

# THE ROLE OF FISHERWOMEN IN THE FACE OF FISHING UNCERTAINTIES



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# Introduction

Climate Change

Anthropogenic Factors

Declining fisheries production

Uncertainties in livelihood small scale fishers

Affect coastal communities severely socially and economically

Poverty in Coastal Communities



# The Study ..

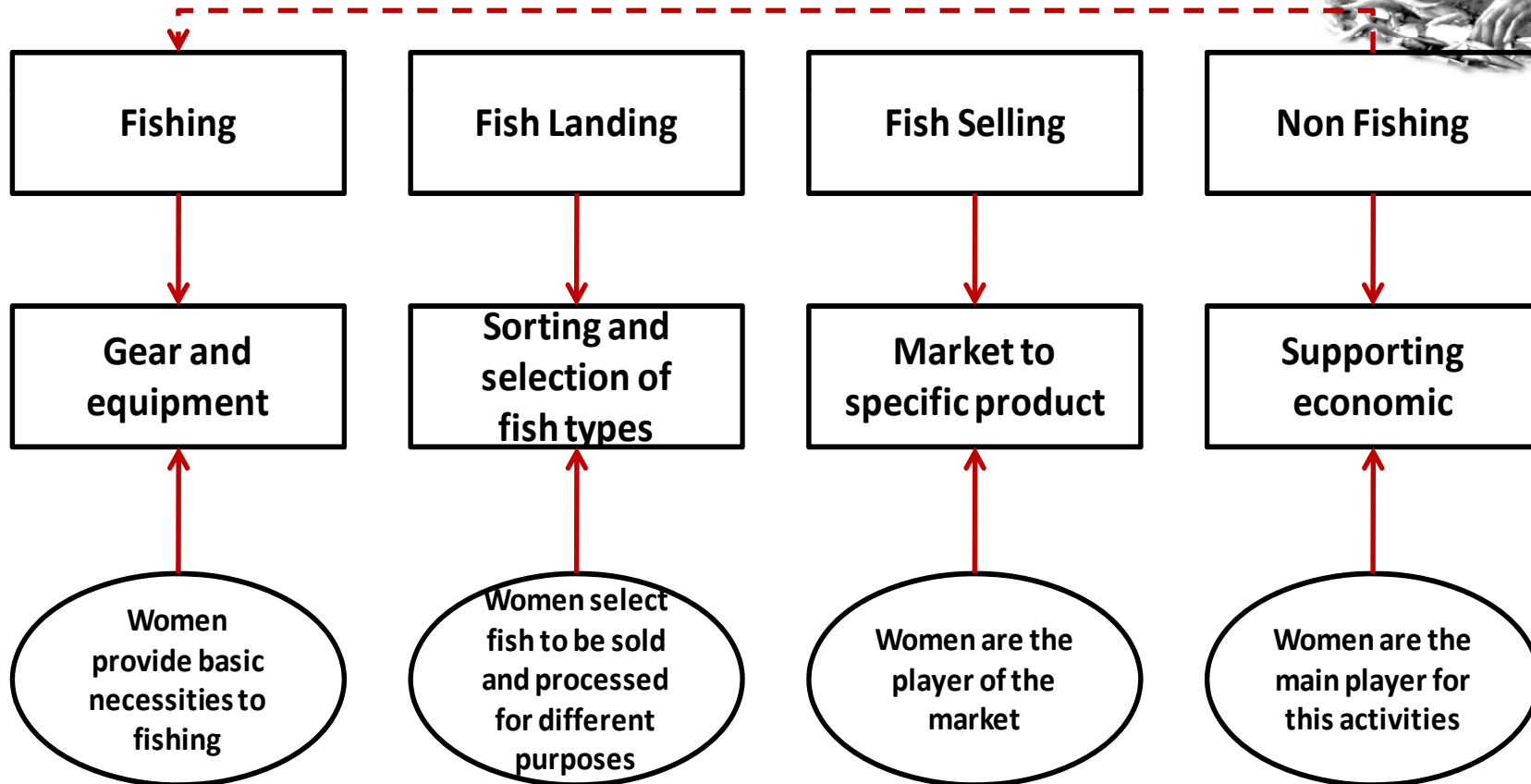
- **Explore gender dimension of fishing activities and the role of fisherwomen to cope with uncertainties in family livelihood**
- **Analyze uncertainties and the degree of women participation using modified Rapid Appraisal for Fisheries technique.**



# Gender Dimension in Fishing activities In North Coast of Central Java



Back up



# North coast of central Java





# Coastal communities response to the climate change in Semarang



Semarang City	Frequency/year				Time (hours)			Scale (m)			Impact					Mitigation		
	1	2	3	>4	<1	24	>24	< 0,5	0,5 -1	> 1	a	b	c	d	e	x	y	z
<b>Tugu Sub District</b>																		
Flood	53%	6%	-	35%	12%	53%	29%	59%	35%	-	18%	12%	94%	-	41%	53%	59%	-
Rob	41%	-	-	41%	6%	71%	6%	53%	29%	-	12%	12%	71%	12%	41%	53%	88%	-
Erosion								-	7%	-	12%	71%	88%	6%	6%	100%	53%	-
Wave	29%	-	24%	18%	6%	47%	18%	-	6%	71%	6%	76%	53%	6%	6%	35%	47%	-
Drought	6%	6%	18%	6%	-	-	41%	-	-	-	-	35%	12%	-	18%	-	35%	-
<b>North Semarang Sub District</b>																		
Rob	-	-	-	100%	-	73%	27%	100%	-	-	33%	-	27%	33%	87%	47%	7%	-
Erosion								12%	-	88%	-	-	7%	7%	-	7%	7%	-
<b>West Semarang Sub District</b>																		
Rob	9%	-	-	-	-	4%	7%	-	-	14%	50%	7%	2%	-	-	7%	-	-
Erosion								-	19%	32%	7%	-	-	19%	-	-	-	-

Sources: Disaptono et al, 2009

Note: a=health, b=agriculture, c=fisheries, d=settlement, e=infrastructure, x=protection, y=accomodation, z=relocation



# Coastal communities response to the climate change in Pekalongan



Pekalongan Regency	Frequency/year				Time (hours)			Scale (m)			Impact					Mitigation		
	1	2	3	>4	<1	24	>24	< 0,5	0,5- 1	> 1	a	b	c	d	e	x	y	z
<b>Wonokerto Sub District</b>																		
Flood	38%	6%	13%	13%	-	38%	31%	56%	6%	-	59%	12%	12%	29%	41%	29%	47%	-
Rob	-	25%	-	56%	6%	69%	-	44%	-	6%	53%	12%	12%	18%	41%	35%	18%	-
Erossion								-	-	44%	6%	29%	24%	12%	6%	35%	-	-
Wave	6%	13%	-	6%	6%	13%	6%	-	6%	13%	12%	12%	18%	12%	6%	24%	12%	-
Drought	19%	-	6%	-	-	-	25%	-	-	-	-	29%	12%	-	-	-	29%	-
<b>Pecakaran Sub District</b>																		
Flood	67%	28%	11%	-	-	22%	83%	100%	-	-	39%	83%	67%	56%	11%	94%	-	-
Rob	39%	50%	11%	-	-	61%	39%	89%	11%	-	44%	89%	61%	56%	6%	94%	-	11%

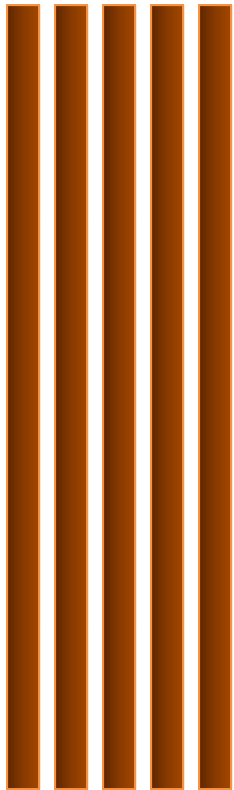
Sources: Disaptono et all, 2009

Note: a=health, b=agriculture, c=fisheries, d=settlement, e=infrastructure, x=protection, y=accomodation, z=relocationi



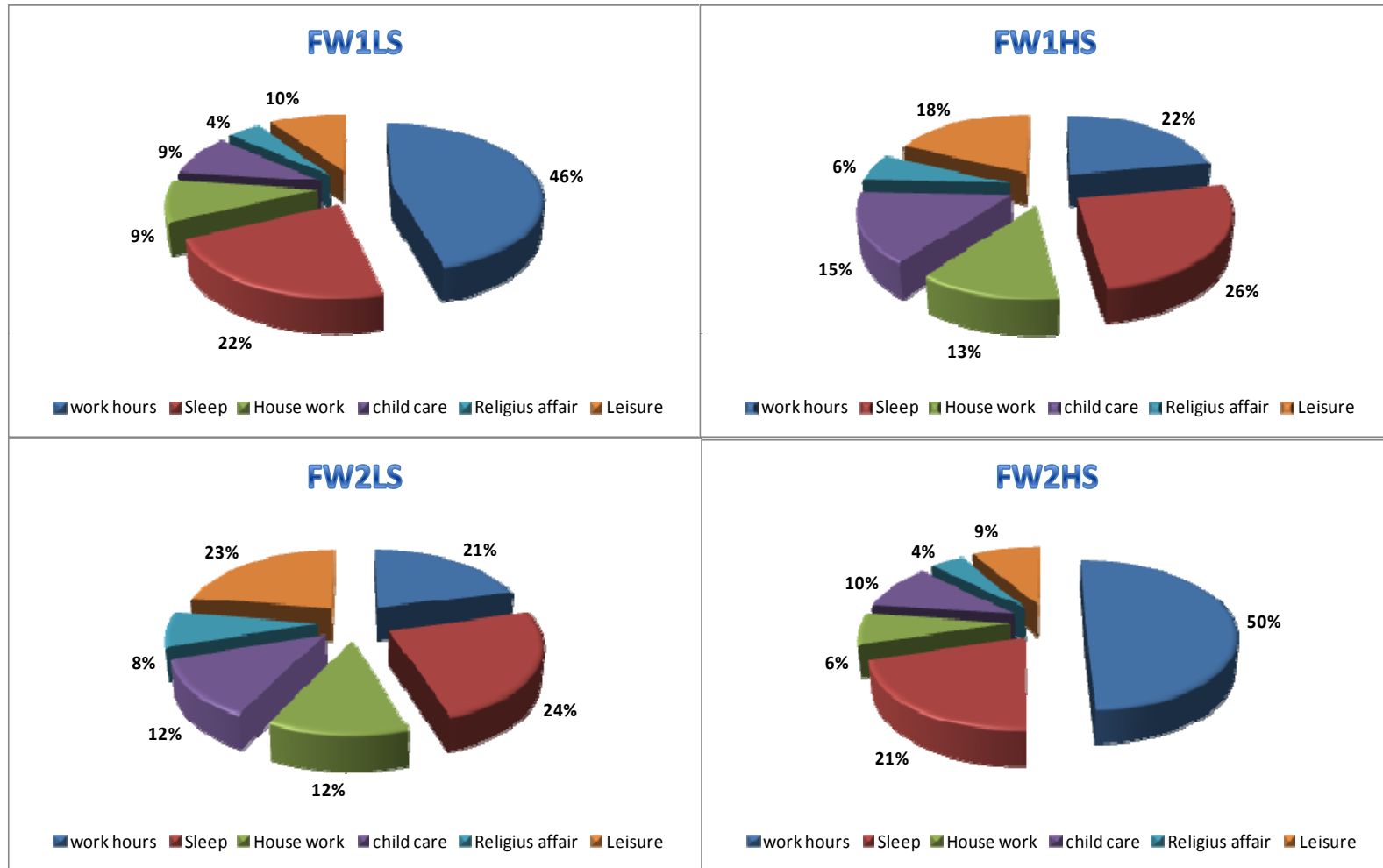
# The Sample

- Includes 100 respondent, divided in two groups from two coastal cities, Semarang and Pekalongan
- 1<sup>st</sup> group is the wives of traditional fishermen < 10 GT, 2<sup>nd</sup> group is the wives of non fishermen, but engaged in traditional fishery related activity.
- Husbands of second group include, “ojek” (motor taxi driver) trader at local market, workers in property and road development, home builders, and other non formal jobs, including unemployeed
- Ages of respondent are between 30-50 years old.





# Gender Daily Activity Pattern



Note: FW1LS= Group 1 Low season    FW1HS=Group 1 High season  
 FW2LS=Group 2 Low season    FW2HS=Group 2 High season



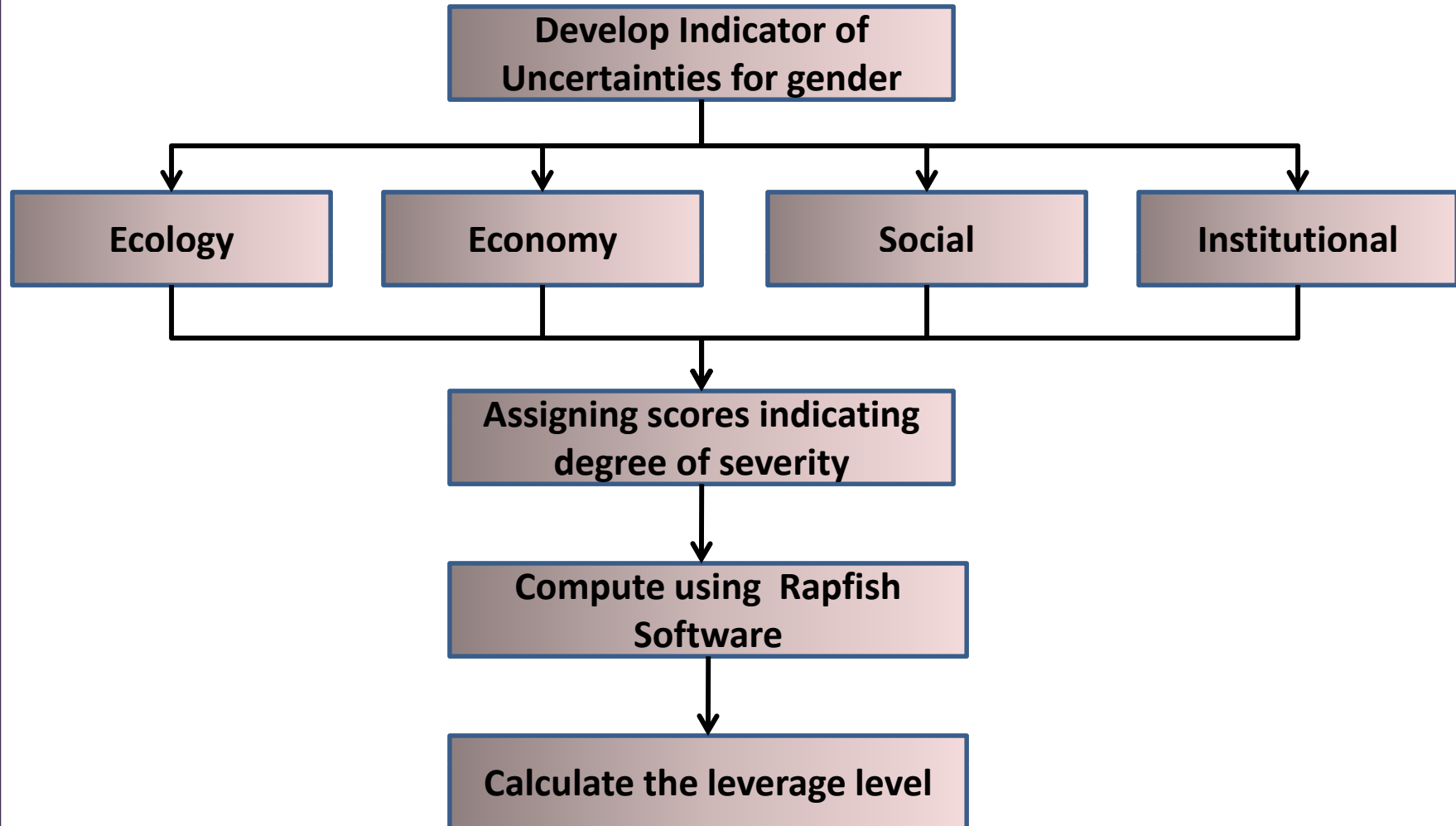
# ***Income and Expenditure Profile of Coastal Communities***

<b>Group</b>	<b>Women's Income (WI) (US Dollars)</b>	<b>Husband's Income (HI) (US Dollars)</b>	<b>Total Expenditure(TE) (US Dollars)</b>	<b>Ratio WI to HI</b>	<b>Ratio WI to TE</b>	<b>Ratio HI to TE</b>
FW1SHS	50	157.5	220	0.32	0.23	0.72
FW1SLS	75	83	127.5	0.90	0.59	0.65
FW2SHS	120	180	300	0.67	0.40	0.60
FW2SLS	80	160	250	0.50	0.32	0.64
FW1PHS	62	148	250	0.42	0.25	0.59
FW1PLS	70	102	170	0.69	0.41	0.60
FW2PHS	138	180	310	0.77	0.45	0.58
FW2PLS	89	150	216	0.59	0.41	0.69

\*income/month



# Step in Rapid Appraisal for Gender uncertainties

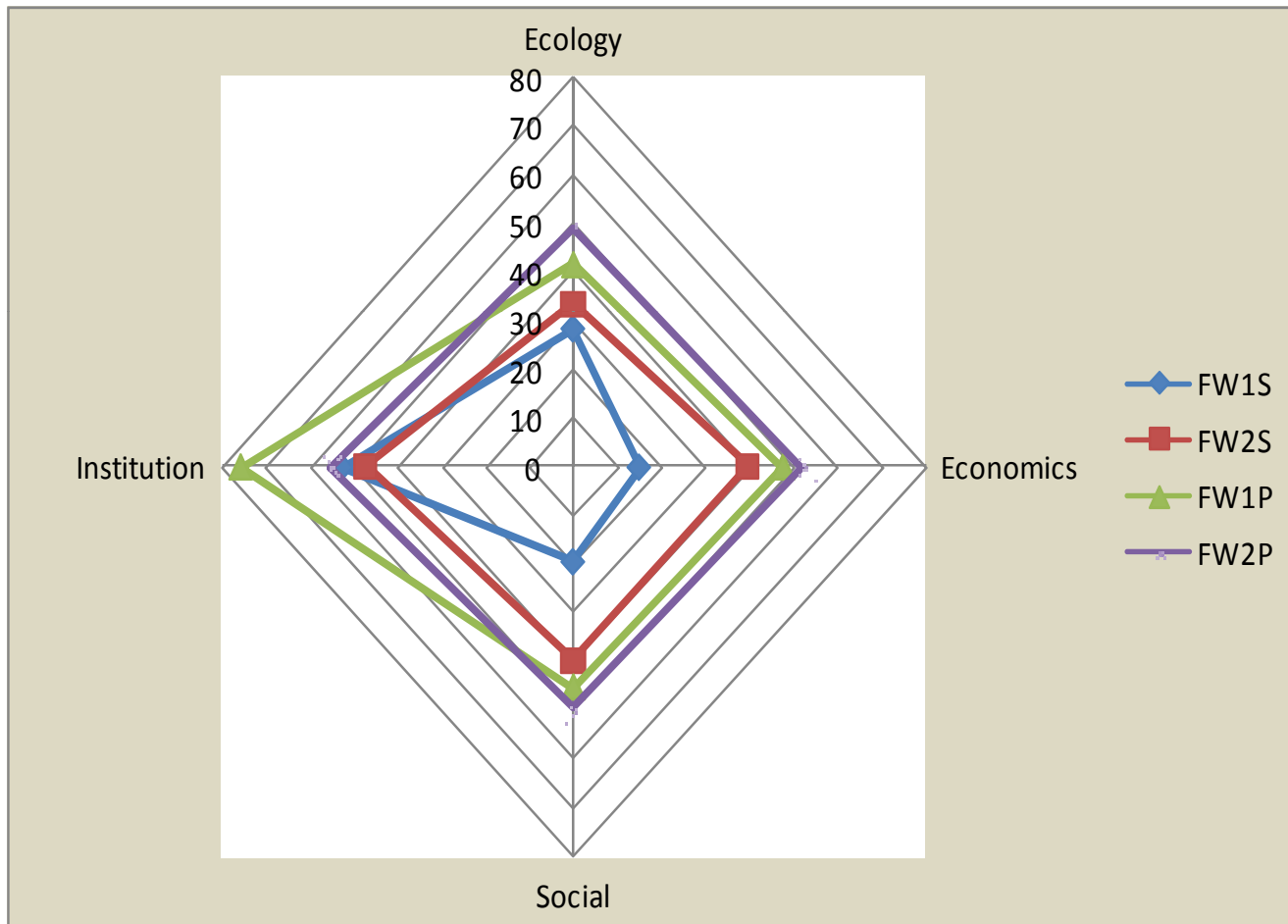


# Indicators or Gender Uncertainty

Dimension	Indicators of Gender Uncertainty
<b>Ecological</b>	<ul style="list-style-type: none"><li>•High frequency of flood</li><li>•Seasonal factor/tide</li><li>•Coastal erosion</li><li>•pollution</li><li>•Stock availability</li><li>•Impact of drought</li><li>•Coastal degradation</li></ul>
<b>Economic</b>	<ul style="list-style-type: none"><li>•Volatily in husband's income</li><li>•Volatily in women own</li><li>•Acesibility to resources</li><li>•Production volatility/input volatility</li><li>•Volatility in price</li><li>•Volatility in input prices</li><li>•Volatility in market</li></ul>
<b>Social</b>	<ul style="list-style-type: none"><li>•Instability in local politics</li><li>•Husband's income</li><li>•Crimery</li><li>•Family instability</li><li>•Unemployment of family member</li><li>•Health condition</li><li>•Conflict status</li></ul>
<b>Institutional</b>	<ul style="list-style-type: none"><li>•Uncertainties in government support</li><li>•Women participation</li><li>•Dependency in local financier</li><li>•Depedency in credit and saving</li><li>•Dependency in social network</li><li>•Dependency on other family member to support</li><li>•Participation in local organization</li><li>•Uncertainty in cost of children education</li></ul>



# Kite diagram representing the relative position of uncertainties faced by fisherwomen

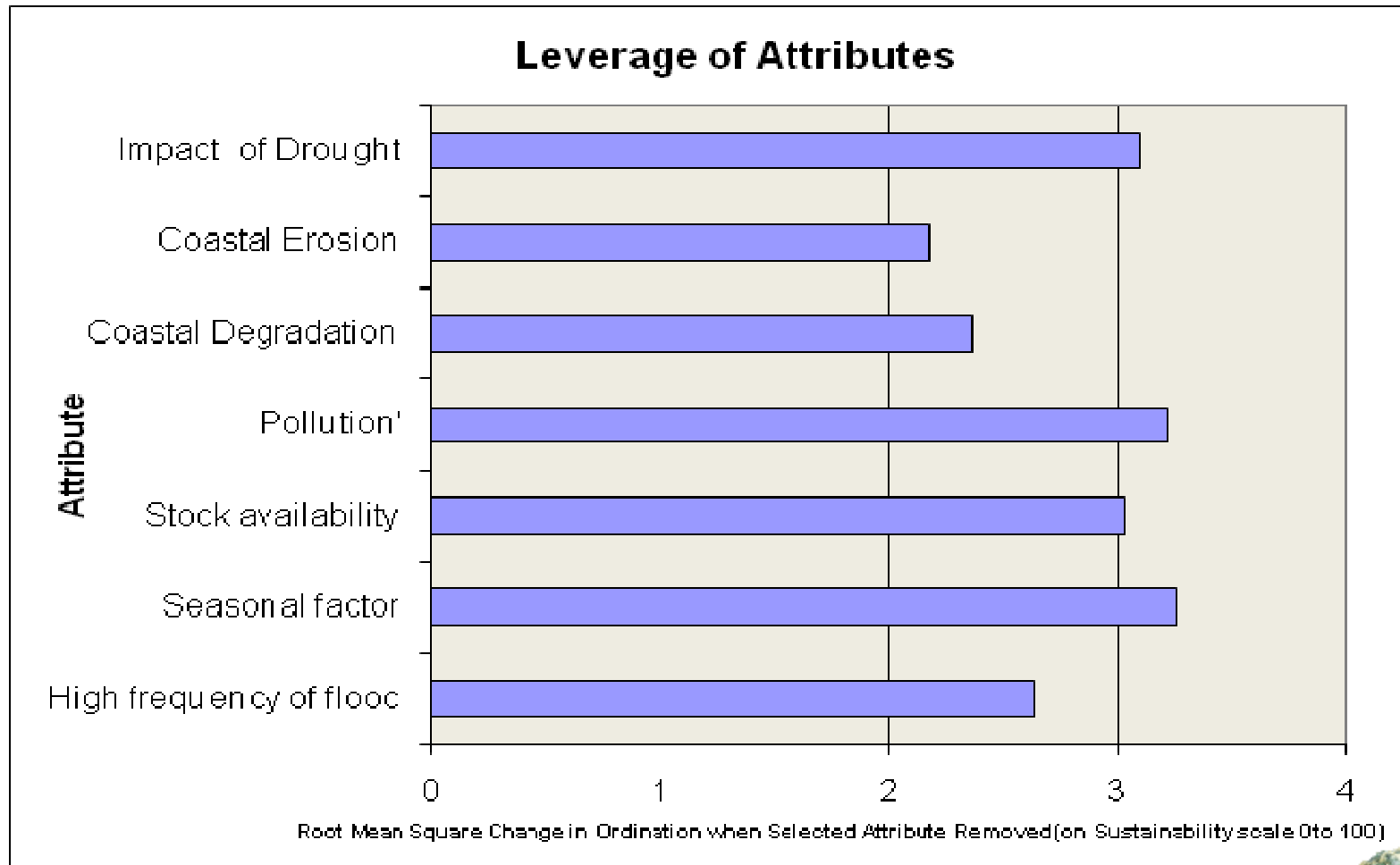


Gender Group	Ecology	Economics	Social	Institution
FW1S	28.29	14.99	19.31	52.48
FW2S	33.38	39.43	39.79	47.01
FW1P	41.65	47.54	45.33	75.51
FW2P	49.03	51.75	49.51	55.26





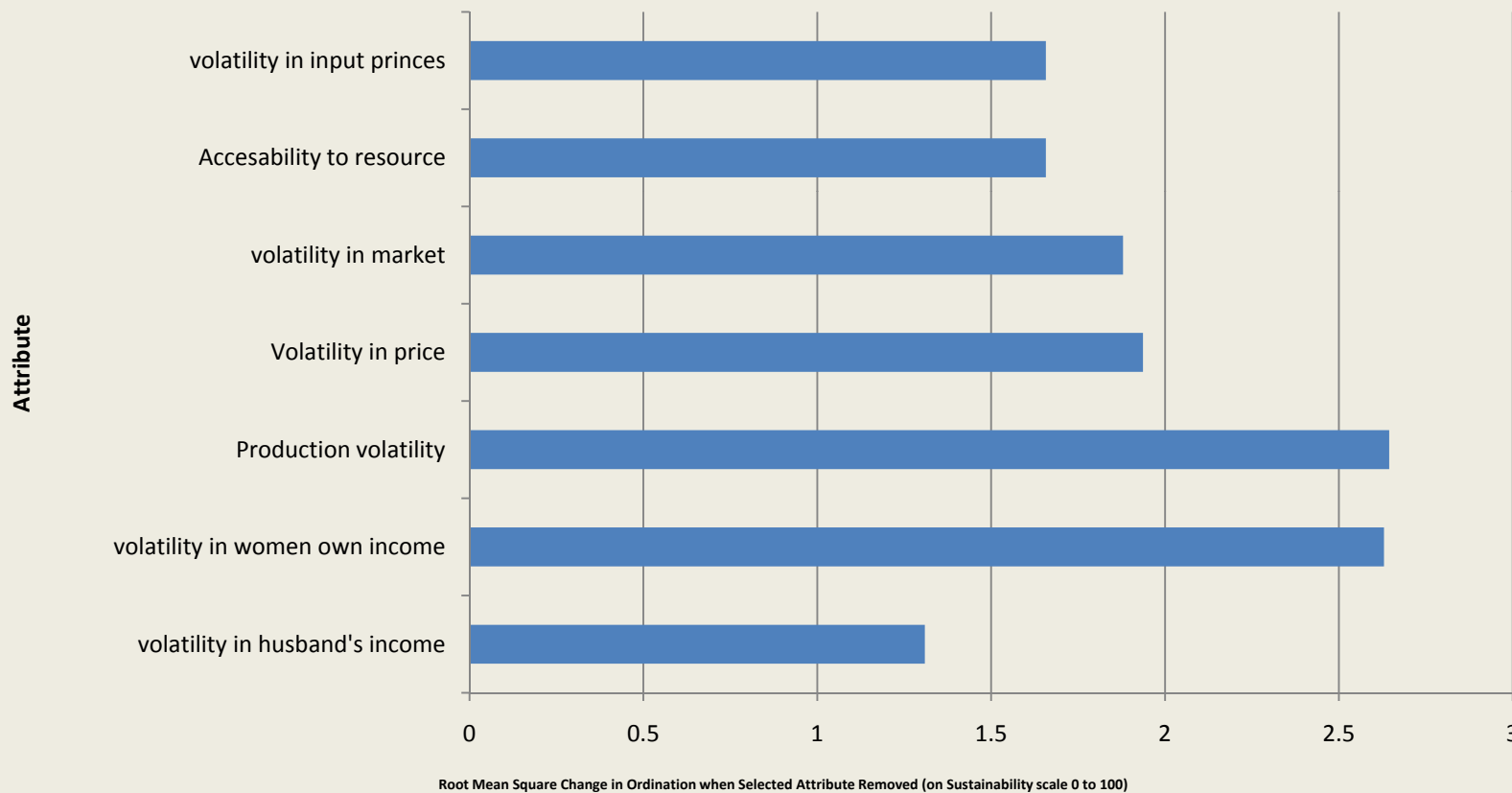
# Leverage of Attributes for Ecological dimension of uncertainty



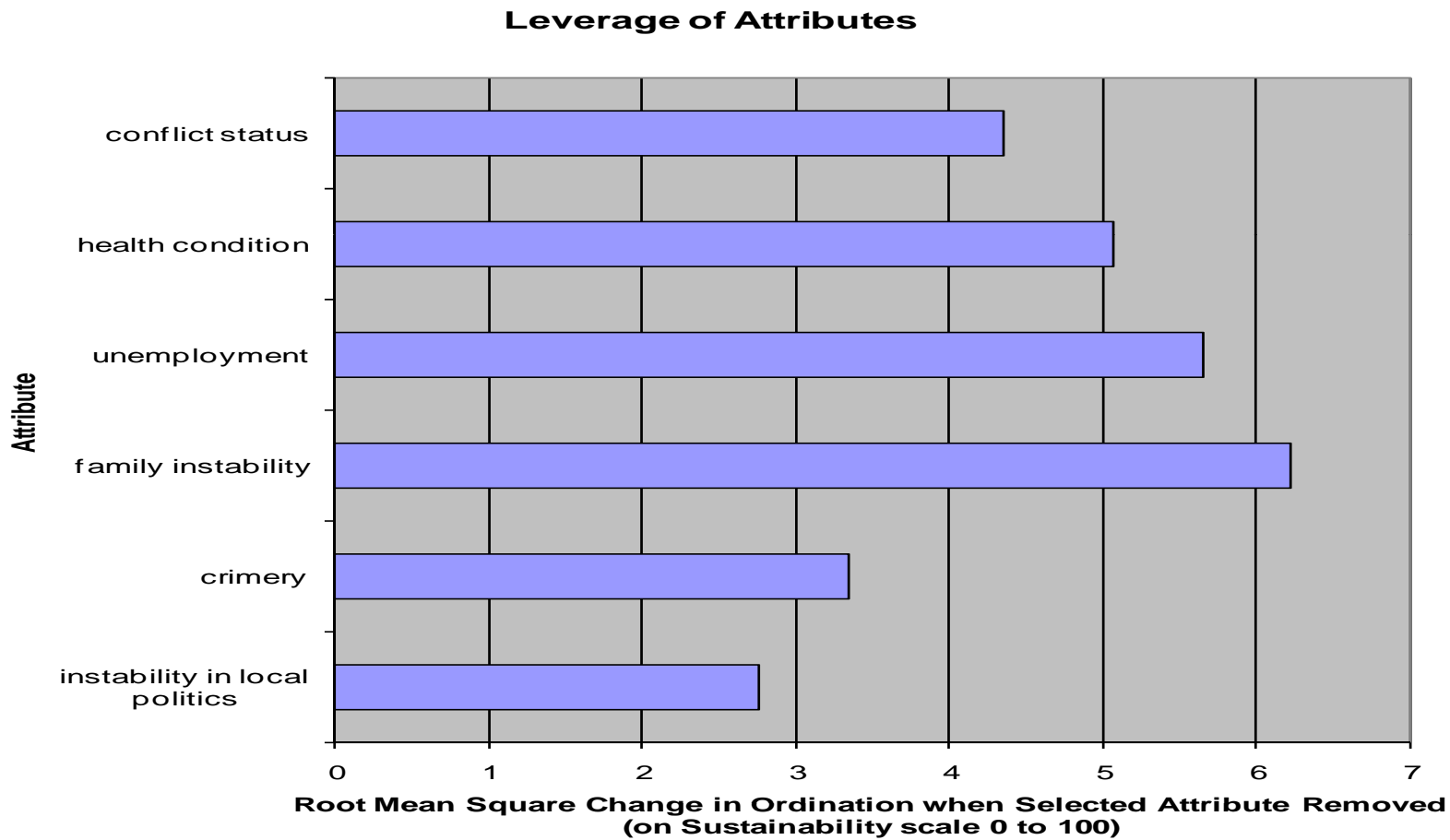
# Leverage of Attributes for Economic dimension of uncertainty



Leverage of Attributes



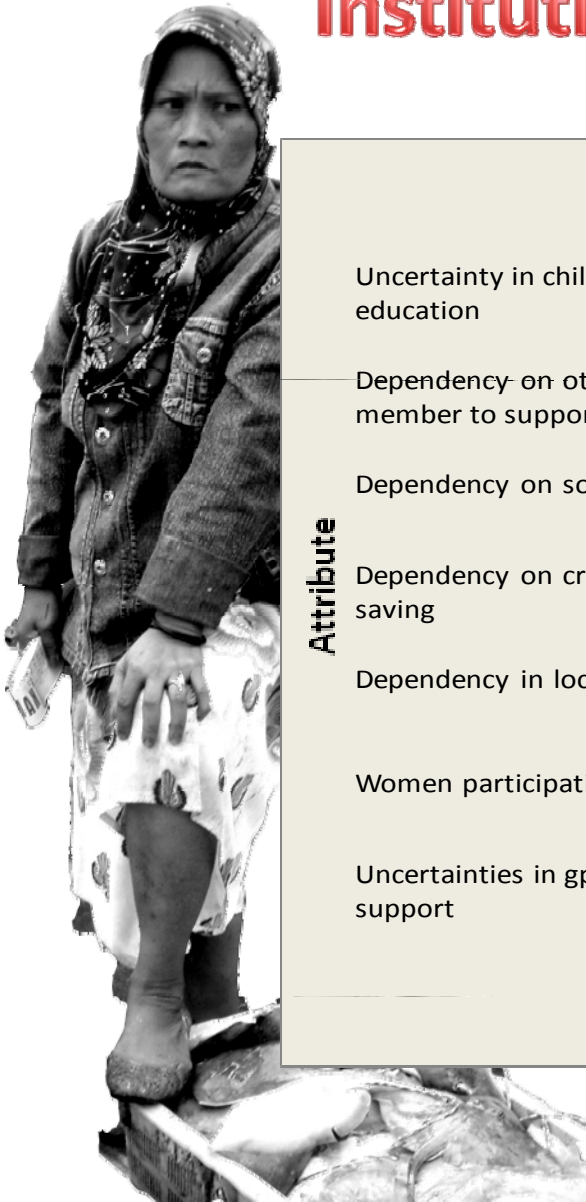
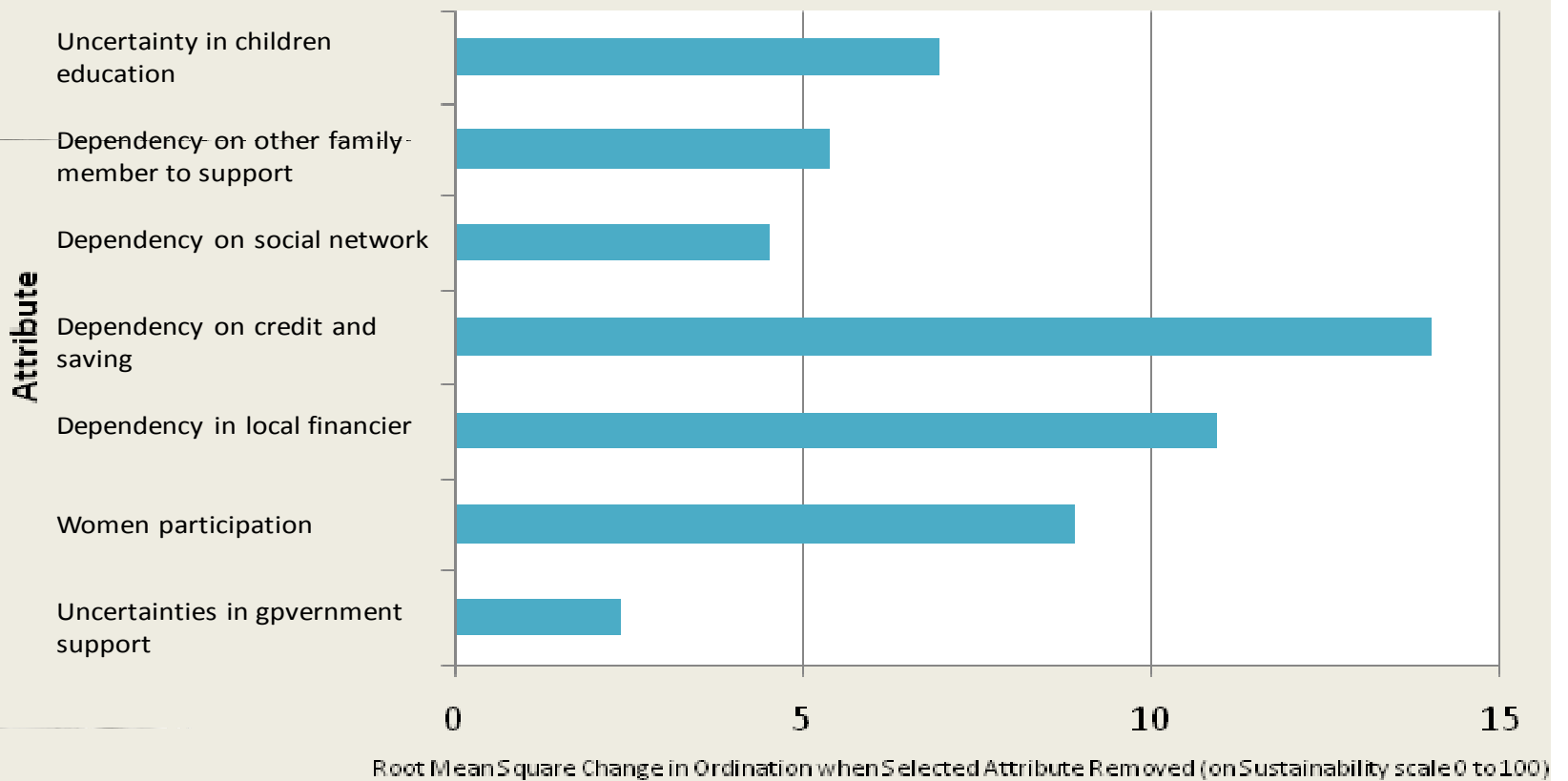
# Leverage of Attributes for Social dimension of uncertainty





# Leverage of Attributes for Institution dimension of uncertainty

Leverage of Attributes



# Women's strategies to cope with uncertainties

## Internal Family livelihood (as a manager of family livelihood,)

- *Arisan*
- Develop their own "credit system"
- Borrow and lending money from neighbour, "hard to make and meet" mechanism
- Go to pawn Shop to obtain cash to buy basic need
- Maximized labor family member, part time house maid
- Being thrifty:
  - spend less on food, clothing and leisure.

## External Forces: ecological disturbances, Uncertainty in husband's productivity, family instability, poor government assistance

- Direct selling fish or fish product
- Invest to open a kiosk/coastal café (*kedai pesisir*).
- Work as a picker jasmine flowers at jasmine plant
- Work as a worker at fish or shrimp ponds harvesting
- By catch collectors
- Traditional massagers
- Life goes on buzzword

# Concluding Remark



- **Fisherwomen are able to cope with both fishing and non-fishing uncertainties using different strategies**
- **This study shows that using modified rapfish technique, we are able to identify the degree of uncertainty as well as identify variables which are sensitive to women's role in economic and social activities**
- **These variables could be used as policy guidelines to improve fisheries management in developing countries**
- **Government must pay attention to women's role when they develop fisheries program since they are capable of sustaining livelihood under the presence of uncertainties**
- **Women in coastal areas must be given the same opportunities to develop their business skill and credit schemes, as well empowerment program**

**Thank you**

