

## SUPPORTING STATEMENT

### SOCIOECONOMIC SURVEY—MANELL-GEUS (GUAM) OMB CONTROL NO. 0648-XXXX

#### INTRODUCTION

This request is for a new information collection.

The National Oceanic and Atmospheric Administration (NOAA) created the Coral Reef Conservation Program (CRCP) to safeguard and ensure the welfare of the coral reef ecosystems, including those along the coastlines of the Manell-Geus watershed in the village of Merizo, Guam. The administration of this program has potential economic and cultural impacts on the lives of nearby residents and citizens. In accordance with its mission goals, NOAA has designed a survey to help assess the impacts of the Coral Reef Conservation Program.

The survey is designed to be repeated every three to four years in order to provide longitudinal data at the village level regarding the impact of the Coral Reef Conservation Program.

#### A. JUSTIFICATION

##### 1. Explain the circumstances that make the collection of information necessary.

The purpose of this information collection is to obtain information from individuals in the village of Merizo residing within the Manell-Geus watershed in the U.S. Territory of Guam. Specifically, NOAA is seeking information on the behaviors and activities related to coral reefs, as well as information on knowledge and attitudes related to coral reefs and specific reef protection activities. The community of Merizo is small, homogenous community whose residents identify themselves as Chamorro, the indigenous peoples of Guam. Merizo is one of the few villages on Guam that perpetuates traditional fishing practices using traditional knowledge. Additionally, this is the only community who expressed interest in establishing a Marine Preserve in their village – the Achang Reef Flat Marine Preserve.

The Coral Reef Conservation Program (CRCP), developed under the authority of the [Coral Reef Conservation Act of 2000](#) (P.L. 106-562; 16 U.S.C. 6401 *et seq.*) is responsible for programs intended to enhance the conservation of coral reefs. Under this authority, CRCP works with local partners in Florida, US Virgin Islands, Puerto Rico, Hawaii, American Samoa, Guam, and Commonwealth of the Northern Mariana Islands to reduce key threats to coral reefs, including climate change, land based sources of pollution, and impacts from fishing.

NOAA recently launched Habitat Blueprint, a framework to enhance the conservation of coral reefs and other key habitats for resilient fisheries, marine life, and coastal communities. The Manell-Geus watershed on Guam was selected as one of ten Habitat Blueprint focus areas. In the waters lying offshore the village of Merizo, is one of the island's two barrier reef systems, Cocos Lagoon. Extensive seagrass beds and cater to resident sea turtles as well as juvenile fish that are locally valuable food fish, such as emperors and goatfish. The largest aggregation of sea turtles has been

documented in Cocos Lagoon and Manell Channel based on aerial surveys conducted by the Guam Department of Agriculture. As part of the Focus Area Objectives for this site, increased community engagement in conservation programs is indicated. NOAA CRCP intends to gather and monitor a collection of socioeconomic variables, including those related to knowledge, attitudes, and perceptions of watershed and reef conditions as well as community support and involvement of reef protection activities in the Manell-Geus watershed and adjacent waters from Merizo residents. Collecting such information will help NOAA CRCP work effectively with the community to ensure Habitat Blueprint projects are improving the livelihoods by addressing community concerns of human safety from flooding as well as impacts to sustainable fisheries to continue village's strong fishing traditions for future generations. A sense of secured livelihood and support for/involvement in Habitat Blueprint conservation efforts will build community's capacity and resilience to expected impacts of climate change.

It should be noted that NOAA CRCP currently has a National Coral Reef Monitoring Program (NCRMP) which is a strategic framework for conducting sustained observations of biological, climatic, and socioeconomic indicators in U.S. states and territories. The resulting data provide a robust picture of the condition of U.S. coral reef ecosystems and the communities connected to them. However NCRMP efforts will not capture the depth of community involvement in Habitat Blueprint projects and does not include climate change as a focal point in their questionnaire. Additionally, NCRMP's sample size of 950 respondents from Guam will not truly reflect Merizo's stakeholder perceptions, attitudes, and knowledge about coral reef management. This project complements the socioeconomic component of NCRMP and will provide more detailed site level information than compared to the island wide survey for Guam. The NCRMP socioeconomic surveys have been approved under OMB Control No. 0648-0646. This Manell-Geus survey effort draws from a question bank of 138 questions that have been approved by the OMB.

CRCP intends to use the information collected through this instrument primarily for measuring and maintaining results of our reef protection programs. Because many of our efforts to protect reefs rely on education and changing attitudes toward reef protection, the information collected will allow CRCP staff to ensure that NOAA Habitat Blueprint projects are designed appropriately at the start, adapted to balance community and conservation needs, future program evaluation efforts are as successful as possible, and outreach efforts are targeting the intended recipients with useful information. The success of Habitat Blueprint's conservation projects in the Manell-Geus watershed is highly dependent on long-term community support and engagement in such projects.

**2. Explain how, by whom, how frequently, and for what purpose the information will be used. If the information collected will be disseminated to the public or used to support information that will be disseminated to the public, then explain how the collection complies with all applicable Information Quality Guidelines.**

The information will be collected by a household survey as well as in-depth interviews with key informants, which may include local business owners, experienced local fishers, youth, hunters, fishers, *manamko*' (community elders), and residents along the coastline and rivers who have been impacted by erosion or flooding. There will also be focus groups of a cross-section of representative community residents. The purpose of the survey is to gather longitudinal information from residents in Merizo related to their knowledge, attitudes, and perceptions of watershed and reef conditions,

their relationship with coastal and marine resources, community support/involvement in watershed/coral reef management practices, and human health impacts related to flooding and consumed locally harvested seafood.

As part of Habitat Blueprint, NMFS and NOS, in consultation with NCRMP, local partners and stakeholders modified a set of long-term core indicators that will be measured over time in Merizo. The data gathered as part of this information collection request will assist CRCP in tracking these indicators and ensure long-term results of Habitat Blueprint projects in the Manell-Geus watershed. Tracking changes in attitude, perception, and community support/involvement in management over the duration of Habitat Blueprint initiative enables the measurement of the effectiveness of conservation efforts and provides information on whether or not these changes have benefitted the community.

A list with a description and the relevance of each indicator is shown in Table 1 below.

**Table 1: Indicators for the Socioeconomic Monitoring Program for Habitat Blueprint Manell-Geus Focus Area**

<b>Indicator</b>	<b>Priority</b>	<b>Importance of Gathering Data to Measure Indicator</b>
1. Perception of water quality	Critical	Track perception of water quality in streams and near shore sea water in Manell-Geus
2. Perception of flooding impacts	Critical	Tracking this information over time will signify any changes in perceived extent of flooding impacts
3. Perceived benefits from coral reefs rules and regulations	Critical	Determine how people are impacting coral reefs and effectiveness of regulations and enforcement efforts of Achang Reef Flat Marine Preserve Area. Understand community support/ lack of support of Achang MPA.
4. Perceived human health hazards from flooding and fires	Critical	Complement biophysical information. Key to understanding extent of fires and flooding issues in Manell-Geus impact human health
5. Perceived resource conditions	Critical	Complement biophysical information. This will track changes in perceptions of key resources targeted by Habitat Blueprint.
5. Knowledge of threats to coral reefs	Critical	Monitoring this information over time is important for tracking whether Merizo residents understand threats to Manell-Geus watershed and coral reefs. Data gathered will help inform management strategies and education and outreach efforts
6. Attitudes towards coral reef management strategies	Critical	Monitoring this information over time will be valuable to decision-makers. Information collected will assist decision-makers to evaluate and improve existing strategies and design new management approaches.
7. Participation in	Critical	Improve existing knowledge and gain a better

behaviors that may improve coral reef health		understanding on how human behaviors impact coral reefs positively and negatively
8. Perception on fish catch	Critical	This information will track change of perceived fish catch overtime and complement biophysical data.
9. Availability of locally sourced marine and terrestrial foods	Critical	This information is critical to monitor change in locally important food fish and crop attributed to Habitat Blueprint projects
10. Household participation in natural resources management planning or decision making	Critical	Tracking this will indicate changes in community engagement with Habitat Blueprint projects and address government transparency
11. Economic impact of dive/snorkel tourism to jurisdiction <sup>1</sup>	Important	Track the economic contributions of coral reefs to tourism in Manell-Geus and justify government funding of coral reef protection programs

NOAA staff involved in socioeconomic data collection efforts in Manell-Geus received guidance from NCRMP in the construction of household questionnaire for Merizo respondents. The household survey design, including questionnaire, and key informant semi-structured questions were developed by the CRCP team. The Manell-Gues questionnaire drew applicable questions from various categories within NCRMP’s OMB-approved question bank. The survey instrument contains questions that address site-specific issues not addressed in NCRMP’s question bank. Key issues included in the questionnaire include fires in upland areas of Manell-Geus and flooding in relation to human health and safety. Household surveys that contain NCRMP questions can be a useful data set to NCRMP and provide a synergistic model for similar socioeconomic monitoring efforts on coral reef management within jurisdictions.

Information on Merizo residents will be collected at regular intervals every three to four years. The survey enumerators will include volunteers from the Merizo community and students from the University of Guam (UoG). These volunteers will be trained in the methods and supervised throughout the entire data collecting process by the CRCP team leaders.

CRCP will work with volunteers to ensure they understand the survey objectives, the data collection strategy, select relevant questions from question bank and tailor them to the subject of the survey. CRCP is planning to use the following approach to select the questions for each jurisdiction:

For each survey after the Manell-Gues survey, a non-substantive change request will be submitted, listing the selected questions, and briefly describing the information collection venue and sampling methodology applicable to this community.

Data collected will not be disseminated to the public in a way which could potentially reveal

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personally identifiable information (PII). Aggregate and summary statistics will only be publicly available for the data which will allow the identities of survey respondents to remain confidential. CRCP will maintain the data in accordance with the highest standards of information security and will keep PII data only as long as is absolutely necessary to complete the survey.

CRCP fully acknowledges the possibility of experiencing potential bias during the data collection, for example, in case of non-response to certain questions or non-truthful answers (these scenarios are dealt with in Part B's detailed descriptions of methodology).

The risk associated with these potential biases skewing the analysis will be minimized by the fact that CRCP will be primarily using the information as indicative parameters to analyze the effectiveness of its Habitat Blueprint projects to improve Merizo residents' wellbeing and resilience to climate change. The information collected will not be used by CRCP to conduct comprehensive evaluations of its programs nor will the data from this survey be used in isolation to make decisions about these programs. Any decisions to modify existing programs and to create new coral reef initiatives will be made using information collected from a number of sources, including this survey and other tools such as formal program assessments and evaluations and CRCP's strategic plans.

NOAA will retain control over the information and safeguard it from improper access, modification, and destruction, consistent with NOAA standards for confidentiality, privacy, and electronic information. See response to Question 10 of this Supporting Statement for more information on confidentiality and privacy. The information collection is designed to yield data that meet all applicable information quality guidelines. Prior to dissemination, the information will be subjected to quality control measures and a pre-dissemination review pursuant to [Section 515 of Public Law 106-554](#).

**3. Describe whether, and to what extent, the collection of information involves the use of automated, electronic, mechanical, or other technological techniques or other forms of information technology.**

We are planning on conducting face-to-face interviews due to the low density of internet and phone connections. Face-to-face interviews are also necessary in case a translator is needed during interviews (for non-English or non-Chamorro speakers). Phone or internet interview techniques will not be used to collect information.

**4. Describe efforts to identify duplication.**

A socioeconomic data collection effort was completed in 2009 by Romina King, PhD candidate at Cork University, as part of her dissertation. The information collected was used to assess the Merizo community's vulnerability and adaptability to impacts from climate change through understanding the community's knowledge, perceptions, and attitudes toward the Manell-Geus watershed. This study has helped Habitat Blueprint team strategically identify community issues to be further investigated by proposed socioeconomic data collection.

The planning team agreed that repeating selected questions from King's study will help detect changes of community's knowledge, attitudes, and perceptions of their watershed and fisheries

resources.

Finally, this effort is being coordinated by the NOAA Habitat Blueprint's Lead Investigator in collaboration with NOAA Fisheries Coral Reef Ecosystem Division's (CRED) Project Primary Investigator with support from the Merizo Mayor's Office, NCRMP, and jurisdiction's natural resource agency partners. All efforts will be made to ensure that this data collection takes other conservation and community efforts in Manell-Geus into consideration.

**5. If the collection of information involves small businesses or other small entities, describe the methods used to minimize burden.**

Key informant interviewing will be used to collect information from small entities. This method allows for targeted questions that are relevant for this group as well as for gathering in-depth information.

**6. Describe the consequences to the Federal program or policy activities if the collection is not conducted or is conducted less frequently.**

One of the main objectives of this collection is to assist the Coral Reef Conservation Program (CRCP) to fulfill its mission of enhancing the conservation of coral reefs. Under the Habitat Blueprint, increased community support and engagement in conservation is one of the main goals for Manell-Geus site. Community support and engagement are key aspects to ensure successful long-term conservation efforts in Manell-Geus. The information requested will allow Habitat Blueprint and local managers to work effectively with Merizo community to manage their natural resources. The information requested will allow CRCP to gauge the effects of existing coral reef and watershed management practices on Merizo community, adapt implemented Habitat Blueprint management projects and disseminate results in the best context to the community for further refinement of conservation efforts. In addition, the information will allow CRCP to design new programs and ensure that they are as successful as possible.

Not conducting this investigation could undermine the NOAA Habitat Blueprint initiative in Manell-Geus to effectively evaluate conservation efforts impacts on the Merizo community and to ensure that they are helping achieve long-term community support and engagement in coral reef management of their resources.

**7. Explain any special circumstances that require the collection to be conducted in a manner inconsistent with OMB guidelines.**

No special circumstances are anticipated. The information requested will be voluntary and the collection will be conducted in accordance with OMB guidelines.

**8. Provide information on the PRA Federal Register Notice that solicited public comments on the information collection prior to this submission. Summarize the public comments received in response to that notice and describe the actions taken by the agency in response to those comments. Describe the efforts to consult with persons outside the agency to obtain their views on the availability of data, frequency of collection, the clarity of instructions and recordkeeping, disclosure, or reporting format (if any), and on the data elements to be recorded, disclosed, or reported.**

A Federal Register Notice was published on May 7, 2015 (80 FR 26547). No comments were received.

The question bank and the sampling strategies for this collection were developed in consultation with key CRCP staff and partners and are modeled on the national indicators for this program.

**9. Explain any decisions to provide payments or gifts to respondents, other than remuneration of contractors or grantees.**

No payments or gifts are provided to respondents.

**10. Describe any assurance of confidentiality provided to respondents and the basis for assurance in statute, regulation, or agency policy.**

As stated on the questionnaires, identifying information (name, address, telephone number, email address) will be collected and used only to administer the survey. This information will be viewed only by the NOAA research team compiling the data, and will be destroyed at the end of the collection and not be retrieved using personal identifying information. This process will maintain the anonymity of the responses received. Results will be aggregated, so that no responses can be attributable to individuals.

All data received from the surveys will be placed on a secure server and will be password protected. All computerized data will be maintained in a manner that is consistent with NOAA's IT Security Program. No data files will contain personal identifiers.

**11. Provide additional justification for any questions of a sensitive nature, such as sexual behavior and attitudes, religious beliefs, and other matters that are commonly considered private.**

For this collection, no sensitive questions will be asked.

To address potential sensitivity issues associated with these questions, personal identifying information will not be stored and will only be used to administrate the survey; respondents will be made aware of this practice. Identifying information will be viewed only by the contractor compiling the data, and will be destroyed at the end of the information collection. This process will maintain the anonymity of the responses received.

**12. Provide an estimate in hours of the burden of the collection of information.**

A variety of instruments and platforms will be used to collect information from respondents. The annual burden hours requested (425) are based on the maximum number of collections we expect to conduct over the requested period for this clearance. This includes 350 one hour household surveys (350 hours), one-on-one interviews with 10 key informants, which may include local business owners, experienced local fishers, youth, hunters, fishers, and/or *manamko*’ (community elders) at 1.5 hours per interview (15 hours) and three focus groups of ten individuals per group, who have been impacted by river erosion or flooding, at 2 hours each (60 hour). Using an average labor rate (\$16.96/hour) the burden estimate results in expected labor costs is \$7,203.75.

The response burden is in part based on an average number of questions asked. Other components of burden are: the survey administrator explaining the purpose and need to the respondent, demographic questions for statistical purposes, and programmatic related questions. We estimate that the survey administrator will take 1 minute to explain the purpose and the need of the survey to the respondent (if the call recipient declines the survey, this time will fall under nonresponse burden). The remaining number of questions will be determined by the NOAA research team. The questions have been divided into indicator groups. Of these groups, NOAA will shift its importance and the number of questions asked from each group to keep the total time needed within 60 minutes.

We acknowledge that not all respondents contacted will be willing to participate in the survey. For these negative responses we estimate a non-response burden of 1 minute for the survey administrator to explain the purpose and need for the survey and the respondent to decline. We expect a, 90% response rate for in-person surveys.

**Table 3 Estimate of Burden Hours**

Survey Type	# of units	Responses Per Type	Total # of Responses	Response Time	Total Burden (in hours)	Labor Cost (\$)
Household questionnaire	350	1	350	1 hour	350	5,932.50
Key informant interviews	10	1	10	1.5 hours	15	254.25
Focus Groups	3	10	30	2	60	1,017.00
<b>TOTALS</b>			390*		425*	7,203.75

\*annualized to 130 and 142

**13. Provide an estimate of the total annual cost burden to the respondents or record-keepers resulting from the collection (excluding the value of the burden hours in Question 12 above).**

There will be no cost to respondents beyond burden hours.



**14. Provide estimates of annualized cost to the Federal government.**

NOAA staff time and travel will be required to participate in planning and design activities for this research project. The government will implement one round of household surveys and key informant interviews in late FY15. The cost of the government for this survey is estimated at \$90,000 for the first survey (annualized to \$30,000). This is in addition to time and travel for the socioeconomic monitoring trainer and social scientist leading the integrated monitoring effort for Manell-Geus and accompanied researcher cost \$65,158 (per year). Partial time for the NOAA Fisheries Community Coral Reef Monitoring Coordinator to assist with the implementation of these studies is also included. As part of a cooperative agreement from the National Marine Fisheries Service (NMFS) Office of Habitat Conservation, the Nature Conservancy was subcontracted \$50,000 to implement socioeconomic monitoring plan for Manell-Geus. This represents a one-time grant that will extend over the period of the survey effort (annualized to \$18,333).

**Annual/annualized costs: \$30,000 + \$65,158 + 18,333: \$113,491.**

**15. Explain the reasons for any program changes or adjustments.**

Not applicable. This a new information collection request.

**16. For collections whose results will be published, outline the plans for tabulation and publication.**

Data collected under this clearance will be used for research purposes, to measure and improve the results of CRCP programs, and to target outreach efforts.

Members of the research team may publish aspects of this survey in peer-reviewed academic journals. The agency may also receive requests to release some of its findings through congressional inquiries or Freedom of Information Act (FOIA) Requests. NOAA CRCP will disseminate the findings when appropriate, and strictly following NOAA's guidelines, and all applicable laws and regulations.

**17. If seeking approval to not display the expiration date for OMB approval of the information collection, explain the reasons why display would be inappropriate.**

Not applicable.

**18. Explain each exception to the certification statement.**

Not applicable.