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Environment and Conservation Organisations of New Zealand Inc.  
7 MacDonald Crescent, Wellington 1 - P.O. Box 11057 - Phone 846-971

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## NEW ZEALAND FISHING INDUSTRY BOARD

### THE BOARD'S POLICY ON INSHORE FISHING

In accordance with the New Zealand Fishing Industry Board Act, the Board is to comply with the general policy of Government. As Government has not yet announced its policy I clearly need to be careful in committing the Board in any way, so I shall not speak of the Board's policy but rather on those matters which the Board believes should be considered in arriving at a policy.

Before considering the inshore fishery, I believe we ought to look at the management of fisheries resources in general terms. To do this I refer to a Board paper of 1978 - "The Management of Fisheries Resources".

#### A. Objectives

The single over-riding objective of fisheries management can be stated simply as being to optimise society's total benefit from the use of its fisheries resources.

Although simply said this objective is not so easily achieved. It requires the numerous costs and benefits of the different options available for utilising the resources, to be quantified, aggregated and compared. It is the defining and measuring of these options and the relative weightings given to each of the components that lead to the formulation of a range of more specific management objectives or policies which are, in theory, subordinate to the single aim of benefit optimisation.

This selection process obviously implies the use of value judgements. These are difficult enough in the area of biology and economics, but very complex when sociological factors, which must be considered, are taken into account.

In many instances, before any measurement or comparison has been undertaken it is decided that certain specific objectives should have maximum priority. This only means that such objectives are considered to have benefits which far outweigh the collective benefits, real or imagined, from other alternative or conflicting uses.

Specific objectives for fisheries management usually fall within the following range :

1. To maximise the sustainable biological yield from the resources;
2. To maximise the gross benefits and earnings in one form or another from the resources either by
  - (i) Direct commercial exploitation, or
  - (ii) Social recreational and indirect commercial use, or
  - (iii) A combination of both;
3. To maximise employment opportunities, selective or general, within the industry utilising the resources;
4. To maximise the 'economic rent' from the resources, whether accruing to private or public interests, by maximising the difference between aggregate benefits and aggregate costs;
5. To ensure a reasonable return for the labour and capital engaged in utilising the resource;
6. To minimise one or more of the cost components of the industry;

and as most fisheries management regimes are introduced when there is already excessive fishing pressure;

7. To minimise the disruption and economic dislocation to those already utilising the resource when introducing a management programme.

Fisheries management policies are usually a combination of several of these objectives in varying proportions and are rarely, if ever, only based on one or two. They invariably include the objective, in one form or another, of sustained biological yield not so much for its own sake, despite being almost an enshrined term, but because many of the other specific objectives are largely dependent for their realisation on the resource being available for utilisation on a long term or sustained basis.

Regardless of what mix of specific objectives is selected for managing a fishery, there is the underlying assumption that the combination and

relative importance of the factors chosen will maximise the benefits from that fishery for those who have an economic or social interest in its utilisation.

In considering the reasons or need for fisheries management, it is now generally accepted that :

- (a) Maximum sustainable yield is not sacrosanct and that economic, social and political factors are equally relevant in establishing management policies.
- (b) Market forces cannot be relied upon to arrive at a natural equilibrium which optimises the return from the fishery. Economic and social cost curves and biological yield structures are independent of each other and it is highly improbable that they would coincide at a point which takes account of all factors that could be accommodated in a management plan.

#### B. Implementation

The method of translating the objectives into a practical management regime depends on the characteristics of both the resource in question and the industry fishing in it. It also depends very much on the objective themselves as some management techniques could preclude the achievement of some of the desired aims.

If a fishery is regulated before it is over-exploited then the management methods available are much wider and their use more flexible. However, in the case of an already over-exploited fishery, management options are restricted by the difficulties and costs of trying to change an already existing structure.

The methods of trying to match fishing effort to resource potential fall basically into three categories :

##### 1. Overall Catch Quota

Allowing free fishing up to the time at which it is believed the allowable quota has been reached. This can be on a regional basis if suitable.

2. Limited Licences

Issuing a limited number of licences for the operation of a limited number of catching units or fishermen, or for the capture of a limited quantity of fish.

3. Operational Restriction

Allowing all to fish all the time (or most of the time) but imposing restrictions on gear and operating methods to reduce the efficiency of fishing units. Although a restriction on productivity may limit or even prevent any reduction in the direct capital and operating costs involved in the fishery, it can assist the achievement of other objectives such as maximum employment.

Management plans are often a combination of features from these three categories each of which encompasses a variety of techniques. Certain specific measures may not fall clearly into these categories. For instance, a closed season might be considered with the intention of either :

- (i) trying to match the catching capacity to the available resource,
- or
- (ii) choosing a closed season to reduce the efficiency of fishing.

Another important issue to be considered is the cost of management itself. Certain techniques, although perhaps the most effective, may be unrealistic on the grounds of cost. This aspect must also be included in the cost benefit analysis.

How then does this apply to the inshore fishery?

#### Present Structure and Economic Status

In 1983 there were 1,640 commercial vessels in the fishing industry, and these vessels landed 138,000 tonnes of fish worth \$133 million at port price level. The processed output value of the catch from these domestic vessels in 1983 totalled an estimated \$220 million, of which \$175 million was exported. The estimated insured value of the domestic fleet is \$212 million and of onshore processing plants \$138 million.

An analysis of the domestic industry's contribution to national income was undertaken by the Board for the 1982/83 year, the most recent year for which figures are available. A summary of the results of this analysis reveals that all sectors of the fishing industry contributed significantly to national income through value added (which represents returns to labour and capital), all at very low or even negative rates of assistance. Negative 4-5% to the inshore finfish fishery.

However, the analysis disguises the poor financial returns many inshore fishermen are incurring due to declining catch rates and increased input costs, particularly for items such as fuel.

The conclusion of the analysis is that the domestic fishery, including the inshore finfishery, is making a significant contribution to the domestic economy with negligible rates of assistance. Nevertheless, the continued contribution of the industry to national income is under threat because of the serious biological overfishing occurring and declining financial position of many fishermen in several inshore fisheries.

#### Present Biological Status of the Inshore Fishery

Fisheries Research Division advise that current catch is 45,292 tonnes; the present sustainable yield is -22% less 35,900 tonnes.

It is highly likely that unless remedial action is taken quickly, these current catch levels will decline very rapidly in the near future.

Long term sustainable yields are long term catches which may be achieved if stock recovery occurs. The chances of recovery are improved if in the short term catches are dropped below present sustainable yields. This has the potential to improve yields by about 20% to 42,900 tonnes close to existing catch levels.

A significant reduction in catches of inshore species is necessary in order to maintain existing populations of economically significant inshore species. The problem varies regionally and it should be noted that the most severe problems lie in the north end of the North Island.

The implications of the figures are clear - catches by commercial fishermen need to be reduced. Nevertheless, where catches are reduced, the prospects of resource recovery are enhanced and this will lead to increases in the economic surpluses from the fishery. The economic benefits of this resource recovery are estimated to be enormous and will be the subject of a forthcoming paper by the Board.

The objectives facing the industry are therefore twofold; to reduce catches to a level where resource recovery can occur and to permanently reduce catching costs. The first can only be achieved by reducing catches by commercial fishermen and this will necessitate the removal of fishermen in many areas due to the extent of necessary declines. The second permanent reducing effort can only be achieved by imposing management controls on the fishery which promote efficiency without increasing catching power. The preferred option to achieve this objective is the introduction of individual transferable quotas in stressed inshore fisheries, but not the only option.

Individual transferable quotas are catch quotas allocated to individual fishermen to catch with a minimum of other catch controls which tend to reduce efficiency. Individual quotas provide maximum opportunity to fishermen to catch fish as efficiently as possible without increasing effort.

A reduction of commercial catches rapid enough to preserve existing stocks and achieve these other objectives is unlikely to occur without the impetus of a firm Government policy and limited financial assistance

to remove fishermen and vessels to the extent necessary.

Government assistance could be in the form of a once only investment to encourage short term restructuring. The justification for Government assistance is twofold :

- because it will cement in place controls such as individual quotas with the co-operation of the industry which would otherwise be unlikely; and,
- because of the social costs to fishermen who would otherwise be forcibly removed from the fishery.

The representative committee of all industry interests (NAFMAC) made a report to Government late in 1983 and has waited patiently for some time for an indication of Government's intentions in terms of restructuring and management policy for the inshore fishery.

We understand that the inshore fishery is currently under analysis by officials and now the new Government. The Board and industry patiently await the outcome.

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P J Major  
Assistant General Manager  
(Administration and Technical)  
New Zealand Fishing Industry Board  
WELLINGTON

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