

International

Extreme heat caused by global warming, urbanization: Study

Nearly a quarter of the world's population affected

NEW YORK: Rapid population growth and global warming are increasing exposure to extreme heat in cities, aggravating health problems and making moving to urban areas less beneficial for the world's poor, according to a study released Monday. The rise is affecting nearly a quarter of the world's population, said the report published in the "Proceedings of the National Academy of Sciences." In recent decades, hundreds of millions of people have moved from rural areas to cities where temperatures are generally higher because of surfaces such as asphalt which trap heat and a lack of vegetation.

Scientists studied the maximum daily heat and humidity in more than 13,000 cities from 1983 to 2016. Using the so-called "wet-bulb globe temperature" scale, a measure that takes into account heat and humidity, they defined extreme heat as 30 degrees Celsius (86 degrees Fahrenheit). The researchers then compared

weather data with statistics on the cities' population over the same 33-year period. They calculated the number of days of extreme heat in a



Worst-affected city: Bangladesh's capital

particular year by the population of the city that year to come up with a definition called person-days.

The authors found that the number of person-

days in which city dwellers were exposed went from 40 billion per year in 1983 to 119 billion in 2016. Cascade Tuholse at Columbia University's Earth Institute, a lead author of the study, said the rise "increases morbidity and mortality." "It impacts people's ability to work, and results in lower economic output. It exacerbates pre-existing health conditions," he said in a statement. Population growth accounted for two-thirds of the exposure spike, with actual warming temperatures contributing a third, although proportions varied from city to city, they wrote.

Bangladesh's capital Dhaka was the worst-affected city, seeing an increase of 575 million person-days of extreme heat over the study period. That was largely attributable to its population soaring from around four million in 1983 to around 22 million today. Other big cities to show similar trends were Shanghai, Guangzhou, Yangon, Dubai, Hanoi and Khartoum as well as

various cities in Pakistan, India and the Arabian Peninsula. Major cities that saw around half of their exposure causing by a warming climate included Baghdad, Cairo, Kuwait City, Lagos, Kolkata and Mumbai.

The authors said the patterns they found in Africa and South Asia, "may crucially limit the urban poor's ability to realize the economic gains associated with urbanization." They added that "sufficient investment, humanitarian intervention, and government support" would be needed to counteract the negative impact. In the United States, some forty major cities saw exposure grow "rapidly," mainly in the Gulf Coast states of Texas, Louisiana, Mississippi, Alabama, and Florida. The study was carried out by researchers at New York's Columbia, University of Minnesota Twin Cities, the University of Arizona at Tucson and the University of California, Santa Barbara. — AFP

China sends 56 jets into Taiwan defense zone

TAIPEI: Taiwan urged Beijing to stop "irresponsible provocative actions" after 56 Chinese warplanes crossed into its air defense zone on Monday in yet another record incursion. The defense ministry said it scrambled aircraft to broadcast warnings after 36 fighter jets, 12 H-6 nuclear-capable bombers and four other planes entered its southwest air defense identification zone (ADIZ). Four more fighters entered the zone in a night sortie, bringing the total to 56 planes, the ministry added. The Mainland Affairs Council (MAC), Taiwan's top China policy-making body, accused Beijing of "seriously damaging the status quo of peace and stability in the Taiwan Strait" with its recent string of incursions.

"We demand the Beijing authorities immediately stop its non-peaceful and irresponsible provocative actions," MAC spokesman Chiu Chui-cheng said in a statement. "China is

the culprit for causing tensions between the two sides of the (Taiwan) Strait and it has further threatened regional security and order," he added, saying Taiwan "will never compromise and yield" to threats. The ADIZ is not the same as Taiwan's territorial airspace but includes a far greater area that overlaps with part of China's own air defense identification zone and even includes some of the mainland.

Self-ruled democratic Taiwan lives under the constant threat of invasion by China, which views the island as its territory and has vowed to one day seize it, by force if necessary. In the last two years, Beijing has begun sending large sorties into Taiwan's defense zone to signal dissatisfaction at key moments-and to keep Taipei's ageing fighter fleet regularly stressed. Nearly 150 Chinese warplanes had breached Taiwan's ADIZ since Friday when Beijing marked its National Day with its then-biggest aerial show of force, buzzing the island with 38 planes.

That was followed by another incursion by 39 planes on Saturday, sparking criticism from Washington. State Department spokesman Ned Price reiterated Monday that the



TAIPEI: Taiwan's President Tsai Ing-wen poses for photographs in front of the Presidential Palace in Taipei yesterday during a ceremony to celebrate national day on October 10. —AFP

United States was "very concerned" by the "provocative" moves by Beijing. "This activity is destabilizing, it risks miscalculation and it undermines regional peace and security," Price told reporters. "We strongly urge Beijing to cease its military, diplomatic and economic pressure and coercion against Taiwan," he said, calling US commitment to the island "rock-solid".

China's foreign ministry on

Monday accused Washington of sending out "an extremely wrong and irresponsible signal" with "provocative" actions such as selling arms to Taipei and sending its warships to the Taiwan Strait. "The US should correct its mistakes, earnestly abide by the 'one China Principle'... prudently and appropriately handle the Taiwan issue, stop bolstering 'Taiwanese independence' separatist forces," said spokeswoman Hua Chunying. — AFP

In Iraq, Iran faces growing backlash

BAGHDAD: As Iraq heads to the polls on Oct 10, a spotlight has fallen on the outsized influence neighboring Iran wields - but also on the growing popular backlash against it. The parliamentary vote is being held early as a concession to a pro-democracy movement that railed against an Iraqi political system it decried as inept, corrupt and beholden to Iran.

"One of the more alarming things for Iran in Iraq right now is the huge sense of public dissatisfaction towards Iran," said political scientist Marsin Alshamary. "That's one of the things Iran wasn't expecting and something it has to grapple with," said the Harvard Kennedy School researcher. At the height of unprecedented protests in Nov 2019, furious demonstrators attacked and torched Iran's consulate in the southern city of Najaf, shouting "Get out of Iraq!"

When many protesters were killed by gunmen, activists accused pro-Iranian factions that play a major role in Iraq and which the United States blames for attacks on its interests there. The paramilitary network known as Hashed al-Shaabi, or Popular Mobilization Forces - formed in 2014 to defeat the Islamic State group - includes many pro-Iranian Shiite groups. It has since been integrated into Iraq's state security apparatus. In Iraq's parliament too, political parties with deep ties to the Islamic republic have formed powerful blocs with major influence in past governments.

Historically, relations have been volatile between



NAJAF: In this file photo taken on Nov 28, 2019, Iraqi demonstrators gather as flames start consuming Iran's consulate in this southern Shiite holy city. —AFP

Iraq and its larger neighbor to the east. After Iran's 1979 Islamic revolution, Iraqi dictator Saddam Hussein attacked over a border dispute, setting off their brutal 1980-1988 war. However, since the 2003 US-led invasion toppled Saddam - sparking years of insurgency - Iran has gained great influence in Iraq.

Since then, Shiite Muslim pilgrims from Iran have been able to once more flock to Iraq's holy cities of Najaf and Karbala. Iran has also become one of Iraq's largest trading partners, a major boost for the Islamic republic, which has been battered by sanc-

like the United States have developed systems designed to defend against cruise and ballistic missiles, the ability to track and take down a hypersonic missile remains a question. Hypersonic missiles can be used to deliver conventional warheads, more rapidly and precisely than other missiles. But their capacity to deliver nuclear weapons could add to a country's threat, increasing the danger of a nuclear conflict.

Is hypersonic threat here now?

Russia, China, the United States and now North Korea have all test-launched hypersonic missiles. France, Germany, Australia, India and Japan are working on hypersonics, and Iran, Israel and South Korea have conducted basic research on the technology, according to a recent report by the US Congressional Research Service (CRS). Russia is the most advanced. Moscow announced Monday that it had fired two Zircon hypersonic missiles from the Severodvinsk nuclear submarine. The first, while the sub was on the surface, successfully struck a test target in the Barents Sea. The second was launched while the vessel was submerged 40 meters (131 feet) below the surface.

China is also aggressively developing the technology, seeing it as crucial to defend against US gains in hypersonic and other technologies, according to the CRS report. Both China and Russia have "likely fielded an operational capability" with hypersonic glide vehi-

cles, said the report. The US Defense Department has an aggressive development program, planning up to 40 tests over the next five years, according to a government report.

The Pentagon tested a scramjet-powered hypersonic last week, calling it "a successful demonstration of the capabilities that will make hypersonic cruise missiles a highly effective tool for our warfighters." North Korea's test announcement suggested they had much further to go, that the test focused on "maneuverability" and "flight characteristics." "Based on an assessment of its characteristics such as speed, it is at an initial phase of development and will take a considerable time to be deployed," the South Korean and US militaries said in a statement.

Nuclear game-changers

Experts say hypersonics do not necessarily upend the global nuclear balance, but instead add a potent new delivery method to the traditional triad of bombers, ground-launched ICBMs, and submarine-launched ballistic missiles. A central risk is not knowing whether an adversary's hypersonic missile has a conventional or nuclear warhead. And, underscoring the attractiveness of hypersonics, the CRS report says that the US missile defense system is inadequate to detect, track and respond in time to hypersonics. — AFP

Scandal-hit NSO backs international spyware rules

PARIS: The Zionist company at the heart of the Pegasus surveillance scandal yesterday said it would support international regulation to prevent repressive governments from abusing powerful spyware like its own. In a letter to the United Nations, seen by AFP, the NSO Group expressed "strong support for the creation of an international legal framework" to govern technology that allows for highly invasive snooping on people's mobile phones.

NSO was engulfed in controversy in July over reports that tens of thousands of human rights activists, journalists, politicians and business executives worldwide were listed as potential targets of its Pegasus software. Smartphones infected with Pegasus are essentially turned into pocket spying devices, allowing the user to read the target's messages, look through their photos, track their location and even turn on their camera without them knowing.

NSO said in the letter that it took the allegations made by international media outlets "extremely seriously" and that it had launched an immediate investigation after the scandal blew up in July. "Any accusation that Pegasus has been misused by a State or State agency to target any journalist, human rights defender or political leader in violation of their human rights is naturally very concerning," the company's chairman Asher Levy wrote.

NSO has faced a torrent of criticism over the use of its software, but it insists Pegasus is intended to help governments fight crime and terrorism - and that it has been used many times to do so. "How can governments catch paedophiles and prevent terrorist attacks without these kinds of tools? There is no way," a source close to the company told AFP. The source said the company vets potential clients over ethical concerns, and had turned down business worth "hundreds of millions of dollars" from 55 countries. NSO has also "previously terminated customer relationships as a result of our human rights investigations," Levy wrote in the letter.

Off-the-shelf NSA

A second source close to the company acknowledged, however, that NSO has a limited ability to ensure that its software is not used for nefarious purposes by the governments that have bought it. "Sitting over the shoulder of a customer and seeing who they're targeting is something that we cannot do," the source said. The company's letter to the UN, dated September 30, came in response to a call in August from human rights experts at the world body for a moratorium on such digital surveillance technology until regulation is put in place.

NSO suggested the UN would be well-placed to lead the process of setting up international rules to better regulate the off-the-shelf surveillance sector, which has boomed in recent years. The company would be "a constructive participant if given the opportunity", the letter said. Critics say the widespread availability of software like Pegasus now allows even cash-strapped authoritarian governments to effectively purchase their own answer to the United States' National Security Agency, with highly invasive surveillance powers.

While companies offering such technology have sprung up around the world, several have been founded in Zionist entity, drawing recruits from the military intelligence elite. NSO suggested in its letter that companies in the sector should be forced to have human rights compliance systems in place. The UN could offer guidance on "which states to consider as not having an acceptable track record of respecting international human rights", it added.

NSO continues to reject the media reports that rocked governments around the world in July, saying they were plagued by "serious shortcomings and material inaccuracies". "The number of purported targets - or possible targets - is entirely implausible based on the number of licenses actually granted by NSO," it said in the letter. — AFP

Hypersonic missiles: Alarming must-have in military tech

WASHINGTON: North Korea's test of a hypersonic missile last week sparked new concerns about the race to acquire the alarming technology that is hard to defend against and could unsettle the global nuclear balance. Russia, which said Monday it had test-launched a hypersonic missile from a submerged submarine for the first time, leads the race, followed by China and the United States, and at least five other countries are working on the technology.

Why do countries want hypersonics?

Hypersonic missiles, like traditional ballistic missiles which can deliver nuclear weapons, can fly more than five times the speed of sound. But ballistic missiles fly high into space in an arc to reach their target, while a hypersonic flies on a trajectory low in the atmosphere, potentially reaching a target more quickly.

Crucially, a hypersonic missile is maneuverable (like the much slower, often subsonic cruise missile), making it harder to track and defend against. While countries