

Supporting Statement B - OMB No. 0596-0246

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

Note: This request is for the renewal of the previously approved information collection OMB 0596-0246, Post-Hurricane Research and Assessment of Agriculture, Forestry, and Rural Communities in the U.S. Caribbean. The USDA Forest Service requests approval from OMB to continue the collection of information from the individuals affected by recent hurricanes 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. Through in-depth and detailed qualitative inquiry, we will obtain rich, robust information beyond the quantifiable characteristics of the population and phenomenon of interest including data that are important for understanding how and why the outcomes occurred. Through analysis we can identify patterns, themes, and variations within qualitative data that improve our understanding of respondents' experiences and the implications for the population of interest and processes involved. A non-probabilistic sample is the appropriate methodological approach for this research because a complete sampling frame of the population of interest is not available and because of the qualitative nature of the 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. Available data on agriculture and forestry in the region will be used by researchers to identify major productive sectors (e.g., coffee, bananas/plantains, row crops, poultry, livestock, etc.) and supporting services (e.g., federal - local government, telecommunications, energy, etc.) and, in turn, define the range in focus groups and interviews.

Researchers will use farm and forest landowner databases maintained by USDA agencies, Puerto Rico Department of Agriculture and Department of Natural and Environmental Resources, and U.S. Virgin Islands Department of Agriculture, stratifying them by these sectors or support services to select participants for the focus groups and interviews.

A maximum of 20 focus groups addressing these sectors and support services will be held in Puerto Rico and U.S. Virgin Islands over the three year approval period. Researchers will aim for 8-12 participants per focus group for a maximum of 240 focus group participants. Additionally, we will conduct up to 100 in-depth interviews in Puerto Rico and U.S. Virgin Islands for a maximum total of 340 respondents across both methods.

Based on typical response rates (40%) for this type of work and work done in the region under the existing approval, we estimate an additional 510 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, purposively selecting focus groups and interview participants that represent the expected or known range in perspectives and characteristics of the population of interest is intended to approximate that population.

Focus groups and in-depth interviews are methods that provide rich and robust qualitative information useful to decision-makers, program managers, practitioners and others, particularly those interested in understanding site specific and systemic issues and potential solutions for 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 standard accepted practices, such as those described in Krueger and Casey (2009), Patton (2002), and Dillman et al (2014), including the use of public announcement materials (e.g., with a quick response (QR) code), pre-notifications to potential participants, personalized invitations, and follow-up. These strategies and techniques aid in the establishment of trust and minimization of social costs. In this collection, we will be clear about importance and confidentiality of participants' answers in our interactions with them, and will reduce costs to participants by developing focus group and interview guides that are as brief as possible, easy to understand, and do not involve any sensitive questions.

Potential focus group participants will be drawn from relevant databases, stakeholder lists, responses to public announcements, and other sources, and sorted by sector or supporting services. For each focus group, we will secure a place and time to hold the discussion, aiming for convenience, comfort, and accessibility for the largest number of potential participants possible. Potential participants will be contacted by phone or by email; informed of the study, its purpose and objectives, and the focus group logistics; and invited to participate. We will continue to call potential participants from the relevant stratified list until we reach 10-12 confirmed participants, expecting at least eight individuals to show up at the scheduled place and time. Respondents who express interest in the study but who are not able to participate at the scheduled focus group date and time or who decline the focus group invitation but wish to participate in a different way, will be invited to participate an in-depth interview to be scheduled at their convenience, in person or over the phone. Shortly after initial contact, confirmed participants will be emailed or mailed a confirmation letter with the details of the focus group or interview. One or two days prior to the focus group meeting or interview, we will call and/or email 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, when possible, we will document non-respondents by sector and other basic criteria and assess the related data 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 was done with internal staff, two external colleagues, and four key stakeholders who are familiar with agriculture, forestry, and rural communities in the region to test the research instruments and refine them and 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 experts on the qualitative analysis aspects of the project and overall research design with the following individuals. Furthermore, experts at USDA/NASS also reviewed and provided input.

Frederick W. Cabbage, Professor, Department of Forestry and Environmental Resources, NC State University, 919-630-8928

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

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Matt Fetter, Beth Schlein, & Lea Tims, Mathematical Statisticians, USDA, National Agricultural Statistics Service, 202- 690-2388 (POC David Hancock)

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

Kathleen McGinley, USDA Forest Service, International Institute of Tropical Forestry, Research Social Scientist, 919-600-3108, is responsible for the design, implementation, and analysis of this information collection.