

NCRMP Resident Coral Reef Survey for CNMI  
OMB control Number 0648-0646

Hello, my name is: \_\_\_\_\_. I am calling from Spatial Environmental Solutions Corporation, a Guam-based research firm. We are interested in your opinions on some important environmental issues being talked about these days in the CNMI. Your participation in this survey is voluntary and will be kept strictly confidential.

**[IF NECESSARY:]**

- Your phone number has been selected at random to participate in the island-wide survey
- We are not trying to sell you anything.

May I please proceed?

1. Yes
2. No [TERMINATE]

S1. I need to speak to the person in your household who is 18 years of age or older and who has had the most recent birthday. Would you be that person?

1. Yes
2. No **[Ask for the person 18 years or older who has had the most recent birthday]**

98. DON'T KNOW **[THANK AND TERMINATE]**

99. REFUSED **[THANK AND TERMINATE]**

**[IF QUALIFYING RESPONDENT..... S2=1]**

S2\_b. We can conduct this survey in English, Chamorro, Carolinian, and Tagalog. For this survey, Is there a particular language you would prefer to use?

1. English
2. Chamorro **[SWITCH TO CHAMORRO QUESTIONNAIRE]**
3. Carolinian **[SWITCH TO CAROLINIAN QUESTIONNAIRE]**
4. Tagalog **[SWITCH TO TAGALOG QUESTIONNAIRE]**

Thank-you for taking the time to provide your views. 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 Administration, National Ocean Service, Coral Reef Conservation Program, (1305 East West Highway, Silver Spring, MD, 20910, USA).

[Main Survey]

**PARTICIPATION IN REEF ACTIVITIES**

1. How often do you usually participate in each of the following activities?
  - a. swimming/wading
  - b. snorkeling
  - c. recreational diving (SCUBA)
  - d. waterside/beach camping
  - e. beach recreation (beach sports, picnics)
  - f. motorized boating
  - g. non-motorized boating
  - h. fishing from shore – casting (rod and reel), cast netting/talaza
  - i. fishing from a boat, canoe or paddle board- rod and reel, trolling, spear gun, free diving, scuba
  - j. gathering of marine resources (seaweed, trochus, sea cucumber, octopus, clams, mollusks)
  - k. wave riding (SUP, wakeboarding, surfing, windsurfing)

answers for 1a- k:

**[FOR Q1A-K: READ SCALE AT LEAST ONCE, REPEAT AS NECESSARY]**

1. Never
2. Once a month or less
3. 2-3 times a month
4. 4 times a month or more
98. Don't Know [DO NOT READ]
99. No Response [DO NOT READ]

***SKIP PATTERN-- If respondent answers 'never' to fishing or 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?
  - a. To feed myself and my family/household
  - b. To sell
  - c. To give to extended family members/friends
  - d. For fun
  - e. For special occasions, cultural and religious events

Answers for 2 a-e:

**[FOR Q2A-E: READ SCALE AT LEAST ONCE, REPEAT AS NECESSARY]**

1. Frequently
2. Sometimes
3. Rarely
4. Never
98. Don't Know [DO NOT READ]
99. No Response [DO NOT READ]

3. How often does your family eat fish/seafood? [INTERVIEWER: Family is defined as all persons living under the same roof.]
  - 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 the marine resources currently doing on the island of your residence? Please rank from very bad to very good.

- a. Ocean water quality (clean and clear)
- b. Amount of coral
- c. Number of fish
- d. Number of trochus (aliling)
- e. Number of sea cucumbers (balati)

**FOR Q6A-E: READ SCALE AT LEAST ONCE, REPEAT AS NECESSARY]**

- 1. Very Bad
  - 2. Bad
  - 3. Neither Bad nor Good
  - 4. Good
  - 5. Very Good
- 1. Not sure [DO NOT READ]
  - 2. No response [DO NOT READ]
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. Ocean water quality (clean and clear)
  - b. Amount of coral
  - c. Number of fish
  - d. Number of trochus (aliling)
  - e. Number of sea cucumbers (balati)

**[FOR Q7A-E: READ SCALE AT LEAST ONCE, REPEAT AS NECESSARY:]**

- 1. A lot Worse
  - 2. Somewhat Worse
  - 3. No Change
  - 4. Somewhat Better
  - 5. A lot Better
- 98. Not sure [DO NOT READ]
  - 99. No response [DO NOT READ]
8. In the next 10 years, do you think the condition of the marine resources in CNMI will get worse, stay the same or improve?
- a. Get worse
  - b. Stay the same
  - c. Improve
  - d. Not sure

## **AWARENESS AND KNOWLEDGE OF CORAL REEFS**

9. Please say whether you disagree or agree with each of the following statements.
- a. Coral reefs protect the CNMI from coastal erosion and natural disasters
  - b. Coral reefs are only important to fishermen, divers and snorkelers.
  - c. Coral reefs in good condition provide food for island communities to eat.
  - d. Coral reefs are important to my island's culture.

**[FOR Q9A-D: READ SCALE AT LEAST ONCE, REPEAT AS NECESSARY:]**

1. Strongly Disagree
2. Disagree
3. Neither
4. Agree
5. Strongly Agree
1. Not Sure [DO NOT READ]
- 99.No response [DO NOT READ]

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

- a. Climate change
- b. Coral bleaching
- c. Typhoons and other natural disasters
- d. Pollution (stormwater, wastewater outfall, terrestrial runoff and trash/littering)
- e. Increased coastal/urban development
- f. Invasive species
- g. Over harvesting of resources
- h. Damage from ships and boats (groundings and anchorings)
- i. Erosion/sedimentation, sediment runoff
- j. Open dumping/littering

**[FOR Q10A-J: READ SCALE AT LEAST ONCE, REPEAT AS NECESSARY:]**

1. Very Unfamiliar
2. Unfamiliar
3. Neither Familiar nor Unfamiliar
4. Familiar
5. Very Familiar
98. Not sure [DO NOT READ]
99. No response [DO NOT READ]

11. Do you believe that the threats to coral reefs in CNMI 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 Protected Area is an area of the ocean where human activity is typically restricted to protect living, non-living, cultural, and/or historic resources such as conservation areas and sanctuaries. How familiar are you with Marine Protected Areas (MPAs)?

- 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 #14:***

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

- a. MPAs protect coral reefs
- b. MPAs increase the number of fish
- c. There should be fewer locally-managed MPAs in CNMI
- d. There should be more locally-managed MPAs in CNMI
- e. There has been economic benefit to CNMI from the establishment of locally-managed MPAs.
- f. Fishermen's livelihoods have been negatively impacted from the establishment of locally-managed MPAs in the CNMI.
- g. Locally-managed MPAs help increase tourism in CNMI.
- h. The establishment of locally-managed MPAs increases the likelihood that people will vacation in CNMI.
- i. I would support adding new locally-managed MPAs in CNMI if there is evidence that the ones we have are improving CNMI's marine resources.
- j. I generally support the establishment of locally-managed MPAs.
- k. I generally support the establishment of the federally managed Mariana Trench

**[FOR Q13A-K: READ SCALE AT LEAST ONCE, REPEAT AS NECESSARY:]**

1. Strongly Disagree
2. Disagree
3. Neither Agree nor Disagree
4. Agree
5. Strongly Agree
98. Not sure [DO NOT READ]
99. No response [DO NOT READ]

**AWARENESS OF CORAL RULES AND REGULATIONS**

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:
- a. Size limits for certain fish species
  - b. Impose a small fee (\$1 to \$5) for non-residents visiting a locally managed MPA to fund conservation
  - c. Increased enforcement of wastewater and stormwater regulations to preserve water quality
  - d. Limits on the number of tourism boat operators able to conduct business within locally managed MPAs.
  - e. More restrictions on construction practices to prevent sediment going to the sea.

**[FOR Q14A-E: READ SCALE AT LEAST ONCE, REPEAT AS NECESSARY:]**

1. Strongly Oppose
2. Oppose
3. Neither Support nor Oppose
4. Support
5. Strongly Support
98. Not sure [DO NOT READ]
99. No response [DO NOT READ]

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

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

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

- a. newspapers, other print publications
- b. radio
- c. TV
- d. Internet
- e. social media
- f. friends and family
- g. community leaders
- h. jurisdictional government agencies (BECQ, DFW)
- i. federal government agencies (EPA, NOAA, US Fish and Wildlife)
- j. non-profit environmental organizations (MINA/PMRI, TNC, APASEEM)
- k. other

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 CNMI?

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

**[FOR Q17A-C: READ SCALE AT LEAST ONCE, REPEAT AS NECESSARY:]**

- 1. Very untrustworthy
- 2. Untrustworthy
- 3. Neither Trustworthy nor Untrustworthy
- 4. Trustworthy
- 5. Very Trustworthy
- 98. Not sure [DO NOT READ]
- 99. No response [DO NOT READ]

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 CNMI?

- 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 CNMI?

- 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  | 7. Chamorro           |
| 2. Spanish  | 8. Carolinian         |
| 3. Mandarin | 9. Other: Please list |
| 4. Japanese | _____                 |
| 5. Korean   | 10. No Response       |
| 6. Tagalog  |                       |

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

- 1. Asian
- 2. Carolinian
- 3. Chamorro

4. Chinese
5. Filipino
6. Japanese
7. White
8. Korean
9. Native Hawaiian or other Pacific Islander
10. Taino
11. Thai
12. Vietnamese
13. Other/Mixed
14. No response

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

THANK YOU FOR YOUR TIME

*If you would like a copy of the results, please provide us with your mailing address or email address (write on separate contact sheet that is not linked to survey answers).*