EUR-OPA MAJOR HAZARDS AGREEMENT
ACCORD EUR-OPA RISQUES MAJEURS

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ACCORD EUROPEEN ET MEDITERRANEEN SUR LES RISQUES MAJEURS (EUR-OPA)

EUROPEAN AND MEDITERRANEEN MAJOR HAZARDS AGREEMENT (EUR-OPA)

RESEAU DES CENTRES EURO-MEDITERRANEENS SPECIALISES DE L'ACCORD EUR-OPA RISQUES MAJEURS

ACTIVITES DE BASE PREVUES EN 2008

NETWORK OF SPECIALISED EURO-MEDITERRANEAN CENTRES OF THE EUR-OPA MAJOR HAZARDS AGREEMENT

BASIC ACTIVITIES SCHEDULED IN 2008

2007 YEARS/ANS

www.coe.int/europarisks

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ALGERIA / ALGÉRIE

CRSTRA - Centre Euro-Méditerranéen de recherche sicentifique et technique régions arides/ Euro-Mediterranean Center on scientific and technical research in arid zones (Biskra)

Nature de l'activité	Intitulé de l'activité	Période	Organisateur	Caractère
Rencontres Scientifiques	-Atelier régional sur les Zones Humides en Milieu Aride et gestion des ressources naturelles.	**Février**	CRSTRA	**Régional**
	Célébration de la Journée Mondiale de l'Eau et sensibilisation sur gestion rationnelle de cette ressource.	**Mars**	CRSTRA	**National**
	Journées de sensibilisation pour la préservation des bioressources locales et portes ouvertes à la station expérimentale d'ELOUTAYA « Station Bioressources ».	**Avril**	CRSTRA	**National**
	Journées Internationales sur l'aridoculture.	**Novembre**	CRSTRA	**International**
Formations	Cycle de formation en Méthodologie de Recherche.	**Janvier**	CRSTRA	**National**
	Formation intensive sur le logiciel SPSS	**Février**	CRSTRA	
	Cours sur la pollution de l'eau et du sol par les pesticides	**Mars**	CRSTRA	
	Cours intensifs (Formation continue) : 1- Les SIG 2- La Télédétection	**Avril**	CRSTRA	

	3- Les Bases de données			
Education et sensibilisation par rapport aux risques liés aux changements climatiques et à la protection de l'environnement	-Continuation de l'activité d'éducation et de sensibilisation, envers les enfants scolarisés. -Création d'une cellule permanente de veille et de sensibilisation	**Toute l'année**	CRSTRA	
	-Compagne ouverte au grand public (agriculteurs, société civile, associations, etc.) à travers les portes ouvertes sur les deux stations du CRSTRA (Station d'ElOUTAYA et de TOUGGOURT).	**Trois fois par an**	CRSTRA	

ARMENIA / ARMENIE

ECTR - European Interregional Educational Centre for Training Rescuers / Centre Européen de Formation Inter-Régionale pour les Sauveteurs (Yerevan)

AZERBAIJAN /AZERBAÏDJAN

ECMHT - European Centre on Training and Information of Local and Regional Authorities and Population in the Field of Natural and Technological Disasters / Centre Européen de Formation des Autorités Locales et Régionales dans le Domaine des Catastrophes Naturelles et Technologiques (Baku)

1. "International cooperation in the field of training the high skilled professional specialists on management of emergency situation"

BASIS:

In 1998 the Chair on "Emergency Situations and Life Activity Security" was set up at the Azerbaijan University of Architecture and Construction and it was the beginning of training bachelors on management of emergency situation. In 2002 the Chair opened masters' and in 2004 (post-) graduate courses. Tens of professional specialists have been trained for construction companies of the country since that time. It is natural, that there is a great need in such specialists in the other spheres, however every country is not able to solve this problem on it's own (without assistance). Therefore, it is possible to solve the problem, even partially, by student exchange between such education institutes like "Disaster Medicine" in San Marino and the others functioning in EUR-OPA member countries The main purpose of the international conference is

OTHER PARTICIPANTS:

San-Marino (CEMEC), Bulgaria (CSLT) and the other appropriate European Specialized Centers:

OBJECTIVE OF THE PROJECT

Global objectives: To analyze the potential possibilities of training the high skilled professional specialists on management of emergency situation in EUR-OPA member countries and in Azerbaijan, as well as to look through the possible ways of the international cooperation in the this sphere.

Specific objectives: To organize the International cooperation in the field of training the high skilled professional specialists on management of emergency situation. (date: May 2008)

2. "Role and responsibility of local and regional bodies in the intensification of security supervision during packing, transportation and utilization of dangerous substances (cargo)"

BASIS:

In Euro-Asia region Azerbaijan Republic with its diversified infrastructure is a transit country in the sphere of transport-communication.

OTHER PARTICIPANTS:

Ukraine (TESEC), Russia (ECNTRM), Turkey (AFEM) and other appropriate European Centers:

OBJECTIVE OF THE PROJECT

Global objectives: Organization of international cooperation in providing security during transportation of trans boundary cargo according to the Law of Azerbaijan Republic "On Technical security", UNO and European Agreements.

Specific objectives: To raise the activity of local and regional bodies in security supervision during packing, transportation and utilization of dangerous substances (cargo). (date: October 2008)

BELGIUM /BELGIQUE

ISPU - Higher Institute of Emergency Planning / Institut Supérieur de Planification d'Urgence (Florival)

Collaboration avec le TESEC (European Centre of Technological Safety - Kiev, Ukraine), centre spécialisé ukrainien sur le projet de workshop sur les enseignements de la catastrophe de Tchernobyl

Sur le thème du rôle des autorités locales et régionales dans la gestion des risques majeurs, l'ISPU a été invité par le centre ukrainien (Web: www.tesec-int.org) à participer à un workshop sur les enseignements de la catastrophe de Tchernobyl. Ce workshop se tiendra en 2008 et insistera sur la répartition des compétences entre le pouvoir central et les autorités locales quant à la préparation et la gestion de la situation d'urgence. Son objectif est d'identifier des bonnes pratiques aptes à améliorer la protection des communautés vivant aux alentours de sites représentant un risques radiologique (planification d'urgence, alerte précoce, traitement prophylactique par iode de potassium et autres éléments de protection radiologique). Nous avons consulté nos partenaires en matière nucléaire afin d'évaluer leur intérêt à participer à cet événement. Ont répondu positivement : l'Agence Fédérale de Contrôle Nucléaire (AFCN), l'Association Vinçotte Nucléaire (AVN), la Province de Flandre orientale (centrale nucléaire de Doel), la Province de Liège (centrale nucléaire de Tihange), la Direction Générale Sécurité Civile du Service Public Fédéral Intérieur.

BULGARIA / BULGARIE

CSLT - European Centre for Risk Prevention training at school level / Centre européen sur la formation scolaire à la Prévention des Risques (Sofia)

I. PRIORITES IN 2008

The efforts of the Center going to concentrate on the continuation of the accomplishment of the tasks that started in 2007 as and for realization of the tasks ensuing from:

-The Conclusions of the 11-th Ministerial Session of the European and Mediterranean Major Hazards Agreement (EUR-OPA).
-The Programs of the Agreement EUR-OPA;
-Medium Term Plan 2007 - 2011;
-The follow up to the Kobe Conference-United Nations Action Plan 2005-2015;
-Participation in the projects on relief the Risk Management.

II. PROJECT ACTIVITIES IN 2008

Coordinated Programs in relief Prevention:

1. Project: "Danube a river for all, a care for everybody" (DRACE).
- International Workshop: "Prevention against the water harmful influence and information and education of the population along the Danube river valley" - September
- Meetings of Work group for elaboration of Portal site DRACE – February, May, August and October;
- Meetings of Work group in Bulgarian National Radio – January, March, April, August, November.
- Meeting for Portal site DRACE in reliefe Cultural Heritage – in time of meeting for Be Safe Net in Ravello, Italy - April

Education: School level

2. Fourth European Conference for Risk Prevention Training at School Level – second half of the year.
3. Website on Education to risks (Be-Safe-Net) - Cyprus, Sofia, Ravello and Strasbourg – 2008.
- Work meeting – Ravello, Italy – April.
- Work meeting – Kozloduy, Bulgaria - second half of the year
4. Participation in the project: "Euro-Mediterranean network of schools for risk prevention and safety (EDUMED)" - 2008

University.

5. The Masters Programs in the area of The Risk Sciences:
- The New Bulgarian University (Sofia):
- The Center for Study of Risks and Security;
- Crisis Public Relation and Crisis Communications.
- The University Architecture, Building and Geodesy;
- The University Chemistry Technology.

Project-Analyze of legal aspects

6. Update of the existing legislation in relief Risk management in Bulgaria in relief Analyze which annually elaborate European Centre in Florival, Belgium.

Others

7. Risk assessment of The School buildings in seismic active regions in Bulgaria – 2008 - Observatory for The Risks Assesment (ORA); European Centre (CSLT) Sofia; University Architecture, Building and Geodesy; Ministry of Education and Science.

CYPRUS /CHYPRE

BE-SAFE-NET – European Center for Disaster Awareness through Internet / Centre Européen pour la Sensibilisation aux Désastres à travers Internet (Nicosia)

Development of the "Be Safe Net" Internet Site :

- Complement the content Website
- Host and maintain the site
- Translations of existing content
- Promotion of the site through the edition of a pamphlet
- Participation to meetings on educational topics

FRANCE

CERG - European Centre for Seismic and Geomorphological Hazards / Centre Européen sur les Risques Géomorphologiques (Strasbourg)

1. Research activity foreseen in 2008

1.1 Programme - Study of geomorphological hazard in the main productive areas of the mountain basin of the River Panaro: 2008

This research, which started in 2006, takes into account the study of geomorphological hazards (i.e. mass wasting, fluvial erosional processes and floods) in the mountain basin's areas of the River Panaro which host productive activities. The twofold goal of the study is: a) implementation of detailed maps (1:5,000/1:10,000 scale) showing the main production areas subject to geomorphological hazard; b) suggesting remedial measures in order to solve or at least mitigate processes resulting from geomorphological hazard which might hinder or disrupt production activities.

The study area of the research is located in the mid-upper basin of the River Panaro collects the waters from the central section of the Northern Apennines (catchment basin of 1,784 square km), flows into the River Po after running across the Apennines for 63 km and the Po Plain for some 85 km. From the hydraulic viewpoint, the mid-upper basin of the R. Panaro – which covers an area of about 800 square km– is managed by the Land Reclamation Syndicate of Burana-Leo-Scoltenna-Panaro which cooperates with this research programme.

The first phase (Phase 1) of the research, carried out in the 2006, dealt with the identification of 16 productive areas where significant productive activities subject to geomorphological instability are present.

The second phase (Phase 2) started in the 2006 and has been finished in 2007. It consisted in the acquisition of all available information and documents regarding the 16 productive areas and their surroundings subject to geomorphological instability. This has been carried out by: a) the analysis of thematic maps in order to identify areas affected by instabilities; b) the historical and bibliographical research of past instability events; c) the study of past instability events through interpretation of aerial photographs, satellite images and maps of different scales and time periods; d) field survey accompanied by enquiries among local inhabitants about past instability events.

The second phase produced, for each one of the 16 study areas, a map of geomorphological instability processes and a monographic file of all data gathered. In brief, the monographic files describes : the location of the study area (the administrative location, the hydrographical basin, the topographic maps and the aerial photographs/satellite images), data gathered from all bibliographic sources, data regarding the characteristics of the productive areas, information achieved through interpretation of aerial photographs and field survey, comments and considerations. Differences found between the map of geomorphological instability of this research and the Instability Inventory Map of Modena Province (Provincia di Modena, 2006) have been highlighted and the complete index of all documents produced (maps, photographs etc.) were added.

The first results of this research have been pubblished in Castaldini & Ghinoi (2006) and presented at Congresses (Castaldini & Ghinoi, 2007, Ghinoi & Castaldini, 2007 ; Panizza, 2007).

The last phase of the project (Phase 3), to carry out in the year 2008, will deal with the assessment and mapping of the geomorphological hazard in the productive areas and their surroundings and advice on remedial measures. For the assessment of geomorphological hazards, the method recently applied for the Bolzano Autonomous Province in Northern Italy (Panizza et al., 2004; Corsini et al., 2005) will be applied; that method is consistent with the Italian law (DM180/98, L267/98, DPCM 29/9/98).

The method applied by Panizza et al. (2004) and Corsini et al. (2005), is derived from Heinimann et al. (1998). It is based on a classification of the intensity and frequency of

the events for each category of instability processes (e.g. landslides, fluvial erosional processes and floods). This is achieved by means of univocal matrix combinations which allow the definition of various levels of geomorphological hazard.
All maps produced within this research will be created using a GIS. Therefore, they will be easily updatable in the light of possible expansions of productive settlements and/or further geomorphological instability events.
These maps will be also available for the Modena Province Administration in order to update its Instability Inventory Map (Provincia di Modena, 2006) which is a reference document for the territorial planning.

1.2 Inventory of landslide risk assessment methodologies used in the EU-25: 2008

Numerous methodologies are used in the EU Member States to assess landslide hazard and risk. These methodologies are based on different approaches, are fed with different parameters and sometimes different values are used for the same parameter. In this activity, current risk assessment methodologies will be reviewed and differences will be critically assessed in order to highlight some scientific guidelines on possibilities for wide parameter harmonization. The specific objectives of this activity are:
1) Inventory of current risk assessment methodologies for landslides throughout the EU.
2) Scientific review of current risk assessment methodologies.
3) Selection of options for harmonisation.
The CERG members from the EU-25 countries will be asked to contribute to the activity by answering to a specific questionnaire to obtain data on implementation of risk assessment methodologies, scientific basis and specific national interest in each country. Assessment of questionnaire responses will be performed by the CERG active members J.-P. Malet & O. Maquaire.
It is expected to receive all the answers to the questionnaire in year 2007; while the assessment and evaluation of the questionnaire will be performed in year 2008.

1.3 Support to preparation of project for 7th FP and COST Action: 2008

A specific budget will be allocated in 2008 to answer to the EC FP7 calls in the CERG themes, as well as to the preparation of a joint COST action with the leaders of the COST Action 634 'On- and off-site Environmental impacts of Runoff and Erosion', and dealing with several soil hazards.
On the base of discussion between Cerg members and the COST network in 2007, this COST action has two types of objectives. 1/Better understanding of the connexion between sources and sinks at the "local catchment scale" and 2/ how to transfer our knowledge from the local to the nation/continental scale (hazard & risk).Detailed research themes to foster within the Action may include the following:
1/ Better understanding of the balance of physical processes controlling the spatial and temporal occurrence and intensity of soil threats, with a focus on erosion, run-off (on-site / off-site), shallow slides, debris flows and muddy floods.
2/ Development of a MultiRISK method (or guidelines?) for assessing erosional threats at several spatial scales.
3/ Soil threats (or soil risk?) governance in a changing environment.

2. Training activities foreseen in 2008

CERG has planned to organize a second Post-Graduate training school in the framework of FORM-OSE programme of Council of Europe as the continuity of the course on Concepts to Approach Multi-Hazards that will be held in Bonn in 2006: this second Post-Graduate training school will be held in Barcelona (Spain) in 2008. These activities are also proposed as part of the coordinated programme of the network of APO Specialized Centres in collaboration with other centres.

2.1. FORM-OSE 2008: Introduction to Quantitative Risk Assessment (Barcelona)

The Post-Graduate Training School on Quantitative Risk Assessment (QRA) is conceived as the continuity of the course on Concepts to Approach Multi-Hazards that was held in Bonn in 2006. The course is, however, organized independently and participants will not be asked to have participated in the Bonn training school. The main goal of the school will be both to introduce the components for the QRA and put into practice the procedures available for assessing them. These are the main topics to develop during the school:
1) Review of basic concepts. Risk prediction, assessment and management framework
2) Quantitative assessment of susceptibility components (spatial probability and magnitude)
3) Quantitative assessment of hazard components (temporal probability and intensity)
4) Quantitative assessment of risk components (elements at risk, vulnerability, societal and individual risk).
5) Risk management and mitigation strategies. Remedial measures: stabilisation and protective measures. Early warning and evacuation.
6) Documented case histories and seminars. Field-visits
The training school will be held at the Department of Geotechnical Engineering –Civil Engineering School – UPC, Barcelona, and will last for 1 week (September 2008). Field work will be carried out at Andorra la Vella and Canillo (Principality of Andorra). Andorra offers an excellent opportunity to present and discuss both susceptibility and hazard zoning, hazard and risk management strategies that have been developed by the Administration, a variety of remedial measures for different types of hazards.

3. Other activities foreseen in 2008

CERG members will participate in the working groups or committee of several international projects and meetings, organize international workshops or convene specific sessions in meetings:
- Representation of CERG themes as part of the EC SSA (Specific Support Action to Policies) 'RamSoil' (Sustainable Use of Soil Related to Different Agricultural Practices - Thematic Strategy on Soils) which aim is to assess the methodologies used in the EU 25 Member States to assess the risk for different soil threats (J.-P. Malet, O. Maquaire).
- Representation of CERG themes as part of the Interreg IIIB Alpine Space project 'ClimChAlp' http://www.climchalp.org/) (which aim is to support support the political decisions regarding the protection and control over the natural disasters connected with the phenomenon of climate change. CERG active members (J.-P. Malet, O. Maquaire) are involved in the French Working Group managed by PGRN Grenoble aiming at identifying the potential impacts of climate change on several mountain hazards.
- Participation of several CERG members to the EGU General Assembly (April 2008, Vienna) (http://www.cosis.net/) and organization of a specific session (1) on the "Time, intensity and scaling in landslide hazard assessment" convened by active member of CERG (J.-Ph. Malet, J.L. Zezere) as well as by F. Catani, and (2) on "Mountain Risks: integration of predictions, management and governance" convened by active member of CERG (Th. Bogaard, T.Glade) '. Further sessions are offered and include "Landslides monitoring and characterization using high resolution DEM, LIDAR and other DEM techniques", "Rainfall induced landslides and debris flows", "Large Catastrophic Landslides: Their Hazard and Risk", "Landslide risk assessment methods and strategies (including Sergey Soloviev Medal Lecture by Prof Theo van Asch), "Impacts of climate change and land-use change on landslides", etc.
- Participation of several CERG members to the '10th International Symposium on Landslides and Engineered Slopes' will be held from June 30 to July 4, 2008 in Xi'an China http://www.landslide.iwhr.com/. The symposium is one of the most important activities of the Joint Technical Committee on Landslides and Engineered Slopes (JTC1) under the International Society of Soil Mechanics and Geotechnical Engineering (ISSMGE), International Society for Rock Mechanics (ISRM) and International Association on Engineering Geology (IAEG).
- Participation of several CERG members to '2nd International Conference on Ground Bio- and Eco-engineering. The Use of Vegetation to Improve Slope Stability', Beijing,

China, 14-18 July 2008. http://bibamap.cirad.fr/cmsmadesimple/index.php This conference is the second in the series "The Use of Vegetation to Improve Slope Stability".
- Participation of several CERG members to ‘’33rd International Geological Congress’, OSLO, 6-14th August 2008. www.33igc.org and organization of a specific session “GHZ-10 Mountain risks: From prediction to management and governance” (Theo Van Asch, Nicola Casagli, Jean-Philippe Malet)
Several Cerg members will participate to the research, training and dissemination activities of the Marie Curie Research and Training Network ‘Mountain Risks: from prediction to management and governance) granted by the EC on the period 2007-2010.
Furthermore, Cerg members are represented in Editorial Advisory Boards of several international journals:
- Landslides (Thomas Glade, Luciano Picarelli, Theo van Asch, Jordi Corominas; Olivier Maquaire as Associate Editor);
- Georisk (Thomas Glade)
- Natural Hazards and Earth System Sciences (Thomas Glade)
- Engineering Geology (Theo van Asch)

The European Mediterranean Seismological Center (http://www.emsc-csem.org) operates Real Time Earthquake Information (RTEI) services for the public and the scientific community which aim at providing rapid and reliable information on the worldwide seismic activity, focused on the Euro-Mediterranean region. These services are based on parametric data rapidly provided by 61 seismological networks which are automatically merged and processed at EMSC. The web-based RTEI services consist in publishing the current worldwide seismic activity through a web site which is updated every minute. Additional information like location maps, moment tensors solutions, distance to populated cities or past regional seismicity are made available. Users can view the list of latest events through different media: Imode, WAP, via a RSS feed and can represent the recent seismic activity with GoogleMaps, GoogleEarth or widget technologies.

The Earthquake Notification Service (ENS), which consists, for potentially damaging earthquakes, in quickly (i.e. within 60 minutes – and generally 20-40 minutes for Euro-Med events – of the event's occurrence) notifying the end-users by fax, email or SMS, has seen its number of end-users steadily increasing since 2004 (Figure 1c) with more than 7,450 registered users on 01/01/2008. In terms of performances of the ENS, the dissemination time (i.e. the time elapsed between the event occurrence and the dissemination of the first manually reviewed location) for the Euro-Med earthquakes processed in the framework of the ENS, has clearly decreased since 2004 (Figure 1d) with a median value of 27.5 minutes in 2007. This improvement reflects the efforts carried out by the network operators that lead to quicker data contributions to EMSC. It also reflects the serious work performed by the seismologists on call at EMSC. An assessment of the quality of the first location disseminated by the ENS for Euro-Med events has been performed showing a median accuracy of 11.6 km.

The ENS has remained operational 100% of the time in 2007 thanks to the operational technical support of the LDG (EMSC host institute) and thanks to the IGN (Madrid, Spain) which runs back-up procedures and can take over the duty whenever required (e.g. during maintenance activities at EMSC). The IGN has been on duty for a total of 133 hours (1.5% of the time in 2007), over which 83% were due to maintenance activities outside EMSC premises (e.g. internet backbone).

In terms of information collected from the public, the macroseismic questionnaire, for those who wish to report their experience after an earthquake, is now available in 19 languages. The results are available in the Members section of EMSC web site. A maximum of 183 questionnaires have been received after the Mw 6.1 Azores Cape Saint Vincent earthquake of 12/02/2007 which has been widely felt in Portugal, Spain and Morocco. Several people provided pictures of earthquakes damages. The added-value of this service was clear when EMSC received pictures which proved that a M2.2 event in Slovakia was not an earthquake but an explosion. EMSC plans to give the possibility to provide pictures and videos directly from a cell phone via MMS.

In 2008, efforts will be made in terms of integration of information collected from the public (questionnaires, pictures, feltmaps) in order to better take benefit from these information and especially to compute intensities (procedures are currently under development in collaboration with the British Geological Survey, Edinburgh, UK). EMSC will also work on improving its location quality by implementing AK135 velocity model and defining new criteria for the definition of authoritative locations. Moreover, EMSC will work on improving data exchange with its contributors by implementing a software named EIDS (developed by ISTI) which performs quick and reliable data exchange through permanent TCP connections.

Le programme « Caucase » 2006-2008, mis en œuvre en collaboration avec les ambassades de France à Tbilissi et à Erevan, prévoit l'implantation d'antennes satellites destinées à la diffusion de cours de Formation A Distance dispensés en langue russe au profit des organismes de sécurité civile de la Géorgie et de l'Arménie.

RAPPEL DU PROGRAMME « CAUCASE »

1) Programme « Caucase » - 1ère phase (2006)

La première partie du programme prévoyait la réalisation, en liaison avec ces mêmes services, de contenus de cours destinés aux départements des situations d'urgence d'Arménie et de Géorgie. Le choix des thèmes a été retenu en vue d'une mutualisation des besoins pédagogiques correspondant aux risques auxquels les pays du Caucase sont confrontés, (pays auxquels pourrait éventuellement s'associer l'Azerbaïdjan).
Ces cours réalisés en langue russe, langue commune à l'ensemble des pays du Caucase, sont diffusés et présentés par un professeur, à partir du plateau technique de REMIFOR à Draguignan et à Valabre à partir de 2008. Toutefois, ce système permettant la vidéo-conférence, autorise l'interactivité à partir de n'importe quel point du réseau.
Cette première phase a été réalisée ou est en cours de réalisation. Ces cours concernent à ce jour :
- le risque chimique,
- le transport de matières dangereuses,
- le risque routier,
- le sauvetage-déblaiement
- la gestion opérationnelle du commandement niveau 3,
- le risque nautique (en cours de réalisation).

2) Programme « Caucase » - 2e phase (2007)

La deuxième partie du programme concernait l'implantation de six stations satellite DVB-RCS – nombre ramené à quatre en début d'année 2007, soit deux stations satellite par pays, - pour la diffusion et la mutualisation des cours à partir de la plateforme EAD de REMIFOR située à l'Ecole d'Application de la Sécurité Civile (ECASC) à Valabre à compter de 2008, pour la Formation A Distance des sauveteurs Arméniens et Géorgiens.
Deux antennes avaient déjà été installées à Erevan (Académie de gestion des crises) et à Tbilissi (Base opérationnelle du Service des situations d'urgence) en Mars 2007. L'objectif de 2007 était d'installer deux nouvelles antennes, l'une à Batoumi (base régionale du SSU de Géorgie) et l'autre à Stépanavan (base régionale du DSU d'Arménie dans la Région de Lori), clôturant ainsi la deuxième phase du programme.
Il est prévu que ce réseau d'antennes puisse être également utilisé pour la transmission d'informations opérationnelles en cas de catastrophe (projet à mettre en oeuvre à partir de 2008) et participer ainsi à la prise de décisions en situation de crise au niveau des Services de situations d'urgence. Cette configuration, pour être cohérente, nécessiterait l'adjonction d'un module satellite mobile (embarqué à bord d'un véhicule).
Il est à noter que le choix de l'implantation à Stépanavan (Région administrative de Lori), initialement prévue à Gumri, deuxième ville d'Arménie gravement touchée par le séisme de 1988, a été fait de manière à valoriser « le projet d'appui à la coopération entre la région de Lori et la Région PACA 2007-2008 » (Cf. ci-dessous la création à Stépanavan d'un centre de formation régional de sauveteurs-déblayeurs cofinancé par la Région PACA, REMIFOR, l'association Assistance Pédagogique Internationale (API) et les partenaires du DSU).
L'objectif principal de ces antennes est de relier, pour la formation, les différentes unités de secours dans chacun des deux pays, sans qu'il soit nécessaire de les déplacer dans la capitale. L'effectif concerné par le DSU de Géorgie est de 6 000 agents. En ce qui concerne l'Arménie, l'effectif est évalué à 4 800 agents par le DSU d'Erevan.

Couplées à un système mobile de transmission de l'information (véhicule satellite ou V-SAT), ces antennes deviennent des outils essentiels pour les décideurs en cas de catastrophe.

3) Programme « Caucase » - 3e phase (2008)

Le programme prévoit pour 2008, la réalisation et la diffusion de nouveaux cours, notamment ceux concernant « les feux de forêt » et la « Gestion opérationnelle du commandement » niveaux GOC 4 et 5 (définition des contenus de cours en liaison avec les services des situations d'urgence et leur médiatisation).

MISE EN ŒUVRE DE LA TROISIEME PHASE DU PROGRAMME « CAUCASE » EN 2008

1) Généralités

Le programme prévoit, pour 2008, la réalisation de nouveaux cours en langue russe, notamment ceux concernant « les feux de forêt » et la « Gestion opérationnelle du commandement » niveaux GOC 4 et 5 et leur diffusion aux membres des départements des situations d'urgence d'Arménie et de Géorgie à partir de la plateforme de Formation A Distance de REMIFOR à Valabre.
La réalisation de chacun de ces cours se ferait en deux temps :
- première phase d'étude réalisée dans le Caucase (réalisation du produit pédagogique à organiser ainsi que la méthodologie à utiliser pour la préparation matérielle des cours).
- deuxième phase, réalisée en France pour médiatiser le cours et dispenser, en langue russe à travers la plateforme REMIFOR, les cours réalisés antérieurement, aux cadres arméniens et géorgiens des deux DSU.
Parallèlement à la mise en œuvre de ces cours, le programme de 2008 permettrait d'initialiser le programme qui pourrait être développé à partir de 2009, pour une utilisation du réseau d'antennes satellites dans un cadre opérationnel.

2) Les autres réalisations développées en 2008 :

REMIFOR et l'ONG partenaire de REMIFOR, Assistance pédagogique Internationale (API) ont organisé, en partenariat avec la région PACA, dans le cadre de l'année de l'Arménie, un programme orienté sur le risque sismique dans la région de Lori et un sur le risque aquatique pour la sécurisation du Lac Sevan.
Ces programmes sont financés par la région PACA à hauteur de 150 K€ pour le premier et 40 K€ par PACA et API pour le second.
Le programme Lori intègre deux sites géographiques distincts :

- L'un se trouve sur le territoire de la Région de LORI, dans la Ville de Stepanavan.
- L'autre se situe dans la capitale Erevan.

Il se décompose en trois sous-projets qui concernent :
- l'aménagement du centre de formation existant et sa transformation en Ecole Inter régionale de Sauveteurs face aux risques sismiques ;
- l'aménagement des locaux de l'Académie de gestion des crises et la création d'une Université Franco-Caucasienne pour l'enseignement des Risques Majeurs ;
- l'aménagement des locaux du Ministère des Situations d'Urgence existant et la création d'une salle de gestion de crise face aux Risques Majeurs.
Le programme Sevan concerne :
a) la sécurisation, la règlementation et l'amélioration de la protection de l'environnement
Il s'agit d'une part,
- d'améliorer et de créer les conditions matérielles de mises en œuvre de l'application de la réglementation de sécurité et participer au respect de l'environnement ;
- d'assurer le déploiement d'un service de surveillance et d'intervention tant sur le lac qu'aux abords (secteur routier et acheminement vers le centre hospitalier de SEVAN).
et d'autre part,
- de participer à la formation des personnels d'intervention.
b) l'information et la sensibilisation du public :
- la formation de formateurs, afin de rendre autonome les services de secours sur le plan de la pérennité du programme,

- l'information préventive des publics riverains et touristiques.

3) Le soutien souhaité du Centre Européen CETICA en 2008 au programme « Caucase »

A ces différents programmes organisés en collaboration avec les partenaires Etat (ambassades de France d'Arménie et de Géorgie, Département des situations d'urgence de la République d'Arménie, Services des situations d'urgence de la République de Géorgie), les partenaires territoriaux (région française Provence-Alpes-Côte d'Azur, région arménienne de Lori) et les partenaires ONG (REMIFOR et API), il est prévu d'associer le Centre Européen CETICA afin d'intégrer en partie au programme « Caucase », les Services d'Urgence de la République d'Azerbaïdjan, notamment sur la Formation A Distance et sur la communication opérationnelle du temps de crise.

Cet objectif, qui s'inscrirait dans le cadre de la présidence française de l'Union Européenne à partir de Juillet 2008, devrait permettre de réunir en France, en Octobre 2008, les trois Directeurs des Services d'Urgence d'Arménie, d'Azerbaïdjan et de Géorgie pour le développement d'une étude et la signature d'un accord de coopération concernant la Formation A Distance et la communication opérationnelle.

Cette action se situe donc dans un contexte de co-financement dont les partenaires sont l'Etat à travers les financements MAE – ambassades, REMIFOR, la région PACA.

GEORGIA /GEORGIE

GHHD - European Centre on Geodynamical Risks of High Dams / Centre Européen sur les Risques Géodynamiques liés aux Grands Barrages (Tbilisi)

GREECE / GRECE

ECPFE - European Centre On Prevention and Forecasting of Earthquakes / Centre Europeen Sur la Prévention et la Prévision des Tremblements de Terre (Athens)

Activity no 1: For the syntax of the "Principles of structural Restoration of Cultural Heritage Buildings".

As a continuation of the Workshop held in Athens (Febr. 2006) by the ECPFE, a follow up was suggested, both in National and Transnational scale, towards the preparation of Guidelines including the principles and the criteria for decision making and design of structural restoration of Monuments, in view mainly of reducing their Seismic Risk.

Apparently, such a Project would be welcomed by several European Countries having been represented in the Athens Workshop. However, this action should be connected with (and probably preceded by) the ECPFE, EPPO and the Ministry of Culture.

The procedure will implemented as follows:

1. Extended Study of the Existing Documents
   Comments, modification and completion of a relevant study, which was submitted to EPPO, (April 2004), by a previous Working Group.
   Cross checking with existing Italian Codes
2. Discussion and recommendations concerning the following topics
   Preliminary criteria and description of the necessary actions so as to clarify: the level of the importance of the monument (and consequently the acceptable level of damages under the seismic action taking this into account for the intervention study), the values of the Monument in its current State, Safety of Human life, Historical Memory, Historical Materials and Techniques, Aesthetic Value, Economy and Use, level of visitability.
   Allocation and distribution of responsibilities between scientific design team and the Owners of the Monuments during the decision making phase concerning stability Study.
3. The Results of this Task group, which will be enhanced with other specialists so as to form an official Interministerial Committee, will serve as a guideline to the Official Regulatory Document consisting of Specific Guidelines for Interventions to Monuments and Historic Building in earthquake prone Areas and especially our Country, Greece.

This Task Group has already started work the previous year. This task will be completed by the end of the summer and the results will be presented ans discussed in the proposed Workshop in Athens, November 2008.

This project will help to develop related national strategies between the European Countries in the field of the Protection of Cultural Heritage.

Activity no 2: For the "Creation of a Digital Database for the assessment of permanent consequences of historical earthquakes on monuments "

Research scientific project:

Creation of a Digital Database for the digitization and the structural formulation of the monuments characteristic in respect with the natural and technological damages from which they have suffered through ages, giving emphasis to earthquakes disasters.

The collection and digitization of the relative data as well as the analysis of the data base will start this year since we are equipped with the necessary technological means during the previous year.

Objectives:

Greece is a country with a remarkable cultural heritage which justifies the great number of historic buildings, among them the traditional buildings, buildings under preservation status, buildings of cultural value. In addition our country is one of the most seismic regions in the eastern basin of Mediterranean.Each of these two factors are combined with the necessity to maintain and strengthen our Cultural Heritage taking under consideration human safety, historical, cultural, tourism. These above mentioned

reasons lead us to ameliorate our classification and application of the information concerning the characteristics and the present status of our monuments.
In this frame our Center considered as essential the collection of the above information and its preservation through the application of the latest technological means and techniques. Firstly we will be able to create a catalog of all the monuments in our country and have quick and easy access to their architectural, historical, cultural and structural characteristics. Secondly, we could also have a list of the natural and technological disasters from which each monument has suffered since its construction and the way by which these catastrophic events have damaged it. Thirdly, we must assign categories by which we could classify monuments by any of its characteristics – for example its structural system - as well as the damages they sustained.
After we have obtained and filed all this data we will subsequently use it to take measures necessary for decision making regarding the renovation, strengthening and retrofitting of them against future natural and technological disasters. To be more precise, we could, for example, make statistic measures which will give us indications on how the non-structural elements of some monuments react and survive in an earthquake or any other natural and technological damage (knowledge extremely useful for the engineering community that leads to the enhancement of the modern structures and structural techniques). Furthermore, we may create rules and use automatic techniques (Data mining or Data retrieval methods) to create new classifications of the monuments and disasters as well as to correlate the monuments and the damages they had experienced by different catastrophic events and especially earthquakes.
With all these measures we could then make more accurate and effective retrofitting decisions for any monument. Our objective will be to make a decision, which will help to strengthen the monument against a future natural or technological danger and more specifically against earthquakes. In addition this tool will help scientists to create more effective Regulatory Documents on the method and scope of intervention concerning both the structure and the architecture of a Historical Monument.
For this project to be materialized we should use modern technological means such as a DataBase Management System (Oracle, SQL server etc). We will use these tools to create the tables, functions, classification and restriction of the Database. Afterwards we are to use its facilities and already made modules to create the statistical measures, the classifications and the links between the data. If necessary we will make our modules (using a programming language e.x. java sdk, c++ etc) in order to implement any new processes on the data. Finally, we will create a user interface for manipulating the data of the base (insert new, apply changes to already existing, delete unnecessary data, etc) and for having easy access to the data and metadata that we will have produced. Additionally, there will also exist another interface available to expert users which will give them the opportunity to exploit the structure of the Database in order to manipulate tables, associations and functions, to import data form other countries (Balkans, Euro-Mediterranean etc).
It goes without saying that the above Digital DataBase can be used not only for Greek Cultural Heritage but with the creation of a web based application can be accessed and used by any other European Center as reference .

Project Content:

The project deals with the following topics:
a. Collecting and Digitization of information on Monuments and the Physical and Technological Damages they have suffered through the years.
b. An analysis of the structure of the data and the database (catalogs – tables, links between data, measures and rules ,etc)
c. Implementation of the data analysis in a DataBase Management System (Oracle, SQL server, MySQL).
d. Implementation of the rules and the manipulation data algorithms using the modules and functionality (Queries creation) of the DataBase Management System or any other programming language (java, C++, visual basic).
e. Implementation of the user interfaces.

Future plan:

The creation of a Web Based application which will give users from other OPA Centers access to the DataBase through the Internet.
Co-operation with National and International Institutions:
Earthquake Planning and Protection Organization of Greece
DataBase Development and Software Engineering Enterprises

Target:

The establishment of a digital database which will be a useful tool for easy and quick search of historical monuments regarding earthquakes as well as other technological or natural hazards which caused great damages or any other changes on its original status.
The design of the DataBase will be dynamic in order to host data and characteristics from other Centers of OPA.

Expected results:

Creation of a Digital Database which will have all the available information about Monuments, its characteristics and the natural and technological damages they have sustain during their existence, given focussing more on earthquakes.
This DataBase will be a useful and effective tool not only for the enlightment of the scientific committee concerning the monuments and the damages they have suffered but more importantly will aid in the creation of a Regulatory Document which will establish the rules and guidelines for the optimum method of intervention to a Monument in order to restore and strengthen it against future natural or technological disasters protecting not only its historical, cultural, architectural value but also the lives of those visiting or using it.

Activity no 3: For the examination of " A Seismic constructural Techniques during the Centuries"

All the people living in Eastern Mediterranean have sometimes and in some degree felt the phenomenon of an earthquake and have observed its consequences. From ancient times, Greek philosophers (as Aristotle, Pythagoras Hepicouros) have dealt with the earthquake phenomenon and tried to interpret it. It's estimated that today, a 50% of the annual seismic energy of Europe and a 2% of the annual world seismic energy, is releases in Greece.
In this country, people have developed civilizations and constructing their monuments and buildings for many thousands of years. Surviving frequent and disastrous earthquakes they got familiar with the act of observation of the damage on their constructions and so understood, more or less, their behavior during seismic action. Rebuilding them in better ways, trying to improve their resistance against the dynamic loading, the ancient constructors experimented with different materials, constructional systems, and sometimes, sophisticated detailing. Following long and hard paths of observation, experiments, failures and inventions they created local or more spread around seismic techniques, concerning basic members of a building (Masonry, roof, etc), or even a complete building system.
It is a fact that it is impossible to protect completely a construction against the, sometimes out of the human capabilities limits, seismic force. In Greece, monuments, buildings, cities or even whole civilizations have been lost due to seismic or/and volcano activities, since prehistoric times to our days. (i.e. Thira volcano eruption 1500B.C., City of Argostoli complete destruction in 1953, Kalamata severe damages in 1986 etc).
On the other hand many architectural monuments stand still after more or than thousand years (i.e. Parthenon in Athens 438 B.C., Hagia Sofia in Istanbul (CONSTANTINOPLE) 537 A.D., Hosios Loukas Monastery, 955 A.D. etc) in areas with, sometimes, high seismic risk. Traditionally constructed buildings and settlements, all over Greece, exist and are used for hundreds of years surviving, repeatedly, seismic action.
In the framework of this concept, ECPFE took the initiative to form a taskgroup which has been studing these antiseismic, traditional constructional systems, as well as, their behavior during dynamic loading that would help us for a better understanding of the antiseismic technology of the past as well as the proper measures for repair and strengthening.

Experts of other European Countries can extend this Project, concerning the study of Structural Typologies of dwellings, in Earthquake Prone Regions to all areas of the Mediterrenean Basin.
The target of this activity is to create a database including not only the Greek Aseismic Techniques but it will be enhanced with other relevant European Techniques.The results of this activity will be exhibited in the Framework of Activity No 5.

Activity no 4: "For Geotechnical topics and Interaction between Soil and Monuments".

As Monuments and traditional buildings have significant structural properties concerning not only their structural system but their foundation as well, it is obvious that these characteristics are not included in the Temporary Aseismic Codes.
This Task Group No 4, examines Geotechnical Parameters as follows:

Typology and foundation of traditional building and Monuments
Intervention techniques against soil movements such as: creeping, solidation, slope effect etc.
The role of underground water
Methods of reinforcing of traditional foundations
Interaction (static and dynamic) of soil – foundation
Topography effect and Seismic Actions

The results of this Group will be presented and discussed in the Workshop that is going to be held in Athens, November 2008.
Other European Experts will present their experiences in order to exchange knowledge in the field of foundations, slope stability and soil-structure interaction problems of Monuments.

Activity no 5: For the dissemination of knowledge and exhibition in the framework of Aseismic protection of our cultural heritage

Description

With the use of multimedia, photography and video, we can present the characteristics of the Greek monuments which are in danger or have suffered any major damage from past seismic activity, as well as the restoration works or other rescue interventions that have already been in progress. Museums or other Institutions , in the framework of the presentation can also organize afternoon speeches and meetings on this subject.
Other European Centers can on invitation take part and present their experiences , for example during a poster – session in Museum lobbies or deliver brief lectures.

Target

The Museum exhibition is integrated into the frame of information dissemination and education program activities. Due to the Museum's educational character for school students and the attraction of tourists in our country, it can server the previous goals with great success.

Suggested Associates

- Municipality of Athens
- Ancient Cyprus Artist Museum, Pieridi Institute – MultiSpace «Athinais»
- Benaki Museum and/or other relevant institutions

Application

Hospitality and foundation by the Pieridis Institute, Leventi Institute and Municipality of Athens.

- The 6th volume of FFNet (a publication of ECFF) will be published.
- ECFF will update and upgrade the web-page, hosting scientific and operational issues.
- The Center intends to organize a workshop in order to prepare guidelines for protecting against the forest fire smoke impacts.
- The Center will also focus on the preparation of the Master on disaster management, in cooperation with the Centers of the agreement, Universities, Institutions, experts and operational people.

Estimated timetable for 2008

Activities	**May**	**June**	**September**	**October**	**November**	**December**
Edition of the 6th volume of FFNet					x	
Update of the web-page				x		
Workshop to prepare guidelines for protecting against the forest fire smoke impacts		x				x
Master on disaster management				x		

LUXEMBURG / LUXEMBOURG

ECGS - European Centre for Geodynamics and Seismology / Centre Européen de Géodynamique et de Sismologie (Walferdange)

FORMER YUGOSLAV REPUBLIC OF MACEDONIA/ EX-REPUBLIQUE YOUGOSLAVE DE MACEDOINE

ECILS - European Centre on the Vulnerability of Industrial and Lifeline Systems / Centre Européen sur la Vulnérabilité des Systèmes et Réseaux Industriels (Skopje)

1. INTRODUCTION

The European Center on Vulnerability of Industrial and Lifeline Systems (ECILS) is founded in 1997 under the Institute of Earthquake Engineering and Engineering Seismology (IZIIS), University "St. Cyril and Methodius", Skopje, within the frame of the Open Partial Agreement on prevention of, protection against and organization of relief in major natural and technological disasters. ECILS is located in the premises of IZIIS.

ECILS organizational structure is made of the Council, Scientific Council and Center Directorate. The Council is body, which decides on ECILS activities, on the programs and budget. The Scientific Council is the body that reviews, comments and approves the drafts of planned activities, programs contents, techniques of performance of the activities and budget proposal. The Director is responsible for management of the Center, preparation of its program and budget proposals.

ECILS's running expenses are provided by the Ministry of Science of the Government of Former Yugoslav Republic of Macedonia, the Institute of Earthquake Engineering and Engineering Seismology, Skopje and from the budget of Council of Europe's EUR-OPA Major Hazards Agreement.

Other financial resources of ECILS are to be assured through research and scientific programs approved by the Ministry of Science of the Government of Former Yugoslav Republic of Macedonia, national and international cooperative projects, from the Budget of Council of Europe's EUR-OPA Major Hazard Agreement, consultancy projects, and contributions and donations from associations, agencies, organizations and institutions.

The principle long term ECILS activities are:

• Promotion of programs for theoretical and applied research of the urban vulnerability associated with the physical (sanitary: water, waste water and solid waste disposal; power: electric power, natural gas and liquid fuel; transportation: highway and railway; and information and communication), social (health care, education) lifelines and industrial systems;

• Strengthening of the cooperation between local and national authorities, industry and research institutions for rational planning of measures for reduction of natural hazards' consequences caused by physical damage or functional interruption of physical and social lifelines and industrial systems;

• Improvement and further development of experimental research facilities, strong motion instrumentationand monitoring of physical lifeline and industrial systems, especially those located in seismically active regions;

• Promotion of the international cooperation through organization of joint research projects, conferences, symposia, workshops and seminars in the field of vulnerability of lifelines and industrial systems;

• Increase of public awareness on problems related to vulnerability of lifelines and industrial systems, mitigation policies and measures;

• Dissemination of relevant information and are in perfect conformity with the Medium Term Plan 2007-2011 [AP/CAT (06) 47], sections III.2 and III.3. 2

2. EDUCATION AND INTERNATIONAL COOPERATION

Other ECILS activities in this field in 2008 will be focused on assuring participants from Macedonia in education activities of other OPA Centers, in particular those activities oriented towards implementation of space technologies for disaster management, safety of educational, health-care and other essential facilities and all hazard protection of historic monuments and cultural heritage.

3. RESEARCH ACTIVITIES

Research activities of ECILS in 2008 will be oriented on performance and completion of ongoing research projects and initiatives for promoting new ones, in particular of the cooperative international projects that match the interest of several OPA Centers as well as are in conformity with the Medium Term Plan 2007-2011 [AP/CAT (06) 47], sections III.2 and III.3 and the outcome document of the UN/ISDR World Conference on Disaster Reduction (Kobe 2005) "Building the resilience of nations and communities to disasters: Hyogo Framework for action 2005–2015"
Research activities to be carried out are as follows:

- Activity 1: "Seismic Monitoring of Lifeline Systems and Industrial Facilities Components" /Project 01P/Permanent Activity
- Activity 2: Earthquake Protection of Historical Buildings by Reversible Mixed Technologies – PROHITECH /Project 15P/ Fourth year of performance; Commencement: Year of 2005; Duration 3 years, Extended
- Activity 3: Application of High Tech Strengthening Methodology on Historical Monuments /Project 16P/ Fourth year of performance; Commencement: Year of 2005; Duration 3 years, Extended
- Activity 4: Site Amplification and Seismic Vulnerability of Buildings in Macedonia,
- Croatia and Slovenia /Project 17P/ Fourth year of performance; Commencement: Year of 2005; Duration 3 years, Extended
- Activity 5: Cost-Benefit Analysis of Base Isolated Vital Structures /Project 18P/Fourth year of performance; Commencement: Year of 2005; Duration 3 years, Extended
- Activity 6: Evaluation of National Application Documents for Life Line Structures /Project 20P/Second year of performance; Commencement: Year of 2007; Duration 2 years
- Activity 7: The Nature of Damages to Bridge Structures, Genesis and Categorization
- /Project 21P/First year of performance; Commencement: Year of 2008; Duration 3 years

Activity No. 1 is permanent activity of the Institute of Earthquake Engineering and Engineering Seismology, IZIIS-Skopje, which results and achievements, through ECILS are to be released for wide exchange with other European and Euro-Mediterranean Centers as well as other international organizations, institutions and associations. The activities No. 2 and No. 3 will dominantly be carried out under the 6FP contracts with European Commission, while the Activity No. 4 will be carried out under the NATO SfP 980857contract. The activity No. 5 will be partially carried out with contribution from the Macedonian Ministry for Education and Science and IZIIS-Skopje. The activity No. 7 is a new activity planning to commence in 2008.

4. CONCLUSIONS

The principal 2008 ECILS' activities will be focused on:

• Performance and completion of ongoing research projects, supporting the implementation of European Commission PROHITEC and NATO SfP projects in Macedonia, and initiation of new national and international research and development projects that are in conformity with the objectives of ECILS establishment and priorities of Medium Term Plan 2007-2011;

• Strengthening cooperative links with other EUR-OPA Centers through participation in their educational/training activities and lounging bilateral or multilateral cooperative projects and activities;

• Continuation of promoting and strengthening of national and international links as well as dissemination of know-how and results at nationally and internationally organized conferences, workshops and specialized meetings.

The dominant national finance sources of ECILS budget will continue to be the Ministry of Education and Science of the Former Yugoslav Republic of Macedonia and the Institute of Earthquake Engineering and Engineering Seismology (IZIIS), Skopje. Substantial international inputs are expected from EUR-OPA Major Hazard Agreement and 6FP of European Commission, and other sources.

5. RESEARCH ACTIVITIES

Activity 1: Seismic Monitoring of Lifeline Systems and Industrial Facilities Components

Starting date: Permanent Activity

1.1 Objectives

Assurance of continuous monitoring, acquisition of data and information on the behavior of industrial and lifeline facilities, the components of industrial and lifeline systems as well as on other effects and parameters that control the seismic safety and functional reliability of stated systems. The objectives of the project are in full compliance with the priorities of Medium Term Plan 2007-2011 [AP/CAT (06) 47], sections III.3, Item 2.

1.2 Program Contents

The following program activities are performed on annual basis:

• Regular maintenance of the strong motion network and dense 3D strong motion array;
• Acquisition, processing and analysis of data;
• Development of adequate strong motion data banks and corresponding information systems;
• Improvement of information and data on sub-soil conditions at instrumented locations and facilities,
development of corresponding data banks;
• Information and data dissemination.

1.3 Cooperation with other Centers and / or National Institutions

Program is carried out and performed by the Institute of Earthquake Engineering and Engineering Seismology. Specific items of program activities are carried out in cooperation with USGS, Menlo Park, USA and Kandili Observatory, Turkey.

1.4 Principal scientists

Prof. Dr. Mihail GAREVSKI (IZIIS)

1.5 Targets

This long-term project, shall provide Macedonian and international scientific and engineering community with information and data on the behavior of industrial and lifeline facilities, the components of industrial and lifeline systems as well as other effects and parameters that control their seismic safety and functional reliability.

1.6 Time Table

Permanent activity performed on annual basis.

Activity 2: Earthquake Protection of Historical Buildings by Reversible Mixed Technologies – PROHITECH

Commencement: Year of 2005; Duration 3 years; Forth year of performance-Extended

2.1 Objectives

To develop suitable methodologies for the use of reversible mixed technologies in the seismic protection of existing constructions, with particular emphasis to buildings of historical and artistic interest. This would primarily involve saving human lives and reducing both economic and cultural losses due to earthquakes.

The main subject of the research is represented by relevant buildings erected from the ancient age to the first half of the 20th century, all of which can be considered, with good conscience, as belonging to the cultural heritage of involved Countries. Such buildings cover a wide and diversified range of structural categories, including both masonry and reinforced concrete buildings and also some steel constructions, needing to be fitted with adequate aseismic provisions. As the intended activity is mostly focused on the use of innovative technologies, namely those relying upon mixed systems, an urgent necessity for a more advanced understanding of both material and device behavior, as well as for a deeper insight into the seismic response of constructions is felt. Along these strategic objectives developed are specific target activities leaded by one of listed institutions with extensive participation of others being either capable of providing essential inputs, or interested in transfer of results and achievements.

2.2 Program Contents

• Development of suitable methodologies for use of reversible mixed technologies in the seismic protection of existing constructions, with particular emphasis to buildings of historical and artistic interest.
• Drawing the attention of industry, research centers, engineers and competent authorities of European and Mediterranean Countries on the problem of safeguard of construction heritage from seismic risk, in particular for historical buildings;
• Advancing the state-of-the-art in the field of seismic protection of constructions by: (1) Improving the average knowledge of practicing engineers about innovative systems of seismic protection; (2) Promoting a wide scale use of reversible and environmentally friendly technologies for fitting existing constructions with easily removable and modifiable seismic protection systems; (3) adding new information on behavior of structures fitted with special systems and/or using advanced materials or devices for improving the seismic performance;
• Developing guidelines for practical application of innovative materials and technologies in the field of seismic restoration and rehabilitation.

2.3 Cooperation with other Centers and / or National Institutions

University of Naples "Federico II", Italy – Principal Coordinator; University of Liege, Belgium; University of Skopje, IZIIS-Skopje, ECILS-Skopje, Macedonia; University of Athens, Greece; University of Basilicata, Italy; University of Lisbon, Portugal; University of Timisoara, Romania; University of Bucharest, INCERC, EUR-OPA Center on "Building Rehabilitation" in Bucharest; University of Ljubljana, Slovenia; University of Boğaziçi, Turkey; Technion Israel Institute of Technology at Haifa, Israel; Jordan University of Science and Technology, Jordan: and Moroccan National Scientific and Technical Research Center, CEPRIS, Morocco.

2.4 Principal scientists

Prof. Dr. Zoran MILUTINOVIC

2.5 Targets

Assurance of interaction between the project achievements and the needs of EUR-OPA MHA countries that comply with the principal project objectives and the scope of research activities to be carried out during the course of PROHITECH performance;
• Representing the interests, needs and suggestions of EUR-OPA MHA countries in the field of earthquake hazards assessment, assessment of vulnerability of current, monumental and historic buildings, development of earthquake risk scenarios and development of elements for risk mitigation and emergency preparedness planning for historic buildings and cultural heritage;
• Synthesis and electronic dissemination of PROHITECH progress, achievements and results on semiannual basis;
• Participation in practical research activities related to vulnerability assessment of current, monumental and historic buildings, development of earthquake risk scenarios and risk mitigation for repair and strengthening of historic buildings and cultural heritage;
• Preparation of an International Workshop on "Earthquake Protection of Historical Buildings by Reversible Mixed Technologies ".

2.6 Time Table

The project is anticipated to commence in 2005 and terminate in 2008.

Activity 3: Application of High-Tech Strengthening Methodology on Historical Monuments

Commencement: Year of 2005; Duration 3 years; Fourth year of performance-Extended

3.1 Objectives

The historical masonry monuments built many centuries ago have not been designed and constructed to withstand earthquake forces. In seismic zones, these masonry structures that experienced many earthquakes have undergone various forms of alteration during their long life, and strengthened to improve their seismic resistance. The principle objectives of the proposed project are to study the existing state of one typical historical monument in Turkey from the period of Ottoman Empire by performing experimental in situ and laboratory tests as well as analytical its modeling. Based on performed study, a high tech strengthening methodology will be proposed for

such facilities. The project is leaned on PROHITEC and will dominantly be financed with its budget for experimental activities (€ 60,000/ 3 years)

3.2 Program Contents

• In situ measurements for determination of the dynamic characteristics of the Micromesh mosque at Istanbul or other selected mosque in Macedonia

• Shaking table test of model in scale 1/10

• Design and implementation of strengthening techniques for increasing the seismic resistance of selected monument

3.3 Cooperation with other Centers, Companies and/or National Institutions

Department of Civil Engineering Bogaziçi University 34342 Bebek- Istanbul Turkey

3.4 Principal scientists

Former Yugoslav Republic of Macedonia: Prof. Dr. Ljubomir TASKOV (IZIIS)

Turkey: Prof. Gülay ALTAY (Bogazici University)

3.5 Targets

The existing strengthening methodologies applicable to historical monuments are not sufficiently effective. Classical materials used for increase the structural resistance against earthquakes are not adequate to apply effective solutions. New, ”smart" materials such as epoxy resins, glass or carbon fiber reinforced plastics should be introduced in a future strengthening techniques. The effectiveness of these techniques should be proved by experiments. The project outputs are precisely related to these targets.

3.6 Time Table

• The first year: In situ measurements of dynamic characteristics of selected historical monument and processing of field study experimental data.

• The second year: Shaking table tests of original and strengthened models constructed in 1/10 scale.

• The third year: Based on the test results, a proposal for implementation of strengthening measures of selected mosque

Activity 4: Site Amplification and Seismic Vulnerability of Buildings in Macedonia, Croatia and Slovenia

Commencement: Year of 2005; Duration 3 years; Fourth year of performance-Extended

4.1 Objectives

Large earthquakes have a destructive power capable to depress the economy of a region for decades. These damages can be reduced only by adequate level of construction, but this is very costly, so that only the richest countries can afford it. Identifying the sites where a local amplification of seismic shaking will show unacceptable seismic performance of the buildings will allow selective reinforcement greatly cutting costs. This project promotes a large-scale application of a new experimental tool capable to achieve both the above identifications, providing the effective safety from earthquake damage in the highly seismic regions of Macedonia, Croatia and Slovenia an economically affordable goal. The objectives of the project are in full compliance with the priorities of Medium Term Plan 2007-2011 [AP/CAT (06) 47], section III, Item 1.

4.2 Program Contents

The following program activities are planned:

• Phase 1: Procurement of measurement instruments, provision of technical background relevant for the project, definition of operational protocol and dissemination between the participants;

• Phase 2: Identification of pilot sites and study / re-evaluation of the relevant geological data;

• Phase 3: Systematic surveying in each country by local teams and at each site providing the local geological data for the first order knowledge basis for planning the surveys;

• Phase 4: Collection and rationalization of results from the different countries. Each local participant will elaborate a general document concerning these results. The final results for each country will be summarized and a document to be conveyed to the national Authorities will be written.

4.3 Cooperation with other Centers and / or National Institutions

The following institutions will perform the Project:

• Section for Risk, Disaster Management and Strategic Planning (RDM/IZIIS), Institute of Earthquake Engineering and Engineering Seismology, University "St. Cyril and Methodius", Skopje, Former Yugoslav Republic of Macedonia;
• Environmental Agency of the Republic of Slovenia, Seismology Office, Ljubljana, Republic of Slovenia;
• Department of Geophysics, Faculty of Science, University of Zagreb, Republic of Croatia;
• Department of Earth Sciences, University of Siena, Italy;
• Department of Structures, Soil Dynamics and Applied Geology, University della Basilicata, Potenza, Italy;
• Ministry of Defense, Former Yugoslav Republic of Macedonia;
• Ministry of Environment, Spatial Planning and Energy, Republic of Slovenia;
• Ministry of Science, Education and Sports, Republic of Croatia; and,
• Ministry of Environmental Protection, Physical Planning and Construction, Republic of Croatia.

4.4 Principal scientist

Prof. Dr. Zoran MILUTINOVIC

4.5 Targets

A detailed mapping of the local amplification effects in seismic areas will be supplied to Central Administrations responsible for Civil Defence in the partner countries. This information will be accompanied by an estimate of building vulnerability in the most dangerous areas with a list of the most hazardous situations. On the basis of such data, national and local administrations will be able to plan a strategy to protect the territory from the seismic risk, giving high priority to the cases in which it is the highest and the public/social importance is also high such as lifelines, schools, hospitals, police and fire stations, emergency operation centers and some categories of governmental buildings.

4.6 ECILS Role and Contribution

Assurance of interaction between the project achievements and the needs of EUR-OPA MHA countries that comply with the principal project objectives and the scope of research activities to be carried out during the course of project performance;
• Representing the interests, needs and suggestions of EUR-OPA MHA countries in the field of earthquake hazards assessment, assessment of vulnerability of current buildings, development of earthquake risk scenarios and development of elements for risk mitigation and emergency preparedness planning for historic buildings and cultural heritage;
• Synthesis and electronic dissemination of projects' achievements and results on semiannual basis;
• Dissemination of advanced knowledge about new instrumental tools for fast microzoning of earthquake prone areas and assessment of building vulnerability. In particular, the operational protocol defined during the project will be published.
• Preparation of an International Workshop on "Site Amplification and Seismic Vulnerability of Buildings ".

4.7 Time Table

The phases 1, 2 and the initial part of the phase 3 will be realized in the first year of the project performance.
Phase 3 and part of the phase 4 will be performed in the second year. Phase 4 will be finalized in the third year.

Activity 5: Cost-Benefit Analysis of Base Isolated Vital Structures

Commencement: Year of 2005; Duration 3 years; Fourth year of performance-Extended

5.1 Objectives

Base isolated structures have higher construction cost comparing with classically constructed ones. The higher construction cost, however is compensated during the life time of the structure if it is exposed on string ground motion, having controlled behavior of the installed equipment and limited structural damages.
The objectives of this project are in full compliance with the recent trends of adoption of the Eurocodes for civil engineering structures and the priorities of Median term plan

2002 – 2006, as well as the Conclusions of 2003 Annual Meeting of Directors of EUR-OPA MHA Centers [AP/CAT (2003) 2].

5.2 Program Contents

The following program activities are planed to be undertaken:

• Selection of geometry and site of a standard school and hospital buildings;
• Cost evaluation of structures of non-isolated buildings;
• Design of base isolated structures;
• Evaluation of the cost of structural, non-structural systems and equipment;
• Evaluation of the cost for maintenance, retrofitting and insurance;
• Cost-benefit analysis.

5.3 Cooperation with other Centers, Companies and Institutions

Program will be fully performed by the staff of the Institute of Earthquake Engineering and Engineering Seismology (IZIIS) - Skopje, R. Macedonia. Specific activities will be analyzed and performed based on available data from center of neighboring countries and companies – manufacturers of base isolated devices (like Alga Company from Italy)

5.4 Principal scientists

Prof. Dr. Dimitar JURUKOVSKI, ECILS/IZIIS

5.5 Targets

This kind of project is expected to encourage structural engineers and official public authorities most of new school and hospital buildings, based on effective cost analysis, to be built as base isolated. Also, this technology could be very effective in the case of retrofitting of existing buildings located in high seismic areas.

5.6 Time Table

Activities will be realized in period of three years. In the first year structural aspects will be stated. In the second year, cost benefit analysis will be performed.

Activity 6: Evaluation of National Application Documents for Life Line Structures

Commencement: Year of 2007; Duration 2 years, Second year of Performance

6.1 Objectives

European Codes for construction are prepared for almost all types of structures. Based on these norms, all countries have to evaluate national documents for practical application (NAD). In these NAD's all variable parameters have to be specified for each particular country and each type of structures.

6.2 Program Contents

Evaluation of parameters for the needs of preparing of NAD's for each type of structure will be done for the selected types of life line structures: 1) roads and bridges; 2) schools and 3) hospitals. Having in mind that all EU countries have already evaluated NAD's for all type of structures and loads, in the process of evaluation of these documents for Former Yugoslav Republic of Macedonia a comparative analysis and calibration of estimated values with the values of parameters determined and adopted in National Documents of other countries members of EUR-OPA and EU.

The following program activities are planed to be undertaken:

• Compilation of the data-bases on national legislation and standards in the field of management of hazardous waste focused on mitigation, preparedness, response and rehabilitation;
• Evaluation of sub-regional database characteristics;
• Comparative analysis of national documents at a sub-regional level (European Member and Candidate States, Balkan countries, Russia and NIS) with European Union Regulations and identification of domains for harmonisation and strengthening;
• Proposal for reinforcement of mechanisms and instruments for environmental risk management at international, national, regional and local levels;
• Assurance of multilateral, transversal and integrated coordination supported by a national focal points network for dissemination, appropriate and effective promotion of sustainable development in Wider Europe.

6.3 Cooperation with other Centers, Companies and Institutions

• Cooperation will be assured with Centers from Countries that already have developed their NAD's.

6.4 Principal scientists
Prof. Dr. Dimitar JURUKOVSKI and Assoc. Prof. Dr. Zoran RAKICEVIC, ECILS/IZIIS-Skopje
6.5 Time Table
Activities planned under this Programme will be realized in the period of two years.

Activity 7: The Nature of Damages to Bridge Structures, Genesis and Categorization
Commencement: Year of 2008; Duration 3 years; First year of performance
7.1 Objectives
Bridge structures (bridges, viaducts, overpasses and underpasses) due to their high economic value and strategic importance, represent an important, vital component of a transportation system that is usually considered as a Critical regional/national/ international infrastructure.
The functioning of transportation systems primarily depends on the conditions of the structures along them.
Timely data on the main structural characteristics and existing conditions, including data on existing damages and other forms of degradation and maintenance/retrofit works performed (repairs, etc.) are indispensable to estimate their serviceability potential and inherent risk in normal (traffic) and extreme (natural&technogenic impact) conditions.
Bridge deterioration mechanisms are numerous and vary from bridge to bridge. A guideline for relating various deterioration mechanisms to proper nondestructive evaluation (NDE) as well as relating common flaw indications during visual inspection to appropriate NDE testing does not currently exist in an easy to use form. Development of such guidelines could provide an effective aid to those responsible for bridge inspection and assessment.
7.2 Program Contents
The following program activities are planed to be undertaken:
• Identification and systematization of common bridge flaw indications including causative deterioration mechanisms;
• Visual and NDE check of bridges on principal transportation routes in Macedonia for validation and calibration of the methodology and verification of flaw - causative deterioration mechanisms indications;
• Development of guideline for relating various deterioration mechanisms to proper nondestructive evaluation (NDE) and a Guideline relating common flaw indications during visual inspection to appropriate NDE testing.
7.3 Cooperation with other Centers, Companies and Institutions
• Institute of Earthquake Engineering and Engineering Seismology, University “Ss. Cyril and Methodius”, IZIIS-Skopje, Macedonia;
• Ministry of Transportation and Communication, Government of Former Yugoslav Republic of Macedonia;
• Public enterprise (Fund) for development and maintenance of transportation system of Macedonia;
• Other
7.4 Principal scientists
Assoc. Prof. Dr. Vlado MICOV, ECILS/IZIIS-Skopje
Prof. Dr. Zoran MILUTINOVIC, ECILS/IZIIS-Skopje
7.5 Time Table
Activities planned under this Programme will be realized in the period of three years.

MALTA / MALTE

ICoD - Euro-Mediterranean Centre on Insular Coastal Dynamics / Centre Européen de la Dynamique Côtière Insulaire (La Valetta)

Section I: Horizontal Programme

Production of interactive educational media to teach 6 - 11 year-olds about the Euro-Mediterranean coastal environment

A pilot project on Sammy Sand Grain initiated in 2005 has since been published in French, English, Spanish, Maltese and Turkish and is currently being produced in Russian and Arabic. This was the first in a series of books that feature Jack, Jill and their special friend Sammy Sand Grain.
The books are educational in that they specifically relate to beach processes but presented in a child appropriate format. All factual information provided is correct and the children are able to learn about coastal processes through the adventures of these three main characters and others such as Danny Dune, peter Pebble, and Willy Wave.
In 2008, the programme on interactive educational media to teach 6 - 11 year-olds about the Euro-Mediterranean coastal environment will include the printing and mailing out to national contact points of the Peter Pebble publication in French, Spanish and Turkish. A third and final publication will be produced. Entitled Curly Current, this edition will address among other, issues concerning potentially dangerous currents and hazardous litter encountered with the beach / coastal environment.

Section II : Specific (Co-ordinated) Programme

Third International Conference on the Management of Coast-Related Recreational Activities - Italy, 25th – 27th October, 2008
The objective of this conference series is to focus on selected aspects of coastal management, namely those related to the recreational amenities represented by beaches, yacht marinas and ecotourism amongst others. It will also encourage presentations concerning coastal hazards and related risks. The Conference aims to bring together researchers as well as practitioners and policy makers to highlight and discuss issues of concern while also showcasing appropriate solutions through the exchange of experiences, best-practice scenarios and innovative management concepts. In this manner, the Conference provides an opportunity to consider issues of concern to both tourism and the environmental sector, and to address sustainable management practice in these fields by exploring the dependency of tourism on a well-managed environment and conversely, the negative impact of insensitive tourism on environmental quality.
The Conference targets tourism professionals, researchers in the natural and social sciences, project managers, and staff from the private sector and government agencies whose work involves aspects of research into integrated coastal area management practices as well as the development and management of coast-related recreational amenities. The conference series is also of interest to managers of natural resources and environmental agencies; urban and coastal planners; non-governmental organisations (NGOs); environmental economists; coastal municipalities.

Section III: Other Programmes (not sponsored by the EUR-OPA Major Hazards Agreement)

5th Training Course on the Management of Coastal Recreational Tourism 14th – 25th April; 2008.

In collaboration with the Ministry of Foreign Affairs, Government of Malta and the Governance and Institutional Development Division of the Commonwealth Secretariat, London, UK.
This two-week training course is designed to disseminate specialised knowledge and to provide training on the management of coastal leisure and recreational tourism. The course programme consists mainly of lectures and case studies on different aspects of the main theme of coastal tourism; it also includes on-site fieldwork, field trips to relevant tourist popular locations around the Maltese Islands and intensive discussions on the situations and techniques encountered in real-life management of coastal recreation resources. Course faculty include ICoD staff members together with local lecturers from a number of relevant ministries, authorities, the University of Malta, and two eminent overseas lecturers in the field of coastal recreational tourism management.
Course participants are selected to represent professionals from Commonwealth countries holding senior/middle management positions with direct responsibility for planning, management and execution of tourism projects concerned with coastal recreation and leisure. All participants are required to make a brief but well-informed presentation describing their countries' management of coastal recreational amenities for tourism, which serve as case studies for discussion of opportunities and constraints in the 14 participating countries. Through the presentation of case studies and the sharing of participants' experience, the course achieves a significant level of skill transfer among the management personnel attending.
The success of this training activity has been such that the Commonwealth Secretariat in London (UK) is currently exploring the feasibility of organizing this same training course in Barbados so as to provide an opportunity for greater regionalisation of the event and increase participation from the Caribbean area.

Sustainable Management of Beach Resources in Sicily and Malta –2007-2008

Funded by the European Union through the INTERREG IIIA Programme, this project aims to address the sustainable management of beach resources through the application of the state-of-the-art BARE technique for beach management to selected project sites in Sicily (Provincia di Ragusa) and Malta.
Assessment of beach quality will be performed for each site through a sequence of registration and evaluation, giving particular attention to five beach-related issues: safety, water quality, facilities, scenery and litter.
The immediate project results will be the development of a beach management strategy and model for the regions studied. The long-term result expected from this project is enhanced tourism in both regions through the improved management of the regions' beaches.

MOLDOVA

ECMNR - European Center for Mitigation of Natural Risks / Centre pour la Réduction des risques naturels (Chisinau)

1. The study of impact and effects of dangerous wastes on health and environment – preventive measures.

OBJECTIVE OF THE PROJECT

Global objectives: To identify the preventive decisions that should increase the capacities of mitigation of the risk; recommendations concerning the mitigation of negative results of wastes – preventive measures.

Specific objectives for 2008: To define the principles of waste mitigation, evaluation and neutralization, reduction of waste production, exclusion of utilization, etc.

RESULTS OBTAINED PREVIOUSLY

Were collected and were examined materials and was organized a scientific-practical seminar on the topic where were identified the effects on health, sources of risk, protection measures, etc.

EXPECTED RESULTS IN 2008

The study on identification of preventive measures and mitigation of negative impact and effects of wastes will be further developed.

ASSOCIATED ACTIVITIES IN 2008

- To develop the measures in case of emergency (date: June)
- To evaluate and neutralize the wastes (date: October)
- To summarize the preventive measures and to bring to public (date: November)

2. Ethics and psychological support in the domain of natural risks.

OBJECTIVE OF THE PROJECT

Global objectives: The implementation of the culture of risks in the psychological assistance to victims of natural disasters by appropriate behavioral reaction and protection against natural risks.

Specific objectives for 2008: To organize a workshop with the participation of International governmental organizations and local authorities for the purpose of information collection and to define the actions and principles of psychological assistance to victims of natural disasters as contribution in the mitigation of negative impact.

EXPECTED RESULTS IN 2008

The programme of Workshop is developed, the objectives are defined and the partners and participants prepare their communications and present them to Secretariat.

ASSOCIATED ACTIVITIES IN 2008

- To identify the actors and co-organizers and the objectives of the workshop (date: April)
- To prepare the organizational measures and preliminary programme (date: May)
- To collect the communications (date: June)
- To prepare and distribute the conclusions on the workshop (date: July)
- To conduct the workshop in Chisinau (date: October)

3. Education, defense and security in the mitigation of natural risks (scientific seminar).

OBJECTIVE OF THE PROJECT

Global objectives: To develop the culture of cooperation and harmonization of common measures in the mitigation of risks of the Central, Local Government, NGOs by increasing the educational level. To identify the defence measures and security of population and tangible properties. To mitigate the natural risks.

Specific objectives for 2008: To define the educational forms and methods. The draft of a ABC as contribution in the mitigation of risks.

EXPECTED RESULTS IN 2008

The collection of communications and their generalization. Selection of proposals for ABC.

ASSOCIATED ACTIVITIES IN 2008

• To develop the measures resulted from the proposals made in communications (date: April)
• To publish the emergency measures in the mitigation of risks (date: June)

MORROCO / MAROC

CEPRIS – Euro-Mediterranean Center for Evaluation and Prevention of Seismic Risk / Centre Euro-Méditerranéen sur l'Evaluation et la Prévention du Risque Sismique (Rabat)

Activités financées par le CNRST (institution qui abrite le CEPRIS)

- Actualisation du catalogue et de la cartographie sismique
- Qualification des nouveaux sites des stations sismiques. Remise à niveau et Modernisation du réseau sismique marocain
- Surveillance et Alerte sismique des grands ouvrages

Activités financées par la subvention de l'Accord

- Sismotectonique du Haut Atlas de Ouarzazate
- Qualification sismique des sites de grands ouvrages : Centrale énergétiques sur la côte atlantique marocaine pour le compte de l'Office Nationale de L'Electricité.
- Détermination de l'aléa et du microzonage sismique des tissus urbains Al Hoceima, Tamesna et My Idriss Zerhoun
- Elaboration de Spectres d'atténuation pour le Maroc

Activités dans le cadre du Programme FORMOSE

- Master en sciences du Risque: Encadrements sur le terrain et aux laboratoires de mémoires de Master (50% des candidats sélectionnés sont des cadres en fonction et des étudiants africains)
- Formation Doctorale au profit d'étudiants marocains et de pays africains

Activités soutenues partiellement ou totalement dans le cadre des programmes coordonnés

Coopération avec des Centres Sismologiques Euro-Méditeérranéens :

- Centre Universitaire Europeen Pour Les Biens Culturels – Ravello – Italie. Culture Locales du Risque : Ressources Précieuses. Resources à Risque.
- European Center On Vulnerability Of Industrial And Lifeline Systems – ECILS, Skopje – Macedonia "Creation of Regional Capacity and Task Force for Post-disaster Damage Assessment"
- Coopération avec le Centre de Lisbonne.

Participation aux projets de la Commission Européenne

- Projet NEAREST : Aléa de tsunami et proposition de prototype de surveillance
- Préparation de l'Organisation de manifestation scientifique en Mars 2008 sur l'aléa de tsunami.
- Projet TRANSFER
- Projet PROHITECH sur la protection du bâti historique avec les nouvelles technologies.

Participation aux projets bilatéraux

Maroc - Portugal : Projet de Coopération avec l'Université de Lisbonne sur l'évaluation du risque de tsunami.

PORTUGAL

CERU - European Center on Urban Risks / Centre Européen sur les Risques Urbains (Lisbon)

I. In order to improve and gather more information on different areas connected to Urban Risks, and because of our interests on the framework of the INTERNACIONAL YEAR OF PLANET EARTH, assuring considerable outreach and educational activities, we are looking for the best opportunities to express the CERU concerns .Reduction the risks for Society caused by urban hazards is motivating initiatives to raise the awareness in the minds of politicians, decision makers, the media and the people.
It is important to pay attention to the various aspects on the behavior of the Society when, neglecting the functioning of the educational systems, legislation and civil regulations, the amount of expertise and experiences is not used to avoid false alarms, and so, calling for extreme efforts to ensure a safer environment.
The CERU is looking for an adequate and intense participation in various Top Conferences:
• Sociedade de Geografia de Lisboa –March;
• General Assembly of the European Seismological Commission-September Crete, Greece;
• 14 the World Conference on Earthquake Engineering –October –Beijing, China
• Fall Meeting of the American Geophysical Union – December – San Francisco, Cal, USA

II. It is under organization an European Project to interest a group of institutions integrating Centres- EUR-OPA, with challenging objectives on " Development of Methodology and Tools to evaluate Earthquake Hazard in Europe". Georgia, Turkey, Italy, Germany, Portugal and some other European Eastern Countries are able to provide institutional participations.
The CERU total expenses in 2008 to support the preparation of this proposal must not exceed 5 000 € per Partner.

III. The CERU is looking for the definition collaborative partners to perform the analysis of the earthquake resistance of the aggregates in Historical Centres, trying to find out the more advisable suggestions for the retrofitting and rehabilitation of the old structures. After the Course organized last year in Lisbon, there was a common opinion that it is possible, taking advantage of the FP 7th, to join in a cooperative demonstration project extended over different countries in the Euro-Mediterranean, region specialists with very large experience on earthquake engineering.
It is particularly important to select heterogeneous typology compositions of the aggregates to demonstrate the validity of the approaches on the followed methodology.
Historical buildings stocks that were designed prior to the introduction of reasonable earthquake requirements into building codes, buildings with relatively low resistant structures, and more recent ones that were built after major earthquakes, when integrating the aggregates will determine different responses that have to be considered according to the distributions and inside arrangements.
Partners from Italy, France, Macedonia, Greece, Morocco, Portugal and Turkey are envisaged.
The amount of funds to be used in 2008 by the Partners must not exceed 10000€ / each.

IV. The English version of the book "Risco Sísmico no Centro Histórico de Lagos", have to be published in 2008.

ROMANIA / ROUMANIE

ECBR - European Centre for Rehabilitation of Buildings / Centre Européen pour la Réhabilitation des Bâtiments, (Bucharest)

General aspects

The European Center for Buildings Rehabilitation, ECBR was founded at the National Institute for Building Research, INCERC in Bucharest, under the authority of the Ministry of Development, Public Works and Housing (formerly Ministry of Transports, Construction and Tourism, MTCT) and within the frame of Council of Europe Open Partial Agreement on the prevention of protection against and organization of relief in major natural and technological disasters.

ECBR is located in the premises of INCERC in Bucharest and is an independent organization, reconfirmed in the new INCERC structure, approved by the Romanian Government and the Ministry of Transports, Constructions and Tourism in 2006.

The Center benefits from the facilities of existing laboratories in INCERC, as well as from consultancy of INCERC, UTCB, Technical University of Civil Engineering and CNRRS, National Center for Seismic Risk Reduction, researches and engineers.

The Center promotes partnership with specialized institutions, agencies and authorities related to building design and building rehabilitation from Romania, UE and world-wide.

Activities of the Center in 2008

The existing building stock in Romania is vulnerable at earthquakes, thus the population and the wealth is at risk. During the last years several national laws request and support the identification and the strengthening of buildings vulnerable to earthquakes.

On the other hand, for the new investments in real estate, many with involvement of companies from less seismic areas, it is necessary a quality assurance that provides safety in case of earthquakes.

Therefore, ECBR will perform in 2008 activities in support of implementation of concerning Eurocode 8, and buildings rehabilitation at the national, regional and European levels, as well as the Civil Protection needs in EUR-OPA member countries.

Activity no. 1: Preparatives for a future ECBR coordinated programme for activities at European scale on seismic risk management

Considering the role of developers and house builders as creators of territorial development, the need of sustainable constructions in member countries, especially of those recently becoming members of the European Union, in cooperation with:

- Interested specialised centers of earthquake of the EUR-OPA Agreement in earthquake-prone countries, in cooperation with

o UEPC-European Union of Developers and House Builders and the Romanian Federation of Ownership in Construction - PSC;

o European organisations where INCERC is partner, as:

- ENBRI - EUROPEAN NETWORK OF BUILDING RESEARCH INSTITUTES
- EOTA - EUROPEAN ORGANISATION FOR TECHNICAL APPROVALS (observatory member)
- UEAtc - EUROPEAN UNION OF AGRÉMENT

Activity no. 2. Support and dissemination of knowledge for earthquake rehabilitation of buildings for citizens:

• The ECBR plan for 2008 has the intention to ensure:

- activities for citizens in view of new legal measures of Government and MDPWH to enforce the antiseismic rehabilitation of first class of risk high-rise buildings by special labelling
- dissemination of earthquake preparedness rules for school students, using INCERC booklets and multimedia.
- contribution to the Information website on seismic risk in Romania

Activity no. 3. Participation to Conferences and Symposia:

• The 2008 plan of ECBR has the intention to ensure for these symposiums:

- presentation of 4 papers and posters of ECBR – INCERC researchers for the following conferences, on matters related to the ECBR activity, on:
• 14-th World Conference on Earthquake Engineering, Beijing, China, October 2008;
• International Conference 2008 on education, thematic cluster on disaster reduction and earthquake education at school;
- contribution to the editing / publishing of CDRom and volume of Proceedings, as a knowledge data base for professionals and students.

RUSSIAN FEDERATION/FEDERATION DE RUSSIE

ECNTRM- European Center for new technologies in management risks (Moscow)

SAN MARINO / SAINT-MARIN

CEMEC - European Centre for Disaster Medicine / Centre Européen pour la Médecine des Catastrophes (San Marino)

COORDINATORS	COURSES	DATES	
Dr.Alessandro Trevisan Jennifer Wikes	Advanced Life Support- ALS	To decide	To give knowledges on advanced cardio circulatory resuscitation in adult
Dr. Alessandro Barelli	Environmental and health effects of waste management	October 4	To give knowledges on toxical effects of waste management on human being, animals and environment
Dr. Giovanni Muratori	PBLS-Pediatric Basic Life Support	To decide	To give knowledges on cardio respiratory resuscitation with defibrillation for children
Dr. Alessandro Barelli	T.B.S.T. Toxicological Basic Support Therapy	To decide	To give knowledges for the correct management of intoxicated patients
Dr. Emilio Chiodo	Qualification on legal medicine	To decide	To give knowledges on legal responsibility for medical personnel
Dr. Emilio Chiodo	Emergency Psychology	To decide	To give useful to the psychological aspects of people involved on health emergencies and disasters
Dr. Giancarlo Mosiello	Advanced management of maxi emergencies	To decide	To achieve knowledges for advanced intra and extra hospital management of disasters and maxi emergencies
Dr.ssa Santa Costanzo	Emergency and elderly people	October 14/15	T ogive knowledges on first aid to elderly people during mass emergencies
Prof. Adriano Mantovani	Veterinarian emergencies in	To decide	International Seminar

Dr.ssa Elisabetta Lasagna	developing countries		
Prof. Louis Crocq	The medical psychological intervention on disaster victims	To decide	International Seminar

TURKEY / TURQUIE

AFEM - European Natural Disasters Training Centre / Centre Européen de Formation sur les Risques Naturels (Ankara)

1. "The Standardization of Geo-Technical Studies, and Information on the Geo-Technical Studies Performed in San Andreas Fault Region"

Aim : to obtain information on geo-technical studies in the regions affected by the San Andreas Fault, and in order to frame the studies on this subject to a standard,
DURATION : 7 days
TARGET COUNTRIES : International Project /All EUR-OPA Countries
LOCAL COORDINATOR: Dr. Nehir VAROL (Director of AFEM)

OBJECTIVE OF THE PROJECT

The General Directorate of Disaster Affairs is responsible for maintaining geo-technical studies that will be the basis of safe structuring in earthquake regions. Determining the safe areas in regions under earthquake risk before the preparations of development plans can be possible only by very well trained experts. In order to enhance the proficiency of technical personnel in geo-technical studies and to balance these studies with the ones that are maintained in the world through standardization, our ministry intends to maintain its activities of such training with AFEM. As is known, the North Anatolian Fault Line, which gives Turkey the characteristic of being a country subject to earthquakes, is similar to that of San Andreas in America in respect to its mechanical qualities. In order to obtain information on geo-technical studies in the regions affected by the San Andreas Fault, and in order to frame the studies on this subject to a standard, such a workshop is very necessary.

ASSOCIATED ACTIVITIES IN 2008

- Restructuring After the Disaster
- The Training of The Standardization of Assessment of Damage and Achieving it Through Computer Aid

ASSOCIATED ACTIVITIES IN 2008

• Information on the Geo-Technical Studies : methodology, procedure and format (date: June 2008)
Details: Development of the methodology, procedure and format for Geo-Technical Studies
• Expert meeting (date: December 2008)
Details: Presentation and review of achievements, professional consensus, discussion and agreement with EUR-OPA countres authorities and Specialists from USA
• Workshop (date: May 2009)
Details: Presentation about Geo-technical studieas on active fault zones and around, examples from countries

2. "The Planning and Installation of Early Warning Systems in Meteorological Disasters, Recent Developments in New Systems"

Aim : Prevention and/or minimization of the effects of such disasters
DURATION : 5 days Multi-year project ? Yes :
TARGET COUNTRIES : International Project /All EUR-OPA Countries
LOCAL COORDINATOR: Dr. Nehir VAROL (Director of AFEM)

OBJECTIVE OF THE PROJECT

It is observed that meteorological disasters such as aridness, flood, land sliding, hail, land erosion, avalanche have been more frequent and more drastic. In addition to this, it is also predicted that this acceleration will continue in the future resulting in serious loss of life and economical losses. Prevention and/or minimization of the effects of such disasters is possible with the prediction of extreme weather events. This international conference with the participation of institutions involved in meteorological issues in Turkey, WMO World Meteorology Organization, universities and the member countries of EUR-OPA will assess the recent studies on these disasters and early alarm systems.

ASSOCIATED ACTIVITIES IN 2008
- Climate Change Conference

3. "Camp Training for Young People and Children for Raising Sensibility for Forest Fires and Implanting Forest Love"

Aim : preventing at least the human-caused forest fires, in eliminating the natural ones before they expand or cause further damage.

DURATION : 5 days Multi-year project ? Yes : 5 years

TARGET COUNTRIES : International Project (EUR-OPA member countries schools-universities) participants will be selected by EUR-OPA specialized centers

LOCAL COORDINATOR: Dr. Nehir VAROL (Director of AFEM)

OBJECTIVE OF THE PROJECT

The Ministry of Environment and Forestry is planning a 5-day camp training for young people and children (primary, secondary school, high school and universities students) in order to raise sensibility for forest fires and to implant forest love, which will be organized every year in central countries of EUR-OPA including our own. Forest fires in our country, especially those that occur in the Mediterranean, Aegean, and Marmara regions cause serious damage. In Greece, Italy, Portugal, Spain and France all of which are in the same zone, forest fires are a serious problem that causes serious damage. The sustainable training of the young population of these countries will be beneficial in preventing at least the human-caused forest fires, in eliminating the natural ones before they expand or cause further damage.

ASSOCIATED ACTIVITIES IN 2008
- Preparation and distribution of materials for children such as educative magazines-booklets, t-shirts, and stickers
- Pilot Application of Continuing Training Beginning with Primary Schools In Order to Develop a Natural Disaster-Conscious Society

UKRAINE

TESEC - European Centre of Technological Safety / Centre Européen de Sécurité Technologique (Kiev)

1. Developing of training course on radiological monitoring in Chernobyl Exclusion Zone

The Chernobyl accident has provided a unique opportunity for research and training on emergency response and post-accidental radiation monitoring. It is one of only a few places in the world where effective training and experience in internal and external dose assessment, radioactive sample collection and preparation, contamination mapping and decision making can be provided in real highly contaminated area. It is important to expand such experience for upgrading of post-accident radiation monitoring techniques and decision making in a case of nuclear or other radiological accident.
The TESEC has the laboratory facilities and faculty needed to provide advanced international seminars and group training. There are laboratories and equipment for sampling and sample preparation, portable dose and dose rate meters, alpha and gamma spectroscopy and beta particle detection, In-Situ measurement technique, etc.
The curriculum of the course consists of classroom instruction, practical field exercises and data analysis at the TESEC training facility, and exercises in contaminated areas of the Chernobyl Exclusion Zone.
The main purpose is to give opportunity for the participants, who are interested in providing of measurements, to apply their knowledge in "real" conditions and to be trained as emergency monitoring team. The purpose of the course is also to give opportunity for the participants to realize what action should be done during different phases of the accident, to participate in real measurement with the aim of emergency monitoring and to apply their knowledge in decision making using real results of measurements.
A distinguishing feature of the Training Course will be its practical aspects. The international group of participants will be divided into teams to perform gamma and beta surveys, In-Situ gamma spectrometry, vegetation and soil sampling in contaminated field and forest locations, data acquisition and assessment.
Lectures and accommodations will take place at the TESEC training facilities (35 km from Kyiv). Opportunities for visits and tours to Kyiv will be provided through TESEC.
The schedules for lectures and laboratory exercises are developed by an international panel of experts. It is based on current international standards and methodologies. The training materials of IAEA train-the-trainers course "Regional Train-the-Trainers Course on Monitoring Strategies, Procedures, Reporting and Transmission of Data" will be used during the Training Course.
TESEC will provide faculty, laboratory facilities, and will arrange access to the field sites.

2. Updating of TESEC web site

European Centre of Technological Safety (TESEC) is an international research and educational organization created in according to the decision of Founders (the Ministry of Ukraine of Emergencies and Affairs of Population Protection from the Consequences of Chernobyl Catastrophe from Ukraine and Open Partial Agreement from Council of Europe, protocol # 1 of 24.05.97).
TESEC acts in according to its Statute, in its activity it is guided by international regulations, decisions of Supreme Soviet of Ukraine, decrees of the President of Ukraine, decisions and orders of Cabinet of Ministers of Ukraine, decisions of Council of Founders of the Centre.
The main research area of TESEC is environment protection, emergency prevention, response and relief.
TESEC has web site lined with main web site of EUR-OPA major Hazard Agreement. It containing information about TESEC activities and annually updating.

3. Participation in EUR-OPA joint projects and activities

The key long-term aim of EUR-OPA is promoting co-operation among its member States in the field of major natural and technological risk management. The TESEC contribution in the activities of other Centers is effective tool in that area. In 2008 TESEC planning to contribute in the joint activity of Agreement in following items of planning activity:

- Country studies on local and regional authorities and risk reduction
- Preparation of educational material for school education on risks
- Promoting co-operation through seminars and meetings of the specialized Centres.