



# The Status of Abalone Cage Culture and Roles of Women to the Industry in Wando, Jeonnam Province, Korea

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# Contents



I. Abalone and aquatic plant production in Wando (Background)

II. Roles of women in abalone culture and related industries

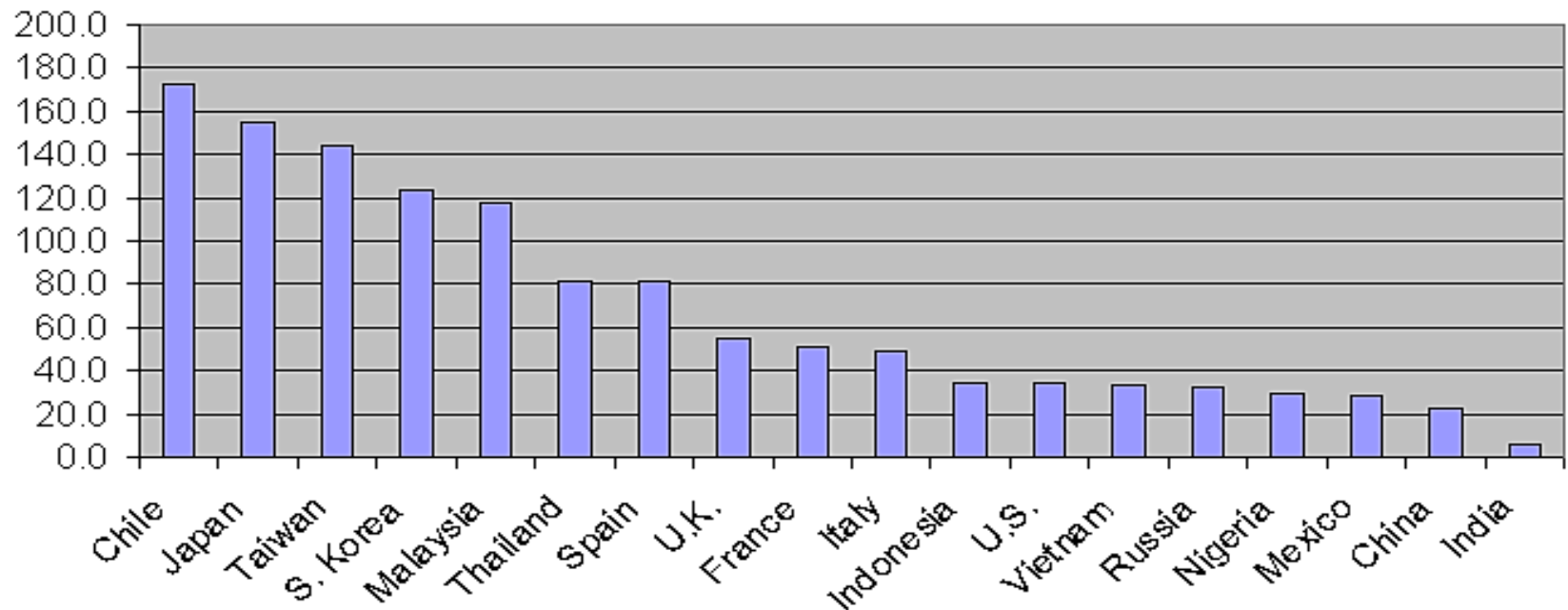
III. Suggestions for the empowerment of women



# **I. Abalone and Aquatic Plant Production in Wando (Background)**



## Per Capita Seafood Consumption by Country



Sources: National Geographic Magazine, October, 2010.  
Economist. *Pocket World in Figures*. 2010.  
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Korea(2010) ranked fourth in the world : **123 lb (56kg)/yr**

# General Statistics of Wando

## Area

- 396.13km<sup>2</sup>(3.23% of Jeollanam-do)
- **Islands : 265 (Inhabited 55, Uninhabited 210)**
- Coastline : 852.97km(13.5% of Jeollanam-do)
- Sea area : 4,939.6km<sup>2</sup> (12.6 times of land)

## Population

- **53,619 people** (0.46% decrease compared to previous year)

## Educational institutions

- 39 schools (Elementary 21, Middle 12, High 6) 4,856 students

## Medical institutions

- 66 (Hospitals 1, Clinics 23, Dentists 10, Oriental Medicines 7, Pharmacies 25)

## Fisheries Status

- **Employment: 10,618 households** (16% of a total households over the country)
- Fishing boat/farming area : 10,179 (13%) / 35,342ha (14%)
- Fisheries product : 410,000 ton
- **Average gross income per household: 75million won (69,813 USD)**



# Abalone and Aquatic Plant Production in Wando

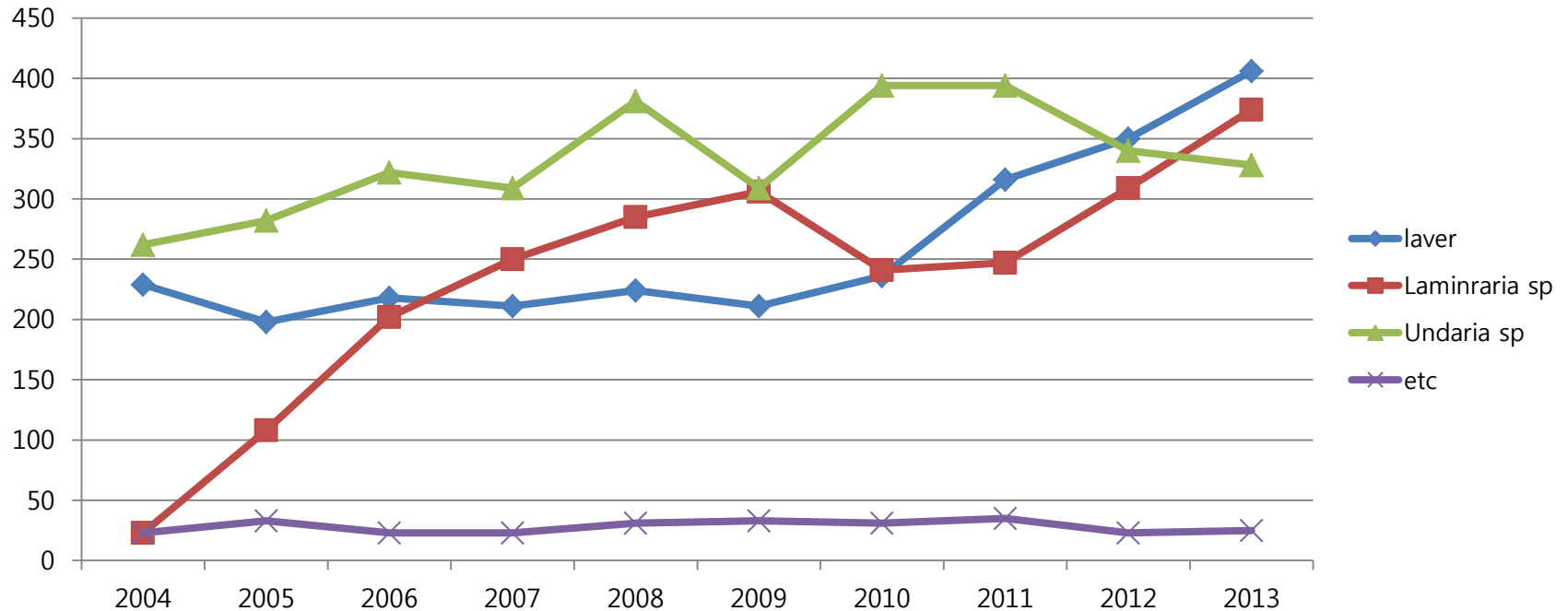
## (Background)



- Since the 1970s, Wando has exported various aquatic plants to Japan.
- Culture techniques of aquatic plants developed through export have established abalone industry in Wando.
- As a result, Wando has led the development of abalone aquaculture techniques and spread them to nationwide

# Aquaculture Production of Aquatic Plants for the Past 10 years in Korea

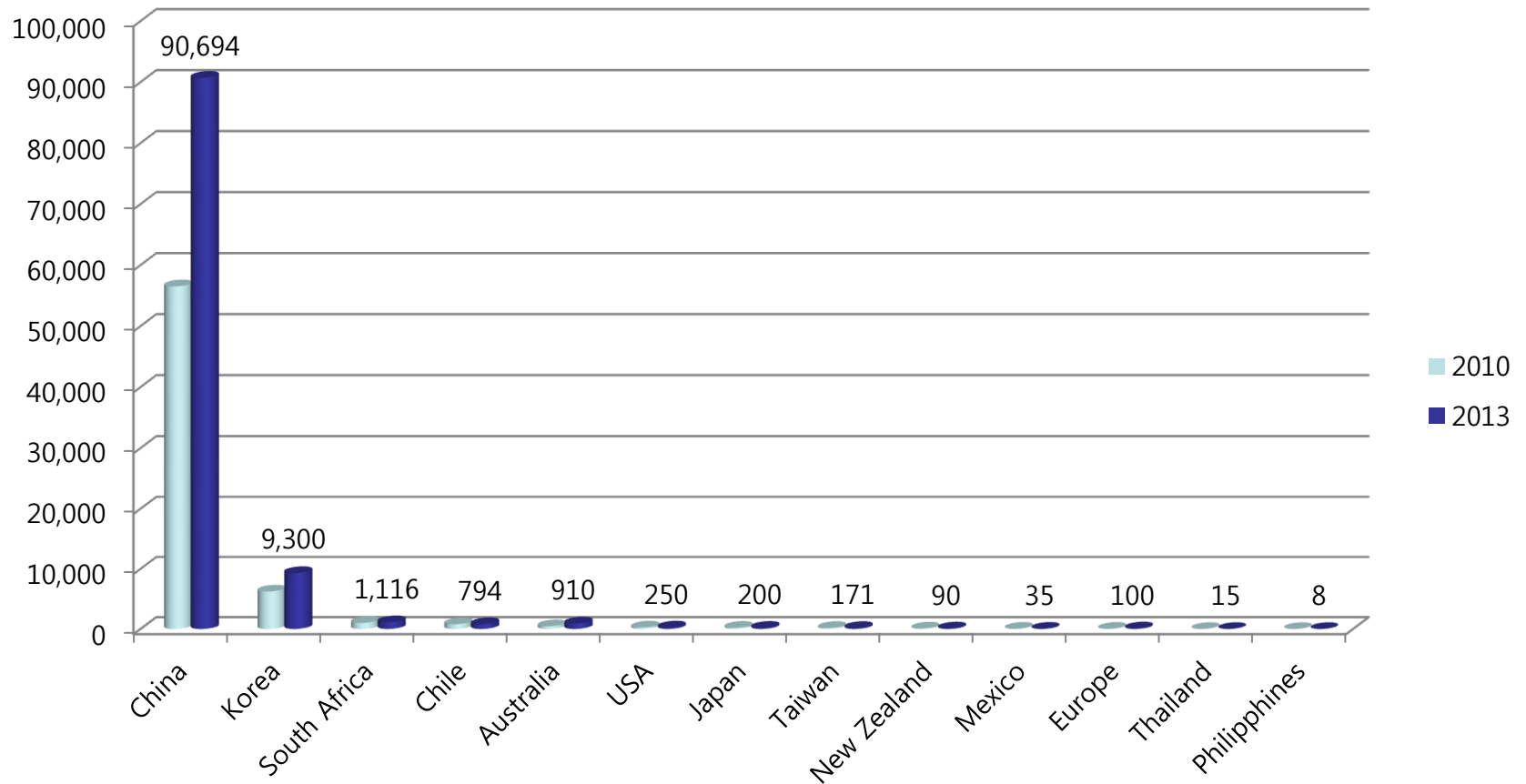
Unit : 1,000ton



- *Phophyra* sp., *Laminaria* sp., and *Undaria* sp. accounted for 98% of total domestic aquaculture production of aquatic plants.
  - *Phophyra* sp 35.8%, *Laminaria* sp 33.0%, *Undaria* sp 28.9%
- Since 2005, *Laminaria* sp. production for feeding Abalone have clearly increased.
- Other major species
  - *Capsosiphon fulvescens*, *Hizikia fusiforme*, *Enteromorpha* sp., and *Codium frgile*.



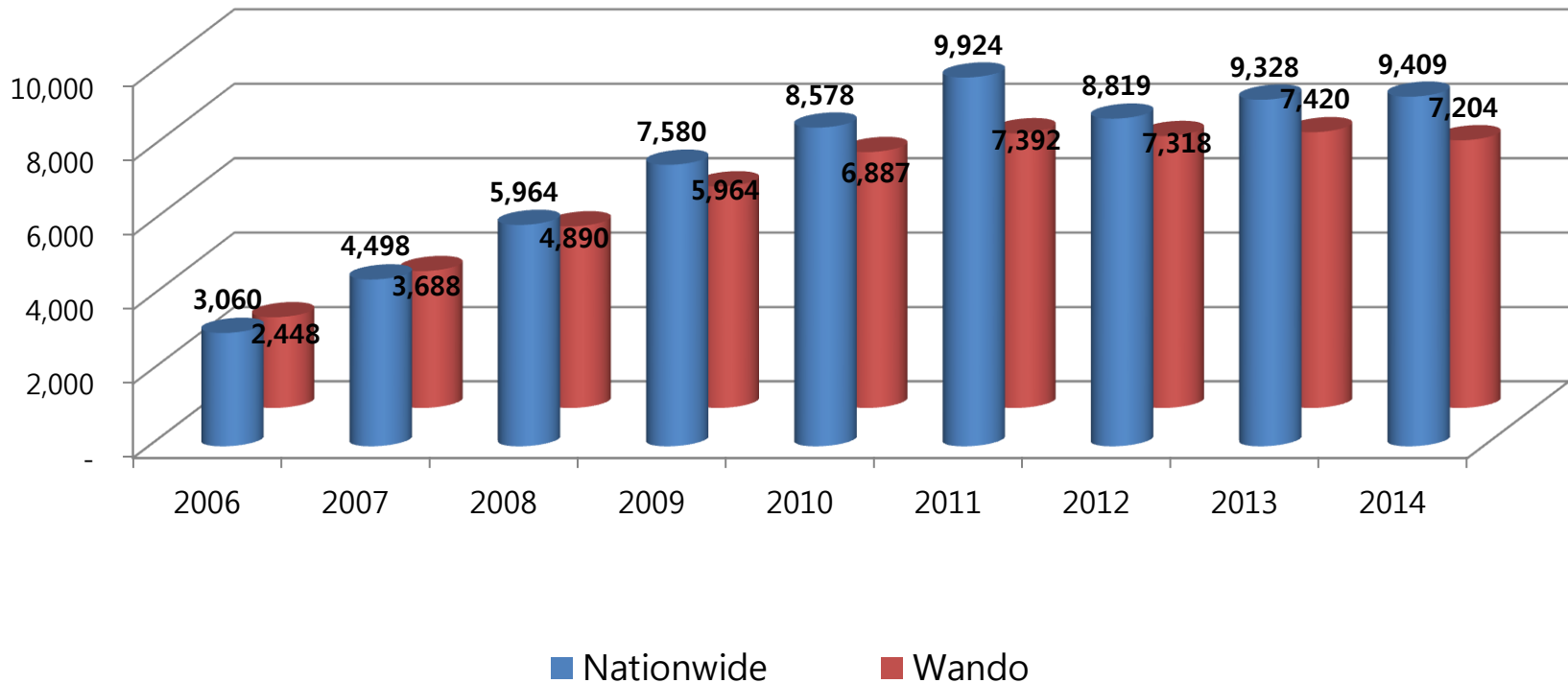
# World Abalone Aquaculture Production



**Korea: the second largest abalone production country in the world**

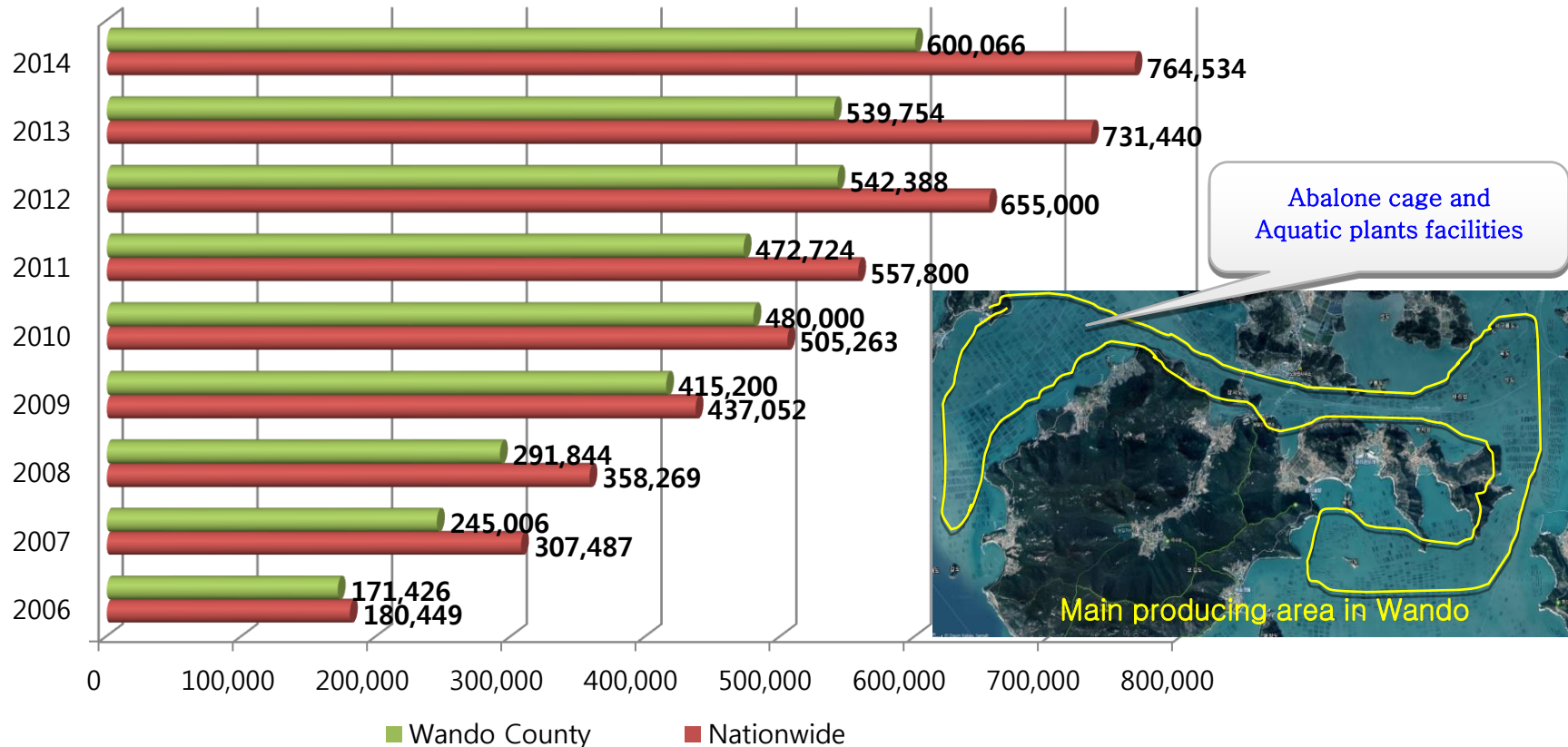


# Domestic Abalone Aquaculture Production



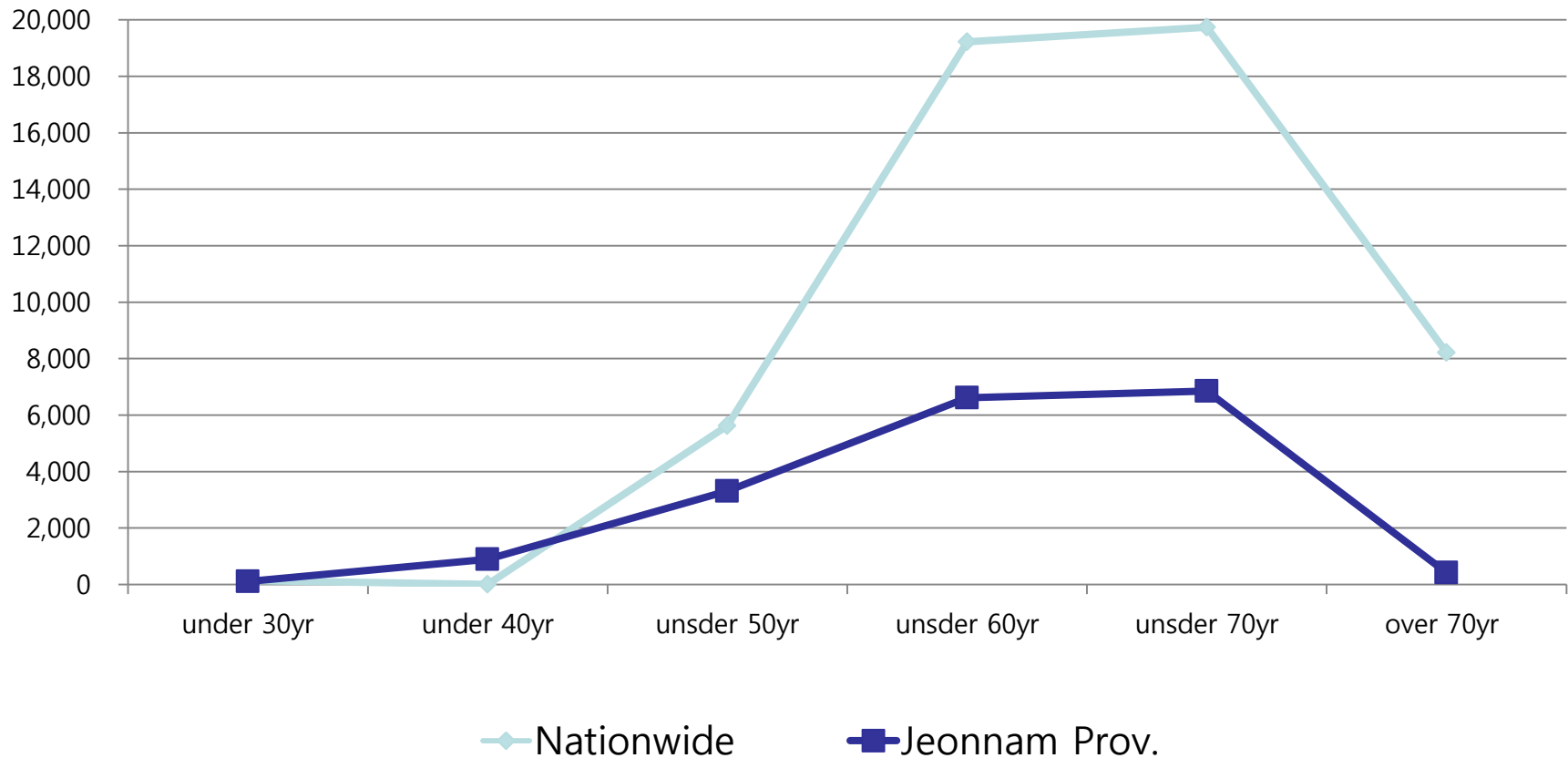
**Wando: 75-83% of nationwide abalone production**

# The Quantitative Scale of Abalone's Culturing Cage



The amount of abalone cages has increased 4.2 fold for the past 9 years.

# Age Distribution of Fisheries Workers in Korea(2013)



- The ranges of age : 50~60yrs 32%, 60~70yrs 33%, over 70yrs 14%
- According to the national statistics, nearly 80% of the fisheries workers were more than 50 years old

## **II. Roles of Women in Abalone Culture and Related Industries**

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### **Grading Young Abalone for Grow-out (Delicate and heedful tasks)**



### **Preparation for Stocking Abalone Spats (Net preparation )**



### **Roles of Women**



### **Harvesting Aquatic Plants**

- Husband: Crane operation
- Wife: Assistance in lifting ropes and collection of aquatic plants on board.



### **Feeding Abalone**

**(Allocation of aquatic plants in each cage)**



## Routine cage management (help net lifting and facility check)



### Roles of Women



**Check of befouling organisms on cage nets**



**Check the residual feed and health regularly**



## Detaching fouling organisms on the abalone shell

**Species : Oysters (on shell), barnacles (on shell), and mussels (on net)**

**Oysters are the most harmful organism to abalone and also take lots of time to be removed**



# Communal Reciprocity of Labor Force in Harvest and Sales



**Preparatory job arrangement  
for a sale**



**Lifting/moving nets in the work station**

**Roles of  
Women**



**Manual detaching with a dull kitchen knife**



**Placing abalone on the auto-grader tray**





**Hanging/mending nets**



**Mopping-up after work**

**Roles of  
Women**

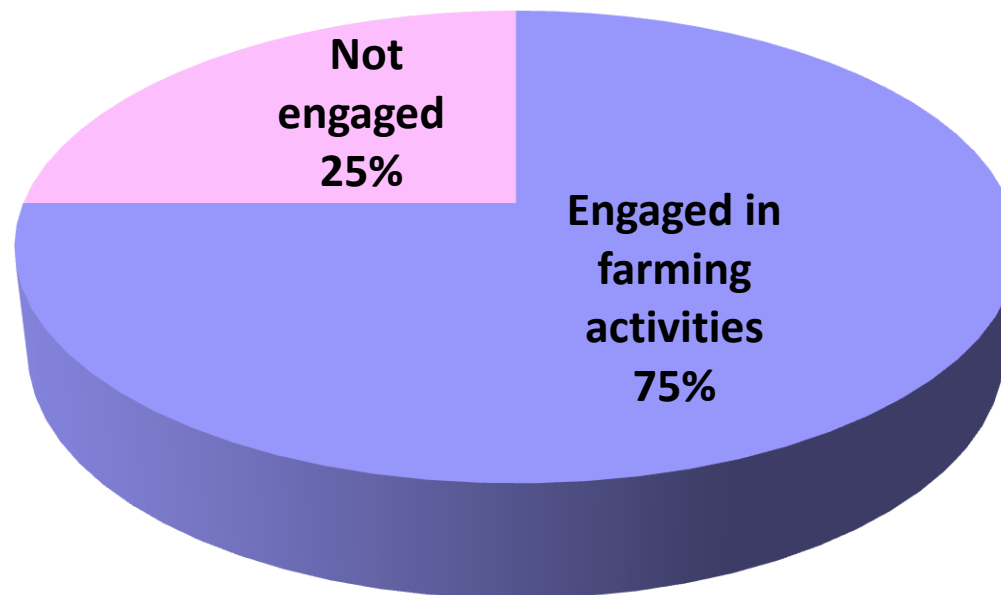


**Weighing abalone before sales**



**Assistance in loading products on a truck**

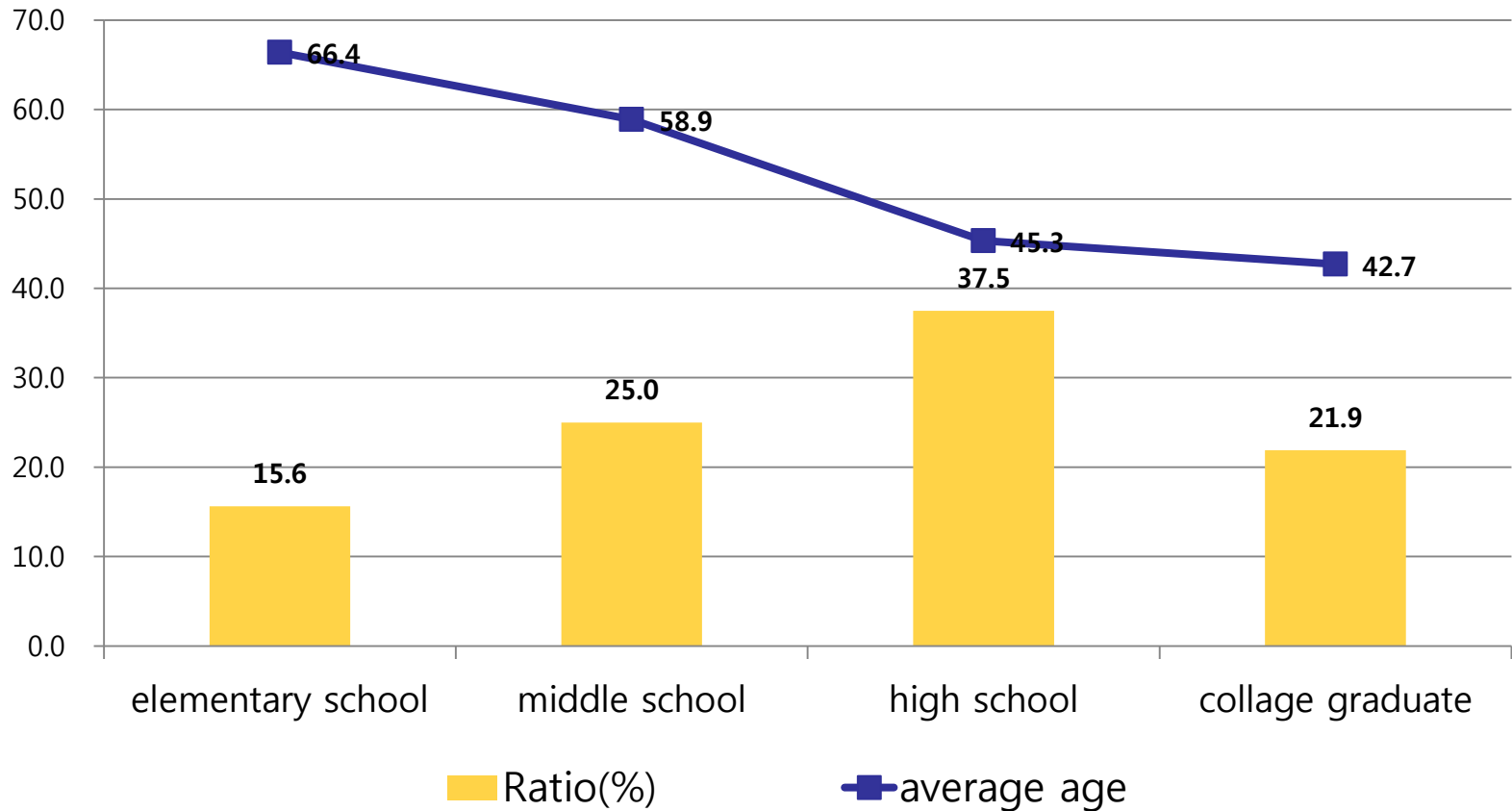
## Woman Engage Rate in Abalone Farms in Wando



**Occupation types : Self-employed 100%**

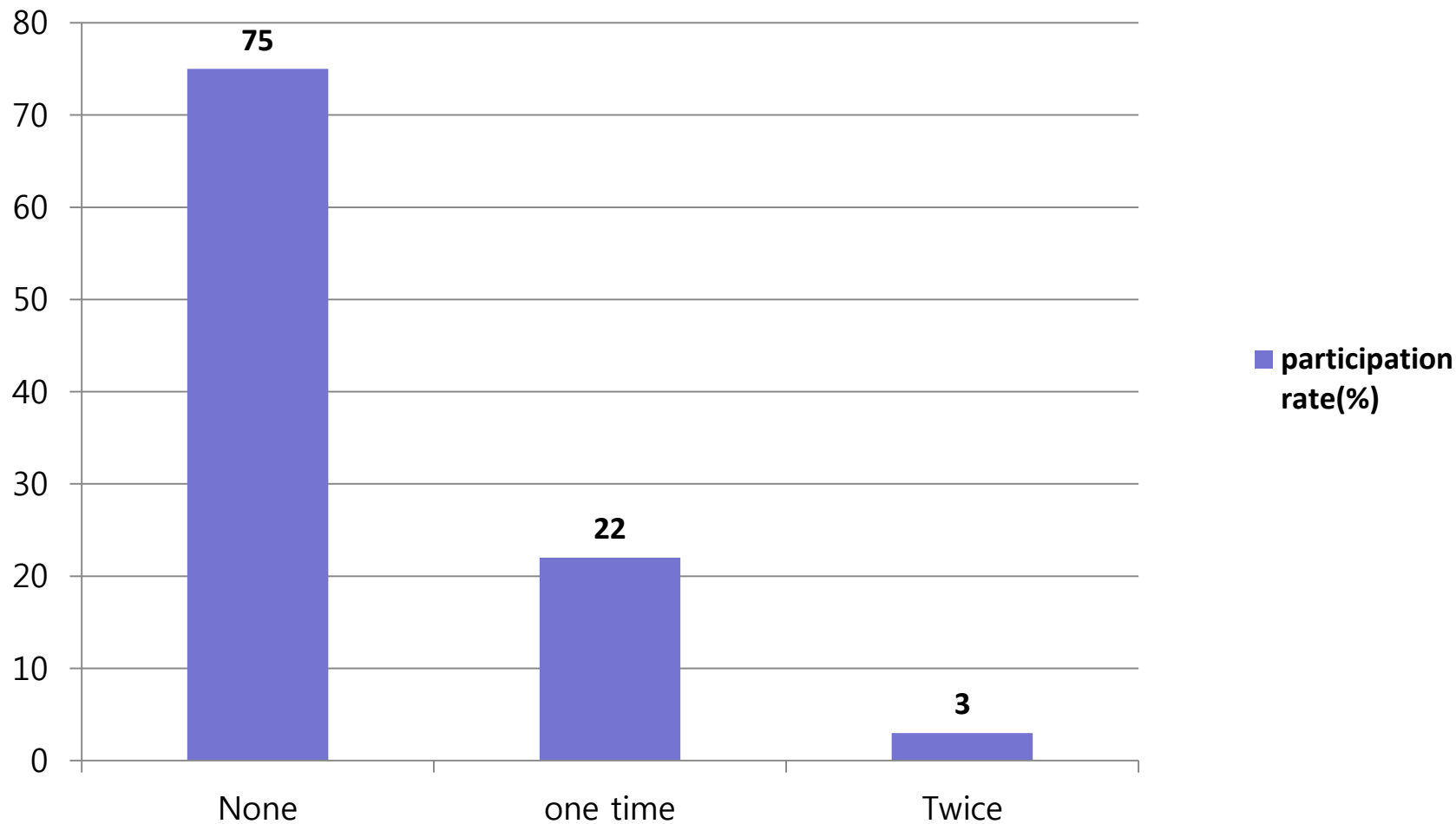
**Reasons for unengaged are to support children with education, temporary moving to cities, loss of ability to perform labor and/or others.**

# Woman Education Levels by Age



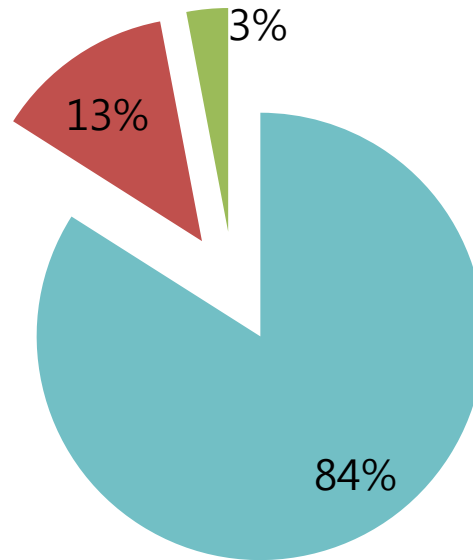
59.4% of the surveyed women took higher education

# Women's Participation Rate in Expertise Training Programs





# Do You Get the Gender-Based Discrimination As a Woman?



■ Indiscrimination

■ Discrimination

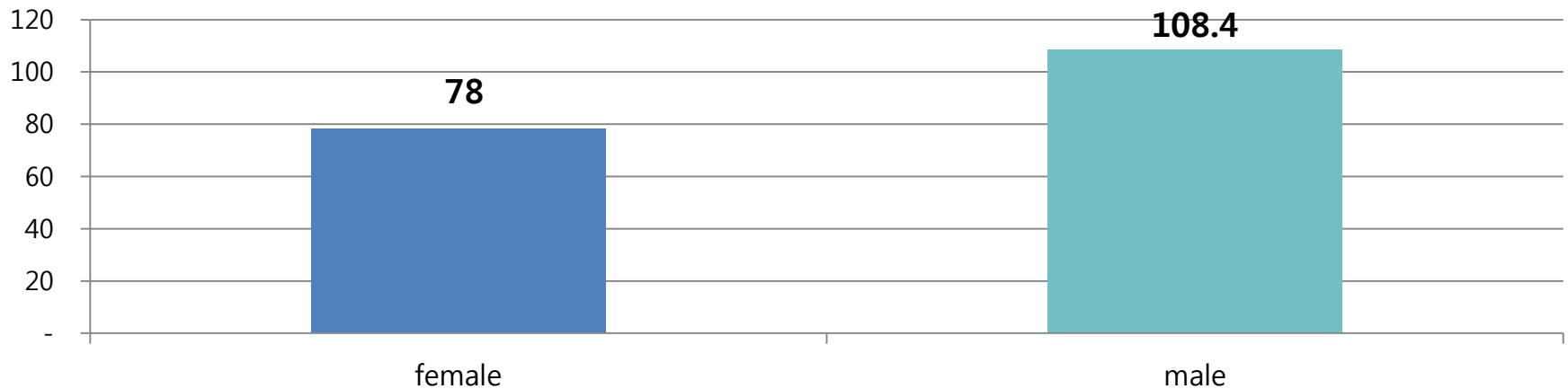
■ No comment

## Respondents

- Indiscrimination : 84%
- Discrimination : 13%

**\*The women who responded feeling discrimination was over 66 years old (The influence of Confucianism)**

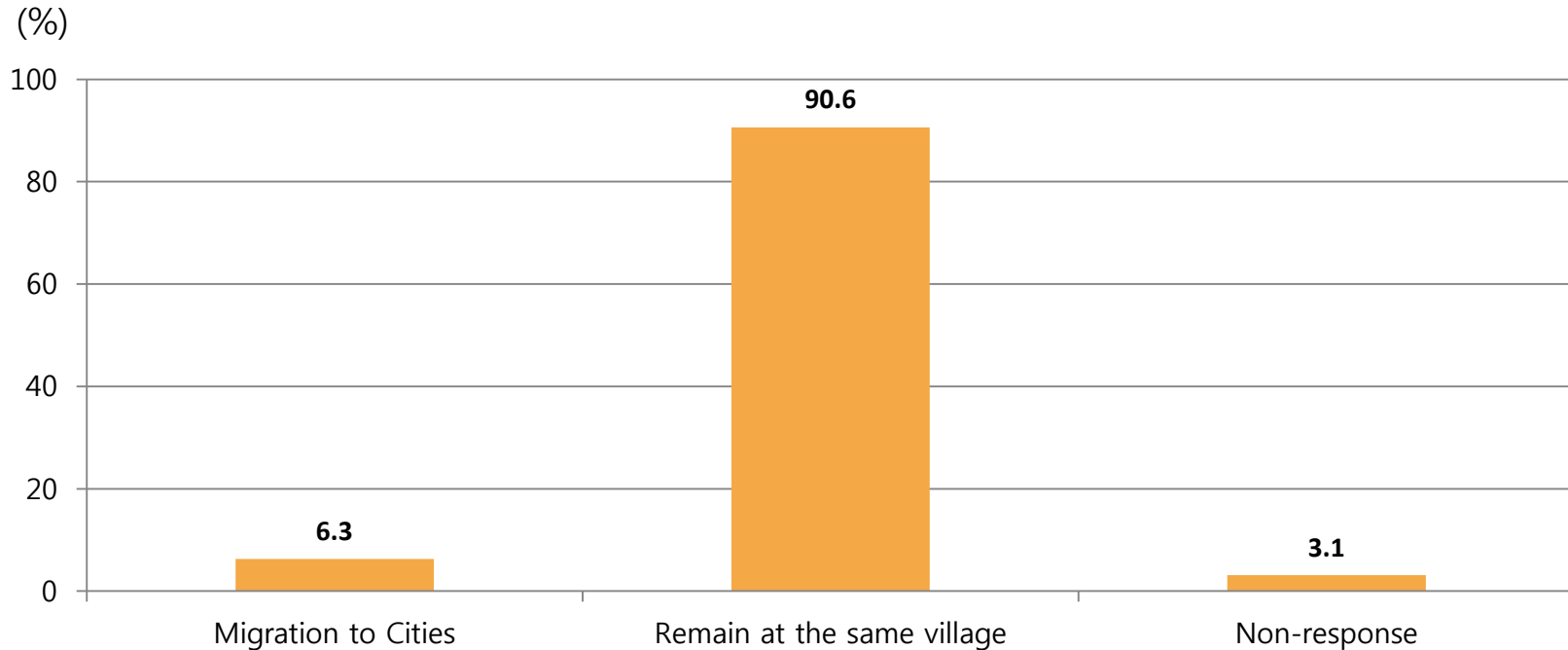
## Average Daily Wage by Gender



**In the wage difference between gender, women were admitted to wage gaps because they think men have stronger and more skillful under the same conditions**

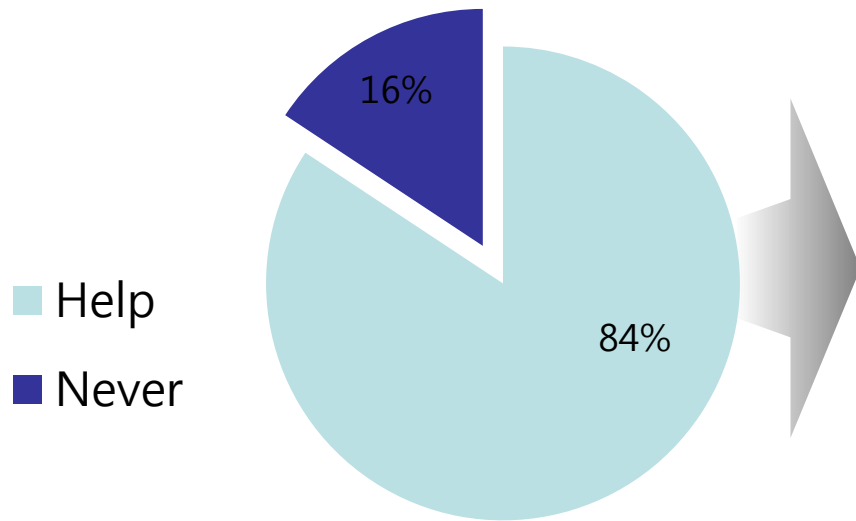
\* Women's Average daily laboring hours : 6.75hr

## Residence After Retirement



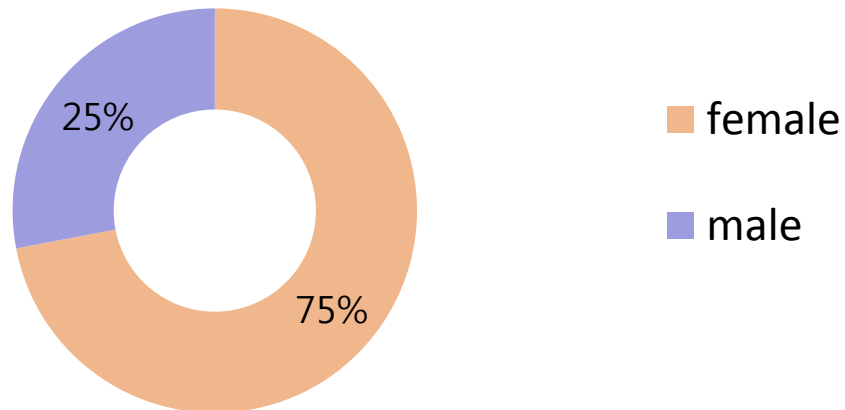
**Most of woman respondents (90.6%) were satisfied with current living in fisheries villages.**

## Male Assistance in House Chores



The care of children, cleaning, laundry, study guidance, dishwashing, and waste disposal

## House chore share rate by gender








# III. Suggestions for the Empowerment of Women



# The Roles of Women Strengthening Measures in Fisheries Communities

-  Social infrastructures needed to improve the quality of women's life and empowerment
  - Above all, most women wanted to have;
    - More free time in order to join social communities' activities.
    - An half or more housework sharing by their spouse
    - More child care facilities and pediatrics
-  New foundation in woman's professional training center  
(Financial support of local government)
  - The most beneficial curriculum development for women.
  - Round-tour training program development for remote islands.
  - Provide local people with education opportunities including gender recognition issues at all kinds of training course.
-  Central and local governments should prioritize women in various Fisheries Policy Support Projects

THANK YOU FOR YOUR ATTENTION

