

Global challenges and priorities for interventions addressing illegal harvest, use and trade of marine turtles

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SUPPLEMENTARY MATERIAL 1 Online survey used to collect participants' perceptions of the status and scope of the global illegal harvest, use and trade of marine turtles and priority conservation measures for addressing those illegal activities.

USE, TRADE AND CONSERVATION OF MARINE TURTLES QUESTIONNAIRE

Part 1: Your Professional Experience

1. Please indicate the type of organization you currently work for:

- University/research institute
- Environmental non-governmental organization
- Governmental agency
- Other. Please specify: _____

2. What best describes your role within your organization?

- Program coordination
- Technical ecological work
- Technical social work
- Scientific research
- Advocacy
- Other. Please specify: _____

3. At what geographic scale do you mainly work at?

- International. Please specify region(s): _____
- National. Please specify country(ies): _____
- Local. Please specify country(ies): _____

4. What country, in which illegal activities involving marine turtles are undertaken (e.g. illegal take, use or trade), are you most familiar with in terms of marine turtle conservation, research and trade? Please indicate ONE country only (and NOT a region). Please note that all following questions will apply to this country, and that this country does not necessarily have to have a marine turtle population.

Answer: _____

5. Please state the number of years of your professional experience in marine turtle conservation, research and/or trade in this country.

Answer: _____ years

The country that you have indicated will now be referred to as "your country of expertise".

Part 2: Current trends and characteristics of the illegal use of, and trade in marine turtles in your country of expertise

6. Is there currently a legal take of marine turtles and/or their eggs in your country of expertise?

- Yes
- No
- Don't know

...If Q6 = 'Yes' OR 'Don't know'...

**7. Regarding the legal take, please score how likely this is ALLEVIATING the pressure to engage in illegal activities* involving marine turtles in your country of expertise:
*e.g. illegal take, use or trade**

- Extremely unlikely
- Unlikely
- Neutral
- Likely
- Extremely likely

...If Q6 = "Yes" OR "Don't know"...

**8. Regarding the legal take, please score how likely this is MASKING illegal activities* involving marine turtles in your country of expertise.
*e.g. illegal take, use or trade**

- Extremely unlikely
- Unlikely
- Neutral
- Likely
- Extremely likely

9. What illegal activities involving marine turtles currently take place in your country of expertise? Please select all options that apply.

- Illegal domestic use of specimens (direct consumption or other uses)
- Illegal domestic take of specimens from the wild
- Illegal domestic trade in specimens (commercial transactions within the country)
- Illegal international import of specimens
- Illegal international export of specimens
- Other. Please specify: _____

...If Q9 = "Illegal domestic take"...

10. Which of the following options best describes the current illegal TAKE of marine turtles and/or their eggs in your country of expertise?

- Mostly directed, but also opportunistic
- Mostly opportunistic, but also directed
- As much directed as it is opportunistic
- Only directed
- Only opportunistic
- Don't know

...If Q9 = "Illegal domestic take"...

11. What main motivation(s) currently drive the illegal TAKE of marine turtles and/or their eggs in your country of expertise? Please select a maximum of 2 options.

- Household consumption
- Commercial gain (e.g. trade in local markets or part of larger criminal networks)
- Protection of self and property (e.g. retaliatory or preventive poaching)
- Protest (e.g. rebellion act against specific laws or local authorities, social defiance)
- Recreational satisfaction (e.g. thrill killing, trophy poaching or gamesmanship)
- Don't know
- Other. Please specify: _____

...If Q11 = "Household consumption"...

12. When TAKEN for household consumption, marine turtles and/or their eggs provide a:

- Vital source of nutrition
- Supplementary source of nutrition
- Don't know

...If Q11 = "Commercial gain"...

13. When TAKEN for commercial gain, marine turtles and/or their eggs provide a:

- Vital source of income
- Supplementary source of income
- Don't know

...If Q9 = "Illegal domestic take"...

14. Currently, who are the main individuals illegally HARVESTING marine turtles and/or their eggs in your country of expertise?

- Local community members
- Other non-local nationals
- Foreigners (e.g. foreign vessels)
- Don't know
- Other. Please specify: _____

...If Q9 = "Illegal domestic use"...

15. Currently, what is the main purpose why marine turtle specimens are illegally USED in your country of expertise? Please select a maximum of 2 options.

- Nutritional
- Medicinal
- Cultural
- Social/ reputational
- Spiritual
- Recreational
- Don't know
- Other. Please specify: _____

...If Q15 = "Nutritional"...

16. When USED for nutrition, marine turtles and/or their eggs provide a:

- Vital source of nutrition
- Supplementary source of nutrition
- Don't know

...If Q9 = "Illegal domestic use"...

**17. Currently, who USES* marine turtle specimens illegally in your country of expertise?
*(e.g. direct consumption or other uses)**

- Local community members
- Other non-local nationals
- Internationals visiting the country
- Don't know
- Other. Please specify: _____

...If Q9 = "Illegal international import"...

18. Regarding the illegal international IMPORT of marine turtle specimens into your country of expertise, from which country(ies) are these mainly coming from? Please indicate between 1 and 3 countries, or skip the question if you don't know.

Answer: _____

...If Q9 = "Illegal international export"...

19. Regarding the illegal international EXPORT of marine turtle specimens from your country of expertise, to which country(ies) are these mainly going to? Please indicate between 1 and 3 countries, or skip the question if you don't know.

Answer: _____

20. How has illegal trade in marine turtle specimens evolved in your country of expertise in the last 5 years?

- Definitely decreased
- Somewhat decreased
- Remained the same
- Somewhat increased
- Definitely increased
- Don't know

21. How has ONLINE trade in marine turtle specimens evolved in your country of expertise in the last 5 years?

- It has been inexistent
- Definitely decreased
- Somewhat decreased
- Remained the same
- Somewhat increased
- Definitely increased
- Don't know

22. How do you rank the importance of the different threats to marine turtle conservation in your country of expertise? Please drag the options to the desired ranking position.

1=highest and most urgent threat to address

6=lowest and least urgent threat to address

- Pollution & pathogens
- Illegal take, use and/or trade
- Legal take, use and/or trade
- Fisheries impacts, including bycatch
- Climate change
- Coastal development

Part 3: Priority efforts currently needed to address the illegal use of, and trade in marine turtles in your country of expertise

23. At present, how much of a priority to marine turtle conservation is it to address illegal activities involving these species in your country of expertise?

- Not a priority
- Low priority
- Medium priority
- High priority
- Essential

24. How do you classify the current efforts to address illegal activities involving marine turtles in your country of expertise?

- Very insufficient considering what is needed
- Insufficient considering what is needed
- Somewhat sufficient considering what is needed
- Sufficient considering what is needed
- Outstanding considering what is needed

25. What do you consider are the most important current challenges that need to be addressed to tackle illegal activities involving marine turtles in your country of expertise? Please list up to 3 challenges and be as specific and concise as possible.

1st most important challenge to address: _____

2nd most important challenge to address: _____

3rd most important challenge to address: _____

26. What actions do you consider of current urgent need to address the challenges indicated in the previous question? You may indicate more than one action per challenge. Please be as specific and concise as possible.

To address the 1st challenge: _____

To address the 2nd challenge: _____

To address the 3rd challenge: _____

Part 4: Current suitability of conservation and management measures to address the illegal use of, and trade in marine turtles in your country of expertise

27. Regarding the tackling of illegal activities involving marine turtles, to what extent do you consider there has been positive progress on the following measures in your country of expertise in the last 5 years? (Scale: Much progress; Some progress; No progress; Don't know)

- a) Improving law enforcement and compliance
- b) Improving policy and legislation
- c) Improving management, conservation interventions and monitoring
- d) Improving information sharing and effort coordination at different levels
- e) Integrating in decision-making processes those directly affected
- f) Implementing viable alternative livelihoods and uses for marine turtles
- g) Educating and raising awareness and participation at different levels

28. Do you consider that any of those actions should be prioritized at the moment in your country of expertise to decrease engagement in illegal activities involving marine turtles? If so, please select those actions below, otherwise skip the question.

- a) Improving law enforcement and compliance
- b) Improving policy and legislation
- c) Improving management, conservation interventions and monitoring
- d) Improving information sharing and effort coordination at different levels
- e) Integrating in decision-making processes those directly affected
- f) Implementing viable alternative livelihoods and uses for marine turtles
- g) Educating and raising awareness and participation at different levels

...If Q28 = "Option a)"...

29. Realistically, how likely would the action "a) Improving law enforcement and compliance" succeed in achieving a decrease in the engagement in illegal activities involving marine turtles in your country of expertise?

- Extremely likely
- Likely
- Neutral
- Unlikely
- Extremely unlikely

...If Q28 = "Option b)"...

30. Realistically, how likely would the action "b) Improving policy and legislation" succeed in achieving a decrease in the engagement in illegal activities involving marine turtles in your country of expertise?

- Extremely likely
- Likely
- Neutral
- Unlikely
- Extremely unlikely

...If Q28 = "Option c)"...

31. Realistically, how likely would the action "c) Improving management, conservation interventions and monitoring" succeed in achieving a decrease in the engagement in illegal activities involving marine turtles in your country of expertise?

- Extremely likely
- Likely
- Neutral
- Unlikely
- Extremely unlikely

...If Q28 = "Option d)"...

32. Realistically, how likely would the action "d) Improving information sharing and effort coordination at different levels" succeed in achieving a decrease in the engagement in illegal activities involving marine turtles in your country of expertise?

- Extremely likely
- Likely
- Neutral
- Unlikely
- Extremely unlikely

...If Q28 = "Option e)"...

33. Realistically, how likely would the action "e) Integrating in decision-making processes those directly affected" succeed in achieving a decrease in the engagement in illegal activities involving marine turtles in your country of expertise?

- Extremely likely
- Likely
- Neutral
- Unlikely
- Extremely unlikely

...If Q28 = "Option f)"...

34. Realistically, how likely would the action "f) Implementing viable alternative livelihoods and uses for marine turtles" succeed in achieving a decrease in the engagement in illegal activities involving marine turtles in your country of expertise?

- Extremely likely
- Likely
- Neutral
- Unlikely
- Extremely unlikely

...If Q28 = "Option g)"...

35. Realistically, how likely would the action "g) Educating and raising awareness and participation at different levels" succeed in achieving a decrease in the engagement in illegal activities involving marine turtles in your country of expertise?

- Extremely likely
- Likely
- Neutral
- Unlikely
- Extremely unlikely

Part 5: Conservation and management lessons from past experiences

36. Are you, or have you been, directly involved in a conservation project addressing illegal marine turtle take, use and/or trade in the last 10 years?

- Yes
- No

...If Q36 = "Yes"...

For the next two final questions, please consider the lessons learnt from those experiences.

37. When working to reduce illegal marine turtle take, use and/or trade, what management and/or strategic options are of extreme importance, and should be considered for the success of such projects in the future?

Answer: _____

...If Q36 = "Yes"...

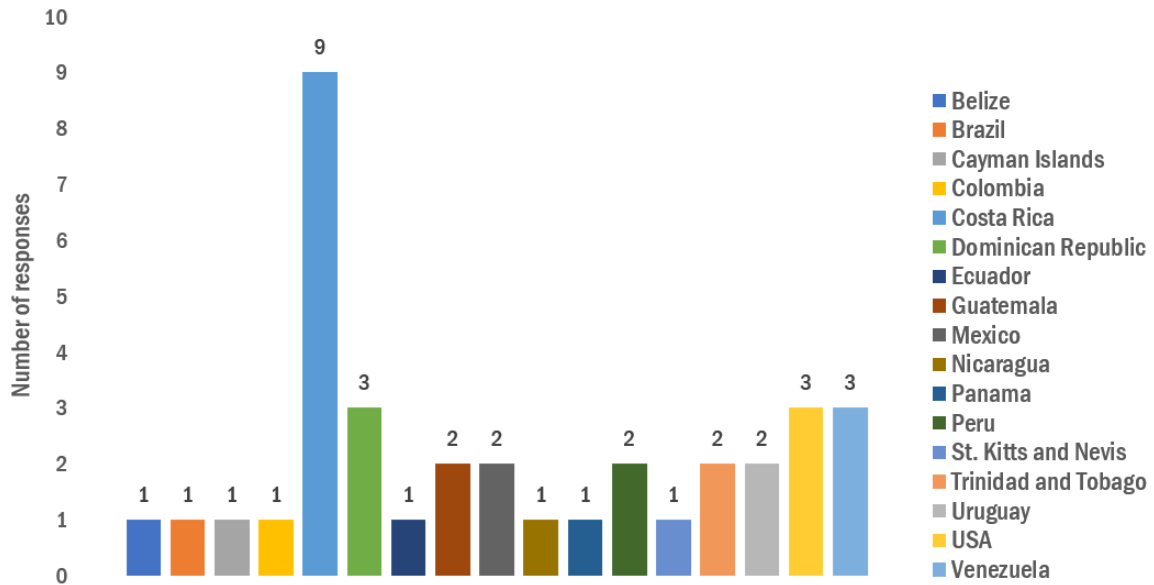
38. When working to reduce illegal marine turtle take, use and/or trade, what management/strategic options contribute to the lesser success of such projects, and should always be accounted for?

Answer: _____

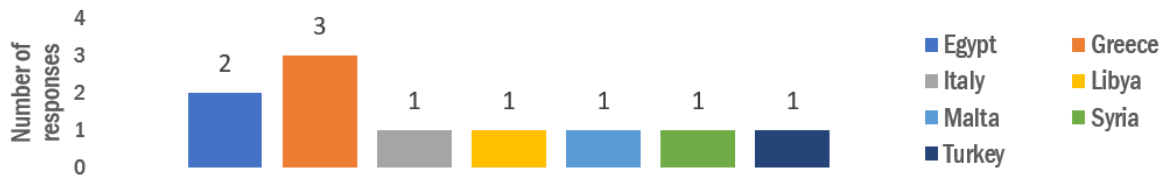
**Please state below any comments or suggestions you may have about this survey.
Please suggest up to 3 other experts who we could invite for the survey (colleagues, peers or organisations that may have relevant experience on the survey's topic). Please include their name, institution and email.**

Answer: _____

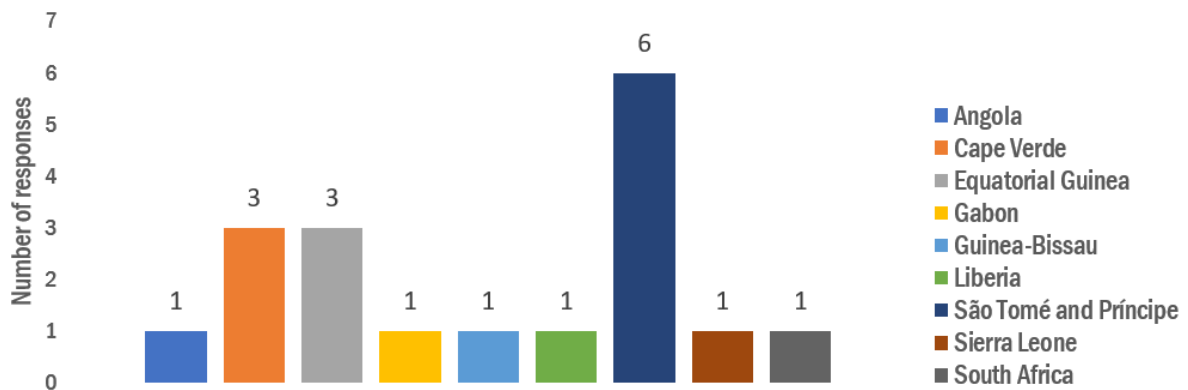
END OF SURVEY



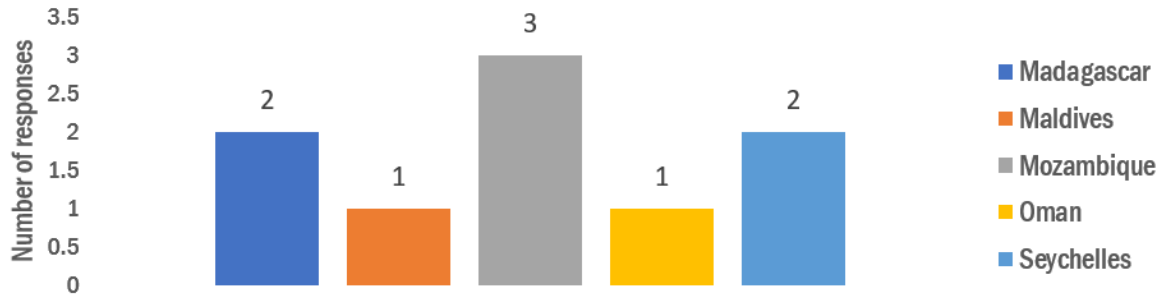
SUPPLEMENTARY FIG. 1 Number of survey participants by country of expertise in the Eastern Pacific and Western Atlantic region (n=36).



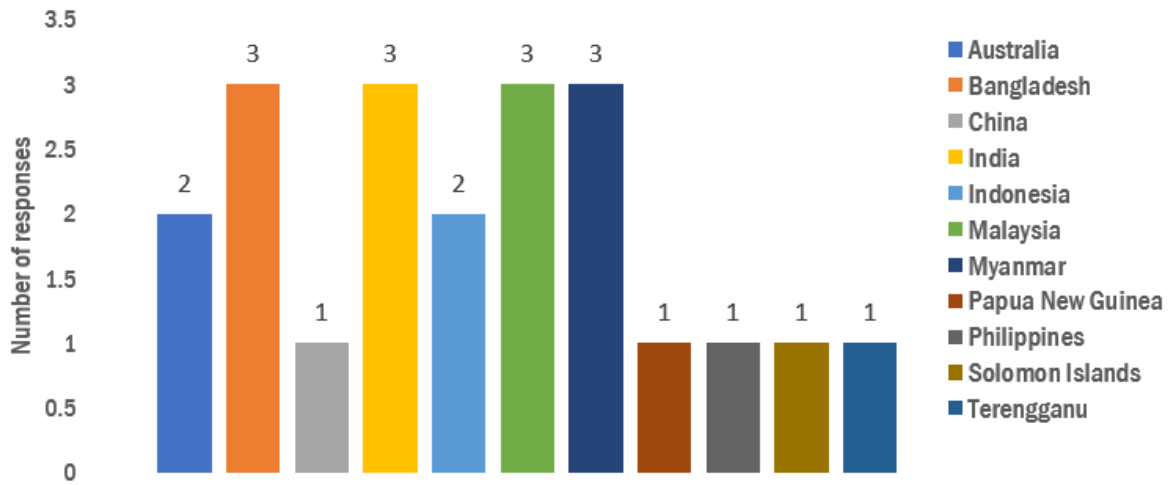
SUPPLEMENTARY FIG. 2 Number of survey participants by country of expertise in the Mediterranean region (n=10).



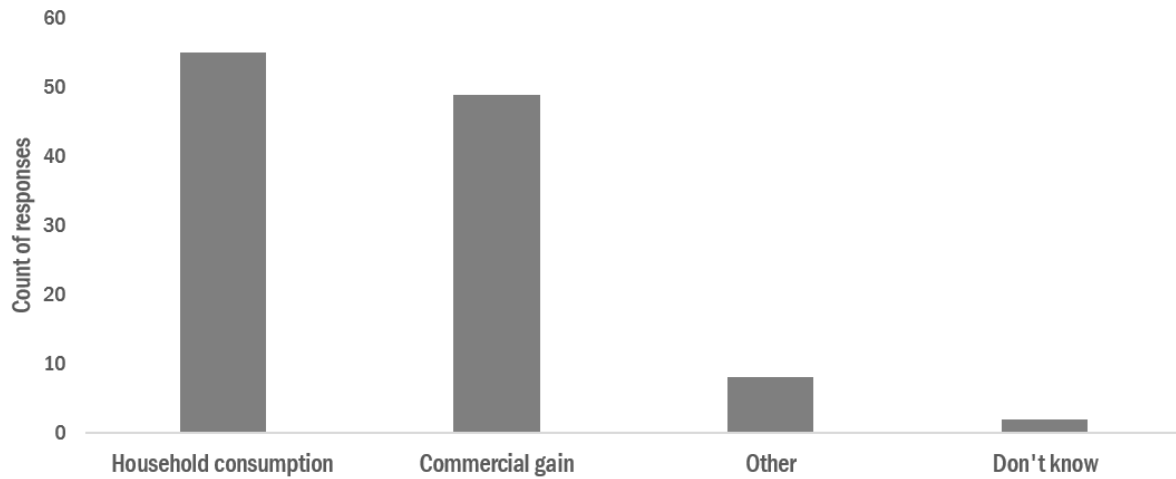
SUPPLEMENTARY FIG. 3 Number of survey participants by country of expertise in the Central Eastern and Southeastern Atlantic region (n=18).



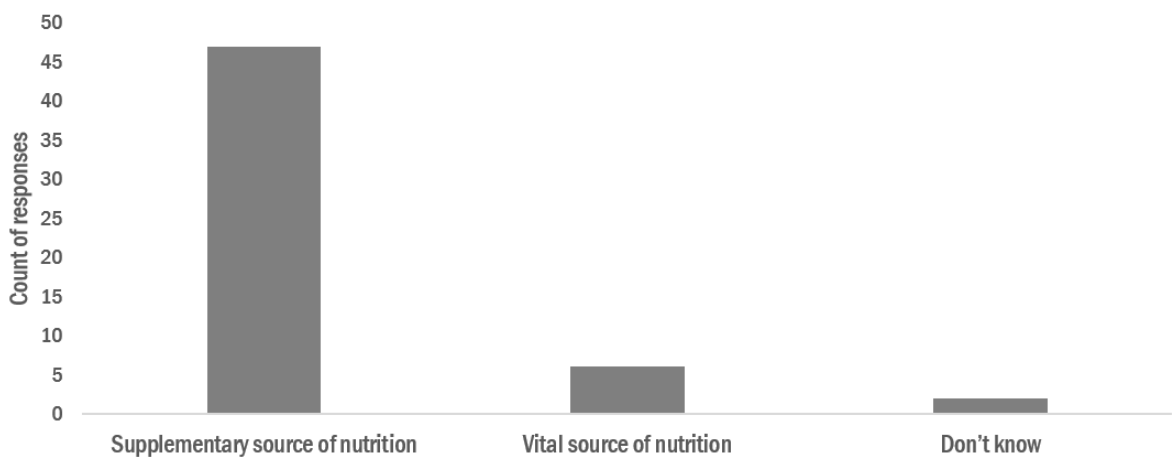
SUPPLEMENTARY FIG. 4 Number of survey participants by country of expertise in the Western Indian Ocean region (n=9).



SUPPLEMENTARY FIG. 5 Number of survey participants by country of expertise in the Eastern Indian Ocean and Central and Southwestern Pacific region (n=21).



SUPPLEMENTARY FIG. 6 Participants' (n=64) perceptions of the motivations driving illegal take of marine turtle specimens in their countries of expertise. 'Other' includes protest and recreational motivations, as well as others. Participants could select up to two different motivations.



SUPPLEMENTARY FIG. 7 Participants' (n=55) perceptions of the nutritional importance of marine turtle specimens taken in their countries of expertise for household consumption.

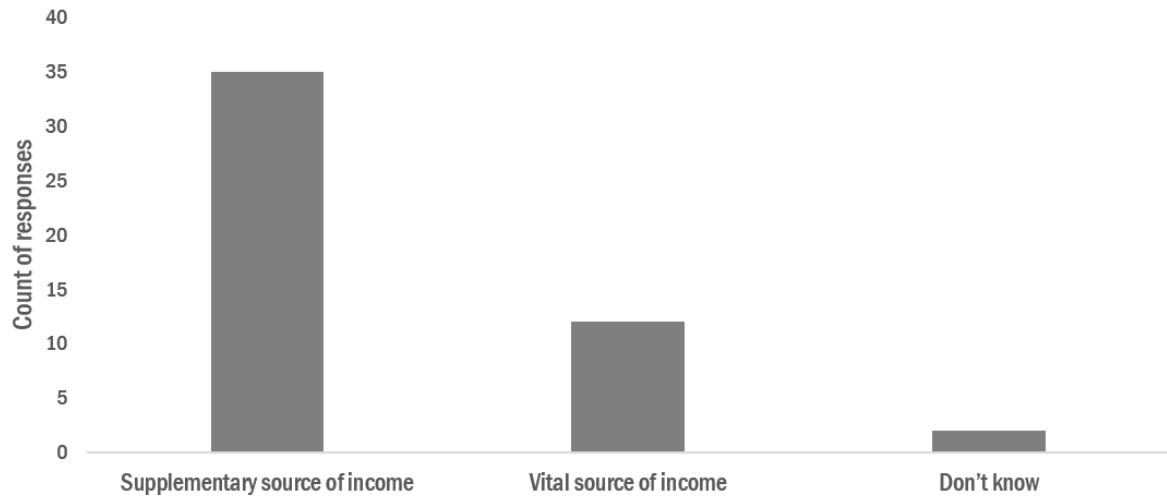


FIG. 8 Participants' (n=49) perceptions of the economic importance of marine turtle specimens taken in their countries of expertise for commercial gain.