

ENVIRONMENTAL COOPERATION

GLOBE Program

Agreement Between the
UNITED STATES OF AMERICA
and the MARSHALL ISLANDS

Signed at Majuro October 17, 1996

with

Appendices



NOTE BY THE DEPARTMENT OF STATE

Pursuant to Public Law 89-497, approved July 8, 1966 (80 Stat. 271; 1 U.S.C. 113)—

“ . . . the Treaties and Other International Acts Series issued under the authority of the Secretary of State shall be competent evidence . . . of the treaties, international agreements other than treaties, and proclamations by the President of such treaties and international agreements other than treaties, as the case may be, therein contained, in all the courts of law and equity and of maritime jurisdiction, and in all the tribunals and public offices of the United States, and of the several States, without any further proof or authentication thereof.”

MARSHALL ISLANDS

Environmental Cooperation: GLOBE Program

*Agreement signed at Majuro October 17, 1996;
Entered into force October 17, 1996.
With appendices.*

Agreement between
the National Oceanic and Atmospheric Administration
of the United States of America and
the (Organization)
of the Republic of the Marshall Islands
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 (Organization) of the Republic of the Marshall Islands (hereinafter, the Marshallese 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 1- 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 Marshallese 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 the Republic of the Marshall Islands, and provide a copy of GLOBE training materials to the Marshallese 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 Marshallese 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 Marshallese 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 Marshallese side will:

1. Select Marshallese schools to participate in the GLOBE Program (details regarding GLOBE schools in Appendix A) and provide an updated list of Marshallese GLOBE schools to the U.S. side at the beginning of each school year;
2. Ensure that Marshallese 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 Marshallese 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 the Republic of the Marshall Islands;
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 Marshallese GLOBE school;
6. Ensure that GLOBE instructional materials related to measurement procedures and data reporting protocols are utilized in Marshallese GLOBE schools, and that broader GLOBE educational materials are appropriately translated, adapted, reproduced, and distributed to all Marshallese GLOBE schools;
7. Ensure that Marshallese GLOBE schools have the necessary measurement equipment to take GLOBE environmental measurements (described in Appendix B);
8. Ensure that teachers and students at Marshallese GLOBE schools calibrate GLOBE measurement equipment according to procedures provided in GLOBE instructional materials;
9. Ensure that Marshallese 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 Marshallese Country Coordinator will need access to Internet so that all measurement data from Marshallese GLOBE schools will be reported via Internet.); and

10. Evaluate GLOBE operations in the Republic of the Marshall Islands 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 RMI on the 17th day of October, 1996, in duplicate.

For the National Oceanic and
Atmospheric Administration:

Joan M. Plaisted

For the Republic of the Marshall Islands:

Christopher J. Loeak
Acting Minister of Foreign Affairs

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**Atmosphere/Climate:**

Air Temperature

Precipitation

Cloud Cover/Type

Hydrology/Water Chemistry:

Water pH

Water Temperature

Soil Moisture

Biology/Geology:

Habitat Study

Tree Height

Tree Canopy

Tree Diameter

Species Identification

EQUIPMENT NEEDED

Max/Min Thermometer

Calibration Thermometer

Instrument Shelter

Rain Gauge

Cloud Charts

pH Paper, Pen, or Meter

Alcohol Thermometer

Gypsum Block Sensors

Soil Moisture Meter

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.