

# »» NEWSLETTER ««

NASA Equity & Environmental Justice

# EEJ NEWS

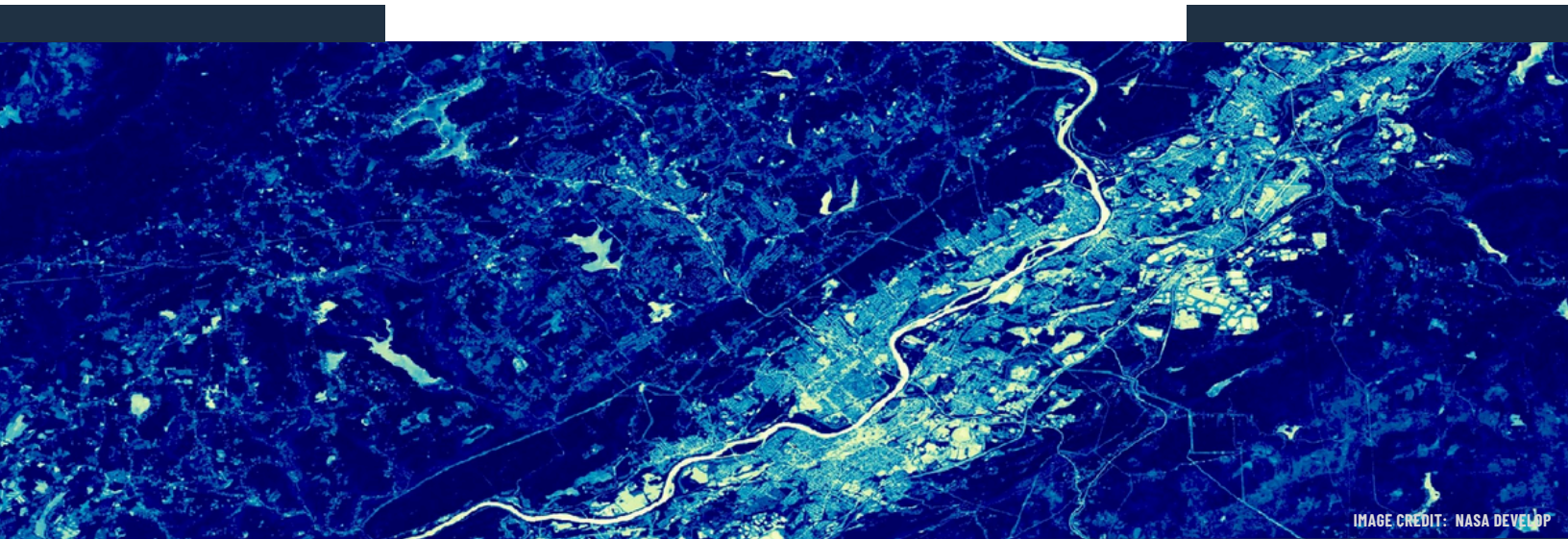


IMAGE CREDIT: NASA DEVELOP

## »» ANNOUNCEMENTS ««

### Space and Sustainability Colloquium in Morelia, Michoacán, Mexico

On 17-19 November 2024, the Secretary of the Environment of the State of Michoacán and the non-for-profit, [Guardian Forestal](#), hosted the Space and Sustainability Colloquium in Morelia, Michoacán, Mexico. The event centered on the use of Earth observations to inform decision-making and advance environmental justice. Associate Program Managers, Sabrina Delgado Arias (SSAI/NASA Goddard) and Nikki Tulley (BAER/NASA Ames) participated in the colloquium and offered in-person training on NASA datasets and analysis tools.

Learn about the first Space and Sustainability Colloquium [HERE](#).



EEJ APM Nikki Tulley (BAER, NASA Ames) leads a tutorial on Introduction to Earth Observations, on November 19, 2024.



Upper Left to Right: EEJ-funded Co-I Danielle Wood presents at EEJ Oral Session on December 9, 2024; and Climate Resilience Associate Program Manager Ayia Lindquist at AGU.

Lower Left to Right: EEJ Program Coordinator Edil Sepúlveda Carlo, and EEJ Program Manager Michelle Hawkins at AGU; and EEJ Oral Session on December 9, 2024.

### EEJ at AGU 2024

EEJ-funded researchers presented at the following EEJ sessions focused on using Earth Observations and diverse knowledge systems to address environmental justice:

- [EEJ Oral Session](#) on Monday, December 9, 2024, from 10:20-11:50a.m.
- [EEJ Poster Session](#) on Monday, December 9, 2024, from 1:40-5:30p.m.

EEJ team members and leadership greatly enjoyed meeting with EEJ-funded PIs/Co-Is, as well as community partners, at the EEJ oral session, EEJ poster session, and throughout AGU.

Access the full AGU program [HERE](#).





## NASA's Earth Observation (EO) Data Usage Survey

As mandated by the [CHIPS and Science Act of 2022](#), NASA is conducting a survey of the use of NASA EO data by U.S. States, Tribal organizations, and territories. An online, anonymous survey is available now that seeks to understand:

1. who uses EO data within States, Tribal organizations, and territories
2. for what purposes
3. how these data impact decision making today
4. any discoverability, accessibility, or usability issues with these data, and
5. any existing challenges or gaps

With this survey, NASA seeks to gain insight into NASA's impact, possible gaps and areas for growth, and how users from these sectors could be better supported in their use of EO data for decision-making. Information from the survey will be summarized and shared widely, as well as inform future NASA activities and priorities.

Take the survey [HERE](#) by December 31, 2024.



## U.S. Department of the Interior Funds Drought Resiliency Projects

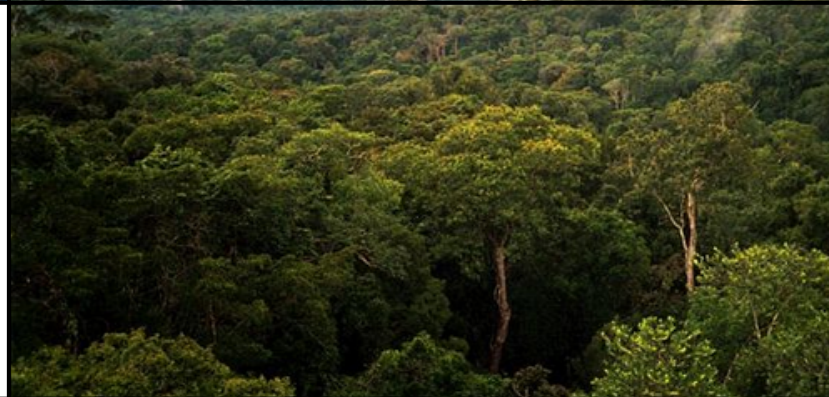
The Department of the Interior announced a \$125 million investment for five projects in California and Utah that will help create new sources of water and improve drought resiliency. These investments support the Department's new [Large-Scale Water Recycling Program](#), launched in 2023 with new funds from the Bipartisan Infrastructure Law. The new program incentivizes conservation projects at a larger scale, with no cap on project size, and will play an important role in helping communities develop local, drought-resistant water supplies by turning unusable water sources into clean, reliable ones.

Learn more [HERE](#).

## International Conservation Day

A U.S. proclamation designated November 17th as International Conservation Day. The proclamation recognizes that conservation is critical to protecting the livelihoods of the people who depend on our world's natural wonders, conserving our ecosystems and wildlife, ensuring our lands and waters can be enjoyed for generations to come, and helping avoid the worst impacts of climate change.

Learn more [HERE](#).



**MIDWEST HYDROGEN HUB (MachH2)**

**\$1B** federal investment

**~3.9M** metric tons CO<sub>2</sub> avoided annually

**Challenges** → **Demonstrations** → **Real World Impact**

- Challenges:** Industrial CO<sub>2</sub> emissions from steel and glass production; Heavy-duty transportation emissions.
- Demonstrations:** Use clean H<sub>2</sub> to decarbonize steel and glass production; Clean fuel for heavy-duty transportation; Clean H<sub>2</sub>.
- Real World Impact:** Sustainable products and reduced CO<sub>2</sub> emissions; Clean H<sub>2</sub> fuel reduces CO<sub>2</sub> emissions; Improve air quality across the region.

IMAGE CREDIT: US DOE

## U.S. Department of Energy Announces Funding of Regional Clean Hydrogen Hubs

The U.S. DOE announced up to \$2.2 billion in award commitments for two Regional Clean Hydrogen Hubs that will help accelerate the commercial-scale deployment of low-cost, clean hydrogen—a valuable energy product that can be produced with zero or near-zero carbon emissions. The two awardees are the [Midwest Hydrogen Hub](#) led by MachH2 and the [Gulf Coast Hydrogen Hub](#) led by HyVelocity.

Learn more [HERE](#).



# UPCOMING CONFERENCES



## American Meteorological Society Annual Meeting

January 12 - 16, 2024 New Orleans, LA

The theme of the 105th Annual AMS Meeting is "Towards a Thriving Planet: Charting the Course Across Scales" where the interconnected challenges of climate change will be addressed across space and time scales.

EEJ Program will be presenting at the 20th Symposium on Societal Applications: Policy, Research and Practice:

- [J14B.3 - Community Action for Equity and Environmental Justice](#)
- Thursday, January 16, 2025, at 2:15 p.m. (Central)

[Learn more and register HERE.](#)



**105TH ANNUAL MEETING**  
**12-16 JANUARY**  
**NEW ORLEANS & ONLINE**  
AMERICAN METEOROLOGICAL SOCIETY



## World Health Organization

## WHO Second Global Conference on Air Pollution and Health

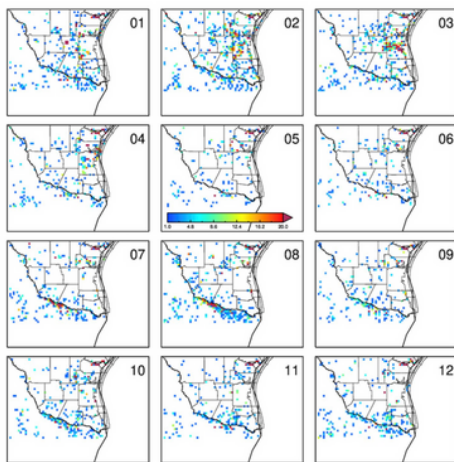
March 25 - 27, 2024 Cartagena, Colombia

The Global Conference on Air Pollution and Health: Accelerating Action for Clean Air, Clean Energy Access and Climate Mitigation will highlight policy solutions for air pollution and lack of energy access and catalyze evidence-based, multi-sectoral actions in cities, countries and regions. The goal of this meeting is to facilitate 750 relevant stakeholders to join in-person & around 1000 relevant stakeholders to join online to actively support the conference outcomes and commitments.

[Learn more and register HERE.](#)



## EEJ PROJECT HIGHLIGHTS



### Integration of Satellite Data on Air Pollution with Socioeconomic Indicators to assess the impacts of agricultural burning on local communities in the Lower Rio Grande Valley of South Texas

Team: Amit Raysoni (PI), Pawan Gupta (Universities Space Research Association, Columbia & NASA Marshall Space Flight Center); Alqamah Sayeed (Universities Space Research Association, Columbia & NASA Marshall Space Flight Center); Katarzyna Sepielak (University of Texas Rio Grande Valley); Owen Temby (University of Texas Rio Grande Valley); Dawid Wladyka (University of Texas Rio Grande Valley).

This project integrates: 1) air pollution NASA satellite data, 2) local ambient monitoring sites, 3) socio-economic indicators (Social Vulnerability Index), and 4) Local knowledges (Air Quality Perception scale) to characterize the PM2.5 trends due to agricultural burning in the Lower Rio Grande Valley Region of South Texas. This project empowers the air quality knowledge base of the local citizenry by providing them with access to a publicly available dashboard hosted by UTRGV. This project is based on the premise that high exposures to air pollutants is a matter of environmental injustice especially for this low-resourced majority minority region of the U.S.-Mexico border.

[Learn more HERE.](#)

### Earth observations to reduce greenspace and health inequities: Applying multi-decadal and multi-scale satellite imagery to characterize tree canopy and heat exposure to improve policymaking and community well-being

Team: Karen Seto (PI), Shijuan Chen (Yale School of the Environment), Michelle Bell (Yale School of the Environment), Xuhui Lee (Yale School of the Environment), Edith Pestana (Connecticut Department of Energy and Environment), Danica Doroski (Connecticut Department of Energy and Environment), Carl J. Amento (South Central Regional Council of Governments), Colleen Murphy-Dunning (Urban Resources Initiative), Katie Lund (Yale School of the Environment), Erin Shives (Yale School of the Environment), Jeffrey Blay (Yale School of the Environment)

The overarching goal of this project is to characterize and monitor urban heat and tree canopy cover to identify communities most at risk to increasing urban heat and those with low access to ecosystem benefits of canopy cover. Using multi-decadal and multi-scale satellite data from MODIS, Landsat, USDA's National Aerial Imagery Program, Microsoft database of building footprints, and socioeconomic information, we will map for both the state of Connecticut and the city of New Haven: 1) trends in urban heat; 2) trends in tree canopy cover; and 3) EJ community access to tree canopy cover and their ecosystem service benefits.

[Learn more HERE.](#)







## F.5 Future Investigators in NASA Earth and Space Science and Technology

Future Investigators in NASA Earth and Space Science and Technology (FINESST) solicits proposals from accredited U.S. universities and other eligible organizations for graduate student-designed and performed research projects that contribute to SMD's science, technology, and exploration goals. The Future Investigator (FI), i.e., the student, shall have the primary initiative to define the proposed FINESST research project and must be the primary author, with input or supervision from the proposal's Principal Investigator (PI), as appropriate. The Future Investigator (FI) named on the proposal is primarily responsible for writing a FINESST proposal. The proposal must present a well-defined research problem/activity and a justification of its scientific significance to NASA, as well as a detailed approach for its conduct. All FINESST proposals must address their relevance to at least one participating SMD division.

Proposals are due by February 5, 2025. Learn more [HERE](#).

## A.60 Earth Action: Ecological Conservation

A.60 Ecological Conservation supports the integration of NASA Earth observations in decision making within the domain of ecological conservation and management. Any area of conservation is welcome (e.g., invasive species, protected area management, fisheries or wildlife management, habitat restoration, ecosystem services, rewilding, biodiversity protection). The program welcomes proposals looking at any biome (terrestrial, freshwater, marine, or airborne) or geography. All projects must combine three components: NASA Earth observations (defined in Section 3.2.1), in situ biological observations (see Section 3.2.2 for examples), and ecological models to develop decision-support tools.

Notices of intent are requested by February 14, 2025, and proposals are due March 14, 2025.

Learn more [HERE](#)



## APPLICATIONS AND FUNDING OPPORTUNITIES



IMAGE CREDIT: US EPA

## U.S. EPA: Solid Waste Infrastructure for Recycling Grant Program for Tribes and Intertribal Consortia and for Communities

The recycling funding for Tribes and intertribal consortia will provide approximately \$20 million total in awards ranging from \$100,000 to \$1.5 million each. The recycling funding for communities will provide approximately \$58 million total in awards ranging from \$500,000 to \$5 million each. This includes projects that will improve collection, transport, systems, and processes related to post-use materials that can be recovered, reused, recycled, repaired, refurbished, or composted.

For Communities, learn more [HERE](#)

For Tribes and Intertribal Consortia, learn more [HERE](#).

Deadline for Communities: **December 20, 2024**

Deadline for Tribes and Intertribal Consortia: **March 14, 2025**

## U.S. Department of Energy: Energy in Rural and Remote Areas (ERA) Program

The Bipartisan Infrastructure Law provides \$1 billion total from Fiscal Year 2022 to Fiscal Year 2026 for grants to improve the resilience, reliability, and affordability of energy systems in communities across the country with 10,000 or fewer people. The ERA Program aims to fund community-driven energy projects that demonstrate new energy systems, deliver measurable benefits to customers, and build clean energy knowledge and capacity throughout rural America. DOE opened a Notice of Funding Opportunity for \$400 million in October 2024.

Concept papers are due by February 27, 2025, and full applications are due by August 28, 2025.

Learn more about ERA [HERE](#).

Learn about the application [HERE](#).



IMAGE CREDIT: US DOE





# UPCOMINGEVENTS



## NOAA Climate Science and Societal Interactions Webinar: Challenges and Opportunities of Scaling Nature-based Solutions for Climate Adaptation

January 23, 2025, 1-2 PM EST

Nature-based solutions including green infrastructure (NbS/GI) have been implemented for some time as a multifunctional, decentralized strategy for stormwater management. Locally, the benefits and co-benefits of these systems are well quantified. However, to address regional climate risks, NbS/GI need to be upscaled in non-trivial ways across urbanized landscapes. This upscaling poses several formidable physical, economic, and collaboration-related challenges. Addressing these challenges represents one of the front lines in advancing comprehensive resilience and sustainability planning. This webinar episode will feature how Franco Montalto, the Climate Adaptation Partnership's (CAP) Consortium for Climate Risk in the Urban Northeast (CCRUN), has leveraged funding from CAP and AdSci to advance science to support local action and adaptation at a broader scale.

Learn more and register [HERE](#).



IMAGE CREDIT: NOAA CSI



## ADDITIONAL READINGS & RESOURCES



### National Strategy to Prevent Plastic Pollution

### EPA Releases National Strategy to Prevent Plastic Pollution

This document outlines opportunities for action to protect communities from the impacts of plastic production and waste and detailing how government agencies, businesses, non-profits, and communities can take additional action to prevent plastic pollution.

Read it [HERE](#).



## INTRODUCTION TO EEJ



## The Equity and Environmental Justice Program (EEJ)

The EEJ Program advances progress on equity and environmental justice and builds a community of practice around the application of Earth science information to inform action on EEJ. This newsletter is one of the Program's strategic communication efforts for engaging those working in the space. It will continue to evolve, so please share your thoughts on information that is useful to you.

Learn more about the EEJ Program and access our previous newsletters by visiting our website [HERE](#).

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