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Climate & Health News

Newsletter of the JHU-UPF Public Policy Center Climate Change Working Group



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NEWS

Features and Reports

[US cities face “climate gentrification”](#)

The US government’s response to extreme weather is pushing lower-income people away from the waterfront, often in the name of safety. Those homes, in turn, are often replaced with more costly houses, such as those built higher off the ground and better able to withstand storms – leading to “climate gentrification.” – Bloomberg



A new development is seen behind an abandoned lot in Miami. Photographer: Alicia Vera/Bloomberg

[Polish cities smothered by smog](#)

Poland has some the most polluted air in all of the European Union, and 33 of its 50 dirtiest cities. The problem is largely a result of the country's love affair with coal. In the European Union, 80 percent of private homes using coal for heat are in Poland. – NY Times



Photographer: Alicia Vera/Bloomberg

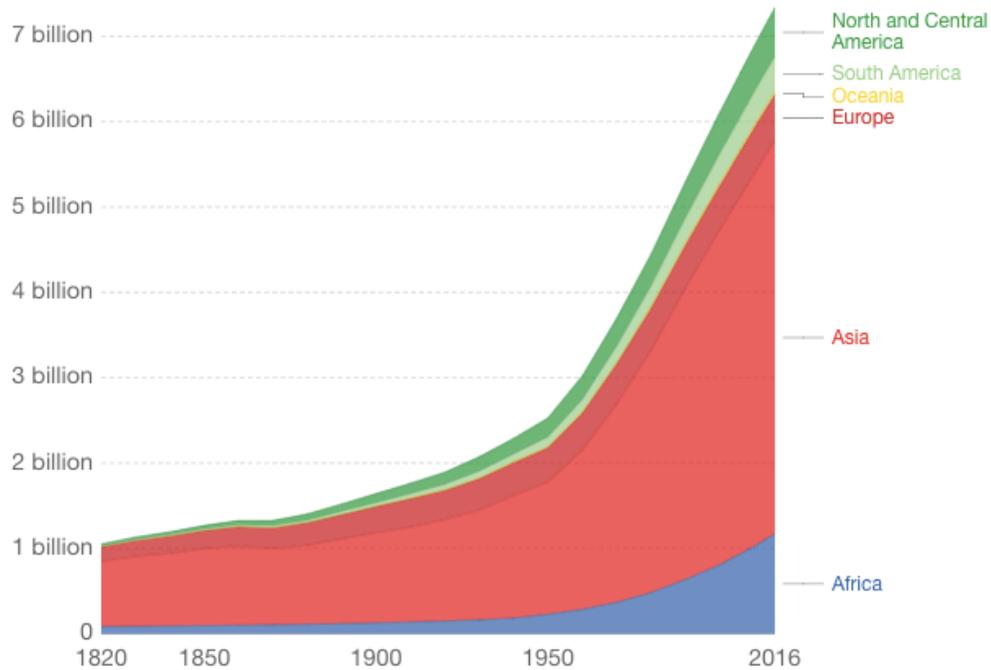
Not nearly enough money is flowing into low-carbon investments to meet the goals of the Paris climate accord, says a new UN Environment Programme report. Investors are moving too slowly to protect the Earth, the report says. – Scientific American



Credit: [Mario Tama](#) Getty Images

[Can we feed the world population?](#)

The number of undernourished people in the world has been rising since 2014, reaching an estimated 815 million in 2016; several billion people suffer levels of serious malnourishment. The most likely major constraint on future agriculture is climate disruption, which will very likely cause large reductions in crop yields. – Daily Climate



Source: Global Population by Region - HYDE (2016)

OurWorldInData.org/world-population-growth/ · CC BY-SA

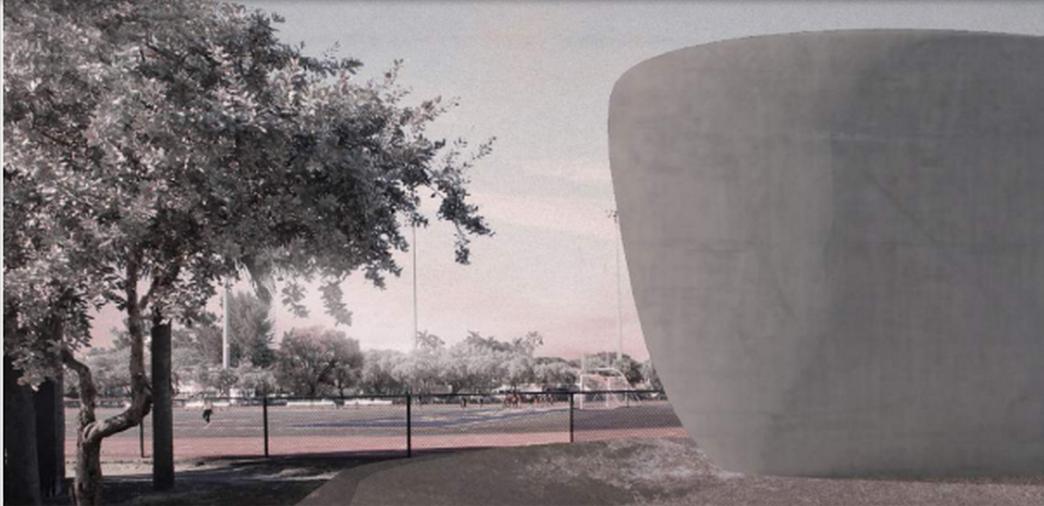
[How climate hurts childrens' health](#)

Listen to this taped interview with Federica Perera, Director of Columbia Center for Children's Environmental Health. – Yale Climate Connections

Solutions

[Miami Beach's sea rise pumps, city gets student advisers on adaptation](#)

Miami Beach is spending \$500 million in an attempt to elevate and pump itself out of the path of sea level rise. Meanwhile, Harvard graduate students came up with ideas for Miami Beach to adapt to rising seas, including elevated streets, concrete cisterns in parks and on roofs, and building on top of limestone as a "sponge pad" for excess water. – Miami Herald



Harvard graduate students came up with ideas for methods Miami Beach could use to adapt to rising seas in the future, including giant cisterns that double as art pieces in public parks. Created by Izgi Uygur

[Solving Houston's flood risk will require limiting development](#)

A new report stresses limiting development in certain areas so grasslands can absorb flood water and ease stress on neighborhood drainage systems, while also calling for better informing the public through measures like a countywide flood alert system and homebuyer disclosures detailing flood risks. – Texas Tribune



Flood damaged debris piled outside of homes in Port Arthur Texas. The city saw 47 inches of rain during the storm. *Michael Stravato for The Texas Tribune*

[How the humble bicycle can save cities](#)

Copenhagenize, a design studio specializing in bike infrastructure, offers a blueprint for how cities can welcome the bicycle and all the positive outcomes it brings. See the new book: [Copenhagenize: The Definitive Guide to Global Bicycle Urbanism](#). – Fast Company



[A sleek new rickshaw moves into Asian cities](#)

A sleek new “pedicab,” aimed at Dhaka, Kathmandu, Manila, and other Asian cities is designed to shift perceptions of a form of transportation that can be sustainable and affordable. One version has an electric “pedal assist,” like an electric bike. – Fast Company



[Sweden the first to test a road that recharges electric vehicles](#)

Sweden is trialing the world's first public road which allows electric vehicles to recharge while driving. Similar to a slot-car track, vehicles are able to connect to an electric rail that's embedded into the road. – CNN



Sweden's now electrified road that charges vehicles like real-life slot cars. The trial track built by eRoadArlanda stretches along two kilometers (1.2 miles) and has been installed on public road "893" just 30 minutes outside of Stockholm.

[China is making electric buses cheaper](#)

China's solar manufacturing drove down the cost of solar panels. In effect, the country voluntarily took on the costs of pushing solar panels onto the "s-curve" of rapid growth, a strategy that will greatly benefit the Chinese and the rest of humanity. Now there's evidence that China is doing the same thing for another key clean-energy product: electric buses. – Vox



Justin Sullivan/Getty Images

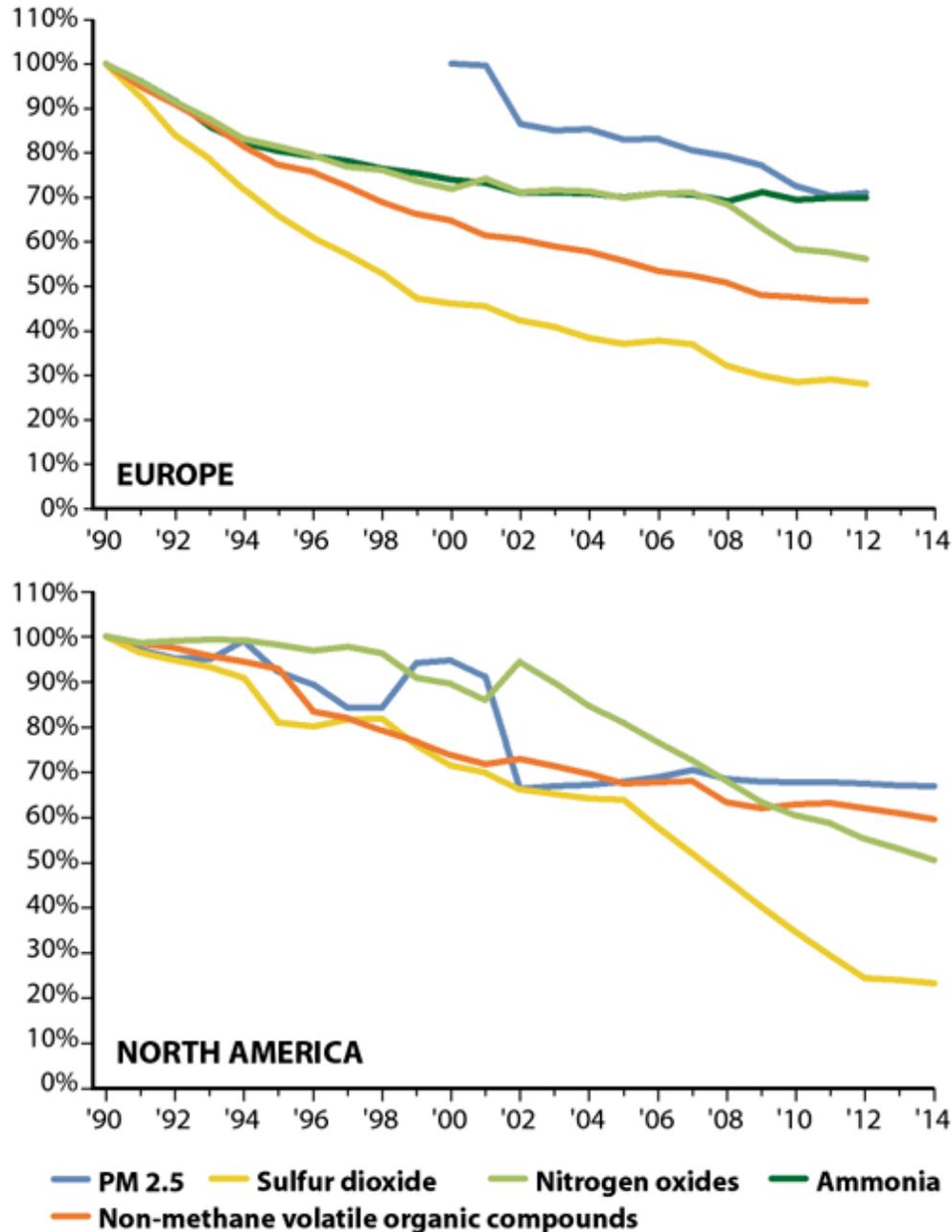
[International regulation of black carbon emissions may become effective this year](#)

Black carbon, or soot, is seen as a unique danger to the climate because its ability to accelerate warming in the atmosphere is many times stronger than CO₂. The Gothenburg Protocol may enter into force this year. – Inside Climate News

Since the 1979 Convention on Long-range Transportation of Air Pollutants, levels of key pollutants have dropped in North America and Europe. Sulfur dioxide, in particular, has plummeted.

AIR POLLUTION—EUROPE AND NORTH AMERICA

Emissions relative to 1990, by percent



SOURCE: United Nations Economic Commission for Europe

InsideClimate News

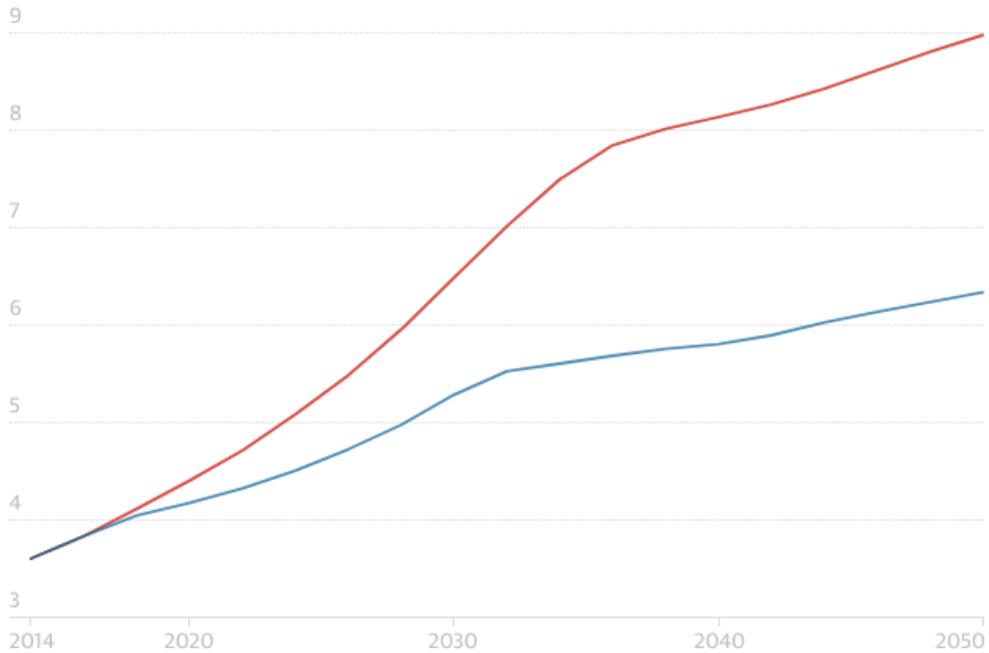
[Warming climate to double demand for cooling appliances](#)

Researchers predict energy use for air conditioners and refrigeration to jump 90% on 2017 levels while burgeoning middle classes and a warming world will result in energy demand for cooling overtaking that

Increased use of cooling systems will have a big impact on total carbon emissions by 2050

Total CO2 emissions from all cooling sectors (gigatonnes of CO2 equivalent)

■ Business as usual ■ Efficiency measures



Guardian Graphic | Source: Green Cooling Initiative

SCIENCE

Review: [How extreme weather affects human health](#)

This review describes some of the ways extreme events are changing and provides examples of the potential impacts on human health and infrastructure needed to ensure health. It also identifies key research gaps to be addressed to improve the resilience of public health to extreme events in the future.



UNDAC/Silva Lauffer Damage on 8 September 2017 from Hurricane Irma in Antigua and Barbuda.

Review: [Small island states and catastrophic extreme weather in 2017 \(Caribbean\)](#)

During 2017, 22 of the 29 Caribbean small island states were affected by at least one named storm. Researchers reviewed storm impacts to identify drivers of storm intensity, explore pathways of damage and prolonged disruption of essential services, document the spectrum of public health consequences, and delineate challenges to emergency response and recovery.

Review: [Linking climate adaptation and disaster risk reduction in health](#)

Researchers identified key links between the assessment frameworks and policy approaches for disaster risk reduction and climate change adaptation in public health. These include technical and operational synergies such as: early warning systems, vulnerability and risk assessment, health systems strengthening, infrastructure resilience, disaster preparedness and response.

Review: [Sea-level rise and risk of infectious disease \(Key West, Florida\)](#)

Researchers identified three categories of diseases whose transmission can be affected by sea level rise: mosquito-borne diseases; Vibrio- and toxic algae-caused diseases; and fecal-oral diseases. Adaptation strategies are proposed for each, with a case study provided for Key West, Florida, a city with inherent vulnerability to sea level rise.

Solutions: [Health impacts of bike sharing systems \(European cities\)](#)

A health impact assessment study analyzed 12 European city bike-sharing systems and found benefits

demonstrating bike sharing systems can be an important policy tool.



[Photo: courtesy Mikael Colville-Andersen]

Solutions: [National Weather Service alerts insufficient to prevent deaths \(US cities\)](#)

Researchers analyzed US National Weather Service heat alerts and mortality in 20 US cities (2001-2006) and found alerts were not associated with lower mortality in most cities studied (except Philadelphia).

This highlights the need to better link simple heat alerts to more specific, targeted local plans for communication and intervention.

Solutions: [A Lancet Countdown for Australia](#)

A *Lancet* Countdown for Australia will track progress on health and climate change across the five categories as the main *Lancet* Countdown: climate change impacts, exposures and vulnerability; health adaptation planning; mitigation and co-benefits; economics and finance; and public and political engagement. The first annual Australia report is planned for late 2018.

Solutions: [Health benefits of meeting China's Paris Agreement power sector commitments](#)

In this *Lancet* Countdown study researchers found estimated monetized health benefits of China's Paris Agreement commitment to reduce electricity generation CO₂ emissions would cover 18-62% of



An aerial view of buildings standing out amid haze engulfing Wuhan, central China's Hubei province on December 3, 2019. (Photo by STR/AFP/Getty Images)

Heat

Solutions: [Iran's heat may exceed human adaptation threshold, early warning systems needed](#)

Solutions: [Heat early warning systems shown to improve preventive actions in Chinese cities](#)

Storms & flooding

Solutions: [A GIS-based flood assessment and mapping tool tested in Hengfeng, China](#)

Air pollution

Solutions: [California's leadership on air pollution and prevention in the US](#)

Review: [Temperature variability and GI infections](#)

Solutions: [New simple and fast Ebola detection assay](#)

Solutions: [Enhancing Chinese hospital preparedness for climate-related infectious disease](#)

Nutrition

Review: [Food security in indigenous populations](#)



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