

INTRODUCTION

The staging of a workshop on contaminants in waters of the Great Barrier Reef (GBR) was considered timely in view of both:

- a) reports (e.g. Mackay Mercury, 6/3/84; Age, 28/2/84; Latrobe University Record, February/March 1984) about the discovery of polychlorinated biphenyls (PCBs) in GBR organisms; and
- b) the wide range of contaminant research studies, either recently completed, or in progress, of which the Authority had only limited knowledge.

As a consequence of discussions with researchers engaged in contaminants studies in the GBR Region (outlined in Figure 1), the workshop was focussed on the following contaminant groups:

- a) heavy metals
- b) polychlorinated biphenyls and other organochlorines, and
- c) hydrocarbons

These groups broadly correspond with three of the four contaminant groups addressed in the Australian Musselwatch program (Baker, 1983), the exclusion being radionuclides, which have not been investigated in any detail in the GBR Region to date.

With respect to each of the three contaminant groups, the workshop objectives were defined as:

- 1) To receive and discuss the findings of recent contaminant research studies in the Great Barrier Reef Region, considering in particular:
 - a) sampling design and methods;
 - b) analytical techniques;
 - c) comparative national and international levels and their significance; and
 - d) an evaluation of the degree of threat which the measured levels are believed to pose to organisms and ecosystems of the GBR.
- 2) To determine what critical information deficiencies (if any) exist in relation to our understanding of the source, level and fate of marine contaminants in the GBR Region, and to identify how these could be overcome.

- 3) On the basis of (1) and 2) above, to determine priorities for further research in this field and how further research effort could best be coordinated. This should include consideration of parameter selection; design, techniques and frequency of sampling; analytical methods and intercalibration and how spatial and temporal variability may influence the design of cost-effective research.

Participants in the workshop included researchers who have had direct involvement in contaminant studies in the GBR Region and/or a comprehensive understanding of research issues and methods, and Commonwealth and State Government officers including staff of the Authority. A complete list of all participants is set out in Appendix A.

Appendix B outlines the workshop program. The format of the workshop was intended to enable discussion of each contaminant group and objective at a range of scales. The morning sessions comprised three concurrent small group presentations and discussions. They were followed by two Plenary sessions, the first of which involved outlines of small group discussions and summation of common findings and issues. The second Plenary session expanded to an 'open forum' discussion of broader issues such as monitoring design and research needs, information deficiencies and management priorities.

Throughout the workshop, participants were directed to keep in mind the management relevance and implications of matters under consideration. This control on workshop scope and direction was considered vital if the Authority, as the principal agency responsible for the care and development of the Great Barrier Reef Marine Park (Figure 1), was to receive practical guidance on matters such as the nature and degree of threat which contaminants pose to the ecosystems of the Great Barrier Reef.

Provision was also made, as appropriate, for consideration of broader scientific questions and concerns relating to sampling design and laboratory techniques and intercalibration. These were considered to be important influences on the applicability of research findings to management of the GBR.