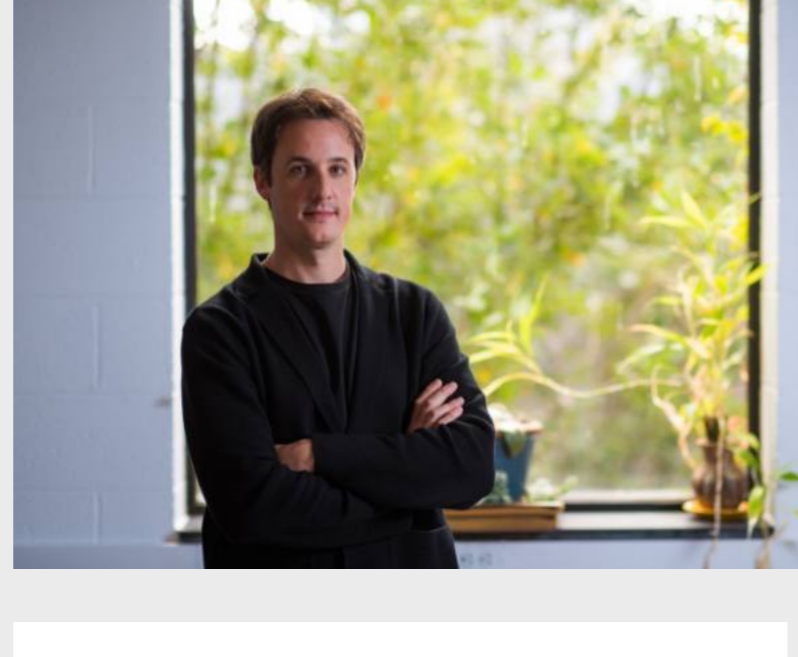


## NEWS & ANNOUNCEMENTS



### J-WAFS PI studies livestock grazing and CO2

Cesar Terrer shows that proper grazing enhances carbon sequestration while overgrazing causes carbon loss.

[READ MORE](#)

### J-WAFS PI leads new MIT climate policy center

Christopher Knittel will lead the newly established MIT Climate Policy Center, a \$25M initiative by MIT Sloan to integrate climate research with policy-making.

[READ MORE](#)

### J-WAFS PI helps quantify climate change impacts

Elfatih Eltahir presents a method called "outdoor days" to assess the number of days per year with temperatures suitable for normal outdoor activities.

[READ MORE](#)



### J-WAFS spinout highlighted in Sloan article

Safi Organics, which turns agricultural waste into fertilizer, is noted for its female COO and aid to female farmers.

[READ MORE](#)

### J-WAFS PI helps protect marine life

Michael Triantafyllou and other MIT engineers created an artificial reef to mimic the wave-buffering effects of natural reefs while providing refuge for fish and other marine life living along vulnerable coasts.

[READ MORE](#)

### New water, air, and energy lab launches

The Water, Air, and Energy Lab is a collaboration between J-PAL Africa, the City of Cape Town, and Community Jameel to inform the scaling of clean air, water, and energy policies in Cape Town, South Africa.

[READ MORE](#)

### Community Jameel director discusses food security in Africa

Writing in *Farmers Review Africa*, George Richards calls for more investment in early warning systems and capacity building for food security in East Africa.

[READ MORE](#)

### MIT PhD student studies ideal conditions for agriculture

Chen Chu looks at how traditional practices of floodplain agriculture can inform strategies for sustainable food production and distribution in response to climate change.

[READ MORE](#)



### J-WAFS PI designs sensor for detecting PFAS

Tim Swager's sensor can identify minuscule levels of PFAS, or "forever chemicals" in water sources.

[READ MORE](#)

## FUNDING AND OTHER OPPORTUNITIES

### J-WAFS Grant for Transforming Animal Ag

**Deadline: May 1, 2024**  
 Open to: MIT PIs, research staff, graduate and undergrad students  
 Grants in the range of \$15-25K will be awarded to selected MIT recipients with projects that reduce the negative impacts of industrial food animal production.

[MORE INFO](#)

### J-WAFS Travel Grants for Water Conferences

**Deadline: May 6 or Aug 12, 2024**  
 Open to: MIT graduate students from any department  
 Students with research in the water sector can apply for funding to attend either Stockholm World Water Week in August or the UNC Water & Health Conference in October.

[MORE INFO](#)

### J-WAFS and GEAR Center seek postdoc

**Deadline: Ongoing**  
 Open to: PhDs in mechanical engineering or water/food/agriculture focus areas  
 Will work with the Global Engineering and Research Center and J-WAFS to identify opportunities for research to address water, food, and agriculture challenges, especially in underserved communities.

[MORE INFO](#)

### Mechanical engineering postdoc

**Deadline: Ongoing**  
 Open to: PhDs in mechanical engineering  
 Will work with the Global Engineering and Research (GEAR) Center on the creation of a low-cost, low-energy, on- and off-grid irrigation solution for Egyptian farmers by identifying farmers' preferences, needs, values, and priorities.

[MORE INFO](#)

## IN-DEPTH LOOK

J-WAFS SPINOUT HELPS FARMERS CONSERVE ON PESTICIDE USE

### Technology from Agzen monitors sprayed chemicals on crops

Pesticide runoff results in higher costs for farmers and contributes to pollution of soils, surface water, and groundwater that can significantly degrade water quality and adversely impact ecosystems and human health. MIT research is tackling this problem through a technology that helps agricultural pesticide droplets adhere to target leaf and fruit surfaces, greatly reducing the amount of chemicals applied to crops.



Will work with the Global Engineering and Research Center and J-WAFS to identify opportunities for research to address water, food, and agriculture challenges, especially in underserved communities.

In 2017, Professor Kripa Varanasi received a J-WAFS Solutions grant to help commercialize this technology. In 2020, Varanasi started Agzen with Vishnu Jayaprakash SM '19, PhD '22, to reduce pesticide use without compromising on pest control or yield. The company recently launched a new product called RealCoverage, which tells operators how to optimize their spraying. Agzen's system informs farmers about everything "from which nozzle to use, to how fast to drive, to how many gallons of spray is best for a particular chemical mix on a particular acre of a crop," says Jayaprakash. Demonstrations show that the feedback-optimized spraying system could halve the pesticide needs of farms while improving crop yields.

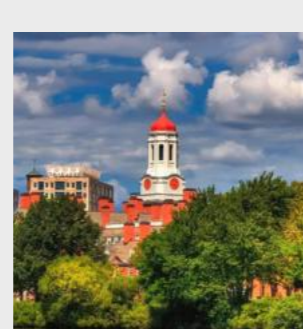
[READ MORE](#)

## EVENTS



### MIT Africa Innovate Conference

**Fri-Sat, April 12 - 13, 2024, All day, In-person**  
 This event will include conversations on frameworks to propel Africa towards sustainable development and improvements in living standards for its people, including a panel on fostering inclusive prosperity in agribusiness. [MORE INFO](#)



### 2024 Food 4 Thought (F4T) event

**Fri-Sun, April 12 - 14, 2024, All day, In-person and online**  
 This student-led event aims to assemble future food leaders, innovators, and entrepreneurs to help shape the future of food to be more sustainable, equitable, healthy, and cruelty-free. [MORE INFO](#)



### Atmospheric water harvesting speaker session

**Tuesday, April 16, 2024, 4:00 p.m. ET, In-person**  
 Join mechanical engineering PhDs & postdoc speakers, with guest speaker Ines Strohschein, Vice President Water Network Development and Investments at TAQA, an international energy and water company. Co-hosted by J-WAFS. [MORE INFO](#)



### The MIT Climate & Energy Prize

**Thur-Fri, April 18 - 19, 2024, Thur eve & all day Fri, In-person**  
 The top eight teams of student entrepreneurs will present their climate-tech solutions to a panel of judges, including a team advancing dual use of land for both crop production and energy production. [MORE INFO](#)



### MIT Sustainability Summit 2024

**Friday, April 26, 2024, All day, In-person and online**  
 Co-sponsored by J-WAFS, the summit's theme focuses on systemic change to address climate challenges, emphasizing collaborative action, and highlighting key sectors like agriculture, construction, and transportation. [MORE INFO](#)



### MIT Water, Food & Agriculture Prize pitch event

**Monday, May 6, 2024, 5:00 - 9:00 p.m. ET, In-person**  
 See six finalist teams pitch their innovations in water, food, and agriculture and hear from keynote speaker Florian Schattenmann, CTO of Cargill. Co-sponsored by J-WAFS. Students and MIT affiliates use code WFA2024 for \$5 tix. [MORE INFO](#)

## IN CASE YOU MISSED IT

### Community Jameel video series

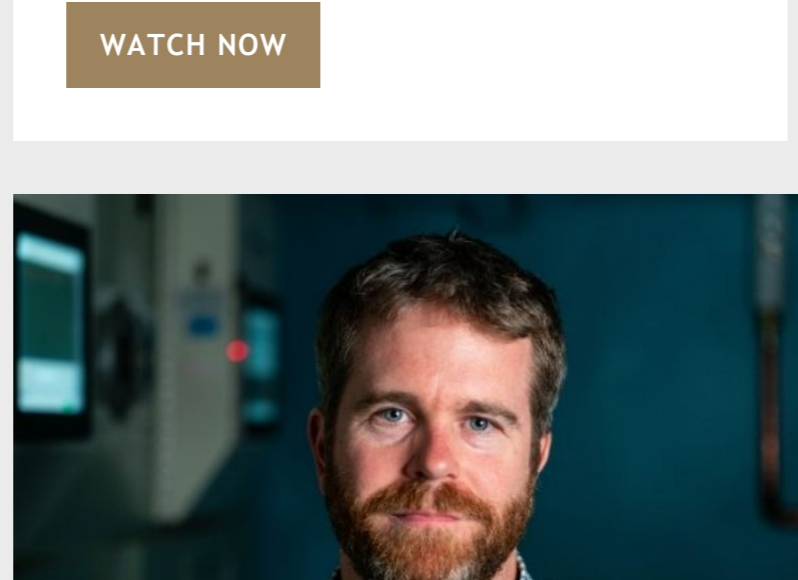
Videos explore climate change's effects on agriculture, pastoralism, architecture, the ocean, and arts and health, with youth, experts, and non-experts and decision-makers.

[WATCH NOW](#)

### J-WAFS travel grantee on podcast

Anushka Shahdhpuri, founder of Aamchi, an organization that addresses water, sanitation, and hygiene (WASH) issues in India, was featured on The Climate Map podcast.

[LISTEN NOW](#)

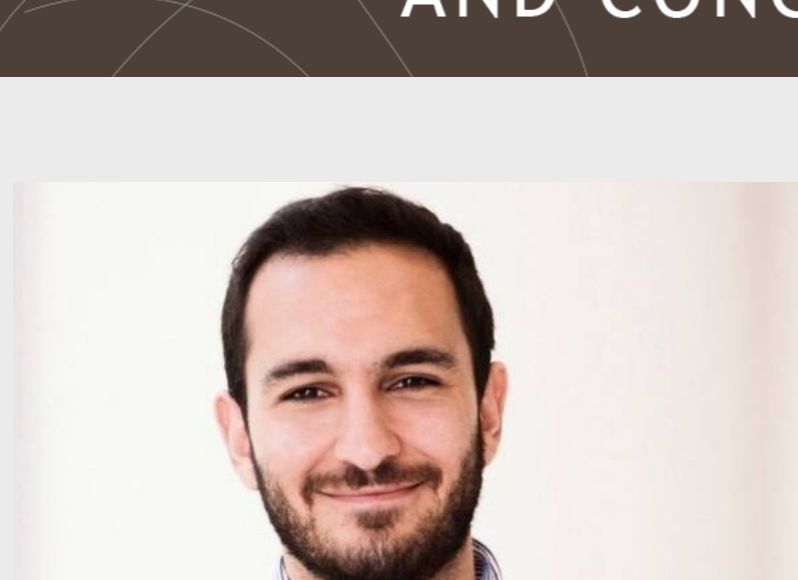


### Dave Des Marais talks CO2 and plant growth

The J-WAFS PI tells MIT's TILClimate podcast that crops may grow faster with more CO2 & plenty of water in the lab, but not always in farm settings.

[LISTEN NOW](#)

## AND CONGRATS TO:



### Fadel Adib

Adib was named Young Global Leader by the World Economic Forum for his work to create positive change in the world.

[LEARN MORE](#)



### Andrew Whittle

Whittle gave the distinguished Terzaghi Award Lecture at the 60th Annual American Society of Civil Engineers Geo-Congress summit.

[LEARN MORE](#)

## INTERESTED IN SUPPORTING J-WAFS?

When you make a gift, you are making an investment in both the future of J-WAFS and our Institute-wide work to improve the productivity, accessibility, and sustainability of the world's water and food systems.

[DONATE ONLINE](#)

FOR MORE INFORMATION ABOUT SPONSORSHIP OPPORTUNITIES, CONTACT:

RENEE J. ROBINS  
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[rjrobin@mit.edu](mailto:rjrobin@mit.edu) or (617) 324-6726



J-WAFS is an Institute-wide effort that brings MIT's unique strengths to bear on the many challenges our food and water systems face.

Our program catalyzes MIT research, innovation, and technology for ensuring safe and resilient supplies of water and food while reducing environmental impact, to meet the local and global needs of a rapidly expanding and evolving population on a changing planet.

**"Every kilowatt-hour of solar power, every unit of zero-carbon housing and every calorie of sustainably sourced vegetables will be multiplied across history."**

--Carlo Ratti, director of MIT's Senseable City Lab, who has proposed plans for a 51-story building wrapped in a vertical hydroponic farm in Shenzhen, China, known to be the world's first "farmscraper" that could feed 40,000 people a year.



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