SHRIMP INDUSTRY GENDER GAP IN INDIA: CASE OF MAHARASHTRA STATE

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Gender Gap:

Gender gap refers to systematic differences in the outcomes that men and women achieve in the labour market (Claudia, 1990).

Differences can be
- Percentages of men and women in the labour force
- Types of occupations they choose
- Their relative incomes

India and Gender Gap
- India ranked at 108<sup>th</sup> position out of 144 countries in Global Gender Gap Index (WEF Global Gender Gap Report, 2017).
India and Brackish Water Shrimp Farming

- **In India** - The total 1.19 million ha area is found suitable for brackish water shrimp farming.

- Only 1,30,948 ha is developed for shrimp farming till 2017.

- Total culture shrimp production during 2015-16 was 4,87,470 lakh tons.

- One of the fastest growing forms of aquaculture

- It has high potentials for nutritional security, employment generation and export earnings.
Maharashtra and Brackish Water Shrimp Farming:

- In Maharashtra, 10,400 ha is considered suitable for brackish water farming. Only 1,356 ha. (15%) is developed for shrimp farming till 2017 and 9044 ha area is left.

- Maharashtra ranks sixth in terms of shrimp production.

- The average shrimp production recorded in Maharashtra is 1000 kg/ha/annum

Research Questions:

- Is there participation of women in shrimp farming?
- How has this fastest growing for of aquaculture impacted women?
- Are there gender gaps in shrimp farming industry?
To study gender gap in shrimp farming industry in Maharashtra, India
Locale of Study:

**KONKAN**

- Thane (55)
- Raigad (50)
- Ratnagiri (18)
- Sindhudurg (28)

**METHODOLOGY**

N = 151
Tool used:
- Interview schedule
- Reliability checked by Cronbach’s Alpha: 0.80

Variables studied:
- Emergence of shrimp farming
- Shrimp farmers/farming profile
- Involvement of women in shrimp aquaculture earlier (when shrimp farming started in 1990’s) and now
- Impact of new developments in shrimp aquaculture on women
- Reasons for less women shrimp farmers
RESULTS
The first pilot brackish water shrimp farm which was established by Department of Fisheries (DoF), Government of Maharashtra in 1981.

Shrimp hatchery for *Penaeus monodon* was developed by DoF at Badapokharan village in Thane district, Maharashtra.

Later in 1989-90, Shakti, Pancham and Ruia Aquaculture were first three farms established at Saphale village, Thane district, Maharashtra.

Shrimp farming industry was at its peak around 1994 throughout India, but saw its decline mainly due to the White Spot Syndrome Virus (WSSV) disease.

In 2008, Government of India permitted use of Specific Pathogen Free (SPF) stock of *Litopenaeus vannamei* for culture.

This resulted in revival of shrimp farming along the coast of Maharashtra, Andhra Pradesh as well as other states in India.

Slowly number of farms increased. Now, there are 165 registered shrimp farms in Maharashtra.
## Shrimp farmers/ farming profile

<table>
<thead>
<tr>
<th>No.</th>
<th>Profile categories</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Age</td>
<td>Middle age 36-45 years</td>
</tr>
<tr>
<td>2</td>
<td>Education</td>
<td>All educated</td>
</tr>
<tr>
<td>3</td>
<td>Gender</td>
<td>Male</td>
</tr>
<tr>
<td>4</td>
<td>Experience</td>
<td>5 years or more</td>
</tr>
<tr>
<td>5</td>
<td>Own Ponds</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Leased ponds</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>45.70%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>54.30%</td>
</tr>
<tr>
<td>6</td>
<td>Pond area</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Up to 2 ha</td>
<td>39.74%</td>
</tr>
<tr>
<td></td>
<td>2-5 ha</td>
<td>37.09%</td>
</tr>
<tr>
<td></td>
<td>5-10 ha</td>
<td>13.25%</td>
</tr>
<tr>
<td></td>
<td>10 ha</td>
<td>9.90%</td>
</tr>
<tr>
<td>7</td>
<td>Two crops/year</td>
<td>95.36%</td>
</tr>
<tr>
<td>8</td>
<td>Stocking density</td>
<td></td>
</tr>
<tr>
<td></td>
<td>26-50 nos./m²</td>
<td>54.97%</td>
</tr>
<tr>
<td></td>
<td>16-25 nos./m²</td>
<td>33.11%</td>
</tr>
<tr>
<td>9</td>
<td>Average yearly income</td>
<td>US $7826</td>
</tr>
<tr>
<td>10</td>
<td>Per capita income of Maharashtra</td>
<td>US $2136</td>
</tr>
<tr>
<td>11</td>
<td>India’s per capita income (Economic survey 2016-17)</td>
<td>US $1364</td>
</tr>
</tbody>
</table>
Involvement of men and women in shrimp farming

• During emergence of shrimp farming (1990) in Maharashtra, men were owner of shrimp farms and role of women in shrimp industry was as farm workers and they were involved in pond construction, wild seed collection, feed making, feeding and marketing etc.

• At present as per official records available in Department of Fisheries (DoF), Maharashtra, 6% of farms are registered in name of women but at ground level these shrimp farms are run by men which show that farm ownership is dominated by men

• In the present times, numbers of shrimp farming practices have changed with new technologies.

➢ New technologies include:
  Use of machines for pond digging, hatcheries for seed, factory feed, automatic feeder, zero water exchange system, biosecurity measures, direct marketing through companies etc.
### Impact of new developments in shrimp aquaculture on women involvement

<table>
<thead>
<tr>
<th>Earlier</th>
<th>Now</th>
</tr>
</thead>
<tbody>
<tr>
<td>Women were involved as labourers in pond construction</td>
<td>Pond construction work is done by machines</td>
</tr>
<tr>
<td>Wild seed collection practice was traditionally done by women</td>
<td>This has been replaced with procurement of seeds from hatcheries</td>
</tr>
<tr>
<td>Feed making was done by women</td>
<td>It is done by feed industries</td>
</tr>
<tr>
<td>Women were involved in marketing</td>
<td>It is done through seafood companies</td>
</tr>
<tr>
<td>Women are involved as contract workers in seafood processing industries</td>
<td></td>
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</tbody>
</table>

All jobs in which women were involved have been eliminated or have become less.

### Impact on men involvement

- Industry is on rise and there is consistent increase in shrimp production
- Resulting in profits to shrimp farmers who are usually men
Reasons for women being left out:
• High levels of investment,
• High risk,
• Lack of skills,
• Remote location of farms,
• New technology associated with its development

Conclusions:
➢ Masculinity of capital seems to have inclined towards investing resources among men
➢ Occupational spaces in shrimp farming have privileged particular gendered dispositions
➢ In shrimp farming, which is a sunrise industry, ownership of farms/ponds by women is minuscule and gender gap exists.
Suggestions

- Need to have policies which address the reasons for less participation of women in shrimp aquaculture
- Development alone will not cure gender inequality but policies will.

New initiatives:

- Effort to bring women farmers in India into the mainstream is under progress
- One such change is that 15 October has been earmarked as Women Farmers Day (*Mahila Kisan Divas*) by Government of India
- It is expected that an inclusive approach, from policy to implementation, will bring women in brackish water shrimp farming into mainstream.
Acknowledgments

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Thank you!