SURVIVAL OF WOMEN FISHERS IN SECURING THEIR HOUSEHOLD’S INCOME UNDER THE CLIMATE CHANGE: A CASE STUDY IN PEKALONGAN – INDONESIA

The paper is presented in The 5th Global Symposium on Gender in Aquaculture and Fisheries (GAF5) in Lucknow, India
SYMPTOMS OF CLIMATE CHANGE

- Sea level rise,
- Increased of unpredicted storm,
- Increase of wave height and global temperature,
- More frequent extreme weather,
- Changes in rainfall patterns,

VULNERABLE GROUP:
MAIN SOURCE OF LIVELIHOOD
HIGHLY DEPENDING ON THE WEATHER CONDITION

Collapse in Household Income
→ seeking help!
Rescued by wife & other party

vulnerable stocks + revenue
Simulation of Rise of Sea Surface Level: 100 years later

(a) 20 tahun kemudian, 16 cm.  
(b) 40 tahun kemudian, 32 cm.  
(c) 60 tahun kemudian, 48 cm.  

(d) 80 tahun kemudian, 64 cm.  
(e) 100 tahun kemudian, 80 cm.  
(f) 100 tahun kemudian, 100 cm.  

Sumber: Dinas Pertanian, Peternakan, dan Kelautan (DPPK) Kota Pekalongan, 2012
ABLATION: ONE OF THE IMPACTS OF CLIMATE CHANGE

Source: BPBD Pekalongan, 2013
Women Role in Facing Climate Change Impact

- **Man** tend to move to the other regions to gain the new occupation, while the **women** more choose to live in their origin region because they have to take care of their children, thus whatever happened, they have to defend for fulfilling the family needs.

- When extreme weather, the **women have to keep in doing her domestic work** such as looking for water and foodstuff for the family.

- Therefore, **their rest time is not sufficient** for their body and be vulnerable to be infected by disease.
Women have to be “front liners” (household economic backbone)

- **Productive role**: gain economic income to fulfil household needs
- **Reproductive role**: conducted in their position as a wife and mother
- **Managing community role**: taking part in regular social gathering, social activities (actualisation of her self)
- Besides as housewife is also actively participated to earn living for fulfilling the economic needs of family in the unpredictable climate condition with the consequence which is the gathering time with family and children education becomes neglected.
Objective of the Study

1. To explore the survival efforts of women fishers to secure their household’s income under the climate change
2. To outline the strategy to empowering fishers and their wives in adaptation and mitigation of climate change
Materials and Method

Study Area:
**Pekalongan, Central Java**

Data and Sampling:
- Cross-sectional survey
- Face-to-face interviews (instrument: questionnaire and indepth interview)
- Respondents:
  - Informant: Women fishers (coastal community) (n=52 persons)
  - Key-persons (A-B-G-C)
- Sampling method: Snowball sampling and Purposive Sampling

Tools of Analysis:
- Mixed Method (Creswell, 2007)
  - Descriptive statistics as Quantitative Tools
  - Trianggulation based on indepth interview as Qualitative Tools

Related Study:
OBJECTIVE #1:
SURVIVAL EFFORTS OF WOMEN FISHERS
Secondary Job of Women: Side Job Involvement (54%)

- Selling the catch fish
- Home Industries: SMEs (salting fish, processed fish, etc)
- Retailer: traditional/small shop
- Food stall, etc

Productive Role

BY GROUP

- Kelompok, 60.71%
- Individu, 39.29%
Production Access

- Government Program through Collective Group of Production
- Weak of Cooperative/Finance Institution Role

Market Information Access

- Marketing Constraint (the way and channel)

Technology Access

- Unproper grant from government: equipment/machine can’t used (unappropriate needs)
Reproduction Role

**Number of children**
- Husband & Wife

**Rearing/look after the Children (Childcare function)**
- Together, but mother with the most

**Take care of House (Household maintenance function)**
- Wife

**Planning the children education**
- Together, but mother with the most

**Financial regulator family (food, clothing and shelter)**
- Wife
Managing Community Role

Group activities/ gathering: Involvement in the community activities and self-existence

Networking to establish safety net: saving and loan, deposit, reciprocal donation of celebration and other mutual cooperation.
FINDINGS

- The **women** is forced to be **stronger** in facing the impact of the climate change than men.
- **Women burden was getting heavier** in the climate change which is less profitable but they have to fulfil their roles for production, reproduction and managing community.
- Women fishers have to work hard searching or developing the income resources.
- **Creation of the income resource** through the alternative livelihood are highly urgent needs to answer their survival living.
OBJECTIVE #2: STRATEGY TO EMPOWERING THE ROLE OF WIFE

DOMESTIC WORK/REPRODUCTIVE
("bed-cleaning-cooking")

PRODUCTIVE & SOCIAL ACTIVITIES
EMPOWERING FOR GOOD QUALITY OF LIFE

Existing condition of Households?
- Vulnerable revenue/income
- Low in purchasing power
- Weak in lobbying access
- Less awareness & readiness
  - Etc..

1. PRODUCTIVE ACTIVITIES: GAIN INCOME
2. ECONOMIC AND NON-ECONOMIC POWER
3. AWARENESS & READINESS IN FAMILY LIFE

Achievement?

Improve in participating to cope the climate change.
EMPOWER WOMEN FISHERS:

Empowerment for **IN PRODUCTION ASPECT**, perhaps through:

- Extension, campaign, training
- Pilot project / business incubation
- Product diversification
- Optimization the role of a cooperative (economic enterprise), finance institution, etc.
- Empowerment of disaster alert village
EMPOWER WOMEN FISHERS:

Empowerment **IN REPRODUCTION ASPECT**, perhaps through:

- Family programming extension
- Extension about education for her child
- Extension about the way to get healthy life for households and good environment
- etc
Empowerment for **IN MANAGING COMMUNITY ASPECT**, perhaps through:

- Forming small group for information exchange, self-actualization,
- Regularly social gathering activities for updating with current situation (information, technology, communication)
- Improve the cooperation among the stakeholder
- Dialogue, Development, Enhancement
- Open-minded and always welcome to any innovation and suggestions
<table>
<thead>
<tr>
<th>Community</th>
<th>Adaptation</th>
</tr>
</thead>
<tbody>
<tr>
<td>FISHERS</td>
<td></td>
</tr>
<tr>
<td>• Decision Making</td>
<td>extension information system: ICT</td>
</tr>
<tr>
<td>• Awareness of Climate Changes</td>
<td>There is changes phenomena of climate → Need improvement of awareness</td>
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<tr>
<td>• Technology</td>
<td>- Required application of technology to accommodate the climate changes:</td>
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<td></td>
<td>- Diversification of commodities (for safety strategy to avoid a failure harvest)</td>
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<td>• Enterpreneurship</td>
<td>- Multiple job (trader, processor, and other secondary job)</td>
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<td>- Capacity building (ability to lobby, networking, etc)</td>
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MITIGATION

• PHYSIC: growing vegetation of mangroves and other coastal vegetation to structure from sea level rise (tide), wave, etc.
• NON-PHYSIC: need adjustments in behavior of farmers and their community in socio-economic, habit, culture, life-style, etc.
GEOTUBE
Determinant factors:
- Economic factor
- Non Economic factors: Political, social, culture

Strategy:
- Why
- What
- How

Identification Analysis

Solution:
- Empowerment
- Dialogue
- Development
- Enhancement

Empowered Community: Existence of People

Option of Empowerment Models:
- Extension/ Campaign
- Education/ training
- Pilot project (Incubation)

Trial

Monitoring

Model tested

Source: Harry (2001) (Susilowati et al., 2004) with necessary modification
CONCLUDING REMARKS

• PEOPLE HAVE NOT READY YET (TO HAVE NATURAL SHOCK → due to climate change) since longtime benefited the natural ENDEVOUR.

• BALANCING IN ECONOMIC-POLITICAL MOTIVE

• THEREFORE, NEED AGENDA FOR ADAPTATION & MITIGATION → for all STRATA (A-B-G-C)

• The adaptive capacity improvement as the long term main strategy and the pattern of double livelihood as the main strategy in the short term.
women fishers need to be intensively empowered to support the household economy as one of the climate change survival efforts and betterment of the community’s welfare/happiness
THANKS YOU
FOR YOUR ATTENTIONS