

## ANNOUNCEMENT

### IGCP Project 200 (1983–1987)

#### Late Quaternary Sea-Level Changes: Measurement, Correlation, and Future Applications

*Aim.* Project IGCP-200 is a plan to identify and quantify the processes of sea-level change by producing detailed local histories that can be analyzed and correlated for tectonic, climatic, tidal, and oceanographic fluctuations. The ultimate purpose is to provide a basis for predicting near-future changes for application to a variety of coastal problems, with particular reference to densely populated low-lying coastal areas. Sea-level variations are actually a complex of local, regional, and global processes. Sea-level data contain a wealth of information concerning internal and external effects and provide the only possibility for reconstructing palaeogeoid surfaces and testing complex models. Project IGCP-200 intends to investigate thoroughly these modulating factors and their interactions, in order to attempt a definition of the temporal, areal, and altitudinal scales at which changes in sea-level occur, with the associated effects on coastal and shelf deposit evolution and the separation and quantification of the causes of these changes (e.g., eustasy, isostasy, rheology, tectonics, climate, oceanic changes, astronomical effects, human influences).

*Periods of time studied and geographical areas of investigation.* Much of the research foreseen will focus on processes operating over varying intervals of time, ranging from a few years to a few thousand years. However, adequate prediction of sea-level change also requires lines of research concerned with the study of much longer time intervals within the late Quaternary. The wide span of time scales is matched spatially in that objects of study will range from single stations or profiles to the earth as a whole.

*Disciplines concerned.* Such a differentiated time–space matrix invites and requires collaboration and interaction among researchers of a wide range of disciplines: geologists, geophysicists, oceanographers, marine biologists, palynologists, climatologists, geochronologists, historians, geographers, anthropologists, archaeologists, sedimentologists, and coastal engineers.

*Lines of approach.* Three main lines of approach are adopted:

1. Collection, analysis, interpretation, and correlation of new and existing sea-level data, both from areas deficient in data and from key areas providing diagnostic evidence to evaluate assumptions underlying any models which may be developed.

2. Survey and data analysis of coastal and shelf deposits to provide valuable information on resource exploitation, coastal land use planning, land subsidence, reclamation, aquaculture, and ecological studies.

3. Analysis of tide-gauge records and the modeling of other short-term sea-level fluctuations, such as changes of tidal range, storm surges, and tsunamis, using computer simulation techniques carefully controlled by reliable, accurate sea-level data.

Those interested in participating in the activities of Project IGCP-200, please contact:

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