

Processing, Distribution and Marketing Constraints in Small-Scale Fisheries Development

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A wide range of fish and fishing techniques and even fishermen exist in the Caribbean, the latter extending from the wealthy foreign game fishermen to the small-scale subsistence fishermen in the artisanal fisheries sector. This paper will concern the latter, many of whom continue to use traditional techniques in fisheries with declining yields and diminishing returns.

The fundamental economic problem in the exploitation of fish resources arises because maximum sustainable yield is reached before commercial profitability begins to fall. Continued fisheries exploitation continues as long as variable costs are covered. This creates an economic environment of over-investment and over-employment and over-exploitation of fisheries which very soon will lead to a doom-watch situation.

This is true not only for internationally exploited distant water fisheries, but also for inshore small scale and artisanal fisheries. As far as preventive and remedial action is concerned, the main difference between these two is that, whereas the former will involve concerted international action, the latter is within the ability of maritime countries to control. This is the main reason why there should be some national monitoring and management of resources within the fishing zones of individual countries. The development of fish processing and marketing must be made within these perspectives.

Falling per capita productivity combined with increasing population growth has, in many countries, produced a fisheries economy characterized by under-employment and unemployment both seasonal and chronic. Because of this, targets in fisheries development policies are frequently not merely directed to raising production but also to increasing employment. A strategy with such dual objectives must prefer labor-intensive methods over a more capital-intensive technology. Attempts to transfer sophisticated technology have often proved counter-productive. It is thus important to consider, before embarking on a strategy of development, what technology is appropriate for each individual country and this will differ between individual states in the Caribbean.

The application of an appropriate level of technology is not only important in fishing methods but also in processing and marketing. Traditional marketing is generally small in scale and highly suitable for the small-scale fishery it serves. But when increased landings occur, attempts to handle them by introducing freezer technology which may be successful and viable when the product, such as lobster or shrimp, is for an export market (since the wealthier foreign consumer can bear the cost), often far too expensive for products destined for a

local, low-income consumer. Such a modern processing technology also involves the use of ice plants and cold stores which are necessary to complement it in the distribution chain. These are additionally inappropriate because they are high in capital cost, low in labor cost, high in foreign exchange input and low in local material input.

The introduction of new processing technologies is sometimes undertaken without considering consumer needs. Tastes in food consumption are amongst the most conservative of human characteristics. If fish is customarily eaten as dried or smoked fish, consumers will not easily adapt their taste to fish processed in another form. So before discarding traditional processing methods, attempts should be made to improve them by using local materials and labor and low energy inputs, such as the sun and wind, and by improving storage in order to reduce wastage and upgrade the product. Improvements on local methods may even yield some economies of scale; for instance, in areas where landing points are highly dispersed, curing yards and smoke ovens can be established to service a number of villages. These can be better managed and controlled so there is less infestation loss and their construction and use has a linkage which increases the local level of employment.

Processing is an activity not usually undertaken by fishermen but by those engaged in the fish trade and in all fisheries development schemes it is essential to secure the cooperation of fish traders. Since fish traders are usually also the main money lenders to fishermen, they have considerable power in the community. Any scheme which increases fish landings will affect fish trade and traders may well turn this to greater advantage to themselves than to the fishermen. As long as indebtedness exists this situation may persist. It is to avoid this that loans schemes have been devised to give cheap money to fishermen for the purchase of gear. However, it would be a mistake to consider that the introduction of a fisheries loans scheme to enable fishermen to purchase new gear and equipment would ultimately relieve them of their indebtedness to traders.

A key feature of the relationship between fishermen and fish traders is the credit system whereby the trader acts as a general money-lender, not only financing fishermen for their seasonal fishing requirements, but also providing consumption credit and money for festivities and funerals. This relationship between fishermen and the fish trader/financier is often regarded as pernicious and capable of constraining any efforts which fishermen may make to improve their livelihood. If this is the case, then it is important that traders should also see that some gain will come to them from a fisheries development scheme. However, in most fishing communities the relationship between fishermen and fish traders is symbiotic and provides a well established working relationship with a great deal of give and take on both sides and thus should not be lightly discarded. Generally speaking, in countries where attempts have been made to bypass the traditional trader by the rapid introduction of more modern marketing methods, such as by formally organized auctions or wholesale markets, the innovation has failed and the traditional system has prevailed, because the trader is still needed

to play a significant role in the socio-economic environment in which small-scale fisheries exist.

In Ghana in the 1960s the government built large fish warehouses in an attempt to provide a system of sale by weighing, and to improve the hygiene of handling, but traders completely boycotted the scheme. Sale by weight was not understood by the trade, and traders were afraid of subsequent government interference.

In Malaysia, where an attempt was made to improve fishermen's earnings by introducing fish auctions at the beach, it was observed that only five to seven traders operated in the fish auction and collusion between them seemed evident. Fishermen certainly did not benefit.

All over the developing world fish traders have the reputation of exploiting fishermen, but where calculations have been made, the earnings of small-scale fishermen have been found to be around 30-40% of the final retail price and this is a very reasonable return for a primary product.

The strategy for improving marketing must be one in which the benefits of increased landings are shared between traders and fishermen. It is easier to introduce innovations in a situation when both have rising per capita incomes than in a situation when traders are afraid that their livelihood is being threatened, and unfortunately this is the environment which often surrounds fisheries improvement schemes. Only when fishing incomes have risen sufficiently and fishermen have learned to save, will they be free from the shackles of the trader/financiers. In a fishery which yields rising incomes, fishermen can be encouraged to be thrifty by enforcing a loans repayment scheme which provides an excess portion from which they can build up a savings account.

The leap from a traditional small-scale fishery and the traditional systems of processing and marketing which accompany it, to a high-capital-cost technology of processing, distribution, and marketing is frequently too great and too fast to be easily assimilated. The socio-cultural framework in which the economic system exists must also change simultaneously, but it cannot make a sudden leap forward and cannot keep pace, and is always a laggard in a period of rapid technological change. For example, it is commonly supposed that traditional small-scale fishermen who, for decades, have been dependent on others can, given sufficient capital, i.e. improved gear and vessels, quickly turn into dynamic fishing entrepreneurs on their own account, taking on the risk-bearing functions of capital ownership, of marketing, and business organization. Further, it is frequently assumed that fishermen will, given the need for larger scale fishing units, readily form co-operatives which will, amongst other things, undertake fish marketing. In many communities these are false assumptions to make since people do not easily change from their long-established traditional roles in society. Thus the rate of change of technology must be appropriate, not only to the economic resource endowment of the country, its plentiful supplies of labor, its scarce supplies of capital and skill, but also to the cultural and social structure of society.

Dificultades para la Elaboración, Distribución y Mercadeo en la Industria Pesquera en Pequeña Escala

RESUMEN

Este trabajo expone la semejanza entre los problemas confrontados en la región del Caribe en el desarrollo de pesquerías en pequeña escala, con aquellos experimentados en África y Asia. La tasa de cambio en la tecnología debe ser apropiada, no sólo a los recursos económicos del país, la abundancia de su mano de obra, el escaso abastecimiento de capital y destreza, sino también a la estructura socio-cultural de dicha sociedad.

Frecuentemente, una disminución de la productividad per cápita y un aumento en la población provocan el desempleo en la economía pesquera del país. Como respuesta, la política pesquera trata de aumentar tanto la productividad como el número de empleos. En estos casos, la estrategia seguida se basa más bien en la práctica del trabajo intensivo que en el empleo intensivo de capital para desarrollo tecnológico, por lo que los esfuerzos para encontrar la solución en la tecnología sofisticada están destinados al fracaso.

Los gustos y costumbres del consumidor, la relación simbiótica entre el pescador y el vendedor de pescado, el papel tradicional del pescador, y la capacidad socio-cultural de la sociedad de asimilar los cambios tecnológicos, son aspectos de las pesquerías que han impedido el desarrollo pesquero en el pasado, debido a que, o bien han sido ignorados o mal entendidos. Se dan ejemplos sobre este aspecto.