

# Sudan / Soudan

(747)

## UNITWIN/ UNESCO Chairs Programme

### Progress report

Period of activity: 2007

### UNESCO Chair on Marine Biology and Oceanography

**Report established by :** The UNESCO Chair's team, Sudan Institute for Natural Sciences (SIFNS), Ministry of Higher Education and Scientific Research

## I . Activities

### 1. Academic activities

#### *Education*

- **Title:** *Postgraduate Program in Integrated Coastal Zone Management, Diploma - ICZM*

**Duration:** one academic year

**Target group:** Academicians and postgraduate students; Government officials involved

in coastal resource development; graduated from NGO, graduated investors and private sector staff members.

**Prerequisites for admission to the Diploma:**

- National and regional applicants must satisfy postgraduate general admission requirements. These include a Bachelor's degree from a university of recognized standing on relevant discipline. If needed, the Program Management Committee has the right to ask for submission of Test of English as a Foreign Language (TOEFL) score, or its equivalent.
- Applicants must have prior release from their employer.
- Enrolment is limited to 20 participants.
- Registration process involves registering at the university, Program Management
- Committee approval and interview selection and fee payment.

**Outline of the Program Content:**

The Program content encompasses five perceived modular units which are:

- Conceptual framework of ICZM.
- Natural Sciences and resource management.
- Approaches of social sciences in resource management.
- Practical work and case studies.
- Emerging issues and research projects.

**Credit Requirement:**

The Program – and due to circumstances and logistics – is tailored to amalgamate the perceived modular units to be conducted, into cross-cutting core courses, practical courses, a field internship visit and a research project.

Participants must complete 30 units of credits, 18 of them are Theoretical (6 core courses). 8 units of credits are devoted to Quantitative and Analytical Methods. The remaining 4 units are left to a Research Project.

**Core Courses:**

All participants are required to take 6 core courses (At least 18 units of credits) which are:

- Integrated Coastal Zone Management.
- Wetlands Ecology and Management.
- Land use Principles and Policy.
- Marine Fishery Management.
- Social Science Approaches in Natural Resource Management.
- Environmental Law.

**Quantitative and Analytical Method Courses:**

Eight units of credits are divided into:

- Survey Research Methods.
- Remote Sensing for Resource Management.
- Biological Statistics.
- Ecological Modelling.

**Field Trip:**

Most of the Quantitative and Analytical Method courses will be part of a three weeks field trip to the Red Sea coast at Suakin Marine Center, which provides laboratory space and facilities. The field trip which includes visits to institutions and areas involved in CZM at the Red Sea coast, is regarded as an Internship Period exposing participants to management and to local community (public or private sector).The participants will also take the chance to carry out research and interviews for their study cases.

**Evaluation:**

At the end of the course, the performance of the participant is evaluated throughout the study period and would be graded on the basis of Sinclair scale .The grade lower than C will be recorded as a failure. Failures may reapply for a supplementary examination following the university procedures.

**Logistics Required for Implementation of the Program:**

The Program can be run within the capacity of Red Sea University and Suakin Marine Laboratory, which has the basic infrastructure and faculty power. However, prior approval of the Red Sea University and Suakin Marine Center Administrations for this partnership is required .Other logistics needed for the effective implementation of the Program and its sustainability, are:

- A 25 passenger 4WD mini – bus.
- A 4WD working van.
- An outboard engine boat.
- A GPS and GIS field equipment.

UNESCO support can be asked for seeking funding from donors.

*Training*

- **Title:** *Coastal Environment Programme*

**Target Group:** academicians; postgraduate students of government officials; NGO

workers; investors and private sector staff who are interested in coastal zone management.

**Aim:** improving skills and communication between the stakeholders.

### *Research*

- Each participant shall carry out a small case study pertaining to ICZM and with an emphasis on planning. This individual assignment will be submitted as a dissertation in partial fulfilment of the Diploma. (4 units of credits). The written manuscript should follow the format and style adopted by University concerned. Each participant shall deliver her / his research findings in a seminar

## **2. Partnerships/ Inter-university Exchanges**

- University of Khartoum, Red Sea University, Sudan

## **3. Others**

- Electronic library

The Chair started compiling information, abstracts and relevant literature to form a library to be available to researchers concerned. The chair also received UNESCO agreement to have a free access to the Encyclopaedia Of Life Support System (EOLSS).

## **II. Outcomes**

The chair became a focal point of the network linking the universities, research institutes, government departments and concerned NGOs, by gathering the disseminating information among them. The next step is to be regional by contacting the relevant universities and institutions in the countries neighbouring the Red Sea.

## **III. Forthcoming activities**

3 proposals were formulated for the near future and among them are :

1. -Environmental issues of the Sudanese Red Sea Coast Conference – Port Sudan
2. -Approaches towards developing strategic marine and coastal environment database
3. -Effect of Ballast water on the fauna and flora of the Sudanese Red Sea coast

The support of UNESCO for implementing these projects is highly appreciated.

#### **IV. Development prospects**

- The establishment of a Coastal Environment CENTRE

A central task of the activities of the Sudan Institute for Natural Sciences (SIFNS) is to strengthening and support the co-operation between individual scientists and / or universities, institutes and governmental units working in the area of natural sciences; with the perspective of promoting pure science. Pure sciences provide reliable information and data that are liable to be transformed into applied sciences and technology as well as decisions.

The consequences of recent and rapid development in coastal terrestrial and marine)environment of the Sudanese Red Sea region needs to be assessed in terms of habitat loss and impact on biodiversity. It is the interest of SIFNS to co-operate with universities, institutes and governmental units to address the coastal environmental issues through its Coastal Environmental Centre (under establishment at Port Sudan).

##### **Goals:**

The proposed Coastal Environmental Centre (CEC) has the following goals:

- Act as an umbrella, which provides a scientifically rigorous understanding of the physical, chemical and biological coastal environments and their processes.
- Encompasses the human behaviours that affect, and affected by, those processes.
- Propose wise sustainable exploitation strategy of the wealth of the coastal zone.