



Institution  
of Occupational  
Safety and Health

# The heat is on: protecting worker health and safety from the impacts of climate change

Published in 2025

[iosh.com](https://www.iosh.com)



# Foreword

In 2008, observing that workers had not been adequately included in much of the literature on the hazards of climate change, I began an effort to fill that gap and went on with colleagues to publish a series of papers that have been widely cited.<sup>1,2,3</sup> Since then, there has been growing awareness of workers' climate-related plight.

However, there has not been nearly enough research on the nature, extent, and interaction of risks to workers from climate change.<sup>4</sup> Worldwide, increasing numbers of workers are dying from heat, and migrant workers are particularly vulnerable. The chaos from crossing various global climate change tipping points will hurt human population wellbeing, business investment, and worker employment.<sup>5</sup> Despite recommendations, there still exists few regulations to protect workers from exposure to increased ambient temperatures as well as other climate change effects.

The awareness of climate change as a hazard, and particularly the understanding of heat-breaking records and extreme weather, is starting to lead to an increasing effort to improve adaptational practices, as this report illustrates.

Nonetheless, the top of the hierarchy of controls – the removal of hazards – is different with climate change because it is generally beyond the purview of employers, and requires an approach that results in reducing greenhouse gases (GHG) globally. In fact, for the most part, the majority of the world's population will have to make adaptational changes in the way they work and live their lives to reduce GHG and adopt non-carbon approaches to living. This will not happen until misinformation, denial, and delay are addressed and awareness of the true danger of climate change appreciated. Then, possibly, collective political action might develop. This does not seem like something that will occur until the world sees more pain and suffering in workers, in the population in general, and to the planet. Then, when it may be too late, the world may seek to make changes.

To counter this dystopian future, more stakeholders – particularly scientists, academics, public and occupational health practitioners, regulators, employers, and citizens, including workers – need to speak out now about reducing GHG to forestall catastrophe. Clearly, reduced GHG will have a positive impact on global warming but also on air pollution, extreme weather, expanded disease vectors habitats, and will otherwise improve worker wellbeing. Meanwhile, the concepts presented in this report will serve to build a foundation to protect workers from the hazards of climate change.



**Dr Paul A Schulte**  
**Former US Government**  
**Division Director**

# Introduction

Last year was the warmest on record while 2011–2020 was the warmest decade on record.<sup>6</sup> And, according to NASA, Antarctica is losing an average of 150 billion tons of ice per year.<sup>7</sup> This evidence at the very least provides a compelling reason to contemplate how human activity is testing the fine balance of our ecosystems. It can also be viewed as providing a stark warning that things need to change – and quickly.

The question of how and why climate change relates to occupational safety and health (OSH) has a simple answer: workers have a role to do, and that work must be undertaken somewhere. And those somewheres are increasingly susceptible to excessive heat, extreme weather, sun exposure, and the consequences that accompany them.

That same question also has a second answer. OSH professionals – those whose careers are dedicated to keeping people safe and healthy at work – are fluent in the language of risk and are adept at the practice of managing it. Risks emanating from changes in climate are something that OSH professionals can and do, with the appropriate support and resource, anticipate and prepare for. Some of the hazards and risks associated with climate change are not new. OSH professionals will already be undertaking risk assessments that consider extreme temperatures, exposure to the sun, use of chemicals including agrochemicals, air pollutants, and biological hazards which can cause occupational diseases (i.e., risk of vector borne diseases) and so on.

There's also a third answer. The landscape of business is changing and the drive for socially sustainable business – one that protects people – is no longer just a nice-to-have. There are strong social, moral, business and legal cases for it. Beyond compliance, businesses have a 'social license to operate' and a responsibility to preserve their social sustainability. The public and communities have higher social expectations of businesses than ever before. Workers are also seeking socially responsible employers; they are increasingly aware of their labour rights; and they are less willing to accept substandard conditions.



**Dr Christopher Davis**  
**Thought Leadership Manager**  
**Institution of Occupational**  
**Safety and Health (IOSH)**



# The main risks of climate change to human health

The potential risks of climate change to workers' health and safety are extensive. They include



For some, these risks will be not only severe, but simultaneous.

**Extreme temperatures** can affect the body's ability to regulate internal temperature, leading to an increased risk of chronic conditions such as cardiovascular disease and diabetes. It can result in heat stroke, heat exhaustion, heat syncope, heat cramps, heat rash or even health-related death.<sup>8</sup>

**Reduced air quality** and air pollution can damage health and has been linked to respiratory problems.<sup>9</sup>

**Depletion of the ozone layer** leads to increased levels of UV radiation, something linked to physical conditions in workers such as eye damage, sun burn and skin cancer.<sup>10</sup>

**Vector-borne diseases** can also pose an increased risk where warmer temperatures make it easier for airborne allergens to survive.<sup>11</sup>

**Climate change carries a mental health risk**, ranging from some common mental disorders (for example, stress and anxiety) to other, more specific illnesses stemming from abnormal climatic conditions (for example, depression, post-traumatic stress, and suicide ideation).<sup>12</sup>





# Global stats on climate and work

Up to **2.41 billion** workers (71% of the working population) are exposed to excessive heat every year.<sup>13</sup>

**9 out of 10** worker exposures to excessive heat occur outside a heatwave.<sup>14</sup>

By 2030 **3.8%** of total working hours could be lost worldwide due to climate related high temperatures, an equivalent of **136 million** full-time jobs – and economic losses of **\$2,400 billion**.<sup>15</sup>

**873 million** workers are at risk of exposure to agrochemicals.<sup>16</sup>

**1.6 billion** workers exposed annually to solar UV radiations.<sup>17</sup>

Temperatures above **24–26°C** are associated with reduced labour productivity. At **33–34°C**, a worker operating at moderate work intensity loses **50%** of his or her work capacity.<sup>18</sup>

**The climate crisis** will impact Global South and low-income countries the most, with Sub-Saharan Africa, South Asia and Southeast Asia at the highest risk of decreased labour productivity.<sup>19</sup>



# The workers most at risk

**Certain worker groups are at significantly greater risk from the effects of climate change.**

Given how and where they work, agricultural workers, emergency responders, construction workers, commercial fishermen, transportation workers, and other outdoor workers are clearly vulnerable.<sup>20</sup>

For these workers, hotter or more humid working conditions may be the most obvious and constant hazard. Nevertheless, exposure to additional hazards – wildfire smoke, agrochemicals, or pollution – will create the need for additional controls and protections.<sup>21</sup> Evidence has also begun to highlight the risk of simultaneous exposures. For example, metal manufacturing workers, roofers and firefighters are particularly at risk given their exposure to both heat and chemicals.<sup>22</sup>

Extreme weather events also pose a risk to workers who are in the direct line of an increasingly unpredictable climate. This is not only in terms of the threat to life, but also through physical and emotional fatigue. Given the potential trauma involved in their work, emergency responders are another obvious example here, although they are not alone.<sup>23</sup>

It is not only outdoor workers who will be affected. Climate change will also impact indoor workers. For example, increased heat and air pollution may be hazards facing manufacturing or warehouse workers, especially where temperature controls or ventilation/extraction is limited.

Indeed, workers in less developed countries are at an increased risk because of inadequate workplace facilities. It is also expected that climate change will exacerbate existing gender inequalities. The World Health Organization recognises that climate-sensitive health risks are disproportionately felt by vulnerable groups, including women.





# Steps to protect workers

Organisations can take practical steps now to help identify the hazards and mitigate the risks associated with a changing climate. Helpfully, they do not need to start from scratch and can use risk assessment processes already in place. Well-established principles and processes relating to protecting the safety and health of workers are as valuable as ever.

A risk-based, evidence-led, and preventative approach to managing climate-related risks is encouraged. The first step is to identify hazards specific to the work by asking key questions. These include:

- Where and when are people working?
- What is the context of the work they're doing?
- What, therefore, are the risks to them specifically? Thinking also about the exposure duration/level.
- Which groups are at risk, and, of those workers, who are most at risk?

The next step is to follow the hierarchy of control in responding to the risks identified.

## Elimination

The total removal of a hazard remains the first and most preferred defence. In practice, eliminating a hazard entirely is not always feasible, especially in the case of climate change, where government and multi-lateral action is required.

This may be especially challenging to achieve in the context of climate change given the high temperatures some countries experience. While the source of the heat from the sun cannot be eliminated, you can eliminate the need to work in it, when the temperature reaches extremes.

## Substitution

In some cases, it is possible to substitute the potential hazard by replacing it with something else, that in turn minimises the risk. Examples include swapping hazardous chemicals for less hazardous chemicals (e.g. swapping a hazardous pesticide for something less hazardous). In the context of climate-related risks, the scope for substituting one hazard for another is limited, but using the same example above of excessive heat, you could move outdoor workers inside or provide shade where feasible.

Substitution is most likely where workers' exposure to hazardous materials is increased (for example, agricultural workers' exposure to fertilisers), or where the hazardousness of those materials is exacerbated by climatic conditions (such as manufacturing and roofing chemicals and heat).

## Engineering controls

Engineering controls are defined as physical changes and controls within the organisation, which isolate the workers from the potential hazard(s). These sorts of controls are more challenging for outdoor work but could prove effective.

Air conditioning in buildings or vehicles can help workers cope with rising temperatures. Other measures include the provision of working and convenient sanitation facilities, including cool and accessible drinking water



## Administrative controls

Administrative controls are often the most effective ways for workplaces to make changes quickly, as they can often be implemented relatively easily and affordably. Examples might include worker education, awareness and training.

Employers may try to organise work shifts and work patterns so that workers are not exposed to direct sunlight at the hottest part of the day, or job rotation so that workers are exposed to heat and sunlight for shorter periods of time. Another effective measure is allowing and training workers to self-pace and following work-to-rest ratios that give them chance to recover suitably after each period of work.

## Personal protective equipment

Personal protective equipment (PPE) is a last line of defence in our OSH hierarchy of control. In the context of extreme climactic conditions, traditional PPE may be an ineffective measure on its own. Nevertheless, for some workers, it will provide an important and affordable protection.

The provision of appropriate clothing (for example, lightweight clothing, wide-brimmed hats or helmets, along with sunblock) can help workers cope with higher temperatures. However, it is important to ensure that PPE does not undermine workers' ability to carry out their work and does not inadvertently create new hazards or risks. For example, where conditions of work are hot and humid, PPE could add to the effort and strain of the job.<sup>24</sup>

Firm examples of climate change adaptations for safer and healthier work are emerging. These include changing work processes, and infrastructure upgrades. But more impactful and ambitious approaches to combating, mitigating, or adapting to the workplace threats posed by climate change need more than just the appetite of individual governments, industries or businesses. This is a universal challenge.



# Our calls to action

Responding to workplace hazards and risks posed by a changing climate requires ongoing efforts at a global, national and workplace level. This needs involvement from a range of stakeholders. Anything short of a joined-up and democratic process is unlikely to achieve the desired outcome.

The desired outcome is holistically safe, healthy and sustainable work for all, regardless of climate change effects.

## To achieve this, we call for the following...

### Global level

- Implement multilateral climate agreements as per the International Labour Organization's call to action for a 'global multi-sectoral response to tackle the impacts of climate change using mitigation and adaptation strategies'.<sup>25</sup>

### National level

- Ensure national climate policies and agendas are in place that focus on managing the risks and, where necessary, adapting to them. These should be inclusive of international labour and OSH standards and include clauses that mainstream health and safety principles and commitments to protect workers from the effects of climate change.
- Within the national policies:
  - Develop and enforce climate-related safety regulations within existing labour and OSH laws to safeguard workers, including vulnerable groups, from specific hazards and risks, either introduced or exacerbated by climate change
  - Facilitate adaptation to the work-related impacts of climate change, by seeking financial investment opportunities, including public and private sector funding.

- Include adaptation of climate health surveillance services and public health systems. These will reduce exposure and control the negative impacts of climate-related events and the burden of disease associated with workers developing cancer, cardiovascular disease, respiratory illnesses, and mental health disorders.
- Ensure policy coherence. For example, occupational health, public health and environmental health disciplines should be aligned in their approach to tackle climate and human health.
- Invest in the creation and evolution of research and knowledge around climate change, and share it. This will address the need for evidence of the relationship between the climate and work to inform everything from the exposure limits set by regulators to the technical guidance used by OSH professionals and the content of training and awareness materials given to workers themselves.
- Facilitate co-ordinated dialogue to understand the impact of the climate on work over time. This includes formal negotiation between governments, employers and workers, collaboration between businesses and industries, and consultation with workers who are in the direct line of climate change impacts.

### Workplace level

- Businesses should:
  - Ensure that they have risk mitigation and adaptation policies, practices and measures in place to protect workers against climate-related risks.
  - Have equivalent measures and targets for social impacts of climate change, as they do for science-based targets for environmental impacts.
  - Embed OSH policies, risk assessments, awareness and training at all levels as a fundamental component of climate change strategies and for the prevention of harm and protection of workers against climate risks.
  - Ensure the prevention of harm and protection of workers against climate health and safety risks. Do this as part of robust occupational health and safety management systems and strong risk management.



## OSH professionals

- Contribute to and support the development and embedding of climate change mitigation and adaptation strategies.
- Assist businesses with their risk assessment processes, ensuring they consider climate-related risks as well as other OSH risks, and ensuring principles of prevention are applied. They should ensure all risk groups, including vulnerable groups, are identified and considered, including gender-sensitive risk assessments, so that prevention and control strategies are relevant to those at risk.

What is mentioned here requires co-ordinated efforts from multiple stakeholders. Nevertheless, all these components are rooted in established **principles of good occupational safety and health**. These principles are not altered by climate change – if anything, they are only made more important by it. They demonstrate the role that OSH professionals can play in providing expertise and guidelines for organisations to manage OSH risks arising from climate change to enhance organisations' preparedness, co-ordination, and response strategies. Their input can also be valuable in climate change adaptation efforts, including changing ways of working, overseeing infrastructure upgrades or by producing reporting metrics on climate-related risks.

For more information on IOSH's principles of good occupational safety and health, visit the IOSH webpage [iosh.com/about/what-we-do/osh-principles](https://www.iosh.com/about/what-we-do/osh-principles).



# Case studies

## A first-hand perspective from the events industry

With over 30 years of experience in the live events sector, I consistently emphasise the need to address extreme weather events in event safety plans. The pressing reality of climate change is rapidly altering global weather patterns, with the frequency and severity of extreme weather projected to escalate.

The weather we faced in the past is not a reliable indicator of what we will experience in the future. Extreme weather events are likely to be more severe than we have previously encountered. While working in Dubai in April 2024, the city experienced record-breaking rainfall of 250 millimetres in a single day. The flooding caused by this rainfall resulted in 20 deaths across the UAE. But it was not just the rain; wind speeds gusting in excess of 90 kilometres per hour lifted temporary structures weighing several tons, smashing them like matchwood.

We must accept that these events are now far from unique and are quickly becoming the new normal. Periods of extreme heat, thunderstorms, lightning, flash floods, hail, tropical storms, and high winds are more commonplace.

In the events sector, workers are often subject to high temperatures while doing their jobs. We have found ways to mitigate the risk associated with heat-related sickness, but there are many other factors to consider, including UV radiation, air pollution, and insect-borne diseases. In July 2024, my team experienced 40°C temperatures working in Budapest, Hungary, forcing us to change to night-time work. While a reasonable mitigation for the high temperatures, working at night brings with it attendant welfare concerns, which also need to be managed.

Climate change presents significant challenges to worker safety and health globally. As climate hazards evolve, legislation will need re-evaluation or new regulations. Personally, I think it is crucial we integrate OSH into climate policies and incorporate climate concerns into OSH practices.

However, the most crucial element in addressing climate-related risks is collaboration – all stakeholders must unite to develop and implement climate mitigation and adaptation policies.

Extreme weather events are so commonplace that we must mitigate risks to identify and prioritise hazards that could affect our workforce. Historical data, climate projections, risk maps, and vulnerability assessments determining the frequency, severity, and impact of different weather events must be included in our event and crisis management planning to effectively protect our people.

**Richard Bate CFIOSH**  
**OSH Consultant and IOSH President-Elect**



## Beyond the fields: heat stress and recovery in sugarcane work

Heat stress can cause serious health issues such as heart attacks, strokes and organ damage. Chronic kidney disease of undetermined causes is a progressive loss of kidney function that continues to harm workers in Mesoamerica.

Cutting sugarcane is a demanding job, requiring intense physical effort under the scorching sun. This has a significant toll on workers. La Isla Network has helped protect them by implementing scientifically optimised protocols for rest, shade, hydration and hygiene.

A study (Hansson et al, 2024) to better understand the heat stress and kidney strain experienced by Mesoamerican sugarcane cutters looked at how workers' kidney function and muscle injury markers changed during and after their shifts. It also considered work and home environments to understand their work and recovery cycle better.

A programme was developed to prevent heat stress through:

- scheduled and mandated rest in shade
- mandated hydration including electrolyte breaks
- sanitation initiatives
- personal protective equipment to prevent injuries including sweat-wicking shirts
- reduction in workload from shorter shifts and shorter working weeks.

Results indicated that even with advanced interventions, sugarcane cutters show daily changes in kidney and muscle strain markers and possibly build up inflammation over the work week. The research findings call for ongoing monitoring of workers frequently exposed to heat stress. Additionally, continuous efforts to enhance workplace heat prevention and implement protective measures in industrial agriculture and other sectors are necessary.

**Jason Glaser**  
CEO, La Isla Network



## Navigating extremes among Oman oil and gas workers

Over the past decade, the oil and gas industry across the Sultanate has faced increasingly severe climate challenges. The relentless summer heat has led to a rise in heat-related evacuations and heat stress incidents, with emergency response teams working tirelessly to ensure the safety of affected workers.

The frequency and intensity of dust storms have also escalated, posing serious threats to visibility and respiratory health. Adding to these challenges are the flash floods in 'wadis' (dry riverbeds).

Despite these adversities, the resilience and dedication of Oman's oil and gas workforce shines through. Teams have implemented innovative strategies to mitigate the impacts of heat stress, improve visibility during dust storms, and enhance safety protocols for flash flood scenarios.

### Heat stress management

Our company has developed a comprehensive heat stress management system that features:

- work breaks between 12:30 and 3:30pm during summer months (June–August)
- fatigue management checks made during peak summer season as part of daily activity monitoring
- periodic mandatory rest breaks every 45 minutes when temperatures exceed 45°C
- providing drinks for all employees which include required proper nutrients and salts
- installation of cooling stations at strategic locations across our facilities

### Infrastructure modifications

We've invested in climate-resilient infrastructure, such as:

- enhanced shelter designs at remote locations
- resting tents with cooling systems
- flood protection measures at wadi-crossing pipelines

In addition, we've invested in worker support programmes, which includes enhanced medical screening that considers climate-related health risks, and supply chain resilience.

### Dr Neelesh Sogani

**General Manager, HSE, Zawawi Powertech Engineering, Oman**



## Rising tides: the impact of climate change on coastal industries

For businesses in the Caribbean and other coastal areas, the implications of rising sea levels extend far beyond property damage. From structural failures and hazardous material spills to increased health risks and disrupted supply chains, OSH challenges are mounting. Without regular assessments and reinforcement, this degradation can lead to catastrophic failures, posing risks to workers and the surrounding environment.

Rising sea levels disrupt transportation and logistics, making evacuation routes inaccessible and increasing exposure to hazardous substances, which can lead to significant environmental and health risks for workers and nearby communities.

To safeguard workers and ensure business continuity, companies operating in coastal areas must integrate climate resilience into their occupational safety and health strategies.

To enhance resilience against rising sea levels, companies should conduct regular vulnerability assessments to evaluate structural integrity and emergency preparedness and map out flood zones for critical infrastructure reinforcement.

Strengthening emergency response plans, including accessible evacuation routes and early warning systems, is crucial. Investing in resilient infrastructure, such as elevated platforms and nature-based solutions, can protect facilities from saltwater damage. Enhancing PPE and health monitoring ensures workers are equipped to handle emerging hazards and detect early signs of illness.

Finally, implementing climate-conscious training helps workers adapt to evolving risks and manage the emotional toll of working in high-risk coastal areas.

### Ria Sooknarine

Sustainability Manager, Unipet, Trinidad and Tobago





# Conclusion

Climate change is here to stay. But while there are growing examples of workers carrying out their jobs in extreme conditions – heat, droughts, floods and so on – it is uncertain precisely what the future looks like for the occupational safety and health (OSH) of the global workforce.

One thing is certain, however: the OSH profession will play a key role in managing climate-related risks and protecting workers from the impacts of the change. Its well-established principles and processes relating to protecting the safety and health of workers can and will act as the foundation for this.

But while the OSH profession can support mitigation, more is needed at a business and governmental level – both in terms of climate adaptation efforts and to ensure that, whatever the climate future, workers are considered in the planning.

That is why we have made a number of calls to action for governments and businesses. We hope they share the concerns we raise and possess the will to protect people as they go about their daily lives and that OSH considerations are within their decision-making processes.

Action in the face of climate change must be co-ordinated. It must leverage the efforts of all those with a vested interest, be it governments, businesses, civil society organisations, trades unions, researchers, or workers themselves.

Alongside high-level agreements and commitments, we need better knowledge and evidence, and transparent reporting frameworks, strategies, tools and resources for practitioners. Perhaps most importantly, we need action.

We all have a major role to play in protecting workers from the effects of climate change. The planet's climate future – and the future of the workers within it – is still to be decided. This document is a starting point.









# References

- 1 Schulte PA, Chun H. (2009). "Climate change and occupational safety and health: establishing a preliminary framework. *J Occup Environ Hyg.* 6(9):542-554. doi: 10.1080/15459620903066008.
- 2 Schulte PA, Bhattacharya A, Butler CR, et al. (2016). "Advancing the framework for considering the effects of climate change on worker safety and health." *J Occup Environ Hyg.* 13(11):847-865. doi: 10.1080/15459624.2016.1179388.
- 3 Schulte PA, Jacklitsch BL, Bhattacharya A, et al. (2023). "Updated assessment of occupational safety and health hazards of climate change." *J Occup Environ Hyg.* 20:183-206. doi: 10.1080/15459624.2023.2205468
- 4 Denham T, Rickards L. (2022). *Climate impacts at work*. Climate Resilience Living Lab, RMIT University, Melbourne, Australia. <https://cur.org.au/cms/wp-content/uploads/2022/09/220913-web-climate-impacts-at-work.pdf>
- 5 Hansen JE, Kharecha P, Sato M, et al. (2025). "Global warming has accelerated: are the United Nations and the Public well-informed?" *Environment: Science and policy for sustainable development.* 67(1):6-44.
- 6 United Nations Climate Action. "Climate Action Fast Facts". <https://www.un.org/en/climatechange/science/key-findings>.
- 7 NASA. "Ice Sheets". <https://climate.nasa.gov/vital-signs/ice-sheets/?intent=121#:~:text=Key%20Takeaway%3A,adding%20to%20sea%20level%20rise>.
- 8 EU-OSHA, "Climate Change: Impact on Occupational Safety and Health (OSH)". (2023). OSH Wiki. <https://oshwiki.osha.europa.eu/en/themes/climate-change-impact-occupational-safety-and-health-osh>.
- 9 Ibid.
- 10 Ibid.
- 11 Ibid.
- 12 Cianconi P., Betrò S., and Janiri L. (2020). "The Impact of Climate Change on Mental Health: A Systematic Descriptive Review." *Front Psychiatry.* 6;11:74. doi:10.3389/fpsyt.2020.00074.
- 13 International Labour Office. (2024) *Ensuring safety and health at work in a changing climate*. [https://www.ilo.org/sites/default/files/2024-07/ILO\\_SafeDay24\\_Report\\_r11.pdf](https://www.ilo.org/sites/default/files/2024-07/ILO_SafeDay24_Report_r11.pdf)
- 14 Flouris A, Azzi M, Graczyk H, et al. (2024). *Heat at Work: Implications for Safety and Health. A Global Review of the Science, Policy and Practice*. International Labour Organization.
- 15 International Labour Organization. (2019) *Working on a warmer planet: the impact of heat stress on labour productivity and decent work*. Geneva.
- 16 International Labour Office. (2024). *Ensuring safety and health at work in a changing climate*. [https://www.ilo.org/sites/default/files/2024-07/ILO\\_SafeDay24\\_Report\\_r11.pdf](https://www.ilo.org/sites/default/files/2024-07/ILO_SafeDay24_Report_r11.pdf)
- 17 Pega F, Momen NC, Streicher KN, et al. (2023). "Global, regional and national burdens of non-melanoma skin cancer attributable to occupational exposure to solar ultraviolet radiation for 183 countries, 2000–2019: A systematic analysis from the WHO/ILO Joint Estimates of the Work-related Burden of Disease and Injury". *Environment International.* 108226.
- 18 International Labour Organization. (2019) *Working on a warmer planet: the impact of heat stress on labour productivity and decent work*.
- 19 International Labour Office. (2024) *Ensuring safety and health at work in a changing climate*. [https://www.ilo.org/sites/default/files/2024-07/ILO\\_SafeDay24\\_Report\\_r11.pdf](https://www.ilo.org/sites/default/files/2024-07/ILO_SafeDay24_Report_r11.pdf)
- 20 Kiefer, M., Rodríguez-Guzmán, J., Watson, J., et al. 2016. "Worker health and safety and climate change in the Americas: issues and research needs", *Rev Panam Salud Publica.* 40(3): 192–197.



- 21** International Labour Organization, *Chemicals and climate change in the world of work: Impacts for occupational safety and health*. 2023. [https://www.ilo.org/sites/default/files/wcmsp5/groups/public/@ed\\_dialogue/@lab\\_admin/documents/publication/wcms\\_887111.pdf](https://www.ilo.org/sites/default/files/wcmsp5/groups/public/@ed_dialogue/@lab_admin/documents/publication/wcms_887111.pdf).
- 22** Bourbonnais, R., Zayed, J., Levesque, M., et al. (2013). "Identification of workers exposed concomitantly to heat stress and chemicals" *Industrial Health*. 51 (3), 25-33. <https://doi.org/10.2486/indhealth.2012-0095>.
- 23** EU-OSHA, "Climate Change: Impact on Occupational Safety and Health (OSH)". *OSH Wiki*.
- 24** Ibid.
- 25** International Labour Office. (2024) *Ensuring safety and health at work in a changing climate*. [https://www.ilo.org/sites/default/files/2024-07/ILO\\_SafeDay24\\_Report\\_r11.pdf](https://www.ilo.org/sites/default/files/2024-07/ILO_SafeDay24_Report_r11.pdf)

## Contact

[Public.Affairs@iosh.com](mailto:Public.Affairs@iosh.com)

© 2025 IOSH

The Institution of Occupational Safety and Health.



## About IOSH

The Institution of Occupational Safety and Health (IOSH) is a global Chartered body. The largest membership organisation for health and safety professionals worldwide. We connect our members with resources, guidance, events, and training, and we're the voice of our profession, campaigning on issues that affect millions of working people.

As a qualifications Awarding Organisation, a developer of training, and an advocate for positive transformation, we seek to build excellence in our profession, drive action from everyone who can influence occupational safety and health standards and ensure that protecting people is at the heart of sustainability.

IOSH was founded in 1945 and is a registered charity with international NGO status.

IOSH  
The Grange  
Highfield Drive  
Wigston  
Leicestershire  
LE18 1NN  
UK

 [x.com/IOSH\\_tweets](https://x.com/IOSH_tweets)  
 [facebook.com/IOSHofficial](https://facebook.com/IOSHofficial)  
 [linkedin.com/company/iosh](https://linkedin.com/company/iosh)  
 [youtube.com/IOSHchannel](https://youtube.com/IOSHchannel)  
 [instagram.com/ioshofficial](https://instagram.com/ioshofficial)  
 [tiktok.com/@ioshofficial](https://tiktok.com/@ioshofficial)

+44 (0)116 350 0700  
**iosh.com**

Institution of Occupational Safety and Health  
Founded 1945  
Incorporated by Royal Charter 2003  
Registered charity in England and Wales No. 1096790  
Registered charity in Scotland No. SC043254

**Read our policy position on  
protecting workers from the  
impacts of climate change**

