WELCOME
Challenges Faced by Fisher women of South India Specific Reference to Andhra Pradesh

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7th Global Symposium on Gender in Aquaculture and Fisheries

18th-21st Oct. 2018 at Bangkok
State Government wants to know the problems faced by the fisherwomen in Andhra Pradesh to take some policy decisions.

Based on my earlier experience, the University supported to find out the ongoing challenges.
Methodology:

Detailed surveys were conducted in selected fisher villages.
- Information on Fishing Activities of Women
- In the 9 coastal districts of Guntur District
- 4 sea coast Mandals namely Bapatla, Pittalavari Palem, Nizampatanam, and Repalle.
- With one Preschool Child
- 30 Families from each Mandals (120 Families)
Fishing activities of Women:

Marketing ---- 31%
Sun drying---- 31%
Salting----------31%
Netting --------40%
Any Other (Agricultural Work)----88%.
National Agricultural Technology Project

Studies on fisher women in coastal ecosystem of Andhra Pradesh, Karnataka, Kerala and Tamil nadu

Women is an economic partner to men, besides biological and social roles performed. Women too is equally endowed with the required qualities and managerial abilities that matter in successful entrepreneurship. The status quo is gradually changing and time has come when one starts thinking, exploring and working towards the women entrepreneurship.

Dr. Vijaya Khader
Dean Faculty of Home Science & Principal Investigator. NATP

Objectives
The major thrust would be on health, nutritional security, economic empowerment, natural calamity management and entrepreneurial development through self help groups.

Achievements and observations
Studies on fisher women in coastal ecosystem of Andhra Pradesh, Karnataka, Kerala & Tamil Nadu and NATP reveal the General information (Macro level information), Socio-Economic Status of Fisherwomen, Nutritional Status of fisherwomen, Nutritional status of pre-school children, Anthropometry of fisher, women and pre-school children, Clinical and nutritional knowledge, Fishery Knowledge, Aptitude and practice of Nutrition, Health and hygiene, Participation of women in post harvest fisheries sector.

The Team
Name of PI & CCFI of the centre
Dr. Vijaya Khader
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CO-OPERATING CENTRES

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ANDHRA PRADESH

College of Fishery Science, Muttukadu
Mr. S. Subramanian
Asst. Prof. and CCFI
Central Marine Fisheries Research Institute, Kochi
Dr. K. Narayana Kumar
Sr. Scientist & CCFI
KARNATAKA

Central Marine Fisheries Research Institute, Mysore
Dr. S. Sudhakar
Professor & CCFI
CENTRAL MARINE FISHES

COCHIN

Principal Scientist & CCFI
Dr. (Mrs.) Prasanna
Technical officer CCFI
TAMILNADU

College of Fishery Science, Mangalore
Dr. K. Sudhakar
Professor & CCFI
Central Marine Fisheries Research Institute, Chennai
Dr. K. Mohanraj Kumar
Principal Scientist & CCFI

Development of educational materials
CDs development, Pamphlets, Folders, Flash cards, Brochures

Fabrication of Equipment & Patents
Low cost ice cream freezer, Multipurpose fresh fish vending & display table

Income generation activity & Technologies Developed
- Mushroom cultivation, Fabric painting, Value addition
- Value addition to fish & prawn products, Artificial pearl culture, Processing of salt fish, Mushroom cultivation, Alternative use of millers

Policy recommendation
The employment and income potential existence in the Fisherwoman production, Fish processing, Non- fishery related income fields can be explored to provide training in alternate income generating activities to fisherwomen

Success stories
- Mrs. Thomas - Kerala: Now she could earn an amount of Rs.10000/- per month from calm processing and vending.
- Smt.P. Roopavathy, Kollam Fishing Village, Kanchipuram: Venturing into small time business like fish vending, live fish trade and cured fish sales
MULTIPURPOSE FRESH FISH VENDING AND DISPLAY TABLE

- There is a considerable demand for fresh fish in India, as much as 70% of the marine fish landed is sold as fresh and almost the entire quantity of fresh water fishes are consumed as fresh.

- There is a need to improve the infrastructure at markets facilitating the retail fish traders in maintaining the quality of fish and realize better price, the consumer in turn is benefited with better quality fish.

- From the table it is evident that fresh fish can be kept for over two weeks in good condition at 0°C.

Cost of the equipment if Rs.3,950/-
The following are advantages of the instrument.

- The cost of the equipment is low (Rs.4,000/-)
- No technical know-how is needed
- Labour is not required as in the traditional ice-cream making
- Ice cream can be prepared by a lay man also
- Capacity per batch is 4.5 – 6 lts.
- Time required per batch is 5-7 minutes.
Women play a vital role in the operation of India’s fisheries and aquaculture industries.
Clam collection
Prawn Seed Collection
Sorting
Marketing

Aquaculture
Fish farms
Shrimp farms
Shrimp hatcheries

Labour at landing centres
Loading ice to boat
Unloading fish from boat
Loading fish to tempos
Sorting of fish

Fresh Fish Marketing

Traditional fish processing
Salting and drying of fish

Dressing of fish
Surimi Units

Processing plants
Peelers
Graders
Packers

By Products units
Fish meal
Oil
Liver oil units
Manure
Constrains of women in post harvest fisheries

**HEALTH & NUTRITION**
- Lack of knowledge on food and health
- Poor general hygiene
- Inadequate food consumption
- Nutritional deficiency – low intake of macro and micro nutrients
- Lack of awareness on child care

**TRADITIONAL PROCESSING**
- Labour intensive
- Non availability of good quality salt
- Lack of knowledge on hygiene
- Scarcity of potable water
- Lack of space for drying
- Adverse climates
- Inadequate drying
- Losses in drying on roadsides
- Losses during storage by insect infestation, browning
- Drying at floor levels
- Lack of facilities in drying yards (Raised platform drying racks)
- Informal trading – large number of intermediaries.
- Lack of storage facilities.
- Low profit margins
- Risks and uncertainties
- Inappropriate use of insecticides
- Low quality products

**RAW MATERIAL**
- Seasonal availability
- Uncertainties of catch / scarce supply of fish
- High perishability
- Intense competition
- Long waiting
- Non availability of ice
- Losses due to spoilage
- Poor quality
- Lack of cold storage facility at markets

**GENERAL**
- Low income
- Lack of transportation facilities
- Long distances
- Inadequate facilities for women at markets and landing centre
- Declining fish catches
- Have to support facilities
- No alternate income source
- Use of inappropriate tools and accessories
- High interest rates

**NEEDS**
- Increase income
- Reduce losses
- Provide appropriate tools and accessories
- Education and training
- Increase savings
- Generate alternate income sources

**ADVANTAGES TO BE IN POST HARVEST**
- Flexibility in working hours
- Immediate returns
- Skill and expertise
- Strong demand for fresh and dry/salted fish
- Low investment
- Low working costs
- Support from the family
Vital Role of Fisher Women:

- Fisheries in India account for 2.5% of the gross domestic product

- Generate powerful income and employment

- Play a vital role in the operation of fisheries – continuing growth as a component of Agriculture Sector of the economy.

- Postharvest Handling; Preservation;

- Processing; Marketing of seafood’s;

- Provide an interlink between Producer & Consumer.
Regional Opportunities:

Fresh Fish marketing & Traditional Fish Processing – Preferred Activities: Clam collection & processing; Fish Processing; Fish & shrimp Farms & hatcheries  
Prawn seed Collection  
Salt Loading  
Byproduct units

Constraints:

Many suffer from poor health, Hygiene & Nutrition  
Lack of Education, Child Care Transportation  
Uncertain Catches with varying Quality, highly perishable, lack of cold storage & Intense competition  
Scarcity of Potable water,, space for Dry, Adverse weather condition, loses through insect infestation, Product Quality issues, low profit margins.  
Lack of Storage facility , Health Hazards, long hours of working in hot son, walk long distances with head load, Back aches, head Aches, Chest , Shoulder, Joint and muscular pain, Skin infections Breathlessness
Fish utilization trend in India

- Fresh fish: 65%
- Salting & Drying: 20%
- Reduction: 9%
- Freezing: 6%
RESULTS
Geriatric foods/ Malted infant food/ Amylase Rich foods/ Therapeutic foods/ Weaning foods, Value addition to fish & prawn products/ artificial pearl culture/ Processing of salted fish was used.

Home based low cost energy protein rich preparations using Horse gram (Dolichos Biflorus) for vulnerable groups
Financial support: ICAR
Regina: [Germinated ragi flour 40g + puffed horse gram flour + jaggery 35 g + crude red palm oil 5 g]
ERP: [Deshusked roasted horse gram flour 40 g + Deshusked roasted soya flour 20 g + jaggery 35 g + crude red palm oil 5 g]
This horse gram which is commonly used for cattle feed can be diversified for human consumption with less investment.

Therapeutic food supplementation in ICDS projects of Andhra Pradesh
Financial support: World Bank
3 types of Therapeutic Food (TF)
- Therapeutic food with amylase rich flour
- Sweet Ready Mix (SRM)
3 types of Therapeutic Food (TF)
- To reduce grade III and Grade IV malnutrition pre-school children in rural and tribal areas.
- Supplementary food of 70g (cereal, pulse and oil seed combination) meet the nutritional requirements of a pre-school child.
- Feeding carried out on 2257 children of age range of 1-3 years.
- 100 g of supplement provides: 400 to 480Kcal 12.5 to 13.8 g protein

To study the effect of feeding melted food on the nutritional status of vulnerable groups
Financial support: Department of Biotechnology
Amylase rich melted mix (ARMM) are 2 types namely using ragi/wheat
- Pre-school children 400
- Pregnant women 100, 3 months
- Lactating women 100

Promotion of malt based small scale food industry not only provides opportunities for rural women to develop entrepreneurship and employment but, also provides food and nutritional security through income generation.

PATENTS RECEIVED
- Low cost Ice Cream Freezer
- Fresh Fish Vending & Display Table

TECHNOLOGIES DEVELOPED
- Value addition to fish & prawn products
- Artificial pearl culture
- Processing of salt fish
- Mushroom cultivation
- Alternative use of millets

Television programme to create awareness
- Ryutu mitra phone in programme (live telecast)
  a) Mushrooms for 30 minutes on January 2002
  b) Interview programme on Doordarshan under Gramadarshini programme
- Mushroom cultivation for 15 min on September 2001
- Millets - Nutrative value 14 min. on May 2003

Success stories/Role models (Documented)
Mrs. Theresa
A successful dam processor cum-vendor at Thirumangalam in Kollam district. She could earn a sum of Rs 10,000/- per month from the sale of fresh fish. This income helps her to meet the needs of her family. Her message to society is: "If hard work and perseverance are there, women can reach any level."

Mrs. Amalakshmi
An enterprising fish vendor at Paravur in Thrissur district (Kerala). She earns a daily income ranging from Rs 100-500. She is a member of the Self Help Group (SHG). She is raising funds to start a fish processing unit. She attributes her success to hard work and her willingness to cross all hurdles with a positive attitude. Let us support her.

Smt. Hemavathy Putnam
Karnataka
Following the footsteps of her mother in dried fish marketing, she has started a small unit with monthly income of Rs 40,000. Hemavathy was introduced to traditional fish processing by her mother Shashikala. Since then, she has been processing different types of fish. She has been able to earn a monthly income of Rs 40,000. She feels satisfied with the income she is earning and is proud of her hard work. She wants to give employment to five people.

Smt. B. Roopavathy
Kovalam fishing village, Kannur (Kollam), monthly earnings of Rs 12,000 - 15,000. She has studied up to class 8 and had an opportunity to work as a data collector for a research project of the institute. At that time, her talents were identified by the project leader who initiated the survey. She was motivated to form a SHG comprising women of similar interest. But the picture was not rosy and there were many problems to be overcome. She overcame the problem with the help of the women's group. Women entered the meetings organized by Dr. R. Vasanth, CCJ, Thiruvananthapuram. She is a member of the SHG. She started a fish processing unit with the help of the SHG. She is doing well and is proud of her hard work. She wants to give employment to five people.

Smt. N. Babumathi
Kollam fishing village, Kannur (Kollam), monthly earnings of Rs 12,000 - 15,000. She has studied up to class 8 and had an opportunity to work as a data collector for a research project of the institute. At that time, her talents were identified by the project leader who initiated the survey. She was motivated to form a SHG comprising women of similar interest. But the picture was not rosy and there were many problems to be overcome. She overcame the problem with the help of the women's group. Women entered the meetings organized by Dr. R. Vasanth, CCJ, Thiruvananthapuram. She is a member of the SHG. She started a fish processing unit with the help of the SHG. She is doing well and is proud of her hard work. She wants to give employment to five people.

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CONCLUSIONS
The above fisherwomen have attained the training and awareness from National Agricultural Technology Project, implemented in three places and enhanced their socio-economic status through various skill oriented training programmes and continuous day-to-day discussions with the scientists.
OCCUPATIONAL PATTERN OF FISHER WOMEN
Women in Post-Harvest Fishery

- Once the fish are landed
- They take charge of it regarding sales
- Drying and processing and related aspects
- Their efforts have not been quantified effectively so far.
Technologies developed

* Value addition to fish & prawn products
* Artificial pearl culture
* Processing of salt fish
* Mushroom cultivation
* Alternative use of millets
Constraints:
Many suffer from poor health, Hygiene & Nutrition
Lack of Education, Child Care, Transportation
Uncertain Catches with varying Quality, highly perishable, lack of cold storage & Intense competition
Scarcity of Potable water, space for Drying, Adverse weather condition, loses through insect infestation,
Product Quality issues, low profit margins.
Lack of Storage facility,
Health Hazards, long hours of working in hot sun, walk long distances with head load,
Back aches, head Aches, Chest, Shoulder, Joint and muscular pain, Skin infections Breathlessness
Care Required:

Socio Economic Empowerment
Education about Nutrition, Health, Sanitation, Child Care, Current technologies, Best Practices Techniques.
The Vulnerability of Fisher Women

1. Education and training
2. Poor Housing and Sanitation
3. Health: Nutritional Food is a vital factor determining health.
4. Physical mobility
5. Access to credit
6. Marketing Problems
7. Entrepreneur Development Program
8. Impact of technology
Problems

• The socio-economic conditions of the fisher women have been neglected.

• Better marketing facilities for fish vendors.
• increase the purchasing power

• To educate the fisher women on small family norms.
• Processing low cost fish into value added

• Extensions programs for farm women should be one of the target groups.

• Cooperatives may be organized for women engaged in processing and trading of fish

• Properly trained and educated women should be deployed as link workers
The fishery sector has witnessed serious crises during the last decade problems like:

- lack of finance,
- lack of storage facilities and quick delivery of input,
- lack of ice-plants, lack of awareness of market information,
- uncertain quality of fish, faulty measurement system,
- lack of market infrastructure,
- imbalance between demand and supply of fish,
- low level of education among fishermen,
- and lack of availability of other and alternative profitable occupation
- inadequate income and relatively high level of expenditure
- extremes of climate,
- natural calamities like floods and draught, the tsunami,
- lack of appropriate policy measures,
- weak organizational structure of fishermen cooperatives,
- failure of the cooperative system,
- lack of transportation facilities, and the like.
Recommendations

Training program for Empowerment (Economically, Socially & Political)
Product Development through Formal Training
Training in efficient utilization of Fisheries Resources
Training of master Resource Persons from existing Fisher Women
Employment generation
Basic Principles of Hygienic handling
Keeping Quality & Marketability
Imparting Locally relevant economically Viable Technologies
Government to set up Marketing, Cold Storage facilities
The Happy Balance Sheet of Life:

8 F---------- Faith, Family & Friends
8 H---------- Health, Hygiene & Hobby
8 S---------- Social, Service & Smile
Promotion of malt based small scale food industry provides

- Entrepreneurship
- Employment
- Food and Nutrition security through income generation