

**ENVIRONMENTAL COOPERATION**

**GLOBE Program**

**Agreement Between the  
UNITED STATES OF AMERICA  
and MICRONESIA**

Signed at Kolonia November 7, 1997

*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.”

## **MICRONESIA**

### **Environmental Cooperation: GLOBE Program**

*Agreement signed at Kolonia November 7, 1997;*

*Entered into force November 7, 1997.*

*With appendices.*

Agreement between  
the National Oceanic and Atmospheric Administration  
of the United States of America and  
the National Department of Education  
of the Federated States of Micronesia  
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 National Department of Education of the Federated States of Micronesia (hereinafter, the Micronesian 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 at primary, middle and secondary school levels studying environmental issues, making environmental measurements, and sharing useful environmental data with one another and the international 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. Develop, in consultation with international scientists and educators, GLOBE educational materials;
5. Translate GLOBE instructional materials related to measurement procedures and data reporting protocols into the six United Nations languages, and provide a copy of these plus all broader GLOBE educational materials to the Micronesian side for further reproduction as necessary;
6. Conduct regional training sessions for GLOBE Country Coordinators and GLOBE teachers who will serve as trainers for additional GLOBE teachers in Micronesia;
7. Design, develop, operate, and maintain GLOBE data processing capabilities and other necessary technology and equipment;
8. Provide GLOBE software, as necessary, for use on Micronesian GLOBE school computers (To the extent possible, textual material appearing on computer screens will be accessible in the student's choice among the six United Nations languages.);
9. Accept environmental data reported from GLOBE schools around the world, and develop and provide resultant global environmental images to the Micronesian side; and
10. Evaluate the overall GLOBE Program periodically, in consultation with international GLOBE Country Coordinators, and modify the overall program as appropriate.

### B. The Micronesian side will:

1. Identify Micronesian schools that have agreed to participate in the GLOBE Program and conduct the fundamental activities of GLOBE schools (take GLOBE environmental measurements using GLOBE measurement procedures and calibrated GLOBE measurement equipment, report data using GLOBE data

- reporting protocols, and receive and use resultant global environmental images, using GLOBE educational materials under the guidance of teachers trained to conduct the GLOBE Program);
2. Provide an updated list of Micronesian GLOBE schools to the U.S. side at the beginning of each school year;
  3. Name a Micronesian 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 Micronesia;
  5. Recognizing state jurisdiction over education in the Federated States of Micronesia, work with State GLOBE Coordinators that have been designated by the state authorities;
  6. 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 Micronesian GLOBE school;
  7. Distribute GLOBE educational materials which have been appropriately translated, adapted and reproduced to all Micronesian GLOBE schools;
  8. Ensure that the measurement equipment used by GLOBE schools to take GLOBE measurements meets GLOBE specifications (described in Appendix B);
  9. Ensure that Micronesian GLOBE schools have the necessary computer and communications systems to allow Internet/World Wide Web access in order to report GLOBE environmental measurements and to receive and use global environmental images; if such computer and communications systems are not available in Micronesian schools, make agreed alternative arrangements for such reporting and receipt (At a minimum, the Micronesian Country Coordinator will need access to the Internet so that all measurement data from Micronesian GLOBE schools will be reported via Internet.); and
  10. Evaluate GLOBE operations in Micronesia 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, global environmental images, 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 - DURATION

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 Kolonia on the 7th day of November, 1997, in duplicate.

For the National Department  
of Education:

For the National Oceanic and  
Atmospheric Administration:



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Catalino L. Cantero  
Secretary



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Cheryl A. Martin  
Charge d'Affaires, a.i.  
U.S. Embassy, Kolonia

## APPENDIX A GLOBE Schools

GLOBE schools throughout the world have agreed that their students will participate in the following fundamental activities: making environmental measurements at or near their schools using GLOBE measurement procedures and GLOBE calibrated measurement equipment; reporting their data using GLOBE data reporting protocols to a GLOBE data processing site; receiving vivid graphical global environmental images created from their data and the data from other GLOBE schools around the world; and studying the environment by relating their observations and the resulting images to broader environmental topics. All of these activities are conducted under the guidance of specially trained teachers (GLOBE-trained teachers).

GLOBE educational materials are made available to GLOBE schools by Country Coordinators. These materials contain instructional materials detailing procedures for taking environmental measurements and protocols for reporting data; they also explain the significance of the measurements, guide the use of the global environmental images, 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, having agreed to participate in the GLOBE Program, is encouraged to conduct the core set of GLOBE environmental measurements in the following critical areas: Atmosphere/Climate, Hydrology, and Land Cover/Biology and Soils. As the GLOBE Program evolves, specialized measurements not common to all GLOBE schools may be added in order to address local environmental issues.

Students at all skill levels are active participants in the GLOBE Program. The actual participation is designed so as to be 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 skill level. Measurement equipment is not standardized; rather, functional and performance specifications are provided for GLOBE instruments.

Following is the list of GLOBE 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

#### EQUIPMENT NEEDED

Max/Min Thermometer  
Calibration Thermometer  
Instrument Shelter

Rain Gauge  
Cloud Charts

**Hydrology:**

Water pH  
 Water Temperature  
 Dissolved Oxygen  
 Alkalinity  
 Electrical Conductivity

pH Paper, Pen, or Meter  
 Organic Liquid-Filled Thermometer  
 Dissolved Oxygen Kit  
 Water Alkalinity Kit  
 Electrode-Type Conductivity Tester

**Land Cover/Biology:**

Land Cover  
  
 Species Identification  
 Biometry

Remote Sensing Image  
 Multispec Software  
 Dichotomous Keys  
 Measuring Tape  
 Clinometer (Optional)  
 Densimeter (Optional)

**Soils:**

Soil Moisture  
  
  
 Soil Characterization

Soil Sample Cans  
 Augur  
 Soil Moisture Meter (Optional)  
 Gypsum Blocks (Optional)  
 Color Chart  
 Graduated Cylinders  
 Augur (Optional)

## 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 Internet/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 global environmental images.

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 e-mail and hardcopy, be used to distribute global environmental images. 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.