

# PROCESSING OF FRIGATE MACKEREL *Auxis thazard* : GENDER ROLE ON PRODUCT SAFETY

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# Introduction

Tuna remained as one of the top export fishery commodity and these are exported in forms of fresh, chilled, frozen, smoked, dried and canned. Most of the municipal tuna catch is landed as wet fish in thousands of landing sites all over the Philippines (Barut and Garvilles, 2009).



# Introduction

- ▶ One of the fish landing sites in Cebu Province, Philippines is Danao City, fishports
- ▶ Tuna-like species particularly frigate mackerel is abundant in this fishports which are processed into *tinap-anan* , a hot smoked frigate mackerel



# Introduction

- ▶ Danao City is a 3rd class city in the province of Cebu, Philippines. According to the 2007 census, it has a population of 109,534 people.
- ▶ Out of this populace, there are 30 households who are *tinap-anan* processors



# Introduction

Post harvest facilities (ie access to salt, ice and cold storage etc) are lacking in strategic locations in many areas. There is a need for more private-sector participation in providing such facilities

(<http://www.fao.org/fi/oldsite/FCP/en/PHL/profile.htm>.)



# Introduction

## Danao City, Philippines Fishports



# Introduction

- ▶ Plete (1985) characterizes smoked frigate mackerel *tinap-anan*, as to its proximate composition, histamine and Aw level, to determine its safety
- ▶ Macachor (2005) determine the histamine level with time of processing in participation of the *tinap-anan* processors of Danao City, Phil



# Research Sites

## CTU Main Campus, Cebu Philippines



# Objective

This study was conducted to investigate the role of gender on the safety of processed smoked frigate mackerel prior to consumption



# Methods



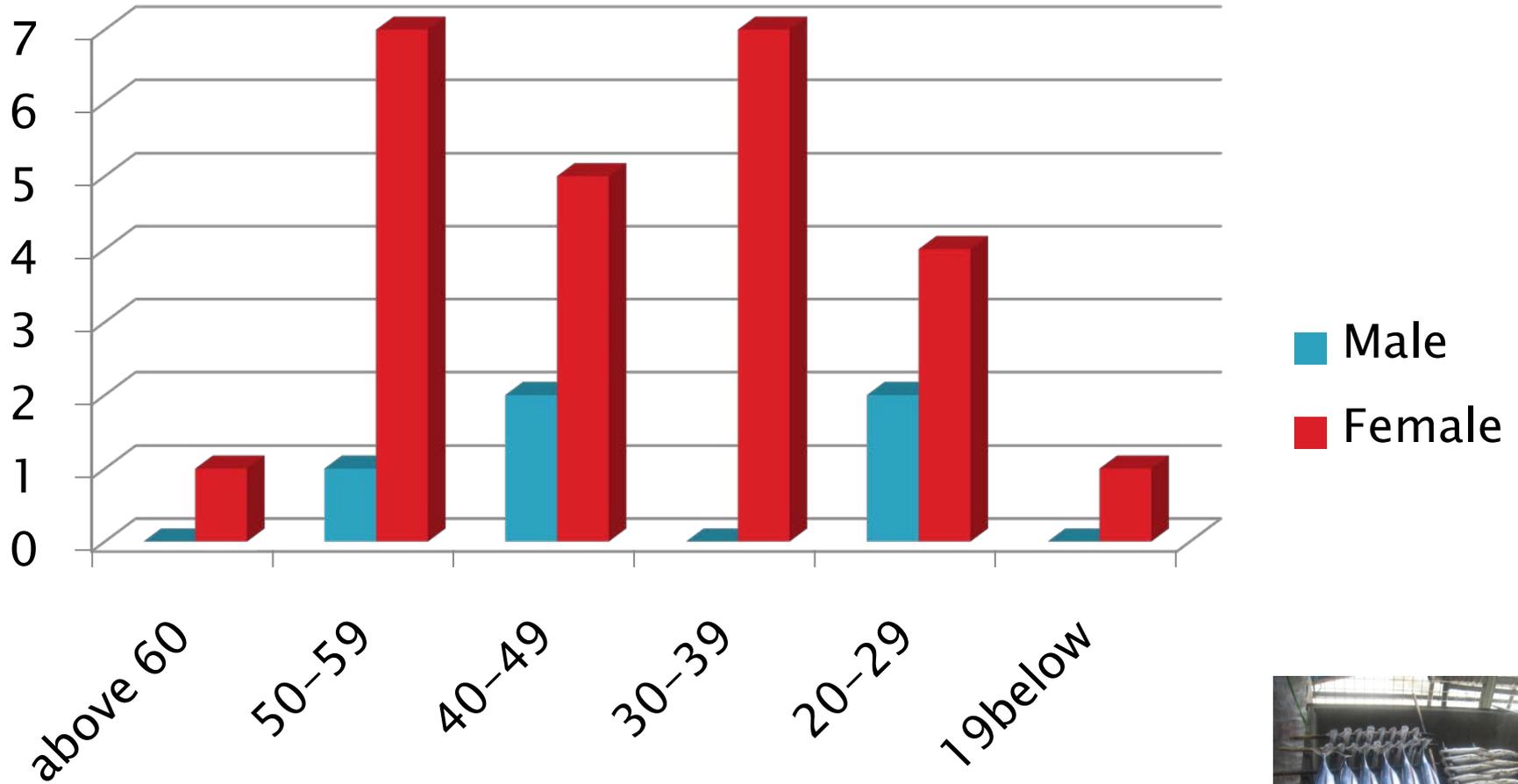
Data  
Organizing  
and  
Analyses

**Villareal and Turner, FAO  
questionnaire on gender**



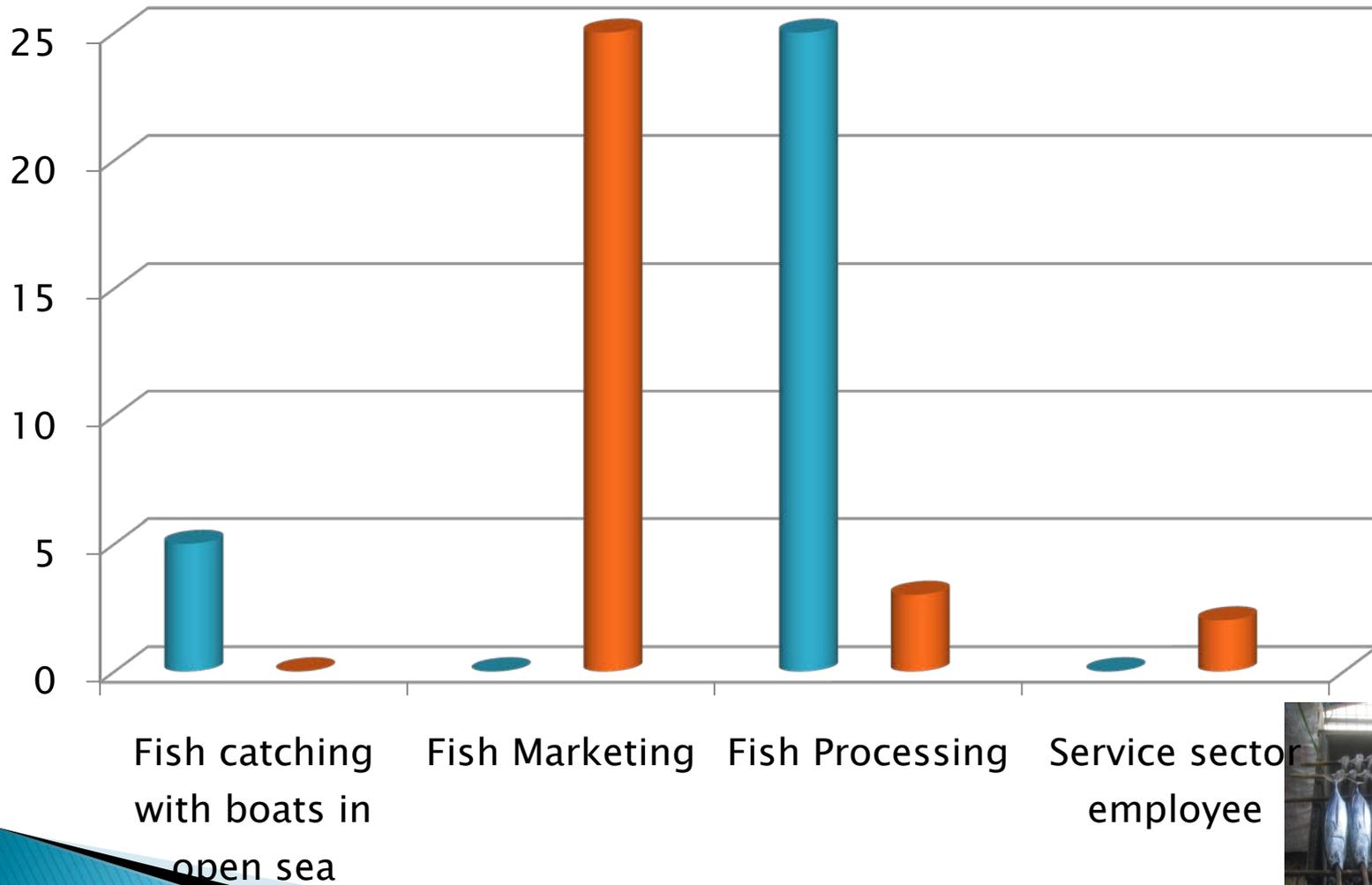
# Results

## Respondents Profile



# Results

## Main and Subsidiary Occupations



# Results

## Gender Role on Food Safety

Activity	Men	Women
<b>Harvesting</b>	<ul style="list-style-type: none"> <li>➤ Crew on local vessels while fishing</li> <li>➤ Boat cleaning, sanitizing, repairs and maintenance</li> <li>➤ Fishing gear maintenance and construction</li> <li>➤ Proper fish handling to shore</li> </ul>	<ul style="list-style-type: none"> <li>❖ Port samplers</li> <li>❖ Observe proper icing of fish</li> <li>❖ Immediate preparation of fish to processing and proper application of chilled brine to fish</li> </ul>
<b>Processing</b>	<ul style="list-style-type: none"> <li>➤ Purchasing and icing fresh frigate mackerel</li> <li>➤ Hot-smoking of cleaned frigate mackerel</li> <li>➤ Deliver processed <i>tinap-anan</i> to restaurants</li> </ul>	<ul style="list-style-type: none"> <li>❖ Hot-smoking of cleaned-chilled frigate mackerel into <i>tinap-anan</i></li> <li>❖ Marketing processed <i>tinap-anan</i> by retail or wholesale basis in restaurants situated on the 2<sup>nd</sup> floor of the fish port</li> </ul>



# Gender role on *Tinap-anan* food safety



# Conclusion

The smoked frigate mackerel is within the acceptable safety level as prepared by women dominated processors.



# Recommendation

- ▶ Danao tinap-anan processors who are dominated by women needs to be trained by other frigate mackerel value added products to enhance their know how on processing other than smoking

# Acknowledgment

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# References

Barut, Noel C. and Elaine G. Garvilles. 2009. Philippine Annual Fishery Report Update. Part 1: Information on Fisheries, Research, and Statistics for Western and Central Pacific Fisheries Commission (WCPFC)-SC5-AR/CCM-19 in <http://www.google.com.ph/url?q=http://www.wcpfc.int/system/files/documents/meetings/scientific-committee/5th-regular-session/annual-report-part-i/SC5-AR-CCM19%2520%255BPhilippines>.

Salavo, Nerissa D. 2000, Marketing and post-harvest Research (MPR) in the Philippines Fisheries: A Review of Literature, Discussion Paper Series No. 2006-16 in <http://www3.pids.gov.ph/ris/pdf/pidsdps0016.PDF>

Villareal, Lolita V. and J. M. Turner. Food Agricultural Organization in <http://www.fao.org/docrep/006/y5055e/y5055e0e.htm>



**End**

**Thank You for Listening**

