Gender Mainstreaming and Impact of SHGs: A Pragmatic Expedition from the Fish Value Addition Sector of Kerala

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ABSTRACT

A rational assessment of the impact of women SHGs in gender mainstreaming was conducted among the fish value addition production units operating at Puthuvypu and Arakkunnam of Ernakulam district in Kerala. Based on socioeconomic surveys and in-person interviews, analysis of empowerment levels, performance levels, gender characteristics, and economic viability were done using standardised data collection techniques. Empowerment Index was calculated using data based on 8 pertinent dimensions. To evaluate the gender mainstreaming features in terms of equity and equality to access to resources, participation profile, decision-making, etc., the male and female counterparts of the households were individually interviewed. Male equivalents play a compelling role in decision-making, the gathering of raw resources, the conveyance of the finished product, etc. even though women dominate most tasks. Lacunae identified in Empowerment Index computation give feedback to proceed in the right direction and to follow appropriate changes in the manoeuvre of the microenterprise. The indicative economics of the enterprise's payback period of less than a year serve as evidence of its cost-effectiveness.

Keywords: Gender mainstreaming, Self help group, Empowerment index, Performance level

INTRODUCTION

The definition of "gender mainstreaming" (GM) places a strong emphasis on evaluating the implications for both men and women of any intentional action, such as laws, policies, or programmes, at all levels and in all contexts. In order to ensure that both men and women benefit equally and that inequality is prevented from spreading, it is a way to make women's and men's concerns and involvements an integral part of the design, implementation, monitoring, and evaluation of policies and programmes in all political, economic, and societal spheres (ECOSOC,1997, UNESCO, 2000). The gender mainstreaming strategy outlined in Lombardo (2005) of the European Union (EU) constitution is "integrating" as opposed to "agendasetting." For the purpose of examining how mainstreaming has been applied in the EU constitutional convention, five indicators of its use has been used as a starting point: a broader definition of

gender equality, the integration of a gender perspective into the mainstream, equal representation of women, the prioritisation of gender policy goals, and a change in institutional and organisational culture. The United Nations Millennium Development Goals and international human rights agreements both include gender equality as a commitment to the global community (William et al., 1995; Charlesworth, 2005; Kelly, 2005; FAO, 2007, 2011). According to the FAO State of Food and Agriculture 2010-2011 reports, if female farmers had equal access to agricultural inputs and services as male farmers, their farms' yields would be significantly higher. According to a World Bank analysis, lowering gender disparity results in better nutrition, less infant and child mortality, increased economic output, and quicker economic growth. Similarly, GM which aims to change societal consciousness rather than only increase the proportion of women in a certain institution, it is important that, policies' impacts on both men and women are



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thoroughly examined before being put into place (Jacqui, 2010). In light of this, efforts were conducted to evaluate the influence of SHGs on gender mainstreaming among the fish value addition industries in two sites in Kerala's Ernakulam district.

MATERIALS AND METHODS

An action research-based pragmatic methodology was followed in this paper. As a part of the DST, New Delhi funded¹ project, two successfully operating value added fish production units were established in Puthuvypu and Arakkunnam of Ernakulam district of Kerala state by mobilizing SHGs (10 members each from 10 families in each unit). Women's participation was ensured from the mobilization phase onwards. Interactive meetings for awareness creation among fisherfolk beneficiaries were organized about the value addition units at the site for the SHGs. The technical assistance was provided by the experts from Krishi Vigyan Kendra (KVK) of CMFRI. A training pamphlet in vernacular was distributed to the SHG members as a ready reckoner for convincing the value-added fish production technology. The impact of interventions was assessed through the gender analysis, the performance level of SHG, Empowerment Index (Krisha, 1990) and economic feasibility analysis through socio-economic surveys undertaken in the locality. To assess the aspects of gender mainstreaming in terms of equity and equality for access to resources, participation profile, decision-making aspects, gender needs analysis, etc., (Daly, 2005), the male and female counterparts of the families were separately interviewed, making 40 the final sample size for the study. The Average Operating Cost for the SHG firm was first calculated for the economic feasibility analysis, and the Average Annual Net Return was evaluated and then the average annual net return was assessed. Thereafter, the Break Even Point (BEP) and Pay Back Period (PBP) of the enterprise were estimated. A map showing the locale of study i.e. Puthuvypu and Arakkunnam of Ernakulam district in Kerala is presented in Figure 1.

Utilizing relevant scales and indices modified for the project, the Performance level of SHGs and



Figure 1: Map showing the locale of the study

Empowerment Index were assessed. The same metrics developed by NABARD, including group size, member type, meeting frequency, timing, attendance, participation, collection of savings within the group, amount to be saved, interest on internal loans, utilisation of savings amount by SHG, loan recoveries, bookkeeping, accumulated savings, and knowledge of SHG rules, were included in the checklist (arranged in 3 point continuum) used to evaluate the level of performance (NABARD, 2007; Shalumol, 2015). Similar to this, the Empowerment Index was quantified using 8 variables (Meena et al., 2012), including capacity building, decision-making patterns, capacity building, psychological empowerment, social empowerment, economic empowerment, and political empowerment. The difference between the ratings obtained based on the perception of the SHG members before and after joining the SHG and the same was used to calculate the degree of empowerment. The scores acquired for each dimension were first made consistent before being multiplied with the weights given by the judges while relevancy testing.

¹Project on "Empowerment of Scheduled Caste fisherfolk through Entrepreneurial Capacity Building of Self Help Groups in marine sector" under SCSP scheme of DST, New Delhi

RESULTS AND DISCUSSION

The Empowerment Index (EI) and Level of Performance of two SHGs from Puthuvypu and Arakkunnam in the Ernakulam district engaged in the production of value-added fish were quantified and shown in Table 1. To determine the statistical difference between the mean empowerment index scores before and after joining the SHG, paired t tests were carried out independently for each of the SHGs. All eight empowerment factors taken into consideration for the current study's paired t test results were highly significant (p 0.01), demonstrating a considerable rise in empowerment scores following the formation of SHG. Performance levels for Puthuvype and Arakkunnam groups were estimated at 69 and 62 percent, respectively.

The time devoted by participants for various phases of the entrepreneurial activities were measured and quantified using a three-point scale (Always =3, Sometimes =2, Never =1). The results presented in the Figure 2 showed that though all the entrepreneurial activities are equally important for the success of the venture, the participants were spending more amount of time in packing and labelling of the product. Another important activity which takes considerable amount of time is primary processing like cutting and cleaning. At the same time respondents said that purchasing of the quality raw materials was the least time taking entrepreneurial activity. An assessment of gender perspectives in gender roles in terms of access to resources, participation in various activities and decision-making in various stages was done by interviewing male and female respondents in the study. The access to resources is categorized in various heads, i.e., female alone, male <female, male = female, male >female and male alone and data is collected separately from male and female respondents. The results on access to resources are presented in Table 2.

The opinions of men and women in the above aspect were similar without any significant difference. Almost all the resources and facilities were equally likely accessible by both men and women. But the resourcing of the raw materials was typically done by the male members. Resources such as extension services, cleaning facilities and labelling and packing resources were reported as equally accessible to males and females. But in the case of pickling resources, a different pattern of access was observed, indicating more access for the females than males. Men and women essentially agree on the same points when it comes to engagement and necessity (Sahoo et al., 2009; Raghavan, 2009; Vipinkumar et al., 2008, 2017 & 2018). Similarly, the participation profile of the members (Table 3) showed that in value-added fish production units, the important activities like extension services, cleaning/peeling of fish, packing and labelling and other inputs are being performed with equal participation of men and

Empowerment dimensions		1: Value added	-	SHG 2: Value added fish production unit, Arakkunnam					
	Average Em Inc	powerment lex	t value	Average En In	t value				
	Before	After		Before	After				
Confidence building	0.330	0.798	42.39**	0.360	0.687	42.98**			
Self esteem	0.360	0.799	53.31**	0.351	0.698	37.12**			
Decision making Pattern	0.371	0.710	43.85**	0.381	0.699	42.89**			
Capacity building	0.339	0.759	33.50**	0.330	0.689	32.99**			
Psychological empowerment	0.289	0.798	20.78**	0.338	0.698	17.18**			
Social empowerment	0.348	0.777	54.99**	0.348	0.739	41.28**			
Economic empowerment	0.358	0.818	42.92**	0.302	0.810	28.88^{**}			
Political empowerment	0.327	0.753	14.58**	0.269	0.728	14.32**			

Table 1: Impact of fish vale addition based SHGs on women empowerment

***p*<0.01.

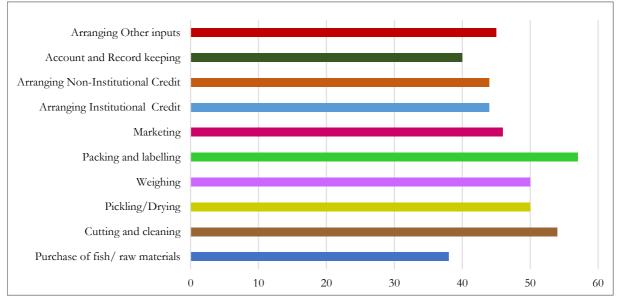


Figure 2: The time devoted for various phases of the entrepreneurial activities

Table 2: Access to resources	for	Fish v	alue	addition	Unit	(responses in	n frequency)

Resource Access		nale	м	<f< th=""><th>M</th><th colspan="2">M=F</th><th>>F</th><th>м</th><th>ale</th><th colspan="3">No</th></f<>	M	M=F		>F	м	ale	No		
		Alone						111. 1		Alone		Access	
	F	Μ	F	M	F	Μ	F	Μ	F	Μ	F	M	
Access to resources for purchase of raw materials	0	0	0	0	0	0	0	0	100	100	0	0	
Access to Extension Service	0	0	0	0	100	100	0	0	0	0	0	0	
Access to Cleaning facilities	0	0	0	0	100	100	0	0	0	0	0	0	
Access to Pickling resources	15	25	35	25	50	50	0	0	0	0	0	0	
Access to Weighing facilities	0	0	50	25	50	75	0	0	0	0	0	0	
Access to Packing and labelling resources	0	0	0	0	100	100	0	0	0	0	0	0	
Access to Institutional Credit	0	0	25	35	65	50	10	15	0	0	0	0	
Access to Non-Institutional Credit	0	0	50	50	50	50	0	0	0	0	0	0	
Access to Marketing facilities	0	0	0	0	25	40	75	60	0	0	0	0	
Access to accounting facilities	0	0	25	25	75	75	0	0	0	0	0	0	
Access to other inputs and resources	0	0	0	0	100	100	0	0	0	0	0	0	

women. Purchase of fish/raw material is the only activity men do without women's participation. It is an exquisite observation that, the major activities of this enterprise are being undertaken through equal participation of men and women counterparts of the families, but the cleaning and pickling participation was solely done by females.

Table 4 shows that the decisions regarding important activities like pickling and cleaning/peeling were made by female counterparts alone. Men and women were unanimously involved in decision-making in purchasing fish/ raw materials, availing institutional and non-institutional credit, marketing strategies of finished products, etc.

The economic feasibility analysis of the fish value addition production units run by SHGs was undertaken by gathering data on various economic activities for the last three years (Table 5). The expenditure (operating cost) and the returns were analyzed for benefit-cost estimation. The average operating cost and net returns were worked out, and the significant components assessed were the Break Even Point and Pay Back

Activity	Man	alone	Men &	Women	Women alone		
	F	Μ	F	Μ	F	Μ	
Participation in the purchase of fish	0	0	100	100	0	0	
Participation in extension service provided	0	0	100	100	0	0	
Participation in Cleaning/peeling	0	0	0	0	100	100	
Participation in Pickling	0	0	0	0	100	100	
Participation in Weighing	50	50	50	50	0	0	
Participation in packing and labelling	0	0	100	100	0	0	
Participation in sourcing institutional Credit	0	0	100	100	0	0	
Participation in sourcing non-Institutional Credit	0	0	100	100	0	0	
Participation in the Marketing of products	40	45	55	50	5	5	
Participation in Account and Record keeping	0	0	100	100	0	0	
Participation in sourcing other inputs	0	0	100	100	0	0	

T	ab	le :	3: •	Gen	dered	l Pa	ırtici	pation	n profile	e of	the	Fish	value	addition	Unit	(res	ponses i	n free	quency	r) –

Table 4: Decision-making in various phases of Fish value addition Unit

Decisions regarding	Man	alone	Men &	& Women	Women alone	
	F	Μ	F	F	M	F
Purchase of fish/ raw materials	0.00	0.00	100.00	100.00	0.00	0.00
Availing extension Service	50.00	50.00	50.00	50.00	0.00	0.00
Cleaning/peeling	0.00	0.00	0.00	0.00	100.00	100.00
Pickling	0.00	0.00	0.00	0.00	100.00	100.00
Weighing	0.00	0.00	50.00	50.00	50.00	50.00
Packing and labelling	0.00	0.00	50.00	50.00	0.00	0.00
Availing Institutional Credit	0.00	0.00	100.00	100.00	0.00	0.00
Availing Non-Institutional Credit	0.00	0.00	100.00	100.00	0.00	0.00
Marketing of finished products	0.00	0.00	100.00	100.00	0.00	0.00
Account and Record keeping	0.00	0.00	100.00	100.00	0.00	0.00
Other inputs	0.00	0.00	100.00	100.00	0.00	0.00

Period of the units. The results presented in Table 5 indicated that an Average Annual Net Return of Rs. 205270/- was obtained from a unit with a total fixed cost of Rs. 75000/-. The Break Even Point (BEP) is estimated as 340 kg of fish pickle @ Rs 700/- per kg. The Pay Back Period was 0.37 years. It indicates that with less than a year, the unit is able to equalize the cost and returns.

CONCLUSION

To put it briefly, an evaluation of the value-added fish production units successfully carried out by Self Help Groups of fisherfolk revealed a few plausible hypotheses that, the crucial tasks of cleaning/peeling fish, packing and labelling and obtaining other inputs are carried out with equal participation by men and women. The empowerment index calculated for the two SHGs showed that, all the eight dimensions of the empowerment had improved in both the groups after the intervention of action research. Both the groups (Puthuvype = 0.818 and Arakkunnam = 0.810) showed a maximum empowerment in economic dimension after the project interventions. Interrelationships between the factors can serve as longlasting catalysts for group empowerment and action. The economic analysis of the fish value addition carried out, the measurement scale prepared for calculation of 'Empowerment Index' and schedule prepared for

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Table 5: Economic Feasibility Analysis of Value added fish production unit in Puthuvypu and Arakkunnam (Cost/	
price in Rs.)	

Particulars		First yea	r	S	econd ye	ar	Third year			
	Units	Unit Price	Price	Units	Unit Price	Price	Units	Unit Price	Price	
Fixed Expenditure										
Packing machine	1	20000	20000		-		-		-	
Commercial stove	1	10000	10000		-		-		-	
Big vessel	1	12000	12000		-		-		-	
Frying pan	1	2000	2000		-		-		-	
Containers	1000	15	15000		-		-		-	
Small stove	1	4000	4000		-		-		-	
Electronic weighing machine	1	8000	8000		-		-		-	
Mixer grinder	1	4000	4000		-		-		-	
Total Fixed Cost			75000		-		-		-	
Variable Expenditure										
Rent for building (Rs.5000/month)	12	5000	60000	12	5000	60000	12	5000	60000	
Electricity charges/year			2400			2400			2400	
Fish (Kg)	800	350	280000	800	350	280000	800	350	280000	
Salt (kg)	50	24	1200	50	24	1200	50	24	1200	
Masala powder (kg)	60	466	27960	60	466	27960	60	466	27960	
Green Chilly (kg)	20	40	800	20	40	800	20	40	800	
Garlic (kg)	50	70	3500	50	70	3500	50	70	3500	
Curry leaf (kg)	2.5	40	100	2.5	40	100	2.5	40	100	
Ginger (kg)	50	38	1900	50	38	1900	50	38	1900	
Gingelly Oil (kg)	110	296	32560	110	296	32560	110	296	32560	
Mustard Seeds (kg)	15	50	750	15	50	750	15	50	750	
Vinegar	100	80	8000	100	80	8000	100	80	8000	
Sugar (kg)	12.5	44.8	560	12.5	44.8	560	12.5	44.8	560	
Labour charge (@ Rs. 600/Man days		600	30000	50	600	30000	50	600	30000	
Packing charge	4000	2	8000	4000	2	8000	4000	2	8000	
LPG	10	600	6000	10	600	6000	10	600	6000	
Packing material	10	000	4000	10	000	4000	10	000	4000	
Labelling	4000	3	12000	4000	3	12000	4000	3	12000	
Total variable cost	4000	5	479730	1000	5	479730	4000	5	479730	
Interest on fixed cost (10%/annum)			7500			7500			7500	
Depreciation (10%/annum)			7500			7500			7500	
Total Operating Cost (Rs.)			494730			494730			494730	
Gross return (Selling pickle @	1000	700	700000	1000	700	700000	1000	700	700000	
Rs. 700/kg)	1000	700	700000	1000	700		1000	700		
Net Returns (Rs.)			205270			205270			205270	
Average Annual Net Return									s. 205270	
The total Fixed Cost]	Rs. 75000	
The Break-Even Point (BEP)						340 kg	of fish pi	ckle @ R	s. 700/kg	
Pay Back Period									0.37 years	
Price per product (P) (Rs./kg)									Rs. 700	
Cost per unit (C)									Rs. 479.7	

the Performance Assessment' have good potential for future use in other key areas on a maintainable basis. Dimensions determined by the Empowerment Index calculation that have shown less improvement provide sufficient and adequate feedback to authorities to go forward while planning comparable empowerment programmes.

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