

SHRIMP INDUSTRY GENDER GAP IN INDIA: CASE OF MAHARASHTRA STATE



Sandesh V. Patil and Arpita Sharma



**ICAR - Central Institute of Fisheries Education,
Mumbai- 400 061**

INTRODUCTION

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 **108th position out of 144 countries** in **Global Gender Gap Index** (WEF Global Gender Gap Report, 2017).



Contd...



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.

Contd...



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 form of aquaculture impacted women?
 - Are there gender gaps in shrimp farming industry?

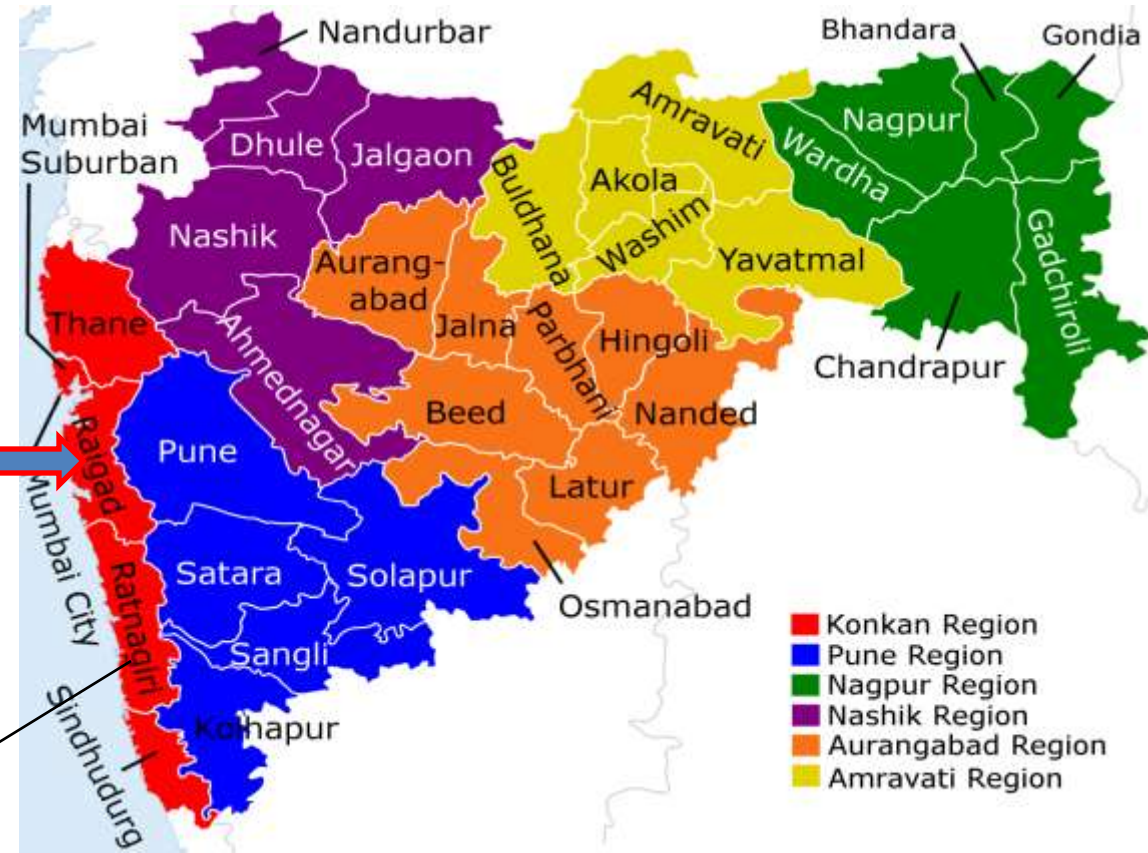
OBJECTIVE

To study gender gap in shrimp farming industry in Maharashtra, India



METHODOLOGY

Locale of Study :



KONKAN

THANE(55)



RAIGAD(50)



RATNAGIRI(18)



SINDHUDURG(28)



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

Emergence of Shrimp Farming in Maharashtra

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

No.	Profile categories	Details
1	Age	Middle age 36-45 years
2	Education	All educated
3	Gender	Male
4	Experience	5 years or more
5	Own Ponds Leased ponds	45.70% 54.30%
6	Pond area <ul style="list-style-type: none"> • Up to 2 ha • 2-5 ha • 5-10 ha • 10ha 	39.74% 37.09% 13.25% 9.90%
7	Two crops/year	95.36%
8	Stocking density <ul style="list-style-type: none"> • 26-50 nos./m² 54.97% • 16-25 nos./m² 33.11% 	54.97% 33.11%
9	Average yearly income	US \$7826
10	Per capita income of Maharashtra	US \$2136
11	India's per capita income (Economic survey 2016-17)	US \$1364

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

Impact of new developments in shrimp aquaculture on women involvement

Earlier



Women were involved as labourers in pond construction



Wild seed collection practice was traditionally done by women



Feed making was done by women



Women were involved in marketing



Women are involved as contract workers in sea food processing industries

Now



Pond construction work is done by machines



This has been replaced with procurement of seeds from hatcheries



It is done by feed industries



It is done through sea food companies



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

**Director, ICAR - Central Institute of Fisheries Education,
Mumbai, Maharashtra , India**



Gender in Aquaculture and Fisheries (GAF 7) organizers.



**Associate Dean, College of Fisheries (Dr. B. S. Konkan Agriculture
University), Ratnagiri, Maharashtra, India**



Thank you !

