

June 1, 2018

Supporting Statement B - OMB No. 0596-XXXX

**US Department of Agriculture
Forest Service and Caribbean Climate Hub**

**Post-Hurricane Research and Assessment of Agriculture, Forestry, and Rural Communities
in the U.S. Caribbean**

B. STATISTICAL METHODS

This qualitative research will not employ statistical methods since it is based on a non-probabilistic, purposive sample of individuals, families, and organizations involved in or associated with agriculture, forestry, and rural communities affected by Hurricanes Irma and Maria in the U.S. Caribbean. Rather, we will obtain rich, qualitative information meant to understand the experiences of the respondents and to inform future quantitative research to be proposed at a later date. Given the ongoing post-hurricane state of telecommunications and transportation systems in Puerto Rico and the U.S. Virgin Islands, a probabilistic sample of the population of interest is not feasible in the time frame deemed necessary for this information collection request, nor desired given the qualitative nature of this research.

- 1. Describe (including a numerical estimate) the potential respondent universe and any sampling or other respondent selection method to be used. Data on the number of entities (e.g., establishments, State and local government units, households, or persons) in the universe covered by the collection and in the corresponding sample are to be provided in tabular form for the universe as a whole and for each of the strata in the proposed sample. Indicate expected response rates for the collection as a whole. If the collection had been conducted previously, include the actual response rate achieved during the last collection.**

Respondent Universe: The number of individuals, families, and organizations involved in or associated with agriculture, forestry, and rural communities affected by Hurricanes Irma and Maria in the U.S. Caribbean is unknown and is a question we are trying to answer.

Sampling: Participants in this information collection request will be chosen purposively (i.e., non-probabilistic sample) in line with the research objectives, rather than drawn from a probabilistic, random sample of the population. Researchers will use farm and forest landowner lists maintained by USDA and Forest Service programs, Puerto Rico Departments of Agriculture and Natural and Environmental Resources, and U.S. Virgin Islands Department of Agriculture, along with other sources, including public announcements regarding the research and its objectives to invite and select research participants.

Up to 10 focus groups will be held in Puerto Rico and U.S. Virgin Islands over the 6-month approval period. Researchers will aim for 8-12 participants per focus group for a maximum of 120 focus group participants. We also will conduct no more than 100 in-depth interviews in Puerto Rico and U.S. Virgin Islands for a maximum total of 220 respondents.

Based on typical response rates for this type of work, we estimate an additional 1,100 individuals will be asked to participate in the research or will read a public announcement about the opportunity to participate, but will not wish to be involved.

2. Describe the procedures for the collection of information including:

- **Statistical methodology for stratification and sample selection,**
- **Estimation procedure,**
- **Degree of accuracy needed for the purpose described in the justification,**
- **Unusual problems requiring specialized sampling procedures, and**
- **Any use of periodic (less frequent than annual) data collection cycles to reduce burden.**

Research participants will be chosen purposively in line with the research objectives, seeking a representative cross-section of the population of interest, including individuals involved in or associated with agriculture, forestry, and rural communities in disaster designated areas in Puerto Rico and U.S. Virgin Islands drawn from the lists and other sources described above. Purposively choosing participants means they are not drawn from a probabilistic sample of the population and therefore cannot be used to make generalizations about the larger population of interest with a known degree of accuracy. Nevertheless, multiple focus groups interview participants that incorporate variation across the range of respondents can be used to capture a broad range of perspectives and characteristics approximating the population of interest

Focus groups and in-depth interviews are methods that provide rich, qualitative information useful to decision-makers, program managers, practitioners and others, particularly those interested in changing or improving programs, products, practices, strategies or services. The accuracy, reliability, and applicability of the results of these qualitative methods are adequate for their purpose and our objectives.

No unusual problems requiring specialized sampling procedures will be used.

The information will be collected one time from each research participant unless follow-up contacts are needed for clarification or requested by the participant.

3. Describe methods to maximize response rates and to deal with issues of non-response. The accuracy and reliability of information collected must be shown to be adequate for intended uses. For collections based on sampling, a special justification must be provided for any collection that will not yield "reliable" data that can be generalized to the universe studied.

To maximize the response rates for the focus groups and in-depth interviews, we will follow the standard accepted practices, such as those described in Krueger and Casey (2009), Patton (2002), and Dillman et al (2014), which aid in the establishment of trust and minimizing social costs. We will encourage trust by stressing the importance and confidentiality of participants' answers in our interactions with them and reduce social costs by developing focus group and interview guides that are as brief as possible, easy to understand, and involve no sensitive questions.

Focus group and interview participation will be fostered through public announcement materials (e.g., with a quick response (QR) code), pre-notifications, invitation to participate, and follow-up. Potential participants drawn from the lists described above, public announcement responses, and

other sources, will be sent a pre-notice letter via mail or email describing the information collection, including why we are doing it and why we need their help. Second, potential participants will be contacted by phone and informed of the study, its purpose and objectives, and the two methods for data collection (i.e., focus group, interview). To reduce burden on respondents, potential participants will be given the opportunity to choose to participate in a focus group or in-depth interview, and their dates, times, and locations. Individuals who agree to participate in a focus group or interview, will be emailed or mailed a confirmation letter with details of the group or interview shortly after initial contact. One or two days prior to the focus group meeting or interview, we will email or call each confirmed participant again to remind them of the meeting details and answer any last minute questions that s/he might have.

Focus group and interview participants will be purposively selected to provide the most representative cross-section of our population of interest and to generate the most representative range of experiences and information related to the effects of Hurricanes Irma and Maria on agriculture, forestry, and rural communities in the U.S. Caribbean and the internal and external factors that affected their vulnerabilities or resilience. Because this research is not based on probabilistic sampling, systematic evaluation of non-response is not possible. Nevertheless, we will attempt to gather and assess information on non-responses to better understand our population of interest and to identify potential gaps in understanding from this exploratory research.

- 4. Describe any tests of procedures or methods to be undertaken. Testing is encouraged as an effective means of refining collections of information to minimize burden and improve utility. Tests must be approved if they call for answers to identical questions from 10 or more respondents. A proposed test or set of tests may be submitted for approval separately or in combination with the main collection of information.**

Pretesting of focus group and interview guides will be done with internal staff, a limited number of external colleagues, and/or less than 10 key stakeholders affected by the hurricanes or who are familiar with agriculture, forestry, and rural communities in the region to test the research instruments and refine our understanding of the responses.

- 5. Provide the name and telephone number of individuals consulted on statistical aspects of the design and the name of the agency unit, contractor(s), grantee(s), or other person(s) who will actually collect and/or analyze the information for the agency.**

Since statistical methods are not a part of this qualitative research, we have not consulted on statistical aspects of the design, but we have consulted on the qualitative analysis aspects and overall research design with the following individuals:

Tischa Munoz-Erickson, USDA Forest Service, International Institute of Tropical Forestry, Research Social Scientist, 928-600-1613

Kenli Kim, USDA Forest Service, National Program Leader for Social Science Research, 202-841-8819

In addition, others experts have provided input and advise on select portions of the interview and focus group guides as relative to their interest and expertise.

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Kathleen McGinley, USDA Forest Service, International Institute of Tropical Forestry, Research Social Scientist, 919-513-3331, is responsible for the design, implementation, and analysis of this information collection.