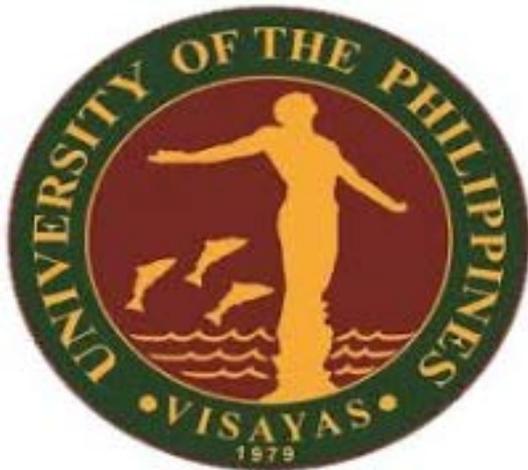


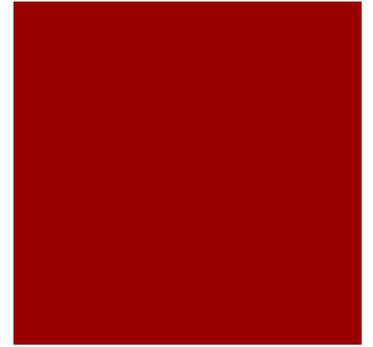
# Comparing awareness and behavior of male and female milkfish purchase decision makers towards food consumption trends in the Province of Iloilo, Philippines



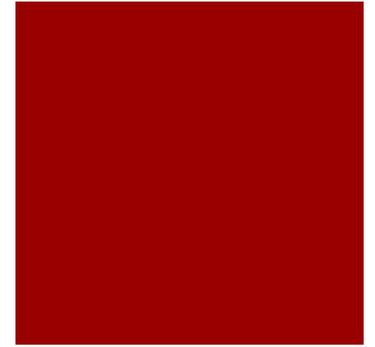
**REYNOLD D. TAN**

College of Management  
University of the Philippines Visayas

# Structure of Presentation



- Background
- Methods
- Results
- Conclusion and Policy Implications



# Background

- 
- Milkfish is the most important fish species being farmed in the Philippines today (Yap, et al. 2007).
  - It is cultivated in freshwater, brackish water, and marine environments and is considered as the 'superstar of Philippine aquaculture;
  - Iloilo is a major milkfish producer in the Philippines today producing 9% of the country's milkfish production;

- ❑ Not only is Iloilo a major producer of milkfish but a major consumer as well.

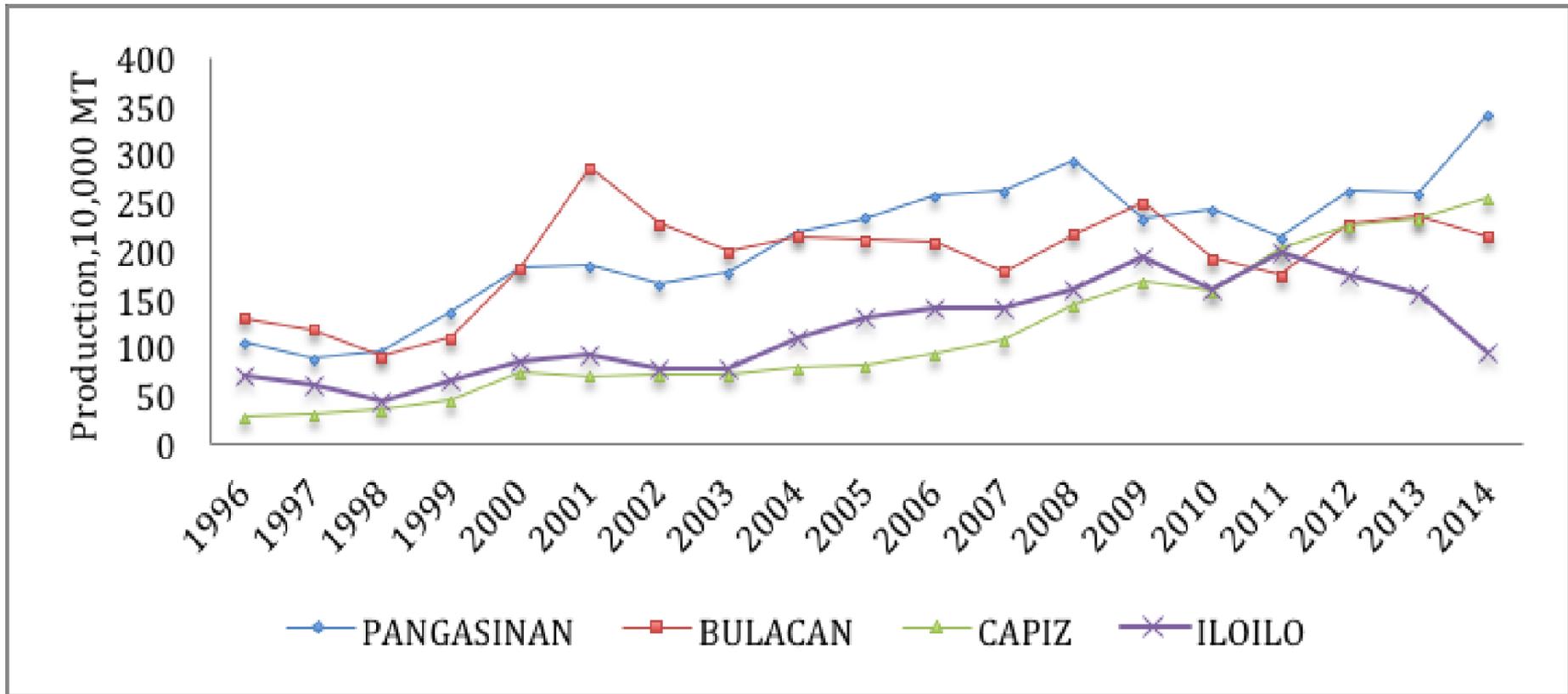
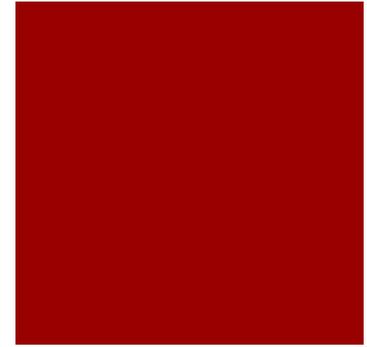


Table 1. Comparative animal protein consumption, kgs/person, Iloilo, Western Visayas and Philippines, 2014

Location	Pork	Beef	Chicken	Milkfish	Roundscad
Philippines	9.466	0.926	8.077	3.663	5.738
Western Visayas	7.54	1.232	6.453	6.316	5.322
Iloilo	7.275	1.019	6.806	<b>6.884</b>	4.586

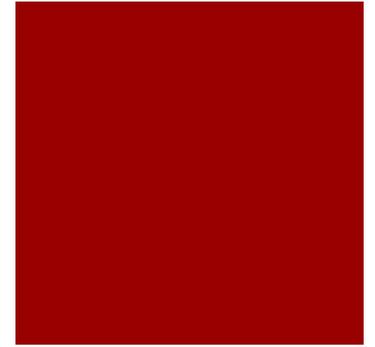
Source: BAS (2014)

- While demand for fish and other fishery products is rising due to **increasing population, growing preference towards healthy food, and increasing human concerns about terrestrial animal welfare**, provincial production of milkfish is slowly dwindling. This is contrary to existing industry trends.



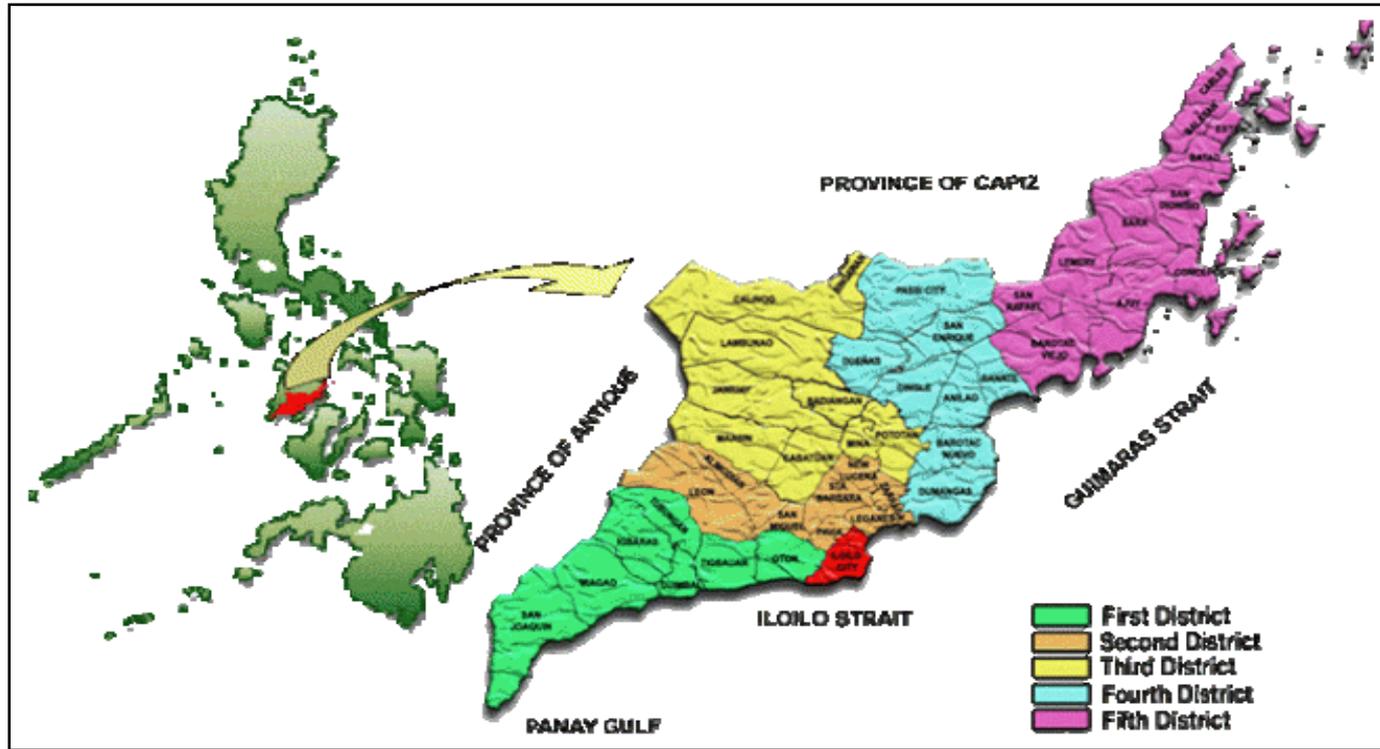
- 
- It is hypothesized that farmers are moving out of milkfish production due to declining financial sustainability arising **from low profitability** and **level of competitiveness**.

- 
- Kearney (2010) has identified **attitudes and behavior** as drivers of food consumption
  - Compare awareness and behavior of milkfish purchase decision makers categorized into men and women in the Province of Iloilo, Philippines towards food consumption trends.
    - food safety;
    - organic food;
    - sustainability in production;
    - good agricultural practices;
    - Traceability;
    - local production;
    - support to local farmers; and
    - food labeling.



# Methods

# Area of the Study



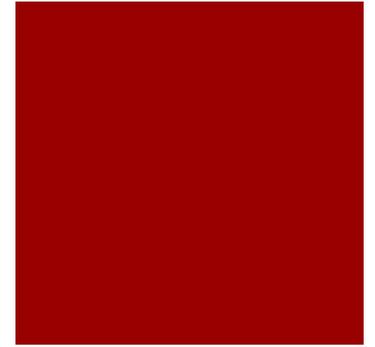
- Study conducted in the entire Province of Iloilo

# Sampling and Sampling Procedure

- Sampling of respondents using **stratified random sampling**.
- Basis of stratification is geographic location: **rural and urban**
- Selection of the representative municipality within the stratum is determined **randomly**. Sample size allocation per congressional district was determined by **proportional allocation**.

Item	Iloilo City	Miagao	Leganes	Mina	Barotac Nuevo	Concepcion
Land area (sq.km)	78.34	56.8	32.2	3.4	94.49	86.12
Congressional district	Lone District	1	2	3	4	5
Income class	1st	1st	4th	5th	2nd	3rd
Distance from the center (km)	0	40	11	38	27.5	105.6
Population	424,619	64,545	29,438	21,785	51,867	39,617
Milkfish production Status	deficit	deficit	surplus	deficit	surplus	deficit
No. of respondents	189	59	27	20	47	36

- One way ANOVA was used to analyze result



# Results

# Awareness

- Level of awareness towards food consumption trends
- 5 point Likert scale

FOOD CONSUMPTION TREND	Mean	SEX		
		f-stat	p-value	sig
Food safety	<u>3.645</u>	10.8	0.001	***
Organic food	3.142	0.36	0.547	
Sustainability in production	2.862	0.02	0.897	
Good agricultural practices	<u>3.023</u>	0.03	0.855	
Traceability	3.029	1.1	0.295	
Locally-produced	3.293	1.99	0.159	
Support to local farmers	3.296	1.7	0.193	
Food labelling	3.134	1.42	0.234	

(1) not at all aware; (2) slightly aware; (3) somewhat aware; (4) moderately aware; and (5) extremely aware.

- Somewhat aware for females
- Moderately aware for males



SEX	Mean	Std. Dev.	Freq.
0	3.4570136	1.3994181	221
1	3.910828	1.200298	157
Total	3.6455026	1.337579	378

Analysis of Variance						
Source	SS	df	MS	F	Prob > F	
Between groups	18.9041332	1	18.9041332	10.84	0.0011	
Within groups	655.593221	376	1.74359899			
Total	674.497354	377	1.78911765			

Bartlett's test for equal variances:  $\chi^2(1) = 4.1994$  Prob> $\chi^2 = 0.040$

\*0 for female and 1 for male

# Behavior

- Level of behavior towards food consumption trends
- 7- point Likert scale

FOOD CONSUMPTION TREND	Mean	SEX		
		f-stat	p-value	sig
Food safety	5.52	11.5	0.008	***
Organic food	4.61	6.57	0.011	**
Sustainability in production	4.21	5.07	0.025	**
Good agricultural practices	4.58	3.53	0.061	*
Traceability	4.31	9.08	0.003	***
Locally-produced	4.67	6.47	0.011	**
Support to local farmers	4.70	3.63	0.057	*
Food labelling	4.40	12.8	0.000	***

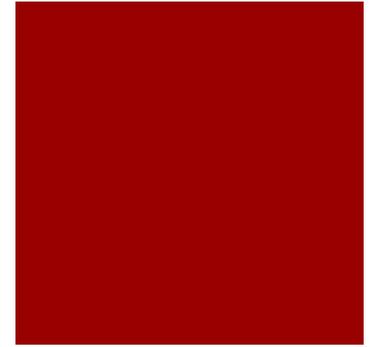
1- very true of me; 2- untrue of me; 3- somewhat untrue of me;  
4- neutral; 5- somewhat true of me; 6- true of me; and, 7- very true of me.

---

## FOOD CONSUMPTION TREND

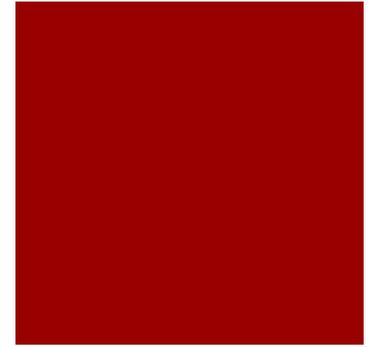
	Mean	Female	Male	Variance
Food safety	5.52	5.24	5.90	0.661
Organic food	4.61	4.41	4.90	0.490
Sustainability in production	4.21	4.04	4.46	0.420
Good agricultural practices	4.58	4.43	4.79	0.360
Traceability	4.31	4.06	4.65	0.590
Locally-produced	4.67	4.47	4.95	0.480
Support to local farmers	4.70	4.54	4.91	0.370
Food labelling	4.40	4.10	4.82	0.720

1- very true of me; 2- untrue of me; 3- somewhat untrue of me;  
4- neutral; 5- somewhat true of me; 6- true of me; and, 7- very true of me.



# Conclusion and Recommendation

- 
- On the level of **awareness**, it is only with **food safety** where there is a significant difference between male and female respondents;
  - On the level of behavior, there is a **marked significant difference** between male and female respondents;
    - Males generally outscored the females in terms of the level of behavior for all food consumption trends



- Although men and women have the same level of awareness (except for food safety), men exhibit behavioral patterns consistent to food consumption trends.
- Result affirms existing evidence that awareness is not translated into actual behavior
- Information is vital along the areas of market segmentation as product marketers want to know deeper how consumers react to issues, i.e., food issues

- 
- Justification for food marketers to be segment specific
  - It is recommended that more information/ dissemination campaign targeted to female purchase decision –makers is needed in order to convert level of awareness to increase in declared behavior.

