

INTERNATIONAL DECADE
FOR
NATURAL DISASTER REDUCTION
(I.D.N.D.R.)

PROPOSAL FOR ESTABLISHING

THE

**INTERNATIONAL CENTER FOR
RESEARCH AND TRAINING IN
MITIGATION OF NATURAL
HAZARDS**

In

MOROCCO

By

AD HOC COMMITTEE FOR FEASIBILITY STUDY

Rabat, Morocco, October 14-15, 1991
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5. Preventing and mitigating the effects with both preventive measures and emergency response
6. Publish hazard and vulnerability mapping
7. Building Knowledge based expert systems for helping the decision maker.
8. Provide training and educational facilities with particular reference to personnel of the region.
9. Interact with other technological centers and networks inside and outside the region.
10. Disseminate scientific and technical information for hazard prevention and mitigation and create awareness,.
11. Act as a Center of Excellence for scientists from different countries with emphasis on those in the region.

ORGANISATION

The Center will be divided into five Divisions. The first three Divisions correspond to the different environments surrounding man, i.e. WATER, LAND and ATMOSPHERE. Constant interaction between the Divisions will take place as most hazards involve two or three of the above environments through multimedia studies. Each division will develop research as well as education and will interact with the computing and training divisions.

Typical areas of interest of each Division are as follows :

1. Water Division

1.1. - Objectives

- . Assist long term development strategies for each type of risk.
- . Establish emergency plans corresponding to the different risks.

1.2. - Areas of interest :

The main areas of interest are summarized below taking into account the priorities of the region.

Due to deforestation

- . Desertification

Hydraulics and water resources

- . Floods and droughts
- . River and coastal erosion, sedimentation, coastal floods
- . Dam breaking, tsunamis

Environmental problems

- . Surface and subsurface water contamination,
- . Ground contamination by leakage of chemical substances, agricultural products, etc.

3.2. - Areas of interest

- Solid Earth data acquisition and data analysis
- Geological, geophysical and seismological modelling and risk assessment
- Structural damage assessment and mitigation
- Study of lifeline systems
- Promotion and optimization of emergency response

3.3. - Recommendation

. To negotiate with ICSU panel on World Data Centers on the matter to establish World Data Center for Solid Earth Geophysics responsible for Africa in "Land division of the Center.

4. Computing Division

4.1. - Objectives

The Computing Division will be responsible not only for providing the necessary computer facilities but also for supporting the information exchange via improving the computational performance and global and local networks between the Center and other institutions throughout the world, and between the Divisions.

4.2. - Necessary tools and Constraints

Global and local Networks

- standard protocole
- national choice guided by financial constraints
- agreement with the National Moroccan Telecommunications Agency
- Estimate and Planning of the users'needs

Computer Facilities

- unix operating system
- Workstations network

4.3. - Operational Aspects

- Scientific Computing : CPU performance and Parallel Computing
- Graphics and Visualization : Conventional Standards
- Data Management : Archives and Hardware Support

4.4. - Constraints

- Hardware : Maintenance and technical service existing in Morocco
- Human : Operator system selected from users group and network specialist

5. Training and Education Division

A Training and Education Division will also be set up to prepare scientists and engineers on hazard related topics and to produce and distribute the Center's documentation and publications. The Division will provide training and educational material, organize courses and seminars and prepare self-teaching programs.

Education and Training will be one of the main activities of the Center which will act as a focus for technology transfer within the region.

The fundings will be provided through the contribution of the government of Morocco and, by other multilateral and bilateral cooperations, and sponsors.

. As far as the functioning and development of the Center are concerned, agreements involving partners and sponsors will be set up. The objective is to reach self sufficiency by delivering services and products in a non-profit basis. Sponsoring includes :

- . Availability of experts and consultants for research and education
- . Use of existing computing facilities (software, data bases, super computing,...).

FEASIBILITY STUDY

A feasibility study to set up the Center for studies of Mitigation of Hazards will be completed by a Group of well known international scientists divided into five Committees, and this work is to be organised by the co-ordinators.

The composition of the Committee is as follows :

1. Earth Studies Committee
2. Water Studies Committee
3. Atmospheric Studies Committee
4. Computing Support and System Integration Committee
5. Training and Education Committee

The principal coordinators of the project of the Centre creation will be :

Pr Driss BENSARI	Morocco
Pr Carlos A. BREBBIA	United Kingdom

The development of each division of the Centre will be coordinated by a moroccan and foreign scientists belonging to the scientific board (see attached list).

FUNCTIONS OF THE COMMITTEE MEMBERS

1. To advise the coordinators on the work to be carried out by each Committee and the overall objectives of the Center.
2. To draft a program explaining the functions of their Divisions and help to prepare the final report.
3. To participate in the Meetings
4. To help set up the Center after the feasibility study has been approved.
5. To continue as Advisors to the Center during its operation.

THE JOB OF THE COODINATORS IS

1. To held together the project and coordinate the work of the Committee