Fisherwomen's Knowledge, Aptitude and Practice (KAP) of — Alternate Income-generating Activities: A Case Study in A.P

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Fisheries sector in India contributes to over Rs.6,000 crores of foreign exchange. It employs about three million people living in 3638 fishing villages in marine capture fisheries and related activities. Thus the sector serves as an important source of employment, income generation and a comparatively cheaper source of protein. In the fishing household, the male member, who goes to the sea and engages himself in the actual fishing process is recognised well but not the female member of the household, who does a lot after the fish is landed at the landing points.

Fisherwomen play a significant role in fishery sector in general and in post harvest fishery activities in particular. Yet the fisherwomen's services are not recognized either in the fishery sector or in the household. Fisherwomen constitute about 50 percent of the country's fisher population and comprise one third of the labour force. Out of the 5.4 million active fishers in India, 3.8 million (70.37%) are fishermen and 1.6 million (29.63%) are fisherwomen. Their role in decision-making in their family is also unfortunately limited. The innate poverty, illiteracy, lack of suitable avenues for earning and gender bias all put together have been creating obstacles for the development of the fisherwomen. To quantify their plight and assess their nutritional and socio economic status, a study was conducted in the coastal States of Andhra Pradesh, Karnataka, Kerala and Tamilnadu. This study also focussed on economic empowerment of fisherwomen by providing training to them on alternate income generating activities and on encouraging them to form self-help groups.

Despite the potential in the sector, the fisherwomen have not been able to earn in a sustainable way round the year. Further the average annual income realized by them has also been very low, the main reason for this being that sea catches have been declining over the years and only limited scope exists to expect increased catches for them to deal with to earn higher incomes. In such a situation, the best way for them to survive is to earn more from the existing catch. To inculcate this concept, two training programmes were organized as a part of the project, one on 'Hygienic handling of fish and the other one on Value added fish products. In these two programmes they were taught how to improve the quality of the fish handled by them and increase the consumer preference for them, to get more income.

The success of any training programme depends on the impact it had on the trainees. This paper makes an attempt to evaluate the change in skill and outlook in the trainees due to the training programme, using a method called Knowledge, aptitude and practice (KAP) test.

The Knowledge, aptitude and practice (KAP) test is usually conducted at the beginning of any training programme to know the knowledge of the participant trainees on particular topics of the subject in which training is given. The same test is repeated at the end of training programme to know the improvement in the knowledge and skills gained by the participant and also to know how best the participants are putting into practice the knowledge gained through that particular training or awareness created. (Lakshmi, *et al.*, 2004).

Methodology: The study was conducted in the East and West Godavari districts of Andhra Pradesh. A total of 800 households were covered in an initial framework survey, spread across five coastal villages, namely Uppada, Dummulupeta and Bhairavapalem of East Godavari district and Perupalem and Pathapadu of West Godavari District. Out of them, 300 households were selected for a detailed socio-economic survey. After this, the sample respondents were selected for the training programmes. The selection was made based on their socio-economic background and their interest in the field of fishery post - harvest activities. The training programmes were organized with the help of staff members of the Integrated Coastal Zone Management, (ICM) an organization, which is closely involved, with the development of the coastal zones. The details of the two training programmes' including the number of participants are given in Table 1.

Table.1: Details of the Training Programmes condudcted on Alternate Income Generating Activities

Year	Topic	Duration	Venue	Number of fisherwomen trained
2003-04	Hygienic handling of fish	One day	Uppada	28
2003-04	Value Added Fish products	One day	Kothapalli	25

During these two trainings, the respondents were asked a set of questions to test their knowledge and perception on different components of the training subject. The questions were asked before and after the training programme to assess the improvement in their knowledge and perception on the subject. Their responses were analyzed to note the degree of change in skill and outlook. These were analyzed using McNemars' test (non parametric test) to test the significance of the upgradation that could have taken place due to the training programme.

The test formula used was as follows:

$$T = \frac{(|A-D|-1)^2}{(A + D)}$$

Where 'A' represents the changes from "yes to no" after the training ☞

programme and 'D' represents the changes from "no to yes" after the training programmes. Since the (A+ D)/2 was less than 25, corrections for small samples were made by substracting one from the modulus value of (A-D). This test formula follows a Chi square distribution, with (r-1) (c-1) degrees of freedom. (Sieagal and Castellon, John, N., 1956).

The hypotheses tested were as follows:

Null hypothesis H_0 = There is no significant change after the training programme.

Alternate hypothesis H_1 =There is a significant change after the training programme.

The test statistics was compared with Table value. If the calculated T-value is greater than the table value, the null hypothesis is rejected to depend on the alternate hypothesis. Based on this approach it was concluded that there is a significant change in the attitude of the trainees after the training programme.

Results and discussion: The results of the significance of the changes due to the training are presented in Table 2.

It is seen from this Table that there was a significant change in the knowledge, aptitude and practice of the trainees after the training programme on different aspects of these two programmes. It is noted that certain parameters like using adequate amount of ice (T-value 13.23), selection of ideal varieties for drying (11.07), maintaining the surroundings clearly (13.06) and adoption of Safe method for waste disposal (14.6) were highly significant. These inprovements are attributable to the coverage of training programmes, which taught them the different aspects of hygiene, cleanliness in handling of fish and the importance of cleanliness in improving the value of fish handled by them. This indicated that the participants had learnt about the importance of hygiene in handling and processing of fish, which could help to improve the value of fish.

Conclusion: The study indicates that the trainees had shown interest and there was improvement in understanding the importance of hygiene in post-harvest fishery operation. They have also understood the importance of value addition and hygienic handling of fish in increasing the value or income from their existing catch. In this type of situation, the study has indidcated that appropriate awareness campaigns emphasizing the importance of cleanliness and hygiene in the handling of fish may be organized with the help of the local NGOs who are working closely with the fishers. Besides, they can be impressed upon to use clean utensils and gloves while handling of fish. In addition, they can be provided adequate support, both financial and technical, to form into self-help groups so that they can take up suitable processing and handling methods and improve their income to upgrade their standard of their living in the days to come.

Table.2: Knowledge, Aptitude and Practice (KAP) test of the Training Programmes

SI.No	Items	Before		After		Calculated T-value	t∝ 0.05	Level of Significance
		Yes	No	Yes	No			
1	Maintaining the surroundings clearly	38	15	53	0	13.06	3.84	Significant
2	Safe method for waste disposal	34	19	50	3	14.6	3.84	Significant
3	Use fresh water for cleaning fish	40	13	49	4	5.44	3.84	Significant
4	Discarding the waste appropriate place in the market yard	35	18	49	4	10.28	3.84	Significant
5	Using adequate amount of ice for storing of fish	23	30	40	13	13.23	3.84	Significant
6	Selection of ideal varieties for drying	26	27	39	14	11.07	3.84	Significant
7	Quality of salt used for drying	36	17	44	9	4.5	3.84	Significant
8	Keeping the floor clean while processing of fish	26	27	38	15	10.83	3.84	Significant
9	Using of screens or old nets to protect flies and birds	31	22	45	8	12.7	3.84	Significant
10	Adopting clean methods while processing of fish	44	9	34	19	8.1	3.84	Significant
11	Awareness of the different byproducts prepared from fish/prawn	0	53	53	0	53	3.84	Significant

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