

Participatory research in resource production for sustainable fisheries and estimation of option value in Indramayu Indonesia.

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Background

“Indramayu” (fig1.2) is located in west java province of Indonesia. We focus on Pabean ilir village which is adjacent to Java Sea, Karanganyar Village and Brondong Village.



Pabean Ilir Village	
Population (Fisherman)	250
Area (km ²)	20.8
Latitude	-6.2683°
Longitude	108.3297°
Major income source	Fishing
Number of offspring	4, 5 children
General monthly income	5000000 IDR
General daily catch/person	5kg
Confirmed target species	Milkfish (Chanos chanos), Shrimp, Crab, Oyster

Issues

“External Environmental concern”
Oil spill happened in 2010.

“Uncertainty for future”

“Changing in resources”

Fishers recognize the fish size and amount are small compare to 5 years ago.



In preliminary investigation, we observe otoliths and scales of some species (e.g. tapi-tapi (fig.3)) bought from local markets, but we could not find obvious rings on neither otoliths nor scales. From farther investigation, We aim to determine information of 50% size of sexual maturity.



Fig.3 Tapi-Tapi
Drepane punctate
<http://www.fishbase.org>



Scale of tapi-tapi

Otolith of tapi-tapi

Is my fish mature?

Method

We expect to analyze necessary biological information collected with fishers, such as size and weight and sexual maturity.

“Size”

“Weight”

“Sexual

Maturity”

Evaluate option value

we evaluate the impacts of fishing upon immature fishes in two scenario.

1. no change in fishing/present management

2. Applying Suggested

measures from fishers during the Project using this scientific information (e.g. releasing of young fish).



We estimate future returns as the partial option value from target fishes. Communication over the analyses are planned to be made frequently with fishers directly and electrically through the planned activities in the Project.

Expectation

to be able to practice the spontaneous sustainable!

“Fishers management for their own future”