

COOP ACTIVITIES 2001-2002

(Submitted by IOC)

Summary and purpose of document

To inform CGMS Members of COOP Activities for
2001-2002

ACTION PROPOSED

CGMS Members to note and comment, as appropriate, on COOP Activities for 2001-2002

DISCUSSION

1. The Coastal Ocean Observations Panel (COOP) met three times in 2001-2002 (COOP II in Trieste 6-8 June 2001, COOP III in Hanoi 16-18 Jan 2002 and COOP IV in Cape Town 24-27 September 2002). The overriding goal for the first four sessions of COOP had been to finalise the integration of the C-GOOS, HOTO and LMR design plans by the end of COOP IV. An outline of the plan and an inter-sessional action plan were completed at COOP II. A draft was completed during the intersession and discussed at COOP III. The draft was sent out for external review to some 30 marine scientists, coastal managers and program managers during August 2002. The draft document was revised at COOP IV and the final version is expected to go to print by the end of 2002.

2. A major challenge has been the development of a clear vision of the global system of observations and its relationship to national GOOS programmes and GOOS Regional Alliances (GRAs), e.g., what variables should be measured and processed as part of the global system and how will a global system emerge given the importance of GRAs and national GOOS programmes in the development of the coastal module as a whole.

3. A major activity that had to be completed before significant progress could be made toward finishing the plan was the identification and specification of variables to be measured as part of the global system. The global system of coastal observations is the focus of the design plan. The purpose of the global system is to maintain the observational and data management infrastructure that will benefit national and regional observing systems in several important ways:

- provide a network of reference stations and sites (including "sentinel" stations as early warning indicators, i.e., advanced warnings of events and trends and to allow adaptive monitoring for improved detection and prediction);
- establish standards and protocols for measurements, data dissemination and management;
- link the large scale network of observations for the ocean-climate module to the local scales of interest in coastal ecosystems;
- provide the means for comparative ecosystem analysis required to understand and predict variability on the local scale of interest;
- provide economies of scale that will improve the cost-effectiveness of national and regional observing system by investing in a global system that minimizes redundancy and optimizes data and information exchange; and
- facilitate capacity building.

4. The global system will measure and manage a small set of common variables that are required to detect and predict most of the phenomena of interest. . In this regard, it must be emphasized that measurements of the common variables, in themselves, will not provide the all of the data required to detect and predict changes in or the occurrence of many of the phenomena of interest. Exceptions are in the categories of improved marine services and forecasts of natural hazards where measurements of chemical and biological variables are not required. For most of the phenomena of interest in the public health, ecosystem health and living marine resources categories, it is likely that more variables will have to be measured with greater resolution on local and regional scales.

5. A major effort has been made to develop an objective and rational procedure for the selection of common variables for the global system. The procedure involves a series of matrix analyses that provides a quasi-objective prioritization of variables as follows:

- (1) Which phenomena of interest (sea state, coastal flooding and erosion, harmful algal blooms, declines in fish populations, etc.) are relevant to the needs of the greatest number of user groups (weight the phenomena of interest in terms of the number of user groups that need information on them)?
- (2) What variables are needed to detect changes in or the occurrence of the phenomena of interest (rank the variables in terms of the number of phenomena they are relevant to for detection)?
- (3) What variables are needed to predict changes in or the occurrence of the phenomena of interest (rank the variables in terms of the number of phenomena they are relevant to for prediction)?

6. The final result is based on the weighted average of (2) and (3). A COOP subcommittee complete a first cut at this analysis. The results have been distributed to the full panel for their review. Each panel member was asked to focus on their area of expertise and change the results as they saw fit as long as they could justify all changes.

7. At COOP IV, discussions on an implementation plan were started and the development of an implementation plan is expected to take three additional sessions of COOP.