



Silent Role of Innovative Women in Post-harvest Chain

A Case of Maldive Fish Processing in Southern Sri Lanka



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**“We work harder and harder,
to produce more, to earn something
reasonable. We don’t have big dreams.
We don’t want palace like houses. We
don’t want luxurious vehicles. We just
need to school our children. We don’t
want them to become our followers.
We bear all these sufferings today to
make their lives beautiful tomorrow...”**

Maldive Fish Processing Women
Gandara maldive fish processing village





Research Objectives

Main Objective

To investigate the post-harvest chain of the selected fishing communities and to identify their access, control and activity profiles of fishermen and women

Specific Objectives

- To find out the innovations and innovative practices in post-harvest chain
- To find out the impact of innovations on their livelihood
- To develop upgrading strategies for the post-harvest chain

Research Method



Research Design

Exploratory - Designed to explore issues related to fish post-harvest chain, through its structure, functions, roles as well as the actors

Target Population

Comprised with fishermen and intermediaries at four Maldivian fish processing villages (Gandara, Kottegoda, Kudawella and Mawella) located in Southern coast of Sri Lanka

Sampling Profile

25 fishermen and 75 intermediaries were considered for the sample

Data Collection

Primary data - Interviewer administered pre-tested questionnaires, focused group discussions and in-depth interviews were used

Secondary data - Reports published by the Department of Census and Statistics, Ministry of Fisheries and Aquatic Resources Development etc.

Activity Profile: Fishermen

Activity/task	Exclusively by Men	Mostly by Men	Family Labor	Hired Labor
Craft repairing	***		100%	
Net mending	***		100%	
Fishing	***		*Depend on the season, labor availability	
Fish handling	***		*Depend on the labor availability	
Fish grading	***		*Mostly done by commission agent	
Negotiating fresh fish prices	***		100%	
Contracts negotiation	***		100%	
Fresh fish wholesaling	***		65%	35%
Fresh fish retailing		**	100%	
Receiving payments	***		100%	
Record keeping		**	*Only 50% do engage in keeping records	
Fish transport	***		55%	45%
Hiring labor	***		100%	

Activity Profile: Fisherwomen

Activity/task	Exclusively by Women	Mostly by Women	Family Labor	Hired Labor
Fish drying		**	100%	
Value addition		**	*Depend on the season, labor availability	
Going bank for savings		**	100%	
Going bank for loans		**	100%	
Membership of cooperatives		**	100%	

Activity/task	By both men and women	Family Labor	Hired Labor
Storage of Fishery Products	**	100%	
VA product whole selling	**	100%	
VA product retailing	**	100%	
Receiving payments	**	100%	
Financial decisions	**	100%	

Women's Role in Decision Making on main income generating activity/s

	Respondent	Partner	By Both
Final say on the amount and type of fish that you are going to process?	-	20%	80%
Final say on the inputs?	-	30%	70%
Final say on the maintaining activities (quality, hygiene etc.)?	-	40%	60%
Final say on harvesting practices?	-	100%	-
Final say on processing or value addition activities?	70%	-	30%
Final say on the marketing activities (product, price, place, promotion etc.) of your products?	-	30%	70%

Women play a supportive role in making most of the decisions related to **main income generating activity/s** and they play a key role in making decisions on “**processing or value addition**” activities

Women's Role in Decision Making apart from the main income generating activity/s

Final say on the decisions about child(ren);	Male	Female	Both
Decisions about children's schooling?	10%	20%	70%
What to do if a child falls sick?	-	40%	60%
How children should be disciplined?	-	50%	50%
Whether to have another child?	-	10%	90%
Ability to control the money needed to buy;	Yes	No	Don't buy
Vegetables or fruits	100%	-	-
Fish, meat, egg	100%	-	-
Clothes	90%	10%	-
Medicine	100%	-	-
Ownership of the properties	Alone	With Hus	With SE
A Land?	40%	50%	10%
The house or dwelling you live in?	-	100%	-
Any other house, apartment, or dwelling?	30%	40%	-
Boat, net, fishing gears etc.	-	90%	-
Jewelry or gems?	80%	10%	10%

Women have an equal say on the decisions about their child(ren)

Women have a strong control over the money needed to buy essentials

Majority of the women have Jewelries or gems for their own and share the ownership of lands, the house or dwelling they live and boat/fishing gears with their partners

Women's Role in Decision Making apart from the Main income generating activity/s

Freedom to walk off;	Alone	Not alone	Never
to local market to buy things	90%	10%	-
to a local health center or doctor	70%	30%	-
to community places/community on their own	80%	20%	-
to homes of friends in the neighbourhood	90%	10%	-
to nearby mosque/temple/church	60%	40%	-
Expectations on equal treatments	Agree	Not agree	No idea
Important family decisions should be made only by men	20%	80%	-
Husband should help his wife with household tasks	70%	20%	10%
Married woman should be allowed to work outside home	70%	10%	20%
Wife has a right to express her opinion if she disagrees with her husband	90%	10%	-
Wife should tolerate being beaten by her husband to keep the family together	70%	30%	-
It is better to school a son than schooling a daughter	10%	80%	10%

Innovations and Innovative Practices

Innovative Products

Maldive fish chips, Packed dry fish (Katta, Sprats etc.), Jaadi, Ambulthiyal, Dried Cuttlefish, Dried Prawns, Salted and smoked fish eggs were identified as innovative value added products



Innovations and Innovative Practices

Innovative Production Processes

Purchasing high quality fish (to enhance the quality of the final product), Ash treatment (to enhance the dry appearance), adding spices like pepper and Malabar tamarind/Garcinia (to enhance the taste), smoke drying (to make the fish hard during rainy season)

Innovative Marketing Practices

Road side modern sales outlets (Air conditioned, with parking facilities, CCTV in operation, etc.)

Innovative Sales Practices

Produce only for orders, contracts with wholesalers, contracts with hotels and restaurant chains, contracts with organized retail chains

Innovative products, processes and practices were adopted by limited number of processors and who does such innovations seems to attract many customers and secure better returns

Impact of Age, Experience and Gender on Income

(for Intermediaries)

Age Vs Income

Null Hypothesis (H0): "There is no significant association between age and Income"
($p=0.825$, $p>0.05$, There is no evidence to reject H0)

There is no significant association between age and income

Experience Vs Income

Null Hypothesis (H0): "There is no significant association bet experience and Income"
($p=0.141$, $p>0.05$, There is no evidence to reject H0)

There is no significant association between experience and income

Gender Vs Income

Null Hypothesis (H0): "There is no significant association bet Gender and Income"
($p=0.039$, $p<0.05$, There is enough evidence reject H0)

There is significant association between gender and income

Conclusions

- ✓ Most of the upstream activities, craft repairing, net mending, labour hiring, fishing, grading, wholesaling, contract negotiation, price negotiation, receiving payments were male dominant
- ✓ Male dominant downstream activities were fish retailing (fresh), transporting, and record keeping
- ✓ Female participation was observed with storage of fish and fishery products, drying, value addition, packaging/labelling, financial management; savings, loans and credit, and financial decision making activities
- ✓ Maldivian fish, Jaadi, Ambulthiyal, dried Cuttlefish, dried Prawns and salted and smoked fish eggs were common value added products available of the postharvest chain
- ✓ Innovative products and processes were limited and processors engaged in innovative practices secure better returns compared to non processors

Suggestions

Through a gender lens, the chain empowerment matrix could look as follows:

- 1. Chain Actor:** Doing better and being seen; women smallholders become visible as specialists and their contributions are recognized and valued
- 2. Activity Integrator:** Choosing and being capable of moving up; women choose to move into activities further up the chain, and they control the income that they earn
- 3. Chain Partner:** Constraints to women's leadership are removed; developing chain partnerships and removing constraints to participation in decision-making. Rules, regulations and policies are gender-sensitive
- 4. Chain owner:** Women take up positions of leadership. Women both possess the capacities and have the opportunity to co-own enterprises and build direct linkages with other chain actors, including consumer markets. Rules, regulations and policies support women's leadership



Suggestions

Women's visibility in post harvest chains is proposed to be increased by transforming the customary fisherwomen tasks into professional economic activities through capacity building and promoting female entrepreneurship allowing them to achieve greater benefits



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