



Map of the Torres Strait Region

Executive Summary

Torres Strait Baseline Study

In July 1989 the Prime Minister of Australia, the Rt. Hon. R.J.L. Hawke, MP, announced, as part of his statement on the environment, which was later published as *Our Country, Our Future*, that the Australian Government would fund a four year environmental study of the Torres Strait marine environment. This study, the Torres Strait Baseline Study, was instigated in response to concerns expressed by Torres Strait Islanders, commercial fishermen and scientists, about possible effects on the marine environment of the Torres Strait from mining operations in the Fly River catchment area of Papua New Guinea.

These concerns reflected those expressed at the Torres Strait Fisheries Seminar held in Port Moresby in February 1985. At the seminar the following statement was endorsed:

Because the Fly River is the largest and most important freshwater input into the Torres Strait region, the participants of the Torres Strait Fisheries Seminar wish to express serious concern over the possible effects that dumping of Ok Tedi mining wastes in the Fly River may have, directly or indirectly, on Torres Strait fisheries.

At that seminar it was recommended that a scientific environmental monitoring programme be established as soon as possible to investigate the problems of possible contamination of the Torres Strait marine environment.

Since the establishment of the Torres Strait Baseline Study concern over potential environmental damage to the Torres Strait has increased. In addition to the mine at Ok Tedi in the Western Province there are now gold mining operations at Porgera in Enga Province, and the alluvial gold fields at Mt Kare, also in Enga Province are expected to commence production soon. Both these operations are near the headwaters of the Strickland River which feeds into the Fly River. Also, the development of the Lake Kutubu oil project which will have a marine oil loading terminal in the Gulf of Papua near Cape Blackwood has caused concerns among the Torres Strait Islanders as oil tankers are expected to pass through the Great North East Channel in the Torres Strait.

Funds for the Baseline Study were allocated for 1989/90 (\$150 000), 1990/91 (\$200 000), 1991/92 (\$200 000) and for 1992/93 (\$200 000) and the Great Barrier Reef Marine Park Authority in Townsville was charged with the management of the project. The Torres Strait Baseline Study commenced in May 1990 with the appointment of a Coordinator, and a part-time Scientific Adviser based in Townsville and an Assistant Coordinator based at Thursday Island.

The study will collect data which will determine whether there is evidence of contamination of the marine environment and aim to provide background information for options for managing and protecting the Torres Strait marine environment as required under Article 13 of the Torres Strait Treaty. The scientific programme is managed by the Great Barrier Reef Marine Park Authority, advised by the Torres Strait Baseline Study Advisory Committee which is comprised of representatives from the mining companies, Papua New Guinea Government officials, the Commonwealth Government and the Queensland state Government, scientists and academics as well as a representative from the Torres Strait Islander communities.

Torres Strait Baseline Study Conference

The first task presented to the Torres Strait Baseline Study managers was to organise a conference on the physical, biological and human environments of the Torres Strait region. The conference was designed to be a forum for the presentation of papers concerning research undertaken in the Torres Strait region and a means for the presentation, and discussion, of the proposed scientific programme of the Baseline Study. The conference on "Sustainable Development for Traditional Inhabitants of the Torres Strait Region" was held at the Kewarra Beach Resort, north of Cairns, Australia, between 19 and 23 November 1990. This publication contains the official proceedings of that conference.

The conference was unusual in that it brought together many different points of view, cultural outlooks and academic opinions. The success of the conference was, in many ways, determined by the level of interaction, both formal and informal, between so many different groups and individuals.

The objectives of the conference were: to bring together current information on the Torres Strait environment having regard for the impact of mining operations in the Fly River catchment area; to consider ways in which environmental protection and economic development of the region can be mutually compatible, rather than contrasting objectives; and, to consider ways in which the long-term economic and environmental well-being of the traditional inhabitants of the region can be sustained.

The Torres Strait is an area of considerable ecological, biological and cultural diversity. This diversity was shown in the wide range of papers presented by the participants at the conference. This diversity also makes a study of the Torres Strait marine environment not only interesting, but complex. In order to address the needs of the Islander and Papuan peoples, as well as scientists, academics, government officials and researchers present, the conference programme was divided into three parts: Physical Environment, Biological Environment and Human Environment.

Conference Programme

The conference was opened by Mr Graeme Kelleher, Chairman of the Great Barrier Reef Marine Park Authority who spoke on the importance of protecting the cultural and environmental heritage of the peoples of the Torres Strait region while recognising that development of the region must be sustainable, ecologically, socially and economically.

In reply Mr Getano Lui Jnr., Chairman of the Island Coordinating Council, and Chairman of the Yam Island Community Council, addressed the conference on the concerns of Torres Strait Islanders who, he stated, had not been accorded the rights and privileges available to all Australian peoples, and that many Islanders regarded themselves as a forgotten people. Mr Lui Jnr stressed that the Torres Strait Islanders are a separate, and a proud people, with a strong economic, cultural and spiritual attachment to the waters and the reefs of the Torres Strait region. Islanders, he stated, know that their life and livelihood depends on the quality of the marine environment. The people of the Torres Strait want genuine economic and political development, not welfare based development. The Torres Strait Treaty recognises the need for protecting the traditional way of life and livelihood of the traditional inhabitants. It is, he remarked, therefore crucial that all activities in the Torres Strait acknowledge the rights and customs of the Islanders. Australia has a duty to improve the well-being of the Islander people and needs to be more active in the protection of the Torres Strait Islanders' way of life.

In his reply to the address by Mr Kelleher, Mr Clement Hesaboda, the President of the Kiwai Local Government Council, acknowledged the genuine concerns of the coastal Kiwai people of the Daru region about the possible effects of mining pollution on the subsistence economy of the Papuan people. He stated that the local people could not understand the reasons for the decision to dump tailings directly into the Fly River system for the people could see for themselves the effects of pollution on the river system. Papua New Guinea, he stated, must also assume responsibility for the protection of the marine environment of the Torres Strait region.

The formal presentations at the conference and the publication of the proceedings follow the conference programme and are grouped into three main headings:

Physical Environment of the Torres Strait Region

Papers presented in the section on the Physical Environment covered a variety of topics including climate change and the impact of sea level rise, oil spill contingency planning in Papua New Guinea, metal distribution in sediments of the Fly River delta, sedimentation in the Fly delta and northern Torres Strait and water circulation

in the Torres Strait. Other papers presented in this session included a detailed description on the environmental monitoring programmes being managed by both the Ok Tedi Mining Company and environmental staff at Porgera Joint Venture. As well, papers on the work being undertaken by the National Analytical Laboratory at Papua New Guinea University of Technology, Australian food standards for heavy metals and the transformation and fate of heavy metals in the marine environment were also presented.

Biological Environment of the Torres Strait Region

In the Biological Environment programme papers were presented on topics which included the status of dugong in Torres Strait, Queensland state Government research on commercial prawns, biological oceanographic measurements being undertaken in the Torres Strait and the Far Northern Great Barrier Reef and marine turtle resources in Torres Strait. The complexities of the biological environment were detailed in papers on Australia's fisheries research in the Torres Strait region, the artisanal turtle fishery in Daru, detrital movement from the Fly River system into the Gulf of Papua, management of the rock lobster fishery in the Torres Strait, and biological research being undertaken in the Fly River system by the Ok Tedi company. Queensland government policies for fisheries management in the Torres Strait as well as proposals to enhance the commercial rock lobster fishery, scientific research into trace elements in clams from the Torres Strait and the use of *Tridacna* as bio-indicators of trace metal pollution were also described.

Human Environment of the Torres Strait Region

Papers presented in the programme on the Human Environment included an examination of the importance of the marine environment to Torres Strait Islander culture in the western islands and in the eastern islands, the impact of large scale mining on the Wopkaimin landowners in the Ok Tedi region and the subsistence economy of the coastal Kiwai of the Daru region. Papers on the need for an information database of resource development activities, the results of a traditional fishing study of the Torres Strait, possibilities and limitation on indigenous economic development in the Torres Strait region, the effects of bureaucratic concentrations on Thursday Island and the growing internationalism of indigenous people were presented to the conference. The proceedings also include papers on the environment and human ecology in the middle Fly region, the political and environmental aspects of the Torres Strait Treaty, and the problems and future directions of the Maza Wildlife Management Area in the Western Province.

Concluding Remarks

On the final day of the conference the role of the Commonwealth Government in the Torres Strait Baseline Study was described and a briefing on the political, cultural and administrative background to the Baseline Study programme was given. The scientific programme was presented to the conference for consideration and discussion. The concluding remarks by Dr John Cordell from the Cultural Survival organisation described the growing empowerment of indigenous peoples and their need to appreciate the growing importance of environmentalism in their movement towards self-management and conservation of resources.

As a separate but related issue to the conference, the Papua New Guinea Department of Environment and Conservation also presented their proposal for a marine environmental management plan for western Papua.

It is difficult to evaluate the results of a conference such as this one. The complexities of scientific research, the multiplicity of views on environmental protection and sustainable use of biological resources as well as the myriad layers of social, cultural and economic systems in a diverse environment such as the Torres Strait region may seem to confuse issues rather than clarify them. However, it is rare for physical and biological scientists to have to explain their research to social scientists, traditional inhabitants and government officials. Similarly, social scientists rarely interact with biological and physical scientists. It is hoped, therefore, that the publication of these proceedings will enable Islanders, Papuans, academics, scientists and government officials to understand, more fully and at leisure, the problems and prospects of the Torres Strait from a variety of perspectives.

Acknowledgements

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Dr Donald W. Kinsey, Executive officer of the Great Barrier Reef Marine Park Authority was Chairman of the conference. The organisers would also like to thank Mr Simon Woodley, Assistant Executive Officer, Research and Monitoring for assistance during the conference with the preparation and presentation of daily summaries of the proceedings. The Coordinator and editor of these proceedings would especially like to thank Beryl Dennis for her assistance with proof-reading the proceedings, and Tim Cansfield-Smith for his work in organising the programme, managing the operations of the conference and assisting with the publication of these proceedings.

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