

**MEMORANDUM OF UNDERSTANDING BETWEEN
THE UNITED NATIONS EDUCATIONAL SCIENTIFIC
AND CULTURAL ORGANIZATION**

AND

THE UNIVERSITY OF PUERTO RICO

This Memorandum of Understanding is drawn up between the United Nations Educational, Scientific and Cultural Organization, Rue Miollis, Paris, France, hereinafter referred to as UNESCO and the University of Puerto Rico, represented by its Sea Grant College Program, Mayaguez Campus, Mayaguez, Puerto Rico, hereinafter referred to as the University.

Whereas UNESCO has initiated and maintained a coast and beach stability project in the Caribbean since 1985, referred to as COSALC and described in Addendum I to this Memorandum of Understanding,

And whereas the University, since 9th March, 1994, has performed as a regional, scientific coordinating centre for COSALC providing the functions of coordination, provision of scientific expertise, training and extension services,

Now therefore the parties agree as follows:

- gms*
1. The coordinating centre and official address for COSALC, until further notice from the University, shall continue to be the Sea Grant College Program, University of Puerto Rico, P.O.Box 9011, Mayaguez, Puerto Rico 00681-9011.
 2. The University shall continue to make available to COSALC the following: office space, furniture, use of equipment (computers, printers, facsimile), telephone and electrical services, stationery supplies and secretarial support.
 3. The University shall continue to provide scientific expertise, printing and extension services whenever possible and subject to availability of funds and time to assist with the programme implementation and training activities of COSALC.
 4. UNESCO shall continue to provide some financial support to COSALC for programme activities relating to beach resource management in the islands, essentially for capacity building and institutional strengthening, training and awareness activities, subject to the evolution of its Coasts and Small Islands Programme and its budget which is dependent upon the decision of the General Conference of UNESCO. The details of the financial support and programme activities shall be agreed upon by the parties through subsequent fee contracts.

5. The coastal expert previously employed by UNESCO since 1985, Dr. Gillian Cambers, shall continue to work with COSALC subject to the availability of funding and the terms of her employment.
6. UNESCO and the University shall seek additional funding for COSALC programme activities and expenditures as outlined in Addendum II to this Memorandum of Understanding.
7. All work within the COSALC programme during the time covered by this Memorandum of Understanding shall include appropriate credits to both parties to this Memorandum of Understanding.
8. This Memorandum of Understanding shall enter into effect on the date of its signature and, subject to the decisions of the General Conference of UNESCO, shall remain effective until 31st December 2002.
9. Either party shall have the right to terminate this Memorandum of Understanding by giving three months written notice to the other party.

In witness whereof the parties agree to this Memorandum of Understanding.

On behalf of UNESCO

Signature

M. Iaccarino

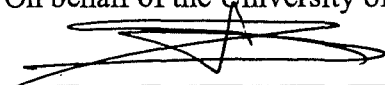
Name

Assistant Director General for Science

Title

Date

On behalf of the University of Puerto Rico



Signature

Prof. Ruperto Chaparro-Serrano

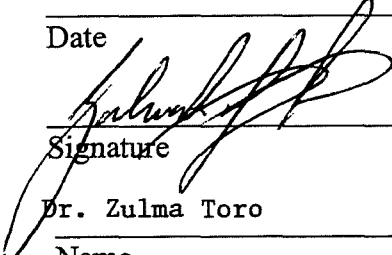
Name

Acting Director, Sea Grant
College Program, UPR

Title

September 30, 1999

Date



Signature

Dr. Zulma Toro

Name

Chancellor, Mayagüez Campus
University of Puerto Rico

Title

October 18, 1999

Date

ADDENDUM I DESCRIPTION OF COSALC

COSALC (Coast and Beach Stability in the Caribbean) was started in 1985 within UNESCO's Coastal Marine programme (COMAR), in response to concerns expressed by the smaller islands of the Eastern Caribbean relating to the serious nature of beach erosion and its impacts on the vital tourist industry.

Between 1985 and 1994 the programme concentrated on three major activities:

- Assessment of coastal erosion problems and in-country workshops to create awareness and determine needs;
- Preparation of educational and awareness materials relating to each island's specific situation;
- Establishing and maintaining beach change monitoring programmes in Anguilla, Antigua-Barbuda, British Virgin Islands, Dominica, Grenada, Montserrat, Nevis, St. Kitts and St. Lucia. Training was provided to persons and agencies in each island to undertake the field monitoring and simple data analysis. Standardized methodology was developed and used in each island. The islands were assisted with the interpretation and application of their beach change databases.

Between 1994 and 1996, the University of Puerto Rico Sea Grant College Program (UPR/SGCP) entered into an agreement with UNESCO to perform as a coordinating centre for COSALC. During this period, the following major activities were undertaken:

- The beach change monitoring programmes were maintained and expanded to include St. Vincent & the Grenadines and the Turks & Caicos Islands. In all the islands considerable emphasis has been placed on the interpretation and application of the beach change data to coastal planning through in-country workshops and training. Several technical reports were produced relating to beach changes in the various islands.
- A database has been established at UPR/SGCP with beach change data from most of the islands for the purposes of regional analysis and correlation.
- A technical report compiling and interpreting the impacts of the 1989 and 1995 hurricanes on the islands' beaches was completed.
- COSALC has provided technical advice to island governments relating to the impacts of specific development projects on the islands' beaches on a request basis.
- Awareness activities include the production of pamphlets and fact sheets relating to the islands' beaches, as well as quarterly articles on the programme in the widely circulated Newsletter "Sea Grant in the Caribbean."
- Education activities have included the preparation of slide presentations for use in the islands, design of beach field trips for school groups.

- Linkages have been established with other regional agencies and projects.
- A regional workshop was held in October 1996 on "Integrated framework for the management of beach resources in the smaller Caribbean Islands," all the COSALC countries and several other Caribbean countries attended.

Between 1997 and 1999, the agreement between UNESCO and the UPR/SGCP remained in effect with some refocusing of the COSALC project according to the UNESCO's Environment and Development in Coastal Regions and Small Islands (CSI) platform (established in 1996) and the following new activities were undertaken in addition to continuing some of those previously listed:

- St. John and St. Thomas in the United States Virgin Islands, Haiti and the San Andres Archipelago in Colombia were included in the COSALC project. Beach change monitoring programmes were established in these islands. Databases on beach changes were maintained in the other islands involved in the project.
- New software for the analysis of beach change data was developed based on the WINDOWS operating system. A programme to install this software in the islands and to provide training was started.
- Within the framework of a project "Planning for Coastline Change" six islands (Anguilla, Antigua-Barbuda, Montserrat, Nevis, St. Kitts and St. Lucia) have been assisted with the preparation, implementation and awareness of new guidelines for coastal development setbacks.
- Work has continued on awareness activities: publications, newsletters, posters, brochures, workshops, presentations, etc. In addition a new project was started "Training for Environmental Video Production for Broadcast," in three territories/states as a pilot project activity. The goal of this project is to provide people from environmental and broadcast agencies with the equipment and skills to prepare their own video clips on matters of environmental concern for showing on national television.
- A manual for the general public and beach users on "Coping with Beach Erosion" was prepared and published.
- Linkages have been developed with the UNESCO Associated Schools Project Caribbean Sea Project and a project proposal entitled "Sandwatch" has been developed. This is designed to provide training to schoolchildren in the use of the scientific method through the measurement and observation of beaches and then to use the information to execute projects to improve and enhance their beach environments together with their parents and local communities.

appropriate technology on issues such as beach safety, water quality, access, conflict resolution etc.

J.ATR