Economic value of ecosystem services and utility of coastal fisheries in Indramayu, Indonesia

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Background

Indramayu is located in west java province of Indonesia. We focus on **Pabean Ilir Village** which is adjacent to Java Sea, Karanganyar Village and Brondong Vilage.
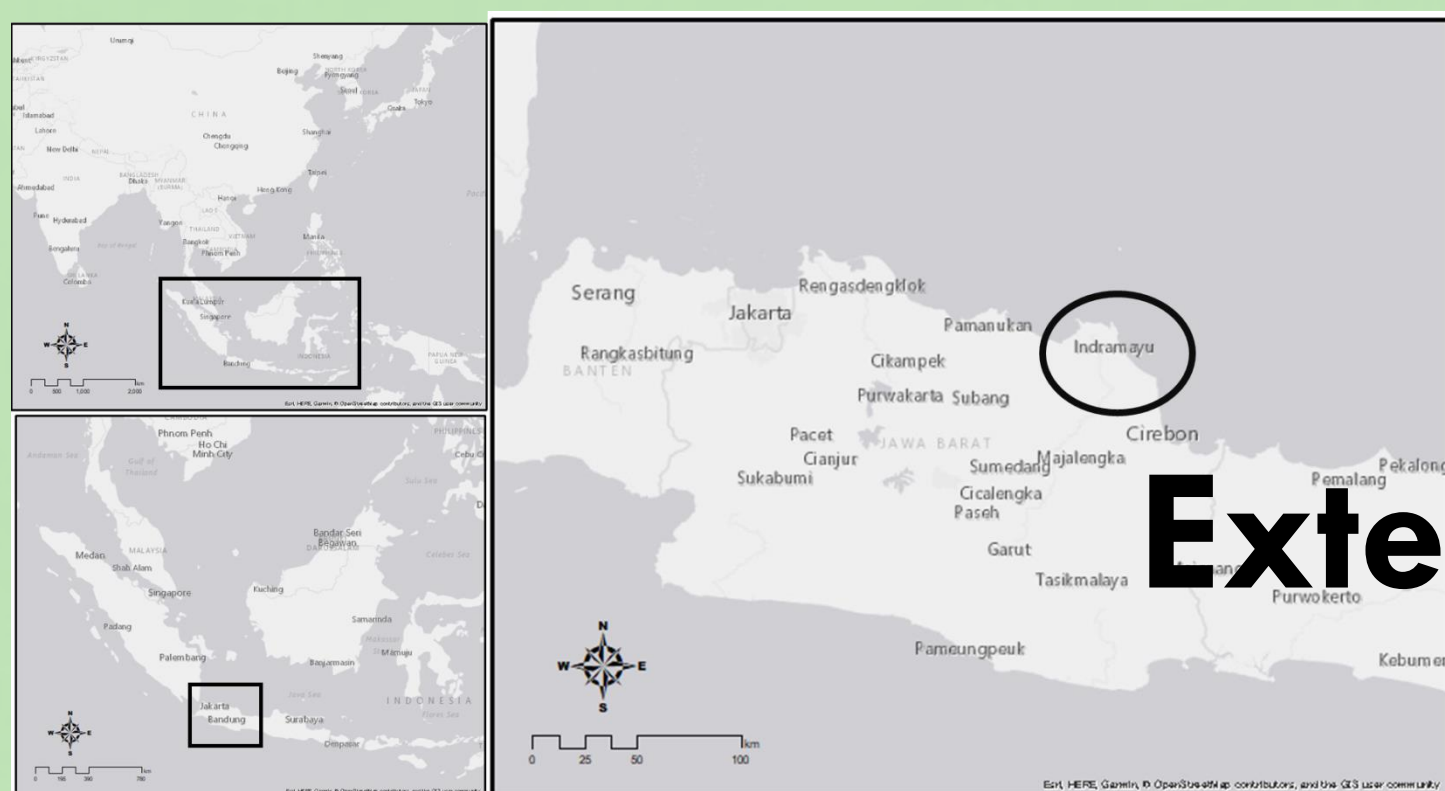
Mangrove

Lagoon environment

External environmental concern
Oil spill happened in 2010

"Uncertainty in the next generation"

Changes in fish resources
Fishermen feel **fish size and catch amount are small** compared to 5 years ago.

Pabean Ilir

Pabean Ilir Village	
Population (Fisherman)	250
Area (km²)	20.8
Latitude	-6.2683°
Longitude	108.3297°
Major income source	Fishing
Number of offsprings	4, 5 children
General monthly income	5,000,000 IDR
General daily catch per person	5kg
Comfirmed target species	Milkfish (Chanos chanos), Shrimp, Crab, Oyster

For sustainable community development…

Research Purpose

We examine fishers' satisfaction and potential factors for affecting their satisfaction by using **regression analysis**. Economic value of ecosystem services for fishers is examined through **socio-economic survey**.

Fishers' satisfaction

Individual satisfaction affects both individual and group behavior. Understanding fishers' current satisfaction is important and necessary for sustainable community development.

INFLUENCE

Potential factors

The factors depend on their life and work environment. At the same time when surveying fishers' satisfaction, the potential factors are examined.

Explanatory variables

Individual characteristics
(e.g., age, religion, ethnicity, academic career, number of offsprings etc.)

Occupational characteristics
(e.g., fishing type, fishing gear, vessel size, etc.)

Community characteristics
(e.g., operational roles of fishing, etc.)

Potential factors are determined based on **Ostrom's framework** (Ostrom, 2007)
1) Resource system
2) Resource unit
3) Governance system
4) Users

Socio - economic factors

Method

Dissatisfaction level and Concern for the future

We examine **dissatisfaction level of fishers** and **concern for the future**. The reason of the answer is collected. In the questionnaire, dissatisfaction level is quantified by using 5 level scales from 1(Not dissatisfied) to 5(Very dissatisfied).

Face-to-face interview with fishermen

Utility of natural resources for fishers
Whether fisherman has a perspectives about natural resources is examined. By doing that, we can see if fisherman actually get benefit from ecosystem services and improve their own life.

Satisfaction Model