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GLOBE Data Entry App Version 1.3 Now Available

Create and Edit Sites Without Active Internet Connection

The Global Learning and Observations to Benefit the Environment (GLOBE) program is a worldwide hands-on primary and secondary school-based science and education program. GLOBE's vision promotes and supports collaboration among students, teachers, and scientists on inquiry-based investigations of the environment and the Earth system, working in close partnership with NASA, the National Oceanic and Atmospheric Administration (NOAA), and the National Science Foundation (NSF) Earth System Science Projects for study and research about the dynamics of Earth's environment.

GLOBE provides students and the public worldwide with the opportunity to participate in data collection and the scientific process and contribute meaningfully to our understanding of the Earth system and global environment. Announced by the U.S. government on Earth Day in 1994, GLOBE launched its worldwide implementation in 1995. Since that time, the international GLOBE network has grown to include representatives from more than 110 participating countries and more than 100 U.S. partners coordinating GLOBE activities integrated into their local and regional communities.

GLOBE's vision of itself is "a worldwide community of students, teachers, scientists, and citizens working together to better understand, sustain, and improve Earth's environment at local, regional, and global scales." Its mission is "to promote the teaching and learning of science, enhance environmental literacy and stewardship, and promote scientific discovery."

Jessica Taylor at the NASA Langley Research Center, Hampton, Virginia, says that the "GLOBE program needs worldwide participation. GLOBE observations are basically crowd sourcing about your local environment. The more observations reported to GLOBE, whether online or through the app, the more useful the data become." GLOBE's data entry app version 1.3 is now available, and it's all about making data entry easy. This latest version of the data entry app allows you to create and edit your sites, even without an active Internet connection. This version includes atmosphere, hydrology, and land cover sites, and it adds the ability to take site photos.

GLOBE's data entry app allows users to enter GLOBE protocol data directly from an iPhone operating system or Android device for most of GLOBE's protocols. The

app streamlines some aspects of data entry and allows use of the phone's or tablet's camera to document sites and measurements. This app is intended only for users who have an existing GLOBE account. Download the data entry app at http://apk-dl.com/globe-data-entry.

GLOBE is jointly sponsored by NASA and the NSF, with support from NOAA and the U.S. State Department. Internationally, GLOBE is implemented through government-to-governGLOBE'S VISION
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ment agreements, with each country partner responsible for in-country activities. As the lead agency for GLOBE in the United States, NASA has primary responsibility for administering the government-to-government agreements and management of the GLOBE Implementation Office and the data and information systems that support the worldwide implementation.

Figures 1–8 show preservice and in-service teachers during GLOBE training events and university-level education faculty and high school students as they learn to collect, process, and enter GLOBE program data. For a school to participate fully in the GLOBE program, at least one teacher must be trained in GLOBE

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FIGURE 1. A teacher making a GLOBE program observation.



FIGURE 3. Teachers at a GLOBE program training event.



FIGURE 2. Teachers and students during a GLOBE exercise.



FIGURE 4. A student collecting GLOBE program data.



FIGURE 5. A group of teachers following a GLOBE training event.



FIGURE 6. Two teachers during a GLOBE training event.

science measurement protocols and education activities by attending a GLOBE teacher workshop. To find a workshop in your area, check the site https://www.globe.gov/get-trained/workshops.

Teachers all over the world are invited to participate in GLOBE. If teachers are unable to attend face-to-face training, the NASA Langley Research Center wants teachers to know they can now become trained through online GLOBE eTraining (https://www.globe.gov/get-trained/protocol-etraining).

The IEEE Geoscience and Remote Sensing Society Education Committee plans to provide GLOBE training events for preservice and in-service teachers during the 2018 International Geoscience and Remote Sensing Symposium (IGARSS), to be held 23–27 July in Valencia, Spain. In addition, exciting plans are under way to have hands-on remote-sensing events for high school students, undergraduates, and teachers at all future IGARSS conferences.

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FIGURE 7. Students collecting GLOBE program data at an outdoor site.



FIGURE 8. Students in a classroom collecting GLOBE program data.

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