

Gender Perspective in Wild Seaweed Value Chain: A Case from Gulf of Mannar and Palk Bay, Tamil Nadu

Theme: Gender Justice & Institutional Roles: Policy Regime, roles of civil society, academia and institutions at national and global levels

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Indian Scenario of Seaweed Production

- **5300 t** - culture (0.02 % of the global seaweed cultivation)
- **18,400 t** - wild stocks (1.7% of global wild seaweed collection), contributes **77.64%** of the total seaweed production

- The wild harvest includes several species i.e., *Gelidiella acerosa*, *Gracilaria edulis*, *Gracilaria crassa*, *Sargassum sp*, and *Turbinaria sp*

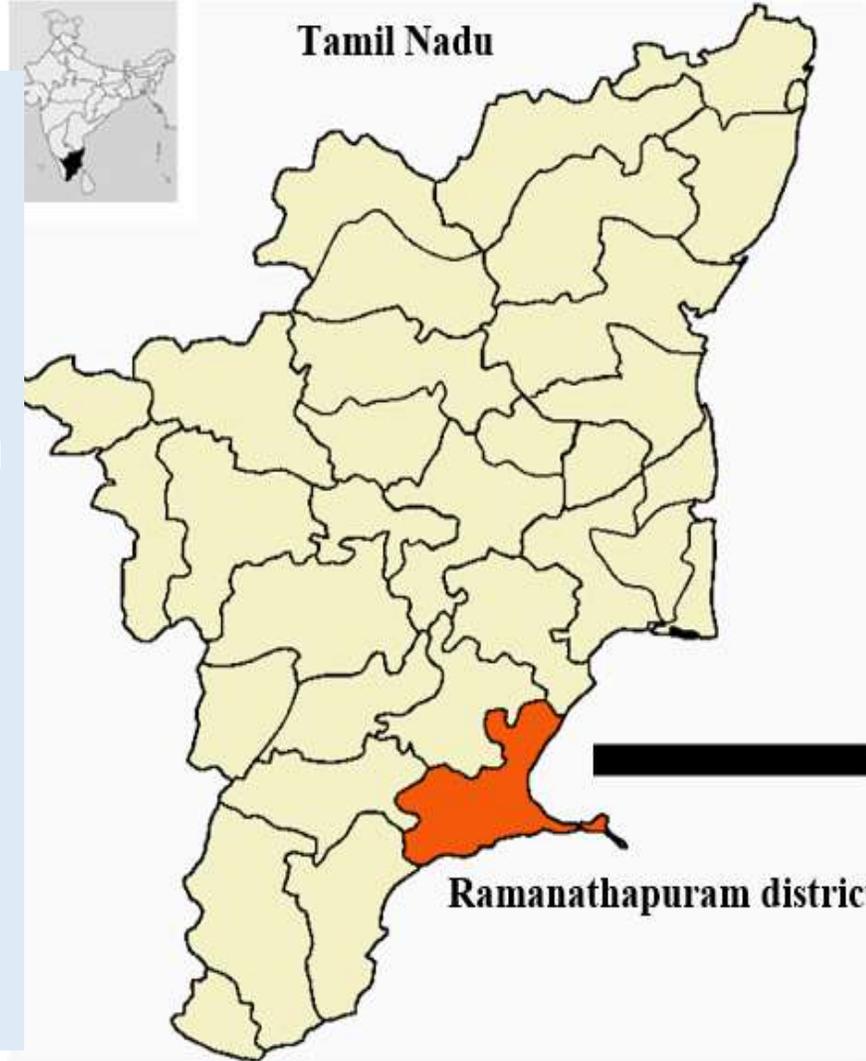
- The entire farmed biomass is from the single species
- *Kappaphycus alverizii*

Purpose of the study

- Men are dominantly involved in fishing, **women work in offshore and are involved in harvesting seaweed, collecting shellfish and oysters, etc. as well as processing and marketing it taking their numbers higher than that of men**
- Promoting women's equal footing with men has become a pressing issue in many development programs, leading to the advent of **gender-inclusive value chain approaches**
- **Gender-inclusive value chains essentially aim to reflect the different roles that women and men play in value chains and capture the gains of marginalized groups in the market systems**
- Gender-disaggregated data on employment in the wild seaweed value chain, as well as on incomes and wages, remain lacking
- Therefore, the present study analyses the wild seaweed value chain in the Gulf of Mannar and Palk Bay region from a gender perspective

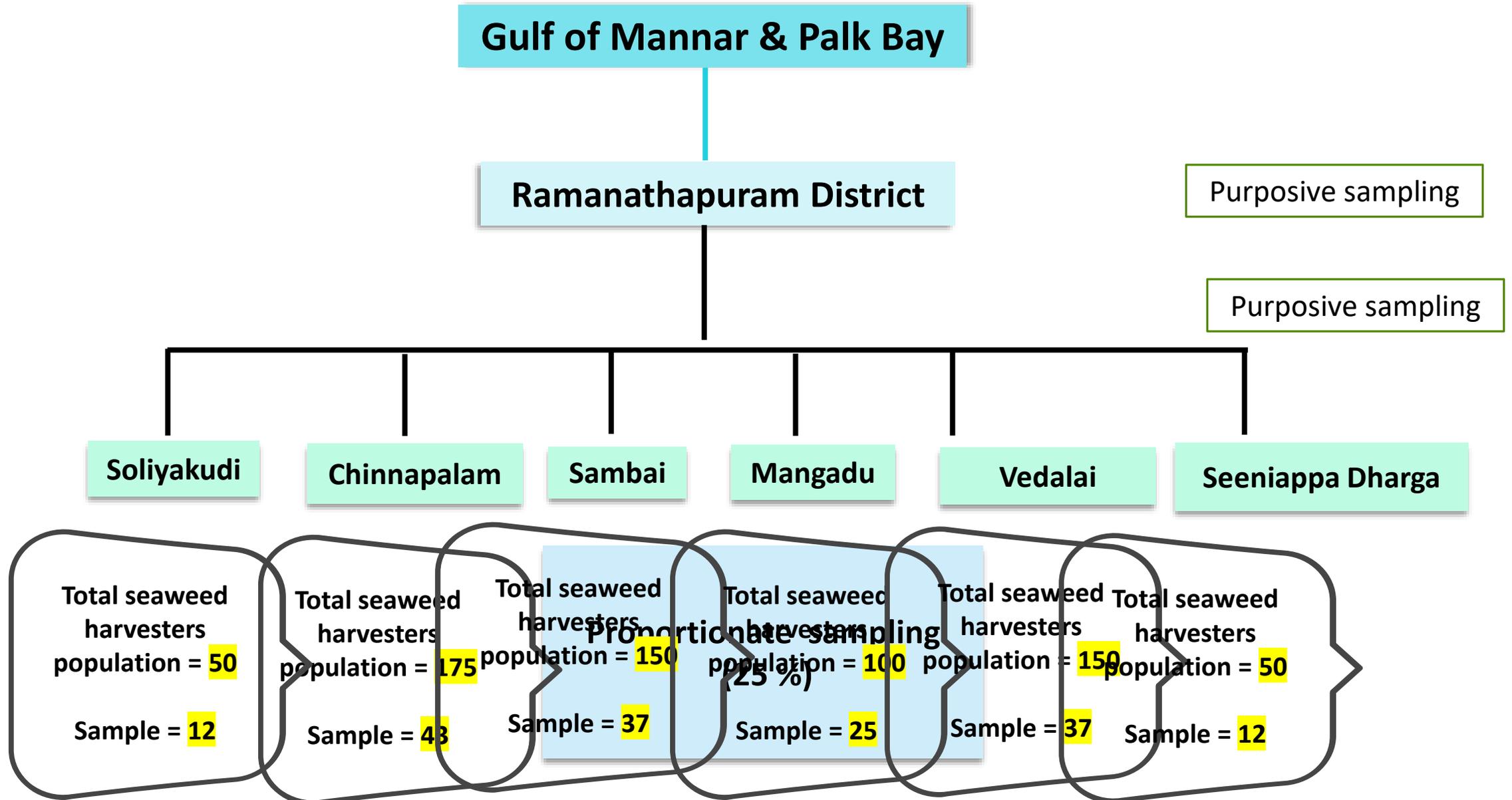


Study locale



- ✓ *Gracilaria* - Soliyakudi village
 - ✓ *Gelidiella* - Sambai, Mangadu and Chinnapalam villages
 - ✓ *Sargassum and Turbinaria* - Vedalai and Seeniappa Dharga villages
- Hence,
- ✓ Sambai, Mangadu and Soliyakudi - Palk Bay
 - ✓ Chinnapalam, Vedalai and Seeniappa Dharga - GoM

Sampling Design





Sample of seaweed harvesters = 166

Snowball sampling was used for identifying the remaining value chain actors

Seaweed agents = 12

Processors = 7

Total sample size = 185

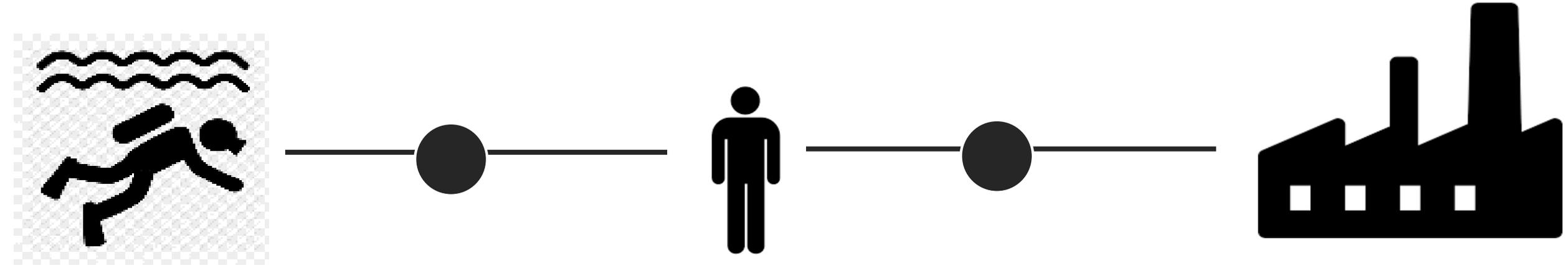
Methodology

- Value chain mapping
- Descriptive analysis
- Graphical analysis
- Cost- benefit analysis
- Marketing analysis

eduvoice



Major value chain actors

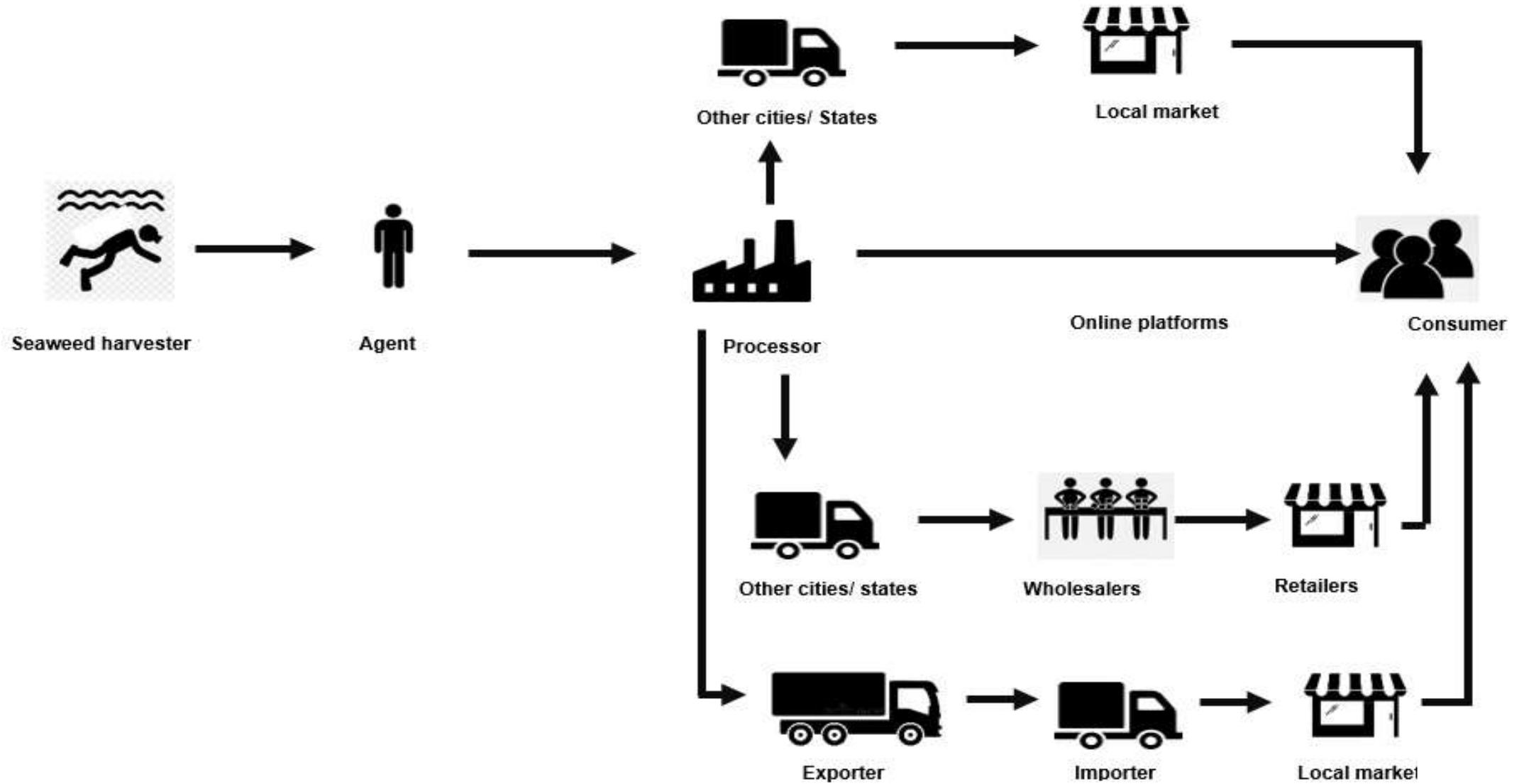


Seaweed harvesters

Seaweed agents

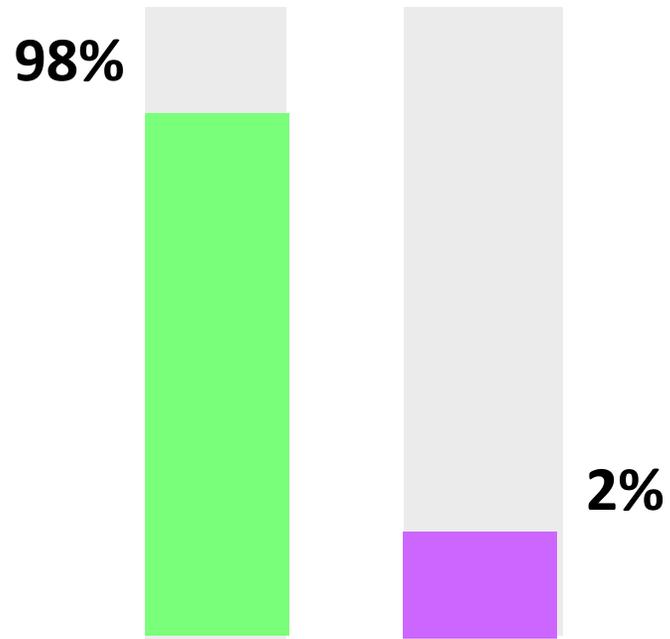
Seaweed processors

Mapping of actors in value chain

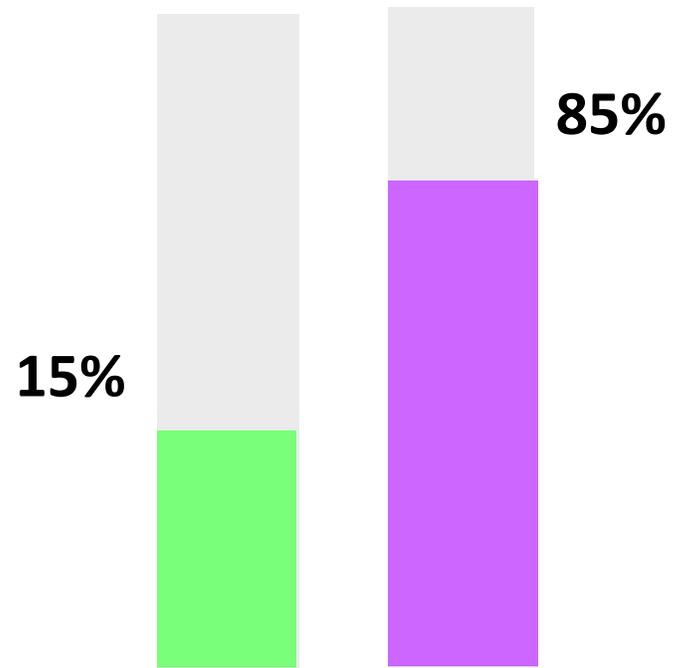


Gender profile of seaweed harvesters

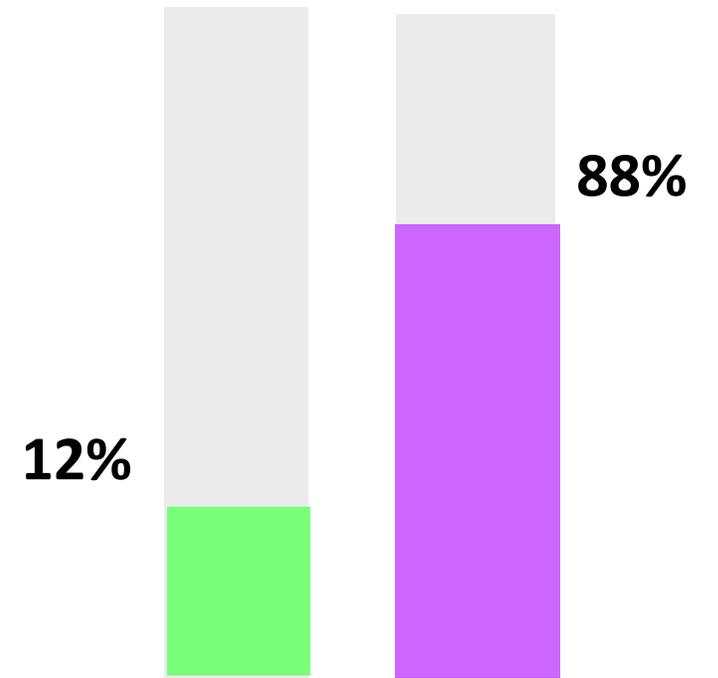
Sargassum & Turbinaria harvesters (n=49)



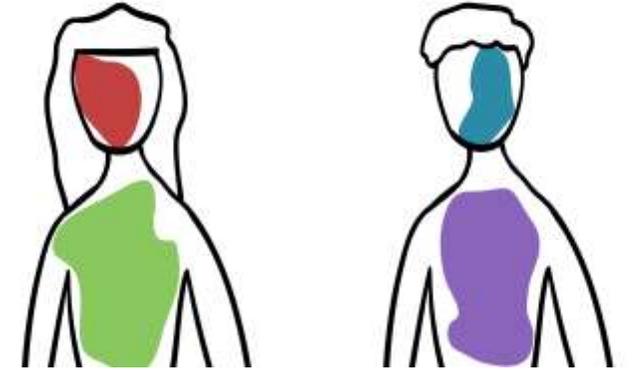
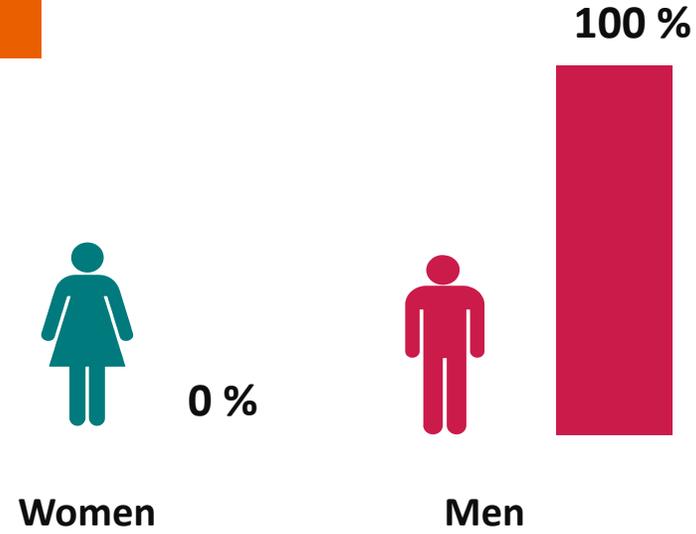
Gelidiella harvesters (n=105)



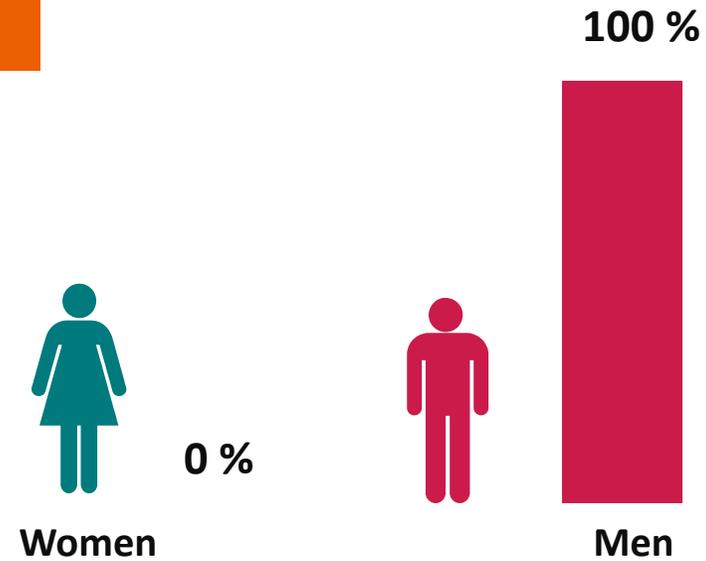
Gracilaria harvesters (n=12)



Gender of seaweed agents



Gender of seaweed processors





- The upstream and downstream actors have **clear gendered employment**
- The wild seaweed harvesters are predominantly **women**
- It has also largely stuck with traditional gender roles; men being primarily involved in fishing, the women engaged in seaweed harvesting, which contributes **significantly to the household income**
- All the agents are men and they **hire daily wage women** laborers to dry the seaweed
- All processors are men, and they employ both men and women for processing



air seaweed
Bangladesh



Sargassum &
₹ 12,000

India and ex
Bia, and



Liquid form

₹ 4,93,000

Powder/ granular

₹ 2,35,000



Dried *Gelidiella*

₹ 50,000

Processors distribute their products all over India and to countries such as South Africa, the USA, and Australia



Food grade agar

₹ 14,00,000



IP grade agar

₹ 60,00,000



Dried *Gracilaria*

₹ 11,000

Processors distribute their products all over India and to countries Indonesia and South Africa



Food grade

₹ 8,75,000

₹ 8,83,000

₹ 2,00,000

Economic analysis of value chain actors

Particulars	<i>Sargassum and Turbinaria</i> (₹/ ton)	<i>Gelidiella</i> (₹/ ton)	<i>Garcilaria</i> (₹/ ton)
<i>Seaweed harvester</i>			
Total operating costs	3,635.48	1,340.08	970.92
Gross income	12,000	50,000	11,000
Benefit-cost ratio (GI/TC)	3.3	37.31	11.33
<i>Agent</i>			
Total cost	12,768.50	51,036.62	11,444.23
Gross income	19,500	77,500	18,000
Benefit-cost ratio (GI/TC)	1.53	1.52	1.57
Marketing margin of agent	6,911.64	26,647.63	26,647.63
<i>Processor</i>			
Total cost	67,105.21	93,963.99	36,834.33
Gross income	3,36,983.33	1,87,200	75,683
Benefit-cost ratio (GI/TC)	5.02	1.99	2.05
Marketing margin of processor	3,07,700	1,06,836	50,943
Producer share in consumer rupee (%)	3.56	26.71	14.53
Price spread (%)	3, 24,983.33 (96.44 %)	1, 69,000 (73.29 %)	64,683 (85.47 %)
Marketing efficiency	0.04	0.36	0.13

Attire of an Indian seaweed harvester



Shed of agent



Seaweed drying by the daily wage laborers



- The income considerably increased from the upstream actors to the downstream actors
- Even though, the products fetch a high price in the domestic and global market, the harvesters received a paltry sum and are exploited advertently
- The BCR for all the value chain actors was found to be **more than one** which provides strong evidence of the **economic feasibility** of seaweed harvesting
- The processors are the major actors and enjoys **high marketing margin**
- **The price spread is found to be high (> 73 %)** for the selected species, irrespective of fewer intermediaries, indicates the exploitation of these marginal seaweed harvesters by the downstream actors
- **Marketing efficiency is estimated to be low;** this is reflected by the low price obtained by the harvesters, high marketing margin, and high consumer price.



Conclusion

- Compared to the harvesting stage, the involvement of the women were less obvious at the downstream level
- The processors receive the **lion's share** of profit among the value chain players'
- Gender analysis of the wild seaweed value chain facilitates the exposition of women's and men's contributions and their roles, which the usual market analysis would not be able to present
- Women need to have collective voices- demand equity and share (FPO formation)
- It is recommended that in order to develop gender-inclusive policies and interventions in this sector, a systematic large-scale study can be conducted to gather more empirical facts and figures



Acknowledgement

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**Thanks for listening
with great patience**

