

May ឧសភា

2.2%

June មិថុនា

2.3%

July កក្កដា

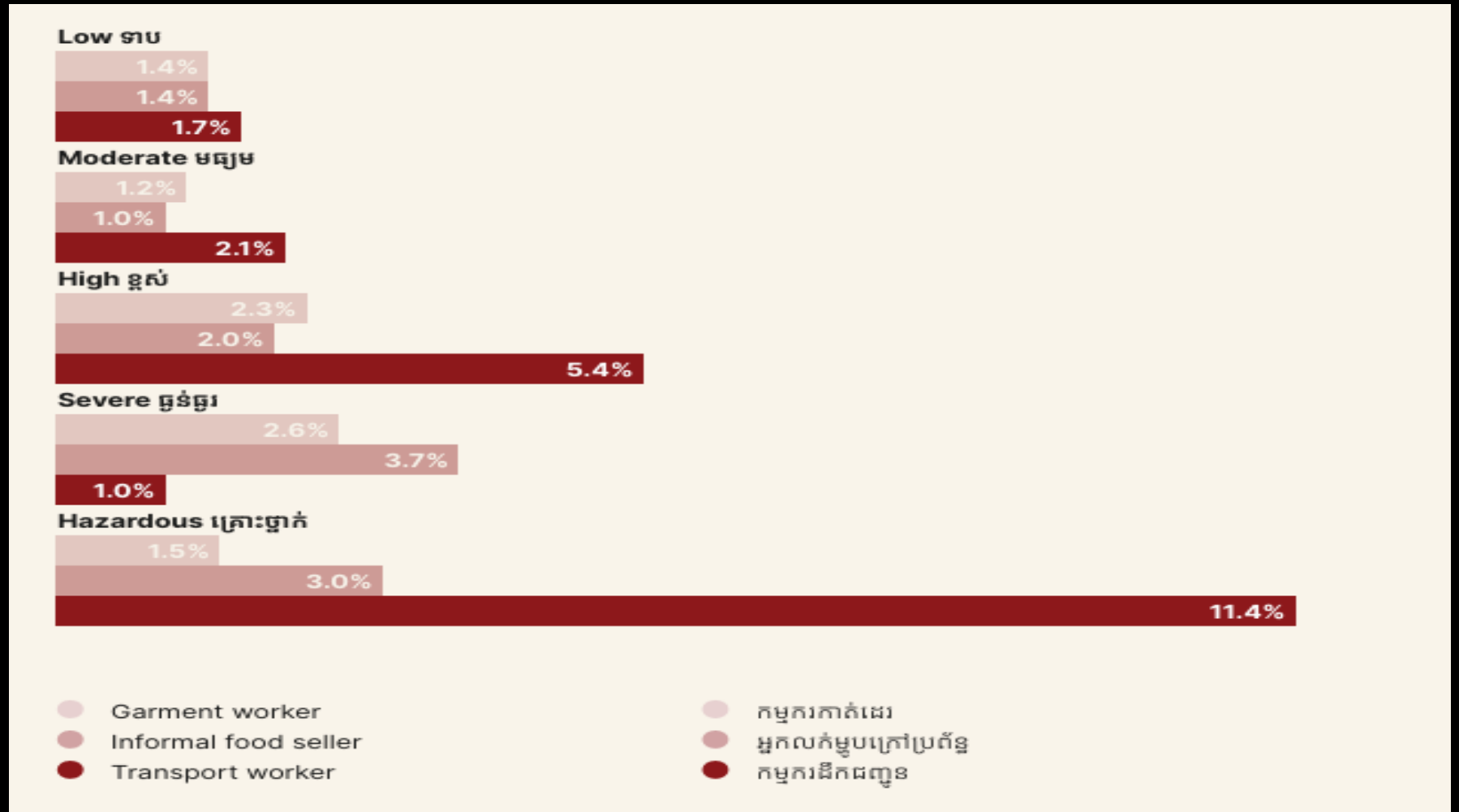
2.7%

Transport workers experience peak heat stress in March, when they spend 8.2% of working time at unsafe core temperatures.

កម្មករដឹកជញ្ជូនមានភាពតានតឹងនៃកម្ដៅខ្ពស់ជាងគេនៅខែមីនា នៅពេលដែលពួកគេចំណាយ ៨,២%នៃពេលវេលាការងារនៅសីតុណ្ហភាពស្នូលមិនមានសុវត្ថិភាព។

**Transport workers' heat stress is most directly related to external ambient temperatures.**

**They are thus the most vulnerable on the hottest days.**





**Workers' role in solving these  
problems**

**Individual actions are less effective against excessive heat than collective actions**

- ✘ Wearing lighter clothing
- ✘ Using hand fans
- ✘ Finding a cooler place to work
- ✘ Drinking cold water
- ✘ Seeking shade

## Workers are reliable judges of their own heat stress

Worker perceived themselves to be excessively hot



Worker perceived themselves not to be excessively hot



Workers are good judges of when they are exposed to excess heat. At times when workers perceived themselves to be excessively hot, they experienced 3.3% of time at dangerous temperatures, compared with 1.4% of working minutes when they feel normal. So workers who perceive themselves to be heat stressed are spending over twice as many working minutes at unsafe temperatures on average.

**Across all three sectors, union members experience half the level of heat stress that non-union members do**

Heat stress and union membership \*

សមាជិកភាពសហជីព និង ភាពតានតឹងនៃកម្ដៅ \*

Not a member of a union មិនមែនជាសមាជិកសហជីព



3.5%

Member of a union ជាសមាជិកសហជីព



1.7%

Union members evidenced a significantly lower proportion of working minutes at unsafe temperatures over 38°C. Union members spent 51% fewer working minutes at unsafe core body temperatures.

សមាជិកសហជីពបង្ហាញពីសមាមាត្រទាបដ៏គួរឱ្យកត់សំគាល់នៃនាទីធ្វើការនៅសីតុណ្ហភាព ៣៨°C ។ សមាជិកសហជីពបានចំណាយនាទីធ្វើការតិចជាង៥១% នៅសីតុណ្ហភាពរាងកាយស្នូលមិនមានសុវត្ថិភាព។

**Workers whose union negotiates with their employers over heat mitigation experienced 75% less working time under stress**

Union does not negotiate សហជីពដែលអត់ចរចាដើម្បីជួយកាត់បន្ថយកម្ដៅខ្លាំងពេក



Union negotiates សហជីពដែលបានចរចាដើម្បីជួយកាត់បន្ថយកម្ដៅខ្លាំងពេក



Union negotiation with workplaces on heat mitigation measures was the most effective union action identified. Workers whose unions negotiated with employers over heat mitigation experienced 74% fewer minutes at unsafe temperatures than those who did not.

ការចរចារបស់សហជីពនៅកន្លែងធ្វើការដែលមានវិធានការកាត់បន្ថយកម្ដៅ គឺជាវិធានការរបស់សហជីពដ៏មានប្រសិទ្ធភាពខ្លាំងជាងគេ។ កម្មករដែលមានសហជីពរបស់ពួកគេបានចរចាជាមួយចៅកែទៅលើការកាត់បន្ថយកម្ដៅមាននាទី៧៤%នៅសីតុណ្ហភាពមិនសុវត្ថិភាពតិចជាងអ្នកដែលអត់មាន។

† Percentage of working time at unsafe temperatures (greater than 38°C)

† ភាគរយពេលវេលាធ្វើការនៅសីតុណ្ហភាពមិនមានសុវត្ថិភាព (ខ្ពស់ជាង ៣៨°C)

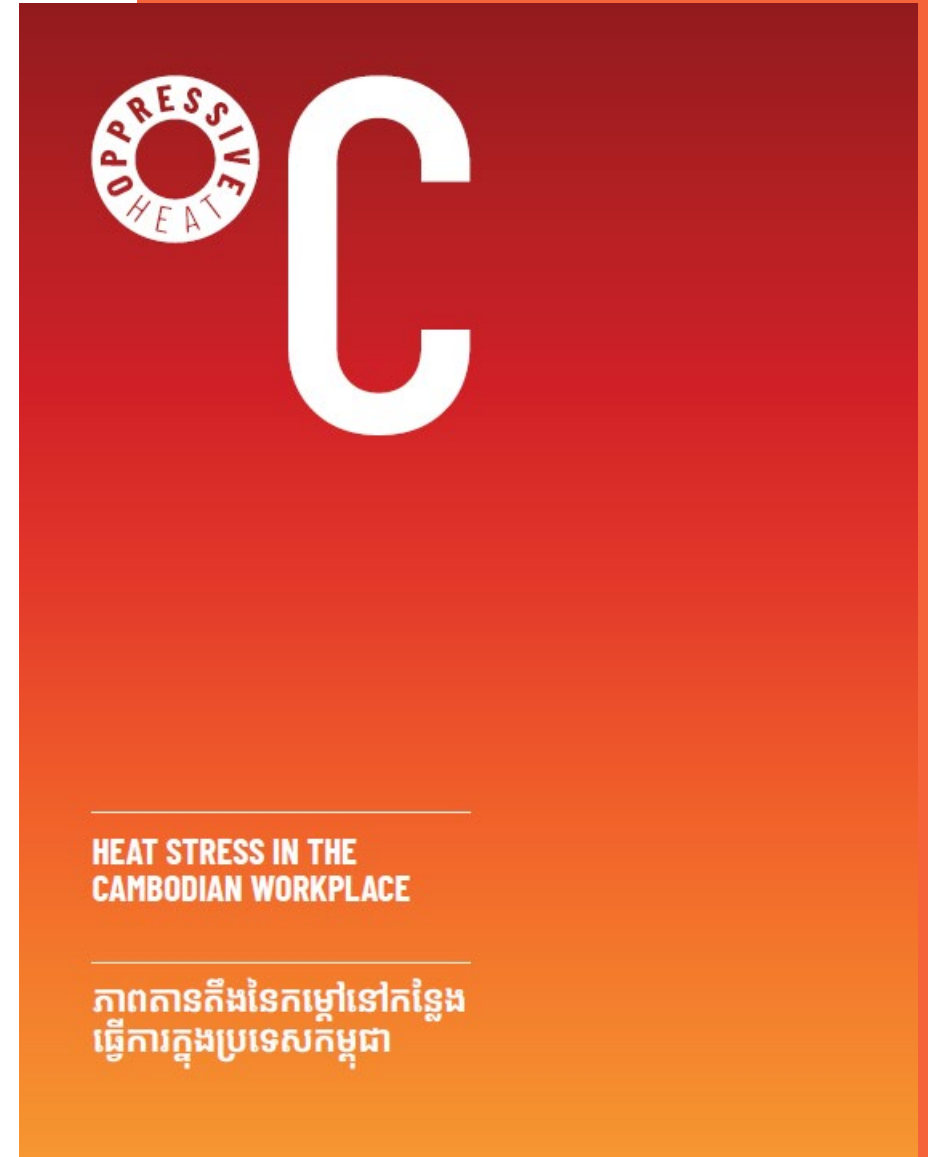


# **Worker Heat Stress under Climate Change:**

## **Challenge and Opportunity**

# Questions for Laurie & Pratik

[www.oppressive-heat.org](http://www.oppressive-heat.org)



**A new model for manufacturing that empowers workers and protects our planet**



**Ethical Apparel Africa**



**Changing Manufacturing for Good**



# Urgent call for action

The garment industry, employing 75+ million people (70%+ women), faces severe social and environmental crises, including –

- exploitative conditions
- health and safety breaches
- significant contributions to global pollution.



Despite growing awareness, systemic issues persist, **harming both workers and the planet.**

# Opportunity for change

As the apparel industry shifts from Asia to Africa, we have a unique opportunity to **'get it right from the beginning'** to build a new industry foundation where ethical practices and sustainability are integral from the outset.



# Our vision

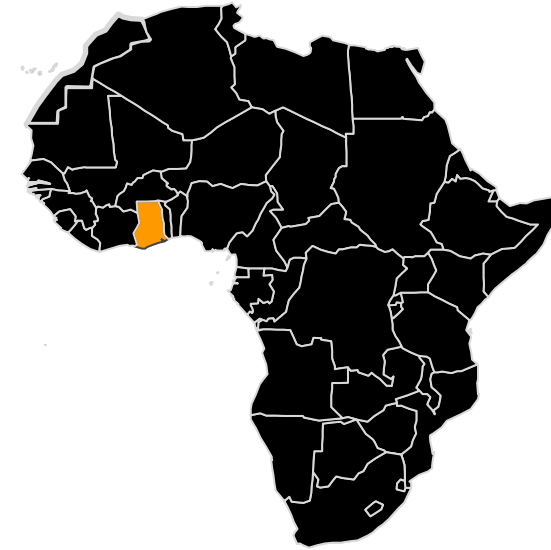
By 2030, we aim to achieve the following –

- create over **10,000 sustainable jobs**, over 70% for women
- create a ‘best place to work’ for our employees (today 85%+ love and are inspired by their job)
- avoid **3M+ kg of CO2 emissions** through pioneering use of solar energy in West African garment factories
- catalyze material solutions (vertical integration, circular economy) to help make West Africa the world's fastest, **greenest**, and most ethical supply chain from fiber to garment.



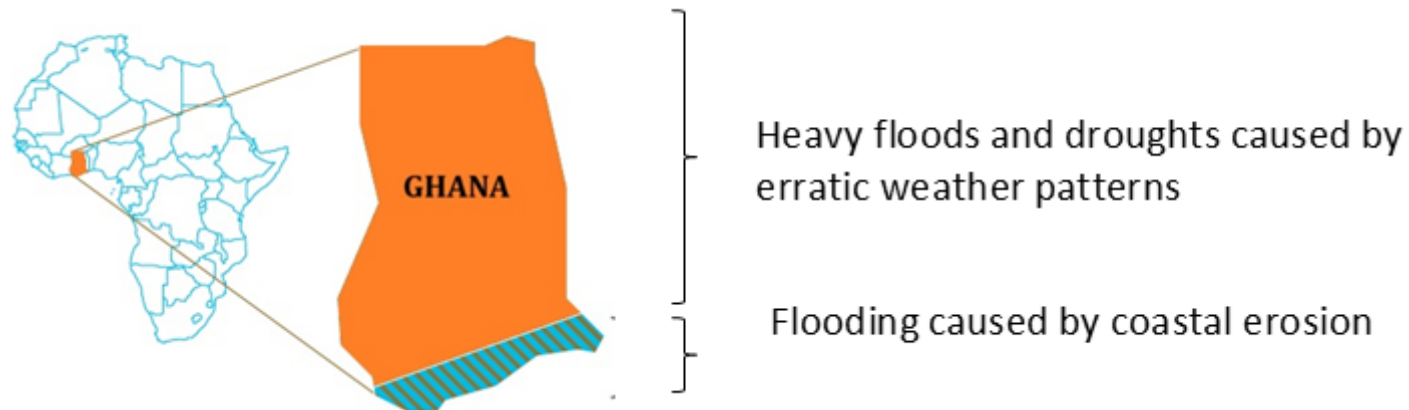
# Ghana climatic context

- Ghana has a **tropical climate** with distinct wet and dry seasons.
- Average daily temperatures range from **24°C to 35°C**.
- The rainy season varies by region, generally from April to October in the north and April to November in the south.
- Increasing temperatures and **changing rainfall patterns** are impacting agriculture and water resources.



# Ghana climatic context

- The economy is heavily dependent on climate-sensitive sectors such as agriculture, energy, and forestry, making it highly **vulnerable to climatic anomalies**.
- The most affected are often the most vulnerable and **resource-poor populations**.
- Presently, Ghana is experiencing rising temperatures, fluctuating and decreasing rainfall, higher sea levels, and more frequent **extreme weather events**.



# Key adaptation to climate change

Mitigation at Maagrace, a Model Factory operating as an Open Lab:

- **Green areas:** allowing the reduction of temperature
- **Hydration Stations:** Providing easy access to cool drinking water to prevent dehydration.
- **Physical Labor:** Workers in physically demanding roles are more affected by heat and require more frequent breaks.



# Key adaptation to climate change

- **Ventilation:** Improved air circulation through exhaust fans and strategically placed windows.
- **Cooling Systems:** Installation of AC units and spot coolers to reduce indoor temperatures.
- **Insulation:** Insulating hot surfaces to prevent heat radiation into work areas.
- **Wellbeing center:** cooled space for breaks, meetings and training in recycled shipping containers powered by solar.



# Worker Committees : Purpose

- **Democratically Elected:** Representatives from each department and manufacturing line.
- **Two-Way Dialogue:** Discuss concerns and opportunities related to the working environment and company policies.
- **Collective Bargaining:** Key to the process.
- **Communication Channel:** Share updates on new equipment, buyer visits, and policy changes.
- **Social Drivers:** Enhance the social life of the factory.





# Worker Committees : mutual benefits

## For Employees

- **Safe Space:** Air views and share ideas.
- **Personal Development:** Representing others, taking ownership of decisions.
- **Broader Understanding:** Improved insight into factors affecting factory life.

## For Management

- **Understand actual needs:** Tailor intervention
- **Direct Feedback:** Hear concerns directly
- **Leadership Spotting:** Identify future leaders
- **Solution Debates:** Discuss and innovate solutions



# Questions for Pauline

[www.ethicalapparelafrica.com](http://www.ethicalapparelafrica.com)

[Further info on managing heat risk in this blog-post](#)

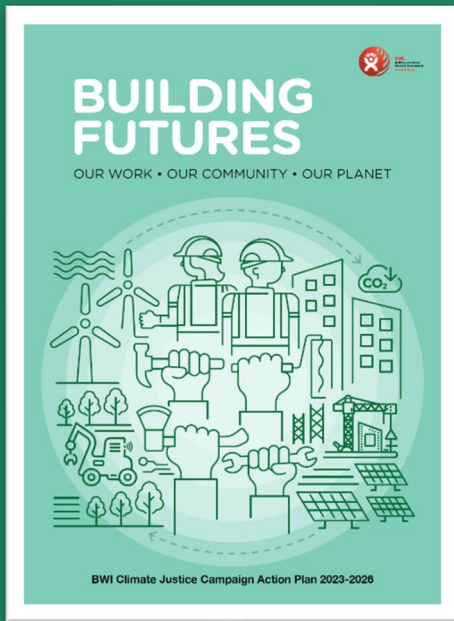


# ETI Climate Change: Addressing extreme heat impacts for workers



## Stephen Craig

ETI Trade Union Coordinator  
National Development Officer Unite the Union  
BWI Advisor



BWI  
Building and Wood  
Workers' International  
[www.bwi.org](http://www.bwi.org)



## Heat and Hazards: Navigating A New 'Normal' in Workplace Safety

Extreme temperatures are reshaping our work and living environments, posing severe, often life-threatening conditions for workers, particularly in outdoor sectors.

The Eurofound research organisation reports that **23% of workers across the European Union are exposed to high temperatures during a quarter of their working hours**, a figure that rises to **45% among construction workers**.

Internationally, in sectors like farming and agriculture the figures rise exponentially.

# THE DANGEROUS GAME

THOUSANDS OF MIGRANT WORKERS DIED  
PREPARING QATAR TO HOST THE WORLD CUP.  
IN AN OVERHEATING WORLD, THAT'S  
JUST THE BEGINNING

BY ARYN BAKER



**Workplaces on the frontline of climate change.**

Workers are being exposed to:  
Heat stress, heat exhaustion, heat cramps, heart  
disease, respiratory and cardiovascular diseases,  
diabetes and renal disease, skin cancer respiratory  
problems, kidney dysfunction - leading to increased  
mortality.

U.S.A: Biden Administration introduction of

# PROPOSED HEAT STANDARD

The ETUC makes clear that when workplaces get too hot, it is more than just an issue of comfort and can become a real health and safety issue.

“ In very hot conditions the body’s blood temperature rises, and **above 39°C, there is a risk of heat stroke or collapse.** There is **increasing evidence that occupational heat stress is linked to kidney disease among outdoor workers,** and even at lower temperatures heat leads to a loss of concentration and increased tiredness, with workers more likely to put themselves and others at risk.

**When temperatures exceed 30°C, “the risk of work accidents increases by 5 to 7% and, when it exceeds 38°C, the probability of accidents increases by 10 to 15%”.**

# When Addressing Exertional Heat Stroke, Think: Act with HASTE



# H.A.S.T.E.



Heat exposure: Identify if the individual has been in a hot environment or engaged in rigorous activity.



Altered mental status: Look for signs like headache, confusion, combativeness, fainting, ataxia, or disorientation.



Start cooling: Begin cooling the patient immediately with cold or ice water. If there's no pulse, start CPR.



Time: Recognize the urgency. If these signs are present, call 9-1-1 immediately.



Emergency: Act quickly to prevent further complications and ensure the best possible outcome.

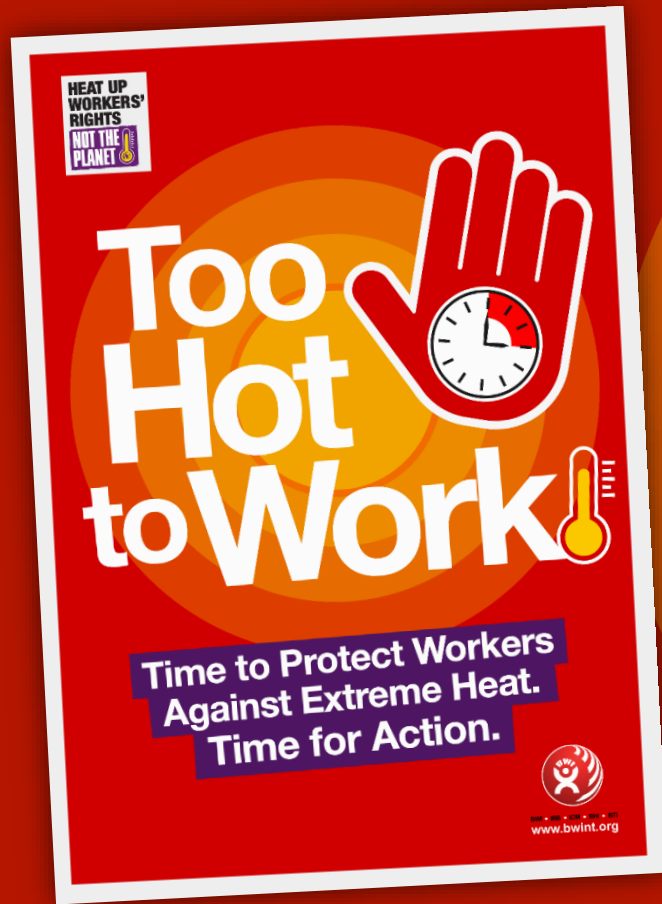
# Climate change is worsening working conditions for outdoor workers





# Heat Stress: A Growing Threat





TOO HOT TO WORK! campaign addresses heat stress and calls for action to protect frontline workers from extreme heat



# HEAT-UP WORKERS' RIGHTS,

## NOT THE PLANET

**IN HEAT** KEEP WORKERS HEALTHY  
AND SAFE.



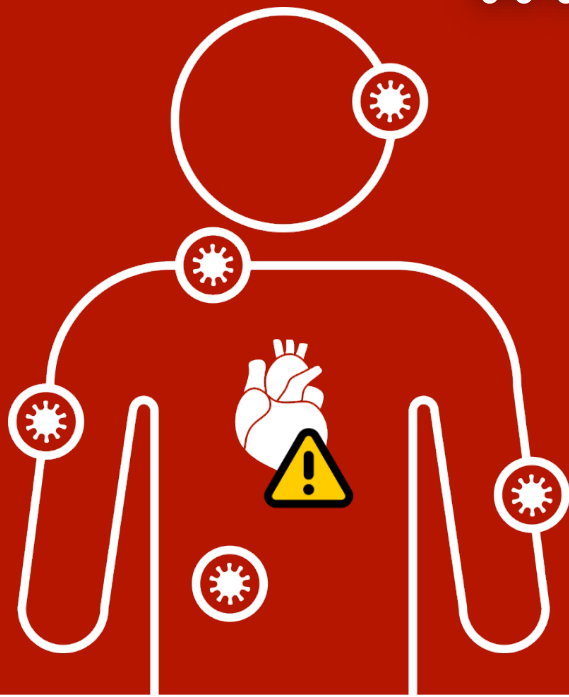
CLIMATE  
JUSTICE



## Too Hot to Work: Time to Protect Workers Against Extreme Heat

- [Protections](#) against heat in the workplace are not being adopted as quickly as rising temperatures.
- The [International Labour Organisation](#) (ILO) warns that **70%** of the global workforce – **2.4 billion people** – are now at risk of diseases/health issues stemming from heat stress, such as heart diseases, cancer, immune system dysfunction, high blood pressure, and eye diseases.
- Meanwhile, according to the [World Health Organisation](#), climate change is expected to cause approximately **250,000** additional deaths per year between 2030 and 2050, with a **350%** surge in heat-related deaths.

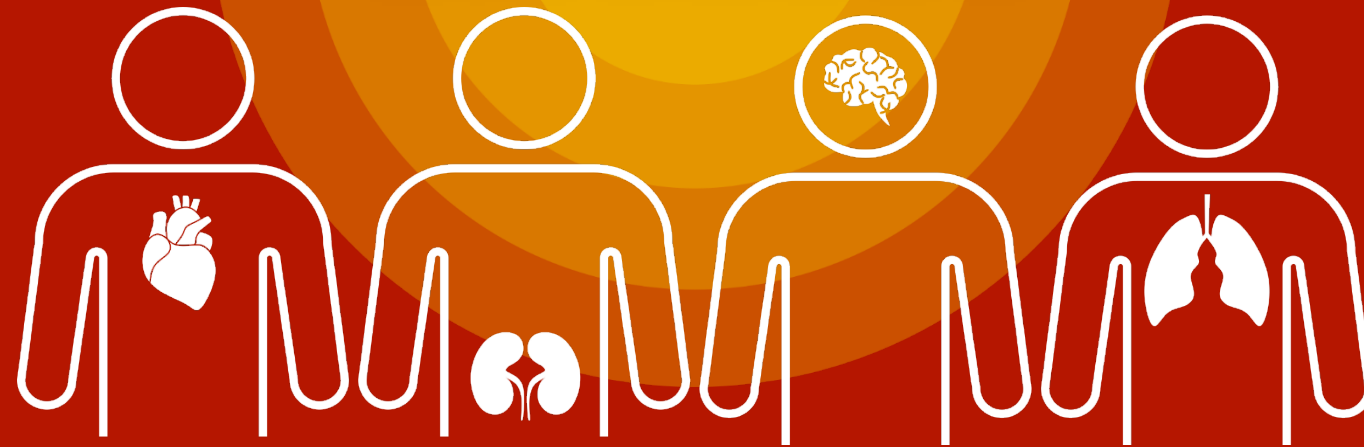
**Extreme heat is affecting billions of workers worldwide, causing health risks such as heart disease and immune dysfunction**

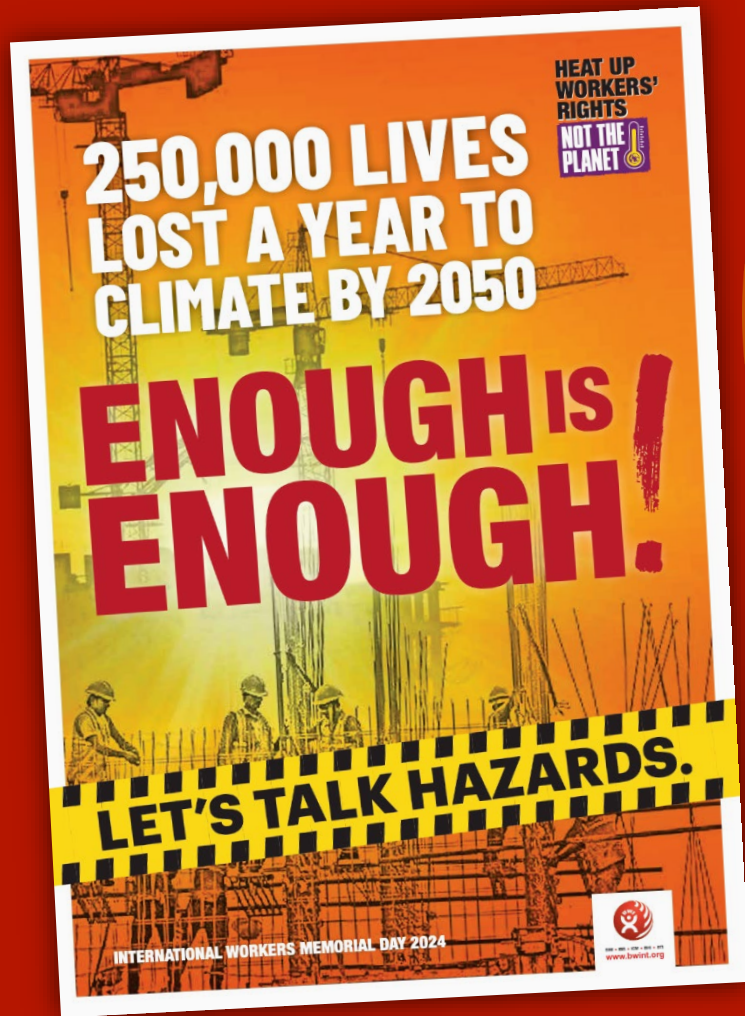


# 70% of workers at risk of heat stress



**2.4 billion people  
at risk of heat-caused  
diseases**





250,000 additional deaths per year due to climate change by 2050



**350% surge  
in heat-related deaths by 2050**





# Time for action!



**Workplaces & communities on the frontline of climate change.**

**Some examples of trade union interventions...**

- Engaging with workers, employers and communities to tackle climate change and just transition.
- **Key campaign initiatives around extreme heat:**
  - Call to Action
  - Pledges & Petitions
  - Research
  - Awareness raising literature
  - Education/Training courses
  - OSH Codes of Practice
  - Securing agreements 'Decent Work' agenda
  - Collective Bargaining & Social Dialogue
  - 2-Day BWI Global Climate Summit
  - 10 Key Actions for a sustainable global future
  - Everything starts with a conversation...

# Not “if”, but “how” do we do it



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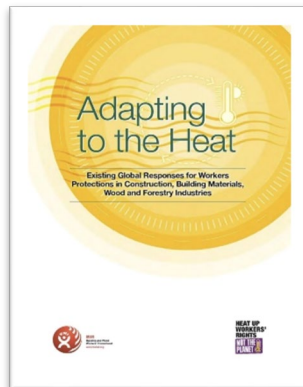
## Awareness, education and organising



## Mobilising, negotiating and bargaining



## Policy advocacy



## Global policy and agreements



International  
Labour  
Organization



# Protecting Migrant Workers in an Overheating Planet A Call to Action



## Introduction

Climate change will be a key factor in the displacement and migration of 25 to 300 million people by 2050<sup>1</sup>. In an overheating planet, more people will be pushed to search for employment overseas as extreme weather events and slow onset impacts become the norm. With climate change threatening key sectors such as agriculture and fisheries, people's abilities to seek livelihoods from natural resources and provide safety for their families will be impaired, forcing many to migrate as a coping strategy in the face of economic woes and extreme weather events. In particular, heat stress and climate disasters are increasingly becoming a factor in the decision of workers from rural areas to search for better employment in cities or other countries<sup>2</sup>. Often, they make a living through the informal economy as workers in the construction and forestry industries. It is in this context that the Building and Wood Workers' International (BWI), representing 12 million workers affiliated to 361 trade unions in 117 countries, calls on world leaders and stakeholders at COP 28 in Dubai, a hub for migrant workers in the United Arab Emirates and in the Gulf Cooperation Council (GCC) Region, to recognise the urgent need to protect migrant workers' rights amidst intensifying climate change.

## Migrant workers at the frontlines of heat stress in the workplace

Between 2008 and 2014, 184.4 million people were displaced by sudden-onset climate disasters, resulting in an average of 26.4 million being newly displaced each year<sup>3</sup>. While the majority migrate to temporary shelter and eventually return to their homes<sup>4</sup>, a growing number of climate migrants are also searching for longer-term employment abroad. In the aftermath of a climate change-induced disaster, labour migration is a way to contribute to the reconstruction of their families' homes. In the long term, it is a means of building resilience within their families by earning enough money to invest in better housing, land and in their children's education<sup>5</sup>. However, such a situation presents a double vulnerability for migrant workers, who originate from communities already being battered by climate change and are then often subjected to discrimination and abuse during the recruitment process as well as in destination countries.

Owing to their precarity, migrant workers are more likely to work in sectors that involve high levels of job insecurity, physical exertion or prolonged sun exposure, such as in construction, wood and forestry, which are especially affected by rising heat stress due to climate change<sup>6</sup>. Heat stress, the accumulated heat in the body beyond what it can tolerate without suffering physiological injuries<sup>7</sup>, is already altering the world of work in significant ways. At the current rate of warming, the combined productivity losses in construction and agriculture due to heat stress are projected to slash up to 3.8% of worldwide working hours, or the equivalent of 136 million full-time jobs by 2030<sup>8</sup>. If temperature rises go unabated, heat stress will not only diminish global labour productivity but also imperil workers' health and well-being.

Long-term sun exposure has also been linked to higher risks of cancer, immune system dysfunction and eye diseases<sup>9</sup>. In extreme cases, heat stress can result in rhabdomyolysis, stroke, permanent disability and even death<sup>10</sup>. If governments fail to rapidly cut emissions today, a temperature rise beyond 1.5°C will result in a 370% surge in heat-related deaths by 2050<sup>11</sup>.

## Heat stress and the global economy

Unsurprisingly, heat stress is disproportionately affecting countries that have historically higher rates of informal work, subsistence agriculture, and working poverty<sup>12</sup>. South Asia and Western Africa, owing to their geographic vulnerabilities, will be the worst affected<sup>13</sup>. With a 1.5°C temperature rise by end of century, these two sub-regions will suffer working hour losses equivalent to around 43 million and 9 million full-time jobs in 2030, respectively<sup>14</sup>. In 2022, however, Africa already sustained productivity losses that led to a 4% deficit in the continent's GDP<sup>15</sup>.

Heat stress will also add pressure to the global economy, as projections, based on a 1.5°C temperature rise by 2050 and labour force trends, indicate that 2.2% of global working hours, or the equivalent of 80 million full-time jobs, will be lost due to unbearable heat<sup>16</sup>. However, with global emission reductions set to fall only by 2% in 2030<sup>17</sup>, temperatures will likely rise beyond 1.5°C. A higher temperature rise will result in productivity losses of 3.8% of worldwide working hours, or the equivalent of 136 million full-time jobs<sup>18</sup>, which will have serious consequences for the global economy. In 2022, for instance, an estimated 490 billion hours in potential labour was lost due to heat stress, a 43% increase from the 1991-2000 average<sup>19</sup>. This has translated into a loss of \$863 billion in "potential income" globally<sup>20</sup>. In eight years, the economic losses due to heat stress are projected to balloon to US 2,400 billion, with lower-middle and low-income countries suffering the brunt of these losses<sup>21</sup>. Heat stress, and its ensuing health and economic impacts, is demonstrably an issue of climate justice.

## BWI's Call to Action

Governments and industries are enjoined to execute critical efforts to slash carbon emissions, boost climate adaptation and address 'loss and damage' associated with climate change to avoid the further suffering of frontline communities, including migrant workers. A just transition in the development of climate-resilient infrastructure is urgently needed to address the impacts of extreme heat and other weather events that are disproportionately affecting the most vulnerable workers in BWI sectors.

As enshrined in the International Labour Organisation and within the UNFCCC's Just Transition Work Programme, social dialogue and workers' meaningful participation in the transition to a low-carbon and climate resilient industry transformation will be vital in ensuring equity, efficiency, and genuine sustainability within the built environment. Hence, BWI offers these recommendations in safeguarding migrant workers' rights in

building and construction, wood and forestry, and enhancing protection within the framework of the Paris Agreement.

## Addressing the root causes of forced climate migration

- ▶ **Mitigation:** Cut emissions by 45% in 2030 to meet the 1.5°C temperature rise threshold in the Paris Agreement.
- ▶ **Adaptation:** Marshall public finance for climate adaptation, which has recently fallen by 14%<sup>22</sup>. Foster building local resilience by empowering frontline communities to promote indigenous and locally sourced adaptation knowledge and strategies.
- ▶ **Loss and Damage:** Mobilise public finance as well as new and innovative sources of funding for the Loss and Damage fund, ensuring that the fund is easily accessible to frontline communities in the Global South.
- ▶ **Just Transition:** Uphold the ideals and practices of a just transition by prioritising decent jobs and social protection in the push for a low-carbon economy. Additionally, states must invest in bringing workers out of the informal economy; removing barriers for migrant workers to access formal jobs; ensuring trade union rights in construction and forestry; training pathways; and implementing limits to subcontracting, in a way that protects them from the compounding impacts of heat stress and climate change.

## Protecting migrant workers from heat stress

- ▶ Enhance Occupational Safety Standards by including specific guidelines for protecting outdoor workers from extreme heat and other weather conditions and providing specific attention to the unique hardships that migrant workers face.
- ▶ Provide early warning devices in every work site, including indoors.
- ▶ Guarantee access to adequate protection such as personal protective equipment that is designed to mitigate the impacts of extreme weather conditions, including but

not limited to, heat-resistant clothing, cooling vests and sweat-wicking clothing. Workers should also be provided with adequate hydration support.

- ▶ Provide trainings on heat stress adaptation among workers, taking into consideration language requirements and context specificity of training materials.
- ▶ Improve conditions of resting stations at the workplace by building places that adequately respond to the volume and needs of workers.
- ▶ Monitor the implementation of extreme heat adaptation strategies such as work stoppages and mandatory rest breaks.
- ▶ Strengthen transparency and accountability mechanisms by ensuring that migrant workers, regardless of their legal status, are protected from employer retaliation.
- ▶ Provide social protection schemes for migrant workers such that they have a safety net in cases of disabilities or prolonged illnesses.

## Upholding migrant workers' rights

- ▶ Protecting migrant workers, especially those seeking employment after a climate disaster, begins in the recruitment process. Governments must accelerate the achievement of a fair recruitment process globally.
- ▶ Guarantee basic human rights for migrant workers, regardless of their status, by ensuring access to decent housing, healthcare, and social safety nets such as pension funds and conditional cash transfers during the aftermath of climate disasters.
- ▶ Safeguard fair and ethical labor practices by renewing commitments among public and private sector stakeholders, employers and government agencies.
- ▶ Ensure freedom of association, the right to organise and collective bargaining as a way for workers to improve their conditions, guarantee decent wages and climate adaptation in the workplace.



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## Endnotes

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## PLEDGE

# Manifesto for Healthy and Safe Workplaces for Migrant Workers in Extreme Heat and the Climate Crisis

Recognising the climate crisis and its profound impact on our lives and our planet, and the urgent need to protect the rights and well-being of the most vulnerable workers when addressing climate change, the Building and Wood Workers' International (BWI), calls on every government gathering at the 28<sup>th</sup> Conference of the Parties to the UN Framework Convention on Climate Change (UNFCCC COP28) in Dubai, every company, and civil society organisations to work together **to deliver on policies and practices to safeguard the health and safety of all workers performing work in high-risk environments, outdoor labour, and in situations of adverse weather patterns.**

Migrant workers, in particular, are disproportionately affected by climate change, and extreme weather events. They are frequently displaced by loss of livelihoods or forced migration due to environmental disasters. They often work in low-wage, informal and precarious jobs in construction and forestry with limited access to social protection. They face increasing discrimination and exploitation and have limited, if any, access to legal protections, including of their trade union rights.

In line with the UN Declaration on Human Rights, the UN Sustainable Development Goals, the Paris Agreement, and the International Labour Organisation's Decent Work Agenda, BWI calls on all actors to come together to pledge support for the three key points of this Manifesto.

- 1 Promoting the Paris Agreement and its Core Objective to Limit Global Warming and Strengthening Resilience Against Climate Impact** by prioritizing the implementation of a Just Transition Work Program that places labour issues at its core; by upholding human rights and enhancing labour standards of all workers, regardless of their status, and by promoting fair and ethical labour practices within the construction industry aimed at eliminating exploitation and discrimination. This includes access to housing, health care, and social protection, as well as the right to organise and bargain free from fear of retaliation.
- 2 Enhancing Occupational Health and Safety Standards, Heat Stress Mitigation Measures, Training Opportunities and Functioning Systems for Monitoring, Reporting and Tracking Progress** in safeguarding workers. Measures to mitigate the impact of heat stress and extreme weather conditions should include the provision of workstations properly designed, access to adequate Personal Protective Equipment (PPE), adapted or limited work schedules, medical surveillance, and compensation for lost hours of work.
- 3 Prioritizing Development of Climate-Resilient Infrastructure and Housing, Raising Awareness and Sharing Information,** building a global community for the well-being of the most vulnerable workers in the climate emergency, and contributing to long-term climate adaptation through enhanced infrastructure design, materials and technologies to mitigate climate-related risks and to withstand extreme weather conditions.



Our commitment to enhancing equity and protecting the health and safety of construction workers from extreme heat and other extreme weather events is an essential part of our efforts to address climate change and its consequences.

We call upon governments and stakeholders to embrace this pledge, incorporate its principles in policy and practice, and work collaboratively to create a world where every worker is safe and protected.

**Together, we can build a future that is more sustainable, safe, and just.**



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## Adapting to the Heat

Existing Global Responses for Workers Protections in Construction, Building Materials, Wood and Forestry Industries



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Laudes  
Foundation

# Working in extreme temperatures

## KILLER HEAT:

### WHAT IT IS AND WHAT TO DO



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More than **1 billion** workers are exposed to high heat episodes globally

**125 million** the increase in the number of people exposed to heat waves between 2000 and 2015 (source: WHO)

**127 million** additional people exposed to heat waves in 2015 alone (source: WHO)



**Above 40°C** average temperature during summer months in 2022 in Europe, with peak of **47°C**

**1/3**

of workers exposed to occupational heat stress had negative health effects



Between **100-150 days** with maximum temperature **above 40°C** in the Gulf

**33-34°C** the heat level corresponding to a **50%** work performance reduction

**Millions** of construction workers performing heavy work under high temperatures

**80 million** working hours project to be lost globally by 2030 due to heat stress

**15.2 million** working hours are predicted to be lost from the construction sector only.

**37%** of warm-season heat-related deaths can be attributed to climate change (Source: Nature)

**250,000** additional deaths per year expected to be caused by climate change between 2030 and 2050 (Source: WHO)

Beat the heat! Fight for more worker health and safety protection against workplace heat stress, and realise a green and sustainable future where decent jobs abound!

## BEAT THE HEAT:

### What employers must do to protect



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### workers from extreme temperatures

Whenever heat stress and other extreme weather events cause harm to workers' health and safety, employers must take the following measures:

Proper design of the workload and workstation, with special regard to workers in cabins and command or driving operations.



Training workers and their representatives and supervisors to enable the detection of early signs of disorders and the preventive steps to be taken, including suitable liquid intake and dietary requirements.



Supply of Personal Protective Equipment (PPE).



Routine medical surveillance.



Acclimatisation to a hot/cold environment, including major changes in climatic conditions.



Supervision so that workers can be withdrawn from adverse conditions if symptoms of heat/cold stress occur.



Limiting work activities during the hottest part of the day.



Beat the heat! Fight for more worker health and safety protection against workplace heat stress, and realise a green and sustainable future where decent jobs abound!

(Source: ILO)

# Protecting Migrant Workers in an Overheating Planet



Climate change will be a key factor in the displacement and migration of **25 to 300 million people** by mid-century.



"Climate change is already boosting labour migration. Many people are seeking survival because in their own country, they can't earn a decent living." – Mohamed, Mauritius

Between 2008 and 2014, **184.4 million people** were displaced by sudden-onset climate disasters, resulting in an average of 26.4 million being newly displaced each year.



"In the Philippines, there were many people who had to leave the country to look for work abroad because of climate disasters. This was survival mechanism because in areas that are frequently hit by typhoons, [economic] recovery takes a long time. In the meantime, people need to find a way to make a living." – Ramil, Philippines

From 1970 – 2000, external migration from countries most vulnerable to climate change significantly increased. Since 2000, **10% of the population from small island developing states (SIDS) and least developed countries have migrated.**



"Every year, Madagascar is visited by four to five very strong cyclones. Many Malagasies are subjected to flash floods. When there is no cyclone, there is heavy drought. For the sake of survival, they must search for a living elsewhere such as Mauritius, where the wages are higher than the average in Africa. However, they are easily exploited here because we lack laws to protect migrant workers." – Fari, Mauritius



"Many Africans go to Gulf countries to look for jobs because of the economic and political hardships we face back home. In the Middle East, we are promised jobs with high salaries. But then we come here, and we realize that we were given bad sponsorship and go to bad companies, we think that we should have not left home." – Azeez, Ghana

Heat stress, the accumulated heat in the body beyond what it can tolerate without suffering physiological injuries, is already **altering the world of work in significant ways.**



"In the Gulf, temperatures can rise to 52°C. Even in the winter, it is still hot." – Ibrahim, Ghana



"Workers are collapsing under the intensifying heat of Gulf." – Jonel, Philippines



Prolonged exposure to extreme heat has been linked with **higher risks of cancer, immune system dysfunction, stroke, permanent disability and even death.**

"The incidence of cancer among migrant workers has been rising in the Gulf." – Joan, Philippines



"Workers endure a lot of stress because of extreme temperature... There have been too many reports of workers dying due to heat stress." – Martin, Philippines



"I have personally seen three to four deaths because of heat stress. [At the work site.] There is also a lot of communicable diseases like chicken pox and skin diseases. A lack of safety precautions for extreme temperature means there is heat stress for the workers." – Addae, Ghana

Extreme heat is also causing productivity losses. In 2022, an estimated 490 billion hours in potential labor was lost last year due to heat stress. This translated into **\$853 billion in potential income losses globally.**



"Heat stress compounds existing workplace hardships. It can make carrying simple tasks more difficult; it can worsen work overload which can lead to higher rates of burnout." – Mabeth, Philippines

Heat stress will result in productivity losses of 3.8% of working hours, or the equivalent of **136 million full-time jobs by 2030**, which will have serious consequences for the global economy.



"Climate change is very challenging for workers, especially construction workers because they have to work when the sun is the strongest." – Ponkumar, India



Heat-related deaths projected to soar by **370% in 2050.**

Unsurprisingly, heat stress is disproportionately affecting countries that have historically higher rates of informal employment, subsistence agriculture, and working poverty.



The world is on track for **2.7°C of heating by 2050**, unless critical lifesaving climate action are executed today.

Heat stress, and its ensuing health and economic impacts, is demonstrably an issue of climate justice.



Scan the QR code to read more on "Protecting Migrant Workers in an Overheating Planet: A Call to Action"

**HEAT UP WORKERS' RIGHTS**  
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**HEAT UP WORKERS' RIGHTS FOR THE PLANET**

**Too Hot to Work**

Time to Protect Workers Against Extreme Heat. Time for Action.

[www.dailymail.com](http://www.dailymail.com)

**Global Petition**  
**Too Hot to Work: Time to Protect Workers Against Extreme Heat. Time for Action. Time for Accountability.**  
 Citizens have spreading concern especially those in outdoor sectors to their health. Every day, millions suffer with or worse conditions or access to the lacking adaptation measures. Workers on the frontlines do not deserve the ill-effects which they should not be paying the highest price. Let's demand accountability and action to protect workers, lives and livelihoods, from extreme heat.

Sign this petition and join the global call for:

- The Right to Stop Work during extreme heat
- The Right to Protection from heat stress
- The Right to Compensation for work stoppages

Name	Organization	Country



**HEAT-UP WORKERS' RIGHTS, NOT THE PLANET**

**KEEP WORKERS HEALTHY AND SAFE.**

**IN HEAT**

**KEEP WORKERS HEALTHY AND SAFE.**

CLIMATE JUSTICE



**HEAT UP WOMENS' RIGHTS NOT THE PLANET**

**END GENDER-BASED VIOLENCE!**

**10 Days of Trade Union Activism**

CLIMATE JUSTICE

**HEAT UP WORKERS' RIGHTS NOT THE PLANET**

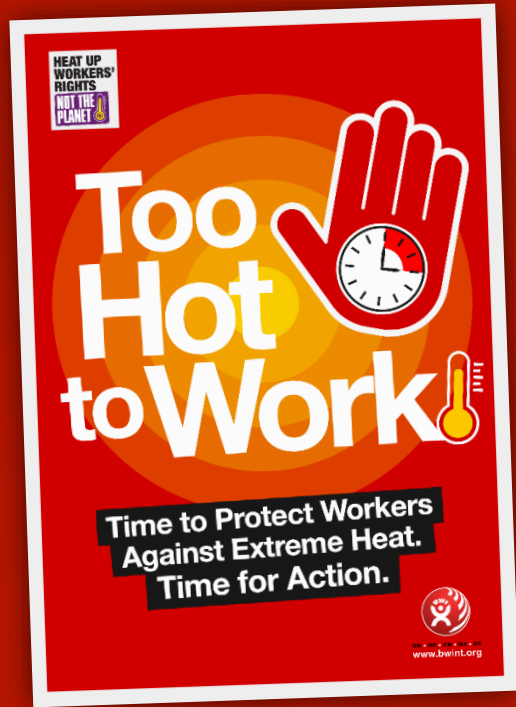
**KEEP WORKERS HEALTHY AND SAFE.**

**IN HEAVY RAINS**

**KEEP WORKERS HEALTHY AND SAFE.**

CLIMATE JUSTICE





Time for a greener,  
cleaner and healthier  
future where all  
workers have the  
right to...



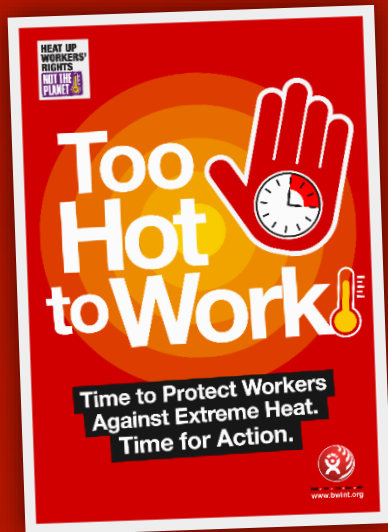
# STOP WORK during extreme heat



# PROTECTION from heat stress



# COMPENSATION for work stoppages

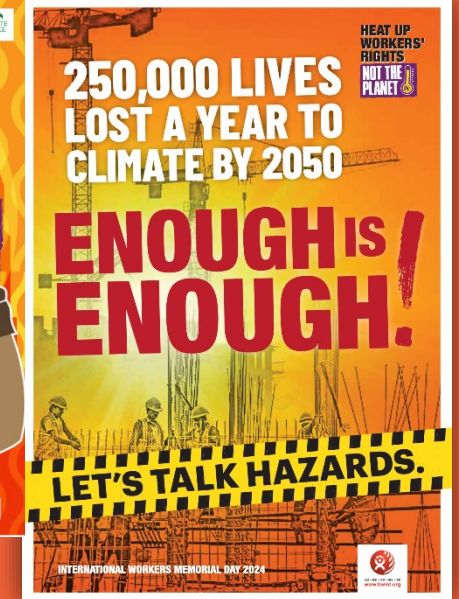
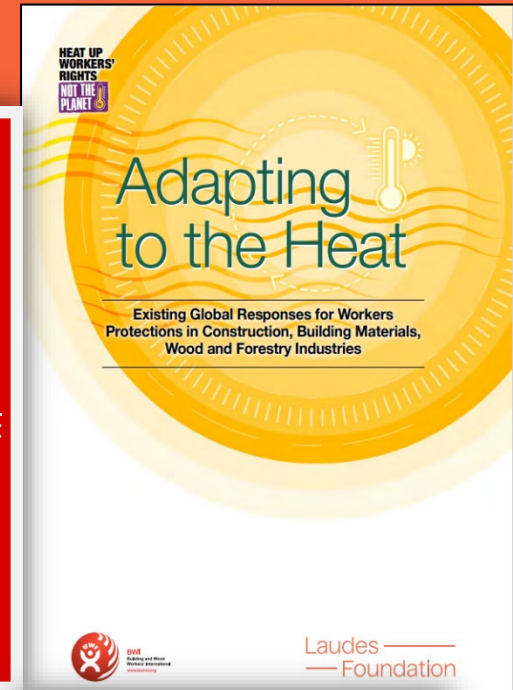
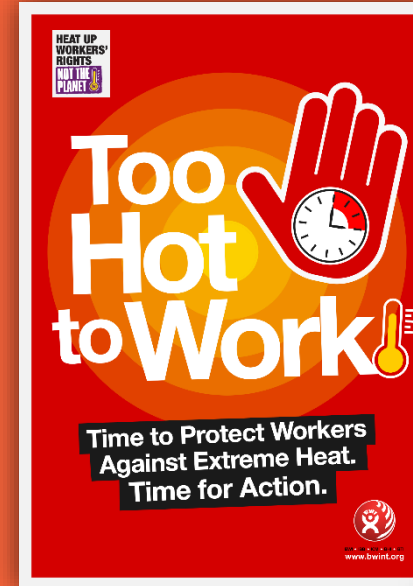


# Questions for Steve



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Ethical Trading Initiative



# Discussion

- Please type your questions in the Q&A function.



# Extreme heat

## Some key messages today

- To mitigate the impacts of extreme heat on workers, we need to better understand these impacts.
- Businesses are already taking action: let's learn from existing good practices.
- Workers and their representatives are rights-holders and they have valuable knowledge and expertise. Work with them.
- Collaborate! With supply chain partners, with workers and their representatives, with researchers. No-one can effectively address this challenge on their own.



# Further info

- Extreme heat: Risks for workers in global supply chains
  - [Briefing for ETI members](#)
  - [Snapshot for non-members](#)



## Extreme heat

Risks for workers in  
global supply chains

Briefing for ETI members



Ethical  
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ETI  
INSIGHTS

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Just Transitions  
Advisor, ETI





Ethical  
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INSIGHTS

# Thank you

Next in the ETI Insights series (dates coming soon):

- **Mandatory human rights due diligence**
- **Transparency**
- **Responsible purchasing practices**