AN INTRODUCTION AND BACKGROUND TO THE BAITFISH RESEARCH PROJECT IN EASTERN INDONESIA

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Pole-and-line fishing for tuna is a multi-million dollar industry in eastern Indonesia that employs many people, supports several canneries and generates export income. In contrast to the more industrial tuna fisheries in the Pacific it comprises many thousands of small artisanal wooden vessels and separate baitfish catching vessels. Its development is presently constrained by a shortage of baitfish, the important species of which are also utilised as human food in this region. There has been a lack of data on the exploitation and stocks of the baitfish used by the fishery in Indonesia.

In order to help answer some of these questions a collaborative research project between CSIRO (Australia) and the Research Institute for Marine Fisheries (RIMF) (Indonesia) on tuna baitfish in eastern Indonesia began in July 1995 and ran until 1999. This project resulted from approaches by the Indonesian government to CSIRO and formal requests for funding to the Australian Centre for International Agricultural Research (ACIAR).

A feasibility study was completed in May 1994 and identified the most pressing problems that could be tackled by an ACIAR/CSIRO project. Also at the instigation of ACIAR, those technical baitfish handling aspects of the problem that could not be tackled by an ACIAR project were taken up by the Western Pacific Fisheries Consultative Committee (WPFCC) who undertook a field survey of tuna baitfish capture and handling techniques in eastern Indonesia in September 1993 (Itano, 1993) funded through Canadian aid. Their report (Itano, 1993) includes comprehensive data on fishing vessels, fleet sizes, baitfishing techniques, baitfish catch species composition and problems associated with baitfish supply. It also makes recommendations for improving the efficiency of the industry.

The ACIAR/CSIRO feasibility study showed that the important biological problems were in relation to data analysis, stock assessment and overall management. Hence the collaborative CSIRO/RIMF project aimed to analyse all existing baitfish catch records, to provide stock assessment and biological data, to train Indonesian fishery scientists, and to develop appropriate management plans for the sustainable use of baitfish.

The Indonesian State Fisheries Enterprises had a major role in the project and were involved in the research and will utilise the results. The main beneficiaries of the project are the many thousands of artisanal tuna fishermen and similar numbers of coastal people involved in catching baitfish, as well as the fishing companies, both state and private, which buy most of the tuna caught by the artisanal fishermen. The research was able to capitalise on the experience and expertise gained during previous successful ACIAR funded CSIRO studies of tuna baitfish in the Pacific and Indian Oceans. This research led by CSIRO began in 1986 in the Solomon Islands and the Maldives, and the results from the project were reported at an international baitfish conference in Honiara in December 1989 (Blaber & Copland, 1990). The outcomes engendered much interest throughout the South Pacific, and led to a second phase of the project incorporating Kiribati and Fiji from 1990 to 1993. An extensive series of scientific papers and fisheries articles resulted from the baitfish projects and a complete bibliography is included in this introduction. Most of the important biological and ecological questions about baitfish had been answered during the course of the research, and hence the work in Indonesia that began in 1995 could be tightly focused on issues particular to, and critical to the fishery in eastern Indonesia – namely, analysis of existing catch data, ways of assessing stocks, and management options.

Prior to the collaborative project the Indonesian Research Institute for Marine Fisheries in Indonesia had already undertaken considerable research into various aspects of baitfishing, much of which was relevant to, and provided vital background for the project. It included:

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