

NCRMP Resident Coral Reef Survey for Guam  
OMB control Number 0648-0646  
*DRAFT – For Review Only*

Survey conducted in (circle one): *English Chamorro Carolinian Tagalog*

Introduction: *[greeting specific to jurisdiction]*

Hello, my name is [interviewer name]. I'm calling from [CONTRACT COMPANY] on behalf of the National Oceanic and Atmospheric Administration (NOAA) and the National Coral Reef Monitoring Program. We are interested in obtaining your opinions on important issues related to coral reefs in Guam. You were selected because you live in a coastal area near coral reefs.

This survey is being conducted in accordance with the Privacy Act of 1974 and the Paperwork Reduction Act. Your participation is voluntary, your answers are confidential and you can stop the interview at any time. The interview is expected to take less than 20 minutes. If you have questions or would like to know more about the survey I will provide you with contact information.

Notwithstanding any other provisions of the law, no person is required to respond to, nor shall any person be subjected to a penalty for failure to comply with, a collection of information subject to the requirements of the Paperwork Reduction Act, unless that collection of information displays a currently valid OMB Control Number. The OMB Control number for this survey is 0648-0646

The 25 minute estimate includes the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

Please send comments regarding this burden estimate or any other suggestions for reducing this burden to Peter Edwards, National Oceanic and Atmospheric Agency, National Ocean Service, Coral Reef Conservation Program, (1305 East West Highway, Silver Spring, MD, 20910, USA).

1. Are you at least 18 years of age?  
IF "YES" CONTINUE TO SCREENING QUESTION 2. IF "NO", END SURVEY.

Now that we have established that you are qualified, we will continue with the survey. Remember that you can stop at any time.

## PARTICIPATION IN REEF ACTIVITIES

1. How often do you usually participate in each of the following activities?

|  | Never | Once a month or less | 2-3 times a month | 4 times a month or more | No Response |
|--|-------|----------------------|-------------------|-------------------------|-------------|
| Swimming/wading  |       |                      |                   |                         |             |
| Snorkeling   |       |                      |                   |                         |             |
| Diving (SCUBA or free diving)  |       |                      |                   |                         |             |
| Boarding (surfing, kitesurfing, SUP, body-surfing, body-boarding)                              |       |                      |                   |                         |             |
| Beach recreation (beach sports, picnics)   |       |                      |                   |                         |             |
| Fishing from shore (spear, cast net, gill net, drag net)                                       |       |                      |                   |                         |             |
| Fishing or harvesting from a boat or kayak (rod and reel, trolling, free diving, scuba spear)  |       |                      |                   |                         |             |
| Gathering of animals for gleaning (trochus/ailingling, clams, sea cucumbers, octopus, urchins) |       |                      |                   |                         |             |
| Paddling/kayaking  |       |                      |                   |                         |             |
| Jet skiing   |       |                      |                   |                         |             |

**SKIP PATTERN--** If respondent answers 'never' to BOTH fishing AND gathering of marine resources, then skip to #3:

## CORAL REEF RELIANCE / CULTURAL IMPORTANCE OF REEFS

2. How often do you fish or harvest marine resources for each of the following reasons?

|   | Frequently | Sometimes | Rarely | Never | No Response |
|---|------------|-----------|--------|-------|-------------|
| To feed myself and my family/ household           |            |           |        |       |             |
| To sell   |            |           |        |       |             |
| To give to extended family members and/or friends |            |           |        |       |             |
| For fun   |            |           |        |       |             |

|  | Frequently | Sometimes | Rarely | Never | No Response |
|--|------------|-----------|--------|-------|-------------|
| <b>For special occasions and cultural events</b> |            |           |        |       |             |

3. How often does your family eat fish/seafood?
  - a. Every day
  - b. A few times a week
  - c. About once a week
  - d. 1-3 times a month
  - e. Less than once a month
  - f. Never
  
4. What are the two main sources of the fish and seafood that you and your family eats?  
 [INTERVIEWER: CODE THE ANSWERS ACCORDING TO THE RESPONSE CATEGORIES PROVIDED. PROMPT WITH EXAMPLES IF NECESSARY.]
  - a. Purchased by myself or someone in my household at a store or restaurant
  - b. Purchased by myself or someone in my household at a market or roadside vendor
  - c. Caught by myself or someone in my household
  - d. Caught by extended family members
  - e. Caught by friends or neighbors
  - f. Other, please specify \_\_\_\_\_
  - g. Not Sure
  - h. Refused

[INTERVIEWER: Now we know that we have asked you a similar question before. But now we are specifically interested in seafood harvested from coral reefs.]

5. How often does your family eat fish/seafood that is harvested from coral reefs? (For example parrotfish, humphead wrasse, unicorn fish, octopus or shells)?
  - a. Every day
  - b. A few times a week
  - c. About once a week
  - d. 1-3 times a month
  - e. Less than once a month
  - f. Never

**PERCEIVED RESOURCE CONDITION**

6. In your opinion, how are Guam’s marine resources currently doing? Please rank from very bad to very good.

|                                       | Very Bad | Bad | Neither Bad nor Good | Good | Very Good | Not sure |
|---------------------------------------|----------|-----|----------------------|------|-----------|----------|
| Ocean Water Quality (clean and clear) |          |     |                      |      |           |          |
| Amount of Coral                       |          |     |                      |      |           |          |
| Number of Fish                        |          |     |                      |      |           |          |
| Number of turtles                     |          |     |                      |      |           |          |
| Beach quality (clean, no litter)      |          |     |                      |      |           |          |

7. How would you say the condition of each of the following has changed over the last 10 years: from 1=it has gotten a lot worse to 5=it has gotten a lot better.

|                                       | A lot Worse | Somewhat Worse | No Change | Somewhat Better | A lot Better | Not Sure |
|---------------------------------------|-------------|----------------|-----------|-----------------|--------------|----------|
| Ocean Water Quality (clean and clear) |             |                |           |                 |              |          |
| Amount of Coral                       |             |                |           |                 |              |          |
| Number of Fish                        |             |                |           |                 |              |          |
| Number of turtles                     |             |                |           |                 |              |          |
| Beach quality (clean, no litter)      |             |                |           |                 |              |          |

8. In the next 10 years, do you think the condition of the marine resources in Guam will get worse, stay the same or improve?

- Get worse
- Stay the same
- Improve
- Not sure

#### AWARENESS AND KNOWLEDGE OF CORAL REEFS

9. Please say whether you disagree or agree with each of the following statements.

|   | Strongly Disagree | Disagree | Neither | Agree | Strongly Agree | Not Sure |
|---|-------------------|----------|---------|-------|----------------|----------|
| Coral reefs protect Guam from coastal/shoreline erosion and natural disasters like typhoons and tsunamis. |                   |          |         |       |                |          |
| Coral reefs are only important to fishermen, divers and snorkelers.                                       |                   |          |         |       |                |          |
| Healthy coral reefs attract tourists to Guam.   |                   |          |         |       |                |          |

|   | Strongly Disagree | Disagree | Neither | Agree | Strongly Agree | Not Sure |
|---|-------------------|----------|---------|-------|----------------|----------|
| <b>Coral reefs are important to Guam's culture.</b> |                   |          |         |       |                |          |

10. How familiar are you with each of the following potential threats facing the coral reefs in Guam?

|   | Very Unfamiliar | Unfamiliar | Neither Familiar nor Unfamiliar | Familiar | Very Familiar | Not sure |
|---|-----------------|------------|---------------------------------|----------|---------------|----------|
| <b>Climate change</b>   |                 |            |                                 |          |               |          |
| <b>Coral bleaching</b>  |                 |            |                                 |          |               |          |
| <b>Typhoons, storms, and other natural disasters</b>  |                 |            |                                 |          |               |          |
| <b>Pollution from stormwater, sewage, fertilizer and other chemical runoff</b>                  |                 |            |                                 |          |               |          |
| <b>Trash/littering</b>  |                 |            |                                 |          |               |          |
| <b>Increased coastal/urban development</b>  |                 |            |                                 |          |               |          |
| <b>Invasive species</b>   |                 |            |                                 |          |               |          |
| <b>Too much fishing and gathering</b>   |                 |            |                                 |          |               |          |
| <b>Damage from ships and boats</b>  |                 |            |                                 |          |               |          |
| <b>Sediment runoff into the ocean from fires</b>  |                 |            |                                 |          |               |          |
| <b>Damage from small watercraft (windsurfing, kiteboarding, kayaking, paddling, jet skiing)</b> |                 |            |                                 |          |               |          |

11. Do you believe that the threats to coral reefs in Guam are:

- a. Extreme
- b. Large
- c. Moderate
- d. Minimal
- e. None
- f. Not sure

## ATTITUDES TOWARDS CORAL REEF MANAGEMENT STRATEGIES AND ENFORCEMENT

12. A marine preserve is an area of the ocean where “measures must be taken to preserve local traditions and to protect the natural resource, which is so valuable to both the community and the economy.” How familiar are you with marine preserves?

- a. Very Unfamiliar
- b. Unfamiliar
- c. Neither Unfamiliar nor Familiar
- d. Familiar
- e. Very Familiar
- f. Not sure

**SKIP PATTERN-- If respondent answers ‘Very unfamiliar’ or ‘Unfamiliar’, then skip to #12:**

13. Please indicate how much you disagree or agree with each of the following statements.

|  | Strongly Disagree | Disagree | Neither Agree nor Disagree | Agree | Strongly Agree | Not Sure |
|--|-------------------|----------|----------------------------|-------|----------------|----------|
| Marine preserves protect coral reefs   |                   |          |                            |       |                |          |
| Marine preserves increase the number of fish   |                   |          |                            |       |                |          |
| There should be fewer marine preserves in Guam   |                   |          |                            |       |                |          |
| There should be more marine preserves in Guam  |                   |          |                            |       |                |          |
| There has been economic benefit to Guam from the establishment of marine preserves   |                   |          |                            |       |                |          |
| Fishermen’s livelihoods have been negatively impacted from the establishment of marine preserves in Guam                             |                   |          |                            |       |                |          |
| Marine preserves help increase tourism in Guam   |                   |          |                            |       |                |          |
| The establishment of marine preserves increases the likelihood that people will vacation in Guam                                     |                   |          |                            |       |                |          |
| I would support adding new marine preserves in Guam if there is evidence that the ones we have are improving Guam’s marine resources |                   |          |                            |       |                |          |
| I generally support the establishment of marine preserves  |                   |          |                            |       |                |          |

14. The following are rules and regulations that can be used to manage the marine environment. We are interested in your opinion about the use of these rules and regulations for the protection of coral reefs. Please indicate how much you disagree or agree with each of the following:

| Rules/Regulations   | Strongly Disagree | Disagree | Neither Agree nor Disagree | Agree | Strongly Agree | Not Sure |
|---|-------------------|----------|----------------------------|-------|----------------|----------|
| Restrictions on SCUBA spear fishing                                   |                   |          |                            |       |                |          |
| Size limits for certain fish species                                  |                   |          |                            |       |                |          |
| Lower the number of sea cucumbers allowed per person                  |                   |          |                            |       |                |          |
| Limits on tourism operators and activity within marine preserves      |                   |          |                            |       |                |          |
| Permit and certification requirements for water sports tour operators |                   |          |                            |       |                |          |

**PARTICIPATION IN BEHAVIORS THAT MAY IMPROVE CORAL HEALTH**

15. How often do you participate in any activity to protect the environment (for example, beach clean ups, volunteering with an environmental group, recycling)?

- a. Not At All
- b. Once a year or Less
- c. Several times a year
- d. At least once a month
- e. Several Times a Month or more
- f. Not Sure

16. Which of the following would you consider to be your top 3 sources of information about coral reefs and the environment in Guam?

***Interviewer checks the top 3 sources of information in box below.***

17. To what degree do you trust each of your top rated sources of information to provide you the most accurate information on coral reefs and coral reef related topics in Guam?

***Respondent rates only the top 3 sources of information in box below.***

| <b>Top 3</b> | <b>Sources</b>  | <b>Very untrustworthy</b> | <b>Untrustworthy</b> | <b>Neither Trustworthy nor Untrustworthy</b> | <b>Trustworthy</b> | <b>Very Trustworthy</b> | <b>Not sure</b> |
|--------------|---|---------------------------|----------------------|--|--------------------|-------------------------|-----------------|
|              | <b>Newspapers, other print publications</b>               |                           |                      |  |                    |                         |                 |
|              | <b>Radio</b>  |                           |                      |  |                    |                         |                 |
|              | <b>TV</b>   |                           |                      |  |                    |                         |                 |
|              | <b>Internet</b>   |                           |                      |  |                    |                         |                 |
|              | <b>Social Media</b>                                       |                           |                      |  |                    |                         |                 |
|              | <b>Friends and family</b>                                 |                           |                      |  |                    |                         |                 |
|              | <b>Community leaders</b>                                  |                           |                      |  |                    |                         |                 |
|              | <b>Jurisdictional government agencies (BSP, EXAMPLES)</b> |                           |                      |  |                    |                         |                 |
|              | <b>Federal government agencies (NOAA, EPA)</b>            |                           |                      |  |                    |                         |                 |
|              | <b>Non-profit organizations</b>                           |                           |                      |  |                    |                         |                 |
|              | <b>Other</b>  |                           |                      |  |                    |                         |                 |

18. How involved is the local community in protecting and managing coral reefs?

- a. Not at all involved
- b. Somewhat involved
- c. Moderately involved
- d. Involved
- e. Very involved
- f. Not sure

19. How involved are you in making decisions related to the management of coral reefs in Guam?

- a. Not at all involved
- b. Slightly involved
- c. Moderately involved
- d. Involved
- e. Very involved
- f. Not sure



## DEMOGRAPHICS

I just have a few more questions that will help us to interpret our results. As a reminder, the information you provide is completely confidential.

20. Are you male or female?

- a. Male
- b. Female

21. What is your year of birth? \_\_\_\_\_

22. How long have you lived in Guam?

- a. 1 year or less
- b. 2-5 years
- c. 6-10 years
- d. more than 10 years, but less than all my life
- e. all my life

23. Including your primary language, please name each language you speak. [*interviewer should not read options below, but should allow respondent to answer*]

- |               |                           |
|---------------|---------------------------|
| 1. English    | 13. Hawaiian              |
| 2. Spanish    | 14. Hawaii Pidgin English |
| 3. French     | 15. Sāmoan                |
| 4. German     | 16. Chamorro              |
| 5. Italian    | 17. Carolinian            |
| 6. Portuguese | 18. Creole                |
| 7. Arabic     | 19. Crucian               |
| 8. Chinese    | 20. Tongan                |
| 9. Japanese   | 21. Other: Please list    |
| 10. Korean    | _____                     |
| 11. Tagalog   | 22. No Response           |
| 12. Hindi     |                           |

24. What race/ethnicity do you consider yourself? [*interviewer should not read options below, but should allow respondent to answer*]

- |                                      |   |
|--------------------------------------|---|
| 1. American Indian or Alaskan Native | 11. White                                     |
| 2. Asian                             | 12. Korean                                    |
| 3. Black or African American         | 13. Yapese                                    |
| 4. Palauan                           | 14. Native Hawaiian or other Pacific Islander |
| 5. Carolinian                        | 15. Samoan                                    |
| 6. Chamorro                          | 16. Chuukese                                  |
| 7. Chinese                           | 17. Pohnpeian                                 |
| 8. Marshallese                       | 18. Kosraean                                  |
| 9. Filipino                          | 19. Vietnamese                                |
| 10. Japanese                         |   |

21. Other/Mixed

23. No response

22. Hispanic or Latino

25. What is the highest level of education you have completed?

- a. 8th Grade or Less
- b. Some high school
- c. High School Graduate, GED
- d. Some college, community college or AA
- e. College Graduate
- f. Graduate School, Law School, Medical School
- g. No Response

26. What is your current employment status?

- a. Unemployed
- b. Student
- c. Employed full-time
- d. Homemaker
- e. Employed part-time
- f. Retired
- g. None of the above: Please specify \_\_\_\_\_
- h. No Response

27. What is your occupation? [*open ended*] \_\_\_\_\_

28. May I ask, what is your annual household income?

- a. Under \$10,000
- b. \$10,000-19,999
- c. \$20,000-29,999
- d. \$30,000-39,999
- e. \$40,000-49,999
- f. \$50,000-59,999
- g. \$60,000-74,999
- h. \$75,000-99,999
- i. \$100,000-149,999
- j. \$150,000 or More
- k. No Response