



# PLANETARY HEALTH WEEKLY

BRINGING YOU CURRENT NEWS ON GLOBAL HEALTH & ECOLOGICAL WELLNESS

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## Vaccinating Babies Without Vaccinating Babies

A baby makes copies of maternal immune cells it acquires through mother's milk. Scientists have long understood that mother's milk provides immune protection against some infectious agents through the transfers of antibodies, a process referred to as "passive immunity." A research team now shows that mother's milk also contributes to the development of the baby's own immune system by a process the team calls "maternal educational immunity." The research shows that vaccination of the mother results in vaccination of the baby through this process.

[Read More on Science Daily](#)



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## 'Great Pacific Garbage Patch' Worse Than Expected

The Ocean Cleanup, a foundation developing advanced technologies to rid the oceans of plastic, has just presented the initial findings of its Aerial Expedition, a series of low-speed, low-altitude flights across the Great Pacific Garbage path, the plastic accumulation zone between Hawaii and California. Using a modified C-130 Hercules aircraft, expert spotter, and an experimental array of plastic scanning equipment, the expedition aims to accurately measure the biggest and most harmful debris in the ocean. This is an essential milestone in preparation for the cleanup of the patch, scheduled to begin before the end of the decade. The Ocean Cleanup is designing a network of extremely long floating barriers that will remain stationary in the water, enabling the ocean to concentrate the plastic using its own currents.

[Read More on Science Daily](#)





## Life Expectancy Rises 10 Years Across Globe, But More Suffer In Old Age

As Aids and malaria deaths drop, 70% of deaths are now caused by diseases that often have lifestyle origins. Life expectancy has increased by 10 years across the globe in the past 35 years, but diet, obesity and drug use are now major causes of death and disability while too many women still die in childbirth. The Global Burden of Disease study, which regularly reviews the causes of illness, disability and death in every country in the world, shows health is improving but not to the same extent or in the same ways in every country. And as people live longer, they are suffering from more ill health and disability in their old age. The cause of 70% of deaths is non-infectious diseases that often have lifestyle origins, such as heart disease, stroke and diabetes, but also dementia.

[Read More on The Guardian](#)

## Improving Disability Care In Countries of the Bolivarian Alliance

Persons with disabilities constitute one of the most vulnerable groups in every society; their identification, assessment and care present a major challenge. In 2001-2003, Cuba conducted the first comprehensive national study of persons with disabilities in the Americas. In 2007 to 2010, the study was replicated in Bolivia, Ecuador, Nicaragua, Saint Vincent and the Grenadines, and Venezuela, at their governments' request. The study led to development of public policies and programs for disability prevention and care of disabled persons in Bolivia, Ecuador, Nicaragua and Venezuela and the opening of the National Medical Genetics Center and orthotic and prosthetic laboratories in Venezuela, and rehabilitation centers in Bolivia.

[Read More on Medice](#)



## Mosquito-borne Rift Valley Fever Virus Causes Miscarriage

The mosquito-borne Rift Valley fever virus has been linked to miscarriage in humans. A study of 130 pregnant Sudanese women with fever showed that the risk of miscarriage was seven times greater if the woman was infected with Rift Valley fever virus. In parts of Africa where there are Rift valley fever outbreaks, miscarriages in humans have, until now, never been linked to this particular viral infection. This discovery is important for maternal health and for African health organizations' efforts to develop preventive measures to minimize miscarriages, which are a big health problem for women in the affected areas of Africa.

[Read More on Science Daily](#)





## Researchers Discover 'Hole' In Global Warming Predictions

In the future, global warming might not be as severe in the central United States as in other parts of the country. Using a detailed regional climate model, these researches estimate summertime daily maximum temperatures will not climb as high in a Midwestern region as anywhere else in the United States. The hole stretches for hundreds of miles and includes Missouri, Iowa, Nebraska and Oklahoma. The modeling showed that warming in the United States will be stronger in winter than summer and stronger at night than during the day, and that future climate will have more rainfall and wetter soil, so more of the sun's energy goes into evaporating water than heating the air.

[Read More on Science Daily](#)

## Carbon Emissions From U.S. Power Generation Fall to 25-Year Low

Carbon-dioxide emissions from electricity generation during the first six months of 2016 were the lowest since 1991, according to the U.S. Energy Information Administration (EIA). The EIA attributes this partly to the short-term impact of mild weather, but also to the replacement of fossil fuels with renewable energy sources. In addition to noting the 25-year low for carbon emissions in the first six months of the year, the EIA believes the full-year total for 2016 will be the lowest since 1992. U.S. energy-related CO<sub>2</sub> emissions totaled 2,530 million metric tons in the first six months of 2016, and the EIA expects the total for the entire year to be 5,179 million metric tons. The agency attributes the decrease in emissions to both weather and changes in the energy-consumption mix.

[Read More on Green Car Reports](#)



## High Number of Pesticides Within Colonies Linked to Honey Bee Deaths

Honey bee colonies in the United States have been dying at high rates for over a decade, and agricultural pesticides, including fungicides, herbicides and insecticides are often implicated as major culprits. Until now, most scientific studies have looked at pesticides one at time, rather than investigating the effects of multiple real-world pesticide exposures within a colony. A new study is the first to systematically assess multiple pesticides that accumulate within bee colonies. The researchers found that the number of different pesticides within a colony, regardless of dose, closely correlates with colony death. The results also suggest that some fungicides, often regarded as safe for bees, correlate with high rates of colony deaths.

[Read More on Science Daily](#)



## No End to Poverty Without Reducing Inequality

Extreme poverty has declined worldwide while wealth inequality in many countries has increased. The gap between rich and poor has widened in many countries. There is a global consensus on the need to reduce poverty, however, focusing on economic growth alone as a means to reducing poverty will not work. Encouraging growth is necessary to reducing poverty, but the World Bank report demonstrates, through the use of current, fairly favorable, economic trending projections, that growth by itself is not sufficient. Most of the major reductions in poverty worldwide have taken place in China, India and Indonesia due to economic growth, where the evidence suggests the pace of improvement to slow in the decades ahead. While many countries have also seen a decline in wealth inequality, the World Bank report finds that wealth concentration overall is increasing and some countries are seeing major increases in inequality.

[Read More on Humanosphere](#)

## How Inequality Starts Before Birth

More female babies are aborted than males. Twice as many girls as boys will never start school. One in four girls globally are married before they reach 18. As a girl, she is more at risk of HIV. Girls aged 10 to 14 are more likely than boys to die of Aids-related illnesses. Worldwide, the biggest killer of girls aged 15 to 19 is suicide. Teenagers are at more risk of having unsafe abortions than older women. Currently it will take more than 100 years to end inequality between girls and boys. World leaders have promised they will end it by 2030.

Girls of the world will be watching.

[Watch the video "How Inequality Starts Before Birth and read more on The Guardian](#)



INTERNATIONAL JOURNAL of  
**Indigenous Health**



**First Nations Health Authority**  
Health through wellness

## SPOTLIGHT ON INDIGENOUS HEALTH:

### The Determinants of First Nation and Inuit Health: A critical population health approach

Environmental dispossession disproportionately affects the health of Canada's Aboriginal population. Little is known about how its effects are sustained over time. A critical population health approach is used to explore the determinants of health in rural and remote First Nation and Inuit communities, which conceptualize the pathways by which environmental dispossession affects these health determinants. Community Health Representatives (CHR) from First Nation and Inuit communities across Canada identified six health determinants: balance, life control, education, material resources, social resources, and environmental/cultural connections. Environmental dispossession was defined as a process with negative consequences for health, particularly in the social environment. Health research should focus on understanding linkages between environmental dispossession, cultural identity, and the social determinants of health.

[Read More on Science Direct](#)





## QUOTE OF THE WEEK

**"Climate change is already stretching the international humanitarian system ... more than 80% of the world's hungry live in areas prone to natural disasters and environmental degradation. Climate change is not waiting-neither can we."**

**Ertharin Cousin (Executive Director of the World Food Programme)  
October 14, 2016, Rome, Italy**



## EVENTSTABLE

DATE	CONFERENCE	LOCATION	REGISTER
Nov. 4-5	SPARK 2016 Gala and Conference	Boston, USA	<a href="http://schweitzerfellowship.givezooks.com/events/spark-2016-gala-conference">http://schweitzerfellowship.givezooks.com/events/spark-2016-gala-conference</a>
Nov. 9-11	The Thirteenth AMNET International Conference on Chronic Diseases	New Mexico, USA	<a href="http://www.amnet.bcom.org/">http://www.amnet.bcom.org/</a>
Nov. 14-18	4th Global Symposium on Health Systems Research	Vancouver Canada	<a href="http://www.csih.org/en/events/">http://www.csih.org/en/events/</a>
Nov. 18-20	Canadian Undergraduate Conference on Healthcare	Kingston, Canada	<a href="http://www.cucoh.com">http://www.cucoh.com</a>
Nov. 21-24	9th Global Conference on Health Promotion	Shanghai, China	<a href="http://www.who.int/healthpromotion">http://www.who.int/healthpromotion</a>
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	Connecticut, USA	<a href="http://www.uniteforsight.org/confernce/">http://www.uniteforsight.org/confernce/</a>



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## NEW BOOK: RIGHT TO FOOD AND NUTRITION WATCH 2016 “KEEPING SEEDS IN PEOPLES’ HANDS”



Launched at FAO Headquarters, the *Right to Food and Nutrition Watch 2016* warns seeds and biodiversity are under threat as a result of increasing corporate capture and states’ neglect.

Gathering the views of civil society organizations, social movements and scholars the world over, the renowned publication exposes how business seeks to privatize, monopolize and control seeds by patenting and commodifying this very source of life at the expense of peoples’ human rights and the maintenance of biodiversity. Peasant seeds systems, which feed the world and are resilient in times of natural disasters, are at risk.

Under the premises of a human rights approach, seeds and breeds are not a commodity that peasants buy and sell, nor are they a scientific invention. “As echoed by the Watch, rural people’s access to seeds and breeds should not be framed as access to commodities (or ‘genetic material’) produced by industry and science, but as an evolving and collective relationship to nature in any given territory. This means that peasant systems, which underpin agricultural biodiversity, should be recognized, protected, and promoted by state. The criminalization of those who defend the commons, currently on the rise, needs to stop,” stresses Sofia Monsalve, FIAN International’s Secretary General.

[Read More on Right to Food and Nutrition](#)



# CLIMATE CHANGE THREATENS FOOD SECURITY

The UN report warns that without measures to halt and reverse climate change, food production could become impossible in large areas of the world.

Up to 122 million more people worldwide could be living in extreme poverty by 2030 as a result of climate change and its impacts on small-scale farmers' incomes. Climate change is a major and growing threat to global food security, as it could increase the global population living in extreme poverty by between 35 and 122 million by 2030, with farming communities in sub-Saharan Africa among the hardest hit.

Without widespread adoption of sustainable land, water, fisheries and forestry practices, global poverty cannot be eradicated. Action must also be taken to reduce farming's own contributions to greenhouse gas emissions and global warming.

The 2016 State of Food and Agriculture report looks at the future of farming and food security under different climate change scenarios. It also looks at possible responses to what it calls "an unprecedented double challenge" to eradicate hunger and poverty and stabilise the global climate.

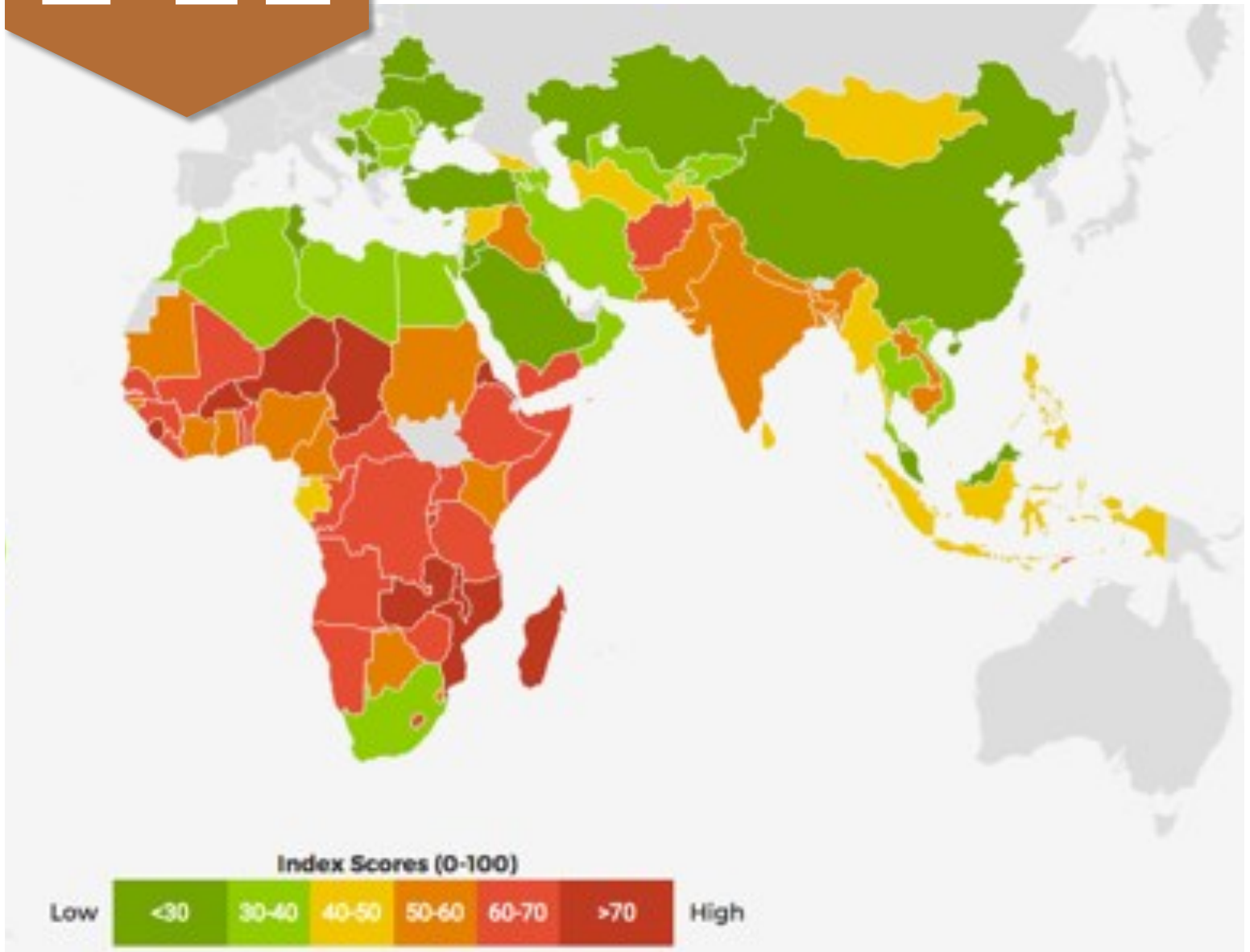
There is no doubt that climate change will affect the agriculture sectors and food security and that its negative impact will become more severe as it accelerates. In some particularly vulnerable places, such as small islands or in areas affected by large-scale extreme weather and climate events, the impact could be catastrophic.

[Read More on The Guardian](#)





# INTERACTIVE MAP AND RANKINGS: FOOD AND NUTRITION SECURITY



The Ending Rural Hunger Framework offers an interactive map with indicator dropdowns to rankings of food and nutrition security.

Calculated and comprehensively measured, this map tracks hunger globally and by country and region. It highlights successes and failures in hunger reduction and provides insight into the drivers of hunger. By raising awareness and understanding of regional and country differences in hunger, this map triggers actions that aim to reduce food and nutrition insecurity.

[To visit and explore the map, visit Ending Rural Hunger](#)





## BIG FREEZE PLUNGED EUROPE INTO ICE AGE IN MONTHS



In the film, “The Day After Tomorrow ,” the world enters the icy grip of a new glacial period within the space of just a few weeks. New research shows this scenario may not be so far from the truth after all.

William Patterson, from the University of Saskatchewan in Canada, and his colleagues have shown that switching off the North Atlantic circulation can force the Northern hemisphere into a mini 'ice age' in a matter of months. Previous work has indicated that this process would take tens of years.

Without the warming influence of this ocean circulation temperatures across the Northern hemisphere plummeted, ice sheets grew and human civilisation fell apart. Previous evidence from Greenland ice cores has indicated that this sudden change in climate occurred over the space of a decade or so. Now, new data shows that the change was abrupt, taking place over the course of a few months, or a year or two at most.

Patterson and his colleagues have created the highest resolution record of the 'Big Freeze' event to date, from a mud core taken from an ancient lake, Lough Monreagh, in Ireland. Using a scalpel layers were sliced from the core, just 0.5mm thick, representing a time period of one to three months.

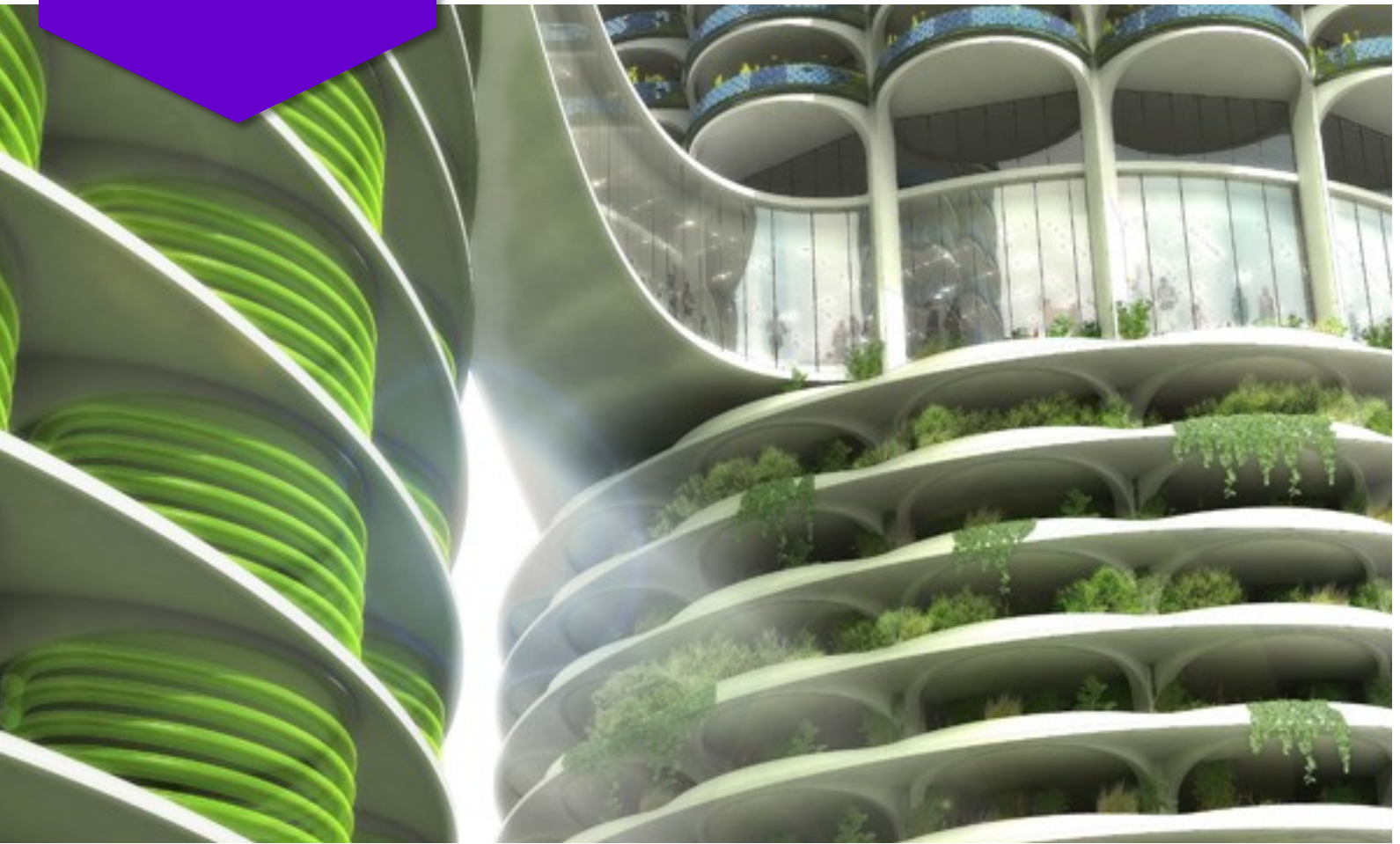
This study was part of a broad network of 38 individual research teams from Europe, Russia, Canada and the USA forming the European Science Foundation EUROCORES programme 'Histories from the North , environments, movements, narratives' (BOREAS).

This highly interdisciplinary initiative brought together scientists from a wide range of disciplines including humanities, social, medical, environmental and climate sciences.

[Read More on Science Daily](#)



# HARNESSING ALGAE FOR THE CREATION OF CLEAN ENERGY



Researchers have revealed how microalgae produce hydrogen, a clean fuel of the future, and suggest a possible mechanism to jumpstart mass production of this environmentally-friendly energy source.

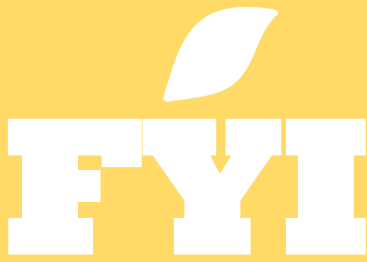
The research was led by Dr. Iftach Yacoby, head of Tel Aviv University's Renewable Energy Laboratory in the School of Plant Sciences and Food Security at TAU's Faculty of Life Sciences.

Researchers in the past believed that algae only produce hydrogen in the course of a single microburst at dawn lasting just a few minutes. But Dr. Yacoby and his team used highly sensitive technology to discover that algae produce hydrogen from photosynthesis all day long. Armed with this discovery, the team harnessed genetic engineering to increase algae's production of this clean energy source 400 percent.

Laboratory tests revealed that algae create hydrogen with the assistance of the enzyme hydrogenase, which breaks down when oxygen is present. The researchers discovered effective mechanisms to remove oxygen so hydrogenase can keep producing hydrogen.

[Read More on Science Daily](#)





# CHOOSE YOUR BEST GRAD DEGREE FOR YOUR CAREER



Picking the right graduate degree to further global development career can be a daunting task. In order to help with this tedious process, Devex is hosting the webinar “How to Choose the Best Grad Degree for You” on November 2, 10 AM EDT.

Join this one hour webinar and hear experts from American University Kogod School of Business’ MBA Program, George Washington University’s MA in International Development Studies Program and Harvard Kennedy’s School MPA Program, as they discuss how different graduate programs can prepare students for the kinds of roles they seek.

By the end of the webinar, the objective is to heighten the understanding students have on the main differences of each degree and how they can ask the right questions to determine which degree makes sense for their career goals.

This webinar is presented as part of Grad School Week 2016 and [registration is now open at Devex](#).



It's so difficult to imagine the future of Sahelian countries with high poverty, high fertility, little enterprise and a devastating environment.

(Morning street scene in Niamey, Niger, October 25, 2016)



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