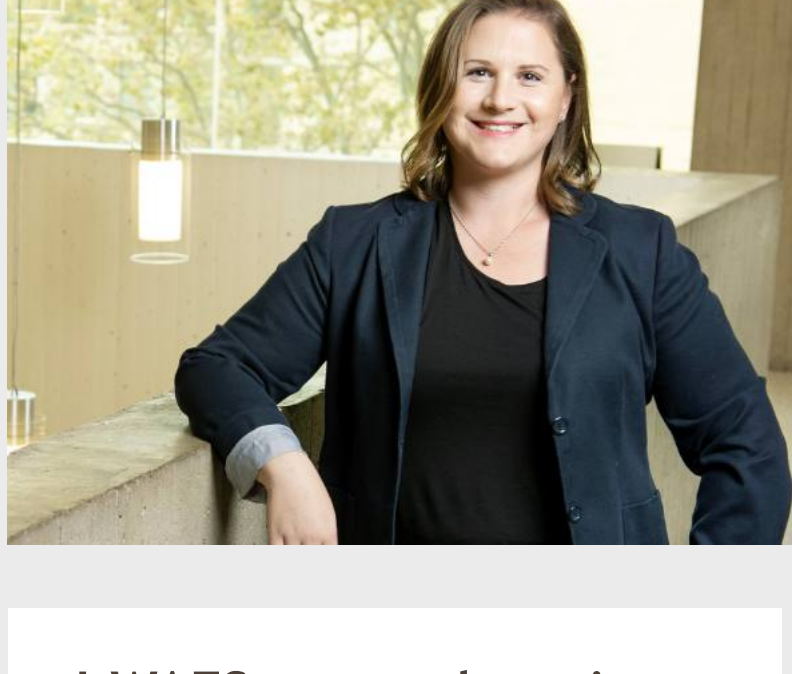


## NEWS & ANNOUNCEMENTS



### Furst creates microbial fertilizer coating

In work tied to a J-WAFS project, Ariel Furst developed a coating to protect bacteria that provide nutrients to plants and regenerate soil.

[READ MORE](#)

### J-WAFS researcher gives interview on the environmental impacts of mining

In a PBS News Hour article, Scott Odell explains how dust from mining operations can contaminate local agricultural fields and water sources with heavy metals, leading to conflict between mines and communities.

[READ MORE](#)

### Bill Gates and Fady Jameel discuss food and farming on the sidelines of COP28

Bill Gates, co-chair of the Bill & Melinda Gates Foundation, and Fady Jameel, vice chairman of Community Jameel, co-hosted an interactive breakfast discussion on agricultural adaptation and climate resilience.

[READ MORE](#)

### J-WAFS PI Susan Murcott advises MIT's climate clock teams

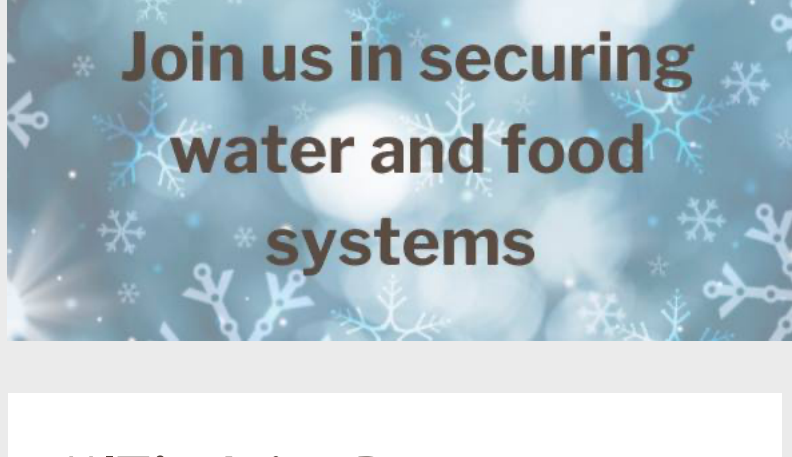
Projected on the side of MIT's Green building, the clock counts down the number of Boston sports teams' games before May 2024, a worst-case scenario for the planet to potentially warm 1.5 degrees Celsius.

[READ MORE](#)

### New J-PAL effort tackles food insecurity in sub-Saharan Africa

The Abdul Latif Jameel Poverty Action Lab and Mohammed VI Polytechnic University developed an agriculture research lab to implement impact evaluations of policies and programs that improve food security.

[READ MORE](#)



### Will you support our mission?

Consider giving the gift of MIT water and food research this holiday season.

[HELP TODAY!](#)

### MIT's Joint Program releases 2023 outlook report

The report states the latest projections for Earth's energy, water, food, and climate systems under current climate policies and those aligned with capping global warming at 1.5°C.

[READ MORE](#)

### MIT's Climate Action Plan aims to decarbonize campus

Developed with the help of staff, faculty, and researchers, the plan targets food, water, and waste goals, and encourages the MIT community to decarbonize MIT's operations by 2050.

[READ MORE](#)

### J-WAFS signs COP28 call to action to transform food systems

The call to action builds on decades of knowledge, experience, and advocacy from a wide range of non-state actors working on food systems, the UN Food Systems Summits, and various other processes.

[READ MORE](#)

### Brad Olsen speaks to press about bio-based plastics

An MIT professor of chemical engineering, Olsen recently concluded a J-WAFS-funded project to develop new varieties of sustainable polymers that can be used to make compostable food packaging.

[READ MORE](#)



### J-WAFS PI develops technology for food

Benedetto Marelli developed silk coatings that aid in preserving foods and growing crops in unproductive soils and drought-stricken lands.

[READ MORE](#)

## FUNDING AND OTHER OPPORTUNITIES

### MIT Morningside Academy for Design Fellowship

**Open to:** MIT grad students  
**Deadline:** January 16, 2024  
 Forward-thinking students with a strong interest in design, sustainability, and social impact are encouraged to apply. Past fellows studied floodplain agriculture and coastal adaptation using oyster reefs.

[MORE INFO](#)

### MIT Energy Initiative Seed Fund Grants Program

**Open to:** MIT PIs  
**Deadline:** January 22, 2024  
 These grants support new lines of research with high potential impact. Proposals across the spectrum of energy and environmental research areas are encouraged, including those related to water or food systems.

[MORE INFO](#)

## IN-DEPTH LOOK

J-WAFS RESEARCHERS SEEK TO UNDERSTAND WATER ACCESS IN INDIA USING "SMART BUCKETS"

### Jonathan Bessette and Gokul Sampath will conduct research on safe water access in Indian villages with the help of a J-WAFS India Grant

In August of 2022, Gokul Sampath and Jonathan Bessette, two MIT PhD students, got to know each other personally and professionally while attending World Water Week. The two traveled to Stockholm, Sweden for the annual international water conference, where they were part of a cohort of four 2022 J-WAFS Travel Grantees.



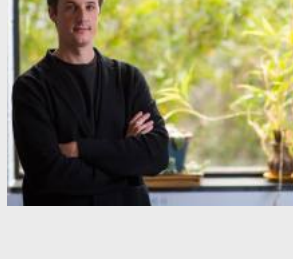
challenge in India.

Bessette and Sampath are developing small sensors to be placed inside water fetching vessels to make "smart buckets" that can help obtain a clearer picture of fetching practices in arsenic affected villages. By demonstrating the efficacy of a sensor-based approach to understanding water fetching practices, the researchers hope to address a major data gap in international development.

[READ MORE](#)

Expanding on the ideas they discussed during World Water Week, the two MIT PhD students have combined their expertise to address the global data gap on water fetching practices in rural India through a novel sensor-based approach. Today, J-WAFS is happy to announce that Sampath and Bessette's project has received a 2023 J-WAFS Grant for Water and Food Projects in India. The funding opportunity is for current members of the MIT community interested in addressing a water or food-related

## AWARDS & RECOGNITIONS



### César Terrer co-authors paper in *Nature Climate Change*

The paper, titled "A constraint on historic growth in global photosynthesis due to rising CO<sub>2</sub>," helps resolve conflicting estimates of the historic impact of global terrestrial photosynthesis to CO<sub>2</sub> and highlights the impact anthropogenic emissions have had on ecosystems. [MORE INFO](#)



### Fadel Adib wins inaugural Great Arab Minds award

Launched by HH Sheikh Mohammed bin Rashid, Vice President of the United Arab Emirates, the award was given to Adib for his work on wireless sensing. Adib's J-WAFS project developed a radio frequency identification (RFID) system that can sense food and liquids in closed containers. [MORE INFO](#)



### Nona awarded a Global Prize for Innovation in Desalination

The J-WAFS spinout company was awarded at a ceremony in Jeddah for their portable, off-grid desalination device that turns seawater into drinking water using solar power. The system can aid soldiers, boaters, and emergency preparedness enthusiasts. [MORE INFO](#)



### J-PAL celebrates 20 years of working to reduce poverty

The Abdul Latif Jameel Poverty Action Lab held a celebration event that brought together a diverse group of partners for panels and discussions, including one on the intersections of agriculture and climate change research. [MORE INFO](#)



### MIT student Gitanjali Rao honored at the White House

A first-year student, Rao was recognized for inspiring youth in science and innovation at the first Girls Leading Change celebration, hosted by First Lady Jill Biden. Among Rao's inventions are "Tethys," a patented lead warning system for drinking water. [MORE INFO](#)



### J-WAFS Fellow Jie Yun presents poster at recent conference

Yun attended a conference at the Cold Spring Harbor Lab on plant genomes, systems biology, & engineering, and presented her poster "Different carbon allocation strategies in annual and perennial species of *Brachypodium* at reproductive stage under carbon limitation induced by drought." [MORE INFO](#)

## EVENTS

### Webinar on food security in the Horn of Africa

**When:** Jan 16, 2024 9:00 a.m. ET  
**Where:** Online

The Univ. of Natural Resources and Life Sciences, Vienna, a member of the J-WAFS-led FACT Alliance, will host this free event that will discuss climate change impacts on the region's food production & livelihoods.

[RSVP & MORE INFO](#)

### MIT Sandbox information session for MIT students

**When:** Jan 10, 2024, 1:00 p.m. ET  
**Where:** Online

MIT student entrepreneurs, including those in the water and food space, can learn more about gaining potential mentorship and support through MIT's Sandbox program during this hour long, virtual information session.

[RSVP & MORE INFO](#)

### MIT TLO speaker series

**When:** Jan 10 - Feb 2, 2024  
**Where:** MIT campus

MIT's Technology Licensing Office will host a series of events for the MIT community that will discuss a range of IP topics. Those with startups, including ones in water and food, are encouraged to attend.

[RSVP & MORE INFO](#)

### Workshop on startups

**When:** Jan 29 - Feb 2, 2024  
**Where:** MIT campus

E14, an MIT-affiliated early-stage "venture fund," will host a week-long workshop where aspiring entrepreneurs, including those in water or food, can gain insights from successful MIT founders.

[RSVP & MORE INFO](#)

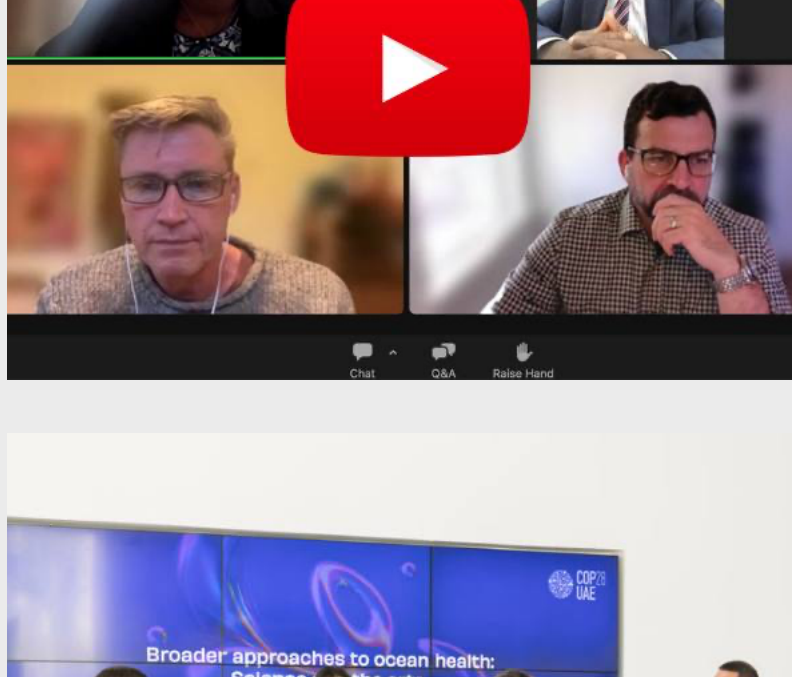


### J-WAFS ice cream social for MIT students

MIT students interested in water and food systems research can network and engage with peers at this informal IAP event on Jan 18, 2024. RSVP required.

[RSVP & INFO](#)

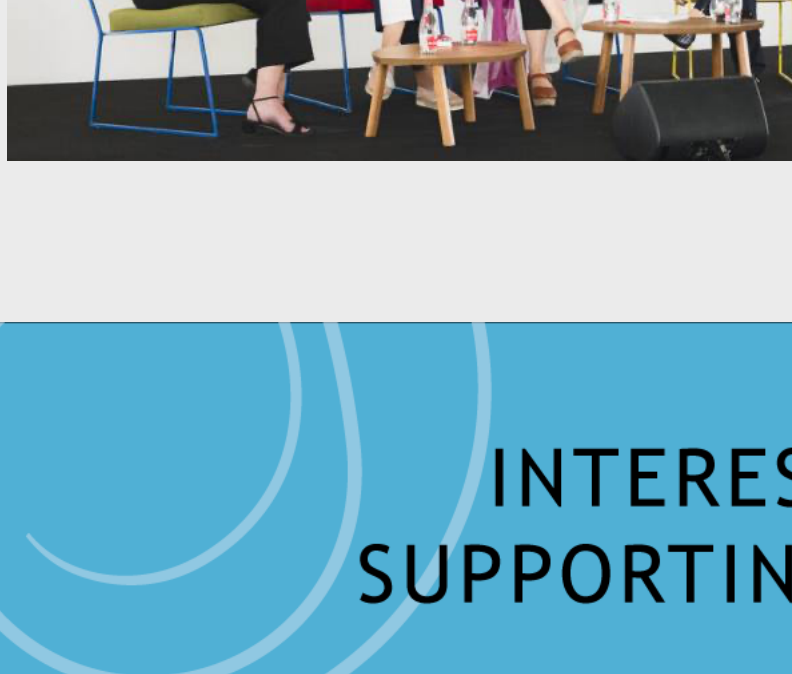
## IN CASE YOU MISSED IT



### Webinar on food systems

Hosted by the Univ. of Natural Resources and Life Sciences, Vienna, member of the J-WAFS-led FACT Alliance, the event addressed food security in Africa's Lake Victoria Basin.

[WATCH NOW](#)



### COP 28 panel with J-WAFS Fellow

MIT PhD student Nadia Christidi, who studies cities with water supply challenges, was part of a Community Jameel event on ocean health at last week's UN climate conference

[SEE 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:

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[rrobins@mit.edu](mailto:rrobins@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.



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