

THE VALUE OF MARINE RESOURCES AND MARINE PROTECTED AREAS: THROUGH THE EYES OF THE COMMUNITY MEMBERS



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Introduction

- Marine protected area or MPA is any marine geographic area that is afforded greater protection than the surrounding waters for biodiversity conservation or fisheries management purposes (FAO 2011)
- Marine conservation is vital in the Philippines being located in the area of highest marine diversity (Coral Triangle Region)
- The participation of stakeholders, such as community members, is a key factor in the implementation of any coastal resource management initiative e.g. MPA



Introduction

- Values (social norm) and beliefs (shared understanding) plays a vital role in how people make choices and undertake actions related to marine resource use (Pomeroy et.al. 2004).
- This information is vital for MPA managers since values and beliefs influenced behavior of the community members, which in turn may affect the management operation of the MPA.
- Understanding this factor may be able to guide MPA managers in effectively incorporating local values and beliefs in the MPA management structure and in designing appropriate social marketing strategies.



Study Site



Profile of the 3 MPAs

Name of MPA		Core Zone	Buffer Zone
Brgy. Lawigan-Igcadlum Sanctuary (Bugnayan Point)	Marine	2 ha	100 m (North) 100 m (South) 200 m (East)
Brgy. Cataan Marine Sanctuary		2 ha	6 ha
Brgy. Tiolas Marine Sanctuary		2 ha	4 has



Evaluation of the MPAs

- Biophysical
- Governance
 - *Local understanding of MPA rules and regulations*
- Socio-economic
 - *Local values and beliefs about the marine resources*
 - *Understanding of human impacts on resources*
 - *Distribution of formal knowledge to the community*

Profile of the Respondents

	Brgy. Lawigan-Igcadlum Marine Sanctuary (n=211)	Brgy. Cataan Marine Sanctuary (n= 124)	Brgy. Tioas Marine Sanctuary (n= 164)	Total (n=499)
Gender				
• Male	57	43	50	150 (30.1%)
• Female	154	81	114	349 (69.9%)
Age				
• 0-20	8	4	4	16 (3.2%)
• 21-40	82	48	55	185 (37.1%)
• 41-60	69	42	75	186 (37.3%)
• 61-80	47	27	29	103 (20.6%)
• 81-100	4	2	1	7 (1.4%)
• No answer	1	1		2 (0.4%)
Education				
• College graduate	39	24	37	100 (20.0%)
• College level	18	13	10	41 (8.2%)
• High school graduate	66	42	68	176 (35.3%)
• High school level	4	2	6	12 (2.4%)
• Elementary graduate	58	33	36	127 (25.5%)
• Elementary level	20	6	5	31 (6.2%)
• No education		1		1 (0.2%)
• No answer	6	3	2	11 (2.2%)

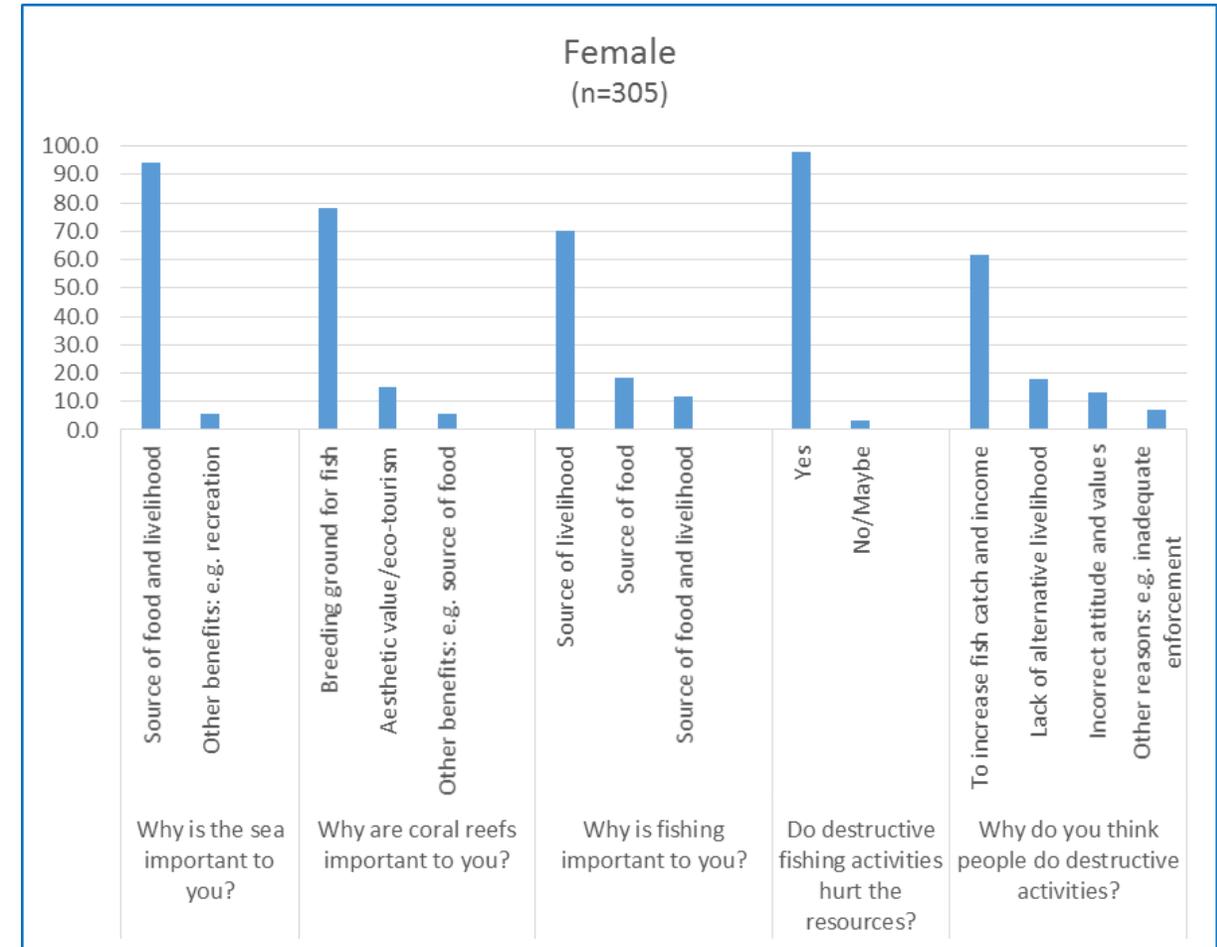
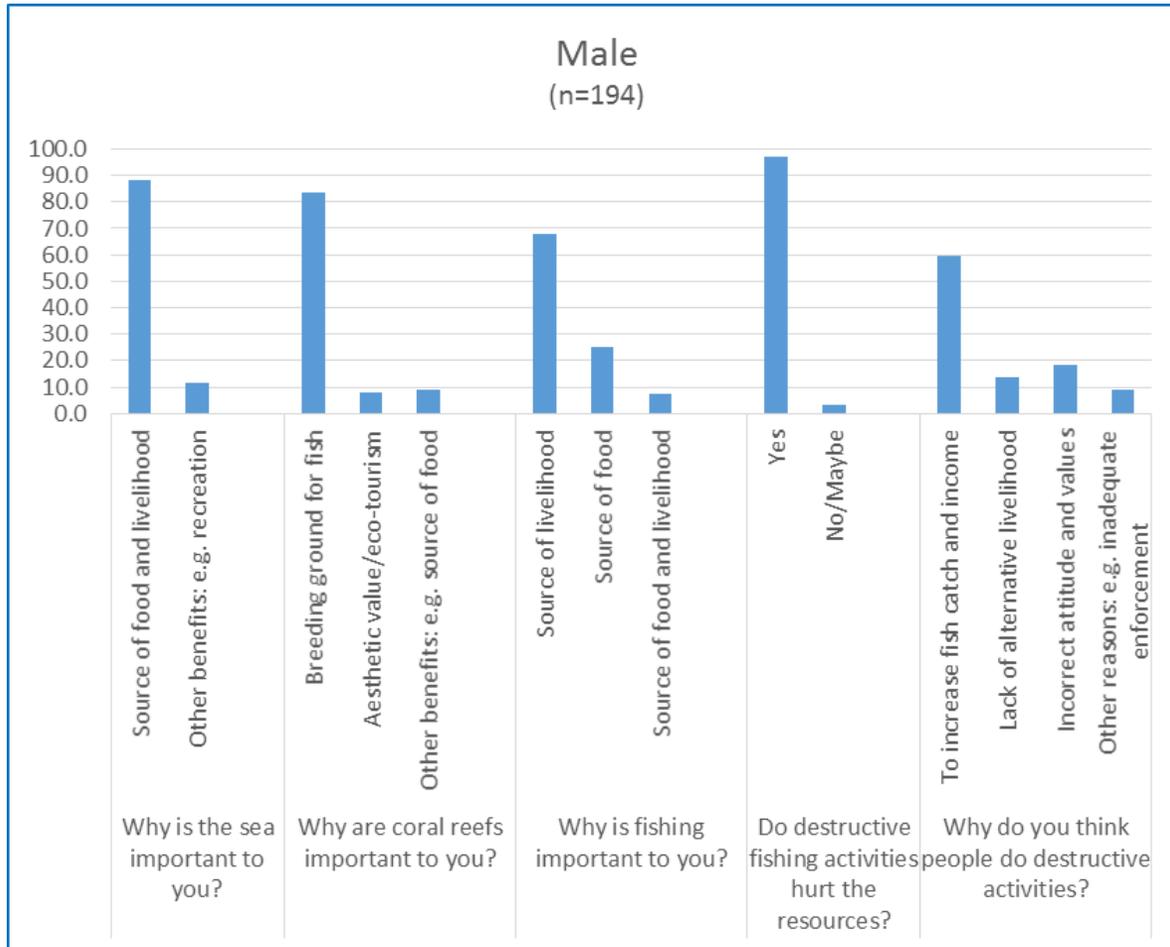


Local values and beliefs about the marine resources

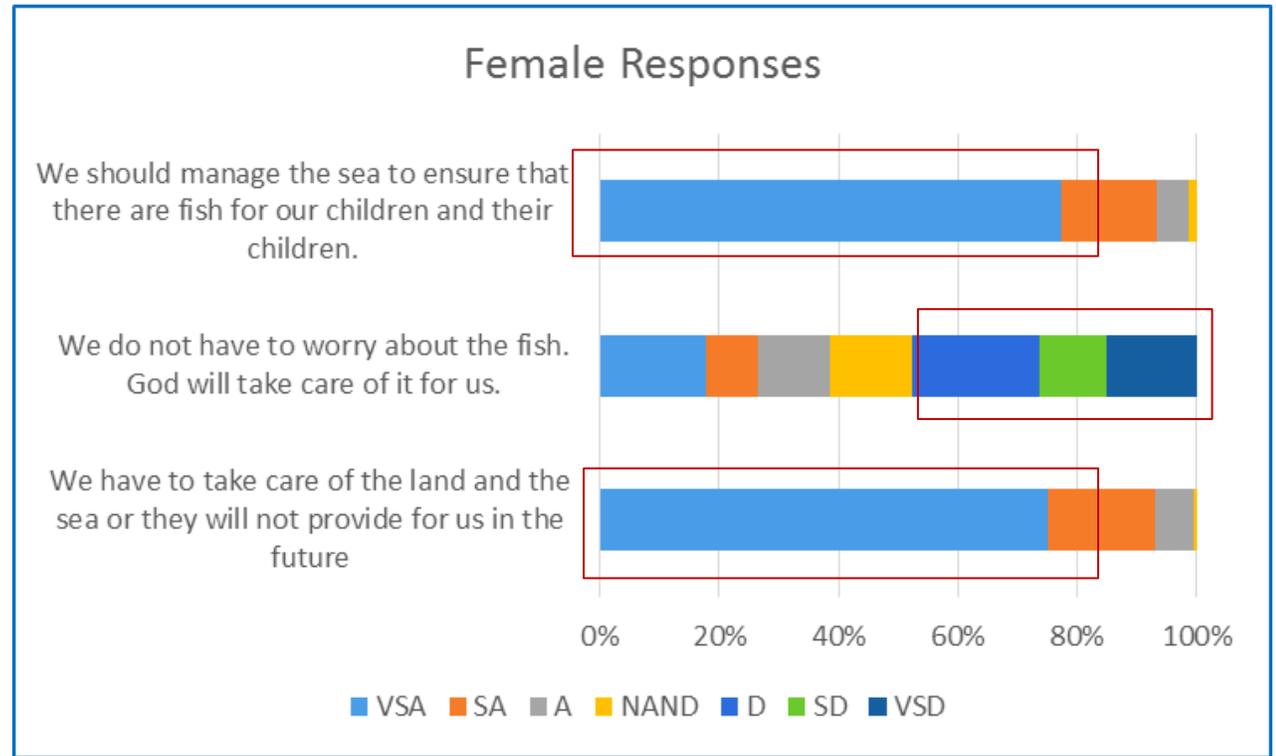
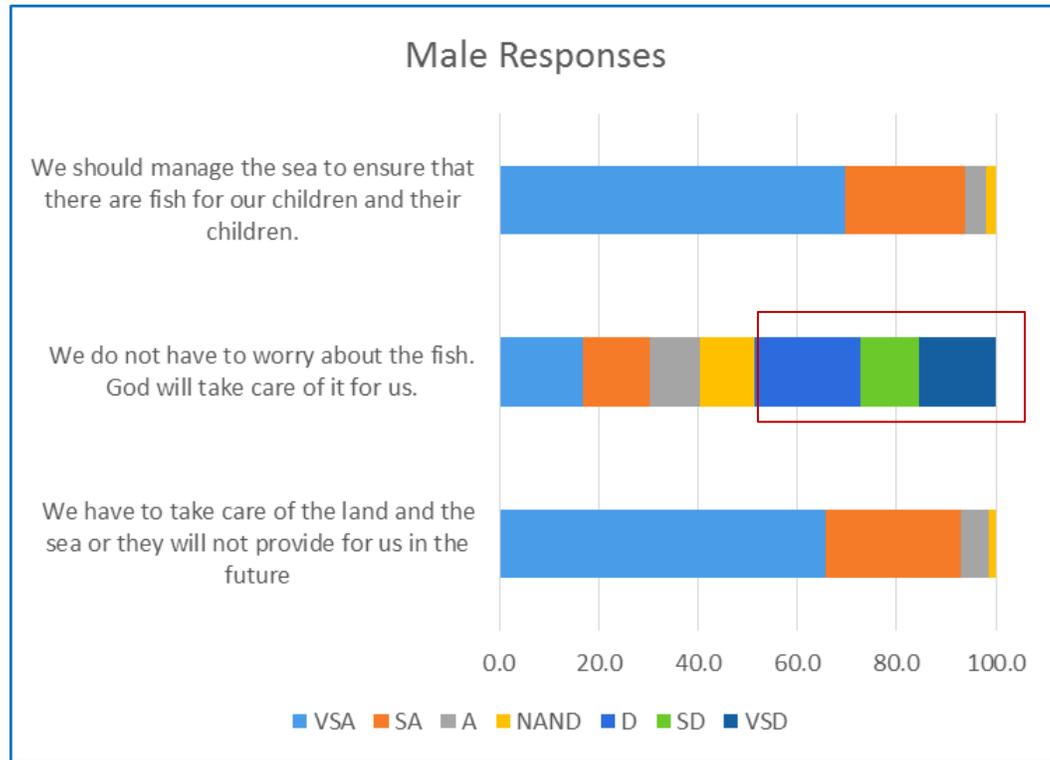
- How people make choices and undertake actions related to marine resource use is determined by their values and beliefs.
- This information is vital for MPA managers since values and beliefs influenced behavior of the community members, which in turn may affect the management operation of the MPA.



Perceptions on the Importance of Marine Resources



Local Values and Beliefs About Marine Resources



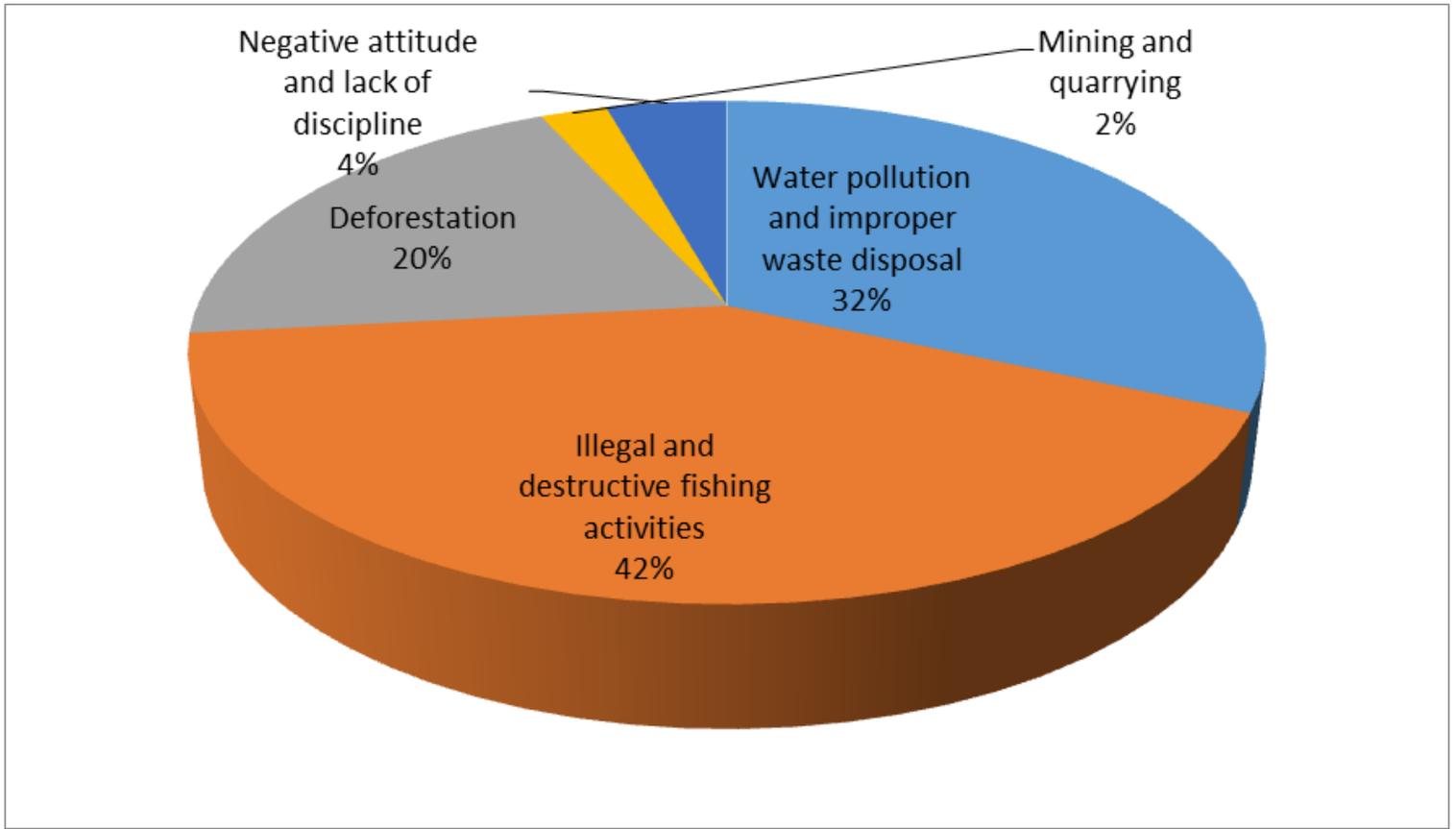
Understanding of Human Impacts on Resources

- How local stakeholders understand the impacts of human activities on the marine resource is vital in MPA management.
- It can be used as a basis for development of appropriate IEC materials which could correct wrong perceptions of the community and may eventually help improve resource use pattern.



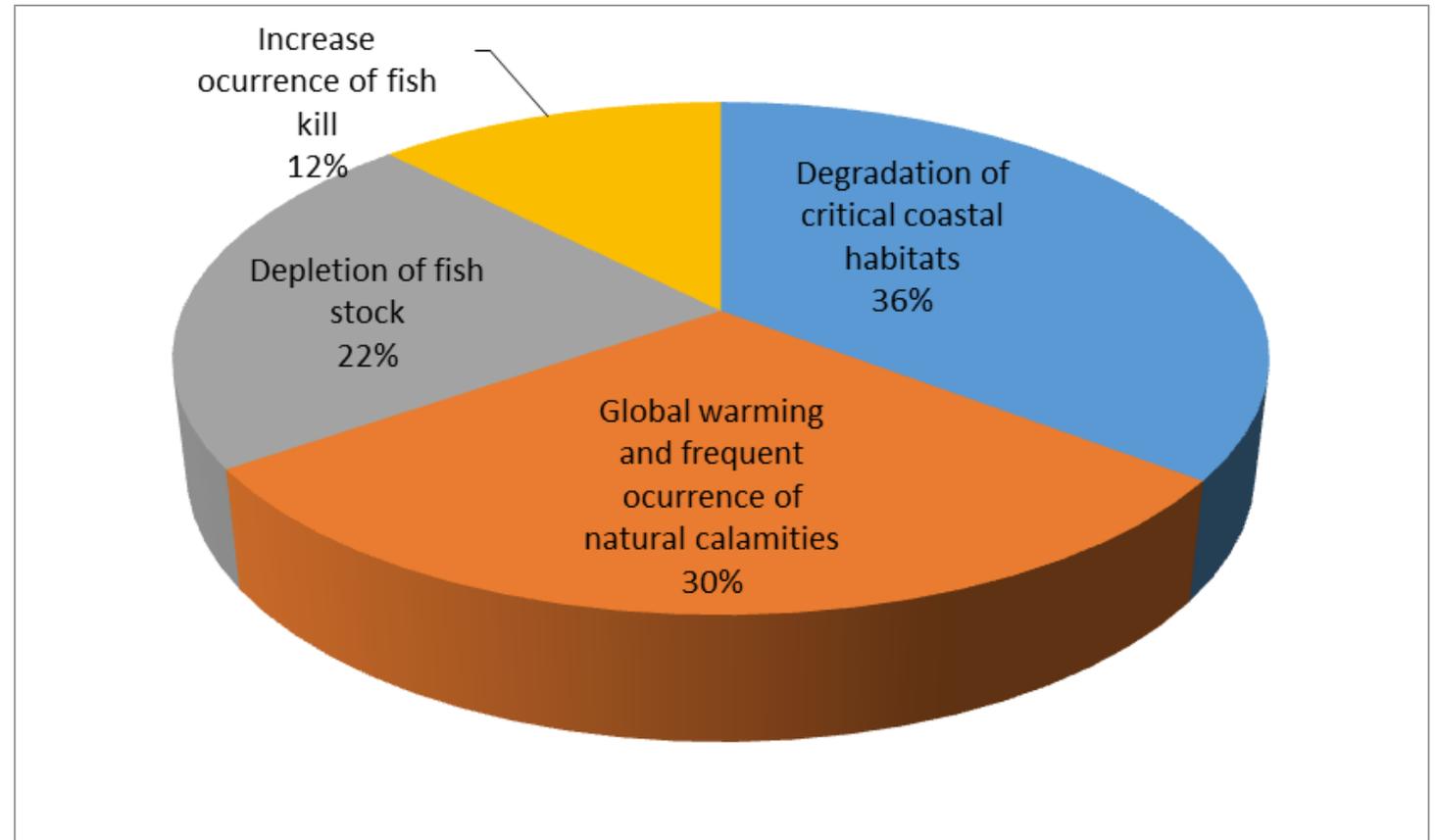
Understanding of Human Impacts on Resources

- Human activities that have affected the natural environment



Understanding of Human Impacts on Resources

- Changes in the environment attributed to the threats of human activities

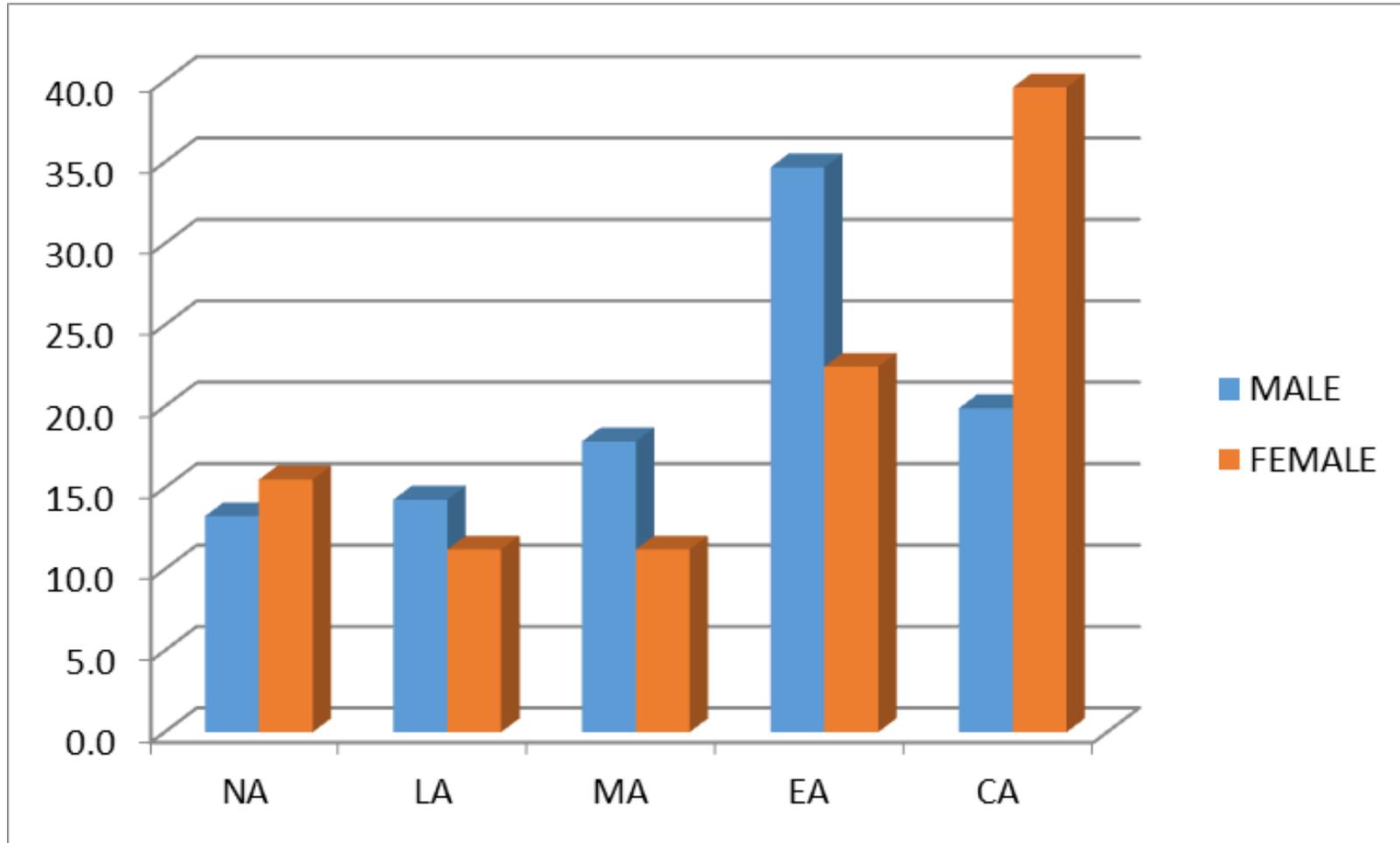


Distribution of formal knowledge to the community

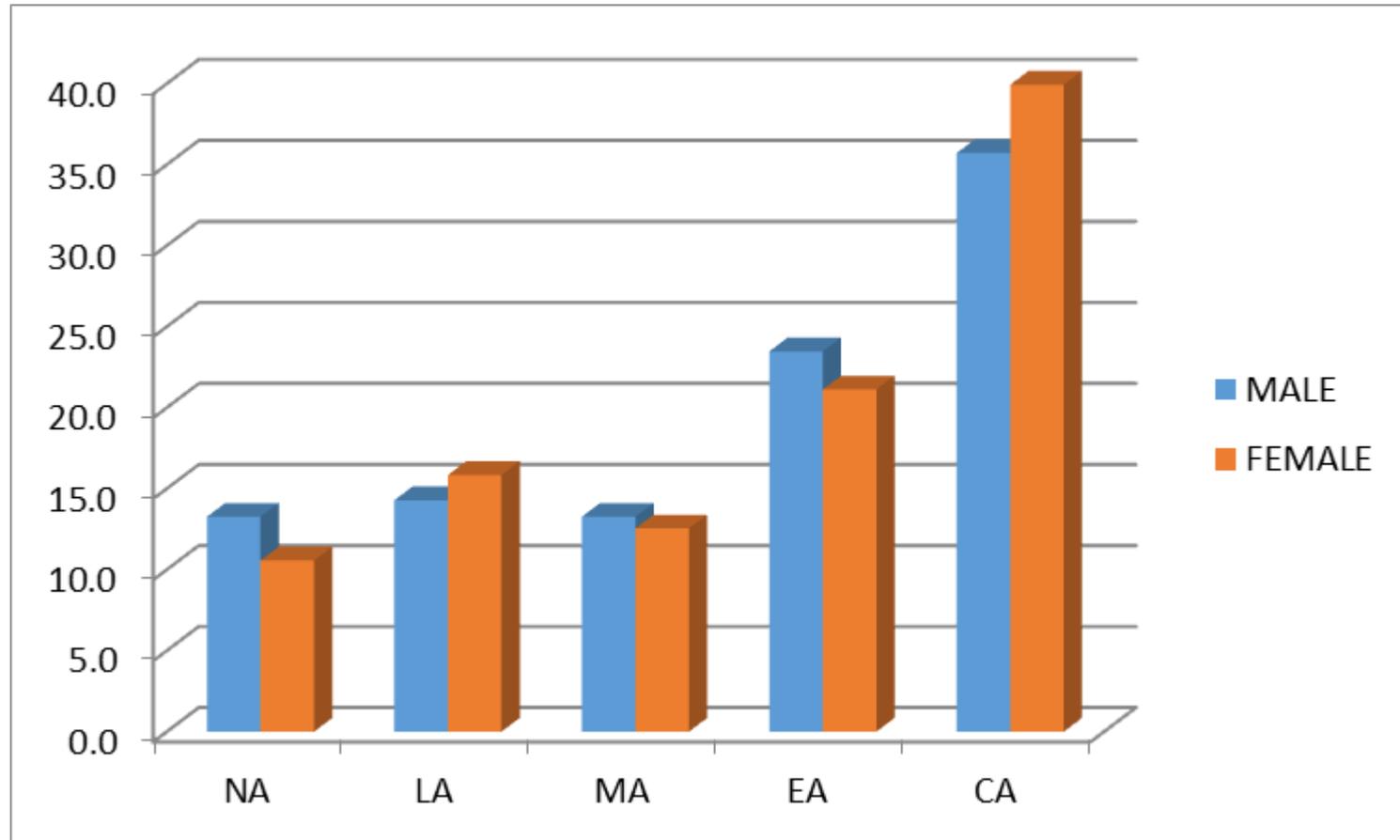
- Measures the degree of awareness the community has on information generated by the scientific community regarding MPA use and ecosystem impacts
- Information campaign and awareness raising is required for MPAs to avoid misperceptions
- To be able to gauge the level of awareness of the community on information related to MPA, the respondent is asked of his/her level of awareness for each of the information using the following scale:
 - 1 – No awareness (NA)
 - 2 – Limited awareness (LA)
 - 3 – Moderate awareness (MA)
 - 4 – Extensive awareness (EA)
 - 5 – Complete awareness (CA)



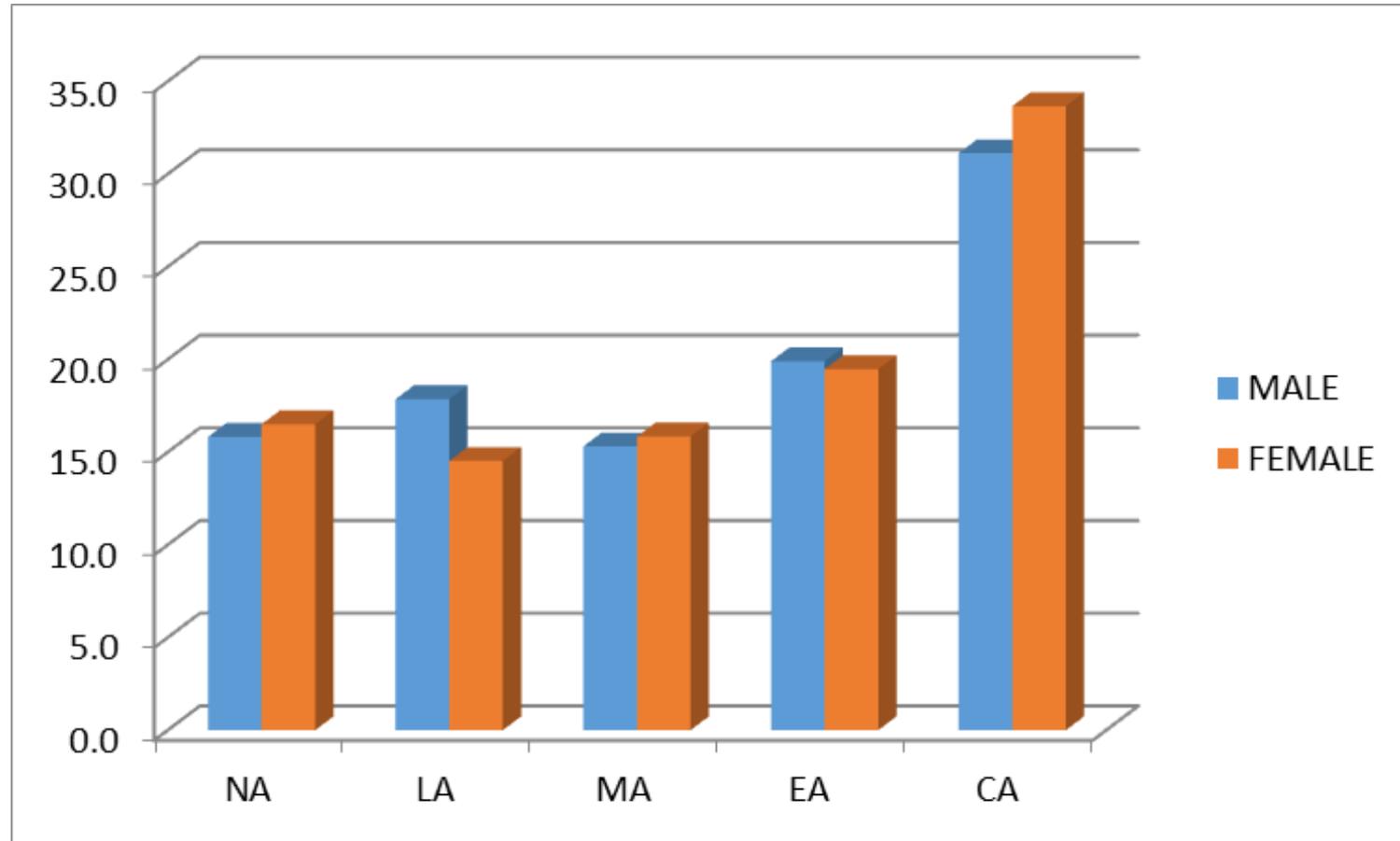
MPA has a core zone or “no take zone”



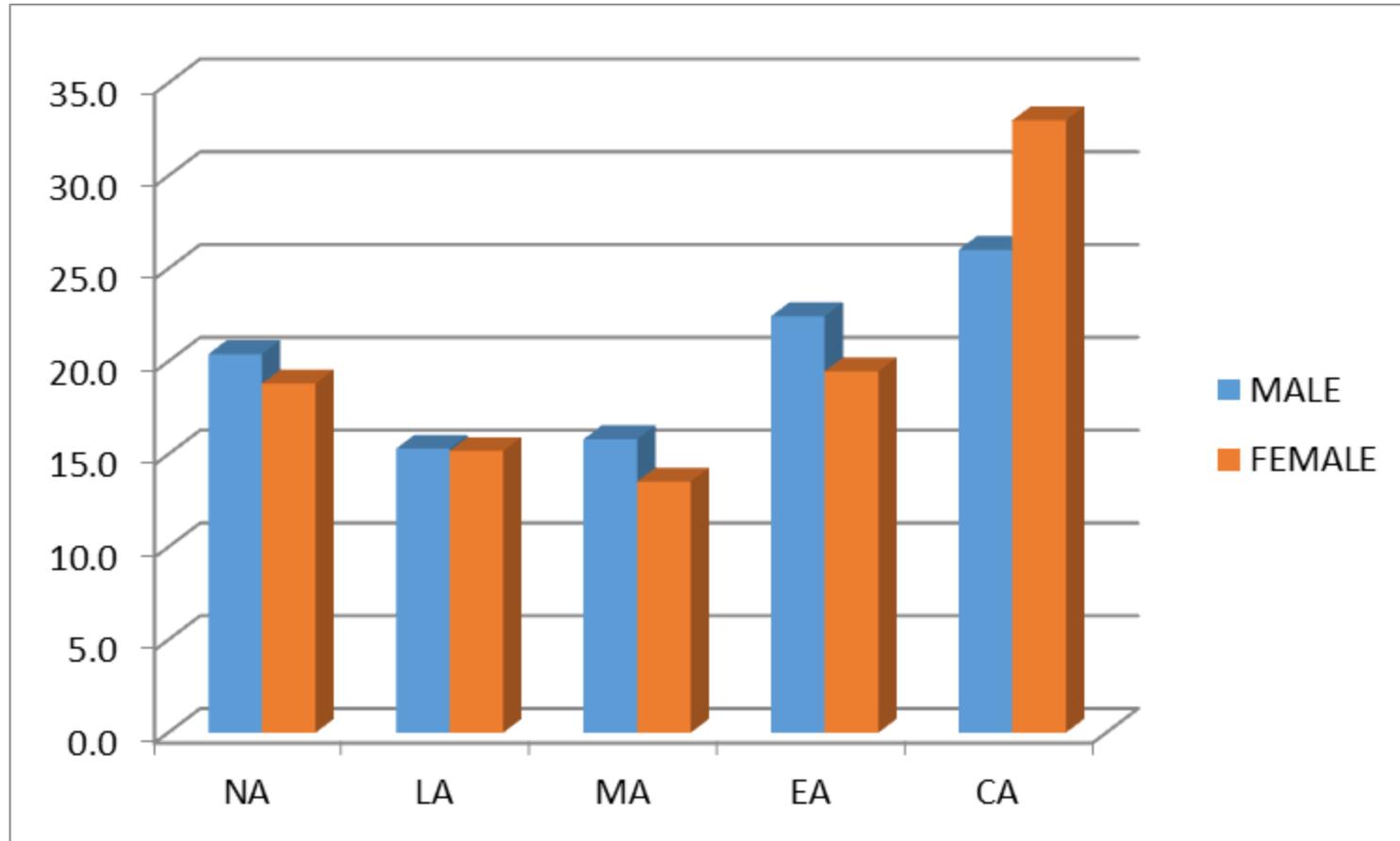
MPAs can help protect and conserve overexploited fish species



Fish inside the MPA will "spillover " to areas outside of it



MPAs can generate income by being an eco-tourism site

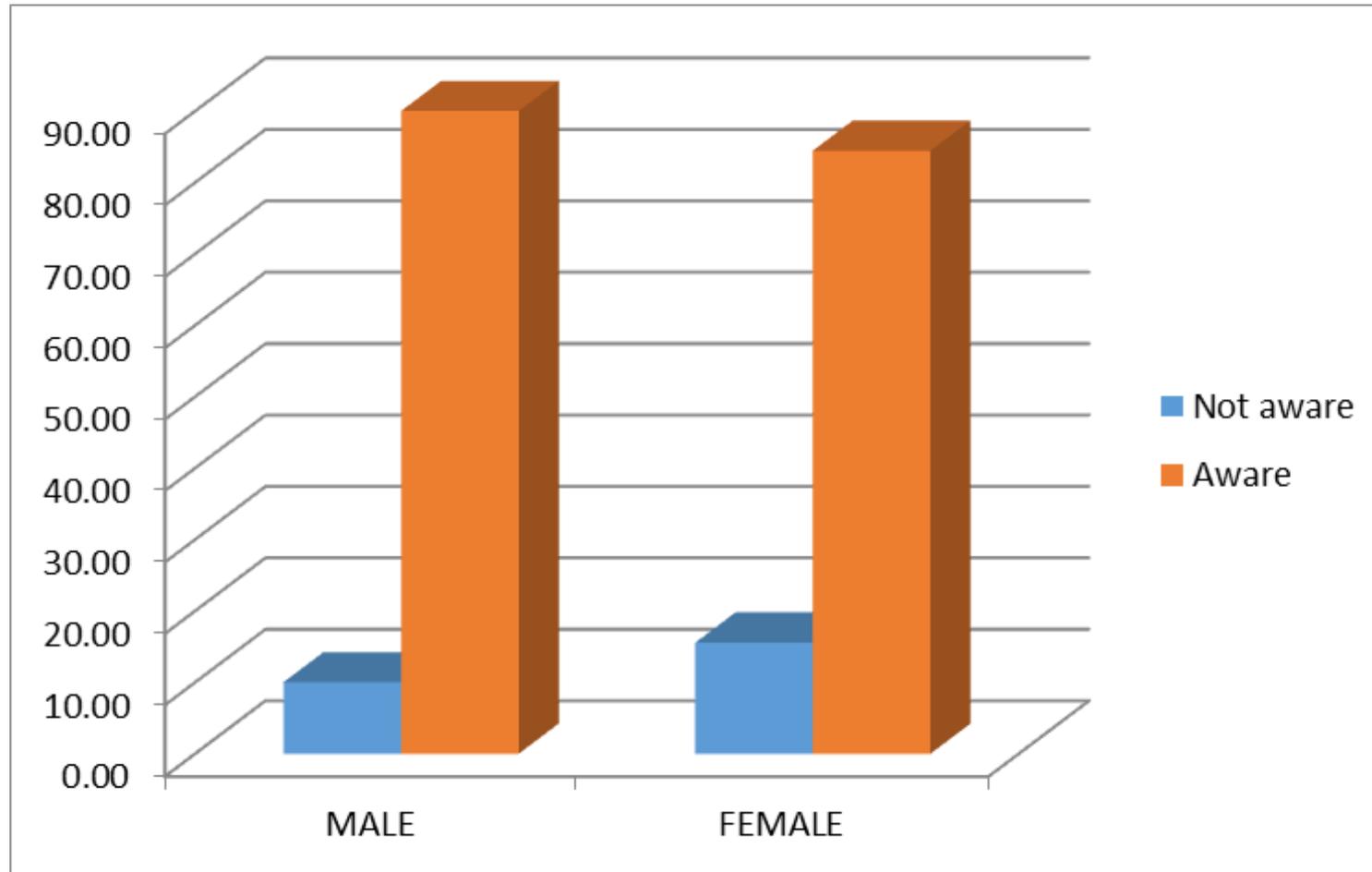


Local understanding of MPA rules and regulations

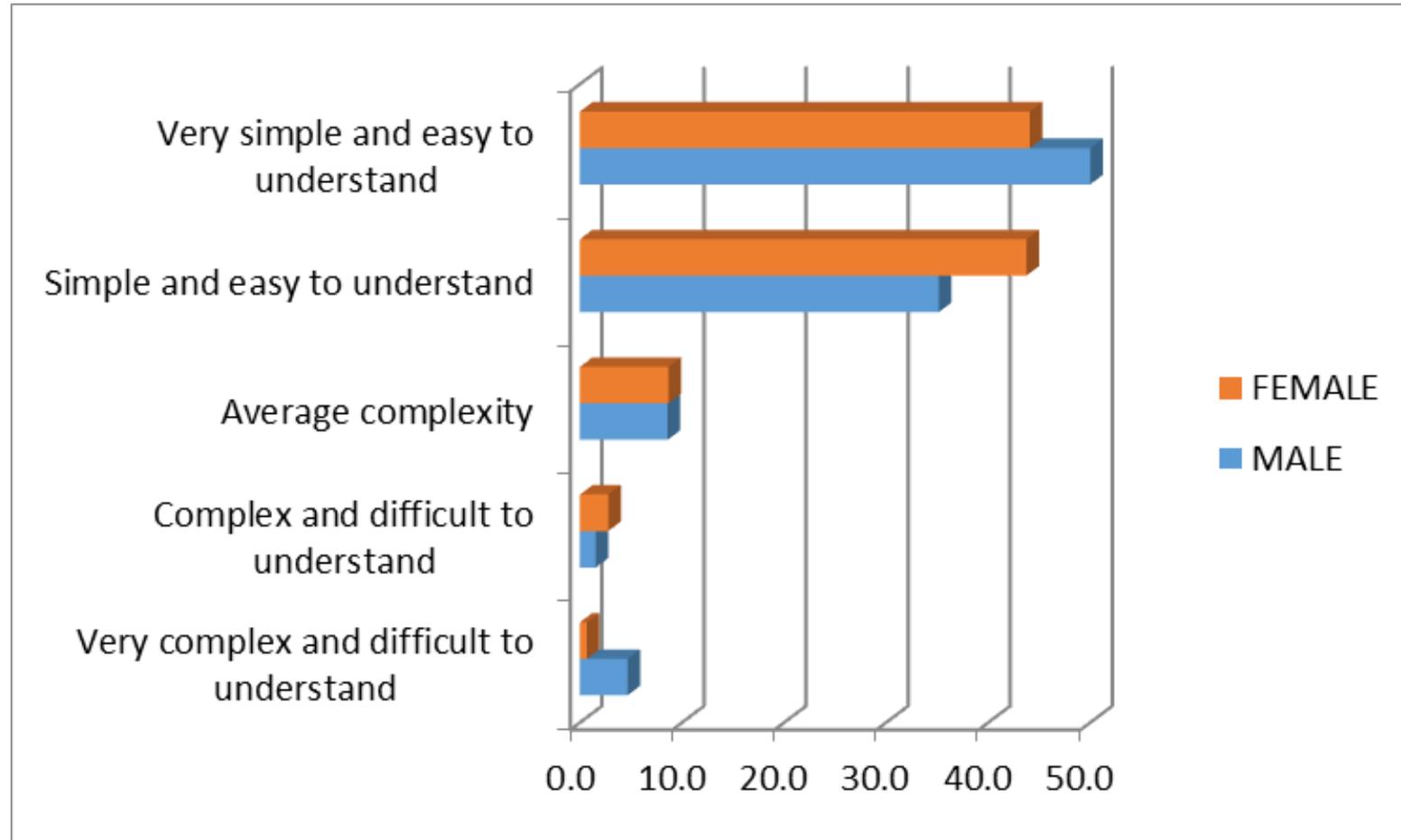
- This indicator measures whether the stakeholders are aware and have fully understood the MPA rules and regulations, which has great implication on the degree of compliance of the community.
- It is expected that there will be voluntary compliance if the community understood the basic reason behind the laws and regulations

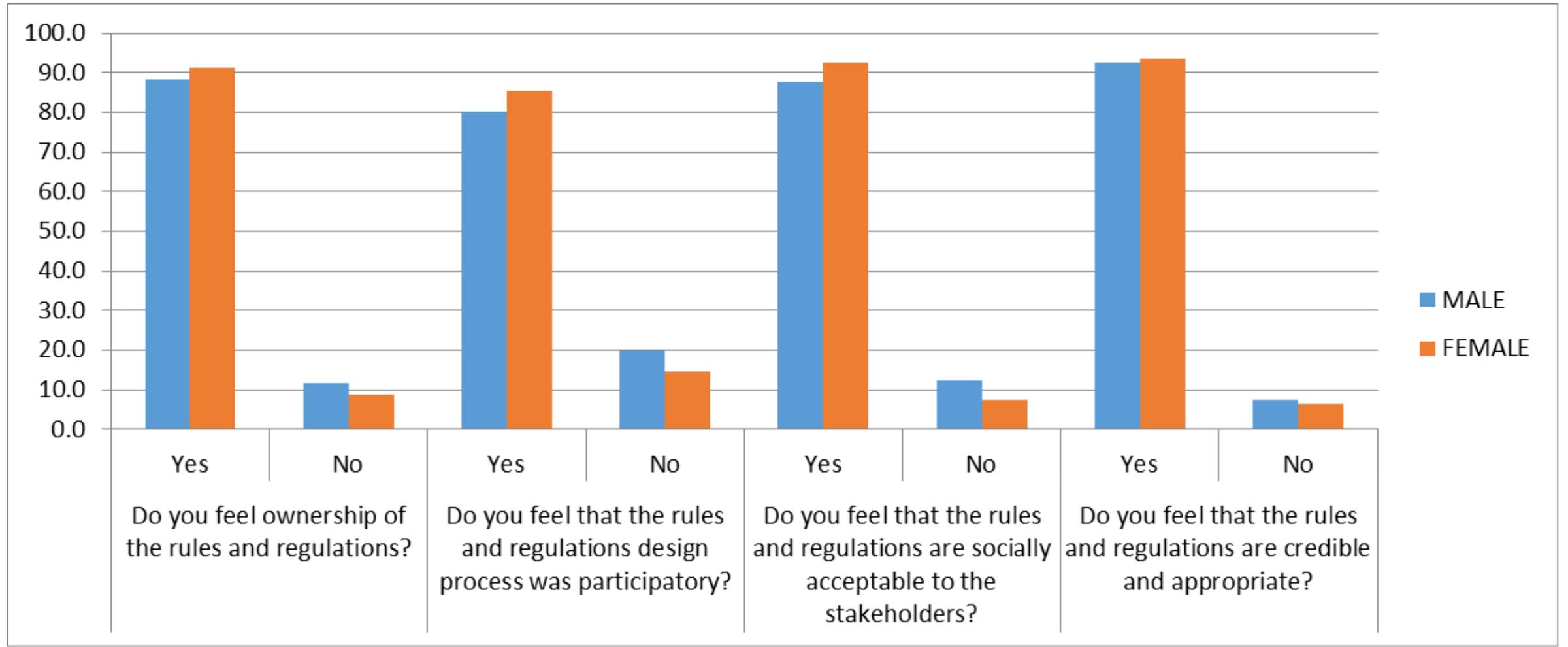


Awareness on the existence of rules and regulations for the management of MPA



Perception on the complexity of the rules and regulations





SYNTHESIS

- Both male and female respondents value the marine resource as important source of food and livelihood.
- More percentage of female respondents believe that there is a need to manage the marine resources sustainably for the future generations.
- There are more female respondents than male respondents that have complete awareness on some formal knowledge about the MPAs due to their attendance to awareness-building activities
 - Wives can be effective medium of social marketing

SYNTHESIS

- Both male and female respondents feel ownership of the MPA rules and regulations and believe that the process is participatory and socially-acceptable.
 - Results of the studies have shown high compliance rate; low number of violation cases (11 documented cases from 2009 to 2013)
- Generally, both male and female respondents have positive values and beliefs towards the establishment of the MPAs.
 - Biophysical study have shown that fish biomass increased from about 1-5 times (comparing pre-MPA vs post-MPA data).
 - Overall, fish in 2013 were from 2.3 – 3.3 times the size of fish in 2007.

Acknowledgements

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