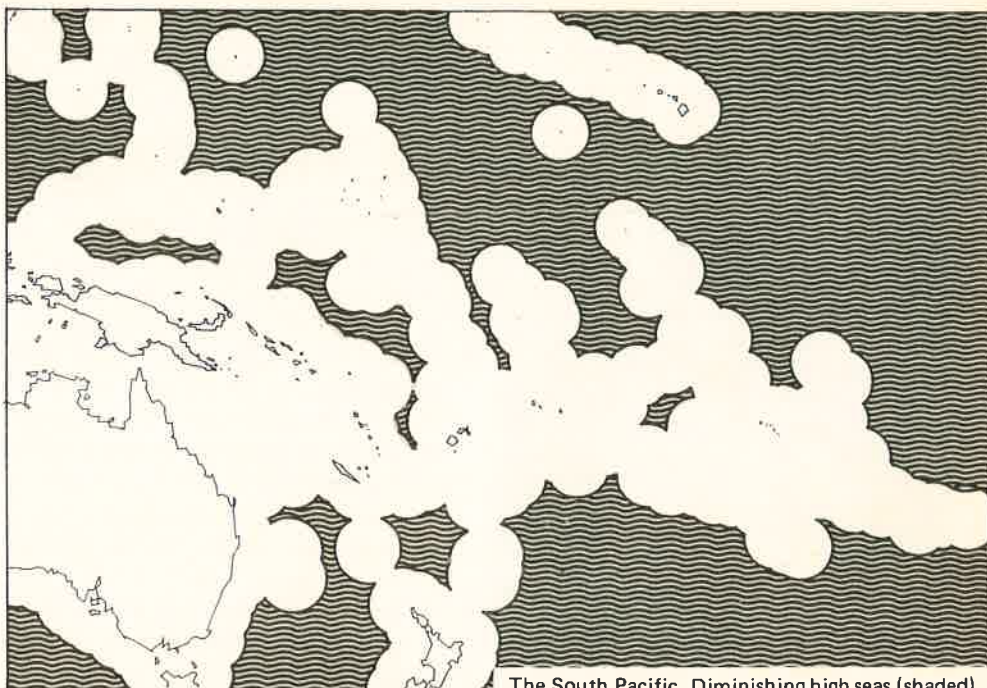


In the vast central and western Pacific Ocean, collection of comprehensive fisheries statistics is complicated by the large number of nations and territories governing the waters of the region (see map) and the prominence of highly mobile vessels from distant-water fishing nations in the exploitation of fish stocks. A regional approach to the collection of catch statistics is therefore essential. To this end, the governments of the region have approved development and implementation of a regional statistical system which recognizes both the efficiency of a regional data collection and the interdependence of fisheries in the region due to the highly migratory nature of the pelagic target species.

Rapid changes are occurring in tuna fisheries in the Pacific. Of particular importance is the trend towards purse seining and away from more labor-intensive and bait-dependent methods, such as longline and pole and line techniques. Changes in fishing areas are resulting from economic factors, such as rising fuel and labor costs and from political decisions which influence access. On a local scale, fishing patterns are changing due to technological developments, such as widespread installation of fish attraction devices.

The task of establishing the regional catch and effort database is being undertaken by the South Pacific Commission in Noumea, New Caledonia, through its Tuna and Billfish Assessment Programme (see ICLARM Newsletter, January 1982, p. 14). The Commission is ideally suited to carry out this important function since its area of responsibility includes all the smaller countries of the central and western Pacific region and since it has long-established technical and scientific expertise in the field of oceanic fisheries.

The development of a regional system of data collection began in December 1978 when an *ad hoc* meeting of the South Pacific Commission Expert Committee on Tropical Skipjack drafted catch report forms for coastal pole and line, distant-water pole and line, purse seine and longline vessels. These drafts were distributed throughout the region. At a further meeting in May 1981, amendments were made and the revised forms distributed. Several countries now require the completion of these forms as a condition of access to their waters by distant-water



The South Pacific. Diminishing high seas (shaded).

...Uniform Tuna Catch Statistics in the Central and Western Pacific...

SOUTH PACIFIC COMMISSION

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New Caledonia

fishing nations; a recommendation for exclusive use of these forms in the waters of all countries of the South Pacific Forum is now before the Forum Fisheries Committee.

Implementation of a regional database will have the following advantages for the countries of the region:

- minimal cost
- provision of data processing capabilities beyond the reach of smaller nations
- more complete coverage of catch and effort data
- uniform data collection over the whole region
- more timely and direct access to data

In the first stage of data acquisition, catch report forms are distributed to the fishing vessels by the coastal states or by the fisheries organizations in the distant-water fishing nations. Forms are completed and returned by fishermen to the South Pacific Commission in Noumea. On receipt, catch reports are acknowledged and data entry, including validation and error checking, commences. Summaries and copies of raw data files will be produced at regular intervals and forwarded

to the countries involved. The first batches of catch report forms have just begun to reach the Commission.

Extensive software has already been developed by the staff of the Skipjack Survey and Assessment Programme (completed in September 1981) and its successor, the Tuna and Billfish Assessment Programme, for validation, compilation and analysis of catch and effort data. The software has been designed to facilitate graphical displays; enable the allocation of geographic locations to fishing zones of countries in the Pacific region; perform various calendar functions; access, query and update databases and prepare concise summaries. The computer hardware currently used by the Programme is based on the HP1000 model 40 computer with appropriate visual display, printing and plotting peripherals.

With international cooperation in the region at its present high level, a comprehensive database for the pelagic fisheries of the central and western Pacific is assured. This database will provide uniform coverage of catch and effort as required for future resource conservation and economic management of the fisheries.