

AI FOR EARTH

Azure Award Grantees



ABOUT

The Microsoft AI for Earth program makes advanced Microsoft Azure cloud computing resources and powerful AI tools, as well as AI expertise and training, to individuals and organizations working on environmental and conservation programs aimed towards transforming the way we are currently managing complex environmental challenges.

These awards are intended to drive exploration and discovery by providing innovative data science, spatial analysis, and visualization tools to organizations that are focused on finding solutions to climate change, loss of biodiversity, agricultural cost and yield, and increased water scarcity. Learn more about environmental sustainability at Microsoft.

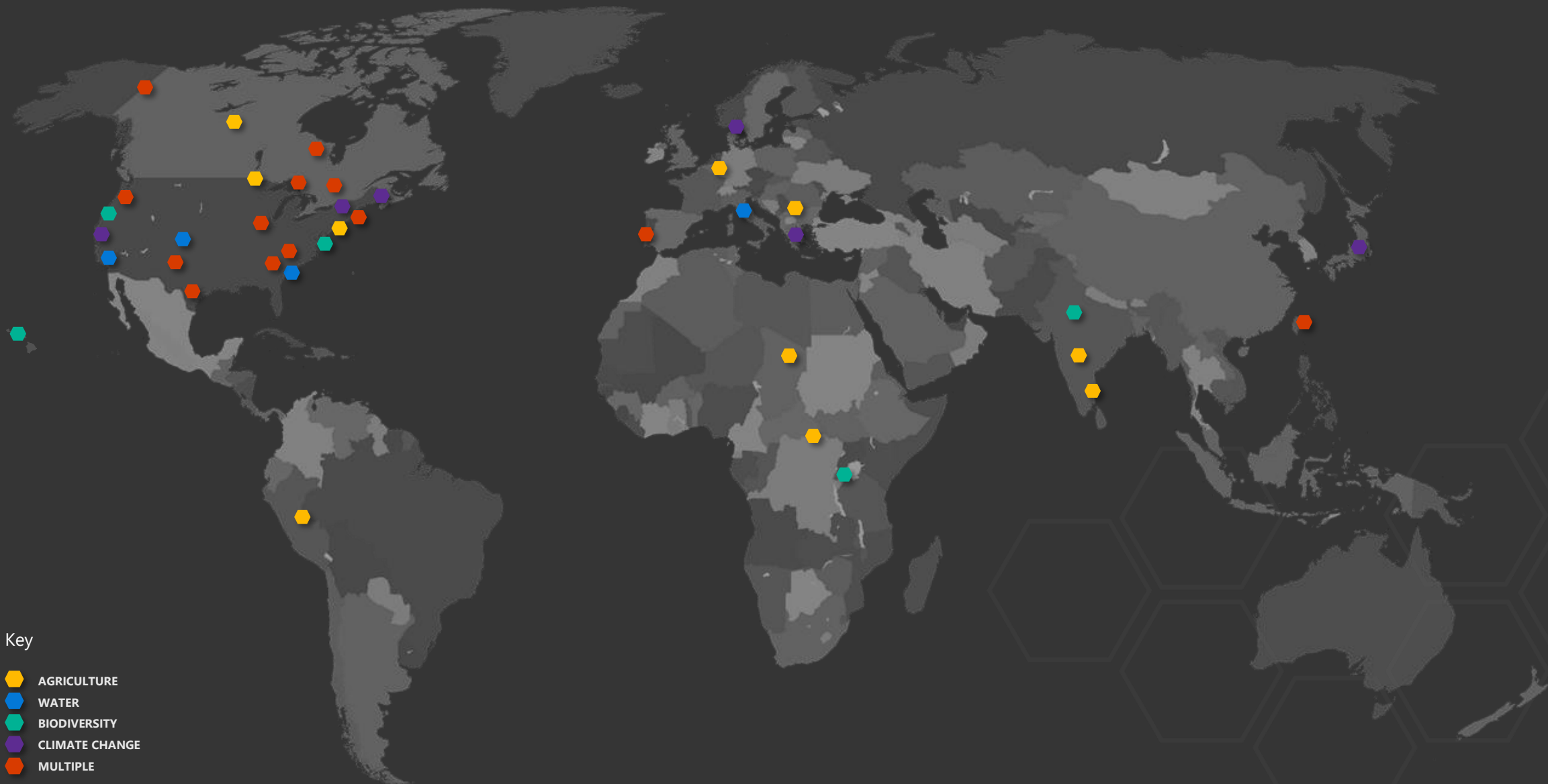
TO DATE AI FOR EARTH HAS:

Awarded more than 35 grants to individuals and organizations in more than 10 countries.



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Azure Award Grantees



Key

- AGRICULTURE
- WATER
- BIODIVERSITY
- CLIMATE CHANGE
- MULTIPLE

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Jane Goodall Institute (Africa)
Using the power of Azure cloud to identify chimpanzee habitat connectivity and conservation priorities in Africa
Biodiversity

International Center for Tropical Agriculture (Africa)
Enhancing food and nutrition resilience in Africa through a Nutrition Early Warning System (NEWS)
Agriculture

Southern California Coastal Water Research Project (USA)
Using imagery from unmanned aerial systems (drones) to identify trash in waterways to inform cleanup efforts and determine trash policy effectiveness
Water

Lakehead University (Canada)
Development of a forest resource inventory by utilizing deep learning for automated tree species identification, stand delineation and land classification
Biodiversity, Climate

University of Saskatchewan (Canada)
Image and Video Analysis for Rapid Crop Phenotyping; Predicting Crop Phenotypes from Genotypes with Deep Learning
Agriculture

Carnegie Mellon University (USA)
Improving Patrol Strategy to Combat Poaching using Deep Reinforcement Learning
Biodiversity

Ghent University (Belgium)
Applying ML and AI to ultimately turn agricultural data into automated animal health and welfare monitoring tools
Agriculture

Audubon Society (USA)
Using Cloud-based, High-throughput Image Classification Solutions to Conserve Biodiversity in Response to Extreme Weather Events and Rapid Landscape Change
Biodiversity, Climate

Brigham Young University (USA)
Improved streamflow forecasting service for flood and drought prediction at a local and global scale
Water, Agriculture, Climate, Biodiversity

University of Wisconsin-Madison (USA)
Development of an Automated Computer Vision System to Monitor Behavior of Dairy Calves
Agriculture

Michigan State University (USA)
Complexity as a holistic path to sustainability, not a roadblock
Agriculture, Climate, Biodiversity

Aalborg University (Denmark)
High-Resolution Spatialized Population Projections
Climate

Brown University (USA)
Assessing surface water sensitivity to permafrost extent using CubeSat imagery and machine learning
Climate, Agriculture

University of Missouri (USA)
Species Detection from camera trap images
Biodiversity

Duke University (USA)
Developing cloud-based workflows for mapping and censusing seabird breeding colonies at scale with Unmanned Aircraft Systems and machine learning
Biodiversity

International Crops Research Institute for the Semi-Arid Tropics (India)
Plant pest prediction models and farm advisory
Agriculture

Technical University of Munich (Germany); Indian Institute of Technology (India)"
Low-cost Handheld Plant Health Monitoring Device for Resource Limited Regions
Agriculture

Indraprastha Institute of Information Technology (India)
Intelligent Tool For Monitoring Monkey Population
Biodiversity

Politecnico di Milano (Italy)
Deep learning for snow monitoring and predictive water system operation
Water

Northeastern University (USA)
The Networked Digital Earth for Harnessing Complexity and Designing Policy
Climate

Global Environment and Technology Foundation (USA)
Machine Learning for Improved Water Services
Water

iNaturalist (USA)
Using Azure to store and analyze data from citizen scientists recording observations on the distribution of Earth's biodiversity
Biodiversity

University of Sts. Cyril and Methodius (Macedonia)
Cloud Based General Weed Detection Service
Agriculture

Yale University School of Forestry and Environmental Studies (USA)
Systematic ground truthing, land classification and crop health
Agriculture

University of Oviedo (Spain)
Development of tools for risk assessment in coastal areas with Geographic Information Systems
Water, Climate

University of Bucharest (Romania)
Integrated assessment of the variability of the Urban Heat Island of Bucharest (Romania) using coupled WRF, LSM and satellite imagery
Climate

Taiwan AI (Taiwan)
Beyond Beauty – Homeland From Above
Agriculture, Climate

University of Maryland at Baltimore County (USA)
Predicting Climate Change Research Using Dynamic Data Assimilation for Topic Modeling
Climate

Tohoku University (Japan); University of California, Irvine (USA)
Dynamic Disaster Management Cloud Service Platform Based on Satellite Remote Sensing and Artificial Intelligence
Climate

Georgia Institute of Technology (USA)
Deep Learning for Fine-scale Population Maps
Water, Biodiversity, Climate

University of Waterloo (Canada)
Using Azure Services for Integrated Environmental Monitoring, Modelling and Decision Making
Water, Biodiversity, Climate, Agriculture

WetDATA
WetDATA Hub: Democratizing Access to Water Data to Accelerate Innovation through Data Visualization, Predictive Analytics and Artificial Intelligence Applications
Water

The Trust for Public Land (USA)
The Trust for Public Land Microsoft Azure Data Science Machine Pilot Concept
Climate

University of Iowa (USA)
Knowledge Discovery, Integration and Communication for Extreme Weather and Flood Resilience Using Artificial Intelligence
Water, Climate

Cornell University (USA)
Artificial Intelligence Driven Yield and Crop Cover Forecasting Utilizing Real-Time Precision Agriculture Data
Agriculture

Long Live the Kings (USA)
Water, climate, and food web effects on the survival of Puget Sound salmon: bolstering marine ecosystem modeling with Azure cloud computing
Water, Climate, Agriculture

Chesapeake Conservancy (USA)
Giving organizations a faster, more effective, and lower cost land cover mapping tool to help them better analyze, monitor, and manage natural resources
Agriculture, Biodiversity, Climate, Water

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