# Gender Differences in Contribution to Coastal Household Income in Mariculture Sites in the Philippines 



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## Background

- Many studies on gender in capture fisheries and aquaculture focus on
- gender division of labor
- women's activities
- aim: to prove that women are engaged in fisheries
- 'women do fish' or actively engaged in fishery-related activities



## Background

- Few studies
- quantifying the contribution of women and men to household economy
- Address information gap
- Revisited a data set to find evidence on the contribution of women and
 men to household income


## Background

- Part of a bigger study in 2015-2016 on
"Economic, Social and Distributional Aspects of Mariculture in the Philippines"
- Household survey
- 7 study sites
- Targeted 100-140 households per site
- 785 households
- 489 Fishing (actual catching only)
- 296 Non-Fishing


## Study Sites



## Data

- household representative Identified
- household members engaged in livelihood activities; report on estimated income
- Estimated household income
- Cash and non-cash contribution
- Impute values for
- no income or compensation for work done - existing wage rate
- for catch/collected fishery products consumed only --
 prevailing price


## Data

- Analysis
- fishing - those engaged in actual catching, gleaning, fish marketing, fish processing, and cage culture.
-785 households:
- Fishing: 489 (62\%) to 527 (67\%)
- Non-fishing: 296 (38\%) to 258 (33\%)
- To allow for comparison,
- data were presented for men and women in fishing and non-fishing households.



## Women and men in the workforce

$$
\begin{array}{ccc}
\text { Fishing Hh } & \text { Non -Fishing Hh } & \text { All } \\
\text { hh }=527 & \text { hh }=258 \\
\mathrm{P}=1,065 & \mathrm{P}=399 & \mathrm{P}=185 \\
\mathrm{P}=1,464
\end{array}
$$

## Men

| \% Hh with men <br> in workforce | 99.05 | 83.72 | 94.01 |
| :---: | :---: | :---: | :---: |
| \% of total workforce | 78.78 | 61.15 | 73.98 |
| Women | 37.00 | 53.49 | 42.42 |
| \% Hh with women <br> in workforce | 21.22 | 38.85 | 26.02 |
| \% of total workforce |  |  |  |

## Share of men and women in the fisheries workforce

527 Fishing households; 785 Coastal Households

| Men | In Fishing Hh <br> $\mathrm{n}=839$ | All Hh |
| :--- | ---: | ---: |
| $\mathrm{N}=1041$ |  |  |
| Catching | 58.28 | 43.61 |
| Gleaning | 9.41 | 7.01 |
| Marketing /processing of fish | 2.86 | 2.20 |
| Cage culture | 12.16 | 9.12 |
| Women | In Fishing Hh | All Hh |
|  | $\mathrm{n}=\mathbf{2 2 6}$ | $\mathrm{N}=380$ |
| Gleaning | 22.12 | 12.89 |
| Marketing /processing of fish | 15.91 | 9.30 |
| Cage culture | 0.51 | 0.30 |

## Men in non-fishing workforce (\%)

|  | In <br> Fishing Hh <br> $\mathrm{n}=839$ | In Non- <br> Fishing Hh <br> $\mathrm{n}=244$ | All |
| :--- | :---: | :---: | :---: |
|  | 11.59 | 24.55 | 15.85 |
| Construction/Carpentry | 6.16 | 21.30 | 10.85 |
| Driving/transport service | 5.62 | 18.99 | 9.70 |
| Self-employed (retail business, buy and <br> sell, service labor) | 5.62 | 16.21 | 8.93 |
| Privately-employed | 5.44 | 6.95 | 6.05 |
| Animal raising (livestock, poultry) | 1.81 | 8.34 | 3.84 |
| Government employed | 1.99 | 6.95 | 3.46 |
| Farming, farm labor \& vegetable raising | 0.91 | 6.95 | 2.69 |
| Marketing of farm agricultural products | 1.99 | 2.32 | 2.11 |
| Barangay worker | 3.80 | 14.36 | 7.01 |
| Others (pensioner, laborer, CCT <br> recipient) |  |  |  |

527 fishing households; 258 non-fishing households

## Women in non-fishing workforce (\%)

|  | In Fishing <br> Hh <br> $\mathrm{n}=226$ | In Non <br> fishing Hh <br> $\mathrm{n}=\mathbf{1 5 5}$ | All <br> $\mathrm{N}=\mathbf{3 8 0}$ |
| :--- | ---: | :---: | :---: |
| Self-employed (retail business, buy and <br> sell, service labor) | 30.28 | 42.63 | 35.40 |
| Privately-employed | 15.91 | 26.01 | 20.10 |
| Government employed | 3.59 | 13.01 | 7.50 |
| Barangay worker | 1.54 | 13.01 | 6.30 |
| Animal raising (livestock, poultry) | 6.16 | 5.06 | 5.70 |
| Marketing of farm agricultural products | 3.59 | 7.95 | 5.40 |
| Farming, farm labor \& vegetable raising | 1.03 | 4.34 | 2.40 |
| Driving/transport service | - | 0.72 | 0.30 |
| Construction/Carpentry | 0.51 | - | 0.30 |
| Others (pensioner, laborer, CCT <br> recipient) | 16.94 | 20.23 | 18.30 |

Annual Household Income (Mean, P) and the Contribution of Men and Women Income Earners

|  | Fishing Hh <br> $\mathrm{n}=527$ | Non-Fishing Hh <br> $\mathrm{n}=258$ | All <br> $\mathrm{N}=785$ |
| :--- | ---: | ---: | ---: |
| Annual <br> household <br> Income | $111,748.30$ | $125,687.80$ | $116,329.70$ |
| Income of <br> men <br> \% | $95,115.95$ | $83,991.77$ | $91,459.85$ |
| Income of <br> women <br> \% | 165.12 | 66.82 | 78.62 |

USD $1=45$ pesos

## Annual Household (HH) Income (Mean) and Share (\%) of Fishing and Non-Fishing Income

|  | Fishing Hh <br> $n=527$ | Non-Fishing Hh <br> $n=258$ | All <br> $\mathrm{N}=785$ |
| :--- | ---: | ---: | ---: |
| Annual HH Income | $111,748.30$ | $125,687.80$ | $116,329.70$ |
| Fishing income <br> \% share to <br> hh income | $83,730.15$ | - | $56,211.20$ |
| HH with non-fishing <br> income | $308(58.44)$ | $258(100.00)$ | $566(72.10)$ |
| Non-fishing Income <br> \% share to <br> hh income | $28,018.18$ | $125,687.80$ | $60,118.51$ |

USD $1=45$ pesos

## Annual household fishing income (mean) and share of men and women (\%)

|  | Catching $n=322$ | Gleaning $\mathrm{n}=94$ | Marketing + processing $n=46$ | Cage culture $\mathrm{n}=68$ | Total <br> Fishing <br> $\mathrm{N}=527$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Annual fishing income | 87,772.87 | 76,422.11 | 119,235.10 | 90,804.07 | 83,730.15 |
| Hh with men in workforce,\% | 100.00 | 55.32 | 86.96 | 100.00 | 97.15 |
| Men's income | 87,772.87 | 63,980.74 | 81,272.83 | 86,832.18 | 78,094.09 |
| \%, annual amount | 100.00 | 83.72 | 68.16 | 95.62 | 93.27 |
| Hh with women in workforce, \% | 0.00 | 45.74 | 63.04 | 19.12 | 14.42 |
| Women's Income | 0.00 | 12,441.36 | 37,962.26 | 3,971.88 | 5,636.07 |
| $\%$ of annual amount | 0.00 | 16.28 | 31.84 | 4.37 | 6.73 |

## Annual household non-fishing income (mean) and share of men and women (\%)

|  | Fishing Hh <br> $n=527$ | Non-Fishing Hh <br> $n=258$ | All <br> N=785 |
| :--- | :---: | :---: | :---: |
| Annual Non-fishing <br> Income | $28,018.18$ | $125,687.80$ | $60,118.51$ |
| Hh with men in <br> workforce <br> Men's Income <br> \% of annual amount | $17,021.87$ <br> 60.75 | $83,991.77$ <br> 66.82 | $39,032.36$ |
| With women earning <br> income <br> Women's Income <br> \% of annual amount | $10,996.32$ <br> 39.25 | $41,696.02$ | $21,086.16$ |

USD $1=45$ pesos

## Conclusions

- Expanded definition of fishing is useful
- If fishing is actual catching only, then
- Less number of men and women in the workforce
- Lower household income
- Lower contribution to household economy of men and women (gleaning, marketing, and processing)
- Understanding the context is important;
- Mariculture
- women not into actual catching; nearshore fishing is not allowed/limited in mariculture sites
- Less gleaning activities


## Conclusion

- Although men, in both fishing and non-fishing households, were more and contributed more to household income than women, women's number and contribution are also substantial; particularly the women in non-fishing households
- Among women, those engaged in nonfishing livelihood activities had relatively bigger share to total household income
- Inclusion of other activities - mending nets, collecting bait, preparing food for fishers, keeping accounts
- Equal access to livelihood opportunities for both men and women in coastal communities should be promoted.


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