



PLANETARY HEALTH WEEKLY

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CLIMATE VICTORY GARDENS

We, as everyday citizens, have the opportunity to use our gardens as a force for change. Shifting garden practices towards principles of regenerative agriculture can be a meaningful part of reversing climate change and sequestering carbon out of the atmosphere and back into the soil. When we grow food at home in a regenerative manner; we purchase less food that has traveled across the country, we compost more food scraps and yard waste keeping it out of landfills, we increase the water holding capacity of our soil decreasing flooding and runoff, and most importantly we rebuild our soil health bringing back its carbon sequestering potential.

[Read more at Green America to learn how to start a Climate Victory Garden](#) and watch a video on Climate Victory Gardens featuring Rosario Dawson and Ron Finley.



Credit: Pixabay

ALSO IN THIS ISSUE:

What About Global Warming For Southern Africa How Receipts Impact People & The Planet 'Trash Is Gold' As Benin Turns Waste Into Biogas	2
Health Of Canada's Children And Youth Challenges, Solutions, And Innovations In Eye Care Botswana Grapples With Soaring World Population	3
African Youth Boom: What's Worrying Bill Gates? Pushing Southeast Asian Birds To Extinction Health System In Canada's North Is Failing	4
Quote Of The Week On Energy Systems And Events	5
FYI#1: Global Report On Alcohol And Health	6
FYI#2: Mayors Leading The Way On Climate	7
FYI#3: 'A Single Piece Of Plastic' Can Kill Sea Turtles	8
FYI#4: Seeking A Guilt-Free Green Investment? Introducing CoPower Green Bonds	9
FYI#5: Stephen Hawking's Final Theory Sheds Light On The Multiverse	10
FYI#6: A PhD Should Be About Improving Society, Not Chasing Academic Kudos	11
Backpage: Almost Snowless Mt. Kilimanjaro	

WHAT IF WE COULD DO A LAB TEST ON THE SPOT, ANYWHERE IN THE WORLD?

The 2015-2017 outbreak in South and Central America caused disabling microcephaly in thousands of infants. Yuxiu (Livia) Guo and Seray Çiçek, two master's students in working in professor Keith Pardee's lab in the Leslie Dan Faculty of Pharmacy at the University of Toronto, have built a portable device, nicknamed Plum, which can operate off a battery, that can test a blood sample for Zika or another virus in minutes, provide an easy-to-read result. All this, too, at a cost of just \$1 per test. It could be a vital tool for any health-care system stretched beyond its limits. Plum uses a technology invented by Pardee. He created a method to bring molecular diagnostics out of the lab and to the point of care. It's based on a special paper that changes colour in reaction to a viral genome. Pardee has also shown that adding an engineered DNA sequence to the same technology can be used to manufacture an oral vaccine or antibiotic on the spot.

[Read more at University of Toronto.](#)



Credit: University of Toronto



WHAT LATEST ASSESSMENT ON GLOBAL WARMING MEANS FOR SOUTHERN AFRICA

Source: Shutterstock

The Intergovernmental Panel on Climate Change's (IPCC) special report on global warming of 1.5C above pre-industrial levels marks a critical point in climate negotiations. The special report takes a worldwide look at the growing impacts of climate change. For climate change "hotspots" – hot, dry and water-stressed countries – local warming and drying will be greater than the global average. The report underscores the urgent need for countries like Botswana and Namibia, that are likely to get hotter, drier and more water-stressed, to prepare and adapt quickly. The Paris Agreement's goal of limiting global warming to well below 2°C, ideally 1.5°C, by the turn of the century will be extremely challenging. To date, mitigation pledges by nations fall far short of what is needed, with global temperatures on track for a warming of 3.2°C by 2100.

[Read more at The Conversation.](#)

Credit: Shutterstock

HOW RECEIPTS IMPACT PEOPLE & THE PLANET

Every year, US receipt production consumes 10 million trees and 21 billion gallons of water. This generates 686 million pounds of waste and emits 12 billion pounds of CO₂. And 93% of receipts are coated with BPA or BPS, threatening our health & making them unfit to recycle. Well-meaning people who try to recycle thermal receipts coated with bisphenols can contaminate recovered fiber. Nearly 81% of Americans have detectable levels of BPS in their urine, and 90% of the BPS comes from thermal paper receipts. Many retailers are already making the choice to move away from using these papers, but the majority of stores still need to take action. This report presents a deep understanding of the surprising impacts receipts have on the environment and human health, and next steps for better receipt practices.

[Read more at Green America.](#)



Credit: Getty Image



'TRASH IS GOLD' AS BENIN COMMUNITY TURNS WASTE INTO BIOGAS

Benin opened a pilot waste treatment centre to turn household rubbish into gas and cash. ReBin, a Swiss foundation for sustainable development, built the 1.3-hectare (3.2-acre) facility, which every week turns around six tonnes of organic waste into 200 cubic metres of biogas -- saving some 164 tonnes of wood from being used to make charcoal. The centre, which opened late last year, also plans to produce around 400 tonnes of organic fertilizer per year. Around 100 households in the area have signed up to the scheme to sell their waste at the centre on a daily basis. The fuel is a precious commodity in a rural region where electricity remains scarce. This project adapts local solutions to local problems.

[Read more at Bio Fuel Daily.](#)

Credit: Ariel Schalit / AP



THE HEALTH OF CANADA'S CHILDREN AND YOUTH: A CICH PROFILE

The Canadian Institute of Child Health (CICH) has developed a series of topic-specific modules that consolidate over 400 indicators on the health and well-being of children aged 0 to 5 and their families. The modules compile data on a variety of child- and youth-related topics, including:

- the context of children's lives, including demographics, family composition, health outcomes, economic inequities and international comparisons;
- genetics and pediatric health;
- primary health services; and
- the health profile of immigrant children and youth in Canada

[Read more at National Collaborating Centre for Determinants of Health.](#)

Credit: National Collaborating Centre for Determinants of Health

FOCUS ON: VISION — EXPLORING CHALLENGES, SOLUTIONS, AND INNOVATIONS IN EYE CARE AND VISION

This month, advocates and experts marked World Sight Day, an important reminder that vision, the world's largest unaddressed disability, impacts one-third of the world's population. The World Economic Forum estimates its global economic cost at \$227 billion each year, not including the impact on education and quality of life. In recognition of this overlooked development issue, Devex, powered by Essilor, is launching a special focus area exploring challenges, solutions, and innovations in eye care and vision.

Help us spread the word about the importance of eye care and vision, and join in the conversation by tagging @Devex with hashtag #focusonvision.

[Read more at Devex.](#)



Credit: Noble Sebastian / Mission for Vision / IAPB / CC BY-NC-SA



HOW TO GRAPPLE WITH SOARING WORLD POPULATION? AN ANSWER FROM BOTSWANA

In a continent where fertility rates are the highest in the world and populations are soaring, Botswana women now have fewer than 3 children compared to 50 years ago when they would have seven children on average. It's one of the fastest falling fertility rates anywhere in the world – a dramatic decline that merits scrutiny. But enabling women to control their fertility is not just about a tussle over resources, or the environment: it brings enormous ramifications for women's health, education and employment – with knock-on effects for society and the economy. Maternal and child health and family planning services were integrated from the outset more than 40 years ago. Various contraceptives are now available through facilities ranging from the most rural health posts to urban hospitals.

[Read more at The Guardian.](#)

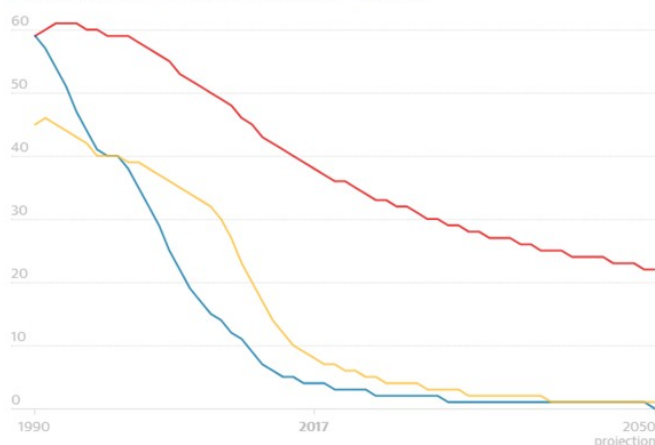
Credit: Alamy Stock Photo



Since 2000 three waves of poverty reduction, centred on China, India and now sub-Saharan Africa, have lifted more than a billion people out of the extreme poverty

% living on less than \$1.90 a day

■ Sub-Saharan Africa ■ SE Asia, East Asia and Oceania ■ South Asia



Credit: Bill and Melinda Gates Foundation

THE AFRICAN YOUTH BOOM: WHAT'S WORRYING BILL GATES?

By the end of this century there will be 4 billion more people on Earth – and 3 billion of these extra souls will be born in Africa. Gates is concerned about Africa's challenge to almost quadruple its agricultural productivity to feed itself. He is reaching for what works best to revive the west's faltering conscience in the face of "America first" nationalism and rising pull-up-the-drawbridge populism in Europe. The spirit of generosity is under assault as government aid budgets come under constant sniper fire from right-wing politicians and their media. Half of the Bill & Melinda Gates Foundation spending goes to Africa.

[Read more at The Guardian.](#)

SPOTLIGHT ON POLICY: UNDERESTIMATING COMBINED THREATS OF DEFORESTATION AND WILDLIFE TRADE WILL PUSH SOUTHEAST ASIAN BIRDS TO EXTINCTION

The combined impact of deforestation and wildlife exploitation on bird numbers is severely underestimated and could lead to some species becoming extinct, a joint study by the University of Sheffield and National University of Singapore has found. Scientists focused on Sundaland (dominated by the islands of Borneo and Sumatra and biologically super rich) where habitat loss, and hunting and wildlife trades are particularly intense. Looking at 308 forest-dependent bird species, they found that when the loss of forest habitat and bird trapping in the area was examined together it resulted in a much higher average population loss than when accounted for separately. The study calls for the threats to biodiversity to be considered in totality in order for effective measures to be implemented. In addition, the assessment suggests that 51 species should be listed as critically endangered, endangered or vulnerable -- nearly doubling the number currently listed by IUCN. The combined impacts of deforestation, forest fragmentation and commercial exploitation are not unique to Southeast Asia.

[Read more at Science Daily.](#)



Credit: Pixabay

SPOTLIGHT ON INDIGENOUS HEALTH: THE HEALTH SYSTEM IN CANADA'S NORTH IS FAILING — BUT NOT BY ACCIDENT. 'IT IS DESIGNED TO DO WHAT IT IS DOING'

Dr. Mike Kirlaw, born in Ottawa to Jamaican immigrant parents, is a physician who has devoted his entire life to living and working in Sioux Lookout. For nearly 11 years, Mike has been grappling with the suicide crisis in northern Ontario, and he sees no end in sight. He sees first-hand how a lack of the determinants of health debilitates these communities. During the 1920s, the government began to build segregated Indian hospitals. Many community and city hospitals refused to treat Indigenous patients or relegated them to separate wards, basements and poorly ventilated areas. Missionaries had established Indian tuberculosis sanatoriums, which were then taken over by the government and later converted to general hospitals for Indigenous people. The death rate from TB among children living in residential schools was even worse, with 8,000 deaths/100,000 kids. Residential school children lived in a state of neglect, inadequately clothed and fed. The health system in northern Ontario is still in crisis. And it isn't just northern Ontario; the United Nations special rapporteur on the rights of Indigenous peoples says the crisis exists throughout Canada.

[Read more at The Star.](#)



Credit: Treasury Board of Canada Secretariat

"We have presented governments with pretty hard choices. We have pointed out the enormous benefits of keeping to 1.5C, and also the unprecedented shift in energy systems and transport that would be needed to achieve that. We show it can be done within laws of physics and chemistry. Then the final tick box is political will. We cannot answer that. Only our audience can – and that is the governments that receive it."

Jim Skea, a co-chair of the Working Group on Mitigation of the UN Intergovernmental Panel on Climate Change (IPCC)

[Read more at TreeHugger.](#)



Credit: Association for Decentralised Energy via Flickr

EVENTSTABLE

DATES	CONFERENCE	LOCATION	REGISTER
Oct. 25th-26th	Global Conference on Primary Health Care	Astana Kazakhstan	http://www.who.int/primary-health/en/
Nov. 6th-13th	Course announcement: The Struggle for Health	Savar Bangladesh	https://iphu.org/en/announcement/iphu-savar2018
Nov. 8th-9th	Workshop: Rules of the Road 2.0	Washington USA	https://www.cugh.org/events/workshop-rules-road-20
Nov. 12th-15th	The Fifth International Conference on Family Planning	Kigali Rwanda	http://2018.fppconference.org/program/scientificprogram/
Nov. 15th-19th	4th People's Health Assembly	Dhaka Bangladesh	https://archive.phmovement.org/en/node/10805
Nov. 19th-21st	Canadian Conference on Global Health	Toronto Canada	https://archive.phmovement.org/en/node/10805
Mar. 8th-10th	10th annual CUGH Conference - Translation and Implementation for impact in Global Health	Chicago USA	Panel and Abstract proposal deadline - August 25, 2018
Mar. 20th-22nd	2019 Climate Leadership Conference and Awards	Baltimore USA	https://www.climateleadershipconference.org/



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SPOTLIGHT ON MEDIA: GLOBAL STATUS REPORT ON ALCOHOL AND HEALTH 2018



Credit: Shutterstock

The report provides an overview of alcohol consumption and harms in relation to the UN Sustainable Development Goals (Chapter 1), presents global strategies, action plans and monitoring frameworks (Chapter 2), gives detailed information on: the consumption of alcohol in populations (Chapter 3); the health consequences of alcohol consumption (Chapter 4); and policy responses at national level (Chapter 5). In its final chapter 6, the imperative for reducing harmful use of alcohol in a public health perspective is presented. In addition, the report contains country profiles for WHO Member States and appendices with statistical annexes, a description of the data sources and methods used to produce the estimates and references.

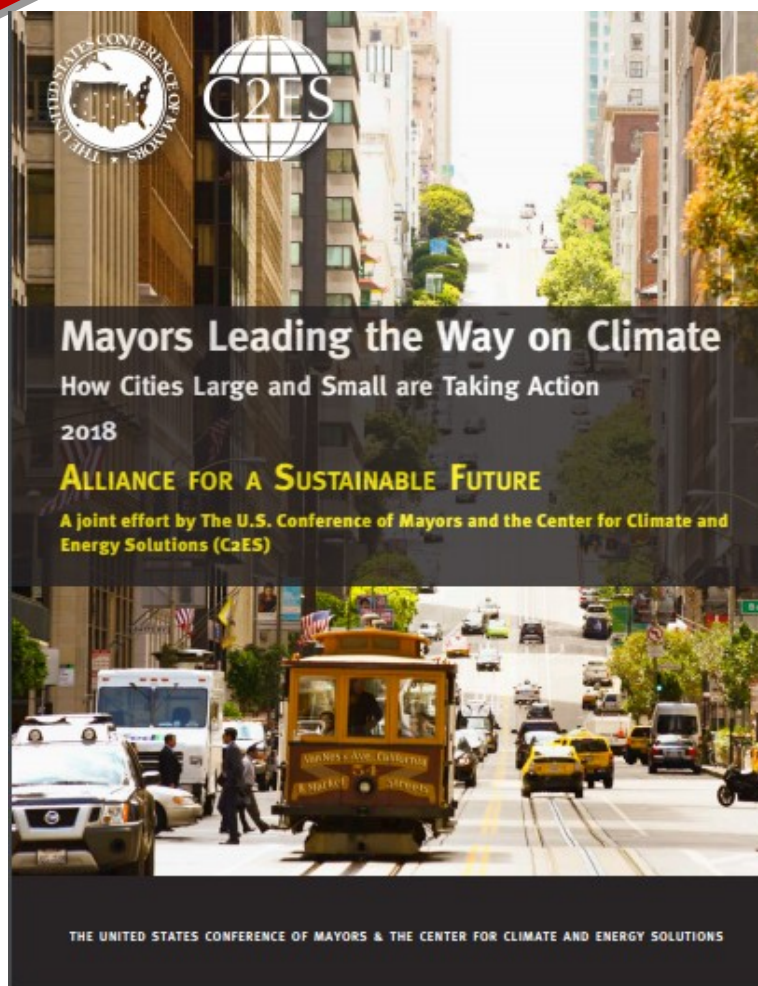
[Read more at World Health Organization.](#)

See Also:

[NCDA statement in response to Worldwide Brewing Alliance event at the UNGA on “The role of the beer sector in advancing the SDGs”](#)



MAYORS LEADING THE WAY ON CLIMATE – 2018



Credit: The United States Conference of Mayors and the Centre for Climate and Energy Solutions

The 2018 survey by the Alliance for a Sustainable Future—a joint effort of The U.S. Conference of Mayors (USCM) and the Center for Climate and Energy Solutions (C2ES)—finds that mayors are a key force behind U.S. action to reduce greenhouse gas emissions responsible for the growing effects of climate change. In the absence of federal action and a comprehensive climate policy, mayors have stepped up in to fill the vacuum of climate leadership. 95% of responding cities report they have experienced climate impacts in the last five years—from flooding, heavier snow and ice storms, wildfires, heat waves and drought, and 57% are planning for new climate actions in the coming year. The high cost of climate impacts and their effects on cities and public health concerns are making low-carbon transitions an increasingly attractive option. The survey of 158 cities nationwide is a window into the actions cities are taking or considering to limit emissions.

[Read more at Centre for Climate and Energy Solutions.](#)

'A SINGLE PIECE OF PLASTIC' CAN KILL SEA TURTLES



Credit: Pexels

Researchers found there was a one in five chance of death for a turtle who consumed just one item - rising to 50% for 14 pieces. The team found that younger turtles are at a higher risk of dying from exposure to plastic than adults. The authors say their research raises concerns over the long term survival of some turtle species. The never ending surge of plastic into the world's oceans is taking an increasing toll on iconic marine species. The authors of this study estimate that around half of all the sea turtles on the planet have ingested plastic - this rises to 90% among juvenile green sea turtles off the coast of Brazil. As well as causing blockages, harder pieces caused internal injuries which often lead to death. The research team also found that younger turtles were taking in far more plastic than adults.

[Read more at BBC.](#)

SEEKING A GUILT-FREE GREEN INVESTMENT? INTRODUCING 'COPOWER GREEN BONDS'



Credit: Chinasong, Shutterstock

CoPower's Green Bonds give Canadian investors of all sizes an easy and attractive way to invest directly in solutions to climate change. To make the low carbon transition a reality we also need to put our money behind solutions like clean energy, energy efficiency and green buildings. CoPower's theory of change is all about connecting investors seeking profit and purpose with clean energy projects seeking financing. Despite their environmental benefits and strong return profile, many clean energy projects are still considered too small to attract financing from traditional lenders like banks and pension funds. As CoPower's own research shows, the average Canadian investor does more damage to the climate with their investment portfolio than they do with all their other day-to-day choices combined. CoPower's Green Bonds are just one out of a growing number of clean energy investment opportunities available.

[Read more at The Tyee.](#)



STEPHEN HAWKING'S FINAL THEORY SHEDS LIGHT ON THE MULTIVERSE



Credit: Sarah Lee

Reality may be made up of multiple universes, but each one may not be so different to our own, according to Stephen Hawking's final theory of the cosmos. The work, completed only weeks before the physicist's death in March, paints a simpler picture of the past 13.8 billion years than many previous theories have proposed. Published recently in the *Journal of High Energy Physics*, the new work is the result of a long collaboration with Thomas Hertog, a Belgian physicist at the Catholic University of Leuven. Hertog travelled to Cambridge to work on the theory with Hawking. Modern physics has more than one theory of how the universe came to be, but one of the most popular ideas is that the big bang was followed by repeated bursts of 'cosmic inflation' which created an endless number of 'pocket universes' that are now scattered throughout space. But in the latest work, Hawking and Hertog challenge that view. Instead of space being filled with pocket universes where radically different laws of physics apply, these alternate universes may not actually vary that much from one another. While the consequences of the proposal may not be obvious, the theory may provide some comfort to physicists who wonder how, given all the hostile variations thought possible, we find ourselves in a universe well-suited to life. Hertog believes that his work with Hawking is one small step towards a theory of our cosmic origins that physicists could ultimately test. If the universe has evolved as the theory predicts, he says, it may have left a telltale signature on gravitational waves, or the so-called cosmic microwave background, the radiation that was released at the birth of the universe.

[Read more at The Guardian.](#)



A PHD SHOULD BE ABOUT IMPROVING SOCIETY, NOT CHASING ACADEMIC KUDOS



Credit: Alamy

When you look at the stats, it's hard not to conclude that the current PhD system is fundamentally broken. Approximately one-third of PhD students are at risk of having or developing a psychiatric disorder; there is a high level of dropouts, on average 50% of PhD students leave graduate school without finishing, and aspiring scientists who manage to finish usually take much longer than originally planned. Many academics enter science to change the world for the better. Yet it can often feel like contemporary academia is more about chasing citations. Most academic work is shared only with a particular scientific community, rather than policymakers or businesses, which makes it entirely disconnected from practice. Julian Kirchherr wants us to reimagine a PhD that is designed not to win kudos within the academic community, but rather aimed at discovering something new that will be useful for practitioners and have real social impact. This new PhD would see students go out into the field and talk to practitioners from day one of their research. Students would then co-create the content of their theses with their supervisor as well as practitioners in their field of research. They would finish their PhD when they have made a difference in the real world. Confucius said this to be one of the core principles of the academy: "The essence of knowledge is, having it, to apply it".

Julian Kirchherr is the author of the book *The Lean PhD: Radically Improve the Efficiency, Quality and Impact of Your Research*. He teaches and researches at Utrecht University, the Netherlands.

[Read more at The Guardian.](#)

**Almost Snowless Mt. Kilimanjaro
Looking South From Kenya
October 21, 2018**



Credit: David Zakus

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