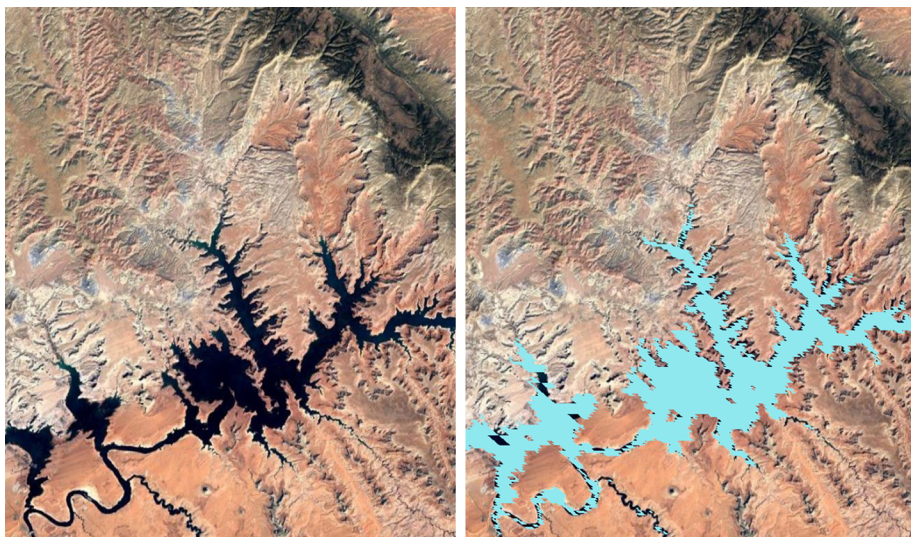


Newsletter



June 2023



To start off our June edition, we have some news to share: on April 20th we began our bilingual training on machine learning. This was our first time training on this topic, so we expected it to draw some attention. What we did not expect was that over 3,000 of you would show up to the live training sessions! This makes [Fundamentals of Machine Learning for Earth Science](#) ARSET's second most attended training, ever. We tried to come through for you with a much-requested topic and you came through for us by showing up, so thank you. Since our last newsletter in March we've hosted five trainings, two of which were in person, and one of which was international in Nuevo León, México.

As far as internal updates are concerned, we recently hired an Instructional Designer to help us make our training format and content as effective as possible. You may notice that we've already begun making minor edits to our training content and design.

Looking ahead, next month we will offer a unique fire-related training on [Assessing the Impacts of Fires on Watershed Health](#). This advanced training will build on our training, [Satellite Observations and Tools for Fire Risk, Detection, and Analysis](#), from 2021. Specifically, this training will highlight uses of NASA Earth observations (EO) for pre-fire land cover mapping, watershed delineation and stream mapping, post-fire burn severity mapping, and pre- and post-fire riverine and freshwater water quality. You won't want to miss it.

Upcoming Trainings

06 - 13 July 2023

[Assessing the Impacts of Fires on Watershed Health](#)

18 - 25 July 2023

[Monitoring Water Quality of Inland Lakes using Remote Sensing](#)

15 - 22 August 2023

[Evaluating Ecosystem Services with Remote Sensing: Advanced-Level Continuation](#)

September 2023

[Satellite Data for Air Quality Environmental Justice and Equity Applications](#)

Recent Trainings

27 March - 05 April 2023

[Biodiversity Applications for Airborne Imaging Systems](#)

04 - 11 April 2023

[Crop Mapping using Synthetic Aperture Radar \(SAR\) and Optical Remote Sensing](#)
(también en español)

20 April - 04 May 2023

[Fundamentals of Machine Learning for Earth Science](#)
(también en español)

17 - 31 May 2023

[Application of NASA SPoRT-Land Information System \(SPoRT-LIS\) Soil Moisture Data for Drought](#)

Participant Highlights

Liz Silva

The Philippines, Federal/Central Government

Liz Silva is involved with climate change and solid waste management through the Climate Change Service at The Philippines Department of Environment and Natural Resources. She is a member of the National Greenhouse Gas Inventory team for the Waste Sector and the focal person for the UN Environment and Climate and Clean Air Coalition on Short-lived Climate Pollutants (SLCPs) in the Philippines. She handles SLCP related matters including capacity building, providing technical assistance to stakeholders, and supporting policy and regulatory development.

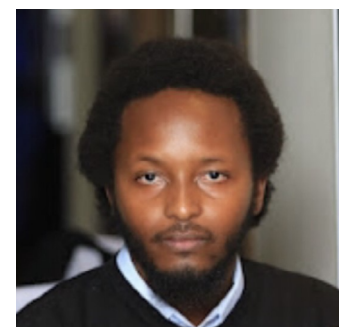
Liz attended nine ARSET trainings in 2022, often staying up late in the evening to attend the live sessions, and frequently sharing resources from the sessions with her colleagues. As The Philippines seek to increase their use of geospatial data, ARSET trainings helped Liz strengthen her understanding of the different applications of remote sensing data related to climate impact modeling and tracking Nationally Determined Contributions, or NDCs. You can find some of her published work [here](#) and [here](#).



Isaac Mureithi

Kenya, Academia (Student)

Isaac Mureithi is a student at the KCA University in Kenya interested in risk assessment and climate impacts, especially floods, drought, and food price fluctuations that impact Kenya. After attending the April machine learning training, he noted: "The class has given me a great insight into how Machine Learning can be blended into Actuarial Science. I never imagined that these two fields could work hand in hand. I am now better equipped to understand how data analytics can be applied in Actuarial Science to solve complex problems." He aspires to work in the field of parametric insurance on topics that relate to social issues.



Additional Resources

New FIRMS (Fire Information For Resource Management System) Features

FIRMS enables access to near real-time (NRT) satellite imagery, active fire detections and other data from multiple satellites, and provides critical information to wildfire management organizations and impacted individuals. Some of their updated features include: ultra real-time [MODIS and VIIRS active fire data products](#) for the US and Canada, [beta geostationary active fire products](#) for the Americas, Europe/Africa; and Asia, and near real-time [Landsat Fire and Thermal Anomalies \(LFTA\) data](#) for the US/Canada. In addition, true color and false color composites from the [Harmonized Landsat Sentinel \(HLS\)](#) product have been incorporated into FIRMS. The latter is particularly helpful in post-fire applications, such as burn scar mapping.

Oct. 19 - 20: HAQAST Public Meeting

The [HAQAST Public Meeting](#) in Salt Lake City, Utah will occur on October 19th and 20th, 2023. The Health and Air Quality Applied Sciences Team (HAQAST) works to connect NASA satellite data and products with public health experts and air quality managers. These public meetings are opportunities to grow these two-way dialogues in which stakeholders share their research needs and priorities, and scientists share their resources, insights, and new discoveries.

NASA SPoRT-LIS: Real-Time Land Information System

SPoRT (Short-term Prediction Research and Transition) has developed a real-time configuration of the NASA Land Information System: [SPoRT-LIS](#). This system is re-started every 6 hours in a real-time capacity to provide land surface initialization variables at high resolution and high-resolution depictions of the land surface that can aid short-term forecasting and situational awareness at NWS weather forecast offices. You can find more information about SPoRT-LIS in our [recent training](#).