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

COUNCIL OF EUROPE CONSEIL DE L'EUROPE

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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

PROGRAMMES COORDONNES EN 2009

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

2009 COORDINATED PROGRAMMES

www.coe.int/europarisks

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LEGISLATIVE ASPECTS / ASPECTS LEGISLATIFS

DEVELOPPEMENT D'UN SITE WEB POUR LA PUBLICATION DES RESULTATS DE L'ETUDE SUR LE RÔLE DES AUTORITES LOCALES ET REGIONALES DANS LA GESTION DES RISQUES MAJEURS (ISPU - Institut Supérieur de Planification d'Urgence, Florival)

OBJECTIF DU PROJET

Objectifs globaux

Avoir une vue globale, pour chaque pays analysé, du rôle joué par les autorités locales dans la gestion des risques majeurs et des mécanismes de coordination mis en place ;
Identifier les difficultés auxquelles elles sont confrontées et examiner l'appui que leur offrent les niveaux supérieurs ainsi que les efforts d'harmonisation entrepris ;
Identifier et échanger les bonnes pratiques existantes.

Objectifs spécifiques pour 2009

Poursuivre l'analyse approfondie des pays pour lesquels suffisamment d'informations nous ont été transmises (avec mission sur place).
Organiser une réunion de concertation avec les pays ayant participé à l'enquête par questionnaire afin de convenir d'un champ d'étude plus restreint (donc frais de mission pour les participants) ;
Adapter le questionnaire par rapport aux remarques qui ont été faites par les participants tendant vers une simplification ;
Adaptation du Doc AP/CAT (2007)11 en fonction des bonnes pratiques identifiées.

RESULTATS ATTENDUS EN 2009

Fin 2008, l'ISPU a invité les participants à l'enquête par questionnaires (Algérie, Maroc, Arménie, Grèce, Luxembourg, France, Belgique) à mener une réflexion sur la future structure à donner à l'étude visant notamment à partager les meilleures pratiques existantes.
Simplification du questionnaire et nouvel appel à contribution :
Peu d'autorités sont en mesure de répondre à toutes les questions, trop nombreuses de surcroît. Par conséquent, le questionnaire sera retravaillé afin de mieux orienter les résultats vers la production de fiches comportant des informations concrètes à
destination des autorités locales sur des thématiques issues de la première phase de l'analyse.
Identification des bonnes pratiques exportables et intégration dans le document de référence AP/CAT (2007)11
Les analyses approfondies en cours seront transmises à l'Accord.
Les pays ayant complété le questionnaire ont été invités à présenter une bonne pratique ou leur organisation locale lors des réunions de l'Accord : à organiser concrètement.

RÉSULTATS OBTENUS EN 2009

Sélection d'un développeur pour créer un site Web pour la publication des résultats de l'étude concernant le rôle des autorités locales et régionales dans la gestion des risques majeurs.
Le site Web a été développé avec les fonctionnalités suivantes :

- Publication des résultats de l'étude concernant le rôle des autorités locales et régionales dans la gestion des risques majeurs avec la possibilité de trier par pays, thème ou question,
- Possibilité de remplir le questionnaire en ligne,
- Publication des formulaires complétés pour les bonnes pratiques,
- Possibilité de remplir le formulaire pour les bonnes pratiques en ligne,
- Possibilité de voir les résultats en plusieurs langues (anglais, français, russe)

Le site Web sera non seulement un outil important pour la publication des résultats, mais aussi pour assembler les données et les bonnes pratiques.

TRAINING / EDUCATION

DIFFUSION DE CONNAISSANCES SUR LES RISQUES CÔTIERS (CerCo - Centre européen sur les risques côtiers, Biarritz)

PAYS CIBLES: Etats membres à l'Accord EUR-OPA confrontés aux risques côtiers
COORDINATEUR LOCAL: Françoise Pautrizel
AUTRES PARTICIPANTS:
CENTRES SPECIALISES: Centre sur les dynamiques Côtières insulaires (ICoD) de Malte
AUTORITES NATIONALES: Région Aquitaine (mise en place d'un Groupement d'Intérêt sur le Littoral)
AUTRES : Association Européenne des Sciences et Techniques de la Mer (AESTM), Institut de recherche sur les Archéomatériaux de Bordeaux (UMR 5060)

OBJECTIF DU PROJET
Objectifs globaux
Développer une dynamique au travers de laquelle les professionnels et futur professionnels de la mer pourront se rencontrer et échanger leurs expériences avec des chercheurs spécialisés dans la connaissance des littoraux et des risques qu'ils supportent.
Objectifs spécifiques pour 2009
Mettre à disposition des gestionnaires du littoral des éléments pour prévenir les risques et les gérer si nécessaire. Devenir à terme une interface privilégiée à travers laquelle les scientifiques et les usagers de la côte pourront partager informations et expériences.

RESULTATS OBTENUS ANTERIEUREMENT
L'étude Eurosion (2004) conclue que « la base de la connaissance de la gestion et de la planification de l'érosion côtière devrait être renforcée par le développement des stratégies de l'information », constat ré-exprimé par le Plan d'Action pour la Recherche Côtière établi lors de la Conférence de Paris du 5-7 décembre 2007 organisée par le Réseau européen ENCORA : des défauts majeurs dans le transfert de connaissance et de technologie qui gêne actuellement l'implémentation de la gestion intégrée des zones côtières (GIZC).

RESULTATS ATTENDUS EN 2009
20 étudiants en formation pour chacun des modules (étudiants en fin de cursus et gestionnaires du littoral : chargés de sécurité de collectivités territoriales ou d'entreprises, membres de la protection civile, enseignants, chercheurs, étudiants)
Création d'un réseau de partenaires, « réseau européen de gestionnaires risques » côtiers et mise à disposition des futurs gestionnaires d'information concernant les principales institutions européennes dans les domaines des risques côtiers et de la prévention du patrimoine.

ACTIVITES ASSOCIEES EN 2009
UN BILAN DE CONNAISSANCES
Un travail de recensement de ce qui a été fait dans ce domaine par les organismes de recherche européens sera effectuéafin de faire un bilan des Centres et de leurs compétences, et mettre à disposition des gestionnaires du littoral des informations fiables et accessibles. L'actualité des problèmes liés aux perturbations supportées par les zones côtières, montre l'urgence d'une mise en commun des informations pour prévenir et agir contre les risques majeurs naturels et anthropiques. Nous proposons d'établir un bilan des connaissances concernant les zones côtières afin de disposer d'un éventail de données plus conséquent et plus performant, pour une meilleure gestion intégrée et durable et par la même, contrôler les perturbations. De nombreuses études de grande qualité ont été réalisées sur les zones côtières, mais rares sont les documents de synthèse faisant état des acquis scientifiques, des recherches et des lacunes du savoir à un moment déterminé. La reconnaissance du Centre de la Mer de Biarritz en tant qu'un des centres correspondants de l'Accord Européen (EUR-OPA) Risques majeurs permet de répondre à cette attente et aide à la réalisation de banques de données en des lieux choisis comme points focaux, en fonction de la proximité d'équipes scientifiques. Cette démarche prend tout son intérêt par rapport à la future Cité de l'Océan.
Les domaines d'intérêts de ce programme sont : Géomorphologie et tectonique côtière et littorale ; Géologie et dynamique côtière ; Géologie et sédimentologie océanique ; Biologie de l'espace littoral.
DES MODULES DE FORMATION
Deux modules de mastère (d'une semaine chacun, soit 36 heures, à Biarritz) s'adressant aux étudiants européens en fin de cursus et aux professionnels du littoral désirant enrichir leurs compétences. Aucune formation spécialisée ciblant les gestionnaires et décideurs du littoral n'est aujourd'hui proposée. Ces deux modules de mastère constituent à ce titre une initiative innovante dans le domaine de l'enseignement et de la formation professionnels. En plus des méthodes « classiques » d'enseignement en salle de cours, seront organisées des sorties de terrains, des ateliers spécialisés et des conférences illustrées suivies de débats.

Module « Connaissance et Gestion des Risques Cotiers » (en partenariat avec l'université de Bordeaux 1, l'université de Pau Pays de l'Adour, l'ICOD de Malte et l'Association Européenne des Sciences et techniques de la Mer)
Dans un contexte d'urbanisation croissante et de changement climatique, les systèmes côtiers sont de plus en plus vulnérables, le risque se défisant comme l'exposition des personnes, des infrastructures et des écosystèmes face à ces aléas:
- risques dépendant de la surélévation du niveau marin;
- risques dépendant de l'action des marées, de la houle, des courants modifiant le trait de côte;
- risques exceptionnels (juxtaposition de situations rares à la fois atmosphériques, marines, climatiques et éventuellement géophysiques);
- risques issus du domaine continental;
- risques pour le matériel biologique du littoral;
- risques liés aux activités humaines.
La formation proposée permettra de comprendre les caractéristiques des risques et mettra en avant les outils de gestion pour lutter contre ces risques.
Module «Strategies de Prevention du Patrimoine Culturel contre les Risques Majeurs » (en partenariat avec le l'Institut de recherche sur les Archéomatériaux de Bordeaux, l'association FER-PACT « Sciences et Patrimoine Culturel» et le CUEBC de Ravello)

RESULTATS OBTENUS EN 2009
Le Centre de la Mer de Biarritz, en tant que Centre européen des risques Côtiers (CerCo), s'est engagé auprès de l'Accord EUR-OPA Risques Majeurs à mettre en place en 2009, un programme de formation sur la thématique des risques côtiers. L'objectif de cette première édition était avant tout de mobiliser un échantillon de gestionnaires pour rendre compte de leurs attentes et de leurs besoins en termes de formation et d'information.
Organisation
Cette première session de la formation "connaissance et gestion des risques côtiers » au Musée de la Mer (Biarritz, 12-16 octobre) a été mise en place selon le format « mastère » préconisé par l'accord : sur une durée d'une semaine et 36 heures de cours. L'organisation du mastère s'est largement appuyée sur l'infrastructure du musée de la Mer avec la mise à disposition de la salle de cours et du matériel pédagogique (projecteur, ordinateur, rétroprojecteur), machine à café, biscuits et rafraichissements.
La stratégie de diffusion de l'offre du stage s'est basée le réseau des institutions que nous possédons et le Centre National de la Fonction Publique territoriale (CNFPT), organisme en charge de la formation des agents territoriaux, qui s'est proposé, en plus de la diffusion de l'offre de stage, d'apporter un soutien logistique et financier.
Programme des enseignements
Nous avons pu tenir nos engagements par rapport au programme prévisionnel que nous avions publié en juillet 2009. La formation s'est déroulée sur cinq jours, du lundi 12 au vendredi 16 octobre 2009, le dernier jour étant consacré à une sortie sur le terrain.
Ce programme avait pour objectifs d'une part, de couvrir l'ensemble des caractéristiques des risques côtiers (qualité de l'eau, submersion, etc.) et d'autre part de proposer des outils pour gérer ces risques :
- risques dépendant de la surélévation du niveau marin;
- risques dépendant de l'action des marées, de la houle, des courants qui modifient le trait de côte;
- risques exceptionnels qui relèvent de la juxtaposition de situations rares à la fois atmosphériques, marines, climatiques et éventuellement géophysiques ;
- risques issus du domaine continental ;
- risques pour le matériel biologique du littoral ;
- risques liés aux activités humaines.
Programme des enseignements
Lundi 12 octobre

- Accueil au Musée de la Mer *Françoise Pautrizel, Docteur en Océanographie, directrice du Musée de la Mer de Biarritz et directrice de CerCo1 (Centre européen des risques Côtiers)*
- Les changements climatiques *Michel Vigneaux Professeur honoraire de géologie, Université de Bordeaux 1, membre de l'Académie Nationale des Sciences, Belles Lettres et Arts de Bordeaux, président de la FER (Fédération Européenne des Réseaux de coopération scientifique et technique)*
- Le concept de "risque" *Jean-Claude Napias ancien directeur BRGM8 vulnérabilité, hydrologie, France et ancien directeur du CIFEG*
- Morphodynamisme côtier *Didier Rihouey, Docteur en génie civil côtier, responsable de la cellule de transfert technologique du Casagec (Cellule Aquitaine de Suivi et d'Analyse pour une Gestion intégrée des Environnements Côtiers)*

Mardi 13 octobre

- Le risque d'inondation *Yves Ruperd Ingénieur hydrologue - Centre d'Etudes techniques de l'Equipement (CETE), Laboratoire Régional des Ponts et Chaussées de Bordeaux*

- Les apports de la télédétection *Jean-Marie Froidefond Professeur de télédétection optique, Université de Bordeaux 1 - Département de Géologie et Océanographie, laboratoire EPOC (UMR 5805)*

Mercredi 14 octobre

- Risques issus du milieu Continental *Jean-Pierre Vernet, Professeur honoraire de Géologie, Université de Genève, Institut F.-A. Forel, géologie de l'environnement, géochimie des sédiments et limnogéologie. Président de la Fondation pour l'étude et la protection du patrimoine lacustre*
- Outils de gestion de la pollution (1) *Julien Mader Coordinateur de l'unité de Recherche Marine du laboratoire d'AZTI Tecnalia en Guipúzcoa, Pays basque ; Matthias Delpey Centre Technique Du Littoral - Lyonnaise des Eaux - Groupe SUEZ*
- Outils de gestion de la pollution (2) *Matthieu Darmendrail Ingénieur, Syndicat Mixte Kosta Garbia ; Victor Peñas Sánchez, Agencia Vasca del Agua*
- Risques du matériel biologiques *Iker Castège Chercheur doctorant, Centre de la Mer de Biarritz, responsable du programme ERMMA (Environnement et Ressources des Milieux Marins Aquitains)*

Jeudi 15 octobre

- Les mouvements dunaires littoraux *Dr. Bérengère Clavé-Papion, Docteur en Géologie, médiatrice scientifique de l'Association Océan*
- Les risques insulaires *Dr. Anton Micallef, Professeur de la faculté de Malte, gestion des zones côtières, directeur du ICoD (Euro- Mediterranean Centre on Insular Coastal Dynamics)*
- Risques côtiers, patrimoine et politique publique *Max Schvoerer Professeur physicien, université de Bordeaux 3, Laboratoire de physiques appliquée à l'archéologie CRIAA; Jean-Pierre Massué, Physicien, Membre du Conseil National d'Orientation des la Prévention des Risques Naturels Majeurs (MEEDDM), Président de l'Institut Européen pour la Conseil en Environnement (Strasbourg), Ancien Secrétaire Exécutif de l'Accord EUR-OPA Risques majeurs du Conseil de l'Europe*

Vendredi 16 octobre

- Enseignement sur le terrain: la gestion des risques du littoral Biarrot *Michel Vigneaux Professeur honoraire de géologie, Université de Bordeaux 1, membre de l'Académie Nationale des Sciences, Belles Lettres et Arts de Bordeaux, président de la FER (Fédération Européenne des Réseaux de coopération scientifique et technique), Alain Chauvin, ingénieur responsable de l'aménagement des falaises de la Côte des Basques, Biarritz*

Stagiaires

18 stagiaires dont quatorze agents territoriaux (douze techniciens et deux ingénieurs), deux représentantes de bureau d'étude (ICABE), un ingénieur météorologue et une étudiante de master.

Suite à envisager

Les échanges qui ont eu lieu lors du temps imparti aux débats ont confirmé nos pronostics : les carences en communication entre gestionnaires, scientifiques, utilisateurs, et institutions gouvernementales dans le processus de gestion de l'environnement côtiers. A travers les différents
témoignages, on a pu constater, notamment en cas de catastrophe naturelle, à quel point les fonctionnaires territoriaux sont démunis ce qui peut nourrir un sentiment d'hostilité vis-à-vis des
institutions gouvernementales qui ont la charge de leur apporter les moyens pour réagir.
Pour que les échanges entamés lors de ces journées puissent être pérennisés, il convient de mettre
en place du site internet au travers duquel l'ensemble des participants (stagiaires et intervenants)
pourront prendre contact. Nous transmettrons dès que possible à l'ensemble des participants ses
coordonnées ainsi que les identifiants et mots de passe pour qu'ils puissent accéder directement aux présentations PowerPoint, ainsi qu'aux détails/contacts de tous les participants et intervenants.
Par ailleurs, il serait intéressant de travailler sur la mise en valeur de la connaissance empirique de l'environnement côtier acquise par les agents territoriaux tout au long de leur carrière à travers les travaux d'aménagement auxquels ils ont participé. Ce savoir représente une valeur scientifique et technique considérable dont il serait dommage de se passer notamment dans la mise en place de politiques publiques ou de programmes de recherche scientifique.
Le site internet aura aussi pour vocation de devenir un centre de ressource à travers lequel il sera possible d'une part de publier témoignages, documents, photographies, etc… Et d'autre part d'accéder à l'ensemble de ces ressources qui auront été référencées. Une réflexion sur les moyens techniques qui doivent être mis à disposition pour valoriser ces connaissances est en cours.

Conclusions

Cette première formation a suscité un fort engouement de la part des gestionnaires et des partenaires pédagogiques. La demande de la part des collectivités a été supérieur à notre capacité d'accueil et nous avons du refuser un certain nombre d'inscription. Aussi, nous envisageons une réédition de ce cours en début d'année prochaine (2010). Des budgets supplémentaires devraient aussi être alloués à la location d'une salle de cours plus grande afin d'augmenter notre capacité d'accueil. Nous comptons par ailleurs sur le projet Biarritz-Océan et la construction de la Cité de l'Océan pour augmenter notre capacité d'accueil dès 2011.

Le format de cette formation (1 semaine/ 36 heures de cours) ne nous permet pas d'aborder en profondeur toutes les thématiques liées aux risques côtiers. C'est pourquoi, nous estimons qu'il serait judicieux d'étaler cette formation sur deux semaines distinctes pour bien mettre en valeur la
complémentarité des sujets traités. Aussi, nous réfléchissons, avec l'ensemble de nos partenaires pédagogiques à la mise en place d'une série de formations complémentaires afin de traiter convenablement l'ensemble des thématiques.
Un questionnaire a été transmis aux stagiaires dont le retour de 70% a permis d'identifier :
Les points positifs

- La participation (des intervenants et stagiaires) a été très assidue et a permis beaucoup d'échanges.
- Le cadre (Biarritz, locaux mis à disposition par le musée de la Mer)
- La période de l'année (pour les grandes marées, l'ensoleillement et la disponibilité des participants)
- Logistique (partenariat CNFPT, repas, accueil)
- Temps réservé pour le débat et la discussion
- Sortie sur le terrain très enrichissante

Les points à faire évoluer

- Support pédagogique à mieux finaliser
- Le suivi post-formation au travers d'un site dédié à cela
- Absence d'étudiants étrangers ce qui permettra de voir ce qui se met en place dans les autres pays

EDUCATION SCOLAIRE / SCHOOL EDUCATION

DEVELOPMENT OF COASTAL HAZARDS MODULES WITHIN BESAFENET PROJECT (ICoD - Euro-Mediterranean Centre on Insular Coastal Dynamics, La Valetta)

TARGET COUNTRIES: International
LOCAL COORDINATOR: Dr Anton Micallef
OTHER PARTICIPANTS:
SPECIALISED CENTRES: Biarritz Centre
NATIONAL AUTHORITIES: University of Malta

OBJECTIVE OF THE PROJECT
Global objectives
To contribute to BeSafeNet project
Specific objectives for 2009
Developing training modules at secondary school level on outstanding coastal hazards (not addressed in 2008).

RESULTS OBTAINED IN 2009
To a large degree, coastal hazards are magnified by the popularity of the coast resulting in its use for both residential and recreational purposes. About 20% of the world population (some 1,147 million people) live within 30 km of the nearest coastline and in many small island developing states, this figure can be much higher *(Source: pp 17-19 in the New Courier, UNESCO, October 2003)*. In this context, people and property are increasingly vulnerable to coastal hazards which may result in death, injury or an illness of a person(s), and with respect to non-living resources, loss of property and the environment.
As part of the BeSafeNet initiative, ICoD was responsible in 2008 for producing didactic material applicable to secondary school level on coastal hazards. The subjects addressed included tsunamis, sea-level rise, hurricanes and related storm surges, erosion, coastal rock-falls and dangerous rip currents. During 2009 ICoD undertook to upgrade these teaching modules on coastal hazards to university graduate teaching level.

DEVELOPMENT OF THE BE-SAFE-NET WEB SITE MATERIAL ON DAMS' FAILURES (GHHD - Geodynamical Hazards of High Dams, Tbilisi)

The web-page for the web-site "BeSafeNet" and the corresponding booklet has been compiled in the frame of the Coordinated Projects Programs:

The text has been compiled by Prof. T. Chelidze (chelidze@ig.acnet.ge), Dr. of Sciences T. Matcharashvili, and researchers T. Tsamalashvili and E. Meparidze (*M. Nodia Institute of Geophysics, Georgia and European Centre "Geodynamical Hazards of High Dams"* of the open Partial Agreement of Council of Europe) with consultations of Dr. M. Wieland, Dam and Earthquake Expert, Poyry Energy Ltd., Zurich, Switzerland and Dr. R. Peter Brenner, Independent Dam Consultant, Switzerland.

Be-Safe-Net, Dam Hazards and Risks

The content of web site is as follows :

1. What is a dam and why is it erected?
2. What are dam-related hazards and benefits?
2. What types of dam related hazards and risks exist?
3. Why do dam related hazards occur?
4. Where do dam related hazards occur?
5. What were the largest dam related hazards in the world?
6. What could be the consequences of dam related hazards?
7. Can the consequences of dam-related hazards be influenced by human behavior?
8. Can the causes of dam related hazards be influenced by human behaviour?
8. Can dam-related hazards be predicted?
9. Is there any way to prevent dam-related hazards?
10. Is there any way to mitigate the consequences of dam related hazards?
11. What should be done in the case of a dam related hazard?
12. What types of maps on dam-related hazards exist?
13. What are they used for?
14. Can I get those maps and from where?
15. Conclusions
    i. Short glossary

INTERNATIONAL WORKSHOP ON DISASTER EDUCATION/TRAINING (AFEM - European Natural Disaster Training Center, Ankara) - 23-24 November 2009

TARGET COUNTRIES: All of the member states of EUR-OPA
LOCAL COORDINATOR: Nehir VAROL
OTHER PARTICIPANTS:
SPECIALISED CENTRES: EUR-OPA CENTERS
NATIONAL AUTHORITIES: Republic of Turkey The Ministry of Public Works and Settlement

OBJECTIVE OF THE PROJECT
Global objectives
Comprehensive disaster risk reduction can be achieved through education and awareness-raising activities. The Hyogo Framework for Action (HFA) is a global blueprint for Disaster Risk Reduction. The Framework offers guiding principles, priorities for action, and practical means for achieving disaster resilience for vulnerable communities. 3 rd priorities for action is use knowledge, innovation and education to build a culture of safety and resilience at all levels. We know that, disasters risks can be substantially reduced if people are well informed and motivated towards a culture of disaster prevention and resilience.
Objectives of workshop are :

- Do we have supply effective disaster training ?
- How we can evaluate gender sensitivity of disaster education ?
- How can we rise the awareness of women and children through education?
- How should we prepare effective and efficient educational materials ?
- How to promote and advance activities in the areas of disaster risk reduction in school communities and safe schools initiatives;
- What types of education are the most suitable for different targets ?
- How can we use media for disaster training?

Specific objectives for 2009
Workshop (October 2009)

EXPECTED RESULTS IN 2009
We can determine some rules or ways for effective disaster education-training.

RESULTS OBTAINED IN 2009
The workshop on "International Disaster Training / Education" was held Antalya, Turkey, on 23-24 November. The workshop was organized by the European Natural Disasters Training Center (AFEM). Workshop was consisted of three section titled Disaster education on shcools, Disaster Education for vulnerability targets and Disaster education for experts and adults. The detailed information is given as following.
The representatives of Turkish Red Crescent, Sivil Defense College, Gülhane Military Medicine Academy (GATA), İstanbul Metropolitan Municipality, Risk Red, Marmara University, Kocaeli University, Muğla University, Fırat Universtiy, Directorate of Yalova Province Disaster and Emergence, Neighborhood Disaster Volunteer Foundation, Support to Life, Governership of İzmir, Ministry of Healt, European Interregional Centre for Training Rescuers (Armenia), Geographical Institute AM SRC (Slovenia), Azerbaijan University of Architecture and Construction (Azerbaijan) took part in the workshop.
PROGRAMME
Monday, 23 November 2009
Opening Speeches and presentations
Dr. Nehir VAROL (Director of AFEM, Permanent correspondent of EUR-OPA)
Assoc. Prof. Dr. İnci USER; Assoc. Prof. Dr. Yücel DEMİRER
Zeynep TÜRKMEN SANDUVAÇ
SESSION I : DISASTER EDUCATION IN SCHOOLS
Moderator: Assist. Prof. Dr. Esma BULUŞ KIRIKKAYA, Kocaeli Unıversity, Faculty of Education.
Reporter: Sedef KURT, AFEM; Sevim ÖZSAN, AFEM
In this session, the participants were issued concepts and recommendations on the preperation of disaster plans in the schools, training of teachers, and curriculum programmes. As a result of concepts of the participants following issues aggreed upon :

- Improvement of curriculum and application by one hand,
- To eliminate the concept confusion be found in the books,
- Add the subjects concerned with structural awareness,
- Implementation of measurement and assessments on achievement of gains,
- Report to Ministry of National Education in relation to effectiveness of this studies and the subject of disaster issue required more content of lessons,

- Improvement of responsibility and questioning awareness of students as well as adding the issues related with disasters as lessons to curriculum,
- Requirement to train of teachers related to disasters more conscious.

Tuesday, 24 November 2009

SESSION II: DISASTER TRAINING FOR VULNERABLE GROUPS

Moderator: Dr. Nehir VAROL, Director of AFEM, Permanent correspondent of EUR-OPA
Reporter: Gökhan ARSLAN, General Directorate of Disaster Affairs; Yeliz TEKER, AFEM

In this session, the participants were issued concepts and recommendations on the vulnerability concept, disaster education on gender sensitivy, how will be actualize the education to target groups and the place of and importance of non-govermental organizations on this educations. As a result of concepts of the participants following issues aggreed upon:

- Vulnerability could vary from region to region, from country to country and from nation to nation. In this case, quite importance the local specialization,
- Define the target groups and to give the training according to necessity,
- Giving the trainings in two groups as preparatory training and strengthen training to target groups,
- To make disaster employees conscious of how to cope with stress, how to work with a nation affected of disasters and requirement to inform related to psychosocial support and trauma,
- To make the media conscious of the training to vulnerable groups, such as, to determine the codes of conduct and lead the media,
- The importance of collaborate of institutions and organizations in terms of integrity of educational struggle,
- The importance of preparation of fragility maps

SESSION III: DISASTER TRAINING FOR EXPERTS AND ADULTS

Moderator: Prof. Dr. Oya YAZICI CAKIN Geophysical Engineering Department, Kocaeli University. Reporter: Sevim ÖZSAN, AFEM; Sedef KURT, AFEM

In this session, the participants were issued concepts and recommendations on institutions and organizations which can give disaster training, improve training projects for senior to response in a short time at the disaster, to establish national education model about disasters, training or education is in the forefront on adult training, how can do effectiveness assessment, sufficiency of experienced staff and material on expert training, the problem between institutions and organizations are given disaster training, how can be training material content. As a result of concepts of the participants following issues aggreed upon :

- All disaster trainings in the country, must be given compatible with each other and appropriate to determined standarts,
- Training must be in the forefront than education on adult training,
- Consider the cultural and religious variety on training according to zones,
- Primarily determine the necessity evaluation and after, determine the target groups,
- Evaluation of learning methods and tools,
- The public previously must ve awareness about risks of own zone,
- The psychosocial first aid must be given to experts and adults,
- To add lessons related to disasters in the higher education programs.

INFORMATION AND AWARENESS / INFORMATION AND SENSIBILISATION

NATIONAL AND MUNICIPAL CAMPAIGNS ON INFORMING AND WARNING THE POPULATIONS ABOUT EMERGENCIES AT CENTRAL AND MUNICIPAL LEVELS (ECRM - *European Interregional Scientific and Education Centre on major risks management, Yerevan*)

TARGET COUNTRIES: Armenia, the Southern Caucasus countries and neighboring countries, states – members of EUR-OPA Major Hazards Agreement, other concerned countries.
LOCAL COORDINATOR: Stepan Badalyan
OTHER PARTICIPANTS:
SPECIALIZED CENTRES: Other interested European Centers.
COUNTRIES AUTHORITIES: Rescue Service of Armenia (the former Emergency Management Administration under the Ministry of Territorial Administration), Academy of Crisis Management, "Emergency Channel" Information Agency.

OBJECTIVE OF THE PROJECT
Global objectives
Long-term
• Acquisition by the population, through recurrent nation-wide and municipal campaigns, of the required knowledge and skills for proper reaction when warned about hazards or specific risks.
• Usage of the experience gained in training to share it with other South Caucasus countries and adjacent states wishing to organise similar Campaigns (adapted to their own specific geographical and ecological-climatic conditions).
• Development of a regional information and warning system on transboundary emergencies for South Caucasian countries populations, taking advantage of the Methodology already defined.
• Mitigation of losses likely to be caused by transboundary emergencies.
Short term
• Development of the Methodology and Plan for actions aiming to develop and hold national and municipal campaigns on informing and warning the populations about emergencies.
• Organization of municipal and nation-wide campaigns in order to keep the population informed on possible risks threatening each particular country region and what to do when warned.
• Stress the necessary commitment of leaders of local governance bodies, heads of schools, hospitals, policlinics, industrial enterprises, offices and mass media to protect the population.

Specific objectives for 2009
• Final versions of general and supplementary (for municipalities at special risks and special targeted groups of the populations) information materials included into the Methodology;
• Material-technical bases drawn on modern technologies;
• Carry out of the necessary organizational measures;
• Do comparative analyses of European Union legislation and Armenia's legislation to include in legal tools best practices and provisions of relevant international documents;
• Preparation of training courses, round tables and workshops, aimed to preparedness raising of local authorities and local communities to risk reduction and emergency management;
• Participation in municipal exercises to provide guidance on measures to inform, warn and protect population in case of accident in potentially dangerous installations (such as nuclear power plants, installations storing, using or producing hazardous substances, etc.) as well as simulated exercises on response to natural disasters;
• Undertake organizational measures to ensure a close bi- and multilateral cooperation and support by interested international organizations.

RESULTS OBTAINED PREVIOUSLY
training materials, brochures and leaflets has taken into account the peculiarities of each group.

EXPECTED RESULTS IN 2009
1. Submit to the Emergency Management Ministry of Armenia the final version of "The Methodology and Plan for action" and elaborate draft plans on preparing and holding regular National and Municipal Campaigns in Armenia.
2. Submit to the Emergency Management Ministry for discussion the final versions of basic information materials: The basic scenario, motto and emblem of "Campaign, "Information Leaflet: What to do first", Brief information for the population what to do first when warned on an imminent disaster, The priorities for action to be undertaken by the population when warned on an imminent disaster or in case of disasters likely to occur in Armenia
3. Prepare and submit to the Agreement the updated final versions in English of:
• A manual for the population on how to act when radiation pollution is real or seems imminent;

• A manual for the population on how to act when a flood is real or seems imminent;
• A manual for the population on how to act when chemical pollution is real or seems imminent;
• A manual for the population on how to act when an earthquake is real or seems imminent;
4. Develop information materials in Armenian for special target groups of population (primarily educational establishments): final version of the Pocket first aid handbook will be tested for different users (primarily rescuers, school children and students).
5. Prepare the final versions (in Armenian and English) of the basic tests and general recommendations for assessing and increasing safety of educational establishments, school administration and parents developed in 2007-2008. Co-ordinate with the Crises Management State Academy their dissemination by choosing experimental schools to test them.
6. Comparative analyses of provisions on responsibilities by local authorities for adequate information of communities about disaster risks, for responding to disasters, and for communicating the operators of the installations at risk.
7. Propose legal tools allowing more effective application of Aarhus Convention on access to information and public participation in decision-making in disaster risk reduction. Analyse the opportunity for civil society to access to best practices and knowledge in that field and to create a network of concerned people (by setting up local committees for example).
8. Participate in running training courses, round tables and workshops for preparedness raising of local authorities and local communities to risk reduction and emergency management.
9. Participation in running teaching courses in settlements near Armenian Nuclear Power Plant (NPP) and in setting up an international network of local actors of settlements near NPPs.
10. Elaborate proposals to update the legislation of Armenia on protection of populations living in the areas near the NPP, using the associated Ukrainian Law as reference.
11. Participate with Crisis Management Academy and Yerevan UNDP office in awareness raising and emergency preparedness courses for local authorities and civil communities at special risk.
12. Analyse experiences on transfrontier cooperation to develop proposals to create a regional early warning system for Southern Caucasus population in case of transfrontier emergencies, and in particular establish cooperation links with the AFEM Centre in those fields.

RESULTS OBTAINED in 2009

1. The final universal variant of "The Methodology and Plan for action aimed to develop and hold national and municipal "Campaigns" was submitted to the Ministry of Emergency Situations of Armenia for discussions to elaborate the draft Plans on developing policy aimed to prepare and hold regular national and municipal "Campaigns" in the Republic of Armenia. Simultaneously, a number of sections related to the Methodology and Plan for action" have been supplemented and corrected . Some substantial supplements have also been made on "Specific target groups of the population" : "from the specific target groups of populations, the primary focus in national and municipal "Campaigns" will lie on the most vulnerable layers of population, including the children, elderly and disabled". There were made some concrete proposals on how to create relevant information materials quoted below in section 4. The material presentation order has also been changed : in particular, the section : "Priorities for regional cooperation…" which in the previous edition acted as Section 1, in a new edition was placed at the end as Section 4. We believe that this change will enhance the universality of the Methodology and makes its text materials be more logically linked.

The updated English variant is being submitted to the Agreement Secretariat.

2. The final variants of basic informational materials have been presented in 2009 to the Ministry of Emergency Situations of Armenia for discussion and agreeing :

- "Information Leaflet: What to do first"
- Brief information for the population what to do first when warned on an imminent disaster
- The priorities for action to be undertaken by the population when warned on an imminent disaster or in case of disasters likely to occur in Armenia

The English variant of basic informational materials was submitted to the Agreement in December 2008.

3. The updated final variants in English of the following informational materials assigned to the municipalities at special risks have been prepared in 2009:

- A manual for the population on how to act when radiation pollution is real or seems imminent
- A manual for the population on how to act when a f l o o d is real or seems imminent
- A manual for the population on how to act when chemical pollution is real or seems imminent
- A manual for the population on how to act when a n e a r t h q u a k e is real or seems imminent

The above materials are being submitted to the Agreement´s Secretariat.

4. The final variant of a first aid pocket book in Armenian has been created and forwarded to rescuers for their feedback in forms of comments and suggestions. As it has been mentioned above

- The primary focus in national and municipal "Campaigns" will lie on the most vulnerable layers of population, including children, elderly and disabled."

- The specific of the most vulnerable segments of population dictates an urgent need to prepare for them some specific informational materials.

From a kit of informational and teaching materials on awareness raising and behavior rules in different emergencies assigned to the most vulnerable segments of the population, the Yerevan European Centre suggests as an initial step to launch in 2010 the following below Projects: Building on the outcomes of the additional 2009 researches addressing the venues under consideration, some particular work aimed at starting in 2010 the development of the mentioned Projects has been carried out in 2009.

5. The final English variant of "The basic Tests and general Recommendations designed for school administration and parents to assess and increase safety for educational institutions has been edited and polished. In 2010 an Armenian variant of the above document aimed at its practical testing in cooperation with the Crisis management State Academy is to be created. Simultaneously, as it has been noted in clause 4 of the given report, in 2010 drawn on this paper the elaboration of "Additional special Tests to assess safety of specialized educational institutions where physically handicapped with impaired mobility, hearing or vision are located along with the people living in elderly houses and other specialized institutions" is to start being developed.

6. A comparative analyses of the legislation of the European Union and the Republic of Armenia in the field of the existence of provisions on responsibilities born by local authorities for adequate informing the communities about disaster risks, for responding to disasters and for communicating the operators of installation at risk has been made. The analyses outcomes have been presented during the Meeting of a Working Group "Role of local and regional authorities on major hazards management" (11-12 June, 2009 in Paris). The analyses outcomes along with particular proposals on bringing the legislation of the Republic of Armenia in line with the legislation of the European Union have been submitted within the framework of the "Report of Armenia" (Chapter 2) :"The difficulties encountered". At the same time built on the analyses, some proposals within the "Concept of technological safety" being developed in Armenia have been made. The proposals have been discussed during the meeting of the Expert Group for developing Technological Safety Concepts under the Council of National Safety whose one member was a Director of ECRM whose suggestions have been included into the text of a pilot Concept Project.

7. The analyses for opportunity of a civil society to access to best practices and knowledge in that field and creating a network of concerned people (through setting up, for example , local committees) deems to be reasonable to start through establishing a National Platform on disaster risk reduction planned to be launched in Armenia. Some initial steps addressing this venue have already been made in 2009. The Representative of the UNDP in Armenia (a Project Coordinator), the Ministry of the Emergency situations of Armenia (vice-Chief of the Rescue of Armenia) and the Yerevan European Centre (Director of ECRM) have achieved a principal consent on setting up of an initiative Task Force Group to prepare the proposals on establishing a National Platform on Disaster Risk Reduction and its further integration into the European Network of National Platforms. At the same time through negotiations with the Associate Expert of the Regional Office for Europe of the UN ISDR during some officials events organized through support by the EUR-OPA Major Hazards Agreement a consent about a visit to Armenia in the middle of December 2009 of a representative of the UN ISDR Sub-regional Office in Central Asia which now is expanding its operations to cover the Caucasus as well has been reached. Within the visit some meetings with relevant partners for action to support the National Platform in Armenia are planned to take place. For instance, the reception by the Minister of Emergency Situations of the UN ISDR representatives has been confirmed.

8. A great number of training course , round tables and workshops addressing risk reduction and emergency management issues assigned to improving preparedness of local authorities and local communities has been conducted with an increasing focus on a risks of floods, wild fires, mudflows and earthquakes. From an array of the emergency exercises , the joint emergency exercises conducted in four towns in the Tavush region need to be especially highlighted as they have been organized and carried out within the section:"Improving opportunity for the protection of the civilians in Armenia" of a tripartite Project:" Assessing local risks" implemented in collaboration with Sweden, Estonia and Armenia partners.

9. A Regional Rescue Management Unit of the Armavir region has organized a headquarter drills on "Managing the protection of the population in the event of an radiological accident in the Armenian Power Plant". An ECRM representative attended the meeting "To foster the better radiological protection and informing the population living in the areas that might be affected in the case of a nuclear or radiological accident" (2-4 September, Kiev, Ukraine) aimed to set up a Task Force Group to advance the implementation of an Interregional Network (Euro-Mediterranean Communities' Network for nuclear safety) supported by the 55th Meeting of the Committee of Permanent Correspondents of EUR-OPA. Its main aim was the development of a basis for cooperation with groups of local authorities with nuclear facilities in Europe (GMF) and the Association of Swedish Local Authorities with nuclear facilities (KSO).

10. Based on earlier developed "Priorities for regional cooperation for Southern Caucasus countries and neighboring states in the field of trans frontier emergency management" and methodological approaches to set up a Regional Early Warning System for the population of Southern Caucasus countries and neighboring states in trans frontier emergencies elaborated within the Project:" National and Municipal "Campaigns", an ECRM representative attended the "International Workshop on disaster education/training" (23-24 November Antalya, Turkey) and made some suggestions of cooperation with AFEM.

DANUBE A RIVER FOR ALL, A RIVER FOR EVERYBODY (CSLT - European Center for Risk Prevention Training at School Level, Sofia)

TARGET COUNTRIES: Bulgaria, Romania, Serbia and other
LOCAL COORDINATOR: Kolio Kolev
OTHER PARTICIPANTS:
SPECIALISED CENTRES: ECMN (Moldova), TESEK (Ukraine), ECNTRM (Russia)
NATIONAL AUTHORITIES: Parliamentary Commission for Environment and Water (Bulgaria), Bulgarian National Radio, New Bulgarian University, National Agency for river Danube

OBJECTIVE OF THE PROJECT
Global objectives
Prevention against the water harmful influence – information and education of the population along the Danube river valley.
Specific objectives for 2009
Realization of Radio transmissions with support of Portal DRACE

EXPECTED RESULTS IN 2009
Conclusions of Workshop – second half 2009
Regularly Radio Transmissions of National and Local level in Bulgaria

RESULTS OBTAINED IN 2009
The workshop "Project DRACE - "Danube a river for all, a care for everybody" (22-23 June, Building of The Parliament, Sofia, Bulgaria), organized by European Center for Risk Prevention (CSLT), in cooperation with the Parliamentary commission for environment and water in Bulgaria, was held just three days after the meeting of the European Commission, which decided by the end of 2010 to be developed European Union strategy for the future of the Danube. Based on the known. "Macro-regions" will include various measures on policy towards the Danube and there will be Member States, along the lines of the European Strategy for the Baltic Sea region. Outlined the main priorities of this initiative (transport, economy and ecology), which will join Germany, Austria, Slovakia, Hungary, Romania and Bulgaria. The Workshop was held in the eve of International Day of the Danube - 29 June.

1. Climatic changes and their impact on the Danube

Regarding the impact of climate change on the Danube Summit participants stressed that:

• climate change will lead to increasingly serious situation and increase the risk of devastating floods. Floods are the result of natural weather patterns are part of the water cycle. The most serious damage were recorded, where human intervention increases the risk by improper land use in hazardous areas or significant modification of natural processes;

• the Danube River, considered "the European line of life is second on the list of most endangered rivers due to damage from traffic through it and that adaptation to the impacts of climate change on freshwater swimming pools (including the Danube) may contribute to immediate benefits for the livelihoods of people and protecting ecosystems, and should be a priority for governments and donors;

• climate change is expected to increase the frequency of floods and droughts in the basin of the Danube - the second longest river in Europe, with 2780 kilometers falling (along with its tributaries) in the territories of 19 European countries, with 801 000 km2 81 million people. Four of the European capitals are located on the Danube. 23 million people draw drinking water from the Danube, others are engaged in fishing or tourism;

• that the construction of canals and construction of dams over the past 200 years have led to the loss of more than 80 percent of the original floodplain area along the Danube and its main tributaries;

• the natural recovery of environmental sustainability by improving infrastructure can enhance the natural ability to prevent floods. Moreover, the replacement of vulnerable monocultures with a variety of livelihoods based on natural ecosystems (in this case tourism, fishing, grazing and fiber) can enhance local economies. International agreements on better water management and river are a powerful engine of change in the Danube;

• the protection of major cities and other settlements, industrial sites, communication and transport networks, valuable farmland, which determines the objective is creating a robust system of protection structures against the harmful effects of floods. More than 7% of the Danube river basin is a flood zone. Only a minor part of it is in its natural state. Distribution of floods is limited by various modifications of the riverbed. Levees and strengthening the banks are designed to withstand extreme flooding. Protection of more than 60 000 km. is designed to withstand 100-year wave. This territory would be flooded regularly without such protective equipment. The total length of protective systems exceeds 13 000 km. 6% of the population living in the Danube basin in areas of flood level;

• the governments should consider water resources as a matter of national security, drinking water should be used sparingly and wisely, to limit its use in heavy industry for a possible crisis due to shortage of fresh water;

• necessary Danube to be included in the National Plan for river basin management because of the four regions for water management in Bulgaria is the largest Danube river basin, which covers 45 percent of the territory. The following definitions and terminology of the WFD, the Danube River from Iron Gate to Silistra administratively designated as "cross-border water body. Assessment and program measures for it are developed. In international management plan for the river prepared by the International Commission for the Protection of the Danube, the Bulgarian coast is a white spot;
• river Danube now faces new challenges. Projects have been prepared for the European Union to improve the navigation of the river, which are in the process of public consultation and preparation of environmental assessments. Some measures proposed in these projects, closing the side channels, construction of incite to shift the tide and dredging may irreversibly destroy river.

2. The varying levels of vulnerability in different sectors of the Danube

In connection with the degree of vulnerability in different sectors of the Danube Summit participants

2.1. Define:

• hazards caused by humans (environmental pollution) have a tendency of voluntariness in the acceptance and more difuznost impact. Opposite - the natural risks (flooding) are involuntary and are accepted as intense impact. In the case of the Danube River have a typical example of mixing two types of risk (natural and manmade) in a well-developed economic zone. In an engineering context, risk is a way to describe the likelihood and consequences from a disaster. The risk is trying to determine the expected losses from the impact of a hazard on a vulnerable element for a specified period of time - namely, in our case, prevention of harmful effects on the water - as a risk along the River Danube in our area as a vulnerable element for a specified period of time;
• the concept of vulnerability implies the measurement of risk, combined with the level of social and economic capacity to cope with the expected / recent developments. The analysis of vulnerability is the most important part of risk assessment. At its simplest (physical) form, vulnerability is defined as: the factors that enable a danger to cause disaster. In an area which is exposed to many hazards, vulnerability analysis should be performed for each type of hazard.

Vulnerability analysis usually provides information on the sector at risk: physical, social and economic. The analysis of vulnerability is associated with a particular risk to the critical (main) types of disabilities and services that are vital to the functioning of communities in disaster situations.

2.2. Conclusions about different types of vulnerability of the Danube:

• River and its tributaries are the most important freshwater resources in Bulgaria. In the country run 470 kilometers of the most diverse and richest section of the river - the Lower Danube. Bulgarian Danube archipelago consists of more than 75 unique island with a total area of 100 sq. km. Most are covered with floodplain forests with lianas and desert vegetation, representing the European analogue of tropical jungles;
• More important Bulgarian Danube tributaries are 12. They connect the Danube plain and the Balkans as important biological corridors. Often their role is underestimation. Within 10 years they may be irreparably harmed because of the seizure of aggregates zabentvaneto, inadequate irrigation and forestry practices and insufficient public scrutiny;
• infrastructure projects such as the Trans-European Transport Corridor VII "of the Danube, which is not consistent with the terms of the river;
• to reduce the possible negative impact of floods on human health and aquatic and terrestrial ecosystems, and water pollution and soil. Particular attention should be paid to industrial facilities storing hazardous substances, contaminated sites, technology, agriculture and sewage systems in flood zones. Consequences of interruption of supply of drinking water during floods should also be taken into account.
• the need for conservation of biodiversity of the Danube and its tributaries her projects are aimed at restoring natural floodplain forests on the Danube Island and the old river beds in the Danube tributaries, as well as management of the network of protected areas in the Danube Basin;
• to stop the disappearance of natural forests and to preserve their Gene pool. Although very limited, can still find a representative group of summer oak (Island of Vardim), Polish elm (Island of Kovachev), forests of black poplar (the island of Belene);
• emergency planning, emergency measures and security measures at all levels and making them ready and implemented. Maintain an updated background information and regular training of shares;
• the implementation of these principles and approaches in the Danube basin is needed to work together at all levels and coordination of sectoral policies regarding environmental protection, spatial planning, agriculture, transport and construction.

Participants in the meeting solidariziraha with the efforts of international environmental organization WWF, which works with municipalities, state institutions and private farmers for environmentally water management. With the assistance of WWF and the Bulgarian non-governmental organizations, government prepared a National Strategy and Action Plan for Conservation and Restoration of Floodplain Forests on the Bulgarian Danube islands in order to fulfill its commitments under the agreement "Lower Danube Green Corridor.

3. Vulnerability of cultural heritage along the Danube from various hazards and preventive measures

Participants in the meeting, noting that any other risks threatening cultural heritage in the Bulgarian part of Danube River (earthquakes, landslides, fires, vandalism and wind), placed emphasis on the vulnerability of this heritage of flooding.

The main reasons that the Bulgarian territory may lead to floods are intense rains, heavy snowfall, ice melting, partial or complete destruction of water dams (the country has 30 large and 600 small dams). The last major flooding in Bulgaria in March 1942, when the streets in the town of Vidin is 1,5-2 meters under water. Since 1950 the Bulgarian government launched a program to stabilize the bank of the Danube River to protect the neighboring settlements and agricultural lands. However, in the late 90's as a result of high groundwater is damaged and the native home of world famous impressionist Jules Pascin in Vidin.

Participants in the meeting have focused on the need to ensure the impermeability of the historical sites, through a transparent cover with a waterproof layer and construction of drainage systems and also on need to create a database of endangered cultural and historical sites.

4. The ability to use media to inform and educate Population threats

Regarding the issue of the use of media (radio) to inform and educate the public against threats to the workshop participants all agreed the following conclusions:

- The crisis as a phenomenon is not entirely a negative thing, on the contrary, it often requires new patterns of behaviour, decisively taking charge of management, new methods of decision making, preparation of relevant scenarios for future development, mobilizing the intellectual resources available in one system;
- Key points of crisis management are prevention, effective communication, interactivity, efficiency, taking responsibility for decisions and preconditioning of the people to counteract the harmful effects of risks and crises;
- The basic principles for informing the population in emergency situations are: to respond quickly to crisis, to contribute decisively (the first two hours are most critical) to focus on local communication, to overcome the established Code of Silence , to seek contact with victims, to implement full cooperation with the media.

Participants at the workshop discussed various models of communication and methods for informing the population:

• the message and the message to be credible. This means that communication is effective if it is built a climate of trust between the communicator and the recipient;

• communication to be consistent with the context and realities, the message must be consistent and not contrary to the context. Effective communication depends on the condition of internal and external to the institution's environment;

• to carefully refine the media channels to spread the message. Different channels leading to different effects. Effective channels are those in which messages reach without distortion to the target audience. People associated with different channels for their specific values.

In relation to informing the public participants at the workshop have focused on the following requirements:

• Using the power and possibilities of contemporary mass media and information agencies;

• Creation of specialized information centers to the Civil Protection, Fire Service, Ministry of Defense and Ministry of Interior;

• Preparation and construction of public information centers, on the basis of modern multimedia technology, located in major, visible public places for people - where they can provide essential information for immediate or emergency events;

• Creation of inter-national or institutional intranet networks, pre-installed software that is operated by operators in the event of a disaster, to provide full, clear, accurate information on all electronic public;

• Construction of an external information network - to the abstraction of information from foreign agencies and submission of data and facts to them;

• Pre cooperation with national and regional media and building trust to authorized institutions managing emergencies.

• Using the information capabilities of universities and private agencies dealing with media and information studies, have their information networks and opportunities for contacts with various groups.

Participants in the meeting considering the most effective forms for the following information to the public:

• Press conferences and briefings - the organization no later than one hour after the event, informing the public through pre-authorized by the competent institutions and speakers, using mass media and other publicity techniques, preparation of printed information describing the evolution of the event and providing the facts and spread among their citizens, constantly sending Press Releases to all national and international media, organizing statements on national media to politicians, senior administrators and experts - in order to quickly remedy the situation and mobilizing the population is to prevent panic and fear, using modern high-tech means of information and communications, such as chat-programs, web-forums, e-conferences.

Participants in the meeting gave a high evaluation of broadcast transmissions (five shows) in the national program of the Bulgarian National Radio "Hristo Botev", prepared by consultants offering participants in the previous workshop and effective impact on the portal DRACE Project - "Danube a river for all, a care for everybody", preparing and supported by European Centre for Risk Prevention (ECRP), Sofia.

Portal DRACE maintained (in Bulgarian and English) mark Stereotype following user groups: system administrators, moderators, teachers, partners, students, occasional visitors.

The portal is extremely well designed graphics and content: FloodsDefinition of flood, Types of floods, Causes for Floods, Consequences of the Floods During a flood Sites of Flood occurrence, Flood prevention and mitigation of the consequences, The human factor Organisation and implementation of operations, The largest floods in the world, The floods in children eyes. Until these issues reach the consumer through the following banners: Media, Knowledge, Floods, Dictionary, Library, Interactive maps)

ESTABLISHING AN EURO-MEDITERRANEAN COMMUNITIES NETWORK FOR NUCLEAR SAFETY (TESEC - European Centre of Technological Safety, Kiev)

TARGET COUNTRIES : EUR-OPA member states and other countries with radiological installations and neighboring countries
LOCAL COORDINATOR: Victor Poyarkov
OTHER PARTICIPANTS :
SPECIALISED CENTRES: ISPU - Higher Institute of Emergency Planning (Florival, Belgium)
NATIONAL AUTHORITIES: EUR-OPA member states and other countries with radiological installations and neighboring countries

OBJECTIVE OF THE PROJECT
Global objectives
The main aim of the Community Network would be to foster better radiological protection and information for populations living in areas that might be affected in the case of an accident at a Nuclear Power Plant or any other nuclear facilities through dissemination of best European experience on emergency planning; early warning procedures; iodine prophylaxis and other elements of radiological protection.
Specific objectives for 2009
1. to deploy a task force group;
2. to develop a legal approach for the creation of the Network under the Council of Europe umbrella;
3. to organise the inaugural meeting of Network in spring 2009.

RESULTS OBTAINED PREVIOUSLY
The international workshop "Public authorities and civil society together for a safe European nuclear future" have been organized and was held in Kiev, Ukraine 22-23 September, 2008. The participants of Workshop – representatives of international organizations: European and Mediterranean Major Hazards Agreement of the Council of Europe (EUR-OPA), Congress of Local and Regional Authorities of the Council of Europe, International Atomic Energy Agency (IAEA), national, regional and local authorities and communities' representatives, mayors of cities from 15 countries: Armenia, Belgium, France, Italy, Spain, Sweden and others – discussed and adopted conclusions of Workshop. Workshop conclusion is basis of this project.
The participants to the Workshop "*Public authorities and civil society together for a safe European nuclear future: learning from the Chernobyl legacy to make European nuclear energy safer: the role of local communities, authorities and central governments in emergency preparedness and management*" (Kiev, Ukraine 22-23 September, 2008) recommended establishing a Euro-Mediterranean Communities' Network for Nuclear Safety "*Public Authorities and Civil Society together for a safe nuclear energy. Chernobyl lessons."*
A task force group setting up to advance on the implementation of an international network have been supported by 55th Meeting of the Committee of Permanent Correspondents of EUR-OPA. Permanent Correspondents and the Chair proposed that the Permanent Correspondents provide adequate contacts at national level to help to build it up. The TESEC Centre, directed by Mr. Poyarkov, authorized to act as focal point of the Agreement on this issue.

RESULTS OBTAINED IN 2009
The first meeting of Task Force Group (TFG) took place in Kiev, Ukraine, Hotel Rus, September 2-4, 2009. The purpose of the meeting was to develop basis for co-operation with Group of Local Authorities with Nuclear Facilities in Europe (GMF) and Association of Swedish Local Authorities with Nuclear Facilities (KSO).
President of GMF Mr.Roland Palmqvist**,** presented main goals of GMF, the area of activity, experience on implementation of better transparency in emergency planning and risk perception. He underlined that GMF are interesting in exchanging of information and experience regarding the role of local community in dissemination of information about radiological risk and appreciate participation of Ukrainian local authorities in that activity. GMF has unique experience and ready to transfer it to other countries, specifically to Ukraine. Mr. Andrey Selsky, Ukrainian representative, thank for that proposal and expressed the interest of Ukraine to study and use best international experience for better protection population, which live under radiological risk.
Chairwomen of KSO Mrs. Pia Almstrom and Head Secretary of KSO Mr. Mats Rosen presented KSO activity, positive role of Local safety Committee, emergency planning.
AMAC General Secretary Mr. Mariano presented AMAC experience on strengthening collaboration of Local, National Authority and Industry for better awareness and information of population on radiological risk.
Executive director of TESEC, Mr.Viktor Poyarkov presented conclusions of international workshop "*Public authorities and civil society together for a safe European nuclear future"* held in Kiev, Ukraine 22-23 September, 2008. The representatives of 14 countries and international organization recommended joining efforts for better awareness and information population on radiological risk. The defining list of priorities,

like development of information booklets, web-site, organizing training course, which will be tool for transferring the best international experience for safety of people.

The participant of TFG meeting recommended:

1. There is a problem – necessity of better awareness and information population on radiological risk.

2. The national, international organization, local community have to joining effort for using best international experience on that aim in EU and neighbouring countries. EUR- OPA, UNDP, GMF, KSO and AMAC are good partners for such collaboration; they could be basis for network for better awareness and information population on radiological risk.

3. The realization of priorities defined in 2008 Workshop in Kiev could be first step of such collaboration. It is necessary to study different opportunity for funding of that activity.

4. We foresee the need to spread the positive experiences of Local Information Committees and Local Stake Holders Groups in the work of communication of radiological risks to citizens living near NPP's in Europe.

5. The organisations participating in the conference underline the need of a transnational European programme for information and experience exchange to learn the lessons of the disaster of Chernobyl.

The priority activities for 2009-2012 are:

1. Developing of "Iodine Prophylaxis Administration Guidance" for local authorities;
2. To develop and deploy a multi-level website "Radiological Hazard, what we must do in the case of an accident at a nuclear facility" for the benefit of people living in areas that might be affected in the case of an accident at such facilities;
3. To organize training courses for local doctors on "Emergency medicine in the case of a radiological accident";
4. To organize the development of modern teaching materials for schools and organize training courses for teachers on "Radiological Hazard";
5. To organize training courses for journalists on "Communications with the public in the case of a radiological accident";
6. To identify opportunities to support bilateral exchange study visits of local authorities and key community stakeholders (teachers, medical doctors);
7. To examine insurance aspects of rehabilitation in the case of nuclear accident;
8. To elaborate benchmark legal approaches for better co-operation between local communities and nuclear facility authorities.

VULNERABILITY AND RISK / VULNERABILITE ET RISQUES

COASTLINE AT RISK: METHODS FOR MULTI-HAZARD ASSESSMENT (CERG - European Centre for Seismic and Geomorphological Hazards, Strasbourg)

TARGET COUNTRIES: France, Italy, Portugal, Malta
LOCAL COORDINATOR: Olivier Maquaire
OTHER PARTICIPANTS:
SPECIALISED CENTRES: ICoD, Malta
OTHERS: University of Modena e Reggio Emilia, (Italy), University of Caen Basse-Normandie (France), Faculty of Geography, Lisbon (Portugal)

OBJECTIVE OF THE PROJECT
Global objectives
In recent years, the interest in coastal instability has increased significantly due to disasters that occur every year in different parts of the World, often inducing risk situations. This research project can be included within this context and aims at investigating coastal instability in the island of Malta (Mediterranean coastline) and in the Lower Normandy (Channel coastline) compare the results to be obtained with those achieved in recent years by the proponents of this project in the different parts of the European countries.
This will provide a significant opportunity for scientific discussion based on the assessment and comparison of data regarding instability situations in the context of multi-hazards assessment. The latter has been until now slightly dealt with in the island of Malta and in the Normandy coast, despite significant risk issues, as evidenced from a series of accidents/damages recorded after landslide events (crisis).
The project aims at the reconstruction of the recent geomorphological evolution and to assess landslide hazard of the north-west coast of the island of Malta, that is mainly due to rock spreading and rock falling, and of the north-east coast of Lower Normandy, that is mainly due to rotational and translational landslides with regular crises. The objectives of the project will be pursued through multidisciplinary investigations which will foresee a geomorphological and engineering geological approach. Integrated avant-garde research methods and techniques, both traditional and innovative, will be applied with special reference to mapping, monitoring and modelling coastal instability phenomena. For hazard assessment, research will take into account different scenarios of global change with sea level rise.
The final objective (third year) is to propose a method for multi-hazard assessment allowed to define the assessment of susceptibility (spatial probability and magnitude) and assessment of hazard (temporal probability and intensity) for coastline hazards.
Specific objectives for 2009
The following objectives are envisaged for the year 2009 :
1. Retrospective study on landslide occurrence,
2. Interpretation of multitemporal aerial photographs and satellite imagery,
3. Analysis of triggering factors,
4. Geomorphological survey and mapping,
5. Monitoring of landslides (GPS, extensometer, etc.).
6. Proposal of method(s) for multi-hazards assessment

EXPECTED RESULTS IN 2009
Identification of causes of landslide phenomena and frequency of reactivations, as well as the collection of information on any damage caused.
Development of methods for multi-hazards assessment.

RESULTS OBTAINED IN 2009
During the first year of the project a joint kick-off meeting of the three partners of the project was organized and held in Malta on 3 April 2009 , in occasion of the International Workshop on “Land management and protection:: experiences and perspectives”, 1-3 April 2009. This meeting was hosted by the University of Malta and foresaw the participation of the responsible of the APO Euro-Mediterranean Centre on Insular Coastal Dynamics (ICoD).
The aim of the meeting was to discuss the research activities to be carried out in Lower Normandy (France), on the north-west coast of Malta and along the central coast of Portugal, focusing on the use of common approaches and methodologies. The participants in the Meeting were :
University of Modena e Reggio Emilia, (Italy): M. Soldati, P. Coratza, S. Devoto, D. Piacentini, A. Pasuto; University of Caen Basse-Normandie (France): O. Maquaire; University of Lisbon (Portugal): J.L. Zezere; ICoD (Malta): A. Micallef; University of Malta: J.A. Schembri
During the meeting, M. Soldati, O. Maquaire and J.L.Zezere introduced the three study areas and described the different types of landslides involved, as well as the different study and monitoring methods to be used:
Lower Normandy in France
Activities carried on in the French test site during the 1st year included the starting of the landslide inventory of slides occurred in soft-rocks (marls). A major landslide destroyed totally or partially some thirty houses

and damaged the road in two places in 1982 and three main crises occurred in 1988, 1995 and 2001. In order to define the landslide mechanism, a monitoring network has been installed on the site. This year, we have completed the survey device by 3 continuous GPS, and several piezometers to monitor groundwater levels. We have identified and inventoried the different exposed elements (buildings, roads, lifelines, etc.). Evolution of the displacements has been assessed by the interpretation and comparison of multitemporal aerial photographs and maps (cadastre ...).
On the Italian test site, during the 1st year, the activities have been mainly focused on the continuation of the monitoring of the landslides by GPS (network has been active since 2005) and by extensometer. One wire extensometer has been installed to monitor the displacements near Popeye Village. Climatic data have been collected and analysed. Also, in order to improve the knowledge on the activity of these landslides a multitemporal interpretation of aerial photographs and digital aerophotogrammetry has been realized.

North-west coast of Malta

The project aims at the reconstruction of the recent geomorphological evolution and to assess landslide hazard of the north-west coast of the island of Malta, that is mainly due to rock spreading and rock falling. The objectives of the project have pursued already during the first year of research through multidisciplinary investigations which foresee a geomorphological and an engineering geological approach. Integrated research methods and techniques have been applied with special reference to mapping and monitoring of coastal instability phenomena along the north-west coast of Malta. This area (Fig. 1) can actually be considered as a real natural laboratory for the study of landslide phenomena and their geomorphological hazard and risk implications.

In fact, the distinct geological conditions, especially the super-imposition of the lithotypes having different mechanical behaviour and the marked jointing of the rock masses, determine the development of exemplary cases of deep-seated gravitational slope deformations (especially lateral spreading) and other landslides, sometimes closely associated to them, which are representative of the main types of landslides (Fig. 2).

The research carried out in Malta during the year 2009 has focused on the following aspects:
1. Retrospective study on landslide occurrence *(completed)*
The first phase of the research have consisted of a retrospective study on landslide events that took place within the research area during historic times. Bibliographic and archival research has been carried out at public and private institutions and on newspapers. The aim was to obtain a comprehensive picture on slope instability and define the spatio-temporal distribution of past landslide events, whilst at the same time identifying useful elements for typological definitions. However, the information available gives quite a scattered picture of the temporal occurrence of landslides in the study area. Information was available only for those cases in which significant damage was caused.
2. Collection and analysis of climatic data *(in progress)*
Climatic data have been obtained from the Luqa meteorological station (situated at the centre of the island of Malta), working since 1920, to determine the relationship between the identified landslide events and particular meteorological conditions. Data regarding the total annual amounts of rainfall for the period 1929-2006, the average monthly precipitation for the period 1922-2006 and the maximum monthly precipitation for the period 1922-2006 have been collected and are under analysis.
3. Interpretation of multitemporal aerial photographs *(in progress)*
A multi-temporal analysis of aerial photographs is in progress, with special attention given to landslide phenomena. To achieve this aim both the traditional stereoscopic techniques and digital photogrammetry techniques are utilized. The study of landforms represented in a sequence of images corresponding to different years, will allow to reconstruct the evolution of the coastal stretch under study. Aerial photographs available for the NW coast of Malta have been obtained and are being analysed. Reference is particularly be given to the first and last series of aerial photographs available (1957 and 2008).
4. Geomorphological survey *(completed)* ***and mapping*** *(in progress)*
Geomorphological survey has been carried out at a scale of 1:5000 for the entire NW coastal region of the island of Malta. This phase of the research has also included a check of the existing geological map as well as investigations aiming at the recognition of ductile and fragile deformation features, which are of topical importance for the stability of the slopes. This phase will lead to the production of a detailed geomorphological map based on the legend proposed by the Italian Working Group for Geomorphological Mapping of the Italian Geological Service (1994).
5. GPS and extensometric monitoring of landslides *(in progress)*
Since 2005 on the north-west coast of Malta a GPS monitoring network is active, consisting in 2 reference stations and more than 20 benchmarks spread all over the unstable areas. In order to guarantee the repetitiveness of the surveys, this project is meant to continue the measurements. During the first year of this research, GPS surveys have been carried out twice. Moreover, the location where installing wire extensometers to monitor in continuous the displacements along the most active fractures have been defined. In addition, a series of benchmarks have been placed along the selected fractures and the first measures have been made.

The research team has also tried to identify strategies to involve and sensitize technical and administrative staff from public institutions responsible for the protection of the environment, as well as academic staff, towards aspects of landslide hazard and risk. For this purpose a series of meetings have been organized in Malta with stakeholders.
During the first year of the project research contacts with the APO Euro-Mediterranean Centre on Insular Coastal Dynamics (ICoD) has been established.
The preliminary results of the research have been presented at the International Geomorphology Conference held in Melbourne, Australia in July 2009.

Central coast of Portugal

Activities carried on in the Portuguese test site during the 1st year included the starting of the landslide inventory in the rocky coast of the Caldas da Rainha Municipality, located in the central Portugal. In particular, a 925 metres long section located northward the Foz do Arelho beach was study and mapped in detailed. This area is strongly affected by landslides and the touristic pressure is very high, thus originating risk. 10 deep-seated translational slides were identified as well as one shallow translational slide and one rockfall. These landslides have a total area of 79,005 m2, i.e., around 45% of the study area. An empirical model was proposed for the geomorphologic evolution of the coastal cliffs in the study area that includes the sequence of the following processes: 1) deed-seated translational slide affecting sandstone and limestone overlaying claystone; 2) rockfall originating in the left flank of the translational slides completing the elimination of the upper hard layers; 3) gully erosion affecting the claystone layer.

Conclusions

The following objectives were identified for 2009:
- Identification of causes of landslide phenomena and frequency of reactivations, as well as the collection of information on any damage caused;
- Development of methods for multi-hazards assessment.

M. Soldati asked the availability of the APO Euro-Mediterranean Centre on Insular Coastal Dynamics (ICoD) to collaborate in the research and A. Micallef gives his availability as far as coastal erosion is involved.
A proposal of a workshop/intensive course on coastal protection and management to be organised in Malta by CERG in September 2010 or 2011 was discussed. J. Schembri confirmed the availability of the University of Malta to host it and O. Maquaire will make this proposal at the next CERG Executive Committee meeting.

DISTANCE AUTOMATIC ON-LINE CONTROL OF BUILDINGS ENGINEERING CONSTRUCTION FRAMES (ECNTRM - European Center For New Technologies Of Risk Management, Moscow)

TARGET COUNTRIES: All EUR-OPA member countries
LOCAL COORDINATOR: Valery Akimov

OBJECTIVE OF THE PROJECT
Global objectives
To develop methodology of distance automatic on-line control of buildings engineering construction frames.
Specific objectives for 2009
To work out the draft methodology.

RESULTS OBTAINED IN 2009
The Methodic was developed for unified scientific approach to creating and providing activity of automatic on-line monitoring of buildings engineering construction frames, for the purpose of hazards elimination.
The Methodic defines general regulations and contents of scientific provision of creating and operating automatic on-line monitoring of buildings engineering construction frames.
For the last few years we see gigantic growth of construction business in the world. The number of buildings is growing and tendency of constructing skyscrapers, huge trade, entertaining and business centers. Speed of construction leaves behind the quality control. It is also known that during the exploitation buildings wear out and lose their strength. The most vulnerable the buildings are to seismic and vibration pressure. It is understood that the source of seismic pressure is not only the earthquake but industrial explosions (during the mining works). The sources of vibration are huge industrial machines, ground and underground transport. Because of constant or periodical influence of such pressure construction may accumulate this destructive force and it can result in strong and disastrous destructions.
Existing approach to the periodical diagnostics of buildings and constructions is based on local principal of visual stability and is connected with examination of samples of material and foundation research. It is clear that being concentrated on details it is impossible to realize the main mechanism and reasons of object vulnerability to the mechanical pressure.
Above said is confirmed by a lot of cases of building destruction with many victims. (pic.1)
There was developed hard ware and soft ware complex aimed at estimation of buildings and constructions seism stability on the basis of constant analyses of spring constant and geometrical parameters of ground-building system.
Before setting up the complex, technical observation of the object should be completed to define original parameters of the building. Complex is multi channel system and measurements could be done through 32 channels at a time. Dynamic parameters are taken by means of dynamic energizing of ground with massive impulse device.
In order to get required data, cable is to be put with the indicators and controller. In case of emergency information is transferred both to the operator on duty and rescue service of the city for preventing emergency situation and taking measures for saving people.
The software dialogue with the user is providing very low rate of mistaken actions. Dialogue is done in interactive mode by means of working with screen forms with the CAS usage. Developed data goes both to the operator terminal and special internet site. Thanks to this the owner of the object can control the technical condition of the building being at any place of the world. In case of emergency information is transferred to the operator of the object and emergency services of the city for immediate response.
Complex allows in real time to monitor and estimate technical condition of different types of constructions and materials – simple one store buildings, multistoried and constructions of difficult configuration both civil and industrial.
It also allows monitoring of skyscrapers, ground deepened constructions, trunk lines, waterworks.
Presented technology of distance automatic on-line monitoring of buildings
engineering construction frames allows to predict sudden destruction of objects under control and thus save lives of people and radically reduce material damage.
Suggested model of on-line estimation of conformity of evaluated criteria of changes in engineering construction frames with those received in the process of monitoring can be used for taking decision on:
- people security;
- transfer of buildings and constructions in accident type of exploitation;
  taking anti hazard measures to minimize possible consequences;
- strengthening buildings engineering construction frames.

FOREST FIRES / FEUX DE FORETS

SEMINAR ON FIRE MANAGEMENT ON TERRAIN CONTAMINATED BY UNEXPLODED OBJECTS (UXO), LAND MINES AND RADIOACTIVITY (GFMC - Global Fire Monitoring Center, Freiburg)

TARGET COUNTRIES: Former Yugoslav Republic of Macedonia, Greece, Serbia, Montenegro, Bosnia and Herzegovina, Albania, Croatia, Kosovo, Hungary, Romania, Bulgaria Slovenia, Moldova, Ukraine, Georgia, Azerbaijan, Armenia, Russia, Belarus
LOCAL COORDINATORS: Nikola Nikolov, Sergiy Zibtsev
OTHER PARTICIPANTS:
SPECIALISED CENTRES: ECFF
NATIONAL AUTHORITIES: Representatives from above-mentioned countries will be from government agencies (Ministries of Interior / Fire Services, Ministries of Forestry / Agriculture)
OTHERS: Faculty of Forestry of Skopje, National Agricultural University of Kiev

OBJECTIVE OF THE PROJECT
Global objectives
Participants, which will include decisions makers, planners and / or trainers of fire schools / academies, will be briefed and at the same time contribute to identify regional problems, expertise, and solutions of managing land and fires in forests and other lands contaminated by UXOs, land mines and radioactivity. Fire smoke pollution and precautionary / protective measures will also be addressed.
Specific objectives for 2009
First training course of this kind worldwide, with emphasis on the East / SE Europe / Caucasus region in which UXOs, land mines and radioactive contamination dating back as long as WWI (Former Yugoslav Republic of Macedonia), war (Balkans, Southern Caucasus) and radioactive accidents (Ukraine - Chernobyl).

RESULTS OBTAINED IN 2009
The seminar was held in Kyiv / Chornobyl, Ukraine, 6-8 October 2009 and conducted by the Global Fire Monitoring Center (GFMC) in the frame of the activities of the Council of Europe (CoE) and the joint project "Enhancing National Capacity on fire Management and Risk Reduction in the South Caucasus" (Environment and Security Initiative [ENVSEC]), the UNISDR Regional Southeast Europe / Caucasus and Central Asia Wildland Fire Networks and the UNECE / FAO Team of Specialists on Forest Fire
Threats Arising from Wildfires burning on Contaminated Territories
In several countries of Eurasia forests and other lands are contaminated by various types of industrial chemical and radioactive pollution and residuals of armed conflicts, e.g. unexploded ordnance and landmines. Wildfires occurring in such contaminated terrain are resulting in secondary damages, such as chemical and radioactive air pollution and explosion of unexploded ordnance (artillery grenades, bombs) and landmines on active or abandoned mined areas.
The territories most affected by radioactive pollution have been contaminated by the consequences of the disaster on the Chernobyl Nuclear Power Plant in 1986. Wildfires burning on contaminated terrain in the Chornobyl Exclusion zone in Ukraine, in Belarus or in Russia result in lifting of radionuclides deposited on vegetation and organic layers and their uncontrolled emission and fallout.
Unexploded Ordnance (UXO) is found on several hundred thousands hectares of forests and other lands throughout Western, Eastern and Southeastern Europe. Remnants of World War I battles along the frontlines of 1917 in Southern Macedonia have repeatedly created problems, e.g. during the fire season of 2007 when more than 70 incidents of explosions of ammunition triggered by forest fires were noted.
In Germany, the battlegrounds of the final phase of World War II in Brandenburg State around Berlin are still highly contaminated by hundreds of thousand of tons of unexploded artillery grenades and bombs. In addition, former military exercise areas and shooting ranges, with some of them dating back to the early 1900s, some established after the war, are posing high risk to civilian populations and especially firefighters.
In Southeast Europe, notably in former armed conflict grounds in former Yugoslavia, active land mines are limiting access, forest and fire management in large areas. In Bosnia and Herzegovina alone more than 200,000 ha of forests are contaminated by land mines. Land mines are also found in the disputed territories in the Southern Caucasus, The combat grounds in and around the Nagorno-Karabakh region represent one of the major UXO-polluted terrains worldwide. During the armed conflict in Georgia in August 2008 a number of forest fires occurred as a consequence of military activities in several sites of the country.
Besides radioactive pollution and explosives there are other threats related to environmental pollution and fires, e.g. the lifting of mercury deposited in organic layers by wildfires.
In addition, the air pollution generated by vegetation fire smoke is a phenomenon, which has influenced the global environment and society significantly since the Middle Ages. In the recent decades, increasing application of fire as a tool for land-use change has resulted in more frequent occurrence of extended fire and smoke episodes with consequences on human health and security. Some of these events have been associated with droughts that are attributed to inter-annual climate variability, or possible consequences of regional climate change. In metropolitan or industrial areas, the impacts of vegetation fire smoke may be coupled

with the emission burden from fossil fuel burning and other technogenic sources, resulting in increasing vulnerability of humans. The transboundary effects of VFS pollution are a driving argument for developing international policies; to address the underlying causes for avoiding excessive fire application and to establish sound fire and smoke management practices and protocols of cooperation in wildland fire management at international level.

The Seminar

This seminar addressed specific cases in East, South East Europe and South Caucasus. Examples from Western Europe, the United States and global observations were presented. Participants were briefed and at the same time contributed to identify regional problems, expertise, and solutions of managing land and fires in forests and other lands contaminated by radioactivity, unexploded ordnance and land mines.

Fire smoke pollution and precautionary/protective measures were also addressed. This first seminar of this kind worldwide gave emphasis on the East / SE Europe / Caucasus region where radioactive contamination, UXO and land mines are rather common.

A preparatory meeting, held at the Ministry of Agriculture, Forestry and Water Economy, Skopje, and jointly organized by the Global Fire Monitoring Center (GFMC) and the UNISDR Regional Southeast Europe / Caucasus Wildland and Central Asia Wildland Fire Networks, resulted in recommendations submitted to the European and Mediterranean Major Hazards Agreement of the Council of Europe, the OSCE and the Environment and Security Initiative (ENVSEC). These organizations provided some funds for supporting the seminar, as well as travel costs for participation of delegates from the Caucasus region.

Goals of the Seminar

- Inform national decision makers (through attending delegates) of member states of the Council of Europe (particularly those of the European and Mediterranean Major Hazards Agreement), countries belonging to the Economic Commission for Europe (ECE) and/or one of the UNISDR Regional Wildland Fire Networks, as well as international organizations, on the threats of wildfires burning in contaminated terrain
- Exchange experiences on prevention and control of wildfires in contaminated terrain
- Demonstrate the risk of catastrophic consequences of wildfires in radioactively contaminated terrain in Ukraine, Belarus and Russia as a consequence of the Chernobyl nuclear power plant failure in 1986
- Inform participants on secondary risks of forest fires and other vegetation fires, notably the consequences of smoke pollution on human health and security
- Conclude on the need for action at national and international levels

Organizers, Hosts and Supporters

The seminar was an initiative of the Global Fire Monitoring Center (GFMC) and financially cosponsored by, the European and Mediterranean Major Hazards Agreement of the Council of Europe, OSCE and the Environment and Security Initiative (ENVSEC) and organized jointly by the:

- Global Fire Monitoring Centre (GFMC) / United Nations University (UNU) in conjunction with UNECE/ FAO Team of Specialists on Forest Fire
- UNISDR Regional Southeast Europe / Caucasus Wildland Fire Network
- OSCE / ENVSEC
- European Centre on Forest Fires (ECFF)

The Seminar was hosted by tha National University of Life and Environmental Sciences of Ukraine (NUBiP of Ukraine) and the Ministry of Ukraine of Emergencies and Affairs of Population Protection from the Consequences of Chernobyl Catastrophe

It was further supported by Yale University, Global Institute for Sustainable Forestry, U.S.A. and the Chopivsky Family Foundation, U.S.A.

Venue and Agenda

The first and third day of the seminar took place at Scientific Council Auditorium of the National University of Life and Environmental Sciences of Ukraine. The second day included a field visit of the Chornobyl Exclusion Zone and presentations at the administration building of the Chernobyl Nuclear Power Plant.

Seminar Contributions

Opening Ceremony *(Tuesday, 6 October 2009)*

- **Academician Dmytro Melnychuk,** Rector, NUBiP of Ukraine, welcomed the participants and underscored the importance of the objectives of the seminar, particularly with regards to the unresolved problems in the Chornobyl Exclusion Zone (CEZ)
- **Mr. Andriy Selskiy**, Head, Administration of the CEZ, Ministry of Ukraine of Emergencies and Affairs of Population Protection from the Consequences of Chernobyl Catastrophe, named the problems of the situation in Chornobyl
- **Mr. Victor Chervonyi**, Deputy Head, State Forestry Committee of Ukraine, pointed out the significance of radioactive contamination for forestry operations in the CEZ and other contaminated regions of Ukraine
- **Prof. Dr. Dr.h.c. Johann G. Goldammer**, Head, Global Fire Monitoring Center (GFMC), on behalf of the UNISDR Wildland Fire Advisory Group / Global Wildland Fire Network, and UNU, explained the reason for organizing this first seminar of its kind worldwide, with special reference to human security.

- **Prof. Chadwick Oliver**, Director, Global Institute of Sustainable Forestry, Yale University, School of Forestry and Environmental Studies, referred to the successful cooperation between scientists from Ukraine, USA and Germany in addressing the issue of radioactive contamination and fires.
- **Prof. Dr. Victor Poyarkov**, TESEC, Ukraine, explained the role of the EUR-OPA Major Hazards Agreement (Council of Europe) in fostering cooperation of countries in reducing risks of major disasters in the region.
- **Mr. David Swalley**, Representative of the OSCE and the Environment and Security Initiative (ENVSEC), explained the interests and role of the OSCE and the ENVSEC to support the seminar
- **Prof. Dr. Nikola Nikolov**, Coordinator, UNISDR Regional Southeast Europe / Caucasus Wildland Fire Network, Faculty of Forestry, Skopje welcomed the participants on behalf of the regional network.
- **Dr. Leonid Kondrashov**, Coordinator, UNISDR Regional Central Asia Wildland Fire Network, Pacific Forest Forum (PFF), Khabarovsk, Russia, said that this seminar will address a topic that is of key importance for Eastern Europe and Central Asia.

I: Forest Fires in Radioactively Contaminated Terrain

- **Forest fires in radioactively contaminated terrain in the Ukraine**, keynote paper by Prof. Dr. Valeriy Kashparov, Ukrainian Research Institute of Agriculture Radiology, NUBiP of Ukraine, Ukraine
- **International cooperative efforts to address the problem of fires burning in the radioactively contaminated forests in the Chornobyl Exclusion Zone**, keynote paper by Prof. Dr. Chad Oliver, Yale University, U.S.A.
- **Organization, facilities, tactic and new technologies which are utilized on the south of France for a fight against natural fires and management of personnel safety**, Mr. Jean-Michel Dumaz, Centre de Secours Principal d'Aix en Provence SDIS13, France.
- **Problems of forest fire management on terrains with radioactive contamination out of the Chornobyl Exclusion Zone** Mr. Victor Parfeniuk, Head, Revision and Control department, State Forestry Committee of Ukraine.

II: UXO and land mines

- **Wildfire Management and UXO in the Region of Southeast Europe / Caucasus,** Prof. Dr. Nikola Nikolov, Faculty of Forestry, Skopje, Former Yugoslav Republic of Macedonia
- **Organization of mine action in Croatia**, Mr. Oto Jungwirth, Croatian Mine Action Centre, Croatia
- **Demining technologies and fire-fighting interventions in forests,** Mr. Vjekoslav Majetic, Croatia
- **Fire management in areas contaminated by land mines in Turkey**, Prof. Dr. Ertugrul Bilgili, Faculty of Forestry, Karadeniz Teknik Üniversitesi, Trabzon, Turkey
- **Organization of destruction of explosively dangerous items on the territory of Ukraine. Structure of pyrotechnical units of Ministry of Emergency of Ukraine**, Mr. Dmytro Chukavin, Department of rescue operation management, Ministry of Emergency of Ukraine
- **The use of prescribed fire on nature conservation areas in Germany contaminated by UXO**, Prof. Dr. Johann G. Goldammer, GFMC, Germany

III: Recent armed conflicts and fire

- **Demining and forests fire protection in the mountain districts of Georgia**, Mr. Giorgi Bagaturia, Ministry of Environment Protection and Natural Resources of Georgia, Forestry Department
- **Forest fire problems in Georgia**, Mr. Ilia Edilashvili, Emergency Management Department, Ministry of Internal Affairs of Georgia
- **UXO and land mines in Armenia**, Mr. Nver Gevorgyan, Ministry of Defense of Armenia
- **Overview on fire management in Armenia**, Mr. Arthur Voskanyan, Ministry of Emergency Situations of Armenia

IV: Radioactive Contamination and Forest Fires (Wednesday, 7 October 2009)

- **Welcome remarks and introduction** by Mr. Mykola Proskura, Deputy Head, Administration Department of the Chornobyl Exclusion Zone
- **Wildfires and the global-scale Cesium-137 background activity**, Dr. Gerhard Wotawa, Central Institute for Meteorology and Geodynamics, Austrian National Data Centre for CTBT Verification, Austria
- **Wildfire in the Chornobyl Exclusion Zone: A worst case scenario**, Dr. Aaron Hohl, Humboldt University; Dr. Andrew Niccolai, Yale University, U.S.A
- **Radioecological follow-on of the fire consequences in the radionuclide-contaminated forest sites**, Dr. Andrey Razdayvodin, Dr. Eugeniy Zhukov, Dr. Alexander Radin, All-Russian Research Institute of Silviculture and Mechanization of Forestry (VNIILM), Ministry of Agriculture, Russian Federation

V: Fire Management in Contaminated Terrain

- **Aerial fire management on terrain contaminated by radioactivity**, Mr. Andrey Eritsov, Aerial Forest Fire Center of Russia, Russian Federation, and Prof. Dr. Johann G. Goldammer, GFMC
- **Fire hazard of the forests in the Chornobyl Exclusion Zone**, Prof. Dr. Sergiy Zibtsev, NUBiP of Ukraine, and Mr. Anton Kruchok, Ministry of Emergency of Ukraine
- **Problems of forest and fire management in the Chornobyl Exclusion Zone**, Anatoliy Prokopenko, Public Forest special enterprise "Chornobyl Puscha"
- **Problems of forest fire fighting in the Chornobyl Exclusion Zone**, Mr. Vladimir Kukos, Chernobyl, Ukraine.

The presentations were followed by a visit of the sarcophagus of Chernobyl Reactor Number 4, the contaminated forests in the Exclusion Zone, and the Chornobyl Fire Station.

VI: Vegetation fires, Human Health and Human Security (Thursday, 8 October 2009)

- **Asymmetric Wildfire in the United States**, Mr. Richard Lasko Richard, U.S. Forest Service, Washington U.S.A.
- **Wildland Fire Smoke Pollution: Khabarovsk Case Study**, Dr. Leonid Kondrashov, Pacific Forest Forum (PFF), Khabarovsk, Russian Federation.
- **Vegetation fire smoke and human health impacts**, Prof. Dr. Milt Statheropoulos and Dr. Sofia Karma, National Technical University of Athens / European Center for Forest Fires, Greece, and Prof. Dr. Johann G. Goldammer, GFMC, Germany.

Minutes of the concluding discussion

Remarks by Mr. Mykola Proskura, Administration of the Exclusion Zone and the Zone of Absolute Resettlement, Ministry of Ukraine of Emergencies and Affairs of Population Protection from the Consequences of the Chornobyl Catastrophe

He thanked all participants and expressed the hope that these meetings would become a tradition. He apologized that the Minister and the vice minister could not attend, due to a foreign mission and budget negotiations. He underscored the need to screen the regulations that are stipulating the rating of contamination doses that influence the anticipated threat and determine the official measures taken by the administration. The proposals include:

• Besides the development of models it is important to use realistic data and scenarios to exactly calculating the dosage that people receive from emissions of fires burning in contaminated terrain. The following key scenarios were suggested:

- Consequences of changing water regime of the cooling pond (lowering of the water table): Impacts of exposure of radionuclides embedded in sediments and organic layers.
- Consequences of enhanced forest management activities on radionuclide deposits and wildfire hazard.

• Enhancing applied research for treating the management of contaminated vegetation (practical and methodological advice)

• The current draft fire management plan for the Chernobyl Exclusion Zone needs to be revised : the international community is asked to assist Ukraine to develop a comprehensive new fire management plan.

• As there is no facility / center anymore to properly receive and process satellite data to allow near-real time monitoring of territories at risk (notably fires and fire effects) based on a GIS database, such development could be done by the Ukraine Agricultural University.

• Clear protocols must be developed to inform the public properly on incidents in the CEZ in order to avoid unnecessary panic or insufficient information. Public information of radiation doses should be handled ethically, based on best and reliable technologies and science.

Remarks by Prof. Dr. Victor Poyarkov, TESEC

The proposals by the CEZ administration are supported but due to current little financial support for implementation, we have to define priorities of proposed activities.

First of all we need to send a clear message to the population about risks related to wildfires in the CEZ. The model presented at the seminar reveals that there is an increased understanding of the fire-induced processes and demonstrated that there are no significant hazards to the population outside the CEZ. The problem of possible some food contamination by a major fire incident could be relatively easy be controlled.

This is correlated with the current understanding (based on models) of the consequences of a possible collapse of the sarcophagus of Reactor 4 (a worst-case scenario leading to the release of contaminated dust particles) is that populated areas would not significantly be affected.

However, inside the CEZ 4000 people are working, including firefighters : they need to be protected So emergency planning is critical, local response protocols (following the USA experience) are needed. This refers also to other countries and different kind of contamination by toxic chemicals (e.g., mercury).

Remarks by Prof. Dr. Johann G. Goldammer, GFMC

Dedicated guidelines for fire management on contaminated terrain need to be developed, including the prevention of wildfires, the preparedness for coordinated and swift response, methods and equipment for fire suppression that are providing special protection to firefighters and the public against threats arising from the contaminated terrain, including smoke pollution. Standard Operating Procedures (SOP) and protocols need to be developed to address the problem from local, national, regional to international scales.

Characteristics and spatio-temporal range of threats to be addressed include:

• Land mine explosions triggered by firefighters: Immediate impacts. Spatio-temporal range. Localized to up to 100m. Immediate threat – no early warning possible. Protective measures: Adequate personnel protective equipment for firefighters.

• UXO and land mine explosions triggered by wildfire: Immediate impacts. Spatio-temporal range. Localized to up to 100m. Immediate threat – no early warning possible. Protective measures: Adequate personnel protective equipment for firefighters.

• Radioactivity release by wildfire with high contamination doses on site and in the nearby surrounding territory: Threat to exposure of firefighters and local population. Spatio-temporal range. Localized to up to

10-20 km. Early warning possible. Protective measures: Adequate personnel protective equipment for firefighters. Issue of warnings and evacuation of population.

• Radioactivity release by wildfire with below-threshold contamination doses in remote fallout regions: Threat to contamination of foodstuff and water resources. Spatio-temporal range. Up to several hundred kilometers, several days. Early warning possible. Protective measures: Adequate information measures and regulatory orders (e.g., control of foodstuff and exposed water resources and other contaminated surfaces, restriction of crop harvest, processing and dissemination of foodstuff.

• Vegetation fire smoke (including emissions from burning of technogenic and chemical substances) containing substances / particles endangering public health and safety: Threat to exposure of firefighters and population. Spatio-temporal range. Up to several hundred kilometers, days to weeks. Early warning possible. Protective measures: Adequate personnel protective equipment for firefighters. Issue of warnings of population (advice for general public or highly vulnerable people, e.g. stay indoors / in shelters, wearing of respirators, preparedness of hospitals, in extreme cases evacuation), traffic safety advice / measures (due to reduced visibility)

• Fire release and long-range transport of anthropogenic radioactivity and other pollutants (e.g., mercury) from terrestrial deposits: Uncontrolled redistribution of pollutants from primary deposits to secondary deposits. Spatio-temporal range: Continental, inter-continental to global, several days to months. Tracking of pollutants possible. Protective measures: none.

Remarks by Mr. Richard Lasko, USDA Forest Service, Fire and Aviation Management

Based on the impressions of "asymmetric" fires, i.e. fires burning in "atypical" environments Mr. Lasko underscored the need for the development of international standards, notably safety standards, for fire management in contaminated terrains.

Remarks by Prof. Dr. Johann G. Goldammer, Global Fire Monitoring Center (GFMC)

He reflected briefly on the discussion on the necessity to reduce the threats of ground personnel operating on contaminated terrains. The use of automated fire detection systems based on advanced sensors installed on the ground, and the recent trend in the development and use of Unmanned Aerial Vehicles (UAV) (drones) and Unmanned Aerial Systems (UAS) for monitoring ongoing fires for operational decision support will contribute to a decrease of exposure / risk of firefighters.

Remarks by Prof. Dr. Nikola Nikolov, UNISDR Regional Southeast Europe / Caucasus Wildland Fire Network

He proposed the development of regional projects to enhance capabilities in fire management on contaminated terrain. He stressed the situation in the Balkan region, where besides land mines the remnants of ammunition consisting of depleted uranium pose an additional threat to firefighters and population. He pointed out the necessity of UXO and land mine clearing in the conflict zones on the territories of the Southern Caucasus countries.

Remarks by Mr. David Swalley, OSCE

He underscored that the interests of the OSCE and particularly of the Environment and Security Initiative (ENVSEC), in line with the concerns and proposals presented in the presentations and the discussion. Governments of countries confronted with problems arising from fires burning on contaminated terrain and requiring scientific and technical advice should officially approach the OSCE for consultation.

Remarks by Dr. Andrey Razdayvodin, All-Russian Research Institute of Silviculture and Mechanization of Forestry (VNIILM), Ministry of Agriculture of Russia

He described the current situation in Russia where the forestry and fire management responsibilities were decentralized. The federal responsibilities were reduced, and this is affecting, among other, the situation in Bryansk Oblast. This region suffered most from the Chernobyl event. VNIILM identified contamination by 137-Cs in the magnitude of up to 150-200 Cu km2. The capabilities of local and provincial authorities to tackle the problems of fires burning in the highly contaminated terrain are limited. It is therefore proposed that a zone along the borders are established in which federal authorities are responsible.

Remarks by the representative of the Emergency Ministry of Azerbaijan

He reported that Azerbaijan is available for international cooperation in response to emergency situations. Azerbaijan has cooperated not only in response to earthquakes (e.g., in Iran) but also assisted Turkey in putting out fires. Azerbaijan is operating two BE-200 water bombers (Russian made water scooping airplanes). Concerning the UXO / land mine problem he stressed that modern mine / UXO clearing equipment, as presented by the representatives of Croatia, would be needed.

Remarks by Dr. Leonid Kondrashov, Pacific Forest Forum (PFF) / UNISDR Regional Central Asia Wildland Fire Network, Russia / UNISDR

He stressed that it will be most important that government be informed about the results of the deliberations of the seminar. It should also be considered to establish a Working Group that will follow up the seminar, by developing a plan of action and implementation of priority measures.

Remarks by Prof. Dr. Ertugrul Bilgili, Faculty of Forestry, Karadeniz Teknik Üniversitesi, Trabzon, Turkey

He urged the countries of the region to develop sound national fire management plans (integrated plans which would involve early warning and detection, preparedness, public awareness, training of efficient rapid

response teams; and integrated management plan for contaminated terrains). Schemes should be developed to assess the effects of fires on human health and security.

Remarks by the State Forest Committee, Ukraine

The State Forest Committee stressed three important points:

• It must be taken into consideration that wildfires occur also outside of the exclusion zone where there are large areas contaminated by radioactivity as well. Attention must be given to these territories.

• It is mandatory to initiate the development of common standard procedures for fire extinguishing in contaminated terrains between Russia, Ukraine und Belarus.

• Common joint research efforts should be carried out to prevent the occurrence, severity and impacts of wildfires burning on radioactively polluted territories. Such efforts should be conducted under the auspices of the GFMC.

Remarks by Prof. Dr. Chad Oliver, Global Institute for Sustainable Forestry, Yale University

He underscored the importance of specific national to international proactive measures and targeted response measures to be taken to prevent and manage fires burning on contaminated terrain. He suggested:

• An international "hotline" should be established to be alerted in cases of significant fire events that are threatening human health and security at larger scale. An international clearing house should be established to facilitate rapid assessment of critical situation and coordinated response.

• Develop strategies and internationally agreed protocols for firefighting on contaminated terrains.

• The analysis "Wildfire in the Chernobyl Exclusion Zone: A worst case scenario", conducted as a joint effort of Ukrainian, US and international institutions, will be finalized within a few weeks to months and will be sent out for peer review. Although preliminary results indicate secondary pollution of fire-generated radioactivity release will not exceed national Ukrainian thresholds to prompt immediate evacuation of populations living downwind, the fires burning on contaminated terrain are a reason of concern for additional dispersal of radioactivity. Thus all efforts should be made to reduce the risk of uncontrolled fires burning in the Exclusion Zone and elsewhere in Ukraine, Belarus and Russia.

Concluding Remarks by Prof. Dr. Johann G. Goldammer, GFMC

In conclusion and with special reference to the last contributions to the discussion he stressed that the call for a dedicated center at international level to serve as a clearing house and central alert contact for large environmental and humanitarian emergencies caused by extreme fires are in line with the intent of the UN Advisory Group on Environmental Emergencies (AGEE), which is operating under the auspices of the UN Office for the Coordination of Humanitarian Affairs, to establish an international "Environmental Emergencies Centre" that would possibly be working in a decentralized mode through dedicated existing centers such as the Global Fire Monitoring Center (GFMC).

The discussions during the seminar also revealed the needs for enhancing trans-border cooperation in fire management throughout Eastern Europe / Central Asia, particularly along those borders of countries that are sharing common problems such as radioactive pollution, e.g., in the border region between Belarus, Ukraine and Russia, and the borders that are contaminated by UXO and land mines dating back from historic armed conflicts. The declaration of the seminar should reflect on this and call for action.

Resolution of the Seminar

Kiev Resolution on Wildfires and Human Security - Challenges and Priorities for Action in Fire Management on Terrain Contaminated by Radioactivity, Unexploded Ordnance (UXO) and Land Mines

CULTURAL HERITAGE AT RISK / PATRIMOINE CULTUREL ET RISQUES

WORKSHOP " STRATEGIES TOWARDS SEISMIC PROTECTION OF MONUMENTS" - Athens, 26-27 February 2009 (ECPFE - European Centre of Prevention and Forecasting of Earthquakes, Athens)

TARGET COUNTRIES: All the Countries of the OPA
LOCAL COORDINATOR: ???
OTHER PARTICIPANTS:
SPECIALISED CENTRES: All the Centres interested in the topic
NATIONAL AUTHORITIES: Earthquake Planning and Protection Organization (EPPO), Universities, National Observatory

OBJECTIVE OF THE PROJECT
Global objectives
The Scope of this Workshop is to cite a general overview of the methods for assessing seismic hazard at a site or a set of sites, explaining the algorithms and discussing their limitations and advantages as well as exchanging experiences on short-medium and long Term Prediction of Earthquakes.
From the beginning of time, prediction of natural phenomena and, in particular, earthquakes has been one of the objectives of human Kind. However, the complexity of the capture processes at the origin of earthquakes does not yet allow science to produce earthquake predictions in a reasonable term period that would satisfy size of the next important event within narrow and accurate windows.
On the other hand, prediction in the medium and long term (tens to hundreds of years), is routinely used for assessing the seismic hazard at regional of local levels and for specific sites with critical facilities, evaluating the more exposed zones and quantifying the possible seismic actions. This constitutes the first step on the strategy of prevention. In fact this is at the moment the only way to prepare for earthquakes.
The use of modern techniques of GIS to model the hazard, has not only revolutionized completely the computation algorithms but also made the introducing of the data easier.
Summing up, the workshop aims at building related European Strategies so as each country will review its studies of hazards and develop new initiatives which will lead in the short term prediction of the seismic Hazard in Europe.
Specific objectives for 2009 :

EXPECTED RESULTS IN 2009
The results can be turned into advantage in the field of Prevention and forecasting of Earthquakes

ASSOCIATED ACTIVITIES IN 2009

RESULTS OBTAINED IN 2009
The European Center of Prevention and Forecasting of Earthquakes(ECPFE) and the Earthquake Planning and Protection Organization (EPPO) of Greece took the initiative to organize a two-day meeting on the above subject. The meeting took place in Athens, February 26-27, 2009.
The scope of the proposed event was to exchange opinions , information and experiences on this very important matter, thus contributing to a better understanding of :

- **(i)** the main issue in selecting the level of seismic actions to be used in the design of structural interventions of such buildings
- **(ii)** the procedures to be followed during the various phases of relevant design and construction,and
- **(iii)** the significance of the public awareness on the importance of seismic safety of Monuments.

TOPICS OF THE TWO-DAY MEETING ON "STRATEGIES TOWARDS SEISMIC PROTECTION OF MONUMENTS" INCLUDED THE FOLLOWING
1.Basic Data:

- Complete and integrated survey and investigation, comprising all the historical, architectural, structural and geotechnical issues as well as
- Instrumental long term monitoring of the behavior of monuments.
- Hormonisation between the components of this documentation has to be taken into account.
- Thorough examination and full understanding of the structural system of the Monument.
- Case studies of survey and investigation that highlight the way such a documentation contributes to the adequate design of aseismic interventions.

2.Selection of the level of Seismic Actions used for the design of interventions on Monuments and Historic Settlements.
a) Procedures and techniques for an interdisciplinary choice of an *optimum* value for the design seismic action so that a "weighed" solution of structural intervention is found , in order to adequately

serve both Monument-values and Social-values. To this end the interaction between the following data could be considered:

- The seismological data (historical and instrumental): More specifically seismic consequences of previous earthquakes on the Monument.
- The Values of the Monument in its current-state (Historical Memory[1], Historical Materials and Techniques[1]/ Structural Typologies, Aesthetic Value[1], etc), as well the Economy and the Use , the way they may be influenced by the design of interventions (see also paragraph 4.)
- Social Values related to the monument and our structural interventions, such as Costs, repercussion on its uses and the Human Life of visitors or inhabitants as a function of monuments visitability or habitability.
- The level of Importance of the monument (and consequently the acceptable level of damages under the seismic action taken into account for the design of the interventions).

b) The formulation of a procedure to be followed in selecting the Seismic action for the design of the interventions in Monuments, may also be based on previous experience in various Monuments.

3.Analysis and Dimensioning for the assessment of the actual bearing capacity of the monument and for the design of interventions:

- Criteria for the selection of a reliable method for Analysis, suitable to the existing structural system and materials, as well as the importance-level of the Monument (i.e. its acceptable level of damage)
- Scientifically acceptable methods for the prediction of structural resistances, before and after intervention. Equal level of reliability should be sought between action-effects and resistance-values determination.
- Procedures to be used for the calibration of methods for Analysis and Dimensioning, if possible by means of an approximate verification of previous structural behaviour of the Monument.
- Assessment of foundations' stability and possible soil-structure interaction.

4.Final Choice of the optimal technical solution for the intervention (using traditional or even modern methods), considering however :

- The consequences on the Monument-Values and on the Social Values (see also §2), and
- The performance characteristics of the solution (reversibility or reinterventionality[2] , durability[2] , functionality of new uses).

5.Regulatory Documents related to the subject.

Presentation of currently used regulatory texts, proposals of procedures to be followed in order to establish such Documents.

6.Public awareness regarding the importance of seismic safety of Monuments

- As expected , spending of public funds depends on political decisions dictated by prevailing hierarchy of Values. Public expenditure towards structural safety of Monuments is therefore a measure of the public opinion on
  (i) the importance of Historical Memory, and
  (ii) the value of Human Life (especially in the case of historical urban nuclei).

Sociology however reveals that, under specific cultural circumstances, these two values may suffer possible changes of priority. It is felt that it is our duty to understand these social phenomena, and to build strategies enhancing the upgrading of the public opinion in favour of structural safety of Monuments against Earthquakes- a natural hazard less clear in the mind of our Societies.

It is hoped that if the public is clearly concerned with this matter, the State will be more favourable in increasing the financement of seismic strengthening of Monuments.

In the Workshop papers were presented concerning :

- Analysis of the mechanisms affecting the priorities of these Values in our Society.
- National experience available, and methods to be followed towards an enhancement of public awareness regarding the importance of seismic safety of the Monuments.

B. CHARACTER OF THE SCIENTIFIC WORK OF THE TWO-DAY MEETING

1.It has to be noted that the objective of this event was :

- neither a presentation of case studies concerning the design or application of aseismic interventions on Monuments, per se
- Nor the specialized development of certain calculation methods, per se

2.A more **holistic consideration** was sought. In other words, emphasis was given to the existing interdependence between the various phases of aseismic interventions in Monuments, so that, if possible.

[1] The debatable concept of "authenticity " of the monument is meant to be better covered by these specific notions

[2] Here is also included the notion of the so-called "compatibility" of the additional materials.

CO-OPERATION IN EMERGENCY SITUATIONS / COOPERATION DANS LES SITUATIONS D'URGENCE

PUBLICATION OF THE PROCEEDINGS OF THE ROUND TABLE "ORGANIZATION OF PSYCHOLOGICAL SERVICE FOR THE POPULATION IN DISASTER MEDICINE AND EMERGENCY SITUATIONS" (ECMHT - European Training and Information Centre, Baku)

TARGET COUNTRIES : Specialized Centers of EUR-OPA Major Hazards Agreement
LOCAL COORDINATOR: Habib Ocaqov
OTHER PARTICIPANTS :
SPECIALISED CENTRES : Ukraine (TESEC), Russia (ECNTRM), Turkey (AFEM), Georgia (GHDD) and other Specialized European Centers
NATIONAL AUTHORITIES : Emergency Situations and Agriculture Ministries

OBJECTIVE OF THE PROJECT
Global objectives
Since Azerbaijan declared its independence, as a result of large scale economic reforms in our rural areas, wide chain of hundreds of small farm economies on the basis of collective and state properties, as well as production and processing enterprises based on local raw material support has been established. So, stable foundation of economic development based on private ownership has been laid in our country. Naturally, it is a great success achieved by us.
At the same time, the liquidation of collective and state farms the aim of which was to solve the problems concerning the protection of economy, territories and population, created very serious problems in the sphere of struggle against emergency situations and organization of civil defense in the rural areas.
Specific objectives for 2009
To hold meetings at different levels in rural areas of the republic; to discuss (analyze) real situation and learn real opportunities; to develop the relevant conception project on organizational rules of civil defense and struggle against emergency situations on private ownership conditions in our rural areas by using practices of some European countries.

EXPECTED RESULTS IN 2009
A conception project on the rules on organization of civil defense and struggle against emergency situations in private ownership conditions, in the rural areas, and duties of entrepreneurs, municipalities, local executive authorities.

ASSOCIATED ACTIVITIES IN 2009
Scientific-practical conference will take place in October 2009 under the patronage of the Secretariat of EUR-OPA Major Hazards Agreement of Council of Europe.

RESULTS OBTAINED IN 2009
Based on the Round table "Organization of psychological service for the population in disaster medicine and emergency situations" materials, the book titled "Organization of psychological service for the population in disaster medicine and emergency situations" was prepared under the general leadership of prof. Habib Ojaqov, as well as Y.A.Qaramammadli (PhD candidate, senior lecturer, expert on ethics and aesthetic and social-psychology of the Center, I.E.Mammadov – psychiatrist, chief doctor of 34-№ hospital) and as head advisors prof. A.T.Bakhshaliyev (doc. of psy.sns) and G.A.Babayev (international expert on emergency situations). Moreover, in compiling the book we used the information on psychological service to people subject to psychological shock during emergency situation taken place at different times and at different regions in the country. Official documents of the appropriate government bodies concerning struggle against epidemic at centres of accidents and populated areas, mass media. At the same time electronic information means and the information taken from meetings with foreign guests participating at the international symposiums and conferences are used too.
The book was printed in Azerbaijani and translated into English and is planned to be presented to readers in 2010, in particular all bodies engaged in struggle against emergency situations, especially medical organisations in regions, local executive authorities and municipalities.