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Climate & Health News

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



DECEMBER 2019

A news and science roundup organized by the five themes of *The Lancet Countdown on Health and Climate:* health impacts; adaptation; mitigation; economics and finance; and communication and politics.

Health Impacts

News

Flood, fire and plague

November brought extreme floods in Venice (below), fires in Australia, Brazil, ,Indonesia and California (below), and even an outbreak of plague in China. Meanwhile, researchers at the *Lancet Countdown* released their 2019 report (below) warning that global warming could saddle future generations with life-long illness. – *Reuters*



Mother and daughter look on as thick smoke rises from bushfires near Nana Glen, Australia, November 12, 2019. Photo: AAP Image/Dan Peled/via REUTERS

Read also:

- State of emergency after apocalyptic "acqua granda" sweeps through Venice - Reuters
- <u>"Whiplash" variability of weather extremes to become more frequent</u> –
 Yale e360
- California in flames: Will the state become "unlivable?" Business Insider
- Are climate change and wildfires "Australia's labyrinth without exit"? NY
 Times
- Feedback loops: Amazon fires speed glacier melt in the Andes AFP

Science

The Lancet Countdown 2019 calls for "unprecedented" response of all 7.5 billion people

The report finds that without accelerated intervention to transform society, "the life of every child born today will be profoundly affected by climate change." A healthier pathway of limited warming is possible, but requires "bold new approaches to policy making, research and business… an unprecedented challenge demanding an unprecedented response." -

- lancetcountdown.org



The lancet urges everyone to act and choose the pathway for a cooler earth. Photo: Matthew Simmons/Getty Images

Read also:

- Editorial: Health and climate change making the link matter Lancet
- Review: Effects of drought on health Salvador et al., Sci Total Environ
- Review: Climate change and children's health Anderko et al., Pediatr
 Res
- Review: Health risks of climate change in older adults McDermott-Levy et al., *J Gerontol Nurs*
- Review: Indoor temperature and health (global) Tham et al., Public Health

Adaptation

News

The cities of the future are 'cellular'

A cellular city involves a city investing in self-sufficiency and adaptive regeneration. Cellular thinking requires that all laws, taxes, decisions to be embedded with

for a sustainable future. - World Economic Forum



Future cities will focus on local self-sufficiency, adaptability and resilience. Image: REUTERS/Loriene Perera

Read also:

- Six easy ways cities can become more resilient and sustainable Ensia
- New York City's subway is testing new flood gate protection –
 FastCompany
- Yemen goes solar amid war-driven energy shortages Thomson Reuters
- <u>Agricultural livelihood vulnerability index in Bangladesh</u> Hoque et al., *Int J Environ Res Public Health*

Science

Climate change and city adaptive capacity

Cities across the world are facing climate change related challenges, however, there is a shortage of international studies which examine climate change adaptation in cities, and draw successful examples of good practice. Authors analyze efforts in a sample of cities in developing countries with the goal of showcasing good practice in transformative adaptation which may be replicable elsewhere. – Filho et al., *Sci Total Environ*



New York has been testing its new "Flex-Gate" flood barriers in its subway stations in preparation for future storms. Photo: Kaye Blegvad

Read also:

- <u>Greening blocks: Urban design for health in a warming climate</u> Barron et al., *Int J Environ Res Public Health*
- <u>Public health response: Hurricane Maria in Puerto Rico</u> Cange & McGaw-Cesaire, *Disaster Med Public Health Prep*
- <u>Vaccines against epidemic-prone emerging infectious diseases</u> –
 Bernasconi et al. *BGG*
- Review: Risks and strategies for microbial contaminants in stormwater
 outfalls Ahmed et al., Sci Total Environ
- Review: The public health institutional response to heat Boeckmann et al., Eur J Public Health

Mitigation

News

<u>UNEP Emissions Gap report calls outlook "bleak" ahead of Madrid COP meeting</u>

Countries have failed to halt the rise in GHG emissions, with both China and the US increasing emissions last year requiring deeper, faster cuts. "For 10 years the Emissions

per year between 2020 and 2030 according to the report to stay within the desired 1.5 degree C net warming goal set by the 2015 Paris Agreement. – *New York Times*



Flooding in the German city of Kaufungen following heavy rainfall in May. Urgent action is needed by governments around the world in order to avoid ever-more catastrophic weather events caused by the climate crisis. Photo: UWE ZUCCHI/DPA/AFP VIA GETTY IMAGES

<u>Top climate scientists warn tipping points closer than previously thought</u>

It has been popularly assumed that "tipping points" in the Earth system — such as the loss of the Amazon rainforest or the West Antarctic ice sheet — are of low probability. Yet evidence is mounting that these events could be more likely than previously thought, potentially committing the world to long-term irreversible changes. The authors summarize the evidence and conclude tipping points alone suggest a state of planetary emergency. – *Nature*



An aeroplane flies over a glacier in the Wrangell St Elias National Park in Alaska. Photo: Frans Lanting/Nat Geo Image Collection

Read also:

- <u>Cities are changing their relationship with cars</u> NY Times
- How LA plans to get hundreds of thousands of people out of private cars – FastCompany
- <u>US electric bus demand outpaces supply</u> *Inside Climate News*
- <u>Transport and Climate Initiative of US Northeast and Mid-Atlantic States</u> –
 Inside Climate News
- Opinion: Bill McKibben on the bleak climate numbers Yale 360
- Solar panels now generate with moonlight, helping balance grid at night –
 The Guardian

Science

Stockholm Environment Institute finds fossil fuel "Production Gap" excess of 120% by 2030

A new report co-produced by SEI, IISD, ODI, CICERO, Climate Analytics and UNEP suggests that with currently-planned investments and projects the world is on track to produce 120% more fossil fuels than can be burned under a Paris Agreement-consistent



Photo: Sebastian Sander / EyeEm / Getty Images

Read also:

- Air travel, health and climate change Govia et al., Lancet
- Where to invest in renewable energy for the biggest carbon benefit –
 Buonacore et al., Nature
- <u>Urban dietary changes and carbon footprint in Beijing</u> Xiong et al., *J Environ Manage*

Economics & Finance

News

On current trend, GHG emissions set to rise until 2040 per new IEA report

In its annual <u>World Energy Outlook</u>, the International Energy Agency said a rapid reduction in emissions requires significantly more ambitious action in efficiency and clean energy. Otherwise, economic and population growth will continue to outweigh the effect of renewables and lower-carbon technologies. The world needs a "grand coalition ... committed to tackling climate change... or the chances of reaching climate goals will be very slim..." – *Financial Times*



"The world needs a grand coalition encompassing governments, companies, investors and everyone who is committed to tackling the climate challenge," said IEA Executive Director Fatih Birol. "In the absence of this, the chances of reaching climate goals will be very slim." Credit: Christopher Furlong/Getty Images

Coal is poised for a come-back in China

While global coal power capacity went down slightly last year, the trend is about to change. According to Global Energy Monitor (a non-profit that tracks coal power) China plans to add substantially to its coal power fleet (148 gigawatts of capacity, equivalent to the EU's total coal power capacity). These planned additions, an effort to help boost China's slowing economy, will more than offsets declines elsewhere around the world. – *Ozy*

Read also:

- Five other GHG emissions trends from the new IEA report NY Times
- European Investment Bank to end funding for fossil fuel projects in 2021 –
 DW
- Each \$1 of cryptocurrency 'mined' causes \$0.49 in health and climate harms – Anthropocene
- Exxon and other companies launch campaign for carbon tax to avoid
 Green New Deal The Hill
- The price tag for climate change is in the trillions 3 new books provide some insight – Outside

Science

<u>Financing to address climate: lessons from the Global Environment Facility</u>

This study analyzes 4,574 projects implemented by the GEF and investigates how leveraging additional funding from financiers has been used to acquire greater international environmental assistance. Analysis suggests the co-financing ratio of GEF grants increased from about 4 to about 7.7 from 1991–2018, with climate change projects aimed at mitigation (compared to adaptation) show the strongest leverage potential. – Cui et al., *Climate Policy*



Image: Based on artwork by David & Angie.

Read also:

- <u>Tradeoffs among blue-green-grey infrastructure for urban adaptation</u> –
 Alves et al., Sci Total Environ
- Water scarcity and urban poverty: four key health outcomes Adams et al., Am J Hum Biol

Communication

News

<u>Climate activism is reducing mental health symptoms among youth</u>

Young people are increasingly reporting "eco-anxiety" associated with climate change. But experts say taking collective action on the issue appears to boost wellbeing. Young people are being given a greater sense of agency as part of the global youth-led movement which has grown exponentially in the past year, according to psychotherapists and school leaders. — *The Independent*



Greta Thunberg has inspired millions of people to take to the streets around the world in September, taking part in climate protests. Photo: Getty

Read also:

- First lawsuit of a pension fund for not taking into account climate impacts – Bloomberg
- A young woman inventor teaches children about renewable energy with cool toys - CNN
- Climate change intensifies pre-existing gender disadvantages Time

Enhancing climate change literacy through apps

Authors argue that science education apps may be a promising and underrated way forward to improve how information is communicated between scientists, students and citizens. Smart device apps could be an effective way translate research outputs beyond scientific journals, support science teaching, and make information on global change more translatable and relevant to the general public. – Leuzinger et al., *Front Educ*



Figure 2. Screenshot from the Global Change App. The user interactively learns about the global carbon and water fluxes and pools, how human activity affects them, and how they are interrelated.

Read more:

Review: Spreading the word on greening health care systems –
 Fadda, Green Buildings and Renewable Energy





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