

A. JUSTIFICATION

1. Circumstances Making Information Collection Necessary

The GLOBE Program is a hands-on environmental science and education program that joins students, educators and scientists from around the world to study and learn about the global environment. The primary outcomes of the GLOBE program are to: (1) improve student understanding in environment and Earth system science; (2) improve local and global communities through scientifically informed decision making; (3) increase student scientific collaborations centered on the environment; and (4) increase scientific understanding of the Earth as a system. In order to achieve these outcomes, the GLOBE Program relies on U.S. and International Partners. Collectively, these two groups are responsible for worldwide implementation of the GLOBE Program which includes providing resources for supporting GLOBE teachers and schools; recruiting schools, training teachers, providing follow-up support and helping in the adaptation of the program consistent with the local educational systems and priorities. Thus, collecting data on an annual basis from GLOBE U.S. and International Partners is important in determining how GLOBE materials and activities are being used in classrooms, the number of workshops being held to train and recruit teachers, and the types of trainer and teacher support being provided by the partners. This information is valuable not only to GLOBE Partners, but also to GLOBE Program managers and sponsors in order for these stakeholders to make optimal resource management and overall programmatic decisions.

2. How, and by Whom, and for What Purpose Information Is to Be Used

The data collected from the Annual GLOBE Partner Survey is used for annual reporting purposes for the GLOBE Program and for the U.S. and International Partners' own reporting needs. The Annual GLOBE Partner Survey gathers information regarding partnership funding and sustainability, programmatic implementation and capacity building, trainers and trainer support, teachers and teacher support, communication and administrative support and education and environmental issues relevant to their state and/or country. The multiple purposes of the information collected from this survey are shown in Table 1.

Table 1. Purposes for Survey Data

<i>Constituency</i>	<i>Purpose of Data</i>
GLOBE Program Office (GPO)	To assist Partners to build strong regional implementation models supporting capacity building, local infrastructure, and promoting future sustainability of the Program around the world.
GLOBE's U.S. and International Partners	To refine the GLOBE Program and improve partnerships' effectiveness; promote capacity building; to adjust offerings to reflect findings about most effective services Partners can offer to teachers.
Country, state- and district-level administrators	To facilitate GLOBE implementation in the U.S. and abroad (over 100 countries around the world).
GLOBE Community: GLOBE Science PIs, Partners, Teachers, Students; GLOBE Program Office	To inform GPO science and education development
GLOBE Community: GLOBE Science PIs, Partners, Teachers, Students; GLOBE Program Office	To improve the functionality of the GLOBE Web site.

3. Use of Improved Information Technology to Reduce Burden

The GLOBE Annual Partner Survey is an online instrument developed in 2005 and housed within the GLOBE Partner Administrative section of the GLOBE Web site. The survey gathers data on all activities related to GLOBE implementation for the year prior to administration of the survey. This survey is administered between June and February of each year. In order to reduce burden of survey respondents, the survey completion occurs over a nine-month period, beginning in June and ending in February each year. Therefore, the 2009 GLOBE Partner Survey was made available in June 2009, closed in February 2010 and data for 2009 Partner implementation were compiled and analyzed by the GLOBE Program Office between March – June 2010. The 2010 GLOBE Partner Survey was made available in June 2010 and will close in February 2011, gathering information for all GLOBE community

activities that occurred during 2010.

4. Efforts to Identify Duplication

At this time, the GLOBE Program Office is the only entity conducting surveys, interviews, and assessments of GLOBE activities world-wide. All Annual GLOBE Partner Surveys distributed to the GLOBE community, including the optional online surveys regarding Web site redesign, school participation in the ESSP projects and GPO scientific campaigns, and evaluation of other GLOBE community events, are directed by the GLOBE Program Office (GPO). The GPO has found no duplication of these efforts.

5. Impact on Small Entities

No small business entities are proposed as respondents. All possible efforts have been made to prepare and carry out the surveys, interviews, and assessments in an online format as well as through the GLOBE Partners and Teachers so as to minimize the burden on GLOBE students and their schools, which are mostly entities associated with local governing bodies.

6. Consequence If Collection Conducted Less Frequently

The GLOBE Program has a built-in flexibility that enables it to make necessary changes as it develops. These changes are informed by data gathered from the GLOBE community whose constituents include U.S. and International Partners, Science PIs, Teachers and their Students.

Because Partners are actively recruiting new teachers and supporting existing GLOBE teachers each year, there is an ongoing need of the program to track the breadth and depth of Partner activities, which includes understanding the challenges that Partners may face in implementing GLOBE, identifying changes in Partner funding and sustainability, and understanding the various ways that Partners support teachers.

7. Collection Compliant with OMB Guidelines

Data collection is fully in compliance with OMB data collection guidelines in 5 CFR 1320.6 (Controlling Paperwork Burdens on the Public-General Information Collection Guidelines).

8. Consultation with Persons outside the Agency

A number of professional researchers outside the federal agencies that have been involved in GLOBE have been consulted in the development of surveys, interview protocols, and assessments used by the GLOBE Program. They include:

Survey Development by SRI. Dr. William Penuel, Senior Education Researcher, served as co-PI on the GLOBE evaluation project ending in 2005 and has led a number of large-scale evaluations of educational technology programs, including the Department of Education's Community Technology Centers Program. He also has experience in developing assessments of science inquiry, and is PI for an NSF-funded project focused on the development of formative assessment tools to improve project-based science. Dr. Penuel and his team from SRI were involved in all aspects of the development of the GLOBE Annual Survey currently in use.

Survey Analysis by the Learning Partnership. The Learning Partnership specializes in the development and evaluation of science education outreach initiatives, both formal and informal. Dr. Steven McGee, president of The Learning Partnership, has extensive NASA evaluation experience, served as an outside advisor to support NASA Headquarters implementation of OMB's PART evaluation process, and contributed to NASA's current Education and Strategic Coordination Framework. Dr. McGee has extensive knowledge of the GLOBE program and was a participant in the GLOBE visioning process in December 2004. Dr. McGee and his team reviewed and provided input to the GLOBE Annual Partner Survey in 2007.

9. Payment of Gifts to Respondents

No payment of gifts is provided to respondents of the GLOBE Annual Partner Survey.

10. Assurance of Confidentiality

Respondents work exclusively inside the GLOBE Program Administrative pages of the GLOBE Web site when responding to the GLOBE Annual Partner Survey. Each GLOBE Partner records their programmatic information in their secured space on the Web site and each Partner has the ability to print out a report of their survey responses for their own use. All Partners have been provided with information explaining the purpose for data collection and a regional summary of the information obtained through the survey each year is provided to the

entire GLOBE community during regional Partner meetings.

11. Justification for Questions of Sensitive Nature

The GLOBE Annual Partner Survey gathers information related to annual funding and budget utilized to implement their GLOBE activities. This information is gathered in order to record total investment and leveraged funds needed to support the Program around the world. The GLOBE Program assures confidentiality of specific sponsoring agencies and organizations by country as well as assures all Partners that their sponsors will not be contacted by the GLOBE Program Office.

12. Estimates of Respondent Burden

The respondent burden for the recipients of the instruments is described in this section. These instruments include a required online annual Partner implementation survey and optional online materials development and review forms. Table 2 reports the information used to calculate the respondent burden, including the type of instrument, number of respondents, the estimated response rate, the estimated time each respondent will spend completing the task. These burden estimates are based on sample sizes and completion rates provided in Item 1, Section B of this document—Description of Respondent Universe and Sample and Procedures for Collection of Information.

Table 2. Calculation of Respondent Burden

GLOBE Annual Partner Survey	Respondents	Hours	Total Burden
International Partners	110	2	220
U.S. Partners	140	2	280
TOTAL	250	2	500

13. Estimated Costs to Respondents

There are no respondent costs other than labor hours; this cost estimate is shown in Table 2.

14. Estimated Costs to Federal Government 2005-2010

Table 3. 2009 Partner Survey Preparation time and cost

Staff	Tasks	Hours worked	Cost
Teresa Kennedy	Survey text development 2005	60	\$6,000
Teresa Kennedy	Survey analysis and annual report preparation (16hr/mth)	192 hr/yr	\$19,200
Paula Robinson	Survey text development 2005	20	\$1,343
Karen Milberger	Technical support 2005	60	\$3,271
Student Assistant	GPO clerical and data compiler 2010—40/month @ \$15/hour	480 hr/yr	\$7,200yr
Total spent to date			<u>\$37,014</u>

There are no estimated costs to GLOBE Partners. All U.S. and International Partners agree to complete the GLOBE Annual Survey when they join the GLOBE Program.

15. Reasons for Change in Burden or Program

During years 1-10 U.S. and International Partners received a 20-page hard copy survey in the mail and were asked to complete it by hand and return it to SRI. Partners were left without a record of their response use in their own reporting purposes. The total annual response hours requested during years 1-10 (1995-2005) of the GLOBE Program has been reduced using several techniques:

- By constructing online survey and assessment instruments that also produces a report for Partners' own use; and
- By limiting the surveys to Partners and not including teachers and their students.

16. Published Results

A summary of the data from the survey is shared at the annual GLOBE International Advisory Committee (GIAC) meeting each July and shared with all U.S. and International Partners during their annual regional meetings. Individual responses to any of the items on

any of the instruments are not published, except as part of summary reports and papers about the GLOBE Program and its implementation. If, as part of a description of GLOBE at a particular school, an individual is named in association with a particular response, that person's full consent will have been obtained ahead of time, and they will be given a chance to review the quotation in the context of the report in which it is presented. Absolutely no student names will be associated with individual responses at any point in the evaluation.

17. Non-display of Expiration Date

N/A.

18. Exceptions to the Certification Statement

N/A.

B. COLLECTIONS OF INFORMATION EMPLOYING STATISTICAL METHODS

1. Description of Respondent Universe and Sample and Procedures for Collection of Information

Large-scale GLOBE Partner Survey. All GLOBE Partners are required to complete the Annual GLOBE Partner Survey beginning in June of each year. Partners have until February of the following year to complete the survey (9 month survey completion period).

2. Schedule and Procedures for Collection of Information

Procedures follow the same timeline each year.

June 2009: Notification of survey for 2009 data reporting

June 2009 – February 2010: Partners complete survey covering 2009 annual activities

December 2009 – February 2010: Follow-up of non respondents

February 2010: Survey closes for 2009 data collection.

February 2010 – June 2010: Survey analysis for 2009

June 2010: Notification of survey for 2010 data reporting

July 2010: Survey results for 2009 presented at GLOBE International Advisory (GIAC) Committee Meeting. Results are also presented at regional meetings as they occur.

3. Maximizing Response Rates; Issues of Non-response

As shown above, a rigorous schedule has been developed for notifying respondents prior to the survey, providing adequate time for survey completion, and for following-up on non-respondents. Our experience has shown that providing notification of survey opening half way through the year to allow recording of activities that have occurred thus far, followed by reminders of up to 3 mail, e-mail, or telephone reminders three months prior to closing the survey, produces a very high rate of response. Because of these follow-up procedures in place, the high morale among the GLOBE Partners and their teachers, and the low burden entailed in completing the online form, response rates for active GLOBE partners is near 100%.

4. Tests of Procedures and Methods

Large-scale GLOBE Partner surveys have been conducted since 2005. Survey items have undergone minor modifications for each new use, reflecting lessons learned from prior years' data, changes in GLOBE Program content, and based on feedback and requests from

U.S. and International Partners.

5. Persons Responsible for Data Collection Design and Development

Dr. Teresa Kennedy worked with Dr. William Penuel and his team from of SRI International to create the GLOBE Annual Partner Survey and with Dr. Steven McGee, and his team from The Learning Partnership to assess the effectiveness of the survey after the first two years of administration of the survey. She continues to lead all activities related to this survey.

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