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Impact of Self Help Groups in Gender Mainstreaming: A Case Study on Fish Amino Enterprise in Vypin, Kerala

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ABSTRACT

A study for assessing the impact of SHGs in gender mainstreaming was undertaken on the fish amino acid producing units operating at Vypin located at Ernakulam District of Kerala. The analysis included specific aspects such as performance assessment of the SHGs, gender analysis, empowerment analysis and economic feasibility analysis which were carried out based on socio-economic surveys and personal interviews using pre-tested and structured data gathering protocols with standardized scales and indices involving the members of the SHGs. The male and female counterparts of the families were separately interviewed to assess the gender mainstreaming aspects in terms of equity and equality to access to resources, participation profile, decision making aspects, gender need analysis etc. Though majority of activities are female dominated, the male counterparts of the households also have definite role in decision making, purchase of accessories, sales, marketing etc. The indicative economics worked out for the economic feasibility analysis of the SHGs suggests that, the unit takes just one year to break even. A success case study was elucidated and documented as a documentary movie which can be used as a case model for promoting group action for mobilizing SHGs on a sustainable basis.

Key words: *Empowerment Index, Gender mainstreaming, Performance level, Self Help Group.*

INTRODUCTION

The broad perspective of 'Gender mainstreaming' is the process of assessing the implications for men and women of any planned action, including legislation, policies or programmes, in all areas and at all levels. It is simply, a strategy for making women's and men's concerns and experiences an integral dimension of the design, implementation, monitoring and evaluation of policies and programmes in all political, economic and societal spheres, so that women and men benefit equally and inequality is not perpetuated.

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The ultimate goal is to achieve gender equity and equality which aims to transform the mainstream at all levels to end gender discrimination. Equity is the 'means' and equality is the 'result'. Equity means justice so that resources are fairly distributed, taking into account the different needs of women and men[2]. Equality is rights based in such a way that women and men have equal rights, enshrined in international standards and treaties and should have same entitlements and opportunities. Here in the present study, an attempt was made on the assessment of impact of SHGs in Fish Amino Acid Enterprise units in gender mainstreaming in Elamkunnappuzha location of Vypin island in Ernakulam district of Kerala state in India. Vypin, which was formed before more than 600 years is a fast developing suburb of Cochin city. Today, all the basic infrastructure of modern living is available in Vypin, which is one of the most densely populated islands in the world. Goshree bridges, LNG, SPN, and IOC etc. enhanced the fast growth of this island. Elankunnapuzha is one of the major Gramapanchayaths in Vypin. Elamkunnapuzha *Krishi Bhavan* has come forward with a new livelihood option for the people in this panchayath by uniting around 25 fisher womenfolk. *Krishi bhavan* led these women to the making of fish amino, which are a bio-fertiliser as well as a bio pesticide. It can be produced in a reasonable amount using the locally available raw materials. As the first step, 2 Self Help Groups named 'Jaiva Haritha Karshaka Sangam' with 14 members and 'Karshakasree Vanitha Karshika Sangam (KVKS)' with 12 members have been formed. In this venture Central Marine Fisheries Research Institute (CMFRI) in Kochi studied gender mainstreaming components representing the equity and the equality of these groups and conducted the SHG interaction meets and fisherfolk training programs. The use of chemical fertilizers and chemical pesticides has led to the pollution and contamination of the soil, destroyed the natural texture of the soil by destructing microorganisms in soil and reduced the soil fertility. So the importance of bio fertilizers and bio pesticides is increasing now a day. Biofertilisers are ecofriendly, which are made from organic matters and biological wastes. They are beneficial to the soil as they enrich the soil with microorganisms that help in producing organic nutrient in the soil. They also restore the depleted nutrients of the soil. Fish amino acid is an effective organic liquid fertilizer which can be made easily. It is made from mixing the 2 raw materials like sardine, which is a cheaply and plenty available fish which contains high amount of amino acid. Chopped sardine and crushed jiggery are mixed in a ratio of 1:1 proportion. The mixture is storred in an air tight plastic jar / bottle for 21 days. Keep the jar in dry place and away from direct sun light. After 15 days, the bottle is shaken without opening the lid. After 21 days the mixture is filtered and the residuals are removed. Obtained solution can be used as a bio-fertilizer and bio pesticide by adding 40 times of water.

MATRIAL AND METHODS

The major aim and methodology employed essentially consists of practical extension coupled with extension research. The study was undertaken with the major objectives to organize awareness and training programmes of Entrepreneurial Capacity Building (ECB) in Fish Amino Acid production covering the practical extension part. The objectives covering the research part included the assessment of impact of SHGs in gender mainstreaming which was undertaken through assessment of the Performance level of SHGs and Empowerment Index through appropriate scales and indices and Gender analysis of the members of SHGs of fish amino units. An attempt was also made to document a success

case study of Fish Amino acid Producing SHGs in Elamkunnappuzha of Vypin island in Ernakulam district as a documentary through video which can be used as a practical manual for mobilizing similar SHGs in any key areas on a sustainable basis. The practical extension part focused on awareness & ECB Training programmes with systematically executed farmer interaction meetings in Vypin with the involvement of scientists from CMFRI and SAF officials of State Department of Fisheries. Professional training on fish amino acid preparation, hygienic handling methods etc. were also undertaken systematically with the involvement of fisherfolk members of SHGs. Stage by stage Video documentation in the various phases of activities of SHGs in Fish Amino acid production was also undertaken.

The extension research part focused on socio economic surveys with a pre-tested and structured data gathering protocol consisting of standardized scales and indices to assess the impact of group approach in enhancing their standard of living. The involvement of people in fish amino production, purchase of accessories, Slicing of jiggery, Slicing of sardine, Mixing of sardine with jiggery, Sieving, Packing and labeling, Marketing, Accounting, Account and record keeping, marketing, arrangement of institutional and non-institutional credit were quantified using appropriate procedures. The gender mainstreaming[1] to assess the equity and equality, the of men and women counterparts of the family were separately interviewed to evaluate their access to resources, participation profile, decision making aspect and gender need analysis. The Performance level of SHGs and Empowerment Index, appropriate scales and indices were used. The Level of Performance[4,6] of SHG was assessed by the NABARD checklist containing 16 dimensions including Group size, type of members, number of meetings, timings of meetings, attendance of members, participation of members, savings collection within the group, amount to be saved, interest on internal loan, utilization of savings amount by SHG, loan recoveries, maintenance of books, accumulated savings, knowledge of the rules of SHG, education level, knowledge of Govt. programmes etc. arranged in a 3 point continuum. Similarly the Empowerment Index was quantified based on 8 dimensions[3] such as confidence building, self-esteem, decision making pattern, capacity building, psychological empowerment, social empowerment, economic empowerment and political empowerment. The extent of empowerment was quantified as the difference between the scores obtained as per the perception of the SHG members before and after joining the SHG. For computing the Empowerment Index, the scores obtained for each dimensions were first made uniform and that was multiplied by the weightages assigned by the judges while relevancy rating for ascertaining the content validity of the scale through scale product method. Each dimension of Empowerment Index was computed by the scores of sub-dimensions coming under the categories of these 8 dimensions[10]. The co-operation, dedication, hard work etc of each SHG members in purchasing of raw materials like sardine and jiggery, slicing of sardine into pieces, crushing of jaggery, mixing of raw materials and making the mixture, filling the bottle with the fertilizer, labeling, marketing etc of fish amino preparation is noticeable. These entrepreneurial activities were quantified with structured interview schedule.

RESULTS AND DISCUSSION

The extent of involvement in various phases of the Entrepreneurial Activity was also quantified and expressed in Figure 1. Maximum participation of the members and families was observed during purchase/collection of fish and jaggery and cutting of sardine into small pieces stages.

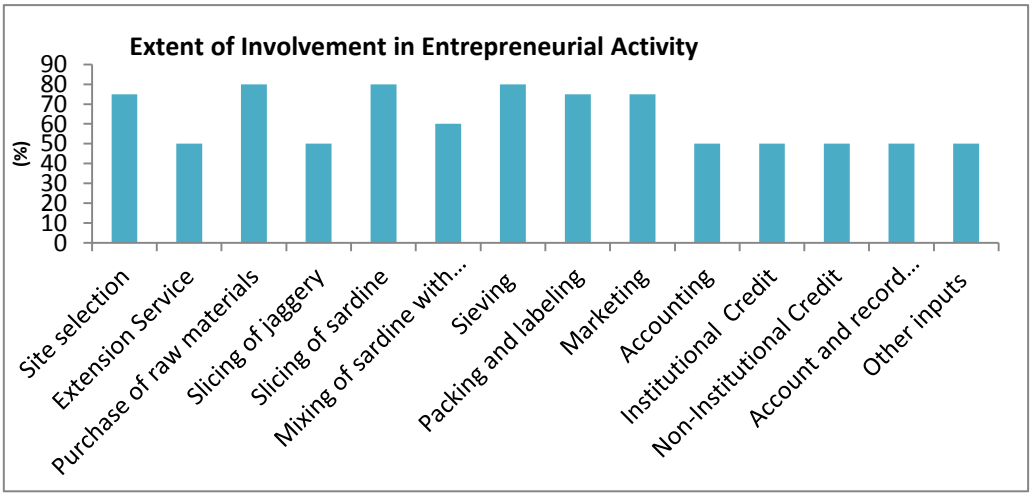

Fig. 1: Extent of involvement in various phases of the Entrepreneurial Activity

An assessment of gender perspectives in terms of gender need and gender role in fish amino production was also done as a part of the study. All households were selected, male and female counterparts in each household were separately interviewed. The gender participation in different activities, gender needs, decision making and access and control over the resources in respect to fish amino production were analyzed. Opinion of men and women in above aspect was found to be similar without any significant difference. However, differential gender response was observed among SHGs. Significantly, the accounting/money transaction is under the control of women. In case of participation and need, both men and women share almost the same opinion[9]. Socio-economic, technological and export support requirement was analyzed for gender mainstreaming. Male and female respondents in a household were separately interviewed for getting the response of gender needs in terms of access to resources in fish amino production, participation in various activities, gender needs and decision making in various stages. The typology access to resources in fish amino production in gender response such as female alone, male <female, male = female**,** male >female and male is alone indicated separately for male and female respondents (Table 1).

Table 1: Access to Resources for fish amino unit

Resource Access	Female Alone		M<F		M=F		M>F		Male Alone		No Access	
	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male
Site selection	100.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Extension Service	100.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Purchase of raw materials	50.00	60.00	0.00	0.00	50.00	40.00	0.00	0.00	0.00	0.00	0.00	0.00
Slicing of jaggery	100.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Slicing of sardine	100.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mixing of sardine with jaggery	100.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sieving	100.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Packing and labeling	100.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Marketing	75.00	65.00	0.00	0.00	25.00	35.00	0.00	0.00	0.00	0.00	0.00	0.00
Accounting	100.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Institutional Credit	100.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Non-Institutional Credit	100.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Account and record keeping	100.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other inputs	100.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

A perusal of the table 1 clearly shows the response of male and female separately in access to resources concerned with fish amino production. Among the responses of female and male for the items of access to resources, most of the items are dominated by 'female alone'.

Similarly the participation profile in various activities concerned with fish amino production is presented in Table 2. The gender response in participation in various activities in fish amino production in such as female alone, male <female, male = female**,** male >female and male alone indicated separately by male and female are presented in the table.

Table 2: Participation profile in gender perspective

Participation profile in gender perspective in Fish Amino Unit						
	Man (Independently)		Men and women together		Women (Independently)	
Activity	Female	Male	Female	Male	Female	Male
Site selection	0.00	0.00	0.00	0.00	100.00	100.00
Extension Service	0.00	0.00	0.00	0.00	100.00	100.00
Purchase of raw materials	0.00	0.00	25.00	25.00	75.00	75.00
Slicing of jaggery	0.00	0.00	0.00	0.00	100.00	100.00
Slicing of sardine	0.00	0.00	0.00	0.00	100.00	100.00
Mixing of sardine with jaggery	0.00	0.00	0.00	0.00	100.00	100.00
Sieving	0.00	0.00	0.00	0.00	100.00	100.00
Packing and labeling	0.00	0.00	0.00	0.00	100.00	100.00
Marketing	0.00	0.00	15.00	25.00	85.00	75.00
Accounting	0.00	0.00	0.00	0.00	100.00	100.00
Institutional Credit	0.00	0.00	0.00	0.00	100.00	100.00
Non-Institutional Credit	0.00	0.00	0.00	0.00	100.00	100.00
Account and record keeping	0.00	0.00	0.00	0.00	100.00	100.00
Other inputs	0.00	0.00	0.00	0.00	100.00	100.00

A perusal of the table 2 clearly indicates the participation profile in gender perspective in fish amino production for male and female separately. It can be glanced clearly from the perusal of the table that, most of the activities are female dominating operations, as per the responses of both male and female. But the transportation and purchase activities are being performed by both men and women. In the same way, response to the gender needs in various activities concerned with fish amino production of male and female separately is presented in Table 3. The gender response in need areas as per the importance assigned by male and female counterparts are presented in the table.

Table 3: Gender needs in activities of fish amino production

Need Area	Important		More Important		Most Important	
	Female	Male	Female	Male	Female	Male
Site selection	100.00	100.00	0.00	0.00	0.00	0.00
Extension Service	100.00	100.00	0.00	0.00	0.00	0.00
Purchase of raw materials	0.00	0.00	0.00	0.00	100.00	100.00
Slicing of jaggery	50.00	50.00	25.00	25.00	25.00	25.00
Slicing of sardine	75.00	50.00	25.00	25.00	0.00	25.00
Mixing of sardine with jaggery	25.00	25.00	0.00	0.00	75.00	75.00
Sieving	25.00	25.00	25.00	25.00	50.00	50.00
Packing and labeling	0.00	0.00	25.00	25.00	75.00	75.00
Marketing	0.00	0.00	0.00	0.00	100.00	100.00
Accounting	100.00	100.00	0.00	0.00	0.00	0.00
Institutional Credit	100.00	100.00	0.00	0.00	0.00	0.00
Non-Institutional Credit	100.00	100.00	0.00	0.00	0.00	0.00
Account and record keeping	100.00	100.00	0.00	0.00	0.00	0.00
Other inputs	100.00	100.00	0.00	0.00	0.00	0.00

With regard to the gender needs, the most important need area expressed by both male and female counterparts includes raw material collection and marketing. Marketing of the products is the key for the success of the dynamics of these SHGs. Proper 'training on technical matters' and 'marketing aspects' is inevitable for desirable results. Similarly, the extent of decision making in various activities concerned with fish amino production as per the response of male and female separately is presented in Table 5. Decision making aspect of fishermen is of paramount significance with regard to marine fisheries sector in the Indian context[8]. The gender response in decision making in various activities is such as female alone, male <female, male = female**,** male >female and male alone indicated separately by male and female are presented in Table 4.

Table 4: Decision making in gender perspective in fish amino production

Decision making in various phases of Fish Amino Unit										
Activity	**Female Alone**		**M<F**		**M=F**		**M>F**		**Male Alone**	
	Female	**Male**	**Female**	**Male**	**Female**	**Male**	**Female**	**Male**	**Female**	**Male**
Site selection	100.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Extension Service	100.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Purchase of raw materials	100.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Slicing of jaggery	100.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Slicing of sardine	100.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mixing of sardine with jaggery	100.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sieving	100.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Packing and labeling	100.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Marketing	75.00	75.00	0.00	0.00	25.00	25.00	0.00	0.00	0.00	0.00
Accounting	100.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Institutional Credit	100.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Non-Institutional Credit	100.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Account and record keeping	100.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other inputs	100.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

It is interesting to note that, the decision making aspect on the various phases being accomplished by 'female alone' in most of the activities as per the response of male and female without much difference. The economic feasibility analysis is an inevitable requisite for any promising enterprise as it shows the indicative economics representing the cost and earnings for the enterprise[7].Here, the economic feasibility analysis of Fish Amino SHG units representing the indicative economics is presented in table 5.

Table 5: Economic Feasibility analysis of Fish Amino SHG units

Sl.No.	Fixed Expenditure	2014		2015		2016	
	Items	**Units**	**Value in Rs.**	**Units**	**Value in Rs.**	**Units**	**Value in Rs.**
1	Large plastic bucket	2	900				
2	Muslin cloth(in meters)	3	135				
3	Plastic trays	2	250				
4	Knife	5	250				
5	scissors	3	300				
6	Furniture		2500				
	Fixed Cost (Rs.)		**4335**				
1	Raw Fish (Quantity in Kg, Value in Rs.)	100	5400	100	4140	100	3560
2	Jaggery (Quantity in Kg, Value in Rs.)	100	4780	100	4320	100	3900
3	Plastic bottles (200 ml)(in numbers)	450	1800	450	1575	425	1488
4	Plastic bottles (100 ml) (in numbers)	660	1650	600	1500	600	1500
5	Labelling (Sheets)		1050		1050		1040
6	Labour(Rs.750 for 15 Mandays)		11250		11250		11250
7	Transportation		500		500		500
8	Miscellaneous		200		150		150
	Variable Cost		**26630**		**24485**		**23388**
9	Interest on fixed cost (10% /annum)		434		434		434
	Deprecation (10% /annum)		434		434		434
10	**Total Operating Cost (Rs.)**		**27498**		**25353**		**24256**
	Return stream						
1	Fish Amino 200 ml (50/ bottle)	450	22500	448	22400	423	21150
2	Fish Amino 100 ml (25/ bottle)	560	14000	572	14300	585	14625
	Gross Return		**36500**		**36700**		**35775**
	Net Returns		**9002**		**11347**		**11519**

The Average Operating cost for the venture on Fish amino by SHGs was Rs.25, 702/- and Average Annual Net Return was found to be Rs.10,622/-. The total Fixed Cost was estimated to be Rs 4335/-. The fixed cost was incurred only in the first year. The main components of the Fixed Cost involved were utensils, large plastic containers, muslin clothes, trays, knife, scissors and furniture. Among the variable cost components, raw fish and jaggery contributed the most. SHGs collect raw fish and jiggery at an average price of Rs 44 each per kg and other recurring expenditure was made on Plastic bottles, rent, and wages and so on. These products were available in two quantities (100ml and 200 ml). The Break Even Point (BEP) (Fixed cost/(Profit per unit—Variable cost per unit) was estimated to be Rs.361/- of processed fish amino acid. The economic feasibility analysis of the SHGs suggests that, the unit takes just one year to break even.Here in nut shell, an assessment of (making/processing) fish amino successfully being undertaken by Self Help Groups of women fisherfolk brought out a couple of valid conclusions as, it was understood that the female counterparts also do have a definite role in site selection, purchase of accessories, slicing of sardine, crushing of jaggery, sieving, marketing etc. The scales of 'Performance Assessment' and 'Empowerment Index' developed for this study have good potential for future use in other key areas on a sustainable basis. Lacunae identified in Empowerment Index computation give adequate feedback to authorities to

proceed in the right direction. The gender dimension analysis on mainstreaming gives sensitization on crucial issues like women fisherfolk's rights and marketing channels for policies and other interventions on gender. Interrelationships between the variables act as catalytic points for group action and group empowerment on a sustainable basis. Success case study elucidated here was brought out as a documentary movie entitled *'Fish amino Enterprise Elamkunnapuzha: success story of women SHGs'* (English and Malayalam versions) can act as a case model/practical manual for mobilizing SHGs in other allied sectors on a sustainable basis.

SUMMARY

The fish amino acid producing SHGs operating in Elamkunnappuzha of Vypin located at Ernakulam District of Kerala were intensively studied in terms of gender mainstreaming and empowerment. The study included specific aspects such as performance assessment of the SHGs, gender analysis, empowerment analysis and economic feasibility analysis which were carried out based on socio-economic surveys and personal interviews using pre-tested and structured data gathering protocols with standardized scales and indices involving the members of the SHGs. The male and female counterparts of the families were separately interviewed to assess the gender mainstreaming aspects in terms of equity and equality to access to resources, participation profile, decision making aspects, gender need analysis etc. Though majority of activities are female dominated, the male counterparts of the households also have definite role in decision making, purchase of raw materials, accessories, sales, slicing of jaggery, Slicing of sardine, Mixing of sardine with jaggery, sieving, packing and labeling, marketing etc. The Scales of 'Performance Assessment' and 'Empowerment Index' developed for this study have good potential for future use in other key areas on a sustainable basis. Lacunae identified in Empowerment Index computation give adequate feedback to authorities to proceed in the right direction. The gender dimension analysis on mainstreaming aspect gives sensitization on crucial issues like women fisherfolk's rights and marketing channels for policies and other interventions on gender. An exhaustive research with larger sample and wider area would be of ample scope. Inter relationships between the variables an act as catalytic points for group action and group empowerment on a sustainable basis. The indicative economics worked out for the economic feasibility analysis of the SHGs suggests that, the unit takes only one year to break even. A success case study was elucidated and documented as a documentary movie which can be used as a case model for promoting group action for mobilizing SHGs on a sustainable basis.

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