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REVIEW OF PAPUA NEW GUINEA'S RESEARCH WORK PROGRAMME IN COASTAL WATERS

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Papua New Guinea has placed high priority on the development of its coastal fish resources. There are extensive areas of reef which are only lightly fished at present and there appears to be considerable potential for development. This development is dependent on a number of factors and Fisheries Research during 1982 and 1983 has concentrated on two particular aspects - the development of alternative fishing techniques, and the introduction of new fishing craft for use in the coastal waters.

Papua New Guinea, with assistance from the SPC, has been assessing the effectiveness of deep-line fishing, from January to April 1982. Mr T. Fusimalohi, a master-fisherman from the South Pacific Commission, trained fishermen and scientists in deep-reef bottom hand-lining.

Bottom fishing was carried out at depths between 80m and 280m, using wooden hand-reels equipped with over 300m of monofilament line. A total of 15 trips were made, seven trips around Port Moresby, four in Milne Bay and four around Manus Island.

Average catch rates for each area are given in the table below, and the overall average, 3.68kg (fresh weight)/line hour (excluding sharks) compares favourably with catch rates from elsewhere in the South Pacific.

Average catch rates for the three areas fished

<u>Area</u>	<u>Average Catch Rate</u> (kg fresh weight/line hour)	<u>Effort</u> (line hours)
Port Moresby	3.99	72
Milne Bay	2.50	114
Manus Island	4.55	126
Average	3.68	

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It is recognised by the Fisheries Division however that an improvement in the local fishing craft is essential if the inshore fishery is to develop. In February 1983, UNDP funded a visit by a naval architect (Mr O. Gulbrandsen) to try to establish which type of vessel would be most suitable for the local conditions. His recommendation was that as a first step towards the development of an artisanal fishery, an eleven metre, plywood canoe with outrigger should be considered. The canoe would be powered by a 15hp outboard engine and also have a low-aspect ratio sailing rig, probably a balanced lug sail. Plans for the vessel have now arrived and the first canoe is under construction at Mewak (East Sepik Province) where it will undergo rigorous testing. In addition a British designed catamaran, the Sandskipper, is also being constructed. This vessel was originally designed under the sponsorship of the British Overseas Development Administration for use in tropical small scale fisheries. It is a sail-assisted craft using a light diesel engine. The design is thought to be eminently suitable for reef and deep-water reel fishing and the first vessel will be tested in the Port Moresby area later this year.

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