

FISHERIES EXTENSION IN RURAL DEVELOPMENT PROBLEMS AND PROSPECTS

by

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Abstract

The role of extension services is reviewed together with comments on the different patterns of operation in the IPFC region. In many countries the fisheries extension function is relatively new but there is an increasing awareness of its value. Some of the problems involved in making extension services more effective are considered and means of bridging the gap between the fishermen and the administrator or research worker are discussed.

INTRODUCTION

The fisheries of almost all the countries of the IPFC region are underdeveloped in one sense or another and we all know that the development of a fishery requires two prime inputs: the injection of capital and the education and training of people. Provision of capital alone is almost always useless but some forms of training cost little in themselves and reduce the amount of money which would otherwise be needed. Teaching the users to maintain equipment properly so that its useful life is extended is an obvious example.

Fisheries education and training may take many forms. The various ways in which training could be provided for the many different specializations needed in a fishing industry are discussed by Cole and Hall (1973). Broadly speaking, educational methods take two forms; formal instruction in a teaching institution and the less formal, but vitally important, learning patterns which can be provided by an extension service. The extension services are so important because there is no other way to reach the millions of people who work in the artisanal or small-scale fisheries. To those who say that the modernization of their fishing industries will sweep away the small-scale fisheries, one can only suggest a look at Japan, North America and Europe. In all these areas small-scale fisheries flourish alongside fisheries using large, sophisticated, modern vessels. There is no reason to suppose that the small-scale fisheries of the IPFC region will quickly disappear; on the contrary, there are strong reasons for supporting and improving these. Some of the more obvious and important reasons are suggested by Cole (1973).

Although the living conditions of those who work in the small-scale fisheries have improved dramatically in some countries in the last decade, in other places conditions are still extremely uncomfortable and often squalid. Housing may be ramshackle and crowded; sanitary facilities are absent, or at best, primitive; water is drawn from shallow wells, with the consequent risk of disease, and light is provided by oil lamps. Debilitating disease are endemic; there is little or no medical, dental or pre-natal care and education is poor, even at the primary level. The communities are isolated and communications difficult. Shopping for anything other than the most immediate necessities of life is difficult and even these are much more expensive than in the towns. Catches fetch low prices because the risks in attempting to market wet fish are so high. Crude processing methods result in low-grade products of poor keeping quality. Processing thus prevents total loss but reduces rather than adds value.

Such benefits of modern civilization as have arrived have often proved to be mixed blessings. The outboard motor, designed and built for occasional use in sport fisheries, is generally a poor tool for the day-in-day-out slog of small-scale commercial fishing. It is by no means always certain that nets made with synthetic materials result in an increase in catch which can be maintained from year to year. Both synthetic materials and fuel are now very expensive; we may yet see a partial return to sail. Under such conditions advice and help are needed to solve both technological and socio-economic problems. Many of the problems could be solved by the proper application of existing knowledge. In other cases, both experiments and careful costing of the experiments are needed before advice should be given. This is the origin of the term "extension service", coined at Cambridge University in the last century to describe the group of people needed to extend the results of agricultural research to farmers. The importance of careful costing cannot be emphasized too strongly; experiments should be carried out by officials or academics, not by poverty-stricken fishermen or fish processors. Only technological innovations of proven profitability should be advocated by the extension services. Cole (1977) and James (1977) elaborate on this point. It is difficult for extension workers to gain the confidence of the artisanal fishermen and it would be altogether too easy to throw away the advantage gained by suggesting an innovation which loses money. So far the term "extension service" has been used undefined, with no clear indication of the way in which such a service should be formed or administered, or how it should operate. A brief indication must be attempted.

THE FISHERIES EXTENSION SERVICE

Many senior officials are not sure what an extension service is or what it should do. Yasueda (1972) explains the operation of the Japanese fisheries extension service and MacDonald (1975) discusses some of the needs of the artisanal fisheries of the developing world. In general terms, the function of a fisheries extension services is to spread knowledge and techniques among fishermen and other operatives in the fishing industries so as to modernize the management of fishing enterprises thus improving productivity and raising living standards.

It is generally agreed by those who have done extension work among artisanal fishermen that a body of men and women, about one worker for each 500 fishing families, should be trained as generalist technologists. There would be obvious advantages in training people to a higher degree of specialization but, for most countries in the region, this would be too expensive. There must be some specialists, perhaps one for every ten generalists and one line supervisor for every four or five field workers. Training time is usually two years, assuming an intake of people who have had 12-13 years' schooling. The trained worker is expected to live in close touch with the people he serves. Since this involves a considerable degree of hardship, there should be compensatory advantages in terms of salary, allowances, leave, etc. There should be adequate opportunities for advancement within or outside the extension service. Since extension work should be a full-time occupation and since it is of prime importance to gain the confidence of the operatives within the industry, the extension worker should ideally have no licensing, regulatory or other statutory functions such as the collection of statistics. The field extension worker must have adequate administrative and technical backing. His work plans must be discussed and approved by senior officers who can provide technical advice and arrange for the provision of necessary funding. Above all he must be the link between the workaday level of the industry and officialdom. He will often come across questions which he cannot answer. If no one else in the country knows the answer, there must be arrangements to seek advice elsewhere. Sometimes there will be no ready-made answer so there must be arrangements for research or experimentation. In any case, the answer should pass back through the field worker. This all requires that the service should have adequate links with other branches of the fisheries administration, especially the training institutions, with the universities, with other government departments and with commerce.

There are a large number of different ways in which an extension worker can go about the task of familiarizing himself with the needs of the industry and meeting those needs. He should make frequent and informal personal contacts with individual fishermen or groups of fishermen, he should visit the places where they work and hold pre-arranged formal meetings with groups of people. He should carry out demonstrations, and

arrange study tours of other areas and visits by specialists. Cole (1976), in outlining some possible means of providing training, goes into some detail of the ways in which an extension service should operate. Extension work started in agriculture and many publications written primarily for agriculturists provide useful suggestions for techniques and operational methods, notably Bradfield (1966) and Maunder (1972). Chambers (1974) offers some interesting thoughts on the wider implications and problems in rural development. All this sounds facile; provide funds, train some field workers and, hey presto, we have an extension service. But few countries have a fisheries extension service that truly provides for the needs of their fishing industry. So things go wrong; I can suggest some possible reasons, no doubt others would suggest a completely different but equally valid set.

THE EXTENSION SERVICE IN REALITY

It is a truism that theory does not always work out in practice and there are few good fishery extension services anywhere in the developing world, or elsewhere for that matter. Even the most advanced fishery could use a good extension service to bring it advice and place its problems with those most likely to solve them. Some questions are posed and some suggestions for the possible causes of failure are offered in the hope that these will stimulate discussion and possibly lead to some better solutions.

Concept

Perhaps the whole concept is wrong? Maybe it is no good expecting a small number of generalists to identify the problem areas. Yasueda (1972) suggests that this method works well in Japan; it certainly works well in agriculture, in the livestock-raising sector as well as in others. Would it be better to use a mobile task force approach and to saturate an area with experts for a short time rather than relying on longer term, more intimate acquaintance to bring out and resolve difficulties? Most of us have seen something like this tried (in the very short term) by way of a ministerial or similar visit. The result usually seems to be that the hoary old insoluble problems are dusted off and aired yet again. There seems to be no substitute for the long appraisal; this might be better made by an experienced senior officer rather than the comparatively junior man, who is the typical extension worker. Such people are scarce and expensive; many of them would think the duties of an extension worker beneath their dignity. The field workers' immediate superiors should of course be more experienced officers and they should take every opportunity to visit the field workers' areas with them.

Perhaps the best concept is still that of the extension work undertaken by the universities. The problem here would seem to be that in developing countries very few academic people have, or are willing to acquire, the intimate knowledge of the way of life in the rural areas which is needed for successful extension work.

Organization

Is one of the main reasons for failure poor organization? Are the field workers wrongly placed, ill trained and undersupervised? Are there too few people in the field and too many in headquarters? Have any of the people in headquarters had any practical experience in the field? Is the extension service perhaps regarded as of little importance so that the best staff are never attached to it? Do the officials have other duties which prevent their devoting sufficient time to the extension service? Some duties, such as licensing, statistics collection and regulatory functions have statutory time limitations and preoccupation with these would be understandable.

Is proper use being made of the expertise available in academic institutions? It is not unusual to find academics working on research problems which appear to have little, if any, relevance to the needs of the industry. Is this just lack of communication or are the problems of industry too difficult for the universities or of little interest to them?

Staffing and service conditions

Are the right people being chosen for extension work? Perhaps there is little question of choice, some services may have to take whoever they can get. The best qualified people might well prefer to work in the cities where life is brighter and promotion prospects better than in the field. If this is even part of the problem what can be done about it? Conditions of service are often somewhat rigid and it may be difficult to reward devoted service adequately. Perhaps everyone who has any aspirations to rise in the fisheries service should be expected to spend a reasonable number of years working in the extension service?

Are field staff always given adequate training? Not just in the technologies; training in extension methods is also needed. This is often available within the ministry responsible for agriculture but fisheries people do not always know that this is so. Or does professional jealousy prevent them using the facilities of another department?

CONCLUSION

Whatever the answer to these problems and the others which we know exist may be, there is no doubt that we should continue to seek solutions because those of us who have seen an efficient extension service at work know how useful this can be in promoting the development of a fishery.

REFERENCES

- Bradfield, D.J., Guide to extension training. Rome, FAO, 169 p.
1966
- Chambers, R., Managing rural development. Uppsala, Scandinavian Institute of Management, 215 p.
1974
- Cole, R.C., Fisheries development and requirements of fisheries education and training in Malaysia, Thailand, Fiji 1973 and The Philippines with particular reference to the artisanal sector. *FAO Fish. Rep.*, (143):55 p.
- Fishery training needs in the Western Central Atlantic. *WECAF Rep.*, (1):71 p.
1976
- Fisheries extension services; their role in rural development. *Mar. Policy*, 1(2):132-42
1977
- Cole, R.C. and D.N.F. Hall, Guide to education and training. *FAO Fish. Tech. Pap.*, (128):343 p.
1973
- James, D.G., Fish processing and marketing in the tropics: restrictions to development. *In Proceedings of the 1977 Conference on the handling, processing and marketing of tropical fish.* London, Tropical Products Institute, pp. 299-302
- MacDonald, A.H., Extension methods and co-operative development of artisanal fisheries. Zambia, 34 p. (mimeo)
1975
- Maunder, A.H. Agricultural extension: a reference manual, Rome, FAO, 270 p.
1972
- Yasueda, T., Fisheries extension service. Rome, FAO, FIE:FET/77/Bp3:20 p.
1972