



# PLANETARY HEALTH WEEKLY

BRINGING YOU CURRENT NEWS ON GLOBAL HEALTH & ECOLOGICAL WELLNESS

December 22, 2016

[planetaryhealthweekly.wordpress.com](http://planetaryhealthweekly.wordpress.com)

Volume 2, Issue 51

## A Milestone Achieved in the Battle to Eradicate Malaria

Preliminary findings from a huge project under way in a section of central Africa known as the Sahel show a bold new strategy that might just nudge malaria eradication a bit closer toward reality. The strategy is known as seasonal malaria chemoprevention, perhaps an intentionally boring moniker aimed at avoiding the controversy that accompanied a similar approach taken years earlier simply called mass drug administration. It's controversial because earlier initiatives taking this approach didn't work and led to drug-resistant malaria. Yet most, including the Bill & Melinda Gates Foundation, have pinned their hopes for complete eradication on finding an effective malaria vaccine.

[Read More on Humanosphere](#)



## ALSO IN THIS ISSUE:

<b>The World's Coconuts Are in Danger</b>	2
<b>The Toxic Wake of Islamic State</b>	
<b>Life Expectancy Declining in the U.S.</b>	
<b>Africa Looks to Solar for Communities</b>	3
<b>Dead Trees in California from Drought</b>	
<b>Climate Model Predictions Tell a Story</b>	
<b>Record Renewables Now in Australia's Grid</b>	4
<b>Economics, Environment and What They Want</b>	
<b>An Ugly Homicide Number</b>	
<b>Weekly-Quote and Events Table</b>	5
<b>FYI#1: More Signs Heat is Man-Made</b>	6
<b>FYI#2: Defining Conservation Priorities</b>	7
<b>FYI#3: World of Viruses Uncovered</b>	8
<b>FYI#4: Ducks Destroyed After Bird Flu Outbreak</b>	9
<b>FYI#5: Book: Sustainable Tourism on a Finite Planet</b>	10
<b>FYI#6: Transition to a Global Development</b>	11

## Oceans Act as a 'Heat Sink': No Global Warming 'Hiatus'

The so-called global warming "hiatus" phenomenon, the possible temporary slowdown of the global mean surface temperature (GMST) trend said to have occurred from 1998 to 2013, simply represents a redistribution of energy within Earth system, which includes the land, atmosphere and the ocean. New research points to the prominent role global ocean played in absorbing extra heat from the atmosphere by acting as a "heat sink" as an explanation for the observed decrease in a key indicator of climate change. In particular, researchers point to the prominent role played by the global ocean in absorbing the extra heat from the atmosphere by acting as a "heat sink" as an explanation for the observed decrease in GMST, which is considered a key indicator of climate change. According to this paper, arguably, the most appropriate single variable in Earth's system that can be used to monitor global warming is ocean heat content integrated from the surface to different layers and to the bottom of the ocean.

[Read More on Science Daily](#)





## The World's Coconuts Are in Danger

In this day and age the coconut market is booming. But the long-term outlook for coconuts is not as good. In the Caribbean, bacteria that causes lethal yellowing are wiping out coconut trees, a situation so bad that it's fair to say that at this pace, the Caribbean is running out of coconuts. In Cote d'Ivoire and Papua New Guinea, lethal yellowing or a similar disease is threatening plantations specifically set up to safeguard coconut varieties for future generations. These aren't the biggest coconut producing countries, that would be Indonesia, the Philippines and India, but they are ominous signs for the rest of the world, especially if coconut diversity is not saved. For most other crops, scientists maintain gene banks, usually in seed vaults comprising hundreds of different varieties. If future crop geneticists need to breed wheat resistance to an emerging disease or lettuce optimized to grow in drought, they can draw on the genetic diversity saved in these seeds. It's a way to combat monoculture and an insurance against a changing world.

[Read More on The Atlantic](#)

## The Toxic Wake of Islamic State

For one Iraqi town, the fear of ISIS has been replaced by another kind of threat left behind by the terrorists, acrid oil fire, blotting lungs and water. When the wind blows in the right direction, which is often, the acrid smoke blots out the sun and stains everything black, turning homes into ghoulish shadows, covering cars in coagulated particulates, like post-apocalyptic hail, and transforming the flags, which on closer examination turn out to be the red, white and black of the Iraqi banner, into a trembling echo of ISIS's presence. This is, arguably, the first chemical attack perpetrated during the Mosul offensive by the self anointed saviours of Iraq's Sunni Muslims. The effects are being endured on a daily basis. The town's only clinic, a makeshift primary care centre set up in an abandoned house by the France-based Women and Health Alliance International, has been overwhelmed by people, suffering from respiratory illnesses. It has one ventilator and a cabinet full of antibiotics.

[Read More on Macleans](#)



## Life Expectancy Declining in the United States

Back in October the Society of Actuaries released a report showing life expectancy declining in the U.S. Now it is official from the National Center for Health Statistics. It is written up in the Washington Post that most of the reasons presented related to very downstream effects, namely rise in deaths from heart disease and most other common causes except for cancer. The decline is not seen in Latinos and there is little speculation in the Washington Post article as to why. Income inequality does get a mention. It is also not being observed in other rich nations. More people need better health care, but the health care system is only a part of health. Income inequality, nutrition differences and lingering employment all need to be addressed.

[Read More on Washington Post](#)  
[See Also on BBC](#)





## Africa Looks to Solar for Communities Off the Grid

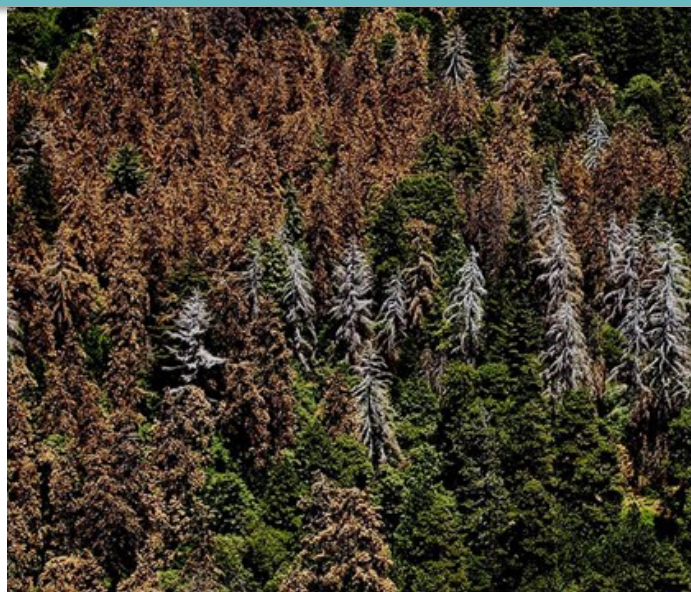
Across the continent, consumers are opting for their own off grid solar solutions to power homes and small businesses, even as African governments unveil massive new solar projects seemingly every month to expand their grids. According to International Energy Agency projections, almost one billion people in Sub-Saharan Africa will gain access to the grid by 2040, but by that time 530 million will remain off-grid, almost comparable with the 600 million who cannot access power today. But even in Senegal, neighboring Mauritania and Rwanda, which have all invested in large scale solar projects as the cost of panels tumble, the twin challenges of limited grids and Africa's demographics remain.

[Read More on Solar Daily](#)

## More than 100 Million Dead Trees in California From Drought

The U.S. Forest Service has identified an additional 36 million dead trees across California since its last aerial survey in May 2016. This brings the total number of dead trees since 2010 to over 102 million on 7.7 million acres of California's drought stricken forests. In 2016 alone, 62 million trees have died, representing more than a 100 percent increase in dead trees across the state from 2015. Millions of additional trees are weakened and expected to die in the coming months and years. With public safety as its most pressing concern, the U.S. Forest Service has committed significant resources to help impacted forests, including reprioritizing \$43 million in California in fiscal year 2016 to conduct safety-focused restoration along roads, trails and recreation sites. However, limited resources and a changing climate hamper the Forest Service's ability to address tree mortality in California.

[Read More on Science Daily](#)



## Climate Model Predictions Are Telling a Consistent Story

Three independent methods of modelling climate change impact on yield display the same bleak tendency; global wheat production will decrease by more than five percent with each 1°C increase in the global temperature. The good news is that the comparison of the three very different climate models allowed the scientists to be even more precise in their projections and enabled them to put more accurate figures on the relation between global warming and declining yields. The models unanimously demonstrate that for each 1°C that the global temperature increases, the global wheat production is projected to decline by an average of 5.7 percent. The world population continues to grow and the standard of living continues improving. These two factors result in an increasing demand for food production. However, due to global warming we run the risk that food production decreases. Wheat is one of the world's most important food crops and we face an important problem if yields fall concurrently with an increasing demand.

[Read More on Science Daily](#)





## Record Renewables Now in the Grid in Australia

Renewable energy supplied 21.7 per cent of grid energy in October, the highest figure since complete National Electricity Market data became available. The penetration of renewables for the year now stands at 14.7 per cent, the highest proportion since 1982 when electricity demand was half of what it is now and hydro power accounted for practically all renewable energy. Total emissions also fell by 0.8 per cent over the past year, thanks to a fall in both black and brown coal generation, and gas generation, which were pushed out by the increases in renewables. Emissions were at their lowest levels in over a year, which the report said demonstrated “how quickly and effectively emissions could be reduced by increasing the share of renewable generation”. Emissions, however, were still four per cent higher than the year to 2014. Wind power set new records, both in absolute and relative terms, supplying 6.4 per cent of total generation for the month. Demand was stable, with a decrease of just 0.07 per cent.

[Read More on The Fifth Estate](#)

## China's Tourists: Economics, the Environment and What They Want

In less than a generation, China's roaring economy has created the world's largest pool of eager spenders. Boosted by these climbing incomes, and less government restrictions on travel, more Chinese are now traveling for fun, both domestically and abroad. In 2011, Chinese citizens took 70 million trips abroad for leisure and business. In 2014, according to the latest data available from the UN World Tourism Organization, that rose to 107 million. Entertainment, including travel, will be the biggest growth category in China in the coming years. According to UN data, Chinese travelers' spending more than doubled between 2012 and 2015. These social transformations and China's economic heft are the focus of a growing body of academic inquiry. Indeed, much of the new research focusing on Chinese tourism is designed to help the industry understand how to best serve potential clients. But these same studies offer context for reporting on the Chinese tourist's economic impact or environmental footprint.

[Read More on Journalists Resource](#)



## SPOTLIGHT ON INDIGENOUS HEALTH:

### An Ugly Homicide Number We Need to Discuss

This is what it means to be born Indigenous, in Canada, in the 21st century: You are twice as likely to die in infancy. You will be nine times more likely to be sexually assaulted as a child and three times more likely to drop out from school. You will be twice as likely to lose your job. If you have a job, you will earn 60 per cent less. Aboriginal people account for a disproportionate share of homicide victims and accused murderers, a reality Canada must confront in order to halt the violence. StatsCan began to collect that data and now we have the latest figures. They're ugly. The Indigenous community makes up less than five per cent of the population in Canada, but accounts for 32 per cent of all suspects accused of murder. Why are Indigenous Canadians so much more likely to commit murder? And why should we be talking about it? The first question is much easier to answer. This is an issue of “place”, not “race.”

[Read More on Macleans](#)



## Quote of the Week

**“The current trajectory is not encouraging... Africa is losing out big time on growth in part because of a failure of governments to tackle the inequalities and invest in the human capital needed to accelerate the demographic transition.”**

**Kevin Watkins, outgoing Executive Director of the Overseas Development Institute and new Chief Executive of Save the Children UK and co-author of the report.**

[Read More on the Financial Times](#)



## EVENTSTABLE

DATE	CONFERENCE	LOCATION	REGISTER
April 6-9	2017 Annual CUGH Global Health Conference	Washington USA	<a href="http://www.cugh.org/events/2017-annual-cugh-global-health-conference">http://www.cugh.org/events/2017-annual-cugh-global-health-conference</a>
April 22-23	Global Health & Innovation Conference	New Haven USA	<a href="http://www.uniteforsight.org/confernce/">http://www.uniteforsight.org/confernce/</a>
May 4-6	International Conference on Healthcare in a Globalizing World	Pune India	<a href="http://symhealth.siu.edu.in/">http://symhealth.siu.edu.in/</a>



[@PlanetaryWeekly](#)



[@PlanetaryHealthWeekly](#)



[Planetary Health Weekly](#)

CONNECT WITH  
Planetary Health Weekly





# MORE SIGNS HEAT IS MAN-MADE



The past five years were the hottest on record with mounting evidence that heat waves, floods and rising sea levels are stoked by man-made climate change. Some weather events would have happened naturally but the World Meteorological Organization (WMO) said greenhouse gas emissions had raised the risks of extreme events, sometimes by a factor of 10 or more.

Among the worst extremes, a 2011-12 drought and famine in the Horn of Africa killed more than 250,000 people and Typhoon Haiyan in the Philippines killed 7,800 in 2013, the WMO said. Superstorm Sandy caused \$67 billion of damage in 2012, mostly in the United States, it said in a report issued to a recent meeting of almost 200 nations in Morocco tasked with implementing a 2015 global agreement to combat climate change.

The heat was accompanied by a gradual rise in sea levels spurred by melting glaciers and ice sheets. The changes "confirmed the long-term warming trend caused by greenhouse gases," the WMO said in the report. And the amount of carbon dioxide, the main greenhouse gas, reached 400 parts per million in the atmosphere for the first time in records in 2015, it said.

The 2015 Paris Agreement set an overriding target of limiting warming to "well below" 2 degrees C (3.6F) above pre-industrial times, ideally just 1.5 (2.7F).

But pledges so far to curb greenhouse gas emissions are too weak and put the globe on target for about 3C (5.4F), U.N. data show. The Marrakesh meeting was trying to work out ways to step up actions and write rules for the Paris Agreement.

Getting on track "means a global transformation" of the world economy to cleaner energies in sectors from energy to transport, Moroccan Environment Minister Hakima El Haite told Reuters.

[Read More on Reuters](#)

# DEFINING CONSERVATION PRIORITIES IN TROPICAL AND BIODIVERSITY RICH COUNTRIES



Rich in biodiversity, with a rapidly growing economy, Malaysia exemplifies the tension between conservation and economic development faced by many tropical countries.

While recent initiatives have attempted to address conservation priorities at global and national scales, most of these focus on developed countries in temperate regions. There is a need, say experts at The University of Nottingham Malaysia Campus (UNMC), to develop similar strategies in developing countries, especially in biodiversity hotspot areas.

K. Nagulendran (Nagu), a third year PhD student with the School of Geographical and Environmental Sciences, led a multi-stakeholder exercise involving several hundred participants to identify conservation priorities in Peninsular Malaysia. The project makes the case for the prioritization of conservation actions in Peninsular Malaysia guided by science, in consultation with a wide range of key stakeholders. It is also important to focus collective action given the limited resources available for conservation activities.

Through a series of workshops and online surveys, the objective of the research was to engage relevant stakeholders in the identification of conservation priority issues in Peninsular Malaysia; produce a list of ranked conservation issues; and test differences in priority perception among the stakeholders involved in the exercise.

The results suggest that there should be: improvements to policy and management to champion biodiversity issues; a strengthening of environmental laws and enforcement; recognition of socio-economic issues especially among indigenous and local communities; increases in funding and resource allocation; knowledge, research and development to inform decision making; a greater understanding and protection of the rights of nature and cultural heritage; and a more holistic public awareness and participation to bring about change to promote conservation.

[Read More on Science Daily](#)





A groundbreaking study of the virosphere of the most populous animals, those without backbones such as insects, spiders and worms and that live around our houses, has uncovered 1445 viruses, revealing people have only scratched the surface of the world of viruses; but it is likely that only a few cause disease. The meta-genomics research, a collaboration between the University of Sydney and the Chinese Centre for Disease Control and Prevention in Beijing, was made possible by new technology that also provides a powerful new way to determine what pathogens cause human diseases.

The study suggests these viruses have been associated with invertebrates for potentially billions of years, rather than millions of years as had been believed - and that invertebrates are the true hosts for many types of virus. The findings suggest viruses from ribonucleic acid, known as RNA, whose principal role is generally to carry instructions from DNA, are likely to exist in every species of cellular life.

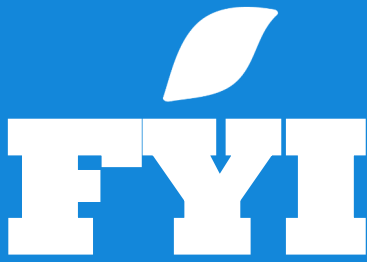
Although insects such as mosquitoes are well-known for their potential to transmit viruses like Zika and dengue, Professor Holmes stressed that insects should not generally be feared because most viruses were not transferable to humans and invertebrates played an important role in the ecosystem. Importantly, the same techniques used to discover these invertebrate viruses could also be used to determine the cause of novel human diseases, such as the controversial 'Lyme-like disease' that is claimed to occur following tick bites.

Professor Edward Holmes, from the Marie Bashir Institute for Infectious Diseases & Biosecurity and the School of Life and Environmental Sciences, who led the Sydney component of the project, said although the research revealed humans are surrounded by viruses in our daily lives, these did not transfer easily to humans.

"We have discovered that most groups of viruses that infect vertebrates, including humans, such as those that cause well-known diseases like influenza, are in fact derived from those present in invertebrates," said Professor Holmes, who is also based at the University's multidisciplinary Charles Perkins Centre.

[Read More on Science Daily](#)





## 190,000 Ducks Destroyed At Six Dutch Farms After Bird Flu Outbreak



Some 190,000 ducks were destroyed on Saturday at six farms in the Netherlands following an avian flu outbreak, the country's first cull in response to an epidemic sweeping northern Europe.

Outbreaks of avian flu, primarily the highly pathogenic H5N8 strain, have been reported recently in Denmark, Finland, Germany and Sweden.

Dutch authorities did not say what strain of the virus had been discovered at a poultry farm in the village of Biddinghuizen, 70km (43 miles) east of Amsterdam.

The cull was implemented at four other sites owned by the same company and at a sixth farm less than a kilometre from the site of the confirmed outbreak. Officials said they were checking for bird flu at farms within three kilometres of the original site and imposed a ban on transporting poultry products within a 10km radius.

The world's second largest agricultural exporter, the Netherlands has more than 100 million hens, pigs, cows and sheep on high-intensity farms. The density makes the animals more vulnerable to disease outbreaks.

[Read More on The Guardian](#)



# **BOOK: SUSTAINABLE TOURISM ON A FINITE PLANET - ENVIRONMENTAL, BUSINESS AND POLICY SOLUTIONS**



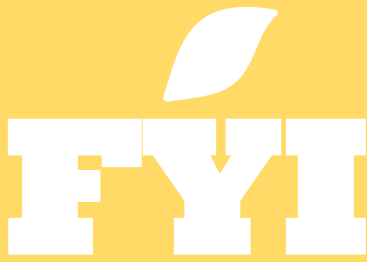
This book helps all those involved in international tourism develop the new skills, tools and investments required to protect irreplaceable global resources from the impacts of escalating tourism demand over the next 50 years. It documents how technology and the growing global middle class are driving a travel revolution which requires a new paradigm in managing tourism destinations. Travel and tourism supply chains and business models for hotels, tour operators, cruise lines, airlines and airports are analyzed and environmental management techniques are proposed for each sector. A pragmatic set of solutions are offered to support the transition to lower impact tourism development worldwide.

It recommends that decision makers assess the current and future value of natural, social, and cultural capital to guide investment in destinations and protect vital resources. Case studies illustrate why budgets to protect local destinations are consistently underestimated and offer guidance on new metrics. Innovative approaches are proposed to support the transition to green infrastructure, protect incomparable landscapes, and engage local people in the monitoring of vital indicators to protect local resources.

It provides students, professionals, and policy makers with far-reaching recommendations for new educational programs, professional expertise, financing, and legal frameworks to lower tourism's rapidly escalating carbon impacts and protect the health and well-being of local populations, ecosystems, cultures and monuments worldwide.

[Read More on Routledge](#)





# LOOKING TO TRANSITION TO A GLOBAL DEVELOPMENT CAREER? FOLLOW THESE FOUR STEPS



There is something powerful about the idea of working overseas, and when it's combined with sustainable development, that allure is even stronger. So while many global leaders are talking about closing borders and turning inward, more millennials than ever are looking for jobs that truly make the world better.

But finding an international development job is hard; and finding one that you'll actually love is even harder. Certainly this comparison is ripe for debate, but what the data shows is clear: you don't have to work in social change to like your job, and just because you work in a social good career doesn't mean you'll love it. Now, to be clear, I'm not saying that you should not go work in global development; but I am saying that if you follow the average path to this sector you're likely to end up disengaged and dissatisfied.

But there is hope. These four steps share how you can find a development sector career that is truly enriching and engaging.

1. **Make sure you're heading in the right direction**
2. **Get more highly relevant experience to stand out**
3. **Build your global network**
4. **Stand out in the job hunt**

[Read More on Devex](#)



**Home for the Holidays.**

**HAPPY HOLIDAYS EVERYONE AND MERRY CHRISTMAS**

**This Newsletter is FREE.**

Planetary Health Weekly is an e-newsletter published in collaboration with the **Planetary Health Commission** at Ryerson University in Toronto, Canada  
**To Subscribe/Unsubscribe:** [planetaryhealth.ca/weekly](http://planetaryhealth.ca/weekly)

## CONTACTUS



@PlanetaryWeekly



[planetaryhealthweekly@gmail.com](mailto:planetaryhealthweekly@gmail.com)



@PlanetaryHealthWeekly



Planetary Health Weekly



planetary health commission  
Discover [planetaryhealth.ca](http://planetaryhealth.ca)

Publisher and Editor: **Dr. David Zakus**  
[dzakus@ryerson.ca](mailto:dzakus@ryerson.ca)

Production: **Angeline Sahayanathan & Abinethaa Paramasivam**

**Ryerson  
University**

**Faculty of  
Community  
Services**

*Programs designed to transcend  
disciplinary boundaries to find lasting  
solutions to social issues.*

Child & Youth Care  
Disability Studies  
Early Childhood Studies  
Midwifery  
Nursing  
Nutrition  
Occupational & Public Health  
Social Work  
Urban & Regional Planning

350 Victoria St.  
Toronto, ON  
M5B 2K3