



PLANETARY HEALTH WEEKLY

BRINGING YOU CURRENT NEWS ON GLOBAL HEALTH & ECOLOGICAL WELLNESS

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EVIDENCE OF RAPID CLIMATE CHANGE IN THE ARCTIC AS PERMAFROST EROSION TRANSFORMS ARCTIC FOOD WEB

The Arctic has a complex climate. There is little sunlight in winter, the summer days are long, the storms can include hurricane force winds, bitter cold temperatures and at times even rainfall. Ice is present as snow, ice caps, glaciers and sea ice. Permafrost, frozen soil, is a prominent feature in the Arctic and it is quite sensitive to even small temperature increases. The Arctic's coastal plains can consist of river deltas, barrier islands and lagoons. All of these features are vulnerable to the effects of climate change, flooding as a consequence of sea level rise.

[Read More on Daily Kos](#)



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CANADA MUST RETHINK HEALTH SPENDING STRATEGY

If we want a healthier Canada, we should spend less on health care. That's the counterintuitive conclusion of a new study. But, of course, there's a catch: To reap the benefits, we need to spend the savings on social programs such as income assistance, subsidized housing, early childhood education and affordable child care. In other words, we don't need to spend less on health, we need to do a better job of allocating our health dollars. To start, we must redefine "health spending." The vast majority of our health dollars go to providing care after people fall ill – principally for hospitals, physician services and drugs. Only about 5 per cent of health dollars go to prevention and health promotion. [Read More on Globe and Mail](#)





HOW CLIMATE CHANGE COULD COUNTERINTUITIVELY FEED WINTER STORMS

While the world is certainly experiencing an overall warming trend, much more goes into winter than temperature alone — snowfall depends on moisture in the atmosphere, and under climate change, that is increasing. And snowy weather patterns depend on the large-scale flow of the atmosphere, which is changing, too. Many of the questions about climate change and winter extremes lack satisfying answers at the moment, but there are some key points to highlight: Cold spells don't refute global warming.

[Read More on Washington Post](#)

US RIVERS AND STREAMS ARE GETTING DANGEROUSLY SALTIER

Nearly everywhere you turn during this frigid stretch of winter, much of the world seems covered in a layer of salt aimed at keeping our roads drivable and sidewalks free of ice. All that salt is one reason — although not the only one — that many of the nation's rivers and streams are becoming saltier, according to new research published recently in the *Proceedings of the National Academy of Sciences*. Increased salt poses risks to drinking-water supplies for millions of Americans, threatens urban infrastructure, and has the potential to upend ecosystems. Researchers used five decades' worth of data from 232 U.S. Geological Survey monitoring sites to document long-term changes in the salinity of rivers and streams throughout the country, as well as changes in their acidity.

[Read More on Washington Post](#)



NEW YORK CITY SUES SHELL, EXXONMOBIL AND OTHER OIL COMPANIES OVER CLIMATE CHANGE

The New York City government is suing the world's five largest publicly traded oil companies, seeking to hold them responsible for present and future damage to the city from climate change. The suit, filed Tuesday against BP, Chevron, Conoco-Phillips, ExxonMobil and Royal Dutch Shell, claims the companies together produced 11 percent of all of global-warming gases through the oil and gas products they have sold over the years. It also charges that the companies and the industry they are part of have known for some time about the consequences but sought to obscure them. Several California cities and counties have already embraced the legal strategy, but prior lawsuits seeking to blame companies for their role in causing climate change have foundered.

[Read More on Washington Post](#)





THE WORLD'S CRAVING FOR CHOCOLATE AND COFFEE IS DAMAGING AFRICA'S FORESTS

Across Africa, weak enforcement of environmental laws has hurt its forests, with illegal logging depleting vast woodlands. Now the huge demand for commodity crops globally also risks increasing the pressure on tropical forests across sub-Saharan Africa, a new study shows. Over the last decades, small and medium-scale farming largely drove agricultural expansion into tropical forests. But growing multinational investments in industrial plantations also contributed to deforestation, and to the social and environmental impacts that come with it. The study, published in the *Environmental Research Letters*, analyzed the impact of crop expansion in 25 tropical-forest countries in Africa. [Read More on QZ](#)

MADAGASCAR ENACTS HISTORIC FAMILY PLANNING LAW

After years of advocacy, deliberation, and legislative fine-tuning, last month Madagascar passed its long-awaited Reproductive Health and Family Planning Law. The new legislation finally sweeps away the old colonial-era policy that prohibited any promotion of contraception, and recognizes reproductive health and family planning as basic human rights. This is a tremendous victory for the government of Madagascar, the many stakeholders and partners in the country's family planning sector, and the Malagasy people themselves. Madagascar joined the FP2020 partnership in 2015, and has already launched a five-year plan to strengthen and expand its family planning program. The new law brings the legal framework up to date and into alignment with the government's commitments, and ensures that service providers will be able to operate within a clear regulatory environment.

[Read More on Medium](#)



500 YEARS LATER, SCIENTISTS DISCOVER WHAT PROBABLY KILLED THE AZTECS

In 1545 disaster struck Mexico's Aztec nation when people started coming down with high fevers, headaches and bleeding from the eyes, mouth and nose. Death generally followed in three or four days. Within five years as many as 15 million people – an estimated 80% of the population – were wiped out in an epidemic the locals named "cocoliztli". The word means pestilence in the Aztec Nahuatl language. Its cause, however, has been questioned for nearly 500 years. Recently, scientists swept aside smallpox, measles, mumps, and influenza as likely suspects, identifying a typhoid-like "enteric fever" for which they found DNA evidence on the teeth of long-dead victims. The outbreak is considered one of the deadliest epidemics in human history, approaching the Black Death bubonic plague that killed 25 million people in western Europe in the 14th century – about half the regional population.

[Read More on The Guardian](#)





ALL RENEWABLE ENERGY TYPES TO BE COST-COMPETITIVE BY 2020

Renewable-energy generation costs are falling like photons onto a solar panel. By 2020, it's expected all types of renewable-energy generation will be able to compete with fossil fuels on cost. That's right: saving our environment will actually save electric utilities some money, too. The cost of generating electricity with onshore wind has fallen by about 25 percent since 2010, according to a new cost analysis from the International Renewable Energy Agency (Irena). During that same period, solar power generation costs have dropped by an astounding 73 percent and are expected to halve again by 2020, according to the projections. Generating wind and solar power currently costs on average \$0.06 and \$0.10 per kilowatt-hour respectively, the report says, but both should drop to \$0.03 in the next two years [Read More on GreenCarReports](#)

FIRST PHASE OF SVG STYROFOAM BAN COMES INTO EFFECT

The first phase of the government of St. Vincent and the Grenadines' ban on Styrofoam products in the food service industry came into effect on Monday, May 1. But it took a further eight months before the law came into effect totally outlawing the serving or packaging of food in Styrofoam, which some persons say is linked to cancer. "A person shall not import, manufacture, or sell Styrofoam food service products. A person shall not use or serve or sell food in Styrofoam food service products," Minister of Sustainable Development, Camillo Gonsalves said at a press conference, citing the legislation. [Read More on IWN](#)



SPOTLIGHT ON INDIGENOUS HEALTH: INDIGENOUS GROUP TACKLES DIABETES WITH STORYTELLING

Like many Indigenous groups around the world, the James Bay Cree of northern Québec have a disproportionately high rate of diabetes. They're facing it down with a decidedly Indigenous solution: A Talking Circle in print. In 2012, the Cree Board of Health and Social Services of James Bay (CBHSSJB) assigned local Cree health representatives to choose people with diabetes whose stories they thought significant. Then they hired me, (a freelance writer and academic), to bring them into print. Planet-wide, diabetes rates are higher (often several times higher) among Indigenous peoples, and Canada is no exception. While researchers struggle to determine causes and begin to acknowledge that our human relationship to food is more complicated than we knew, Indigenous groups are coming up with their own solutions. The James Bay Cree of Northern Québec, a population of 18,000 people, live in 10 communities on their traditional territory of Eeyou Istchee. [Read More on Conversation](#)



QUOTE OF THE WEEK

"Unfortunately — in fundamental ways, the world has gone in reverse. On New Year's Day 2018, I am not issuing an appeal. I am issuing an alert — a red alert for our world."

UN Secretary-General Antonio Guterres

EVENTS TABLE

DATE	CONFERENCE	LOCATION	REGISTER
Feb 9-18	World Urban Forum 9	Kuala Lumpur Malaysia	http://wuf9.org/registration/?utm_source=World+Urban+Forum+9&utm_campaign=cadfb59aa8-EMAIL_CAMPAIGN_2017_12_13&utm_medium=email&utm_term=0_00134fbc8a-cadfb59aa8-1a4eff-EMAIL_CAMPAIGN_2017_12_13&utm_medium=email&utm_term=0_00134fbc8a-6e4b1a4eff-173728921
March 16-18	2018 CUGH Conference	New York USA	www.CUGH2018.org
April 20-22	BioVision Alexandria 2018	Alexandria Egypt	http://www.bibalex.org/bva2018/home/StaticPage.aspx?page=69
April 27-29	Pegasus Conference	Toronto Canada	https://eventdex.force.com/BLN_RegistrationDym?id=a192A00000BChD2QAL&mc_cid=c7ca6f6818&mc_eid=7a76cf866d





NEW REPORT: NON COMMUNICABLE DISEASES IMPACT ON ADOLESCENTS OVERLOOKED TO DATE



Adolescents have largely been overlooked in global discussions on noncommunicable diseases (NCDs) to date but there is evidence that specific interventions are effective, says a new report by PLAN International UK, the NCD Alliance and partners. Titled *Noncommunicable Disease Prevention and Adolescents*, the report notes some of these interventions:

Improving nutrition, including through maternal micronutrient supplementation, breastfeeding and appropriate complementary feeding;

Vaccination for the Human Papilloma Virus (HPV) among adolescent girls (aged 9-13 years) to prevent cervical cancer, particularly in contexts where screening is limited;

Universal Hepatitis B vaccination to prevent some forms of cirrhosis and liver cancer.

Adolescence is a pivotal period for the development of individual behavioural choices and increased risk-taking behaviour. The promotion and development of health-seeking behaviours and NCD prevention during this time may yield a triple dividend of benefits - for adolescents today, for their future adult lives, and for the next generation.

[Read More on NCD Alliance](#)



COMMITTED TO REDUCING MECCA'S CARBON FOOTPRINT

Our Commitment by 2020.....



....create
100K
partner opportunities
for Saudi's

....

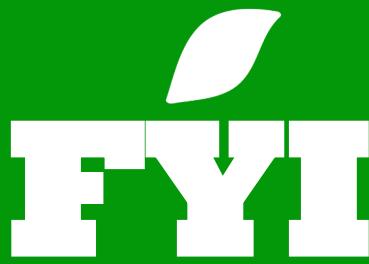
For every umrah performed the company plants 51 trees. Alhaddad explained that every normal umrah generates approximately 1 ton of carbon per traveller, and that it will take 51 trees 12 months to absorb this carbon.

iUmrah.world is currently using Facebook to reach out to farmers, who must register on the website, mark their location on Google Maps, and request an order to plant the trees. The site requests photos for each GPS tagging.

Registered farmers receive an email notification once an iUmrah is performed, and payments to them are currently done through PayPal. "The farmer earns \$1 per tree or \$51 per umrah, all inclusive of transaction costs," explained Alhaddad.

Making sure the trees are planted is a key part of the process. "As a minimal requirement, we do ask for before/after photos as part of the process and will continue to improve the process with time. Some of the challenges are technical due to mobile coverage or farmers without cameras," said Alhaddad.

[Read More on LinkedIn](#)



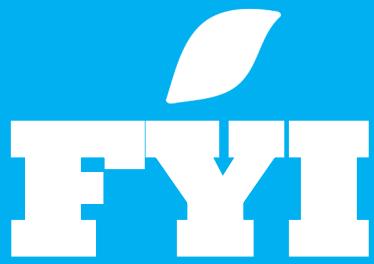
AS CHINA GETS TOUGH ON POLLUTION, WILL ITS ECONOMY SUFFER



Leo Yao thought he had nothing to fear from the environment ministry. Before, when its inspectors visited his cutlery factory, he says, they generated “loud thunder, little rain”. After warning him to clean up, they would, at worst, impose a negligible fine. Not so this time. In August dozens of inspectors swarmed over his workshop in Tianjin, just east of Beijing, and ordered production to be halted. His doors remain shut today. If he wants to go on making knives and forks, he has been told that he must move to more modern facilities in a less populated area.

Mr. Yao’s company, which at its peak employed 80 people, is just one minor casualty in China’s sweeping campaign to reduce pollution. For years the government has vowed to go green, yet made little progress. It has flinched at reining in dirty industries, wary of the mass job losses that seemed likely to ensue. But in the past few months it has taken a harder line and pressed on with pollution controls, hitting coalminers, cement-makers, paper mills, chemical factories, textile firms and more.

[Read More on The Economist](#)



BATTERIES CAN'T SOLVE THE WORLDS BIGGEST ENERGY-STORAGE PROBLEM. ONE STARTUP HAS A SOLUTION.



Every so often, from California to Germany, there's news of "negative electricity prices," a peculiar side effect of global efforts to generate clean energy. Solar farms and wind turbines produce varying amounts of power based on the vagaries of the weather. So we build electrical grids to handle only the power levels we expect in a given location. But in some cases, there's more sun or wind than expected, and these renewable energy sources pump in more power than the grid can handle. The producers of that power then have to pay customers to use up the excess electricity; otherwise, the grid would be overloaded and fail.

As we build more and more renewable-power capacity in efforts to meet the emissions-reduction goals of the Paris climate agreement, these situations will become more common. Startups led by entrepreneurs who see this future on the horizon are now looking for ways to make money off the inevitable excess clean electricity.

Electrochaea takes carbon dioxide produced during the process of cleaning wastewater, and converts it into natural gas. That alone would be impressive enough; if we want to stop global warming in its tracks, we need to do everything we can to keep CO₂ from entering the atmosphere. But Electrochaea has also figured out a way to power the whole enterprise with the excess green energy produced during particularly sunny and windy days that otherwise would have gone to waste, because there would have been no way to store it.

In other words, when scaled up, Electrochaea's process could be an answer to one of the biggest problems of the 21st century: energy storage, while also making a dent in cutting emissions.

[Read More on QZ](#)



WHY IS WATER SACRED TO NATIVE AMERICANS?



The Lakota phrase “Mní wičhóni,” or “Water is life,” has become a new national protest anthem. It was chanted by 5,000 marchers at the Native Nations March in Washington, D.C. on March 10, and during hundreds of protests across the United States in the last year. “Mní wičhóni” became the anthem of the almost year-long struggle to stop the building of the Dakota Access Pipeline under the Missouri River in North Dakota.

This chant mirrors the civil rights anthems of the past, which emerged out of the African-American church. “Mní wičhóni” in the Lakota language also has spiritual meaning, which is rooted in a connection to nature. As a Native American scholar of environment and religion, I understand what makes the relationship between Native people and the natural world unique. For Native Americans, water does not only sustain life – it is sacred. The Great Plains of North America, home to the Lakota, the Blackfeet and other tribes, is a dry, arid place. The U.S. government spends billions of dollars to control and retain water in this “Great American desert,” as it was described in the early 19th century.

Geologist John Wesley Powell, an early director of the U.S. Geological Survey, pointed out in an important 1878 government study that the defining characteristic of the Great Plains and the West was its lack of water. He attempted to promote land ownership that was based on watersheds, instead of dividing land into the rectangular lots still in use today. Powell also recommended that America adopt a new type of land development – one that worked with nature, so everyone had access to water.

[Read More on The Conversation](#)

PROBLEM-BASED LEARNING

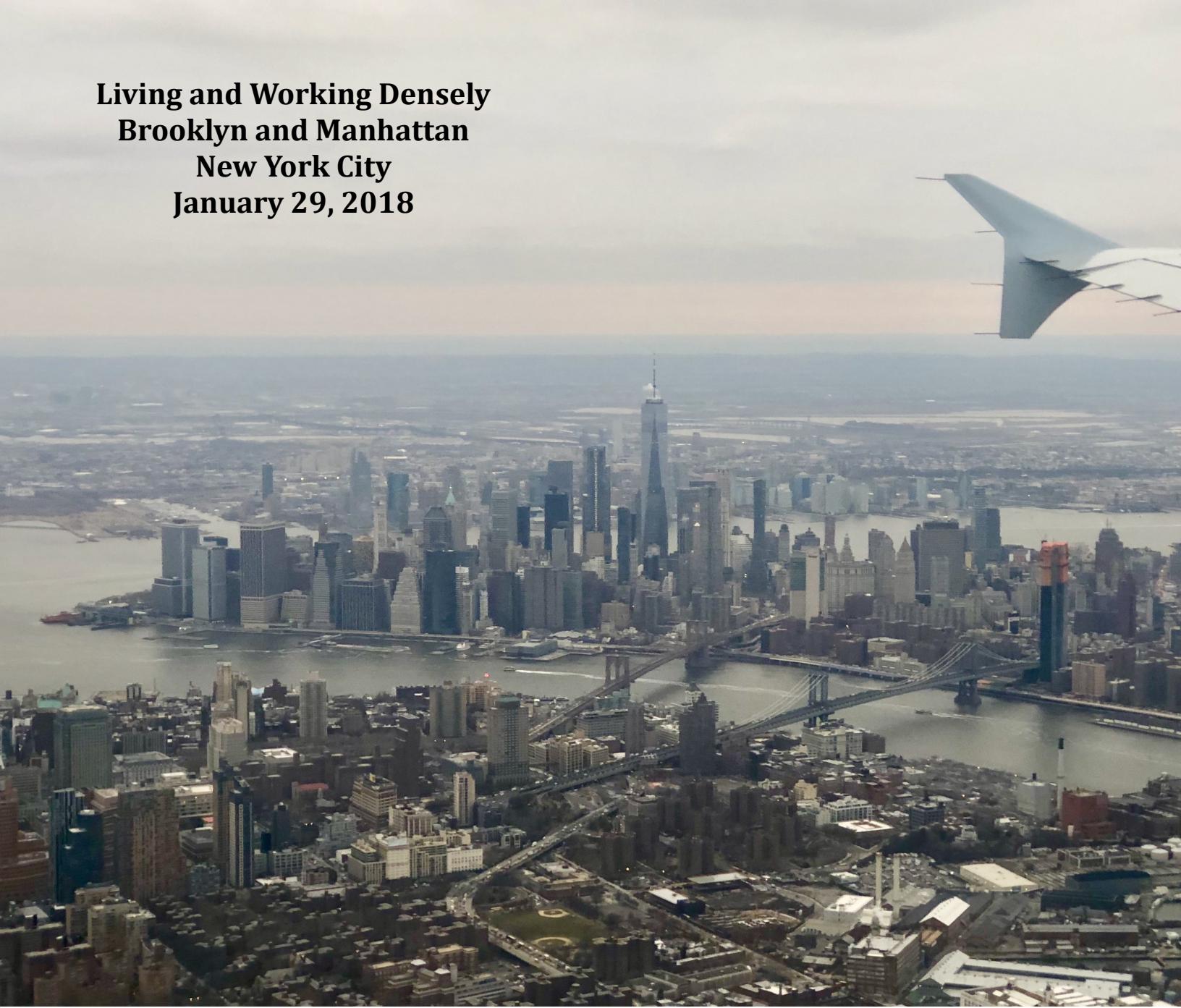


Problem-Based Learning (PBL) is a non-traditional teaching technique where “the problem drives the learning” (Tse & Chan, 2003). First, a problem is presented. Students must then search for the information needed to help them solve it (Salas, Segundo, Álvarez, Arellano & Pérez, 2014). In PBL, “learning is student-centered” (Tse & Chan, 2003) and the instructor’s role is not lecturing, as in the traditional style of teaching that has dominated engineering and science education, but coaching the students to acquire knowledge and to become “self-directed learners” (Forcael et al., 2015, Stanford University Center for Teaching and Learning, 2001).

Why Use Problem-Based Learning?

Problem-based learning promotes a better understanding of course concepts and improves the problem-solving skills of the students as well as their communication, presentation and teamwork skills. Research has shown that students find PBL to be a very “motivating and effective means for learning” (McLoone, Lawlor & Meehan, 2016; Forcael et al., 2015). Students are more engaged in class because they recognize that they are acquiring important skills which will help them succeed in their future careers (Stanford University Center for Teaching and Learning, 2001). [Read More on Ryerson](#)

**Living and Working Densely
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planetaryhealthweekly@gmail.com



Planetary Health Weekly

Publisher and Editor: **Dr. David Zakus**
dzakus@ryerson.ca

Production: **Abinethaa Paramasivam & Angeline Sahayanathan**



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