

AI for Earth

Access | Education | Innovation

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AI for Earth is a Microsoft program aimed at empowering people and organizations to solve global environmental challenges by increasing access to AI tools and educational opportunities, while accelerating innovation.



Commitments

Increase access

We are providing seed grants so researchers and organizations can gain access to cloud and AI computing resources.

Provide education

We are providing educational resources to make sure organizations know what is available, how to use it, and how it can meet their specific needs.

Fuel innovation

We are accelerating the pace of innovation by showcasing lighthouse projects, publishing research, and collaborating with others to expand and grow initial projects.



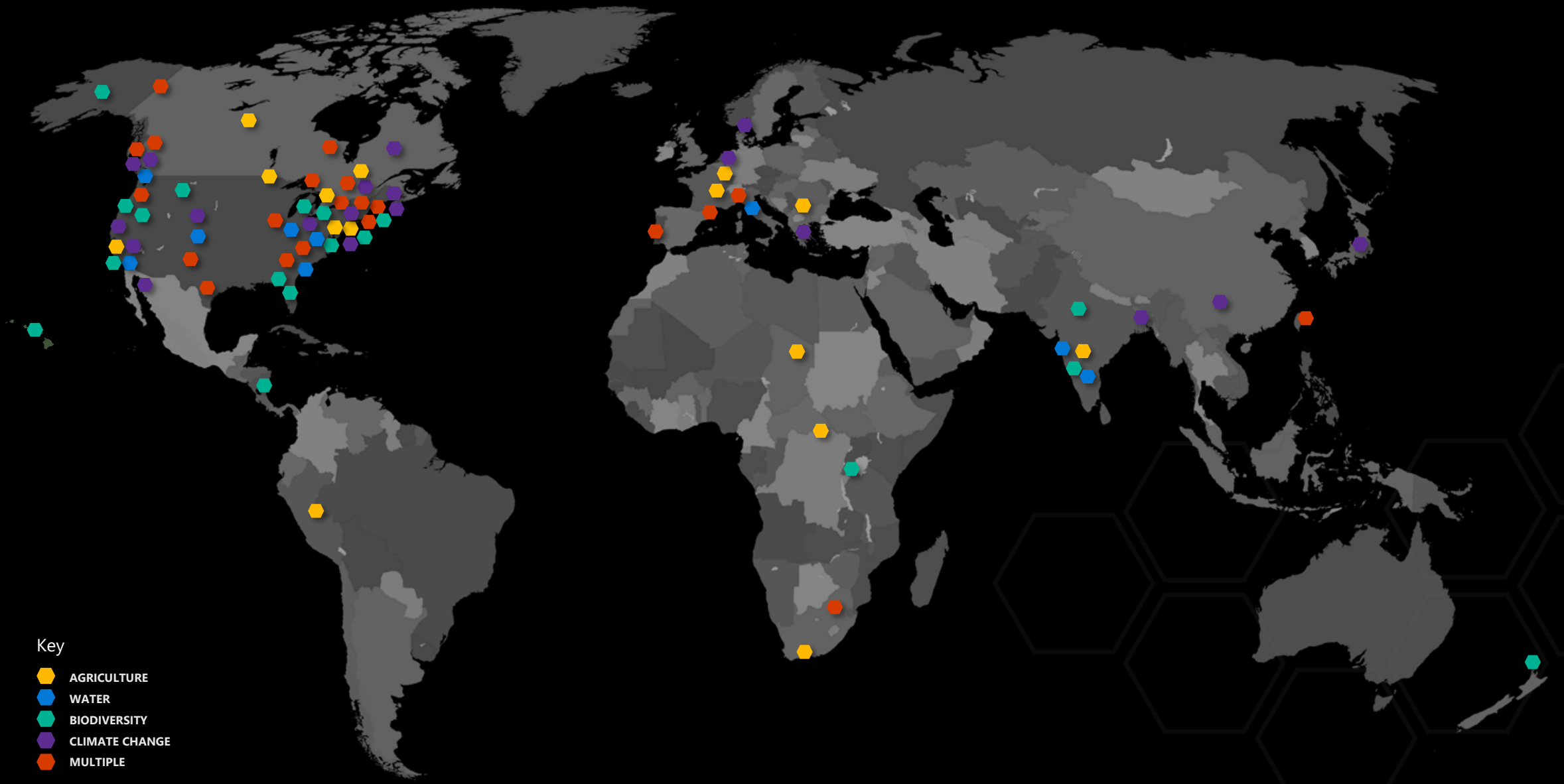
Areas of Focus

AI for Earth program activity is focused on four areas that are vital in building a sustainable future:

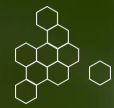


AI FOR EARTH

Azure Award Grantees



- Key
- AGRICULTURE
 - WATER
 - BIODIVERSITY
 - CLIMATE CHANGE
 - MULTIPLE



FarmBeats

Providing farmers with access to Microsoft Cloud and AI technologies, enabling data-driven decisions to help farmers improve agricultural yield, lower overall costs, and reduce the environmental impact of agricultural production.

Challenge

By 2050, the demand for food is expected to outpace production by over 70%. Farmers need to access better data to maximize efficiency and yield, however, gathering data from farms is difficult due to low technology adoption and access rates, especially in rural areas.

Solution

FarmBeats uses Microsoft's machine learning (ML) algorithm to integrate sensor data with aerial imagery and other relevant data (such as weather, crop predictions, best practices) to deliver actionable insights to farmers, all at a fraction of the cost of existing solutions. This is a digital transformation of agriculture, at both small and large scales, that's critical to meeting 21st century food-supply challenges.

Land Cover Mapping

Giving organizations a faster, more effective, and lower cost land cover mapping tool to help them better analyze, monitor, and manage natural resources.

Challenge

Creating high-quality land cover maps with today's high-resolution imagery is a resource-intensive process. It can take up to a year to become available to the public, and is time consuming to sort, manage, and classify images into land cover data.

Solution

Microsoft's goal is to help make the land cover mapping process faster, easier, and more accessible to everyone. We want to enable on-the-fly land cover mapping, and allow conservation groups to create high-resolution land cover maps with their own data; develop accurate, actionable insights more quickly; and easily transfer maps and insights to other organizations.





Water

- Assessing water infrastructure in mega cities
- Assessing dam and levee failure
- Identifying landslides
- Forecasting streamflows and predicting floods
- Leveraging water data to inform decision making and spur innovation



Water

In the next two decades, demand for fresh water is predicted to dramatically outpace supply. AI can help people model Earth's water supply to help us conserve and protect fresh water.