ARSET Capacity Building for the Access & Application of Earth Science Data

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NASA ARSET: Empowering the global community through remote sensing training

NASA's Applied Remote Sensing Training Program (ARSET) offers online and in-person training tailored to policy-makers, regulatory agencies, and applied environmental professionals. The goal is to increase the use of NASA Earth science models and data for environmental applications in air quality, disasters, land, and water resource management. Learn more: **http://arset.gsfc.nasa.gov**

ARSET Can Meet You at Your Level

Training is available **online** and **in-person** for people with all ranges of experience, at different levels. Trainings are offered around air quality, disasters, land, and water resource management.

Advanced (Level 2)
Requires level 1 training or equivalent knowledge
In-depth and highly focused topics
Advanced Webinar: Radar Remote Sensing for Land, Water, and Disaster Applications

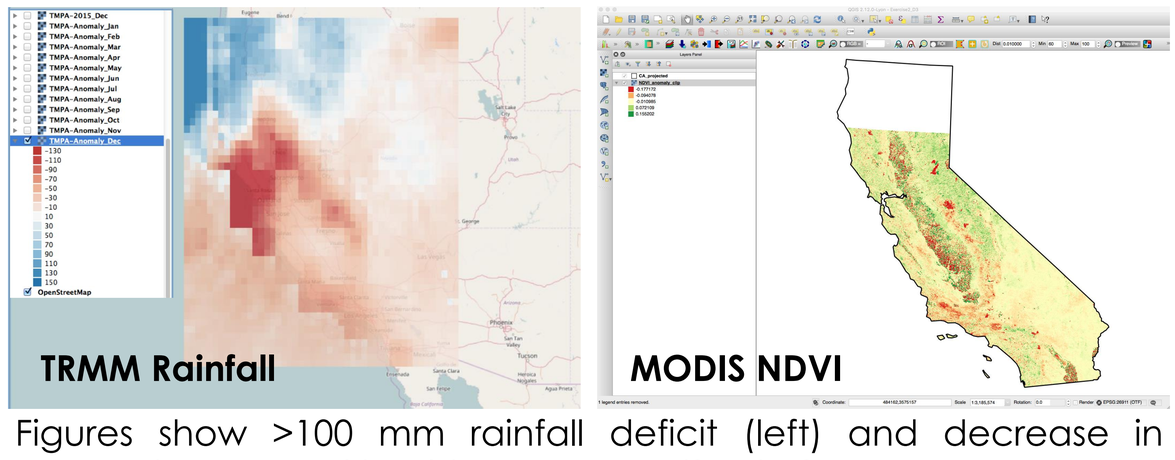
Basic (Level 1)
Requires level 0 training or equivalent knowledge
Covers specific applications
Introduction to Synthetic Aperture Radar

Fundamentals (Level 0)
Assumes no prior knowledge of remote sensing
Fundamentals of Remote Sensing

Example Training

Advanced Webinar: Remote Sensing of Drought
A four hour training that provides an overview of drought classification and an introduction to web-based tools for drought monitoring and visualization. Attendees learn to acquire remotely-sensed imagery and products for drought, and how to analyze drought data and calculate anomalies.

Anomalies Over California

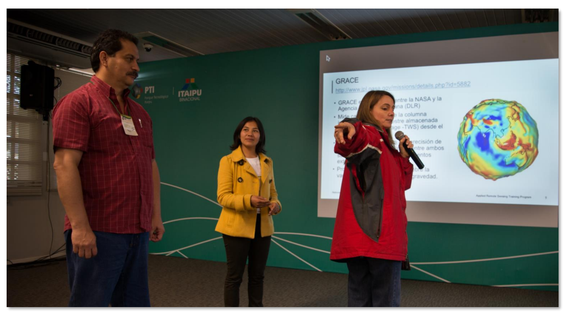


Figures show >100 mm rainfall deficit (left) and decrease in vegetation health (right) in central California for December 2015

Since 2008, ARSET Has Reached…

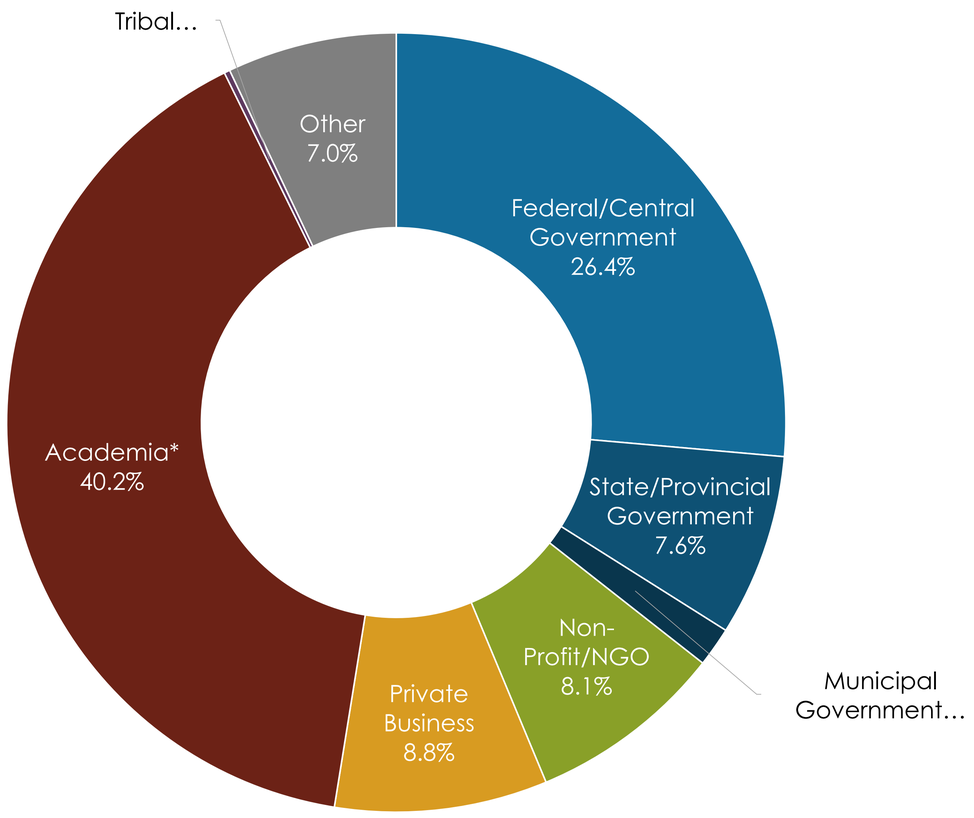
13,000+ participants from **4,000+ organizations** and **160+ countries**

> Because of ARSET "I can access data from an affected area during a disaster and offer my services and expertise for the affected regions" – Geospatial Consultant



(Left) ARSET trainer Pawan Gupta giving a presentation on remote sensing for air quality. Photo Credit: @America. (Above) ARSET Trainer Erika Podest explains how NASA's GRACE satellite worked at a 2016 training in Brazil. Photo Credit: Koen Verbist

ARSET Participants by Sector



*ARSET's primary focus is providing training for applied users. Academia is a large fraction of ARSET participants because attendance to online trainings are not restricted

Working with Stakeholders

Offer examples and benefits of remote sensing to stakeholders, intended for the non-expert

Assess stakeholder's technical capacity to sustain use of NASA data or resource use

Seek boundary organizations that understand the community needs and can connect you with other stakeholders

Develop **locally relevant** exercises and case studies

User Needs Assessment

Collaborate with stakeholders who understand the needs of the community

Ask the right questions to understand potential barriers and needs

> What specific question or challenge is your organization trying to address? What is preventing you and your organization from fully incorporating remote sensing resources?

Assess if the work of a prospective participant can benefit from remote sensing

Program Assessment

Training **registration forms**

Informal feedback obtained during training and Q&A sessions

Survey 1: given immediately after training

Survey 2: given 6 months – 1 year after training to measure impact and changes in NASA data use

Ad hoc interviews to collect "success stories"