

THIS WEATHER ISN'T for HUMANS

COP28 SITE WORKERS AT CRITICAL RISK OF SERIOUS HEAT INJURY

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EXECUTIVE SUMMARY

A FairSquare investigation has found that in September 2023, migrant construction workers on Dubai's COP28 site were put to work outdoors in extreme heat that posed very serious threats to their health and could be fatal, and in clear violation of the United Arab Emirates' laws designed to protect outdoor workers from its harsh climate. With temperatures in Dubai as high as 42 degrees celsius at the time, the combination of heat and humidity workers were likely exposed to exceeds upper limits where construction work can safely be performed, according to internationally recognised standards.

FairSquare has obtained evidence that in early September over two separate days, work took place on at least three separate outdoor sites on Expo City between 12.30pm and 3pm, the hottest part of the day. The sites were located at the Dubai Exhibition and Convention Centre and the Opportunity site, both of which will be within or adjoining the "blue zone", the UN managed zone where world leaders will rub shoulders during the COP28 climate conference in November this year. An Expo City representative told media last month that the site was undergoing "major, major preparations in many areas" to get ready for COP28.

Workers on the site told researchers that the heat was extreme and that they expected to have to work in such conditions. "Last week, I thought I would die every second we were outside... but we have to get paid," one said. Another man said: "Of course, I get headaches and feel dizzy. Everyone in this heat does. This weather isn't for humans, I think."

A third migrant worker said he had previously collapsed on the site:

"I think I will one day collapse. I did once pass out while working on the site in 2021 – before Expo began – but just once. This time, so far I have not passed out and the weather is going to get better soon so hopefully it will be all good going forward. Otherwise, I just try to take quick water breaks when I can. There is also A/C [air conditioning]

inside so I just go inside from time to time to feel better."

Rapid rises in heat gain can cause what the World Health Organisation describes as "a cascade of illnesses", including heat cramps, heat exhaustion, hyperthermia and heat stroke. And even if workers don't immediately collapse, chronic exposure to this level of heat can create cumulative stress on the human body, and risks exacerbating the impact of respiratory and cardiovascular diseases, diabetes and kidney disease. Scientific researchers have linked high temperatures to a heightened risk of death for migrant workers in UAE's neighbours Qatar and Kuwait.

The work, which involved small numbers of workers on each site – took place during the summer time "midday ban", a 150 minute block each day when for three months of the year all outdoor work is banned by law across the UAE. The UAE government claims that this protects workers from sustaining injuries from the country's extreme heat. COP28 told FairSquare in a written statement that based on the information shared with it, it was "not aware of any breaches of Summer Working Hours on the site of this year's Conference". It said that Expo City and COP28 had "robust worker welfare policies and procedures".

FairSquare is calling on the COP28 organizers to ensure that an official investigation takes place into why migrant workers were working on their site in such extreme heat, during hours when national legislation prohibited outdoor work.

Meanwhile the UAE authorities should adopt a risk-based, rather than a calendar-based, approach to limit workers' exposure to heat. Specifically, the UAE should pass legislation to ensure that employers are required to provide workers with breaks of an appropriate duration, in cooled, shaded areas, when there is an occupational risk of heat stress. Mandatory break times should take into account the environmental heat stress risks along with the exertional nature of the work being performed.

"I THOUGHT I WOULD DIE EVERY SECOND WE WERE OUTSIDE":

Work on the COP28 site during September 2023

The 2023 United Nations Climate Change Conference or Conference of the Parties of the UNFCCC (COP28) will take place in Dubai at Expo City, the Expo 2020 site. Following the conclusion of Expo 2020, the site transformed into Expo City, which claims to be “redefining sustainable living, creating a community with the health and wellbeing of its residents at its core.”, according to internationally recognised standards.

Expo City site is currently being adapted to prepare it to host the world’s largest annual climate conference. A senior Expo City official told UAE media in September 2023 that, “the city is undergoing major, major preparations in many areas.” On 11 September, parts of Expo City were handed over to the office of COP28 President Sultan al-Jaber. The team managing the site’s transition were “working day and night happily”, the official said.

Migrant workers, who make up about 90% of UAE’s private sector labour force and who carry out almost all manual labour in the country, were playing a central role in these preparations for COP28, as in every infrastructure project in the UAE.

Shortly after parts of the site were handed over to the COP28 President’s team, FairSquare researchers obtained evidence that on two separate days, migrant construction workers at Expo City were working outside during the middle of the day on at least three separate sites. Work included moving large, heavy items and working on scaffolds in harnesses.

This work took place before 15 September between 12.30pm and 3pm. Under a 2022 Ministerial resolution, outdoor work is banned by law during these times across the UAE between 15 June and 15 September due to the extreme temperature.

The three work sites were located at the Dubai Exhibition and Convention Centre and the Opportunity site, both of which will be within or adjoining the “blue zone”, the UN managed zone where world leaders will gather during the COP28 climate conference in November this year. Some or all of this activity being carried out by migrant workers during the midday ban was in preparation for COP28, FairSquare was told.

One man supervising work told researchers:

“The project has to finish in time. COP28 is just weeks away. Most of the work only takes place at night anyways, but some work has to take place whenever it can. There is no time, we have to finish.”

FairSquare’s information is that at least two dozen men were on-site at this time, and the organisation has obtained visual evidence of approximately dozen men working outdoors during the summertime ban. Conditions in Dubai at the time were dangerously hot.

At the times the men – nationals of countries in South and Southeast Asia and Africa – were working, publically available climate data shows that the temperature at Dubai International Airport, a 30 minute drive from Expo City, was 42 degrees celsius on one day and 38 degrees celsius on the other.

The combination of heat and humidity that the workers were likely exposed to exceeds upper limits where heavy work such as construction can safely be performed. The United States Occupational Safety and Health Administration (OSHA) recommends that employers should consider any Wet Bulb Globe Temperature (WBGT) reading of over 25 C as a trigger for acclimatized workers to stop and take a break from strenuous work. At the times that workers were carrying out continuous heavy work, the WBGT at Dubai airport ranged between 31 and 33 C.

For reasons of security, FairSquare is unable to publicly share all details of the times and locations in question.

Researchers spoke to 10 workers who were put to work outside during the midday ban, some of whom spoke of how the intense heat affected them physically. Several had also worked for the same employers on the construction of the site prior for Expo 2020. One man, who had been working on the Opportunity Pavilion, said:

“Last week, I thought I would die every second we were outside. This week is still warm but it is not as bad as last week. I can actually stand outside for 5 minutes without feeling like I will faint. But yes, I did work outdoor in the daytime last week also. I don’t know what else to say. It is hot but we have to get paid.”

Another man, working on the Dubai Exhibition and Convention Centre, where world leaders will negotiate solutions to the climate crisis, said that he did not have much choice except to work through the heat, as he needed the regular salary to support his family:

“Of course, I get headaches and feel dizzy. Everyone in this heat does. This weather isn’t for humans, I think. But it is fine; we have jobs, we can provide for our families,

we get paid on time. What else do we need? And if any day you get sick, they will make you stop working and take rest and maybe even not come the next day. But of course if you are outside in this heat, you will feel and get sick from time to time.”

A colleague also working on the Dubai Exhibition and Convention Centre said he had collapsed in a previous year while working on the same site:

“I think I will one day collapse. I did once pass out while working on the site in 2021 - before Expo began - but just once. This time, so far I have not passed out and the weather is going to get better soon so hopefully it will be all good going forward. Otherwise, I just try to take quick water breaks when I can. There is also A/C [air conditioning] inside so I just go inside from time to time to feel better.”

This is not the first time that concerns over the effects of extreme heat have been raised at the Expo City site. In 2021, cleaners and security guards at the Dubai Expo center told the Associated Press of 70 hour weeks in the withering sun. One Kenyan security guard told the AP: *“Work, sleep, work, sleep. There’s no freedom... You just need to try to survive one day to another.”* When the Expo 2020 opened in October, well after the end of UAE’s summer working hours ban, tourists fainted from the heat.

As COP host the UAE has come under tremendous pressure, not least because it has appointed Sultan Ahmed Al-Jaber, head of its national oil company (ADNOC) as COP president, and because it has pledged an aggressive expansion of oil and gas production, 90% of which would have to remain in the ground to meet the net zero scenario set out by the International Energy Agency. All of this, critics say, raises doubts about the credibility of the UAE state’s commitments to stopping what the UN Secretary General has termed “global boiling”.

Expo City is one of the most intensely surveilled zones of the UAE. In 2021, Dubai’s security regulator announced that 13,000 surveillance cameras were in place on the site, raising questions about why the alarm was not raised when workers were visibly outside working in extreme temperatures, during hours when all such work is banned by law.

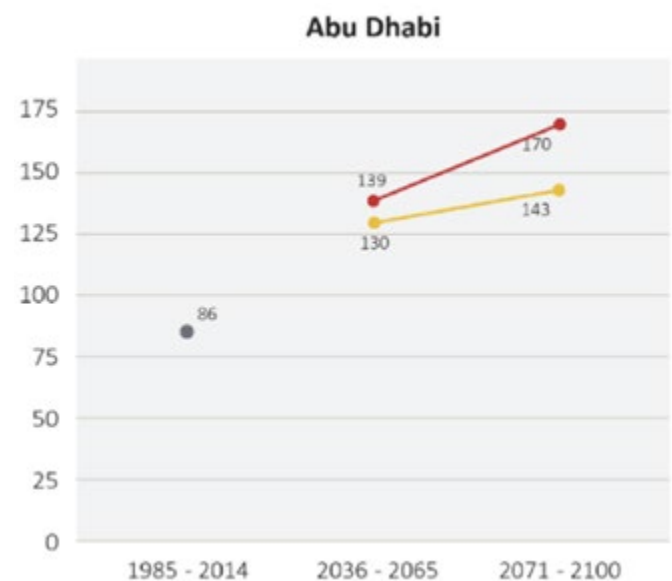
FairSquare asked COP28 for any comments on the main findings of its investigation. A COP28 spokesperson responded:

“COP28 has investigated the claims you have made, based on the information you have shared. We are not aware of any breaches of Summer Working Hours on

the site of this year’s Conference. COP28 works very closely with Expo City Dubai, the venue for the Conference. Both COP28 and Expo City Dubai have robust worker welfare policies and procedures and we have every confidence in their implementation. Our Assurance Standards require Contractors to develop and implement a Weather Working Plan detailing arrangements for working safely in the heat. All Contractors are required to monitor the Thermal Work Limit (TWL) via on-site calibrated weather stations, which take into account a range of factors including wet bulb temperature, dry bulb temperature, globe temperature and wind speed. Contractor plans include specific action levels and arrangements to be undertaken at each level.”

“IT IS HOT BUT WE HAVE TO GET PAID”:

Migrant workers, global boiling and heat in the UAE



Above is a graph showing the average number of days each year with maximum temperature > 40°C / Red line = 3°C scenario. / Yellow line = 1.5°C scenario

In the UAE, where almost all manual, outdoor work is carried out by migrant workers, very high temperatures aren’t recorded only during heat waves, but occur consistently for three to five months annually. Maximum daily ambient temperatures top 40°C on between 100 and 150 days per year. By way of comparison, New Delhi experiences an average of 24 days with temperatures above 40°C.

The Vital Signs Partnership, of which FairSquare is a

member, this year commissioned Barrak Alahmad of the Department of Environmental Health at Harvard University and Dominic Royé of the Foundation for Climate Research to analyse climate data from the Gulf, drawing on the latest state-of-the-art climate projection models. Their analysis is a brutal demonstration of how the climate crisis will intensify Gulf temperatures. If global temperatures rise by 1.5°C, the number of days on which air temperature in the UAE’s capital Abu Dhabi exceeds 40°C will go up by 51% by 2050. Under a 3°C scenario by the end of the century, the number of days at +40°C will increase by an extraordinary 98%.

Chronic exposure to this level of heat can create cumulative stress on the human body, and risks exacerbating the impact of respiratory and cardiovascular diseases, diabetes and kidney disease. Rapid rises in heat gain can cause what the World Health Organization describes as “a cascade of illnesses”, including heat cramps, heat exhaustion, hyperthermia and heat stroke.

Construction workers, who carry out strenuous work in areas exposed to the sun, very often wearing heavy personal protective equipment, are at particular risk of heat stress. Migrant workers comprise about 90 percent of the UAE private sector workforce and include approximately 600,000 construction workers. A 30 year old electrician from India who worked on building projects in the UAE told researchers earlier this year that the heat was so intense, sweat would leak from his boots.

Ganesh, 30, from Nepal, went to the UAE in 2018 to work as a lifeguard, and spent 12-hour shifts at the outdoor rooftop swimming pools of apartment blocks. “*The ground was so hot I couldn’t touch it with bare feet,*” he recalled in an interview with the Vital Signs Partnership in early 2023. “*It would burn my skin. You can’t imagine how hot it was.*” After he returned to Nepal, Ganesh developed numerous health issues. Doctors diagnosed him with kidney failure, which he suspects resulted from substandard living conditions and abusive working practices in the UAE. A kidney transplant is unaffordable for Ganesh and his family, leaving him reliant on dialysis for the rest of his life.

Scientific researchers have in recent years linked high temperatures to a heightened risk of death for migrant workers in Qatar and Kuwait, which have broadly comparable climates and labour forces to the UAE. In 2020, researchers in Kuwait published research that found “a health disparity where less advantaged non-Kuwaitis have systematically adverse health impacts from heat exposure” and a “striking difference” between Kuwaitis and non-Kuwaitis in relation to exposure to hot temperatures

and overall mortality rates. A paper published in the scientific journal Cardiology in 2019 examined mortality statistics for Nepalese migrant workers in Qatar and found “a strong correlation between monthly WBGT max and the death rate due to cardiovascular causes.” It concluded that “a large proportion” of deaths attributed broadly to cardiovascular diseases were due to “serious heat stroke.”

Data published by the Nepali government in 2020 shows that 47% of the 478 deaths of Nepalis in the UAE over the ten years prior to 2018/2019 were effectively unexplained, as their causes of death were simply stated as “cardiac arrest” or “natural causes”, both of which offer no valid explanation for why someone died.

In September 2023, Sultan Al Jaber said that under his presidency, COP28 would put health at the center of climate discussions, saying “the connection between health and climate change is evident, yet it has not been a specific focus of the COP process — until now. This must change.”

“I HAVE TO SAY ABOUT THIS BAN. IT IS EQUALLY HOT WHEN IT IS 11AM AS IT IS AT 12.30PM”:

Inadequate midday ban

The UAE’s “midday work ban”, set out in a 2022 Ministerial Resolution, applies from 15 June to 15 September. During this time, work in open spaces and direct sunlight is prohibited from 12:30pm to 3pm daily, with a few limited exceptions to allow the completion of time-sensitive work such as pouring concrete. The UAE prohibits work for the least time of all the Gulf states – just 232.5 hours – approximately half as much as Kuwait and 40% of the hours banned in Qatar.

In 2023, the UAE government said that “most of the private sector establishments have complied with the ban on working outdoors or under direct sunlight”, and that more than 113,000 field visits had been made to monitor for compliance. However, a UAE construction sector expert told FairSquare researchers in September 2023 it was not unusual to find companies breaching the ban when under pressure to meet deadlines for major events such as COP 28, scheduled for the UAE’s cooler months.

“During the summer, outdoor events are suspended due to the extreme heat. However, in order for these events to be ready for the October start, preparations must occur

during the summer months. Although the majority of this work is now conducted during nighttime hours to mitigate the heat, occasional instances arise where companies require workers to extend their hours due to time constraints”.

The reality is that even if the UAE and other Gulf states implemented their midday bans perfectly, workers would still be placed at enormous risk by these rudimentary measures. Heat expert Barrak Alahmad of Harvard University explains why:

“Policymakers pick three to five hours during the day, mainly the hottest hours, and they choose three months during the summer and they ban work during those hours. To me, this does not make any sense. Nature does not work this way. Is 11: 59 am different from 12: 01 pm? It’s not. Chances are it’s not going to make a difference. Heat can also affect night workers – sunlight is just one factor.”

Speaking to researchers, one worker at the COP28 site in September 2023 said that the ban is not effective:

“I have to say about this ban. It is equally hot when it is 11am as it is at 12.30pm or at 4pm as it is at 3pm when it is hot. The ban does little anyway throughout the daytime in the summer.”

The striking lack of consistency in the length and timing of bans between the different countries in the Gulf only serves to underscore the unscientific nature of these measures.

In 2018 the Guardian newspaper, supported by Fair Square and climate scientists, analysed climate data and identified that migrant workers constructing Expo 2020 would not have been protected by the limited summer working ban, finding that, “anyone working outside who is performing even moderate physical labour is exposed to potentially fatal levels of heat stress for the majority of the working day from June–September every year.”

Rather than rudimentary summer working bans, international best practice on heat stress requires the implementation of work-rest ratios (or “activity modification”) based on the prevailing WBGT, the index that is widely used by military agencies, occupational safety agencies, and governing bodies in athletics and

complemented by activity modification guidelines, which explain the steps to be taken at different WBGT temperatures. The US National Institute for Occupational Safety and Health (NIOSH) has issued some of the most detailed available guidance in a 192-page report, “Criteria for a Recommended Standard Occupational Exposure to Heat and Hot Environments”, published in 2016. In addition to NIOSH, International Standards Organization (ISO) Standard 7243 recommends the use of WBGT and specifies recommended rest/work cycles at different physical work intensities.

RECOMMENDATIONS TO THE COP28 PRESIDENCY AND THE UAE AUTHORITIES

FairSquare is calling on the COP28 organizers to ensure that an official investigation takes place into why migrant workers were working in such extreme heat, during hours when national legislation prohibited outdoor heat. Additionally, as part of the discussions it is leading on the health impacts of climate change, the COP28 Presidency should be prepared to address the impact of the UAE’s government’s systematic failure to provide basic protection from extreme heat to the people whose labour sustains the UAE economy.

More broadly, the UAE authorities should urgently review their current approach to protecting migrant workers from heat stress. They should adopt a risk-based, rather than a calendar-based, approach to limit workers’ exposure to heat. Specifically, they should pass legislation to ensure that employers are required to provide workers with breaks of an appropriate duration, in cooled, shaded areas, when there is an occupational risk of heat stress. Mandatory break times should take into account the environmental heat stress risks – using the WBGT as an index – along with the exertional nature of the work being performed.

Country	Dates ban in force	Hours of ban	Mandatory work stoppages per year
Bahrain	1 July to 31 August	12pm - 4pm	248 hours
Kuwait	1 June to 31 August	11am - 4pm	460 hours
Oman	1 June to 31 August	12.30pm - 3.30pm	368 hours
Qatar	1 June to 15 September	10am - 3.30pm	588.5 hours
Saudi Arabia	15 June to 15 September	12pm - 3pm	279 hours
UAE	15 June to 15 September	12.30pm - 3pm	232.5 hours

Above is a comparison of summer time working bans across the Gulf. Source: Vital Signs

This briefing was developed by **FairSquare**
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