

CMFRI bulletin 44

Part Three

FEBRUARY 1991



NATIONAL SYMPOSIUM ON RESEARCH AND DEVELOPMENT IN MARINE FISHERIES

MANDAPAM CAMP

16-18 September 1987

Papers Presented
Sessions V, VI & VII

CENTRAL MARINE FISHERIES RESEARCH INSTITUTE
(Indian Council of Agricultural Research)
P. B. No. 2704, E. R. G. Road, Cochin-682 031, India

Central Marine Fisheries Research Institute
40
YEARS
1947-1987

CMFRI

bulletin 44

Part Three

FEBRUARY 1991



NATIONAL SYMPOSIUM ON RESEARCH AND DEVELOPMENT IN MARINE FISHERIES

MANDAPAM CAMP
16-18 September 1987

Papers Presented
Sessions V, VI & VII



CENTRAL MARINE FISHERIES RESEARCH INSTITUTE
(Indian Council of Agricultural Research)
P. B. No. 2704, E. R. G. Road, Cochin-682 031, India

Bulletins are issued periodically by Central Marine Fisheries Research Institute to interpret current knowledge in the various fields of research on marine fisheries and allied subjects in India.

Copyright Reserved



Published by

Dr. P. S. B. R. JAMES

Director

Central Marine Fisheries Research Institute

E. R. G. Road

Cochin-682 031, India

Editorial Committee

Dr K ALAGARSWAMI

Dr K ALAGARAJA

Shri M S MUTHU

Dr K J MATHEW

Dr N GOPINATHA MENON

Limited Circulation

RESEARCH AND DEVELOPMENT IN MARINE FISHERIES EXTENSION IN TAMIL NADU

J. Vasanthakumar, V. Sundararaj, N. Sukumaran and P. Selvaraj
*Fisheries College, Tamil Nadu Agricultural University,
Tuticorin 628008*

ABSTRACT

Improvement in the standard of living of fishing households and fishing labour households and optimal utilisation of fishery resources for employment, production and export are the important goals of marine fisheries extension service. Despite the increasing attention of the Government to fisheries extension work, majority of fisherfolk are caught in a vicious cycle of poverty and indebtedness. The paper analyses the present strategies of fisheries extension service in Tamil Nadu, identifies the pitfalls and lists suggestions for improving the efficiency of fisheries extension work in the state. The extension teaching methods used for individual contact, group contact and mass contact, the subject-matter fields covered in extension teaching with their relative importance. The characteristics and extension personnel, research support provided, co-ordination among the various agencies involved and participation of the clientele and their organisations are analysed and discussed. The analysis helped in identifying the major impediments to success of extension efforts. The analysis provided a basis for evolving future extension strategies focussed on marine fisheries development. It provides suggestions in term of personnel requirement, effective extension methods, thrust areas among different subject-matter-fields, co-ordination among organisations concerned with marine fisheries and extension research support. The recommendations will be of use to the organisations concerned with fisheries extension in their approach to tone up the service of fisheries extension.

INTRODUCTION

In the process of attaining growth with social justice individual fisherman cannot be ignored. Improvement in the standard of living fishing households and optimal utilisation of fishery resources with efficiency in employment generation, production, preservation and marketing are important goals of marine fisheries extension service. Research and development in marine fisheries extension should equip the extension service to face the challenges of fishery sector successfully. An attempt is made to analyse present extension service in Tamil Nadu to identify pitfalls and to offer suggestions for improving efficiency of extension service in the state.

MARINE FISHERY OF TAMIL NADU

The state with a 1000 km coastline and 41,412 km² continental shelf accounts for 16% of India's total marine fish production. About 4.64 lakhs fisherfolk depend on fishing for their livelihood. The fishery employs about 90% of fishermen and 20% of fisherwomen. About 54% of fishermen households own gears while about 42% of them own crafts. Ninety per cent of the crafts are non-mechanised (Anon, 1986). Average annual income of the fishing households in Tamil Nadu is Rs. 2,915/-. If we consider Rs.

3,500/- per annum as cut-off point for poverty line, approximately 73% of the fishing households live below the poverty line.

RESEARCH AND DEVELOPMENT IN MARINE FISHERIES EXTENSION

Among the 497 studies published in Indian Journal of Extension Education during 1965-'81, studies on adoption and diffusion accounted for about 20%, extension methods for 16.50% and communication for 13.50% (Siddaramaiah and Raghavendra, 1983). But contributions from marine fisheries extension were very negligible. Very few studies that have been published later were in the area of adoption and diffusion.

Fisheries extension should have two distinct branches, one for aquacultural extension and other of marine fisheries extension. As aquacultural extension is similar to agricultural extension, the methods of agricultural extension can be followed as such. However, the case of marine fisheries extension is different. Special attention should be bestowed to undertake and publish research studies to strengthen marine fisheries extension service. As the fisheries field is in an early stage of development, priority may be given to launch research studies that would have an immediate and direct impact on transfer of technology.

The discipline of marine fisheries extension draws its contents from extension research, principles of behavioural sciences and accumulated field experience. As the studies in marine fisheries extension are only a few, one looks for accumulated field experience. The field experience of the extension agency has neither been recorded nor accumulated for the benefit of others.

Lack of training in extension education to most of the incumbents of the extension service deprived them of the exposure on principles of behavioural sciences. Ultimately, the present day extension workers of marine fisheries extension service have only the technology and need the 'know-how' of transferring the technology. The basic knowledge of social sciences that have a bearing on fishing households, expertise in effective communication, familiarity with reliable sources of information, understanding of background, philosophy, objectives, policies and organisation of extension system and knack of applying the principles of behavioural sciences to extension teaching, supervision and administration might contribute to the know-how of transferring technology.

The extension personnel need exposure on process and methods of analysing local problems, organising target population in villages, stimulating leadership among them, problems and procedures of educating adults, and techniques and processes of evaluating extension programmes.

The marine fisheries extension would bring about efficiency in production, conservation, management, processing, preservation, marketing and distribution primarily. It would also aim to bring about better household living, youth development, leadership development and community development. However, at present efforts are diluted regarding the first four essential elements and attention is focussed on the last four. When there is insufficient income, people cannot enjoy better family living. Hence, there should be a shift in the focus, from welfare measures to productive enterprise. In no way, it would undermine the importance of welfare measures.

MARINE FISHERIES EXTENSION SERVICE IN TAMIL NADU

Organisational chart of the Department of Fisheries, Tamil Nadu, indicates that there are four extension centres manned by Assistant Di-

rectors under the control of a Joint Director (Research and Extension). Of the four centres, one at the Head Quarters is for information and statistics. Of the rest, only two centres do marine fisheries extension work with not more than four extension workers. Research and Development institutions like CMFRI, EFP, MPEDA and TNAU with its regional stations also take up fisheries extension work. Training institutes like CIFNET, Central Polytechnic Institute and Fisheries Training Centres (six) of the Directorate of Fisheries impart training on Fishery technology.

PROBLEMS OF MARINE FISHERIES EXTENSION SERVICE

Marine fisheries extension service suffers from the following problems:

1. Marine fisheries extension service is manned by inadequate manpower who have less exposure on extension education.
2. Technology evolved by research organisation do not reach extension workers and then fishermen.
3. There is inadequate feed-back from extension workers on problems of fishermen.
4. Information on area of fishing and method of fishing are not available to extension workers and fishermen.
5. Extension teaching methods like individual contact, group contact and mass contact are not used effectively.
6. Co-ordination between various organisations concerned with marine fishery development is not effective.

SUGGESTIONS FOR IMPROVING MARINE FISHERIES EXTENSION SERVICE

Following suggestions may be considered for improving the marine fisheries extension service.

The Directorate of Fisheries should devote its full attention for extension work following the exemplary role played by the Directorate of Agriculture in the state.

In Japan every extension worker caters to the needs of 500 fishing households and one technical specialist advises four extension workers. In Orissa, on an average each marine extension officer handled as many as 733 cases during 1983-84 and 556 cases during 1984-85 (Anon, 1985). But, at present, Tamil Nadu does not have more than a dozen persons to do marine fisheries extension work. On considering

situation in Tamil Nadu, at least one fisheries extension worker for every 250 fishing households and one fisheries extension officer for every two workers may be provided for the state. Thus, about 350 extension workers and 175 extension officers are required to man the marine fisheries extension service at grass-root level.

Further, the extension workers may be selected from candidates having SSLC qualification and a diploma certificate in fisheries with special courses on fisheries extension. Similarly, the extension officers need to be selected from graduates of fisheries who have undergone fisheries extension courses.

Technology generated by all the Research and Development Organisations should go through the process of adaptive trials and demonstrations by scientists. A formal forum at various levels (similar to variety release committee of Agricultural Universities) need to be created to evaluate applicability of innovations. The extension education scientists are to be involved in all stages of 'technology development' so as to ensure that needs of client system are sufficiently met.

The organisations concerned with development of marine fisheries sector should have sound linkages, both vertical and horizontal. A device has to be designed for the purpose similar to the 'Monthly Zonal Workshops' in Training and Visit system. It should provide a forum for discussing feed-back also.

Individual contact, group contact and mass contact methods need to be selected depending on situational factors. However, among the mass media, Radio and TV are to be preferred because of higher illiteracy (57%) level. In contrast to the present pattern of broadcasting, tele-casting, a definite schedule has to be evolved.

Training programmes for extension workers and fishermen need to be organised to impart skill and knowledge.

The technology transfer process should consist of the thrust areas like traditional crafts, modern crafts, gears, processing, preservation, sources of information and other assistance, marketing and distribution, scientific methods of capture based on indices, environment education, peoples participation and alternative employment.

CONCLUSION

The marine fisheries extension service needs concentrated efforts of development Departments with drastic policy interventions to revitalise the whole system. It may be concluded that only with a strong faculty of fisheries extension research, and with a dynamic extension organisation capable of meeting the challenges by deploying extension personnel having exposure on principles, philosophy, contents and methods of fisheries extension, the marine fisheries extension service can be strengthened.

REFERENCES

- ANON. 1985. "Two years after In-Service Training of Fisheries Extension Officers: An Assessment", *Bay of Bengal News*, No. 18, pp. 6-12.
- ANON. 1986. *A Census of Tamil Nadu Marine Fishermen 1986*, Madras, Directorate of Fisheries, p. 20.
- SIDDARAMAIAH, B.S. AND RAGHAVENDRA, 1983. "Content Analysis of Indian Journal of Extension Education", *Indian Journal of Extension Education*, Vol. XIX (1 & 2) : 92-94.