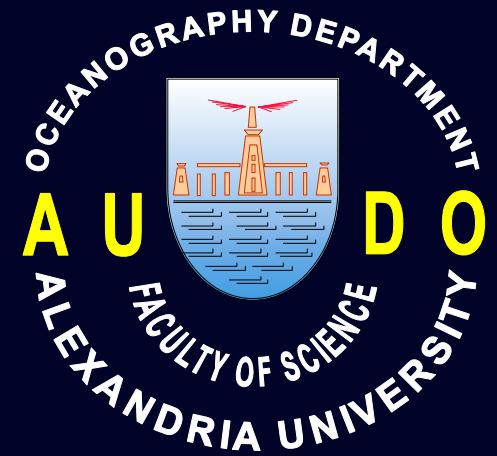


Kick-off meeting, MAMA Project - March, 11-13th 2002, Paris

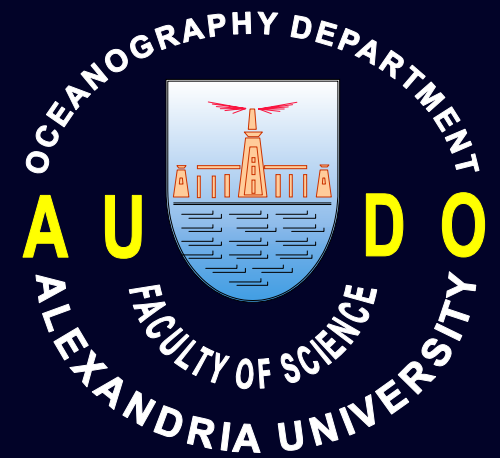


Oceanography Department (AUDO)
Faculty of Science, Alexandria University
Alexandria, Egypt

Presented by:

Dr. Hassan El-Banna AWAD
Professor of Marine Pollution
Head of Oceanography Department

Kick-off meeting, MAMA Project - March, 11-13th 2002, Paris

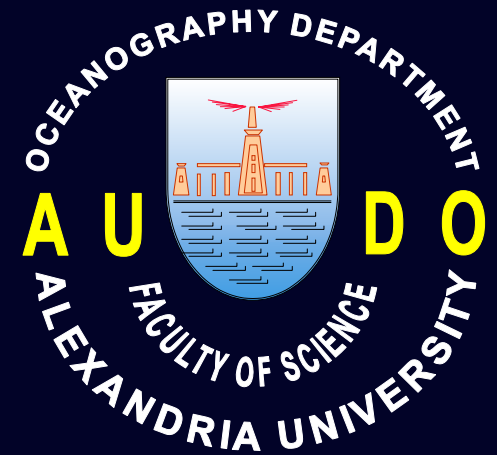


Activities

Kick-off meeting, MAMA Project - March, 11-13th 2002, Paris

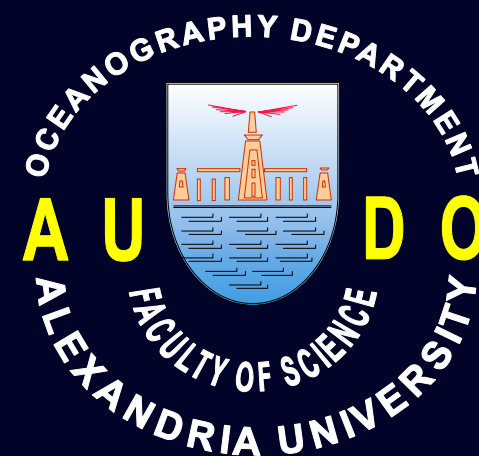
Current activities:

- Education, Research, Training and Awareness
- Marine survey, Monitoring and Assessment
- Coastal Processes
- Eutrophication
- Biodiversity
- Modeling
- Capacity building



Activities

Kick-off meeting, MAMA Project - March, 11-13th 2002, Paris

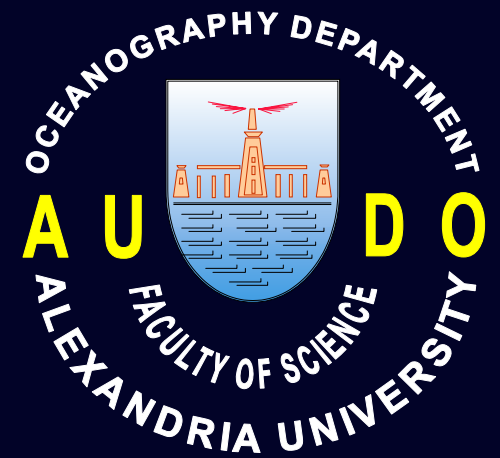


Projected activities:

- ☛ Typology, nutrients budget and Nile-Mediterranean Interaction (AUDO / LOICZ);
- ☛ Mussel Watch (AUDO / CIESM);
- ☛ Meteorological and Hydrological Observation of Submerged archaeological sites in Alexandria (AUDO / PACA);
- ☛ Long-term observation time series of the Mediterranean coastal environment (AUDO / COM).

Activities

Kick-off meeting, MAMA Project - March, 11-13th 2002, Paris



Education

Kick-off meeting, MAMA Project - March, 11-13th 2002, Paris

Under-graduate:

☛ B. Sc. In Marine Sciences:

Marine Geology, Chemistry, Biology, Physics and Fishery Biology.

Post-graduate:

☛ Diploma (one year)

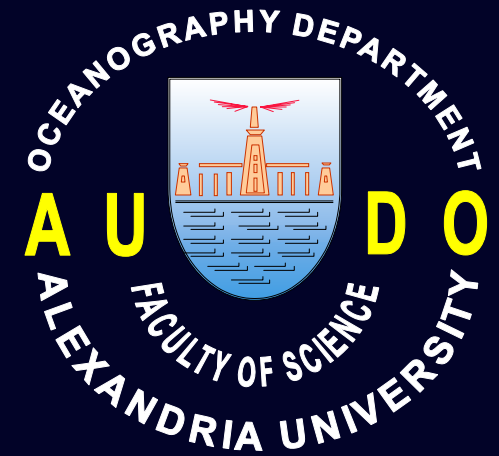
1. Coastal management and Pollution.
2. Fisheries and fish culture.

☛ M. Sc.

Study and research.

☛ Ph. D.

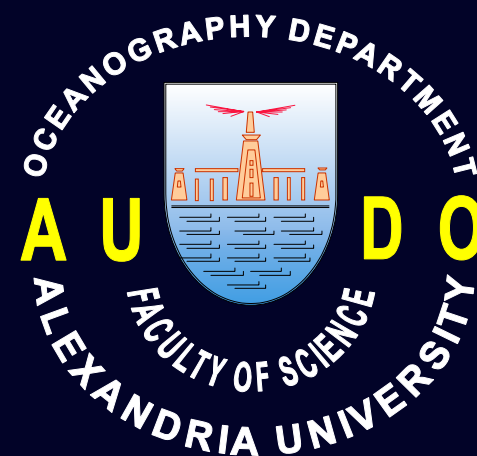
Research.



All disciplines depending on available expertise and facilities

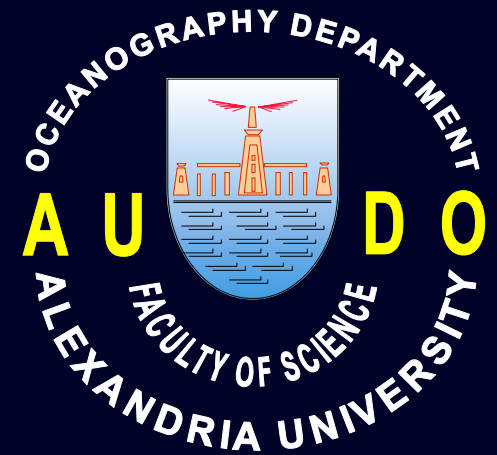
Education

Kick-off meeting, MAMA Project - March, 11-13th 2002, Paris



Marine Survey Monitoring Assessment

Kick-off meeting, MAMA Project - March, 11-13th 2002, Paris



Marine Survey, Monitoring & Assessment:

☛ AU DO / UNEP / MAP – Focal point in Alexandria:

(PAH's, TM, Nutrients & physico-chemical characteristics);

☛ AU DO / CSI-UNESCO:

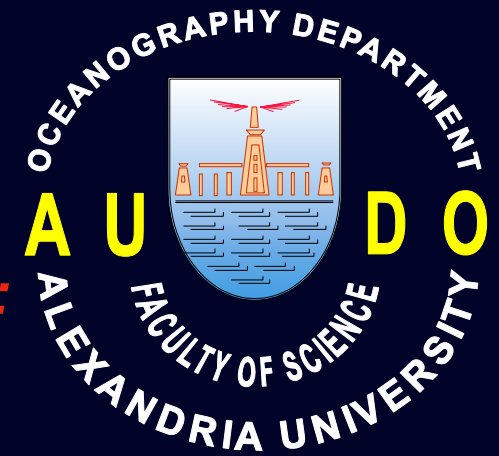
(Status of the marine pollution and socio-economic problems related to success of underwater archaeological museum in the Eastern Harbour of Alexandria);

☛ AU DO / EEAA / IAEA:

(Inter-calibration program on PAH's and TM);

Marine Survey...etc.

Kick-off meeting, MAMA Project - March, 11-13th 2002, Paris

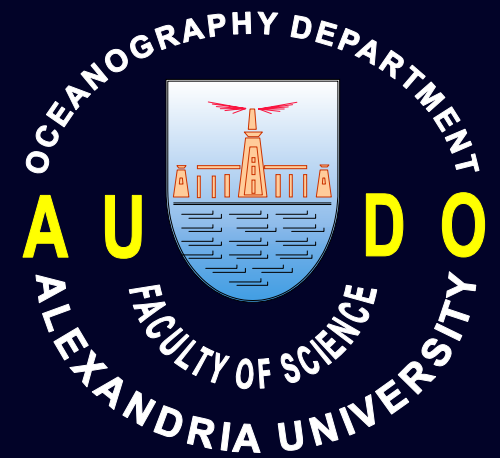


Cont. Marine Survey, Monitoring & Assessment:

- ☛ Coastal lagoons productivity;
- ☛ Eutrophication, Red tide and toxic algal blooms;
- ☛ Nutrients;
- ☛ Organic and inorganic pollutants in marine environment (water, sediments and organisms);
- ☛ Hydrographic parameters ($S_{\text{‰}}$, pH, O_2 , *chl-a*, turbidity, temp, etc.) ;
- ☛ Atmospheric precipitation ;
- ☛ Seagrass communities ;
- ☛ Living and non-living resources.

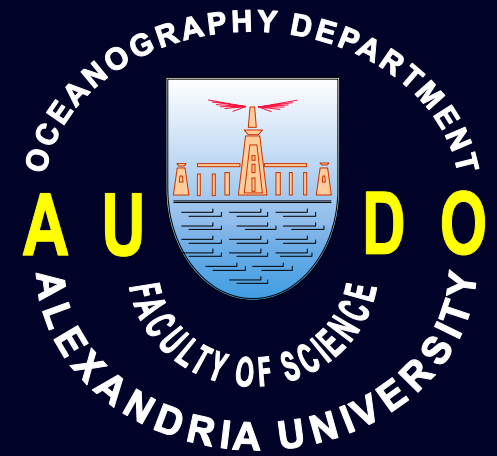
Marine Survey...etc.

Kick-off meeting, MAMA Project - March, 11-13th 2002, Paris



Training

Kick-off meeting, MAMA Project - March, 11-13th 2002, Paris



Training activities:

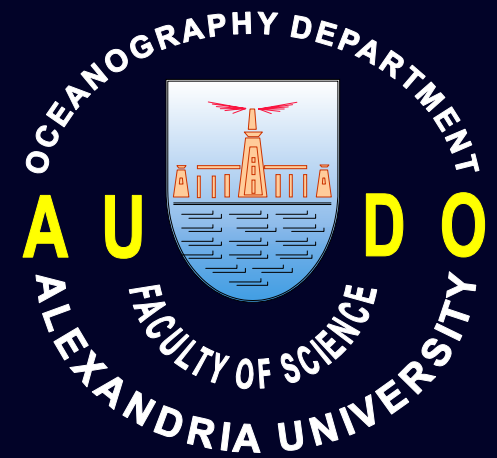
➤ Application of Remote sensing in Oceanography
AU DO / NARSS (Cairo-Alexandria, Sep. 2001);

➤ Management of water quality in fish farms
AU DO / GAFRD (Alexandria, May 2001);

➤ Micro-algae culture for fish ponds
AU DO / GAFRD (Alexandria, Mar. 2002);

➤ Modeling of marine pollution
AU DO (Alexandria, Mar. 2002).

Kick-off meeting, MAMA Project - March, 11-13th 2002, Paris



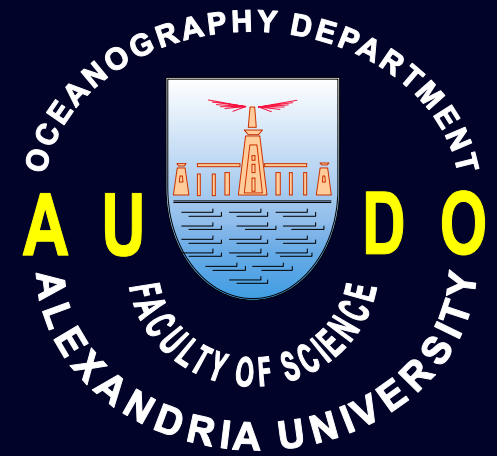
Coastal Processes

Kick-off meeting, MAMA Project - March, 11-13th 2002, Paris

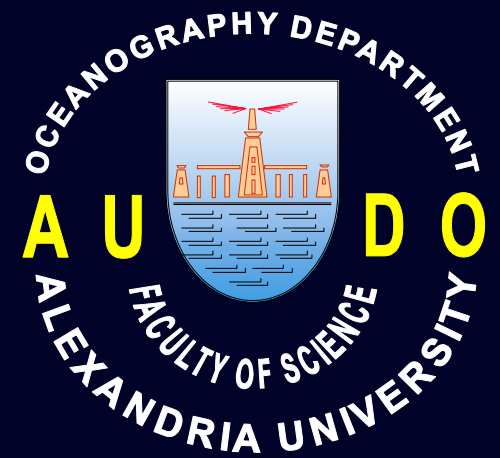
Research on coastal processes:

- Current, waves and tide measurements;

- Sediment transport, erosion and accretion.

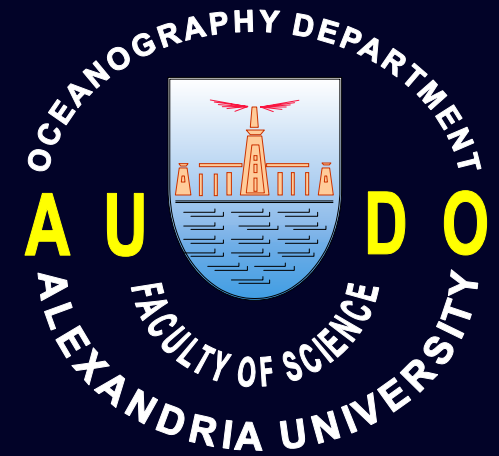


Kick-off meeting, MAMA Project - March, 11-13th 2002, Paris



Modeling

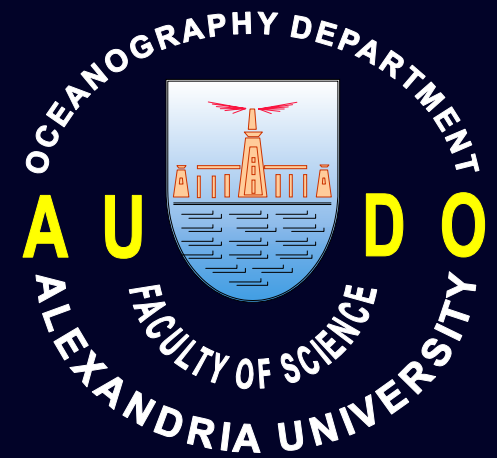
Kick-off meeting, MAMA Project - March, 11-13th 2002, Paris



Environmental Modeling:

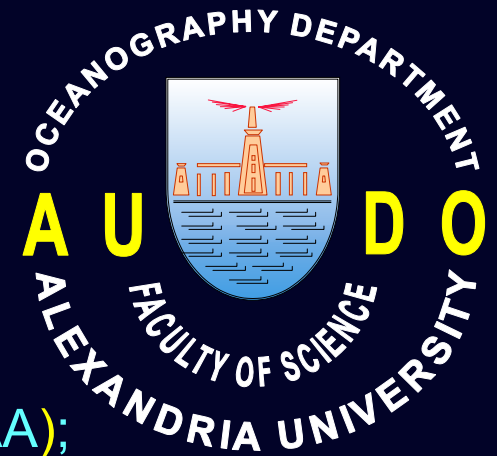
- ☛ Input / output models for coastal waters;
- ☛ Dispersion models for major pollutants;
- ☛ Numerical modeling for the Eastern Mediterranean Sea.

Kick-off meeting, MAMA Project - March, 11-13th 2002, Paris



Capacity Building

Kick-off meeting, MAMA Project - March, 11-13th 2002, Paris

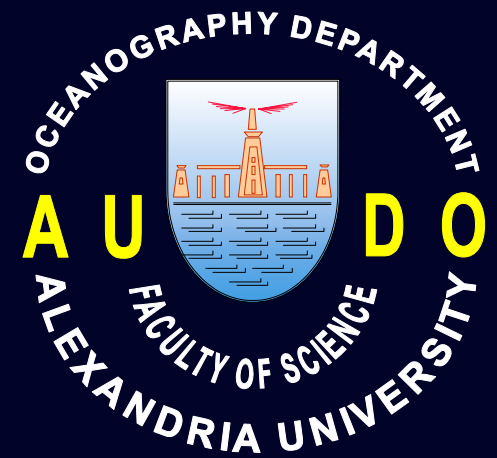


Capacity building approaches:

- Upgrading monitoring capacity program (AU DO / EEAA);
- Knowledge upgrading of environmental laws and legislations for regional environmental officers;
- Upgrading capacity for EIA procedure.

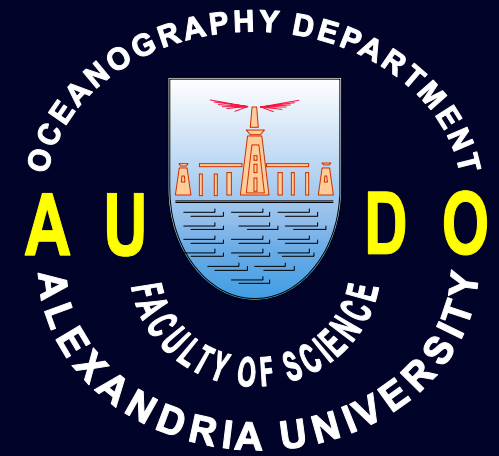
Capacity building

Kick-off meeting, MAMA Project - March, 11-13th 2002, Paris



Awareness

Kick-off meeting, MAMA Project - March, 11-13th 2002, Paris

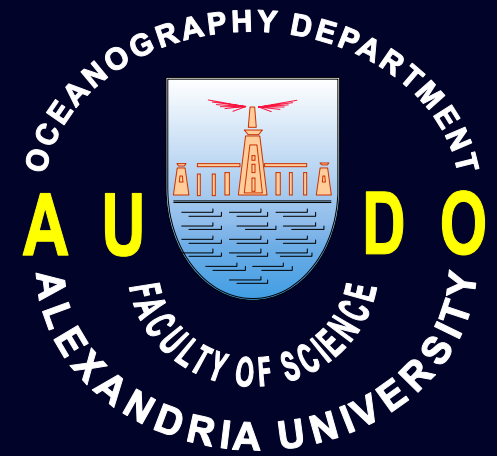


Awareness aspects:

- Organizing workshops, symposium, seminars and conferences on different environmental issues;
- Annual celebration for the international day of the environment;
- Gathering stakeholders , investors, users and decision makers for the mitigation environmental interest conflicts.

Awareness

Kick-off meeting, MAMA Project - March, 11-13th 2002, Paris

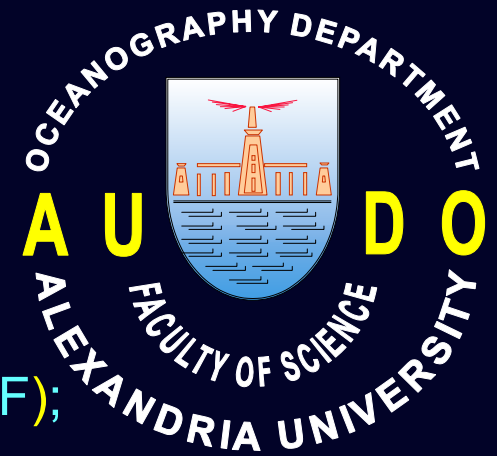


Marine Research Centers

Kick-off meeting, MAMA Project - March, 11-13th 2002, Paris

Main marine research centers in Egypt:

- National Institute of Oceanography and Fisheries (NIOF);
- Oceanography Department of Alexandria University (AUDO);
- Marine Science Dept. of Suez Canal University;
- Institute of Graduate Studies and Research of Alexandria University;
- Egyptian Environmental Affairs Agency, Alexandria regional Branch (EEAA);
- Institute of Coastal Research, Ministry of Works & Water Resources (ICR);
- National Authority of Remote Sensing and Space Sciences, Ministry of State for Higher Education and Scientific Research (NARSS);
- Higher Institute of Public Health (HIPH);

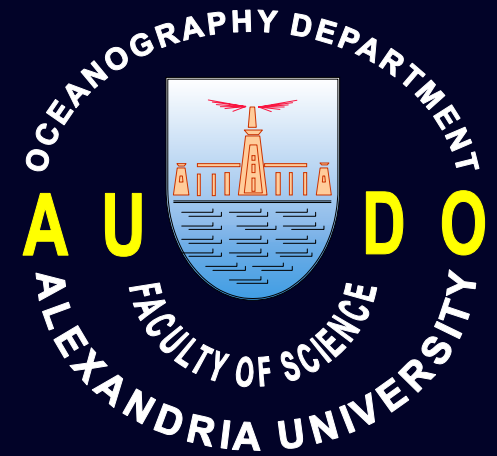


Research centers

Kick-off meeting, MAMA Project - March, 11-13th 2002, Paris

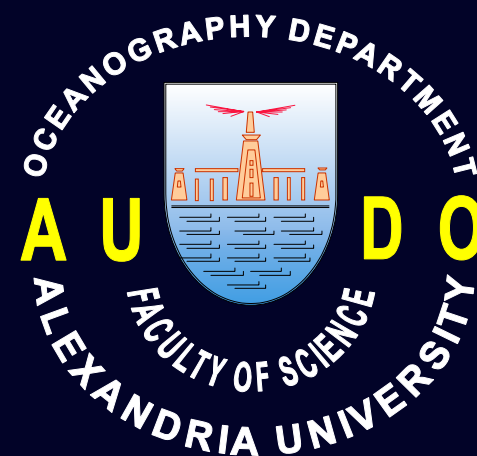
Cont. *Main marine research centers in Egypt:*

- General Authority of Meteorology;
- Arab Academy for Science & Technology & Maritime Transport (AASTMT);
- Department of Underwater Archaeology,
Supreme Council of Antiquities (SCA), Ministry of Culture.



Research centers

Kick-off meeting, MAMA Project - March, 11-13th 2002, Paris

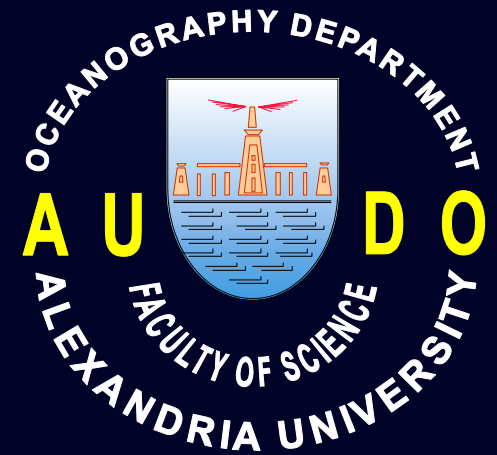


Marine Data Banks

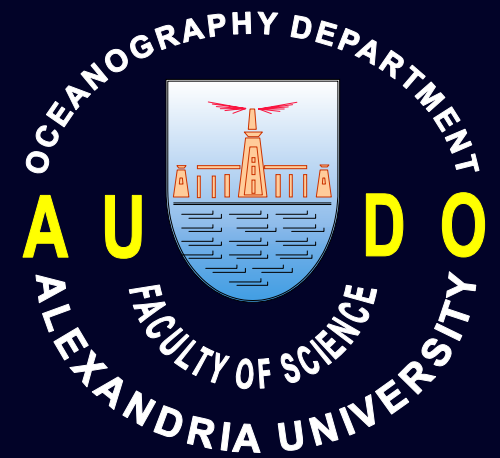
Kick-off meeting, MAMA Project - March, 11-13th 2002, Paris

Main marine Data banks in Egypt:

- EEAA database center on pollution in coastal waters;
- Egyptian Maritime Data Bank (EMDB), Ministry of Maritime Transport;
- Institute of Coastal Research (ICR);
- National Institute of Oceanography & Fisheries (NIOF);
- Oceanography Department (AUDO).
- National Authority of Remote Sensing and Space Sciences (NARSS);
- Egyptian Meteorological Authority.



Kick-off meeting, MAMA Project - March, 11-13th 2002, Paris



Thank you