TS220

Gender Disparity of Household Composition Predicts Poor with High Well-Being Community Member and Climate Change Experience (CCE) in Sabak Bernam

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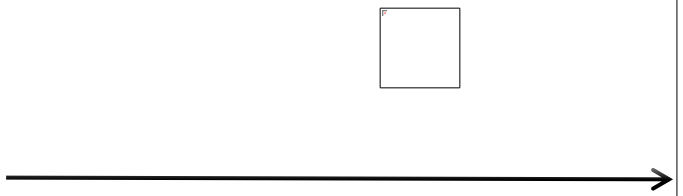
Cockle Farmers in Sabak Bernam, FGD, 6 MAY 2025

- Climate change caused **loss of productivity** (Jalal et al., 2021) in **fisheries** (Yin et al., 2025)
- Fisheries and Aquaculture Economic Sector inclines to **masculine activities high work risk** (Zainalaludin et al., 2023; Saidi et al., 2021)
- Thus, total number of **productive men** in a household is crucial to ensure the households out of poverty (Esteve et al., 2024) and the household in high wellbeing (Grevenstein et al., 2019)
- At the same time unhappy family due to irresponsible men **may reduce** due to divorce or death of husband (Wallin, 2023)
- Regardless age **poor females** may suffer low wellbeing, especially if they are single mothers (Zainalaludin et al, 2025)

Cockle Industry in Sabak Bernam

- Sex
- Gender Disparity:
  - Male=Female
  - Male>Female
  - Male<Female



- Poor (USD613.58 - PLI)
- High Wellbeing (WHO-5)
- Climate Change Experience (CCE)

Methods

- Location - **Sabak Bernam**, a coastal district in Selangor state located at Malacca Strait of Peninsular Malaysia.
- Data sources - the **SURVEY** (*n*=274); and *n*=230 (83.94%) of respondents with **CCE & respondents with household income data**

Location of Study : Sabak Bernam

- **Respondents** - coastal communities who are assumed vulnerable to climate change impact, and they are also vulnerable group - disabled, older adults, day pay workers and youth
- **Equal Distribution** - between male and female
- Malaysia **PLI=RM2589** (USD613.58) - was used to classify the poor category of household income (DOSM, 2023)
- Select cases on respondents with **CCE & high wellbeing score**
- **WHO5** wellbeing scale (scale 4, 5 & 6 = high wellbeing score)

WHO-Five Well-Being Index (WHO-5)

Please indicate for each of the five statements which is closest to how you have been feeling over the past two weeks. Notice that higher numbers mean greater well-being.		All of the time	Most of the time	More than half of the time	Less than half of the time	Some of the time	At no time
1	I have felt cheerful and in good spirits	5 ☐	4 ☐	3 ☐	2 ☐	1 ☐	0 ☐
2	I have felt calm and relaxed	5 ☐	4 ☐	3 ☐	2 ☐	1 ☐	0 ☐
3	I have felt active and vigorous	5 ☐	4 ☐	3 ☐	2 ☐	1 ☐	0 ☐
4	I woke up feeling fresh and rested	5 ☐	4 ☐	3 ☐	2 ☐	1 ☐	0 ☐
5	My daily life has been filled with things that interest me	5 ☐	4 ☐	3 ☐	2 ☐	1 ☐	0 ☐

Total raw score on WHO-5 goes from 0 to 25. To obtain a percentage score ranging from 0 to 100, the raw score is multiplied by 4. A percentage score of 0 represents worst possible, whereas a score of 100 represents best possible quality of life.

Total raw score ☐☐ x 4 = ☐☐

(0-25) (0-100)

WHO5 Scale

Qestion 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)

***n*=238 (86.86%) (*n* multiple responses=441) with CCE=yes**

- 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 ≤ than USD613.58 a month)
- *n*=238 (86.86%) reported experiencing climate change reported in this paper (55.9% males and 44.1% females)

Table 1: Sampling Table

District	Sabak		Pasir Panjang		Sungai Panjang		Bagan Nakhoda Omar		Panchang Bedena		Total
Gender	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	
Sabak Bernam	30	30	30	30	30	30	30	30	30	30	300

FINDINGS

Gender of respondent	Household Income		Well-being
Male	Male Headed	r	**.185***
		p-value	**0.040**
		N	**123**
	Female Headed	r	-0.347
		p-value	0.360
		N	9
Female	Male Headed	r	0.092
		p-value	0.430
		N	76
	Female Headed	r	0.105
		p-value	0.641
		N	22

Table 2: Relationship between wellbeing and household income by sex disagregation.

Note: $p<0.05$, through Pearson Correlation

Table 3: Relationship between Wellbeing and Poverty by Sex Disaggregation of the Respondents

Sex	Well-being	Non-poor		Poor	
		n	%	*n*	%
Male	Low	8	6.06%	7	5.30%
	High	61	**46.21%**	56	42.42%
Female	Low	5	5.10%	13	13.27%
	High	48	**48.98%**	32	32.65%

Note: $p<0.5$ through Chi-Square test

Table 4: Relationship between Wellbeing, Poverty and Gender of the Household Head by Sex Disagregation of the Respondents

			Non-Poor		Poor	
	Head of Household	Wellbeing	n	%	n	%
Male	Male headed	Low	8	6.50	7	5.69
		High	57	**46.34**	51	41.46
	Female headed	Low				
		High	4	44.4	5	55.6
Female	Male headed	Low	5	6.58	10	13.16
		High	42	**55.26**	19	25.00
	Female headed	Low			3	13.6
		High	6	27.3	13	59.1

Note: $p<0.5$ through Chi-square test; PLI=RM2589 (USD613.58) as a cut of point

Table 3: Distribution Wellbeing, Poverty and Gender Disparity of Household Composition (M/F) by Sex Disaggregation of the Respondents

Sex	Poverty Status	Low Wellbeing						High Wellbeing					
		=1		male <1		male>1		=1		male <1		male>1	
		n	%	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%
Male	Nonpoor	*	14.29%	1	14.29%	4	57.14%	14	12.96%	17	15.74%	24	22.22%
	Poor	3	42.86%			3	42.86%	14	12.96%	19	17.59%	20	18.52%
Female	Nonpoor	1	5.56%	3	16.67%	1	5.56%	7	8.75%	18	22.50%	**23**	**28.75%**
	Poor	4	22.22%	5	27.78%	4	22.22%	9	11.25%	**17**	**21.25%**	6	7.50%

Note: $p<0.5$ through Chi-Square test

Table 4: Wald Chi-Square Predicts Poor Respondents with High Wellbeing and CCE (poor respondents with CCE & high wellbeing=1; others=0)

	B	S.E.	Wald	df	Sig.	Exp(B)
M/F =1			4.906	2	0.086	
M/F >1	0.561	0.367	2.340	1	0.126	1.753
M/F <1	**0.708**	**0.332**	**4.536**	**1**	**0.033**	**2.030**
Gender (Male=1)	0.564	0.290	3.776	1	0.052	1.758
Constant	-1.173	0.304	14.893	1	0.000	0.309

Note: $p<0.05$ Omnibus

Significant Gender Disparity of Household Composition Predicts Poor with High Well-Being Community Member and Climate Change Experience (CCE)

- male to female ratio < 1.0 meaning **more female in the family** regardless gender of the respondents
- male to female reatio < 1.0 is a **significant predictor** of Poor and High Wellbeing respondents with CCE
- **Table 3** shows among poor female respondents, they have high wellbeing if ratio<1 (more females); but among non-poor female respondents, they have high wellbeing if ratio>1 (more males)

Share ONE Word on Climate Change Adaptation Strategies Considering Gender and Poverty from Your Study?

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