



# The GLOBE Program in Latin America and the Caribbean



- An international hands-on, school-based education and
- environmental science program uniting students,
- teachers, and scientists in study and research
- about the dynamics of Earth's environment.
- Over 40,000 teachers in more than 20,000
- schools in over 100 countries have been
- trained to implement GLOBE.







## GLOBE Program Summary

GLOBE (Global Learning and Observations to Benefit the Environment) is a worldwide hands-on, primary and secondary school-based science and education program. Announced in 1994, GLOBE began operations on Earth Day 1995. Today, the international GLOBE network has grown to include representatives from 110 participating countries and over 100 U.S. Partners coordinating GLOBE activities that are integrated into their local and regional communities. Due to their efforts, there are more than 40,000 GLOBE-trained teachers representing over 20,000 schools around the world. GLOBE students have contributed more than 18 million measurements to the GLOBE database for use in their inquiry-based science projects. The goals of the GLOBE Program are to:

- Improve student achievement across the curriculum with a focus on student research in environmental and Earth system science;
- Enhance awareness and support activities of individuals throughout the world to benefit the environment;
- Contribute to scientific understanding of Earth as a system; and
- Inspire the next generation of global scientists.

Scientists and educators have developed environmental science educational materials as a resource for GLOBE teachers, including 54 scientific protocols, 60 Learning Activities, and many additional supplemental resources and activities.

GLOBE students measure and report physical, chemical and biological properties of Atmosphere and Climate, Hydrology, Soil, Land Cover/Biology and Phenology. The resulting global data sets are made freely available via the Internet at <www.globe.gov> to users including the worldwide environmental science community. GLOBE students also access these data for classroom studies, research, student-scientist partnerships, and worldwide school-to-school collaborations.

The current step in the evolution of the GLOBE Program, referred to as the “Next Generation GLOBE” (NGG), is aimed at increasing the number of student inquiry-based research projects focused on international large-scale science initiatives.

The National Aeronautics and Space Administration (NASA) and the National Science Foundation (NSF) have identified 4 new Earth System Science Projects (ESSPs) to add to the suite of educational activities and resources GLOBE has offered to students and teachers since 1995:

- Watershed Dynamics
- From Local to Extreme Environments (FLEXE)
- Seasons and Biomes
- Carbon Cycle

The GLOBE Program provides opportunities for students, teachers, scientists, and community members to work together through the GLOBE Schools Network, the international GLOBE Alumni organization, and the GLOBE Parent Council in support of student learning and research.

GLOBE supports education by providing hands-on experience in authentic science. GLOBE students are doing science, not just learning about the work of others. Students begin with measurements of individual environmental parameters and build how to better understand, sustain and improve Earth’s environment at local, regional, and global scales.



NGG highlights GLOBE’s essential elements of being both education and Earth system science, a bridge between these two international communities, a worldwide collaborative community of practice, and a program that employs inquiry based educational activities that involve students in “authentic” hands-on science, the analysis of data and the use of scientifically-tested protocols.



## Educational

GLOBE provides a variety of K–12 educational materials, from hands-on inquiry activities for classroom use to online interactive learning experiences and investigations using student-collected data.



## GLOBE Teacher's Guide

The GLOBE Teacher's Guide provides the scientific and educational foundation for the first generation of GLOBE investigations: Atmosphere, Hydrology, Land Cover, Phenology, and Soil. It includes information necessary for accurate data collection such as measurement procedures, student lab and field guides, instrument specifications, and scientific background information. The Teacher's Guide also includes a variety of Learning Activities that complement data collection and extend student understanding of the Earth as a system through a hands-on and inquiry-based approach.

## Elementary GLOBE

GLOBE has developed a suite of storybooks and learning activities specifically designed for grades K–4 that form the Elementary GLOBE Unit. This unit engages the youngest GLOBE students in an age-appropriate fashion. These standards-based and classroom-tested resources include five modules that each address parts of the Earth system while also building literacy skills.





## Online Teaching Modules

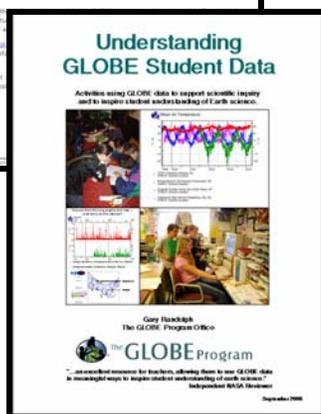
The GLOBE Program has developed interactive online resources to promote understanding of GLOBE Program content and scientific protocols. Resources combine graphics and interactivity to promote understanding through a hands-on approach that has been established as a successful model for online learning. The Cloud Protocols module (shown here) promotes scientific understanding of cloud formation, content on identification of cloud types, and interactive features to help online learners accurately collect data related to the GLOBE protocols.



## Data Use Activities

Educational materials have been designed to encourage student analysis and interpretation of data. The data use activities foster student investigation of environmental data using the GLOBE Web site and its online graphing tools.

GLOBE educational technologists are exploring additional learning models to encourage student interpretation of data in an online and inquiry-based format.





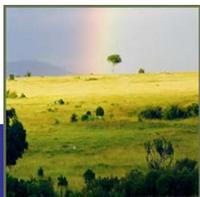
## GLOBE Learning Expeditions

GLOBE Learning Expeditions (GLEs) are organized every several years in order to provide students around the world the opportunity to meet one another, establish friendships and develop collaborative partnerships that will enhance their future GLOBE experience. These conferences also provide teachers an opportunity to share ideas and challenges from their GLOBE experiences, to attend protocol and activity enrichment sessions, and to develop research partnerships between schools. GLEs have occurred in 1998 (Helsinki, Finland), 2000 (Arkansas, U.S.A.), and Šibenik, Croatia (2003). The next GLE is scheduled for 2008 in South Africa. For further information visit <[www.globe.gov/qle2008](http://www.globe.gov/qle2008)>.



## GLOBE Annual Conferences

GLOBE Annual Conferences bring together GLOBE Country Coordinators, U.S. Partnership Coordinators, Science and Education Principal Investigators, and Partnering Organizations from around the world to address key science and education issues. These events offer a unique opportunity for participants to learn about the latest scientific research, interact with the GLOBE community, and develop collaborative student research partnerships with scientists and schools from around the world. The next Annual Conference is scheduled for 2008 in South Africa, in conjunction with the GLOBE Learning Expedition. For information visit <[www.globe.gov/qle2008](http://www.globe.gov/qle2008)>.





## GLOBE Country Coordinators in Latin America and the Caribbean (18 Countries)



**Argentina**  
103 Schools

Professor María del Carmen Galloni  
Instituto de Estudios E Investigaciones Ambientales  
Universidad de Ciencias Empresariales Y Sociales  
Paraguay 1345 Piso 3 Dpto D  
1057 Buenos Aires  
ARGENTINA  
Telephone: 541 14 815 3287, ext. 149  
Fax: 541 14 814 5255  
Email: mgalloni@uces.edu.ar



**Bahamas**  
4 Schools

Mr. Godfrey Burnside  
Meteorological Officer  
P.O. Box N-8330  
Nassau  
BAHAMAS  
Telephone: 242 356 3734/6  
Fax: 242 356 3739  
Email: glb.met@batelnet.bs



**Bolivia**  
14 Schools

Marilyn Aparicio Effen  
Consultor Cambios Climaticos y Salud  
Calle Mercado No.1328 Primer Mezzanine Of. 101  
La Paz  
BOLIVIA  
Telephone: 591 2 220 0206  
Fax: 591 2 220 4037  
Email: maparicio@mds.gov.bo,  
marilyneffen@yahoo.com.ar



**Chile**  
42 Schools

Nicole Orellana  
Ministry of Education  
Teatinos 20, 7 Piso, Oficina 77  
Santiago  
CHILE  
Telephone: 562 390 4177  
Fax: 562 380 0367  
Email: nicole.orellana@mineduc.cl



**Colombia**  
25 Schools

Maritza Torres Carrasco  
Ministerio de Educacion Nacional, CAN  
Coordinadora Nacional de Educacion Ambiental  
Bogota, D.C.  
COLOMBIA  
Telephone: 571 222 2800, Ext. 2332  
Fax: 571 222 2800, Ext. 2332  
Email: mtorres@mineducacion.gov.co



**Costa Rica**  
36 Schools

Ximena Miranda  
Centro de Innovación Educativa  
Fundación Omar Dengo  
Apdo. Postal 1032-2050  
San Pedro  
COSTA RICA  
Telephone: 506 2585060, Ext. 114  
Fax: 506 2585061  
Email: ximena.miranda@fod.ac.cr



**Dominican Republic**  
5 Schools

Lic. María Lorraine de Ruiz-Alma  
Manuel de Jesus Troncoso Street #52, Paraiso  
Santo Domingo  
DOMINICAN REPUBLIC  
Telephone: 809 549 3372, 809 565 2511  
Fax: 809 227 7772  
Email: notredamesch@codetel.net.do



**Ecuador**  
42 Schools

Dr. Marco Encalada  
Corporacion Oikos  
Luxemburgo 172 y Holanda  
Quito  
ECUADOR  
Telephone: 593 2 461 595  
Fax: 593 246 1212  
Email: info@oikos.org.ec



**El Salvador**  
6 Schools

Julio Adolfo Castellanos  
Direccion de Desarrollo Educativo  
Desarrollo Profesional Docente  
Ministerio de Educacion  
Complejo Plan Maestro, Edificio A-4, tercer nivel  
Centro de Gobierno  
San Salvador  
EL SALVADOR, C.A.  
Telephone: 503 2 510 4332  
Fax: 503 2 510 3336  
Email: julioc@mined.gob.sv,  
juliocastell@gmail.com



**Guatemala**  
1 School

Rony David Salazar Barrios  
Escuela Nacional Central de Agricultura  
Finca Barcena, Villa Nueva  
GUATEMALA, C.A.  
Telephone: 502 66 29 21 25  
Fax: 502 629 3319  
Email: rsalazar@enca.edu.gt



**Honduras**  
1 School

Ms. Dina Elizabeth Morel Carbajal  
Ministry of Natural Resources and Environment  
100 mts. al Sur del Estadio Nacional  
Tegucigalpa  
HONDURAS, Central America  
Telephone: 505 238 46 85, 927 43 67  
Fax: 505 232 6250  
Email: dinaemorel@yahoo.com



**México**  
102 Schools

Guadalupe Pardo  
Subdirectora de Educacion Basica  
CECADESU/SEMARNAT  
Av. Progreso # 3 - 1o Piso  
Col. Del Carmen Coyoacan  
04100 MEXICO, D.F.  
Telephone: 52 55 5484 3577  
Fax: 52 55 5554 6268  
Email: rpardo@semarnat.gob.mx





**Panama**  
30 Schools

Ingeniera Adilia de Pérez  
Directora Nacional de Educacion  
Ambiental  
Ministerio de Educacion  
Apartado Postal 10707  
Zona 4  
PANAMA  
Telephone: 507-315-7390  
Fax: 507-315-7359  
Email: meduc\_dnea@yahoo.com



**Paraguay**  
13 Schools

Angel Dario Brizuela  
Prof. de Ciencias Naturales y Quimica  
Colegio Nacional Pablo L. Avila de Asuncion  
Pacuri c/Ybyia  
Asuncion, Barrio San Pablo  
PARAGUAY  
Telephone: 595 21 500 459  
Fax: 595 21 500 459  
Email: angel\_brizuela1965@hotmail.com



**Peru**  
50 Schools

David Solano, MBA  
Consejo Nacional del Ambiente  
Avenida Guardia Civil 205  
San Borja, Lima  
PERU  
Telephone: 511 225 5370  
Fax: 511 225 5369  
Email: dsolano@conam.gob.pe



**Suriname**  
3 Schools

Mr. Gregoir Benjamin Berenos  
Ministry of Education  
107 Paramaribo  
SURINAME  
Telephone: 597 435603  
Fax: 597 422744  
Email: grecoberenos@yahoo.com



**Trinidad  
& Tobago**  
30 Schools

Mr. Henry Saunders, BSc, MSc, Dip Ed  
GLOBE Curriculum Coordinator  
Ephraim Joseph St.  
ARIMA, TRINIDAD  
WEST INDIES  
Telephone: 868 636 1069, 868 667 1296, 868  
741 9456  
Fax: 868-636-9296  
Email: henrysau@gmail.com



**Uruguay**  
25 Schools

Cecilia Ramos-Mañé  
Environment, Science, Tech, & Health Specialist  
American Embassy  
Lauro Muller 1776  
Montevideo  
URUGUAY  
Telephone: 598 2 418 7777, Ext. 2405  
Fax: 598 2 418 8581  
Email: RamosLC@state.gov



### Latin America and the Caribbean

Teachers: 826 Schools: 551  
Data Reported: 465,355

### U.S. Territories collaborating with the Latin America and Caribbean Consortium:



**Puerto Rico**  
335 Schools

Dr. Juan Lopez Garriga  
Chemistry Department  
University of Puerto Rico, Mayaguez Campus  
Science On Wheels Outreach Program  
P.O. Box 9019  
Mayaguez 00681  
PUERTO RICO  
Telephone: 787 265 5453  
Fax: 787 265 5476  
Email: jlopez@sonw.uprm.edu





English Español Français Русский اللغة العربية Deutsch Nederlands

**The GLOBE Program** [Log in](#)

Home Projects For Students For Teachers For Scientists For Partners

**GLOBE PARTNER Newsletter**

**Latin America / Caribbean Newsletters**

- CLAG Caribbean & Latin America GLOBE Herald (17 Oct 2006)
- GLOBE Newsletter 2006, Vol. 2 (16 Oct 2006)
- GLOBE Regional News in Latin America and the Caribbean 2006
- Latin America / Caribbean Regional Newsletter (09 Sep 2005)
- Caribbean and Latin America GLOBE Herald (30 Aug 2005)
- Latin America / Caribbean Regional Newsletter (31 Mar 2005)
- Caribbean and Latin America GLOBE Herald (04 Dec 2004)
- Heraldo GLOBE del Caribe y de América Latina (04 Dec 2004)

SEARCH Go Site Map FAQs Policies Sponsors and Cooperating Organizations

**The GLOBE Program Newsletter** 2006, Vol. 2

Announcements Regional News Science Education

**Greetings!**

**GLOBE International Advisory Committee (GIAC)**

**Annual Partner Survey**

**2006 GLOBE Conference in Thailand**

**2007 GLOBE Conference in the USA**

**2008 GLOBE Learning Expedition (GLE) in Africa**

Home Print: [English](#) [Español](#) [News Feed](#)

## GLOBE Online Newsletters

### CLAG HERALD

Caribbean and Latin America GLOBE News August 30, 2005 Volume 1

**INTERNATIONAL WORKSHOP IN COSTA RICA**

All the basic protocols of the GLOBE Program were trained in Costa Rica with the help of the Omar Denzou Foundation and an enthusiastic group of coordinators. The spirit was high from the beginning; many participants had to travel 16 hours by bus to attend the workshop. The beautiful environment of Costa Rica and the professional presentations inspired the teachers to bring all this knowledge to their schools and cooperate in our goal of protecting the planet and study its diversities with scientific methods, and the same metrics giving to our generation, and ones that follow better understanding environmental awareness of home planet Earth. The workshop participants Costa Rica, Dominican Republic, Panama, the United States America, Uruguay.

### HERALDO GLOBE DEL CARIBE Y DE AMÉRICA LATINA

4 DE DICIEMBRE, 2004 Volumen 1, Número 1

**EL TALLER DE GLOBE EN SANTO DOMINGO**

GLOBE en Santo Domingo está muy contento de anunciar que 20 maestros nuevos fueron certificados en el Taller de Septiembre en la escuela NOTICE DAME. Los protocolos que fueron elaborados son: La Atmósfera, El Clima, La Ciberfotografía y GPS (Sistema Global de Posición). Una escuela privada (Colegio Veritas), dos escuelas públicas, cuatro técnicos de currículo del Ministerio de Educación y maestros de Notre Dame School aprendieron los protocolos y las medidas de GLOBE. El propósito de estos talleres es el de educar una comunidad del medio ambiente que desarrollen un plan de acción para rescatar los recursos naturales de la República Dominicana, comprendiendo que todos somos parte del planeta y parte del Sistema de la Tierra. Durante el taller los maestros dieron clases excelentes para proyectos de investigación, el primero de todos: el análisis del recurso de agua de nuestra ciudad, el río COAMA y sus alrededores.

Muchas gracias a Laurita Brandt para sus traducciones.

**NACE UNA ESTRELLA LATINA: CLAG**

Caribbean and Latin America GLOBE Group (El Grupo GLOBE del Caribe y Latinoamérica), en donde los participantes crearon un grupo de cooperación y planearon la creación de un equipo de noticias para monitorear el nivel de la comunidad en noticias regionales o internacionales. El Sr. Italo Basile, asesor técnico regional, usará a los participantes que integran el nivel de grupo senior.





## Regional Events in Latin America and the Caribbean

### GLOBE Latin America and Caribbean Regional Consortium:

- The GLOBE Latin America and the Caribbean (LAC) region created a constitution on 6 July 2006 which established the Latin American and Caribbean Consortium Committee (CLAC).

### Recent Regional Events/Collaboration:

- **5th Reunion of LAC Country Coordinators in San Antonio, Texas USA (07/2007):**  
The Fifth Meeting of the GLOBE CLAC took place in San Antonio, Texas on 28-28 July 2007 preceding the 11<sup>th</sup> Annual Conference. Country Coordinators and Representatives from 15 LAC countries presented updates and reports. The main objective of this meeting was to elaborate the Regional Plan of the GLOBE Program to the CLAC, as well as to identify at least one objective for each of the CLAC committees.
- **4th Reunion of LAC Country Coordinators, Panama (02/2007):**  
Country Coordinators and Representatives from 15 LAC countries met in order to further define the goals of the Consortium, particularly those addressing the challenges of ensuring the sustainability of the GLOBE Program in this region. The main objectives of this meeting were to further define the operational structure of the CLAC of the GLOBE Program and to gather input on implementing an Action Plan that would strengthen the program in the region.
- **3rd Reunion of LAC Country Coordinators, Argentina (07/2006):**  
Country Coordinators from 11 countries met on four different days during the week-long Master Training event. An impressive component of the workshop was the participation of 28 trainers from the region's Master Trainer Program. In addition, the workshop provided a natural venue to provide information to regional representatives about the upcoming activities related to the International Polar Year (IPY) and its connection with The GLOBE Program.

### Training Events of Regional Significance:

- Major regional training workshops have taken place in Argentina, Chile, Costa Rica, Mexico, Panama, Peru and Uruguay.
- Several trainers in Master Trainer program to build capacity and support GLOBE training workshops in Latin America and the Caribbean.

### GLOBE Master Trainer Program:

The GLOBE Latin America and Caribbean Region have 16 Master Trainers and 14 Assistant Master Trainers. To access the list of Trainers, please visit the following URL:

<<http://globe.gov/fsl/workshop/MasterList.pl>>





# Highlights of GLOBE Stars and News and Events in Latin America and the Caribbean



2006 January 31 14:30 UT  
How To Join GLOBE

EDUCATION & SCIENCE  
Teacher's Guide  
Protocols  
Student Investigations  
School Collaboration  
Scientists' Corner  
Educators' Corner

GLOBE DATA  
Data Entry  
Maps and Graphs  
Data Access

GLOBE PARTNERS  
Partners' Corner  
Countries  
Schools  
U.S. Partners

LIBRARY  
Resource Room  
GLOBE Stars  
News and Events

INFO & HELP  
Learn About GLOBE  
Contact GLOBE  
FAQs

SITE SEARCH  
 Go



2006 February 27 18:30 UT  
How To Join GLOBE



Costa Rica hosts Region's First GLOBE Coordinators Meeting for Latin America and the Caribbean!



2006 February 24 19:25 UT  
How To Join GLOBE

### "A little help from my friends" GLOBE shines in Uruguay, Paraguay and Argentina

October 25, 2004

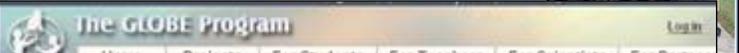
"A little help from my friends" by the Beatles describes how important our friends are. GLOBE's philosophy of exploring new frontiers hand-in-hand with a group of partners...

Costa Rica, Dominican Republic, and other countries in the region participated in 2004 workshops in Argentina, Uruguay and Paraguay, as well as GLOBE itself. The dynamic results of teamwork and unique contributions by an impressive group of partners, so we thought we would use these examples to show just how GLOBE excels from its friends!

Argentina: Teachers from regions as distant as Patagonia and Antarctica were among the 50 participants trained at the August 2004 GLOBE Teacher Workshop in Buenos Aires. The General San Martín Military High School and the Japanese Garden in Buenos Aires contributed their grounds and facilities for the workshop, and further support was provided by the Argentine-Japanese Cultural Foundation, and the Green Spaces Foundation. Funding was also provided by the Argentine Secretary of Technology and Innovation, the General San Martín Military High School, the Japanese Embassy in Buenos Aires, and the host institution of GLOBE in Argentina, the...

### GLOBE Grows in Two of the World's Southern-most Countries

April 08, 2003



Home Projects For Students For Teachers For Scientists For Partners

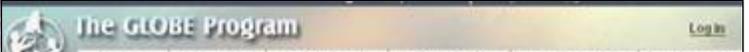


### GLOBE Students in Uruguay Apply GLOBE Data

13 December 2007

A group of 9 and 10 year old students from Republic of India Primary School in Uruguay, have established a local science club known as "Cazanubes" carrying out cloud research activities from their school site, applying GLOBE data to study cloud type and cover. The students are continuing the research started by analyzing and comparing data collected over the past two years.

On 11—12 September 2007, "Cazanubes" participated in the science fair of the Scientific Culture Popularization Program which was organized by the Directorate of Innovation, Science and Technology for Development, a division of the Ministry of Education and Culture of Uruguay. As a result of their participation, the GLOBE Uruguay students were granted merit awards in skills, clarity, and applicability. The work was done with support...



Home Projects For Students For Teachers For Scientists For Partners

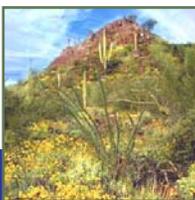


### GLOBE Across the Curriculum in Chile!

11 March 2008

In order to assist in Chile's implementation of the GLOBE Program, GLOBE Chile has aligned the GLOBE Program with national education standards to help teachers incorporate GLOBE into several areas of study. The current Chilean educational policy continuously considers environmental education and management as a cross-curricular objective for Chilean education (Decreto Supremo de Educación N° 220 de Chile).

In practice, incorporating environmental issues into different subject areas is difficult to achieve due to the difficulty of blending the contents of each curriculum with fundamental national educational objectives. This happens because there are few tools or suitable procedural manuals. In response to these needs, GLOBE provides the necessary resources to carry out the basic contents of each curriculum through a set of conceptual knowledge and practical skills activities that improve the understanding of students about their environment.



The GLOBE Program office wants to hear stories of projects and people who shine. These are our 'Stars', the bright lights that spark our imagination and inspire us with news of GLOBE at work in the world. Tell us about the stars in your universe. Send us your stories about students, teachers, schools, projects or awards that you would like to bring to the attention of the worldwide GLOBE community to <latinamerica-caribbean@globe.gov>



## For more information

### GLOBE Consortium for Latin America and the Caribbean (CLAC) Committee:

Coordinator for Political Strategies, Resource Identification and GLOBE International Advisory Committee Representative:

Profesora Maria del Carmen Galloni (Argentina) <mgalloni@uces.edu.ar>

Coordinator for Education:

Ms. Maritza Torres (Colombia) <mtorres@mineducacion.gov.co>

Coordinator for Training:

Ms. Guadalupe Pardo (Mexico) <rpardo@semarnat.gob.mx>

Coordinator for Institutionalization:

CONAM-Perú (Peru) <ccaro@conam.gob.pe>

Coordinator for Regional Projects:

Ms. María Lorraine de Ruiz-Alma (Dominican Republic) <notredamesch@verizon.net.do>

Coordinator for Communication:

Mr. Miguel Zimmerman (Panama) <ancon\_pa@cwpanama.net>



For more information on GLOBE Alumni activities in the Latin America and the Caribbean Region contact the regional representative <lac-alumni-regionalrep@globe.gov>.

For more information about GLOBE activities in the Latin America and Caribbean Region contact the GLOBE Program Office Regional Desk Officer at <latinamerica-caribbean@globe.gov>.



PHI DELTA KAPPA *International*

Featured in the Phi Delta Kappa International Studies Resource Guide – November 2004 • Volume 86 • Number 3  
www.pdkintl.org/kappan/k\_v86/k0411ka3.htm



GLOBE was the winner of the 2004 Goldman Sachs Foundation Prize for Excellence in International Education in the Media and Technology Category.

The Goldman Sachs Foundation and the Asia Society stated that GLOBE was selected “for the unique reach of its work around the world and its ability to bring international education to life through the process of scientific inquiry. GLOBE serves as inspiration and a model of excellence to schools and programs seeking to bring the world into our classrooms.”



GLOBE is an interagency program funded by the U.S. National Aeronautics and Space Administration (NASA) and the U.S. National Science Foundation (NSF), supported by the U.S. Department of State, and implemented through a cooperative agreement between NASA, the University Corporation for Atmospheric Research (UCAR) in Boulder, Colorado, and Colorado State University in Fort Collins, Colorado.

