

SS403

GENDER, VULNERABILITY, AND POVERTY PREDICT THE CLIMATE CHANGE EXPERIENCE (CCE) AMONG COASTAL COMMUNITY MEMBERS IN SABAK BERNAM SELANGOR



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1. Introduction
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**FGD with Fishermen in Panchang Bedena, Sabak Bernam
(31 January 2025)**

INTRODUCTION

- Climate changes cause **loss of agriculture industry** (Jalal et al., 2021; Shawon et al., 2018; Abdullah et al., 2016), and **threats to fisheries** (Yin et al., 2025)
- Fisheries sector involves **masculine activities**, high work risk and dangerous jobs (Zainalaludin et al., 2023; Saidi et al., 2021), that **threatens economic stability** of the vulnerable groups caused them **poor and marginalized** (Zainalaludin et al., 2022) especially the disabled men (Saidi et al., 2021)
- Some examples of the vulnerable groups in Malaysia are older adults, the disabled (Zainalaludin et al., 2025), youth and day-pay workers.



Objectives:-

- To identify the relationship between **(CCE) and sex** of the respondents
- To measure the relationship between **poverty and vulnerability** by sex disaggregation
- To identify the significant predictor on **gender, vulnerability types and poverty** that explain the likelihood of a respondent with CCE



Data Collection with Older Adults in Bagan Nakhoda Omar, Sabak Bernam (25 January 2025)



Methods

- **Location:** Sabak Bernam, a coastal district in Selangor state located at Malacca Strait of Peninsular Malaysia
- **Respondents:** Coastal communities who are assumed vulnerable to climate change impact
- **Equal Distribution** between male and female – refer sampling table
- Malaysia **PLI=RM2589** (USD613.58) was used to classify the poor category of household income (DOSM, 2023)



Study Locations



- Data collected through a special developed questionnaire
- $n=274$ data collected in Jan 2025 (50% males and 50% females)
- $n=274$ (46.4%) poor households (household income $\leq$ than USD613.58 a month)
- $n=238$ (86.86%) reported experiencing climate change reported in this paper (55.9% males and 44.1% females)

Sampling Table

District	Sabak		Pasir Panjang		Sungai Panjang		Bagan Nakhoda Omar		Panchang Bedena		Total
Gender	M	F	M	F	M	F	M	F	M	F	
Sabak Bernam	30	30	30	30	30	30	30	30	30	30	300

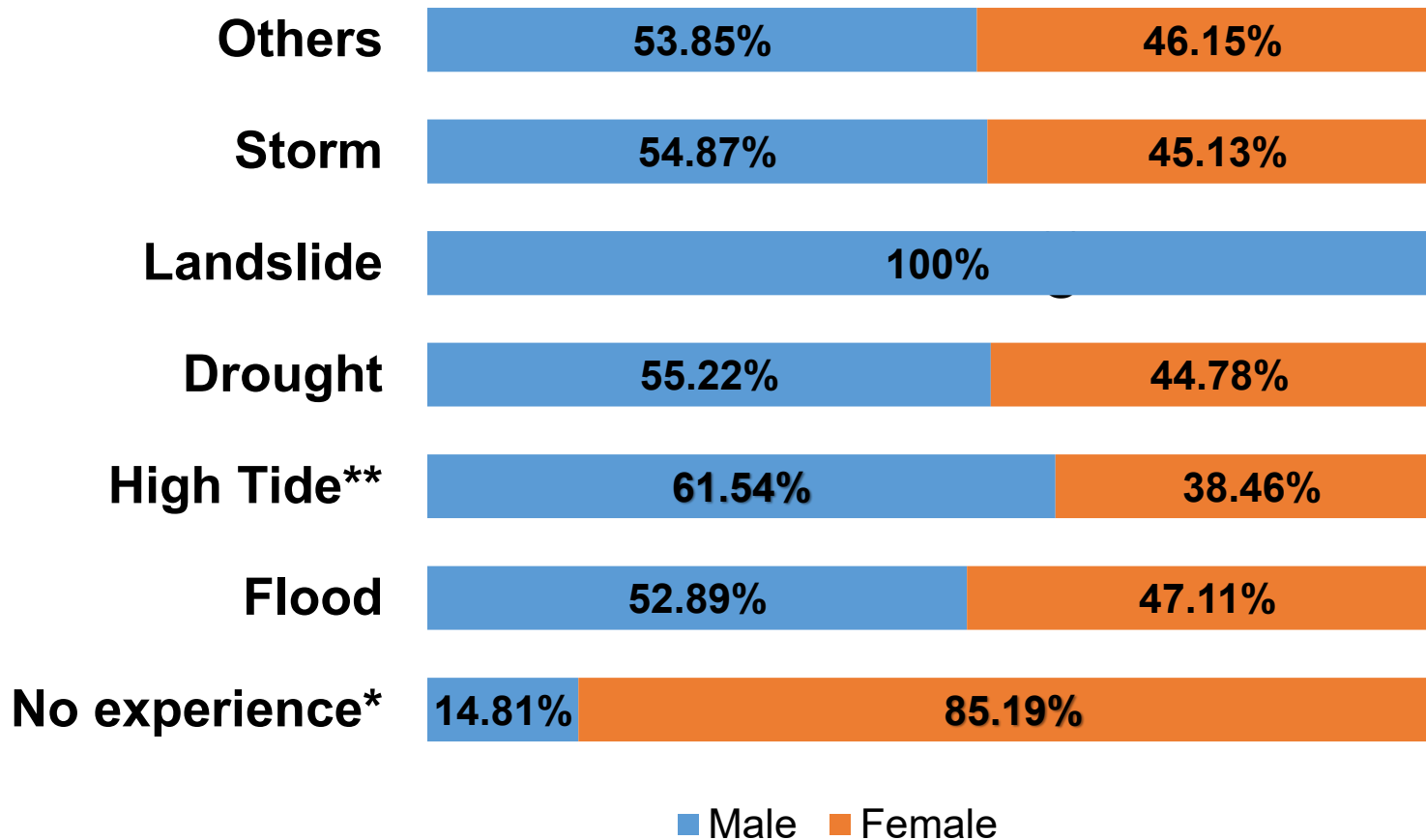
Question in the SURVEY on CCE - Q3 (Part G[i]) :-

What type of disasters that you use to experience at your place?

1. flood
2. high tide
3. drought
4. storm
5. others

(answer 1-4 from climate change, answer in 5 will be categorised as CCE YES/NO)

Relationship between CCE and Sex (274)



Note:

CCE - climate change event

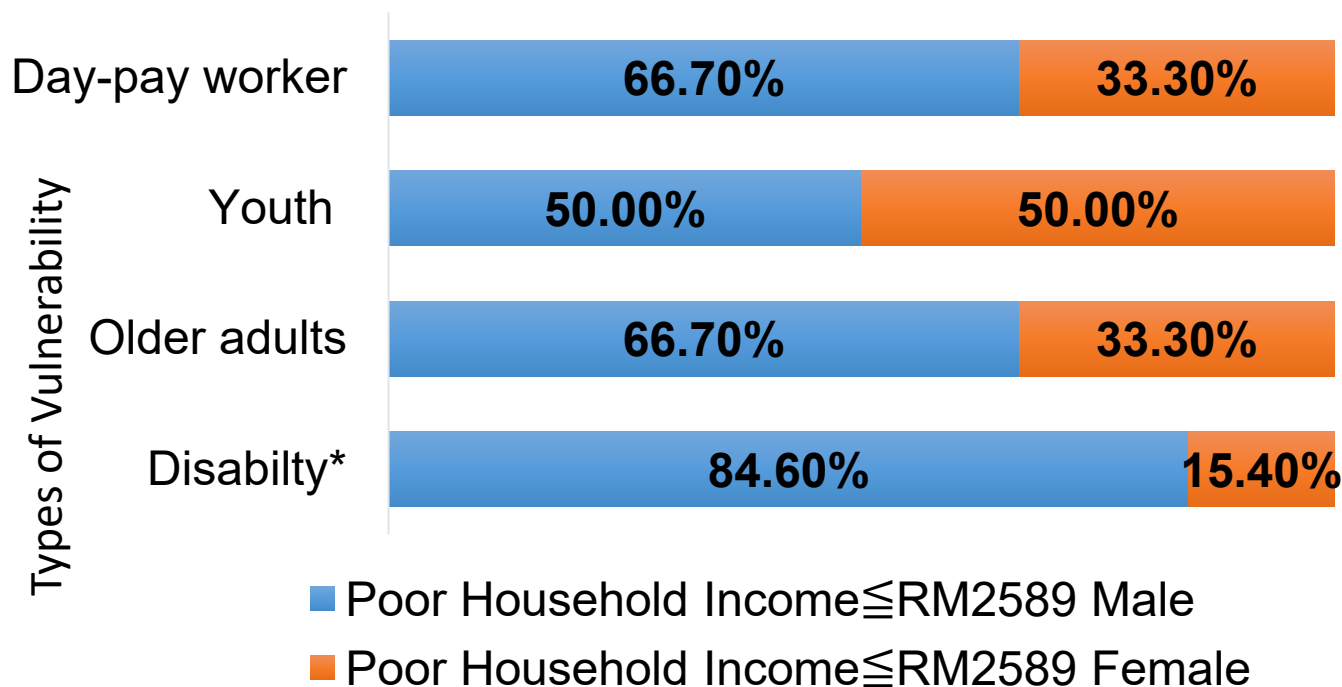
$n=441$ (Multiple response)

$p<0.05$ through Chi Square test

* $p<0.05$ significant relationship between no experiences of climate change event and sex of the respondents

** $p<0.05$ significant relationship between high tide CCE and sex of the respondents

Relationship between Poverty and Vulnerability by Sex Disaggregation ($n=274$)



Data Collection with Disabled Men at Bagan Nakhoda Omar (25 January 2025)

Notes - *A significant relationship ($p < 0.05$); PLI = USD613.58

Wald Chi Square Table (respondent with CCE=1)

Variables	B	S.E.	Wald	df	Sig.	Exp(B)
Gender (Male=1)	2.710	.594	20.787	1	.000	15.036
Disabled (No=1)	.919	.896	1.053	1	.305	2.506
Older Adults (No=1)	1.045	.474	4.851	1	.028	2.842
Youth (No=1)	-1.236	1.065	1.347	1	.246	.291
Day-pay Workers (No=1)	-.119	.525	.051	1	.821	.888
Poverty (Non-poor=1)	-.170	.400	.181	1	.671	.843
Constant	.762	1.609	.224	1	.636	2.143



Key Highlight

Gender differences matter

- Men more exposed to CCE → linked to workplaces (fisheries, outdoor sectors)

Disability increases vulnerability

- Among males, disabled individuals face higher poverty risk since physically demanding sectors like fisheries require able-bodied workers

Determinants of climate change experience (CCE)

- Being **male, 15 times times** likelihood to experience CCE than females
- **Non-older adult** respondents were **2.842 times** likelihood to experience CCE than older adults

Overall

- **Gender, disability & age = critical predictors of poverty & vulnerability in coastal communities**



Discussion

Engendering Climate Justice in Aquaculture and Fisheries to Develop Climate Change Adaptation Strategic Plan:-

1. Recognize gendered exposure to CCE - **male**
2. Disabled - **male**
3. Young group - youth & **male**

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