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SOUTH PACIFIC COMMISSION

TWENTY-SECOND REGIONAL TECHNICAL MEETING ON FISHERIES
(Noumea, New Caledonia, 6 - 10 August 1990)

COUNTRY STATEMENT - AUSTRALIA

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Country Statement

AUSTRALIA

1. INTRODUCTION

Previous RTMF country reports for Australia have documented the shift in Australian fisheries from inshore and continental shelf based fisheries to deepwater and pelagic resources. In spite of the relatively low catches of jack mackerel and southern bluefin tuna (quota restricted) recently, the trend has continued in the development of the east coast longline fishery and the deepwater trawl fishery for orange roughy (*Hoplostethus atlanticus*) in the southeast of Australia.

The following sections provide

- an overview of Australian fisheries production in 1988/89,
- a qualitative assessment of some of the major resources,
- comments on the Australian government's new fisheries policy statement,
- a brief description of some of the pelagic resources that may be of special interest to countries in the region.

2. PRODUCTION

The production of fish, crustaceans and molluscs by Australian fishermen reached 179,400 tonnes in 1988/89 (see the subset in Table 1), a 17% fall on the previous year. The abundance of fish used for fish meal production fell dramatically in 1988/89, largely attributable to natural environmental factors. Major falls in the value of production of rock lobster (23%), non-tuna finfish (10%), abalone (9%) and prawns (31%) contributed to the decline of the value of production to \$A812 million in 1988/89. Aquaculture and mariculture production increased to \$A151 million, with molluscs (the major farmed species) accounting for a value of \$A120 million. Production of oysters in 1989/90 is expected to be similar to 1988/89, with prices likely to increase around 6%.

Overseas markets for Australia's major fisheries exports were weak in 1988/89. This situation is expected to improve in 1989/90. Increased supplies of prawns, higher landings, higher oyster returns and a recover in the rock lobster market are expected to outweigh the fall in tuna production, reduced abalone supplies and lower scallop production. Prawn prices on the Japanese markets are forecast to continue to weaken in 1990 and beyond because of the continued growth in cultured prawn production by the major producing countries. Stocks of prawns in cold storage are also currently high.

Table 1. Australian fisheries production in 1988/89, by weight and value of some of the major categories.

category	'000 t	\$ million weight
prawns	19.4	170
rock lobster	18.0	195
tuna	7.4	48
other finfish	102.0	124
abalone	5.5	87
scallops	5.9	13
oysters	8.0	43

Extensive international discussions resulted in a global catch limit for southern bluefin (SBT) set at 11,750 tonnes for 1989/90. This was a reduction of 31% overall. The Australian catch limit was set at 5,265 tonnes. The Australian industry has concentrated its efforts on supplying the Japanese sashimi market. Present indications show that over 98% of all Australian SBT will enter the sashimi trade during 1989/90. Australian canneries rely on imports of other tuna for processing. Efforts are being made to find a substitute tuna from within Australian waters.

Domestically, the Government continues to develop fisheries management regimes for the major Australian fisheries. At the same time, the Government is proceeding with the Offshore Constitutional Settlement, designed to allow for State, Commonwealth or joint fisheries management responsibility under a single law thereby reducing problems of fisheries being divided into several jurisdictions.

3. STATUS OF RESOURCES AND MANAGEMENT POLICY

3.1 Status of resources

Many of Australia's fish stocks at near or beyond full exploitation and the scientific knowledge of these stocks varies widely depending on the history of research effort. The state of Australia's Commonwealth managed fisheries is summarised in very brief form below.

Table 2 **Summary status of Commonwealth (or jointly managed) commercial fisheries showing a qualitative assessment of both the stock and the knowledge base for that stock.**

Fishery	Location	Knowledge of stock¹	Exploitation level
Northern prawn	N	Adequate	Fully, some over
Torres Strait prawns	N	Adequate	Fully, some over
Torres Strait lobster	N	Adequate	Under exploited
Scallops	SE	Adequate	Dangerously over
Southern shark	SE	Adequate	Over
Southern bluefin tuna	S	Good	Dangerously over
East Coast tuna	E, NE	Inadequate	Unknown, unlikely to be over, but caution required with some species
Jack mackerel	S, SE	Inadequate	Uncertain, probably fully
Great Aust Bight trawl	S	Inadequate	Still developing
South East Trawl	SE	Adequate	Most fully, some over
- Orange Roughy	S, SE	Inadequate	Unknown, present level probably not sustainable
- Gemfish	S, SE	Good	Eastern stock dangerously over
Deepwater	W, NW	Inadequate	Fully in parts, e.g. NW crustaceans, unknown elsewhere
NW Shelf demersal	N, NW	Adequate	NW shelf over, others probably fully
East coast seamounts	E	Inadequate	Little known
Wild-caught pearl	NW, N	Inadequate	Probably over

¹Indicates whether sufficient information is available to be confident about assessment of exploitation level

3.2 Management policy directions.

A recent major policy statement "New Directions for Commonwealth Fisheries Management in the 1990's" identified resource conservation, maximising economic efficiency and obtaining a return to the community as key objectives for fisheries management. The policy statement recognises that, in fisheries where the introduction of a quota-based management system is considered feasible, individual transferable quotas (ITQs) have potential benefits over input type management controls. The use of ITQs should change the incentive structure for fishermen, foster economic efficiency by providing more clearly defined fishing rights, and accelerate the pace of adjustment necessary in many Australian fisheries.

With the use of ITQs in the southern bluefin tuna fishery since 1984, there has been a resultant improvement in industry efficiency and profitability, higher per boat catch rates, reduced fishing costs per tonne of fish caught and stronger incentives for effective marketing.

The use of ITQs is now the preferred management measure and where possible will be adopted in Commonwealth fisheries. It may, however, be necessary to implement other management controls in particular fisheries where the use of ITQs would be prohibitively costly.

Part of the proposal to reshape Australian fisheries management in the coming decade includes the proposal to create a new statutory authority within Australia's Department of Primary Industries and Energy called Australian Fisheries Management Authority. This body is expected to be formed in July 1991.

4. DETAILS OF SELECTED FISHERIES

4.1 Southern Bluefin Tuna Fishery

The southern bluefin tuna (*Thunnus maccoyii*) fishery is clearly the tuna fishery of greatest economic importance to Australia. Commercial fishing for southern bluefin tuna commenced off south-eastern Australia in the early 1950s with pole and live-bait techniques, spreading to southern Australia during the late 1950s. During the 1970s and 1980s purse seiners were successfully used in conjunction with pole and live-bait boats off southern and south-eastern Australia.

The southern bluefin tuna catch by the Australian surface fishery peaked at 21 000 t in 1982/83. However, catches in south-eastern waters slumped at that time, virtually ceasing by 1985 with the area of the fishery contracting and shifting to the west of southern Australia in subsequent years. In 1989 23 poling vessels and 4 purse seiners operated in the surface fishery off southern Australia (117-135°E) with only 13 poling vessels remaining in the westerly region (117-120°E).

Southern bluefin tuna have been fished by the Japanese using longlines in southern waters, including areas of what is now the Australian fishing zone, since the 1950s. Australia-Japan joint ventures, involving 20 and 15 Japanese longline vessels respectively were undertaken in 1989 and 1990. In 1988/89, joint-ventures reported a 684 t¹ catch of southern bluefin tuna. Four hundred tonnes of southern bluefin tuna quota is available for the 1989/90 quota year.

Following concern over the state of the southern bluefin tuna stock, quotas were introduced in 1983 in the Australian fishery

¹All weights quoted here are whole weights (metric tonnes). Standard conversions have been applied to catches of several species, such as mackerel, which are reported by fishermen as fillets.

and catches have been reduced in successive years (Table 1).

Southern bluefin tuna were taken by recreational fishermen off south-eastern Australia since the early 1900s, and later off eastern Tasmania. Strike-rates dropped significantly during the 1980s. Few southern bluefin tuna have been weighed by south-eastern Australian recreational fishermen in recent years, partly as a result of the contraction of the species' distribution and reduction in abundance and partly due to a deliberate decision by recreational fishermen not to target southern bluefin tuna.

A matter of recent concern in the SBT fishery has been the apprehension 2 Japanese longliners, one of which has been successfully prosecuted in Hobart for under-reporting of catch.

Table 3. Southern bluefin tuna catch limits and catch reported by Australia.

Year	Catch Limit (t)	Catch Realised (t)
1983/84	21 000	15 843
1984/85	14 500	13 486
1985/86	14 500	13 237
1986/87	² 11 500	11 308
1987/88	² 11 500	10 976
1988/89	6 250	5 985
1989/90	5 265	n.a.

²The global quota was set at 31 000 t in 1986/87 and 1987/88, however Australia and Japan agreed to reduce their catches to 11 500 t and 19 500 t, respectively.

Skipjack tuna, *Katsuwonis pelamis*, are a common by-catch of the surface fishery, whereas albacore, *T. alalunga*, are a by-catch of the longline fishery.

4.2 Yellowfin Tuna and Bigeye Tuna Fishery

Sporadic experimental longline fishing for tunas by small domestic vessels occurred off south-eastern Australia during the 1960s and 1970s. It expanded rapidly during the 1980s following the successful export of yellowfin tuna, *T. albacares*, and bigeye tuna, *T. obesus*, to the lucrative, fresh-chilled-sashimi markets of Japan. The fleet is currently made up of 180 vessels, of which 60-80 could be classed as specialist tuna boats. Approximately 800 t of yellowfin tuna and 10-15 t of bigeye tuna were reported by Australian longliners off eastern Australia in 1989.

Recently, considerable interest has been shown in developing a similar fishery off western Australia (Japanese longline vessels regularly fish for bigeye tuna and yellowfin tuna in the area). Currently there are several vessels longlining for bigeye tuna, yellowfin tuna and southern bluefin tuna off western Australia. In

1989 165 t of yellowfin tuna and 65 t of bigeye tuna were reported.

4.3 Recreational Fishery for Tunas and Billfishes

Tunas and billfishes have been taken by recreational fishermen off the coast of eastern Australia since the early 1900s. During the 1970s, boats, capable of operating near the edge of the continental shelf, became available at reasonable prices, so recreational fishing for tunas and billfishes grew in popularity. Fishing for tunas and billfishes is commonly undertaken under the auspices of sport and game fishing clubs and from specialist charter vessels. The recreational fishery takes a variety of species, with yellowfin tuna and black marlin particularly important.

Catch data are not routinely collected from recreational fishermen. A recent survey indicated that, in 1989, approximately 4000 yellowfin tuna and about 800 marlins were landed by recreational fishermen off eastern Australia. Many tuna and billfish caught by recreational fishermen are tagged and released (2267 yellowfin tuna and 1307 marlins were reported tagged and released in 1989).

Game fishing also occurs in other areas, with lower levels of activity and smaller total catches. A game fishery for blue marlin, *Makaira mazara*, and sailfish, *Istiophorus platypterus*, is developing in waters adjacent to North West Cape (22°S). Black marlin, *Makaira indica*, are occasionally taken and the area also holds potential for game fishing for tunas, such as yellowfin tuna. Several charter vessels operate out of Exmouth (22°S) throughout the year, while amateurs generally fish during winter months. Approximately 100 marlin have been weighed at Exmouth. Large blue marlin (200-350 kg) are also taken off Fremantle (32°S) during March-May. Catches of marlins and sailfish have also been reported from Christmas Island and the Cocos (Keeling) Islands. Further north, sailfish and marlin (mainly black marlin, but also blue marlin) are occasionally taken by amateurs operating from Nhulunbuy (137°E) and Darwin (130°E).

4.4 Skipjack Tuna Fishery

For many years fishermen have speculated about the potential for a major skipjack tuna fishery in Australian waters. However, the appearance of skipjack tuna in the Australian fishing zone is variable. Despite several exploratory surveys during the 1980s operators have not, as yet, been able to establish a viable large-scale commercial fishery for skipjack tuna. Nevertheless small-scale purse-seining for skipjack tuna and poling for skipjack tuna and yellowfin tuna exist off south-eastern Australia. Annually catches have generally been less than 1000 t.

4.5 Blue Mackerel

Blue mackerel, *Scomber australasicus*, are commonly taken as a by-catch of the purse seine fishery for jack mackerel, *Trachurus declivis* (F. Carangidae), off eastern Australia. Small catches (15 t) of blue mackerel are reported from western Australia. Jack mackerel and blue mackerel are mostly used for fish meal for aquaculture and pet food. Blue mackerel are also used for bait with small quantities marketed for human consumption.

4.6 Northern Shark and Longtail Tuna Fishery

A fishery for shark, mainly *Carcharhinus tilstoni* and *C. sorrah*, and longtail tuna, *T. tonggol*, was operated by Taiwanese gillnet vessels off northern Australia during 1974-86. Several Australian vessels, using short sets (20-120 minutes) of small gillnets (normally less than 600m), fished in the area since the cessation of Taiwanese operations. Shark constitute about 80% of the catch of the Australian fishery with the by-catch consisting of longtail tuna, narrow-barred Spanish mackerel, *Scomberomorus commerson*, and, occasionally, marlins and sailfish. Total annual catch has fluctuated between 100 and 500 t in recent years.

4.7 Mackerel Fishery

A major fishery for mackerel, principally grey mackerel, *Scomberomorus semifasciatus*, and narrow-barred Spanish mackerel, is well established off north-eastern Australia (north of 28°S). Smaller fisheries exist off western Australia, between 35 and 20°S and a mackerel fishery is developing off northern Australia. A diverse range of vessels are used in the fisheries, with many involved in other fisheries. Mackerel are caught by trolling lures and jigs, with small quantities taken by gillnet. All mackerel are sold on local markets, for domestic consumption.

In 1989 the mackerel catch off eastern Australia exceeded 1000 t. Approximately 150 t and 300 t of mackerel were respectively reported from western Australia and northern Australia in the same year.

Mackerel are also an important target of recreational fishermen off north-eastern, northern and north-western Australia, with activity presumably focused on areas adjacent to population centres. No catch statistics are available for the recreational fishery.
