SOCIAL IMPACT AND WOMEN EMPOWERMENT THROUGH MUSSEL FARMING IN KERALA, INDIA

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Women in Fisheries and Aquaculture

- In operations in the sea women have usually assisted the male members of the family and were recognized as "collaborating spouse". The term "collaborating spouse" taken from the French, is often used to describe women who play an important supporting role in the fisheries sector (Frangoudes and O'Doherty 2005)
- several instances where women play the major role, for example
 - Clam fishing
 - Oyster and mussel farming
 - Post harvest processing

Mussel farming – Rural Aquaculture

Mussel farming in India can be considered as 'rural aquaculture' since it meets all the requirements to be qualified as "rural" according to the definition of Edwards and Demaine (1997).

It is done by

- small-scale farming households or communities;
- it uses extensive or semi-intensive low cost production technology;
- it avoids the use of formulated feeds and
- it produces a commodity which has a low-market value affordable to poor consumers

Attempts at technology diffusion of an unconventional technology in India

- In India mussel farming is considered a new or unconventional technology and convincing the worthiness of the technology to the villagers as well as the planners and developer was really hard
- The CMFRI made attempts to develop mussel farming in 16 centers in Kerala during the period 1996-2006.



We were inquisitive to know

- Why was it adopted in some places and not in others?
- Women are the main beneficiaries. Why? How has it helped them? How has it helped their family?
- Can women become aqua-managers? Or will they remain as "collaborating spouse"
- Did this farming produce any ancillary developments? Or was the impact only at the farm site?
- Can this success be repeated in other areas?

- Critical analysis of the role of financial supports and adoption levels of mussel farming is made for the 16 locations where attempts were made by the CMFRI to promote mussel farming.
- Adoption levels were considered as
 - low when there were less than 10 farms,
 - medium when there were 10 to 50 farms and
 - high when the number of farms exceeded more than 50.

Methodology

- For studying the socio economic background of the mussel farmers a schedule was prepared and data was collected through enumerators at Kasargod which is the main mussel farming center.
- Data was also collected on sharing of responsibilities, sourcing of inputs and marketing.
- Within Kasargod district a micro-level survey was conducted in four adjacent villages viz Thrikaripur, Padanna, Valiaparamba and Cheruvathur.
- Based on this data, the extent and nature of impact in the society in terms of number of employment opportunities created and the impact on women empowerment was analyzed.

Results

Type of impact	Type of support provided	Level of technology adoption	% of each
Type I	Training / Demonstrations conducted, no financial support	No adoption	37
Type II	Training / Demonstrations conducted, no financial support	Low level of adoption	16
Type III	Training / Demonstrations conducted , financial support provided	Medium level of adoption	16
Type IV	Training / Demonstrations conducted, financial support provided	High level of adoption	26
Type V	Training/Demonstrations conducted, no financial support	High level of adoption	5



	Type of impact	Support provided		Level of adoption			
Test Location		Training	Finance	No adoption	Low	Medium	High
Paravur	Type I	$\sqrt{}$	X		_	_	_
Dalavapuram (1999 -2004)	Type II	$\sqrt{}$	X	_	$\sqrt{}$		_
Dalavapuram (2004-2006)	Type III	$\sqrt{}$	1	_	_	$\sqrt{}$	_
Thankasherry	Type I	$\sqrt{}$	X	$\sqrt{}$	_	_	_
Andakaranazhi	Type I	$\sqrt{}$	X		_	_	1
Manasherry	Type I	$ \sqrt{} $	X		_	_	1
Panambukadu	Type I	√	X	$\sqrt{}$	_	_	
Narakkal Phase I (1999 -2004)	Type II	√	X	_		_	4
Narakkal Phase II (2004-2006)	Type III	\checkmark	$\sqrt{}$	_	_	4	1
Sattar Island	Type III	$\sqrt{}$	√	_	_	√	_
Chettuva	Type II	√	X	_		_	1
Vallikunnu	Type V	\checkmark	X	_	_	7	$\sqrt{}$
Elathur Phase I (1999 -2002)	Type I	\checkmark	X	$\sqrt{}$	_	-	1
Elathur Phase II (2004-2006)	Type III	$\sqrt{}$	√	_	_	_	$\sqrt{}$
Dharmadam	Type I	√	X	$\sqrt{}$	_	_	-
Padanna	Type IV	$\sqrt{}$	√	_		_	$\sqrt{}$
Cheruvathur	Type IV	$\sqrt{}$	√	_	_	_	
Valiaparamba	Type IV	$\sqrt{}$	-\	_	_	_	$\sqrt{}$
Thrikaripur	Type IV	$\sqrt{}$	-\	_	_	_	V

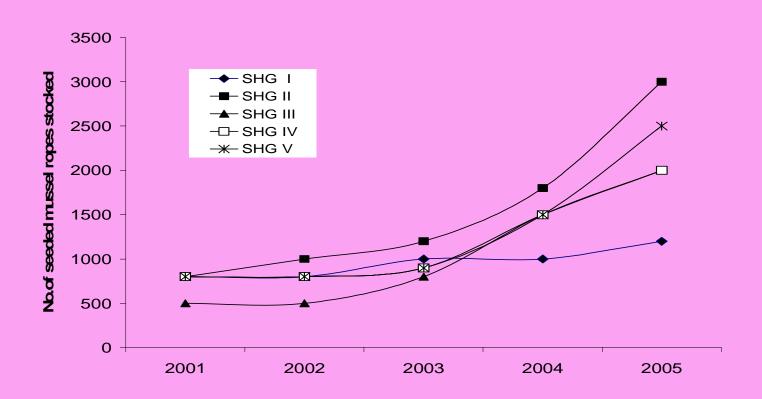
Women as aqua-planners

- The survey indicated that women SHG's are capable of corresponding with banks, seed suppliers and marketing agents.
- Though they received the support of the male members initially they gradually became independent and began to handle all the farm activities independently



Women as Farm Managers

In several instances the number of mussel ropes put up in farm by women SHG 's was about 600 to 800 initially during 2000-01 and the same group found that they can increase the level of investment and consequently increased the farm size and stocking density to a range of 2000 to 3000 ropes



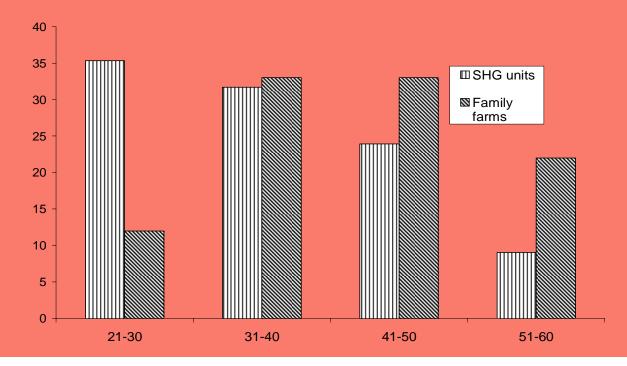
Women as efficient profit managers

- The survey indicated that all the women farmers utilized the profit
 - to repay the loans, repay already incurred depts., for children's education,
 - · health care,
 - building house and
 - for children's marriage.
- Thus the whole family has been benefited



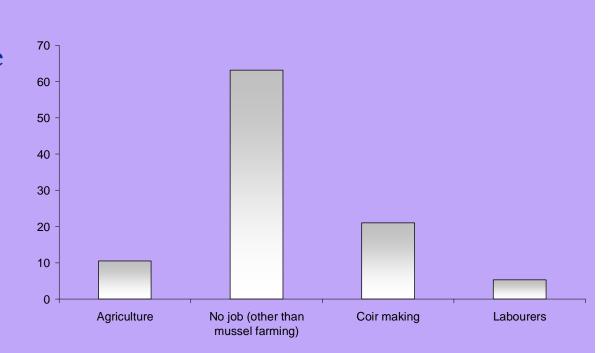
Youth Strength in Group

- The survey indicate that the majority (35%) of the women farmers in Kasargod who belong to SHG's were young, in the age group 21 to 30 followed by 32% in the 31-40 age group.
- Contrary to this, majority of the women farmers who owned family farm units were in the 31-40 and 41-50 age groups with only 12% in the 21-30 age group.



Occupation of women mussel farmers

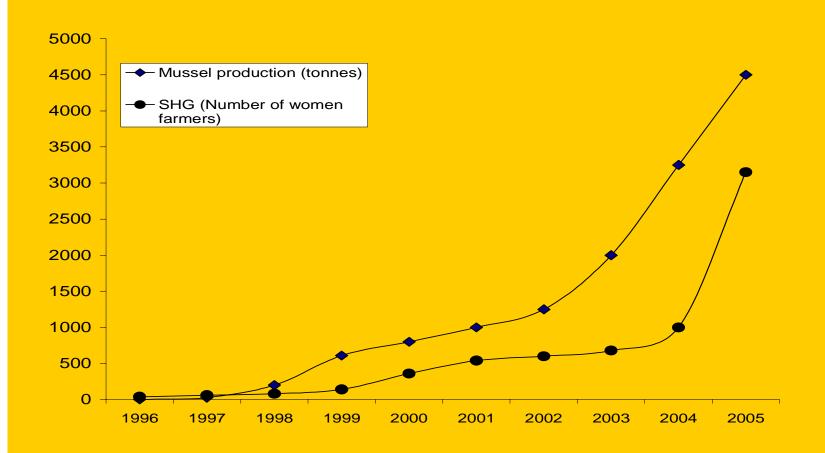
- indicated that for 63% of the women who adopted mussel farming, this was the sole source of income.
- About 21 % of the women had coir making as a supplementary source of income while 11% were involved in agriculture and
- 5 % worked as laborers in other areas



Educational status of women mussel farmers

- None of the women farmers had higher education or had attended any skill development institutes.
- However 60% of the women farmers were literate and had attended primary school.
- About 40% of the women especially of the SHG's did not have formal education. In a group, they were mainly active workers while those who have had formal education managed the liaison with the banks and handled money matters. The others lead the seeding and farming activities

Growth of mussel production and women SHG farmers in India



Social impact

Development was in diversified areas....

■ It was like the ripples of waves......

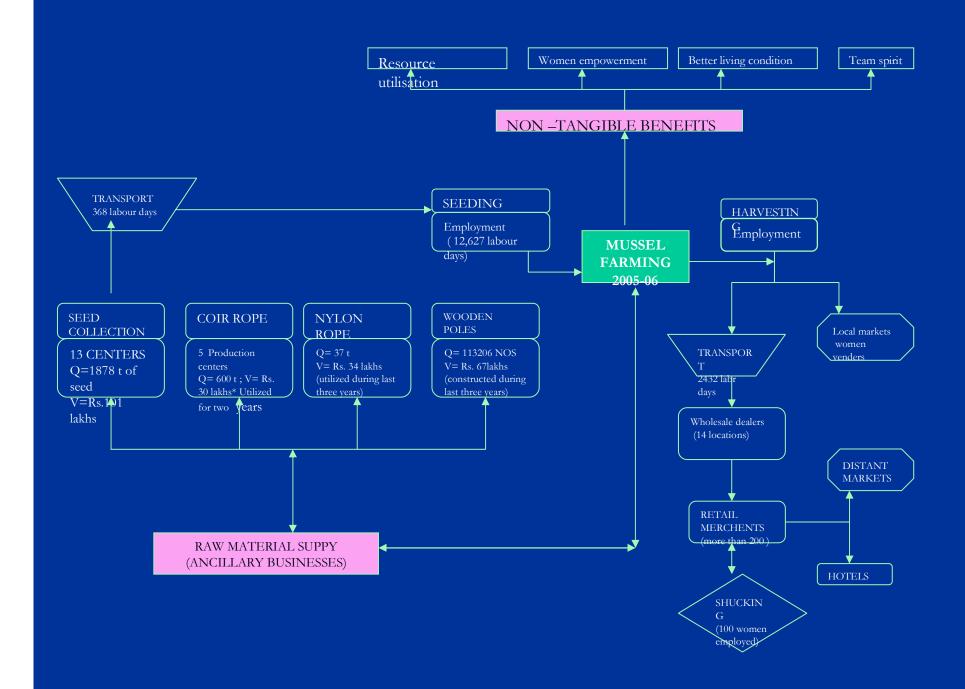
Additional income generating opportunities in the village





Seeding – a popular activity among village women

- It was estimated that during 2005-06, 12627 labour days were created for seeding mussels.
- Women get a payment of Rs.50 per day for seeding and at this rate it is estimated that labour worth Rs 6.3 lakhs was generated in the mussel farming areas during 2005-06 period





no mechanization please......

Need for Women empowerment

Poverty continues to be of primordial importance, particularly in the developing world (Wagstaff, 2001) and since women represent about 70% of the poor, developmental plans should be for raising women's access to resources, and also to increase their level of autonomy, and decision-making powers.

To summarize

- The experience in technology diffusion and adoption of mussel farming has shown that
- mussel farming can become a prime activity for alleviating poverty and empowering women through the formation of women clusters or groups in developing countries
- Financial support must be provided to the villagers
- Technology developers and promoters should work together to promote a new aquaculture program

- The social impact will be felt in within the vicinity of the farm site as well as in distant villages where seed is sourced and coir rope/cotton netting is spun.
- Women are capable of managing farms by involving all the members of the family and making it into a family business
- Team spirit and an urge to unite and work develops in the village when women are motivated

Strength of women

with proper support and guidance

women can advance from the status of 'collaborating spouse' to that of main decision makers, good leaders and financial managers

To conclude.....

Let us strive to repeat the success in the same manner in developing countries, using aquaculture and fisheries technologies and empower coastal women to become gainfully employed

Thank you