



Food and Agriculture
Organization of the
United Nations

The Experience of Community-Based Fisheries Management in Korea

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Situations of Fisheries Management in Korea

- **Coastal(*Inshore*) and Offshore fisheries are managed by the Permit system**
 - Output control (Total Allowable Catch, TAC)
 - Input control (Limited permits, Limit vessel tonnage, Vessel buyback, etc.)
 - Technical measures (Closed season/area, Mesh size, Size limit, etc.)
 - Stock Enhancement Programs (Fry releasing, Artificial reef, Marine ranching, etc.)
- **Aquaculture is managed by the License system**
 - Set-net fishery (catching marine animals in a demarcated area of waters)
 - Seaweed, shellfish, fish, and open sea aquaculture
 - **Communal (community) fishery**



The Community-Based Fisheries in Korea

- Community (“*Maeul*”) fishery

- [Fisheries Act (Article 8)] **Fishing business run by fishers residing in a certain locality** to manage, cultivate, catch and gather shellfish, seaweed or sedentary marine animals in a demarcated area of waters, contiguous to the shore, within a certain depth range
- [Fisheries Act (Article 9)] A license for community fishery shall be granted **only to a fishing community (“*Ochongye*”) located in each district** in order to the common interests of fishers who reside in a certain locality
- Fishing community (*Ochongye*) **only** can use the demarcated fishing ground on their own rules (catching and farming fish, shellfish, seaweed, marine animals)



The Community-Based Fisheries in Korea

- One example of Community (“*Maeul*”) fishery [Sodol fishing community]



[One fishing community in Gangneung region in East Sea]



[Sodol fishing community with Community fishery]



The Community-Based Fisheries in Korea

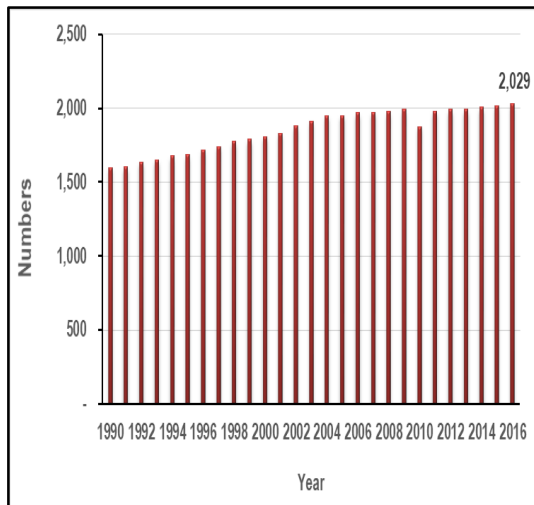
- One example of Community (“*Maeul*”) fishery [Sodol fishing community]
 - Total 121 fishermen are members of the fishing community
 - They have 60 powered fishing vessels, catching octopus, sea squirt, other fishes, etc.
 - No aquaculture for shellfish, seaweed, and fish



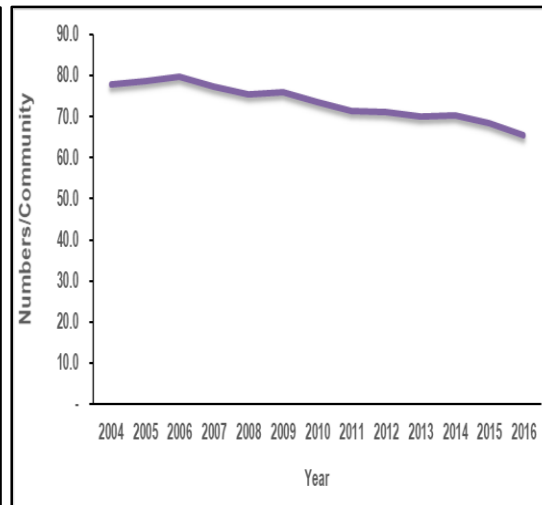
The Community-Based Fisheries in Korea

● Situations of Fishing Communities (*Ochongye*) in Korea

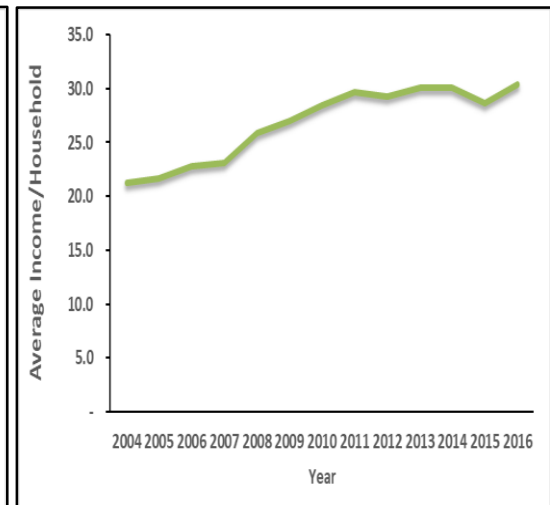
- Numbers of fishing communities are slightly increasing (2,029 communities as of 2016)
- Average number of members in a community are decreasing (66 members as of 2016)
- Average income per household is increasing (30.3 million won as of 2016)



[Number of fishing community]



[Member number of a fishing community]



[Average income of a fishing community]

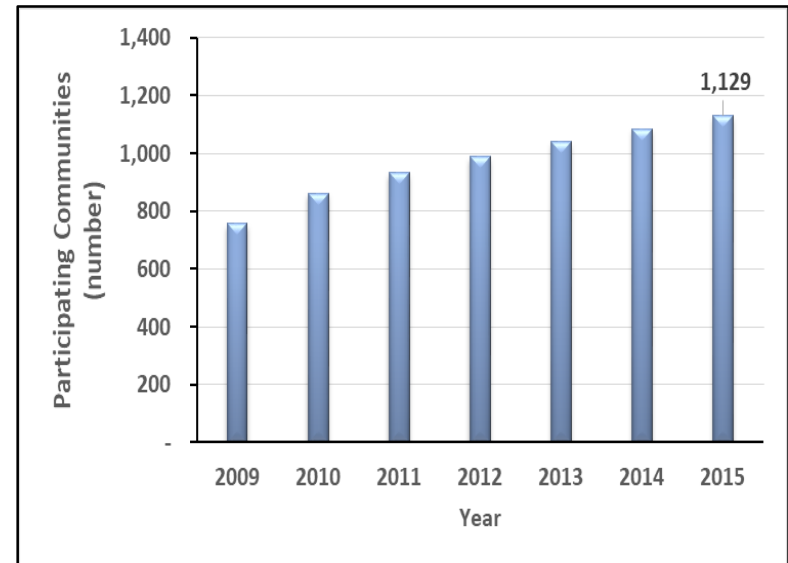
Development of the Community-Based Fisheries in Korea

- In 2001, the government initiated a policy to encourage the fishing community to manage fisheries through self-regulated regimes (*Fishery Self Management*)
 - The government gives stronger responsibility, authority, and education to the fishing community to manage fishing grounds, stocks, and harvests
 - The government also provides **financial rewards** to the fishing communities with good performance records to vitalize the community-based fisheries



Development of the Community-Based Fisheries in Korea

- **In Fishery Self Management policy, financial rewards are made to the community, not to the individual members**
 - **The regulations require that financial support (money) be re-invested in self-management activities;**
 - ✓ **Stock enhancement project (fry-releasing, small ranching, etc.)**
 - ✓ **Cleaning coastal environment and fishing ground**
 - ✓ **Cost reduction project (group purchase and selling, etc.)**
 - ✓ **Revenue enhancing project (direct-sale to restaurants, etc.)**



[Number of Participating fishing community]

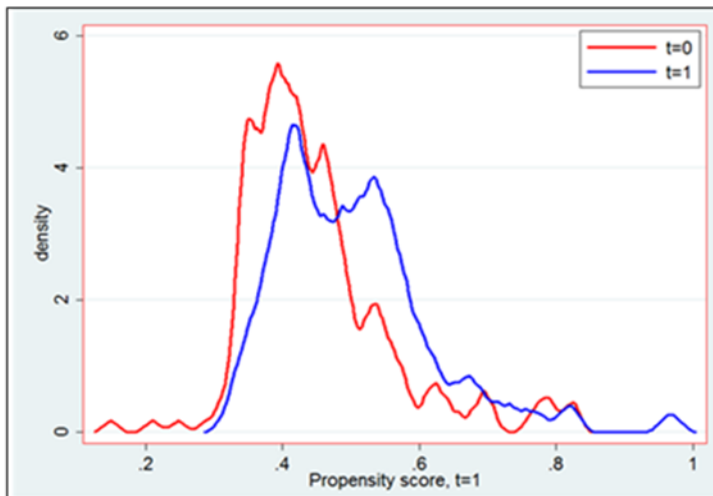
Evaluation of Fishery Self Management policy in Korea

- The evaluation of community-based fisheries management and/or fishery self management policy has been very limited, but it needs to be done
- In order to evaluate the fishery self management policy for the community-based fisheries management, the Propensity Score Matching (PSM) methodology was applied
 - PSM allows to construct a comparison group by matching twin groups based on scores and with this approach the selection bias problem can be avoided
 - Therefore we can compare performances of participating vs. non-participating communities
- The study targeted 443 fishing communities in Busan and Gyeongnam regions
 - 210 participating fishing communities vs. 233 non-participating fishing communities
 - After matching two groups (participating vs. non-participating fishing communities), average income per fishing household was compared



Evaluation of Fishery Self Management policy in Korea

- Participating communities in self management program show higher fishing incomes (2.04~4.33 million won) than those of non-participating communities
 - Efforts of communities with government supports would enhance economic performances
 - Good example for developing community-based fisheries management



[Matching twin groups based on score]

Matching methods	Income difference (Participating - Non-participating) (million won)	t-value
Nearest Neighbor Matching	2.04	1.343
Radius Matching	4.33	4.174
Kernel Matching	3.87	3.133
Stratification Matching	3.92	2.645

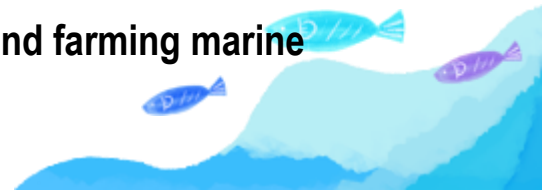
[Result of Income Differences Participating vs. Non-Participating]

Questions from FAO

1

- What are main issues addressed by the current management system?
- What solutions were used and Are rights involved?

- **Developing ways for community-based fisheries management were addressed**
 - Community's efforts by themselves and government supports (education, financial, etc.) are important in current situations of fishing communities
- **User Right (license for community fishery) is good for the economy of fishing communities**
 - A community can have exclusive fishing grounds for harvesting and farming marine animals, which can sustain the livelihood of fishing communities



Questions from FAO

2

- What are outstanding issues faced by the current management system?
- What are potential solutions ? Are rights involved?

● Conflicts between communities and conflicts with other fisheries

- Since a boundary of fishing ground is ambiguous, conflicts with neighboring communities happen, and other fisheries are catching *illegally* in community fishing grounds
- Boundaries of fishing grounds should be clearly divided and monitoring should be strengthened in cooperation with Fisheries Management Service and Coast Guard

● Communities are aging, but HIGH entry barriers for new entrants

- Despite communities are aging, some communities are reluctant to accept new entrants
- A strong leadership is needed to vitalize the community with young population influx



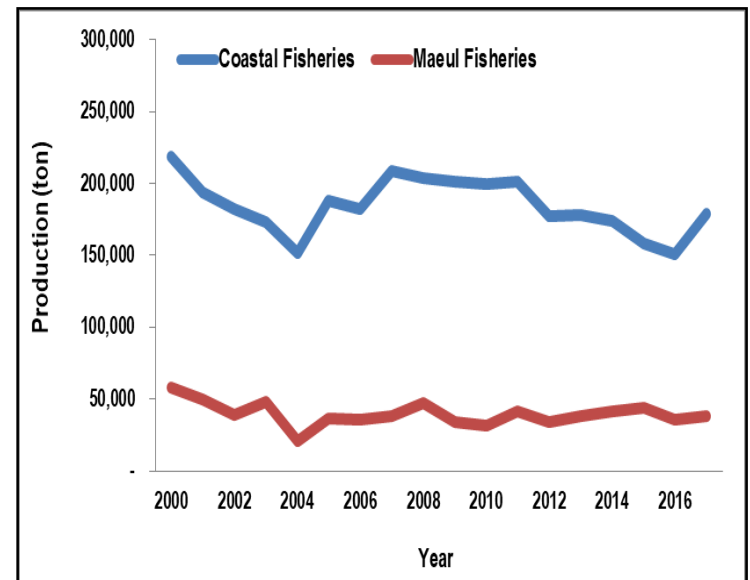
Questions from FAO

3

- How does the fishery and its management help achieve SDGs?
- Do tenure and User Rights help?

● Production of Community (*Maeul*) Fisheries is *relatively* sustained over years

- Using *ecological traditional knowledges*, the fishing community can do manage their fisheries well with all participation of fishing community members
- Community Fisheries is fundamental to the local economy of isolated and remote fishing villages



[Production of Coastal & Community(Maeul) Fisheries]

THANK YOU

