

No. 50112*

**United States of America
and
Trinidad and Tobago**

Agreement between the National Oceanic and Atmospheric Administration of the United States of America and the Ministry of Education of the Republic of Trinidad and Tobago for cooperation in the GLOBE program (with appendices). Port of Spain, 16 July 1996

Entry into force: *16 July 1996 by signature, in accordance with article 7*

Authentic text: *English*

Registration with the Secretariat of the United Nations: *United States of America, 23 October 2012*

**No UNTS volume number has yet been determined for this record. The Text(s) reproduced below, if attached, are the authentic texts of the agreement /action attachment as submitted for registration and publication to the Secretariat. For ease of reference they were sequentially paginated. Translations, if attached, are not final and are provided for information only.*

**États-Unis d'Amérique
et
Trinité-et-Tobago**

Accord entre l'Administration nationale des océans et de l'atmosphère des États-Unis d'Amérique et le Ministère de l'éducation de la République de Trinité-et-Tobago relatif à la coopération dans le Programme GLOBE (avec appendices). Port of Spain, 16 juillet 1996

Entrée en vigueur : *16 juillet 1996 par signature, conformément à l'article 7*

Texte authentique : *anglais*

Enregistrement auprès du Secrétariat des Nations Unies : *États-Unis d'Amérique, 23 octobre 2012*

** Numéro de volume RTNU n'a pas encore été établie pour ce dossier. Les textes reproduits ci-dessous, s'ils sont disponibles, sont les textes authentiques de l'accord/pièce jointe d'action tel que soumises pour l'enregistrement et publication au Secrétariat. Pour référence, ils ont été présentés sous forme de la pagination consécutive. Les traductions, s'ils sont inclus, ne sont pas en form finale et sont fournies uniquement à titre d'information.*

[ENGLISH TEXT – TEXTE ANGLAIS]

**Agreement between
the National Oceanic and Atmospheric Administration
of the United States of America and
the Ministry of Education of the Republic of Trinidad and Tobago
for Cooperation in
the GLOBE Program**

PREAMBLE

The U.S. National Oceanic and Atmospheric Administration, acting on behalf of itself and other U.S. Government agencies participating in the GLOBE Program (hereinafter, the U.S. side), and the Ministry of Education of the Republic of Trinidad and Tobago (hereinafter, the Trinidad and Tobago side),

Intending to increase the awareness of students throughout the world about the global environment,

Seeking to contribute to increased scientific understanding of the Earth, and

Desiring to support improved student achievement in science and mathematics,

Have agreed to cooperate in the Global Learning and Observations to Benefit the Environment (GLOBE) Program as follows:

ARTICLE I - THE GLOBE PROGRAM

The GLOBE Program is an international environmental science and education program that brings students, teachers, and scientists together to study the global environment, GLOBE has created an international network of students in grades K-12 (or equivalent) studying environmental issues, making environmental measurements, and sharing useful environmental data with the international environmental science community.

ARTICLE 2 - RESPECTIVE RESPONSIBILITIES

A. The U.S. side will:

1. Identify U.S. schools that will participate in the GLOBE Program (details regarding GLOBE schools in Appendix A);
2. Select, in consultation with international scientists and educators, the GLOBE environmental measurements and types of measurement equipment (described in Appendix B);
3. Select Principal Investigator Teams for the GLOBE environmental measurements, and support the U.S. members of the Teams;
4. Calibrate, if necessary, measurement equipment that cannot be calibrated by GLOBE teachers and students;
5. Develop, in consultation with international scientists and educators, GLOBE educational materials;
6. Translate GLOBE instructional materials related to measurement procedures and data reporting protocols into the six United Nations languages, and provide these plus all broader GLOBE educational materials to the Trinidad and Tobago side for further reproduction as necessary;
7. Conduct annual regional training sessions for GLOBE Country Coordinators and GLOBE teachers who will serve as trainers for additional GLOBE teachers in Trinidad and Tobago, and provide a copy of GLOBE training materials to the Trinidad and Tobago side;
8. Design, develop, operate, and maintain GLOBE data processing capabilities and other necessary technology and equipment;
9. Provide GLOBE software, as necessary, for use on Trinidad and Tobago's GLOBE school computers. (To the maximum extent possible, textual material appearing on computer screens will be accessible in the student's choice among the six United Nations languages.);
10. Accept environmental data reported from GLOBE schools around the world, and develop and provide resultant global environmental images (visualization products) to the Trinidad and Tobago side; and
11. Evaluate the overall GLOBE Program periodically, in consultation with international GLOBE Country Coordinators, and modify the overall program as appropriate.

B. The Trinidad and Tobago side will:

1. Select Trinidad and Tobago's schools to participate in the GLOBE Program (details regarding GLOBE schools in Appendix A) and provide an updated list of Trinidad and Tobago's GLOBE schools to the U.S. side at the beginning of each school year;
2. Ensure that Trinidad and Tobago's GLOBE schools conduct the fundamental activities of GLOBE schools detailed in Appendix A (take GLOBE environmental measurements, report data, and receive and use resultant global environmental images, using GLOBE educational materials under the guidance of teachers trained to conduct the GLOBE Program);
3. Name a Trinidad and Tobago Government Point of Contact responsible for policy-level communications with the Director of the GLOBE Program;
4. Name a Country Coordinator responsible for day-to-day management, oversight, and facilitation of the GLOBE Program in Trinidad and Tobago;
5. Ensure that the Country Coordinator and some GLOBE teachers attend GLOBE regional training and in turn provide GLOBE training to at least one teacher in each Trinidad and Tobago GLOBE school;
6. Ensure that GLOBE instructional materials related to measurement procedures and data reporting protocols are utilized in Trinidad and Tobago's GLOBE schools, and that broader GLOBE educational materials are appropriately translated, adapted, reproduced, and distributed to all Trinidad and Tobago GLOBE schools;
7. Ensure that Trinidad and Tobago's GLOBE schools have the necessary measurement equipment to take GLOBE environmental measurements (described in Appendix B);
8. Ensure that teachers and students at Trinidad and Tobago's GLOBE schools calibrate GLOBE measurement equipment according to procedures provided in GLOBE instructional materials;
9. Ensure that Trinidad and Tobago's GLOBE schools have the necessary computer and communications systems (described in Appendix C) to report GLOBE environmental measurements and to receive and use GLOBE visualization products, or make agreed alternative arrangements for such reporting and receipt. (At a minimum, the Trinidad and

Tobago Country Coordinator will need access to Internet so that all measurement data from Trinidad and Tobago GLOBE schools will be reported via Internet.); and

10. Evaluate GLOBE operations in Trinidad and Tobago periodically and assist the U.S. side in conducting periodic evaluation of the overall GLOBE Program.

ARTICLE 3 - FINANCIAL ARRANGEMENTS

Each side will bear the costs of fulfilling its respective responsibilities under this agreement. Obligations of each side pursuant to this agreement are subject to its respective funding procedures and the availability of appropriated funds, personnel, and other resources.

The conduct of activities under this agreement will be consistent with the relevant laws and regulations of the two sides.

ARTICLE 4 - EXCHANGE OF DATA AND GOODS

GLOBE environmental measurement data, visualization products, software, and educational materials will be available worldwide without restriction as to their use or redistribution.

ARTICLE 5 - RELEASE OF INFORMATION ABOUT THE GLOBE PROGRAM

Each side may release information on the GLOBE Program as it may deem appropriate without prior consultation with the other.

ARTICLE 6 - CUSTOMS AND IMMIGRATION

Each side will, to the extent permitted by its laws and regulations, facilitate the movement of persons and goods necessary to implement this agreement into and out of its territory and accord entry to such goods into its territory free of customs duties and other similar charges.

ARTICLE 7 - ENTRY INTO FORCE, AMENDMENTS, WITHDRAWAL

This agreement will enter into force upon signature of the two sides and will remain in force for five years. It will be automatically extended for further five-year periods, unless either side decides to terminate it and so notifies the other side with three months written notice. This agreement may be terminated at any time by either side upon three months prior written notice to the other side. This agreement may be amended by written agreement of the two sides.

Done at Port of Spain, Republic of Trinidad and Tobago on the 16th day of July, 1996.

For the National Oceanic and
Atmospheric Administration:

Brian J. Donnelly

For the Ministry of Education of the
Republic of Trinidad and Tobago:

Dr. Adesh Nanan

APPENDIX A GLOBE Schools

Each partner country is responsible for identifying its participating schools. Schools should be selected so as to satisfy the objectives of the GLOBE Program. In particular, countries should emphasize the selection of schools that will maximize the number of students worldwide participating in the program. Also, countries should consider involving schools in locations that will yield measurement data that is important to the international environmental science community.

Students at all GLOBE schools throughout the world conduct the following fundamental activities: they make environmental measurements at or near their schools; report their data to a GLOBE data processing site; receive vivid graphical global environmental images (visualization products) created from their data and the data from other GLOBE schools around the world; and study the environment by relating their observations and the resulting visualization products to broader environmental topics. All of these activities are conducted under the guidance of specially trained teachers (GLOBE-trained teachers).

GLOBE educational materials are used in GLOBE schools under the guidance of GLOBE-trained teachers. These materials detail procedures for taking environmental measurements and protocols for reporting data; explain the significance of the measurements; guide the use of the visualization products; and integrate the measurement aspects of the program into a broader study of the environment.

APPENDIX B

GLOBE Environmental Measurements and Equipment

GLOBE environmental measurements contribute in a significant way to the scientific understanding of the dynamics of the global environment. Every GLOBE school conducts a core set of GLOBE environmental measurements in the following critical areas: Atmosphere/Climate, Hydrology/Water Chemistry, and Biology/Geology. Where possible, a GLOBE school may coordinate its activities with those of other neighboring GLOBE schools, so that the complete set of GLOBE measurements will be available from a locality. As the GLOBE Program evolves, elective measurements not common to all GLOBE schools may be added in order to address local environmental issues.

Students at all age levels are active participants in the GLOBE Program. The actual participation is designed so as to be age appropriate for primary, middle and secondary school levels. Younger students make limited measurements which may be qualitative rather than quantitative. Older students make additional measurements and more sophisticated measurements, as appropriate for their grade level. Measurement equipment does not need to be standardized; rather, performance specifications are provided.

Following is the list of initial core measurements and equipment. This list has been developed and will be periodically updated as provided in Article 2.A.2, based on experience gained in implementing the GLOBE Program.

MEASUREMENTS	EQUIPMENT NEEDED
Atmosphere/Climate:	Max/Min Thermometer
Air Temperature	Calibration Thermometer
	Instrument Shelter
Precipitation	Rain Gauge
Cloud Cover/Type	Cloud Charts
Hydrology/Water Chemistry:	pH Paper, Pen, or Meter
Water pH	Alcohol Thermometer
Water Temperature	Gypsum Block Sensors
Soil Moisture	Soil Moisture Meter

Ecology/Geology
Habitat Study

Tree Height
Tree Canopy
Tree Diameter
Species Identification

Compass
Meter Measuring Tape
Surveying Markers or Stakes
Clinometer
Densimeter
Diameter Tape
Dichotomous Keys

APPENDIX C

GLOBE Computer and Communications Systems

In order to derive maximum benefit from the GLOBE Program, all schools are encouraged to use the Internet, along with classroom computers. The World Wide Web multi-media information-access capability has been selected to support the required GLOBE school activities of data entry, data analysis, and use of GLOBE environmental images. Following is a description of current GLOBE computer and communications systems needs.

Overall attributes of the minimum GLOBE school computer configuration that can execute the necessary software are:

For IBM-compatible systems: a 386 SX or higher level processor; at least 4 megabytes of RAM memory (8 megabytes preferred); a VGA-capable monitor and display driver (Super VGA preferred); a hard disk storage system with as large a capacity as possible (preferably 300 megabytes or larger); and a direct Internet connection or dial-up capability that can use SLIP or PPP protocols with a 14,400 bps modem (preferably supporting V.42bis data compression which can enable 57,600 bps operation). The Windows 3.1 or later operating system is necessary. A printer is desirable.

For Apple Macintosh systems: a 68030 20 Mhz or faster processor; at least 4 megabytes of RAM memory (8 megabytes preferred); a hard disk storage system with as large a capacity as possible (preferably 300 megabytes or larger); and a direct Internet connection or dial-up capability that can use SLIP or PPP protocols with a 14,400 bps modem (preferably supporting V.42bis data compression which can enable 57,600 bps operation). A printer is desirable.

The diversity of technology accessible by schools worldwide may require, in some cases, that environmental measurements be reported via e-mail or in hardcopy and that a variety of media, including photographs, be used to distribute visualization products. All schools that want to participate in the program will be accommodated.

Technology associated with the GLOBE Program will continually evolve to higher levels and participants will be encouraged to upgrade over time.