

»» NEWSLETTER ««

NASA Equity & Environmental Justice

EEJ NEWS

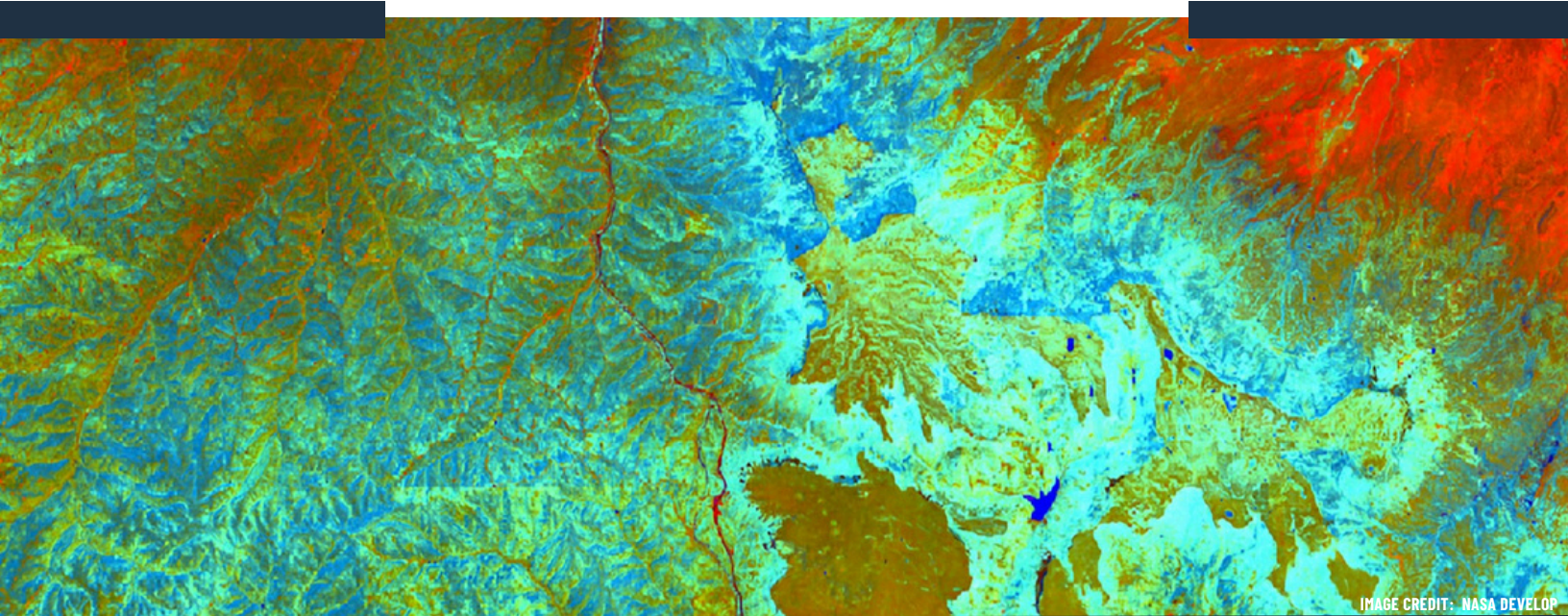


IMAGE CREDIT: NASA DEVELOP

»» ANNOUNCEMENTS ««

JUNE IS NATIONAL OCEAN MONTH

Over 71% of our Blue Marble is covered by ocean. The ocean is one of Earth's largest ecosystems, and plays an important role in moderating Earth's climate. With NASA missions, we're learning more about this precious part of the planet than ever before. NASA'S PACE satellite mission is helping us learn more about our ocean, its role in Earth's climate, the creatures that live there, and more. The PACE satellite views our entire planet every day, returning data at a cadence that allows scientists to track and monitor the rapidly changing atmosphere and ocean, including cloud formation, aerosol movement, and differences in microscopic ocean life over time. PACE's OCI instrument views our world with 200+ wavelengths of light. With this level of detail, scientists – for the first time from space – can identify specific communities of phytoplankton in the ocean. PACE's other instruments, two polarimeters, are helping scientists locate and identify aerosols in the atmosphere. HARP2 measures the concentration of aerosols and SPEXone measures aerosol size. Learn more as PACE Celebrates National Ocean Month With Colorful Views of the Planet [HERE](#).



 EARTH SCIENCE APPLIED SCIENCES

ABOUT WHAT WE DO OUR IMPACT

NASA ARSET TRAINING - EARTH OBSERVATIONS FOR HUMANITARIAN APPLICATIONS

Refugees, internally displaced people (IDPs), and other displaced populations are made more vulnerable to climate change impacts due to their socio-political marginalization. This three-part training presents concrete strategies for mapping localized climate conditions with risks faced by refugee and IDP communities around the world, and is a follow-on to the 2022 Introductory training, Humanitarian Applications Using NASA Earth Observations. By the end of the training, which will take place in June 2024, participants will be able to integrate EO, building footprint and infrastructure data, and population data to quantify climate risk and development trends in specific humanitarian settings, and recognize the value and limitations of specific EO and geospatial datasets. For more info and to register for the training click [HERE](#).



TRAINING

ARSET - Earth Observations for Humanitarian Applications

PROGRAM AREA: DISASTERS

HYDROGEN SHOT FELLOW

The U.S. Department of Energy (DOE) Energy recently announced the Energy Earthshots Initiative aimed at accelerating breakthroughs of more abundant, affordable, and reliable clean energy solutions within the decade. This will create more clean energy jobs, reduce greenhouse gas emissions, and position America to compete in the clean energy market on a global scale. As the lead coordinating across the DOE Hydrogen Program, EERE's Hydrogen and Fuel Cell Technologies Office (HFTO) will play a key role in this effort and is launching a Hydrogen Shot Opportunity to recruit diverse talent that can contribute to achieve Hydrogen Shot. The Hydrogen Shot Fellows will engage with one or more programs, or functional areas (i.e. operations, communications, stakeholder engagement, etc.) within HFTO and focus on activities to tackle key challenges and to make Hydrogen Shot a reality. More info and apply [HERE](#).



U.S. DEPARTMENT OF
ENERGY



UPCOMING CONFERENCES



Environmental Joy Conference 2024: Community Wisdom for Resistance, Resilience, and Thriving

Dates: November 8-9, 2024. New Haven, CT

During the 2023 Global EJ Conference on Environmental Joy we heard insights from grassroots leaders, professionals, students, and presenters on how the work of environmental justice communities around the world would not be possible without the element of joy. The 2024 Environmental Joy Conference will build on what we learned in 2023 and ask how centering joy shifts the solutions available to create change, resilience, and thriving. Learn more [HERE](#).



Yale Center for
Environmental Justice



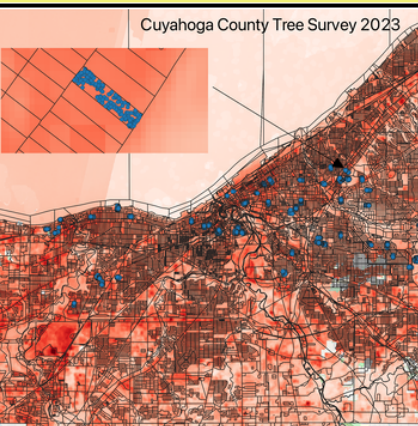
GLOBAL SUMMIT ON CLIMATE CHANGE & ENVIRONMENTAL SUSTAINABILITY

Dates: October 28-29, 2024. Rome, Italy

Embark on a transformative journey in the heart of Rome, Italy, in this convening for the "Global Summit on Climate Change & Environmental Sustainability" from October 28-29, 2024. The theme of the Summit is "Harmony in Diversity: Navigating Climate Challenges for a Sustainable Future." Join experts, innovators, and visionaries from around the world as they delve into cutting-edge solutions, fostering unity to address the intricate web of climate challenges. The Scientific Sessions include a Climate Justice & Equity session. Learn more [HERE](#).



PROJECT HIGHLIGHTS



Improved monitoring and management of urban tree equity: integrating metrics of tree quality with tree cover

Team: Kevin Mueller, Brice Grunert, Thomas Hilde, Kaiguang Zhao, Daniel Meaney, Amanda Wood

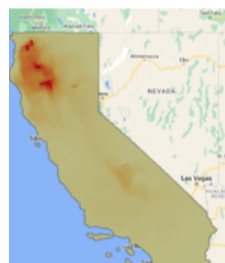
In the U.S., trees in cities provide ecosystem services valued at \$18 billion dollars per year, but the urban forest in our nation is shrinking and stressed. This is evident in Cleveland, OH, where tree canopies are most sparse in the areas with residents who are most in need of the benefits trees provide. The canopy cover and ecosystem services in redlined neighborhoods with high poverty and pollution are often half or even a tenth of those in richer, whiter neighborhoods. Momentum is now building to reverse the decline of the urban forest and to enhance 'tree equity' in Cleveland and Cuyahoga County. The effort to regrow Cleveland's urban forest is collaborative and coordinated by the Cleveland Tree Coalition. A primary goal of this coalition is to minimize socioeconomic and demographic disparities in tree equity by focusing efforts to maintain and expand the tree canopy in areas with unjustly lower tree cover and greater environmental burdens. Learn more [HERE](#).

Mapping Vulnerable Populations in California to Climate-Related Hazards

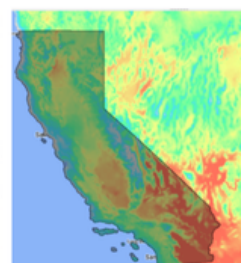
Team: Miriam Marlier; Paul English; Michael Jerrett; Joseph Wilkins; Michelle Wong; Jenny Nguyen; Eimy Bonilla

This study will integrate Earth science information and socioeconomic datasets to inform climate vulnerability assessments for environmental justice communities across California. They build on a rich tradition of environmental justice screening tools for California with the inclusion of Earth science information to quantify recent exposures to climate-related hazards and associated health outcomes through a publicly available tool. The proposed study will examine two leading categories of climate-related hazards, namely smoke pollution and extreme heat, which each expose millions of people across California. Learn more [HERE](#).

CMAQ Smoke PM_{2.5}



GridMET Temperature

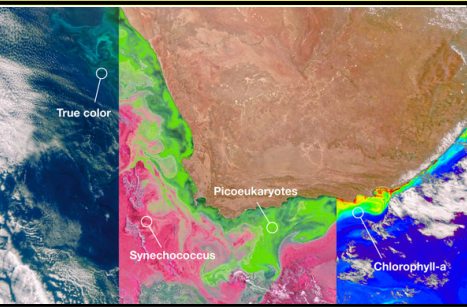


CalEnviroScreen Poverty Indicator





Volunteer to be a panel reviewer for Climate Resilience & Community Action (ROSES A.67). [HERE!](#)



A.3 OCEAN BIOLOGY & BIOGEOCHEMISTRY

NASA's Ocean Biology and Biogeochemistry (OBB) Program focuses on better understanding the ocean's role in the Earth System, and predicting future causes and impacts of change driven by Earth's climate, the environment, and event-scale phenomena on ocean biology, biogeochemistry, and ecology. This program element solicits research on specific topics of current, strong scientific interest and programmatic relevance. The NASA OBB Program requests the following subelements of research investigations in no priority order: Tipping points and episodic events, and their impacts to aquatic ecosystems; Advancing the remote detection of floating debris; Refining our predictive understanding of the ocean biological pump; and Successor studies. **Proposals are due by July 3, 2024 . Learn more [HERE](#).**

A.23 TERRESTRIAL HYDROLOGY

The NASA Terrestrial Hydrology program (THP) has the scientific objective to use remote sensing to develop a predictive understanding of the role of water in land-atmosphere interactions and to further the scientific basis of water resources management. Seasonal snow is a critical, yet under-observed, component of the Earth system, especially considering its changing characteristics influenced by climate and other global system changes. To develop, investigate, and advance different approaches to observe seasonal snow from spaceborne platforms, THP has invested in SnowEx, a multi-year field experiment, which has collected observations: surface-, aircraft-, and satellite-based. This program element encourages proposers to significantly leverage SnowEx data either to: (1) Advance remote sensing of snow water equivalent (SWE), or (2) Understand changing influences on snowpack dynamics, especially snowmelt. **Proposals are due August 8, 2024. Learn more [HERE](#).**



TEAM SPOTLIGHT: THANK YOU SYDNEY, WELCOME EDIL



SYDNEY NEUGEBAUER

While serving as the Capacity Building Program Coordinator, Sydney Neugebauer assumed an additional role as the EEJ Program Coordinator in 2022. Sydney has expertly guided the EEJ Program through major transitions and exciting new initiatives. We will miss Sydney's daily involvement as she now transitions back to her Capacity Building Coordinator role. Sydney, thank you for laying the foundation for the EEJ Program's success! Sydney will continue to support activities across the Capacity Building Program's elements and initiatives, including ARSET, DEVELOP, SERVIR, Prizes & Challenges, and the Indigenous Peoples Initiative. Sydney joined NASA in 2018 as a participant at the NASA DEVELOP National Program, where she worked with local leaders to quantify salt marsh dynamics in coastal Massachusetts using remotely sensed data. Sydney joined NASA DEVELOP full time as a Project Coordination Fellow and Lead at Langley Research Center and worked as a GIS consultant. Sydney joined the Capacity Building Program in April 2021. As coordination and analysis lead, she supports program management by gathering and analyzing program metrics and indicators; coordinating work across program elements and within Earth Action; presenting at meetings, workshops, and conferences; managing internal and external communications; mentoring Capacity Building Program interns; and more. Sydney received NASA's Early Career Achievement Award at the Agency Honor Awards in 2022. Sydney holds two bachelor's degrees from Boston University in Environmental Earth Science and music.

EDIL SEPÚLVEDA CARLO

We are thrilled to welcome Edil Sepúlveda Carlo, the new Program Coordinator for NASA's Climate Resilience & Community Action (CRCA) Program at NASA Headquarters in Washington DC. In this role, he coordinates the Climate Resilience (CR) Program as well as the Equity & Environmental Justice (EEJ) Program. He champions science to action, and the use of Earth Observations to improve decision-making and societal benefits. Before this role, Edil was a senior research scientist at NASA Goddard Space Flight Center in Greenbelt, MD, where he worked as the Applications Coordinator for NASA's Carbon Monitoring System (CMS) Initiative, as well as the former Co-Chair for the Applied Earth Observations Innovation Partnership (AEOIP) between NASA & USDA Forest Service. He engaged stakeholders from all sectors – federal, state, and local agencies, non-governmental organizations, academia, and the private sector – with NASA-funded carbon scientists to ensure that data products developed were used in diverse applications and decision-making contexts. He has been working in environmental justice and climate science & policy issues for over 10 years. Edil was also part of NASA's Black Marble Science Team, which was awarded NASA's Group Achievement Medal in 2018 for their efforts to support Puerto Rico's recovery in the aftermath of Hurricane Maria. Edil has provided support to the applications efforts of other NASA's Earth Science Division missions, such as Ice, Cloud, and land Elevation Satellite-2 (ICESat-2); the Arctic Boreal Vulnerability Experiment (ABOVE); and the Soil Moisture Active Passive (SMAP) mission. Before working at NASA, Edil was a consultant in climate change and environmental legal issues for the Government of Puerto Rico. He holds a B.S. in Geology from the University of Puerto Rico at Mayagüez, a Juris Doctor from the University of Puerto Rico School of Law, and a Master's degree in Climate & Society with an Energy & Environmental Policy Concentration from Columbia University in the City of New York.





UPCOMING EVENTS



Shaping Environmental Justice Policies at the Federal Level: An opportunity to share input on the development of U.S. Agency Environmental Justice Strategic Plans

June 17, 2024. 12-1PM ET. Online

Join World Resources Institute on June 17 to learn more about the Environmental Justice Strategic Plans from Christina Bowman, Deputy Director for Environmental Justice Strategic Initiatives at the Council on Environmental Quality and federal agency staff from the Department of Energy, Department of Transportation and the Environmental Protection Agency. The event will gather feedback from audience members through a submission form that WRI will organize and submit as a public comment document to each agency represented during the event. Learn more and register [HERE](#).



ADDITIONAL READINGS & RESOURCES



Minority Food Producers in the Climate Transition

A webinar examining the role of agricultural producers of color in the development of sustainable solutions for climate change.

Watch Now

Minority Food Producers in the Climate Transition

A webinar examining the role of agricultural producers of color in the development of sustainable solutions for climate change now available to view. This panel discussed the state of minority producers in the climate transition, the alternative pathways created by minority producers for information and resource access as a result of exclusion from past and current government programs, and the role of economists and researchers in developing sustainable agriculture solutions for climate change that reflect the different opportunities and pathways available to producers of color. Read more [HERE](#).

ENVIRONMENTAL SOCIAL JUSTICE PODCAST: 22ND CENTURY TRIBAL INFRASTRUCTURE GROUP - BUILD W

22nd Century Tribal Infrastructure Group (<https://22ctribal.com>) is a Native American and Woman-Owned firm that is dedicated to supporting tribal nations and indigenous peoples across the globe to drive innovation and entrepreneurship in the areas of clean energy, water quality, and human and environmental health. Listen to the podcast [HERE](#).



INTRODUCTION TO EEJ



The Equity and Environmental Justice Program (EEJ)

The EEJ program aims to advance progress on equity and environmental justice. One part of this effort is to help build the community of practice around the application of Earth science information to inform action in EJ communities by monitoring and measuring environmental factors. 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 for what information is useful to you!

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

CONTACT US:

Contact us with "EEJ newsletter" in the subject line with any comments, questions, or feedback!

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