IGU Commission on the Coastal Environment

Report on Activities 1980–1983

During the 24th International Geographical Congress in Tokyo in September 1980 the General Assembly approved the continuation of the Commission on the Coastal Environment for a further four years, retaining Eric C. F. Bird (Australia) as chairman and H. J. Walker (USA) as vice-chairman. The other members are J. Norrmann (Sweden), R. Paskoff (France), K. Koike (Japan), and V. P. Zenkovich (USSR), and there are 120 corresponding members representing the coastal countries around the world.

The five projects carried out in the previous period, 1976–1980, were reported on in a volume, *Coastal Dynamics and Scientific Sites*, edited by E. C. F. Bird and K. Koike, and published by Komizawa University, Tokyo, in 1981. For the 1980–84 period, four major projects have been active: the documentation and analysis of coastline changes (convenor: E. C. F. Bird), the impact of man on coastlines (convenor: H. J. Walker), man's response to coastal changes (convenor: K. Ruddle), and coastal management (convenor: J. Norrmann). While much of this work is conducted and co-ordinated by mail and through the Commission's Newsletter (Nos. 10 to 15 since 1980), reviews have been carried out during meetings in Venice, Italy (May 1982) and Cabo Frio, Brazil (August 1982), and final reports will be prepared in time for a concluding symposium in France in September 1984.

Commission members have contributed to a major work, *The World's Coastline* (edited by E. C. F. Bird and M. L. Schwartz), which is with the publishers, Hutchinson & Ross. This includes illustrated accounts of the world's coastline in 139 sectors. Other co-operative ventures include an inventory of the world's major Coastal Lagoons, prepared for the UNESCO Division of Marine Science, and a four-yearly *Bibliography of Coastal Geomorphology*, the next issue of which (1979–1982) is being compiled by R. Paskoff.

Much interest has been aroused by the Commission's work demonstrating the modern global prevalence of erosion on sandy coastlines, published in R. Paskoff's *L'érosion des côtes* (1981). On the world scale, attempts to counter this erosion, either by building protective structures, or by artificially re-nourishing depleted beaches, or by re-locating coast roads and coastal developments, are immensely expensive. The Commission has put forward a multicausal analysis of the beach erosion phenomenon, and has selected a number of sites for detailed survey and monitoring to derive a qualitative analysis as a basis for modelling sandy coastline dynamics in a range of environmental situations. This work is of importance to coastal engineers, whose operations do not permit so wide an approach to the analysis of erosion and deposition on coasts as has been used by this Commission.

Mapping and documenting the various responses to this prevalence of coastal erosion in recent decades has proceeded with particular attention to Japan, Australia, South Africa and the United States. As well as demonstrating the extent and rapidity of artificialisation of coastlines, this work has proved useful to coastal planners and developers anxious to avoid the high costs of protecting structures built too close to eroding coastlines. In resort areas, artificial beach nourishment is now widely used to restore recreational areas, but as these are usually depleted by further erosion this becomes a recurrent expense.

In face of continuing development of ports, industrial centres, urban areas, resorts, and recreational facilities along coastlines, most countries have now made efforts to identify and safeguard sectors of coastline that are of outstanding scenic or scientific or cultural significance, declaring various kinds of coastal reserves, including National Parks and Nature Reserves. The Commission has been developing methods of inventorying coastal resources as a basis for the zonation that is required for the implementation of coastal management, and comparing the various approaches to coastal management in countries around the world.

In these various ways the Commission on the Coastal Environment has sought to foster coastal research and its applications in coastal management, and has shaped a substantial contribution from geographers (mainly physical geographers) in this field, as well as co-operation with geologists, ecologists, marine scientists, engineers, and planners. In building up an international team of geographers and geomorphologists we have become aware of the many problems that require an inter-disciplinary approach. It is now possible that the Commission will form a focus for the growth of a new multidisciplinary organisation to foster international coastal research.

Department of Geography, University of Melbourne
Parkville 3052, Australia

Eric C. F. Bird
(Chairman)

New Activities in Maritime Geography

A Working Group has been established on the joint initiative of Professors Dr. Heinz Klug and Dr. Dieter Kelletat (of the Geography Departments, Universities at Kiel and Essen, FR Germany, respectively) to further studies in the

Geography of the Coasts and the Seas.

The founding meeting was held on occasion of the 44. Deutscher Geographentag at Münster, FR Germany, on May 25, 1983 with some 50 geographers present. Among the goals of the Working Group are:

Accomplishment of symposia (incl. excursions) preferably of interdisciplinary character

Execution of field studies (European coasts mainly)

Information dissemination by means of publication of bibliographies of current publications

Clearing terminology

International cross fertilization

Those feeling intrigued to contributing to the success of the Working Group are welcome to contact either one of the initiators.