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

ACTIVITES PROPOSEES* DANS LE CADRE DES PROJETS COORDONNEES POUR 2014-15

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

ACTIVITIES PROPOSED* WITHIN THE COORDINATED PROJECTS FOR 2014-15

*** REMARQUE IMPORTANTE :**

A ce stade, les projets sont simplement des propositions à discuter lors de la Réunion des Directeurs de Centres : pas de soutien final leur est garanti.

*** IMPORTANT REMARK:**

At this stage, the projects are only proposals to be discussed at the Meeting of Directors of Centres: no final support is guaranteed yet.

www.coe.int/euoparisks

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1.A. Assessment of events and population alert

Gestion intégrée par S.I.G. et analyse multicritères du risque inondation : vers un modèle de gestion du risque inondation dans une région steppique

CRSTRA - Scientific and Technical Research Centre on Arid Regions (Algeria)

DUREE :	<input checked="" type="checkbox"/> 2014	<input checked="" type="checkbox"/> 2015	<input type="checkbox"/> 2014 – 2015
PAYS VISES: Algérie-Italie-Grèce-Espagne-Tunisie-Maroc			
PARTENAIRES IMPLIQUES :			
CENTRE COORDINATEUR : CRSTRA Biskra, Algeria			
AUTRES CENTRES: ECRM Yerevan, Armenia , CUEBC Ravello, Italy , ECFF Athens, Greece ,			
AUTRES PARTENAIRES :			

OBJECTIFS DU PROJET

Objectif global pour 2014-2015 :

Assoire une politique de gestion des risques d'inondation par l'élaboration d'un plan de gestion des risques , afin de sécuriser les populations et réduire le coût des inondation

Objectifs spécifiques :

2014 : établir des cartes des risques d'inondation et les zones inondables par ordre de sensibilité

2015 : élaboration d'un plan de gestion des risques d'inondation

RESULTATS ESPERES

2014 : crée une équipe pluridisciplinaires dans l'étude du risque inondation à travers une démarche transversale.

2015 : transfert des connaissances aux secteurs concernés par la gestion des risques d' inondation

ACTIVITES ASSOCIEES

(reparties par partenaire)

2014 : sensibilisation, savoir-faire, adaptation, culture des risques

2015 :

RESULTATS OBTENUS PRECEDEMMENT (si pertinent)

cartes interactifs /serveur cartographique

Certains phénomènes météorologiques et climatiques (périodes de sécheresses suivies de périodes de pluies sporadiques qui provoquent des crues dévastatrices), habituellement qualifiés d'exceptionnels, sont devenus dans les pays de la région euro-méditerranéen, et en Algérie en particulier, récurrents au cours de cette dernière décennie. L'inventaire des inondations à travers l'Algérie pour la période allant de 1969 à 2008 révèle des grandes inondations engendrées par des pluies exceptionnelles généralisées sur de grands bassins versants peuvent toucher plusieurs régions atteignant parfois l'ampleur d'une catastrophe nationale.

Une nouvelle démarche méthodologique

Pour étudier ce risque d'inondation, nous proposons de mettre en œuvre une nouvelle démarche méthodologique qui met en synergie la cartographie des zones à risques d'inondation par l'utilisation conjointe de la télédétection satellitaire (carte d'occupation du sol et suivi diachronique de l'extension du centre urbain), des MNA (Modèle Numérique d'Altitude), des données exogènes (lithologie, morphostructure, climat, distance aux canaux actifs, et la densité de population, historique des crues, etc.) et des données morphométriques.

La démarche adoptée pour la gestion du risque d'inondation va être fondée sur l'analyse croisée des facteurs relatifs à la vulnérabilité du terrain à l'inondation et l'aléa (des facteurs

hydroclimatiques) dans un SIG (Système d'information Géographique). L'amélioration des méthodes d'investigations et les progrès technologiques réalisés en cartographie permettent maintenant de créer rapidement et à un coût relativement faible une représentation précise d'une plaine inondable. Ils pourraient aussi, stimuler et renouveler les stratégies d'atténuation et d'adaptation aux risques d'inondations à de nombreux endroits.

Le système d'information géographique (SIG) permet donc l'acquisition, le croisement et la superposition des données de télédétection et d'autres variables hydrogéologiques. Ce système remplirait les fonctions suivantes:

- une fonction de stockages des informations après homogénéisation des données géocodées et classées,
- une fonction de traitement et de vérification, de gestion et de mise à jour,
- une fonction de distribution et de communication rapide des données numériques,
- une fonction d'orientation des schémas directeurs pour l'aménagement, et la prise de décision (sélection des zones ou sites favorables à l'urbanisation entre autres)

Les traitements et les analyses multicritères effectués à l'aide du SIG fournissent une information spatialisée pouvant être utilisée comme support d'aide à la décision, pour pouvoir mieux adapter les mesures structurelles (aménagements) et non-structurelles (éducation au risque, systèmes d'alerte) préconisées au territoire étudié, en permettant une localisation rapide des zones à hauts risques d'inondation ainsi que leurs facteurs déclenchant et/ ou aggravants, lesquelles doivent être prioritairement contrôlées et protégées.

Objectif global

Notre travail cherchera avant tout à mieux comprendre le comportement des inondations. Il s'appliquera à découvrir les causes et à développer des moyens de prévention et de gestion intégrée plus rationnelle des inondations dans une région steppique et aussi de proposer des scénarii pour un meilleur aménagement des zones à risque en l'intégrant à différents niveaux de notre société, du politique à l'exécutif des décideurs aux autorités locales autant que les hommes de terrains.

Le projet a donc pour objectifs :

1. l'élaboration d'outils d'aide à la décision cartographique
2. la formation et la sensibilisation pour instaurer une culture du risque dans les stratégies urbaines et agricoles
3. étudier les politiques de gestion des risques passées afin d'évaluer leurs pertinence et adaptabilité
4. adopter un modèle de gestion des risques d'inondations dans des zones à forte vulnérabilité

Le travail à effectuer nécessite l'implication d'équipes pluridisciplinaires et intersectorielles :

Les équipes participantes (Algérie) : CRSTRA; HCDS ; DGF ; ANRH ; Universitaires ; La protection civil ; La Sureté national

Autres partenaires : centres spécialisés de l'Accord Europa-Méditerrané qui souhaitent adhérer au projet.

Objectifs spécifiques

2014: Préparation et collecte des données : étudier le bassin versant in-situ à l'aide de documents préalablement recueillis (paramètres météorologiques, etc..) et des mesures sur les sites et la construction de bases de données qui nous permettra d'asseoir les bases conceptuelles de notre réflexion; Exécution du travail avec le recours au Système d'Information Géographique et à la télédétection (analyse diachronique).

2015: Réalisation des scénarii sous SIG, pour un meilleur aménagement des zones à risque en l'intégrant à différents niveaux de la société, du politique à l'exécutif, des décideurs aux autorités locales autant que les hommes de terrains.

Choix de la zone d'étude

Le choix du bassin versant d'Oued Defaa wilaya d'el Bayadh –Algérie, a été orienté par l'existence de plusieurs éléments représentatifs des fonctionnements et dysfonctionnements liés au risque inondation, sur une surface limitée de quelques km² :

- des facteurs d'inondation d'importance variable selon les secteurs;
- une très forte sensibilité des individus à la question;
- une zone steppique;
- l'absence de politique concernant la gestion du risque inondation.

La wilaya d'El Bayadh fait partie intégrante de la région des Haute Plaines steppiques du Sud-Ouest algérien et a une superficie de 71 697 km². Sur le plan physique, elle présente trois grandes zones distinctes : au Nord, les Hautes Plaines ; au Centre, l'Atlas saharien et au Sud, la région pré-saharienne. Elle est considérée comme une wilaya pastorale par excellence, où l'élevage est le savoir-faire d'une grande partie de la population et constitue l'activité économique de base. Près de 16 000 personnes y vivent en zone inondable.

La méthodologie proposée va ainsi permettre de cartographier l'évolution de l'agglomération de la wilaya d'El BAYADH dans une étude spatio-temporelle qui ne semble pas en perte de vitesse, de découvrir les causes et à développer des moyens toujours efficaces de prévention et ceci pour une gestion intégrée plus rationnelle des inondations dans une région steppique et aussi de proposer des scénarii pour un meilleur aménagement des zones à risque en l'intégrant à différents niveaux de notre société, du politique à l'exécutif des décideurs aux autorités locales autant que les hommes de terrain.

Les inondations de ces dernières années, ont mis à découvert plusieurs faiblesses intrinsèquement liées à la vulnérabilité du tissu socio-économique et des infrastructures de base, ainsi qu'aux insuffisances sur le plan institutionnel, technique, et organisationnel, pour faire face à des catastrophes d'une telle ampleur. Ainsi, la prévention des risques est devenue, peu à peu, une préoccupation majeure de différents acteurs dont notamment, l'administration, le secteur privé et les compagnies d'assurances.

Une meilleure compréhension des causes des inondations peut aussi permettre à la population de mieux se préparer et de bien gérer ce risque, afin de minimiser ou empêcher les dommages causés.

Contribution à la prise en charge d'un risque potentiel: les canicules

CRSTRA - Scientific and Technical Research Centre on Arid Regions (Algeria)

DUREE : <input type="checkbox"/> 2014 <input type="checkbox"/> 2015 <input checked="" type="checkbox"/> 2014 – 2015
PAYS VISES: région méditerranéenne
PARTENAIRES IMPLIQUES : CENTRE COORDINATEUR : CRSTRA Biskra, Algeria AUTRES CENTRES: AUTRES PARTENAIRES : O'NM/M'étéo

OBJECTIFS DU PROJET Objectif global pour 2014-2015 : Contribution a l'atténuation de l'impact des canicules sur les populations en Région Méditerranéenne Objectifs spécifiques : 2014 : Relevé et organisation de la base de données (et scénarios 50 dernières années) 2015 : RESULTATS ESPERES 2014 : Synthèse des acquis et meilleure connaissance de ce risque 2015 : mesures d'atténuation (création d'un réseau méditerranéen sur ce risque) ACTIVITES ASSOCIEES (reparties par partenaire) 2014 : 2015 : RESULTATS OBTENUS PRECEDEMMENT (si pertinent) Création de Division dédiée aux risques majeurs Un antécédant sur le programme de recherche et de formation sur les risques liés au climat.

Ces dernières décennies, nous constatons une certaine récurrence des canicules dans toute la région méditerranéenne. Si, la rive sud est traditionnellement affectée, la rive Nord est de plus en plus vulnérable. Les canicules vécues en Europe en 2003 pendant cette tragédie du 12 Août 2003, la température a dépassé les 40°C, elle a engendré pas moins de 70 000 décès dont 20 000, uniquement en France. En 2007, quelques années plus tard, le 17 juin et le 26 juillet 2007, les températures ont atteint les 46°C causant 500 morts en Hongrie. De l'autre côté de la Méditerranée, un accroissement des températures et un étalement des périodes chaudes ont eu des impacts redoutables à plus d'un titre.

Ce phénomène constitue une menace certaine dont l'ampleur, la récurrence et la prévision des impacts ne sont pas étudiés et/ou évalués. Ce qui ne permet en aucun cas de prévoir des stratégies de gestion devant atténuer ces impacts socio-économiques et notamment sur le bien-être des populations.

C'est pourquoi, nous considérons que le projet de création de base de données (analyse des températures, durées, fréquence, impacts, ...) est plus que prioritaire. Cette base de données permettra via un suivi régulier et la centralisation des données historiques, de proposer de stratégies de gestion et d'adaptation à ces conditions hostiles. Ces stratégies porteront sur les segments santé, agriculture et habitats (urbanisme), environnement (espace vert, énergie, habitudes alimentaires et habillement, équipement divers des lieux de vie.

Geophysical Monitoring of Landslides and Man-Made Structures - Search of Forerunners

CERG - European Centre for Seismic and Geomorphological Hazards (France)

DURATION : 2014 2015 2014 – 2015

TARGET COUNTRIES : France and Georgia (case study) but European applicability

PARTNERS INVOLVED :

COORDINATING CENTRE : CERG Strasbourg, France

OTHER CENTRES: GHHD Tbilisi, Georgia , , ,

OTHER PARTNERS : University of Strasbourg (UdS, J.-P. Malet, C. Doubre, P. Ulrich), Delft University of Technology (TUD, T.A. Bogaard), University of Brest, IUEM (C. Delacourt), University of Grenoble (ISterre, D. Jongmans)

OBJECTIVES OF THE PROJECT

Global objective for 2014-2015 :

Landslides are natural and complex phenomena affecting all types of geological formations and presenting a large variety of sizes, morphologies and displacement rates. Triggering and reactivation of landslides are controlled by meteorological factors (rainfalls, snow melting, freeze-thaw cycles), by earthquake ground shaking or by anthropogenic actions. Landslides in clay-rich formations, which are widely spread over the world, are characterized by still unpredictable acceleration and fluidization phases, generating rapid mass movements like mudflows and debris flows. Because of their suddenness, the occurrence of these events, which is primarily controlled by the groundwater conditions, is a serious threat for populations.

Recent results from permanently-installed geophysical devices on active landslides have shown that geophysical parameters could track rheological and hydrogeological changes in slopes. Geophysical monitoring thus opens new perspectives for locating, understanding and maybe predicting slope failure mechanisms. The main goal is thus to explore the capacities of geophysical techniques (and of the corresponding measured parameters) for defining forerunners of changes in the slope regime/man-made structures state, combining them together and with other (more classical) hydrogeological and geodetic techniques.

With this objective, active landslides (La Valette in France) and man-made structures (High dams in Georgia) already monitored will be instrumented with additional geophysical devices during three years.

The objectives of the project are:

- 1) To test the performance of the combination of the ground-based measurements of bulk variations in geophysical parameters before change in the kinematic regime, through the joint analysis of seismic, strain and resistivity data
- 2) To test the performance of remote sensing technologies (stereo-photogrammetry applied on satellite images and terrestrial photographs, InSAR radar images) for imaging the distribution of displacements and strain.
- 3) To understand the geophysical variations with regards to classical geodetic, meteorological and hydrogeological observations.
- 4) To build a logic-tree procedure for taking decisions on possible forecast of kinematic change or failure of the slope or or man-made structures (e.g. high

dams).

The proposed activity associates two specialised centres (CERG, GHHD). The expertise of contributing academic partners (see above) guarantees the success of the research activities as they are already working closely together within European Projects. Co-funding to the research will be made available by each of the partners.

Specific objectives :

2014 :

- 1) Collection and organization of the in-situ monitoring datasets at the test sites**
- 2) Organization of a dedicated field campaign in Georgia (2 weeks) and in France (2 weeks) for testing the monitoring of strain with Fiber Optic on respectively High Dams and the La Valette landslide. Interpretation of the data.**
- 3) Set up of an automated processing chain for the analysis of series of optical photographs for estimating the displacement and the strains. Comparisons with external sensor information.**
- 4) Workshop to define the logic tree procedure and identify the components of the decision support system (DSS)**

2015 :

- 1) Report (end-users, scientists) on the combined use of geophysical techniques for landslides and man-made structures monitoring. Proposition of an operational geophysical monitoring strategy.**
- 2) Development of the DSS system flexible for both landslide and man-made structures**

EXPECTED RESULTS

2014 : See below (activities)

2015 : See below (activities)

ASSOCIATED ACTIVITIES (split by partner)

2014 :

- 1) Organisation of a 2-days workshop to initiate the work (all partners)**
- 2) Organization of 2 periods of field campaigns (1 in Georgia, 1 in France) and multi-method field experiment (seismic, resistivity, fiber optic, cameras) (CERG, GHHD)**
- 3) Joint data interpretation (all partners)**
- 3) Development of a routine for automated processing photographs time series for change detection, and test of its performance against other data (CERG)**
- 4) 2-day workshop to design the component of the DSS system (CERG, GHHD)**

2015 :

- 1) Writing of the end user and science report and guidelines on the use of geophysical techniques for landslide and man-made structure monitoring.**
- 2) Development of the DSS system, and beta testing of the 2 case studies of France and Georgia.**
- 3) Organization of an intensive course on multi-method monitoring for early-warning. Dissemination of the DSS and guidelines to end users and scientists.**

RESULTS OBTAINED PREVIOUSLY (if any)

The proposed activity will take advantages of previous results obtained within the activity of CERG and GHHD members. It takes advantage of the initial results of the "Multi-sensor technologies for EWS of landslides and man-made structures" project (2012-2013) and will consolidate and end this research.

Methodology for creation of the complex emergency alerting system

ECNTRM Moscow, Russian Federation

DURATION : <input type="checkbox"/> 2014 <input type="checkbox"/> 2015 <input checked="" type="checkbox"/> 2014 - 2015
Methodology of creation the complex emergency alerting system.
TARGET COUNTRIES : all
PARTNERS INVOLVED :
COORDINATING CENTRE : <i>ECNTRM Moscow, Russian Federation</i>
OTHER CENTRES: , , ,
OTHER PARTNERS : <i>Emercom of Russia</i>

OBJECTIVES OF THE PROJECT
<i>Global objective for 2014-2015 :</i> To collect information about existing practicing alerting systems of the different levels (local, municipal, regional, federal) in the Agreement member-states with the description of the main principles. To make a digest book-collector representing these systems. Make comparative study and distribute it within the EUR-OPA member states as a common knowledge. This is very important to share best practices and promote creation of new systems and improve the existing ones. The book could be both used as a manual for the emergency managing specialists training and as a tool for decision-makers and authorities. The information should be submitted to ECNTRM by the interested centers in English with the possible visual material. Digest could be further on translated into different languages by the interested centers.
To develop software and technical decisions of the complex emergency alerting system, based on best practices, providing knowledge to decision-making community
<i>Specific objectives :</i> 2014 : <i>To collect the information on the existing different levels (local, municipal, regional, federal) alerting systems, make a digest draft</i> 2015 : <i>To analyse the information and prepare the digest in English</i>
EXPECTED RESULTS
2014 : <i>Digest draft</i> 2015 : <i>Digest in English that could be further on translated into different languages by the interested centers</i>
ASSOCIATED ACTIVITIES (split by partner)
2014 : <i>invite all the interested centers to take part in the work with the financing to be splitted , to develop and send plan of the digest to all the interested centers</i> 2015 :
RESULTS OBTAINED PREVIOUSLY (if any)

2.A. Knowledge diffusion

**Web resource centre « risk reduction » on the website
www.ispu.eu**

ISPU – Higher Institute of Emergency Planning (Belgium)

PROPOSITIONS POUR LES ACTIVITES 2014-2015

DUREE: 2014-2015

DESCRIPTION :

The ISPU collects and disseminates information on the various methodologies used in the EUR-OPA member states and EU member states to identify, assess and reduce risk. These methodologies will be published on a separate part of the website www.ispu.eu

The website www.ispu.eu can also facilitate any relevant questionnaire in this domain (as it is the case for "landslides" in 2013).

PAYS VISES :

All members

PARTENAIRES IMPLIQUES :

CENTRE COORDINATEUR : ISPU

AUTRES CENTRES : to be defined

AUTRES PARTENAIRES : other interested EU member states

OBJECTIFS DU PROJET

Objectif global pour 2014-2015 :

To inform the EUR-OPA partners (Permanent Correspondents and Specialized Centres) about different existing methodologies to identify, assess and reduce risk in the EUR-OPA and EU member states.

Objectifs spécifiques :

Development of a new module on the website www.ispu.eu in order to be able to start an online repository (an online resource of methodologies).

Contact and collect the EUR-OPA member states in order to share their methodologies for risk assessment and/or reduction.

Analysis and categorization of the received documents.

Publication in a logical structure on www.ispu.eu

Give the EUR-OPA member states to organize an online questionnaire on a topic which is relevant for their work field.

RESULTATS ESPERES

To build a resource centre for risk assessment methodologies. This will give EUR-OPA members the opportunity to share and learn from each other and other EU members in order to reduce risks. (Risk identification and assessment being the first essential steps towards risk reduction.)

ACTIVITES ASSOCIEES

Collecting the methodologies and organizing a new online questionnaire might also provide an important input to the online catalogue of best practices on www.ispu.eu

RESULTATS OBTENUS PRECEDEMMENT (si pertinent)

ISPU can build on the structure and expertise developed in the previous stages of the www.ispu.eu development.

RISK-EUR-OPA

ISPU – Higher Institute of Emergency Planning (Belgium)

Proposals for activities 2014-2015

DURATION: 2014-2015

DESCRIPTION :

Sharing of good practices concerning 'risk assessments' between the members of EUR-OPA both on national as on local level. This project also aims to improve the knowledge about tools of risk assessment (for local, national and regional level) based on experiences outside the area of the members of EUR-OPA. An analysis of the needs for a specific tool about sharing this information shall be performed by means of this study. The project shall also take into account the priorities and evolutions of the Hyogo Framework of Action, more specific the priority actions 1, 2 and 3 (prioritization of DRR, identifying risks and using knowledge and innovation to build resilience). By means of stimulating regional risk assessment, this project will contribute to the prioritization within the discussions for the next framework of action (post Hyogo). The project shall also be linked to the initiative within the European Commission to draft guidelines on risk assessment.

The exchange of information shall also give impulses towards a macro-regional risk assessment (like for example www.14point3.eu in the Baltic Region or SEERISK in the Danube Region).

ENVISAGED COUNTRIES :

All members

PARTNERS INVOLVED :

COORDINATION CENTRES : to be decided

OTHER CENTRES : to be decided

OTHER PARTNERS : Federal Public Service Home Affairs, DG Crisis Centre, other European countries who can present good practices (NO, UK, SE, FI, ...)

OBJECTIVES OF THE PROJECT

Global objective for 2014-2015 :

Reinforce the capacity of member states to realize risk assessments (as has been asked by the Hyogo Framework of Action), on local, national and regional level.

Specific objectives:

2014 : Perform a study related to the methodology of 'risk assessment' (taking into account the HFA) in different member states and organize two workshops for the EUR-OPA members (and invite external experts).

2015 : Study the possibilities and opportunities for a macro-regional risk assessment.

INTENDED RESULTS

Improving the knowledge of risk assessment. To start-up a macro-regional risk assessment.

ASSOCIATED ACTIVITIES

To be decided.

OBTAINED RESULTS (if relevant)

To be decided.

Fire Management in UNESCO World Natural and Cultural Heritage Sites and other Protected Areas

GFMC - The Global Fire Monitoring Centre (Germany)

DURATION :

 2014 2015 2014 – 2015

TARGET COUNTRIES : CoE Member States and Global, Greece

PARTNERS INVOLVED :

COORDINATING CENTRE : *GFMC Freiburg, Germany*

OTHER CENTRES: , , /

OTHER PARTNERS : *Democritus University of Thrace, Department of Forestry and Natural Resources Management, Orestiada, Greece.*

OBJECTIVES OF THE PROJECT

Global objective for 2014-2015 :

World Heritage Sites and other protected areas can be classified with regards to vulnerability, adaptation or dependence on fire. Until now there is limited to none systematic assessment of the negative role of fire, i.e., the threats or already existing degradation / destruction by wildfires, or the positive role of fire in maintaining and stabilizing World Heritage Sites and other protected areas globally; or a requirement of a fire management component. This is rather difficult to understand since World Heritage Sites and many other protected areas globally have been severely affected by wildfires over the last years and have severely affected unique ecosystems and biodiversity. For instance, the Garajonay National Park (Canary Islands, Spain), inscribed on UNESCO's World Heritage List in 1986, an extremely rare example of the humid sub-tropical forest that covered most of Europe before the arrival of humans has been affected severely by wildfires. Equally at risk is La Gomera which was named a Biosphere Reserve under the UNESCO Man and the Biosphere Programme in 2013. Other properties in Spain, such as Teide National Park, or most recently Doñana National Park, have also been affected by wildfires. There was also concern for the World Heritage properties of Mount Athos and Nea Moni Monastery, Chios island in Greece, and Laurisilva of Madeira, in Portugal.

The objective of this proposal is to satisfy, (a) the demand for information on the State of Fire Management in Heritage Sites, and (b) to develop a model analyze the spatial variation of fire risk in a pilot area, the Mt. Athos area, Greece. Mt Athos covers an area of 340 square kilometers and includes 20 monasteries, 12 skites, and about 700 houses, cells and hermitages inhabited by some 1700 monks protected by UNESCO World Heritage that are increasingly threatened by wildfires. We plan to use (a) high-resolution satellite imagery, ground truth fuel sampling methods to identify the vegetation characteristics with regards to wildfire hazard (i.e., fuel inventory) and (b) landscape fire behavior simulations to estimate fine scale burn probabilities, fire effects, and fire sizes under different weather and burn conditions. Several simulations will be performed with two dynamic fire models: FlamMap and Minimum Travel Time (MTT) in order to map the spatial pattern of fire risk and to assess the effect of weather on fire spread, burn probability, fire effects, fire size and risk to structures (monasteries, houses and hermitages). The resulting fire risk maps will be intersected with maps of structure locations and forest fuel types. Finally, landscape fuel treatments will be proposed in order to mitigate fire risk and effects in the area.

This approach will offer a model of wildfire risk assessment and will incorporate landscape effects of large wildfire spread. The results will reveal spatial variation

in fire risk factors that is useful in prioritizing fuel treatments and guiding other wildfire risk management activities in Mt. Athos peninsula.

Specific objectives :

2014 : (a) Through a CoE-wide / global survey to obtain a first database on the status of wildfire threats and fire management in UNESCO World Heritage Sites, (b) develop and apply fuel models, fuel mapping, fire risk simulations to assess the specific wildfire threat in the selected World Heritage Site Mt. Athos, Greece, and (c) to disseminate the approach at international level

2015 : Organize a regional conference on fire management in UNESCO World Heritage Sites and other protected areas in Europe, with inputs from other regions. Objective: Initiate proactive planning of fire management in protected areas

EXPECTED RESULTS

2014 : (1) Study "Fire Management in Protected Areas and Cultural and Natural Heritage Sites" finalized; (2) Landscape-level fire risk assessment methodology demonstrated in Mt. Athos Cultural Heritage Site, (3) Report to the IUCN World Parks Congress (November 2013)

2015 : Presentation of the final product of a publication (ENG) "Assessing wildfire risk in UNESCO World Heritage Protected Sites: The case of Mt. Athos" at, and organization of an international conference on "Fire Management in Nature Conservation, Protected Areas, Cultural and Natural Heritage Sites of Europe" (at Mt. Athos, Greece, or other site t.b.d.)

ASSOCIATED ACTIVITIES (split by partner)

2014 : 1) Fuel and UNESCO structures mapping in Mt. Athos - 1st Interim Report (GFMC with Democritus University of Thrace)

2) Interim evaluation workshop "Fire Management in Protected Areas and Cultural and Natural Heritage Sites" - Report on the results (GFMC)

3) Fire risk in Mt. Athos - 2nd Interim Report (GFMC with Democritus University of Thrace)

4) Presentation of preliminary results at the IUCN World Parks Congress, 12-19 November 2014, Sydney, Australia (GFMC)

2015 : 1) "Assessing wildfire risk in UNESCO World Heritage Protected Sites: The case of Mt. Athos" Final publication (GFMC)

2) International Conference on "Fire Management in Nature Conservation, Protected Areas, Cultural and Natural Heritage Sites of Europe" (GFMC)

RESULTS OBTAINED PREVIOUSLY (if any)

General expertise available. Mediterranean: Democritus University of Thrace, Department of Forestry and Natural Resources Management, Orestiada, Greece, and GFMC expertise in devising fire management approaches in countries worldwide.

Contribution to fundamental studies in seismic, seismo-tectonic and seismo-volcanic processes in Luxembourg, Japan and DRC

ECGS - European Centre for Geodynamics and Seismology (Luxembourg)

DUREE : 2014 2015 2014 – 2015

PAYS VISES: Tous les pays intéressés de l'accord, Japon, Democratic Republic of Congo, Rwanda

PARTENAIRES IMPLIQUES :

CENTRE COORDINATEUR : *ECGS Walferdange, Luxembourg*

AUTRES CENTRES: / / /

AUTRES PARTENAIRES :

Musée national d'histoire naturelle Mnhn (Luxembourg)

GFZ German Research Center for Geosciences (Germany)

Royal Museum for Central Africa Mrac (Belgium)

Earthquake Research Institute, The University of Tokyo (Japan)

Boise State University (USA)

OBJECTIFS DU PROJET

Objectif global pour 2014-2015 :

Since its creation in 1988, ECGS's contribution to the aims of the EUR-OPA Major Hazards agreement traditionally consisted in high-impact fundamental research and education activities. During the past funding period (2012-2013), these activities included among others:

- The 2012 ECGS workshop "Earthquake source physics on various scales", bringing together more than 100 participants from 22 countries to discuss the current state of knowledge on earthquake source physics.
- A detailed study on the variability of earthquake stress release in Japan, published in the journal *Earth and Planetary Science Letters*. Such variations are of key importance for successful ground motion prediction during future potentially hazardous earthquakes.
- A detailed study of the field mission data acquired in September 2011 at the volcano Nyiragongo in the Democratic Republic of Congo (DRC). These data enabled us to significantly improve our knowledge of typical phenomena related to the activity of Nyiragongo's permanent lava lake and represent the basis for the definition of future scientific activities in the region.
- Station installation and infrastructural improvements of the Luxembourg seismic network.

In the funding period 2014-2015, ECGS plans to continue and extend these research activities, which contribute to the fundamental understanding of the phenomena that need to be taken into account in any state-of-the-art hazard and risk assessment for earthquakes and volcanic activity.

Objectifs spécifiques :

2014 :

During the 2014-2015 funding period, we will continue to further develop the research programme in the above-mentioned topics.

ECGS has now a very strong and internationally recognized experience with Japanese strong motion data and the source physics of these earthquakes. ECGS scientists have published four articles in peer-reviewed journals on this topic thus

far. Besides the already existing fruitful collaboration with the GFZ German Research Centre for Geosciences, which is of course still continued, Dr. Adrien Oth will also spend three months as a visiting researcher at the well-respected Earthquake Research Institute (ERI) of the University of Tokyo in 2014. The collaboration with the Japanese colleagues aims to shed light on the aspect of how the recognized variability in earthquake stress release translates into the variability of actually observed strong ground motion parameters. For this purpose, we will study regression models of recorded past ground motions as well as macroseismic intensity observations of particular major earthquakes, and use these datasets to compare the variability observed in these parameters with the variability related to the seismic sources. Understanding how strongly the ground motion variability depends on source parameters variability is of key importance for ground motion prediction. The work on this topic will of course extend beyond this three months period, and the stay at ERI will allow to create the basis for a lasting cooperation between ECGS and ERI, which is an extraordinary experienced partner for future ground motion studies.

In the past two years, considerable developments have also been achieved in the another major area of research at ECGS, i.e., the study of the volcano-tectonic characteristics of the Virunga Volcanic Province in the bordering region of the Democratic Republic of Congo (DRC) and Rwanda. Specifically, two of the most active volcanoes in Africa are the principal target of these studies, Nyamulagira and Nyiragongo. In September 2011, scientists of Mnhn, Mrac and ECGS carried out a scientific expedition to the summit of Nyiragongo in order to collect field data that may provide insights into the dynamics of the still poorly understood magmatic system of this volcano. These data have been analyzed in the past funding period to get insights into typical signals emitted by the volcano (e.g., seismic signals), but a range of analysis activities still remain to be applied to this dataset. Furthermore, a broadband seismic station has been installed in April 2013 at the Volcanic Observatory of Goma in order to have at least one station with continuous seismic recordings in this region haunted by severe political conflict and insecurity. This station has been supplemented with an array of infrasound sensors provided by the colleagues of the Boise State University in September 2013. This combination of seismic and infrasound sensors holds the potential to significantly improve our understanding of the seismo-acoustic signals related to the volcanic activity in the region, which is a fundamental pre-requisite for a knowledge-based assessment of the state of activity of Nyiragongo volcano. Eventually, the combination of the insights obtained from the dataset collected during the September 2011 field mission and the information gained from the continuous seismic and infrasound monitoring in Goma will also help in defining the goals and tools required for future work (and field missions).

Finally, a third important aspect in ECGS's activities in 2014-2015 will focus on the further development of the seismic network in Luxembourg. We are currently working towards a robust, (semi-) permanent installation of our seismic stations acquired over the past years, and on the development of the necessary real-time data transmission infrastructure. Since budgets for these purposes are however severely limited, we needed to adopt a step-by-step approach in the development of this seismic network. For this reason, these activities will stretch at least over the entire 2014-2015 funding period.

2015 : see above

RESULTATS ESPERES

2014 : see above

2015 : see above

ACTIVITES ASSOCIEES (reparties par partenaire)

2014 : see above

2015 : see above

RESULTATS OBTENUS PRECEDEMMENT (si pertinent)

The proposed activities for 2014-2015 are continuing efforts based on the results obtained during the 2012-2013 period:

- Earthquake stress release variability in Japan
- Characterization of the seismic (and other) signals recorded during the September 2011 field mission to Nyiragongo Volcano
- Temporary seismic network presently running in Luxembourg

Knowledge diffusion on nuclear safety based on Booklet "Basic Knowledge of Nuclear Hazards: Lessons from Chernobyl and Fukushima"

TESEC – European Centre of Technological Safety (Ukraine)

DURATION :	<input type="checkbox"/> 2014	<input type="checkbox"/> 2015	<input checked="" type="checkbox"/> 2014 – 2015
TARGET COUNTRIES :	All member-states		
PARTNERS INVOLVED :	COORDINATING CENTRE : TESEC Kiev, Ukraine OTHER CENTRES: CEPRIS Rabat, Morocco , ECNTRM Moscow, Russian Federation , CEMEC San Marino , ECRP Sofia, Bulgaria OTHER PARTNERS : Armenia, Azerbaijan, Georgia, Moldova, IAEA, UNESCO		

OBJECTIVES OF THE PROJECT

Global objective for 2014-2015 :

Using knowledge to reduce vulnerability of people against nuclear hazards

Specific objectives :

2014 : To organizing regional seminar for trainers, national and regional authorities, journalists, decision makers and others in Russia (in Russian), Morocco (in Arabian), San-Marino (in English). Organizing national seminars in Armenia, Azerbaijan, Georgia, Moldova, Ukraine for national and regional authorities, journalists, decision makers and others

2015 : Deployment in member-states tool for dissemination basic knowledge about nuclear hazards

EXPECTED RESULTS

2014 : Regional seminar for trainers, national and regional authorities, journalists, decision makers and others in Russia (in Russian), Morocco (in Arabian), San-Marino (in English). National seminars in Armenia, Azerbaijan, Georgia, Moldova, Ukraine for national and regional authorities, journalists, decision makers and others. Diffusion of knowledge.

2015 : Tool, trainers for dissemination of basic knowledge about nuclear hazards will be created

ASSOCIATED ACTIVITIES

(split by partner)

2014 : To organizing regional seminar for trainers, national and regional authorities, journalists, decision makers and others in Russia (in Russian), Morocco (in Arabian), San-Marino (in English). Organizing national seminars in Armenia, Azerbaijan, Georgia, Moldova, Ukraine for national and regional authorities, journalists, decision makers and others

2015 : Agreements with national authorities on using Booklet for dissemination knowledge on nuclear hazards on permanent basis - for all partners

RESULTS OBTAINED PREVIOUSLY (if any)

Internationally validated Booklet in 10 languages has been developed, translated, validated and published

The development of democracy through greater involvement of citizens in the decision-making process to protect against man-made disasters

TESEC – European Centre of Technological Safety (Ukraine)

DURATION :

2014

2015

2014 – 2015

TARGET COUNTRIES : All member-states

PARTNERS INVOLVED :

COORDINATING CENTRE : TESEC Kiev, Ukraine

OTHER CENTRES: ECRP Sofia, Bulgaria , GHHD Tbilisi, Georgia ,

CEMEC San Marino , ECNTRM Moscow, Russian Federation

OTHER PARTNERS : Armenia, Azerbaijan, EC

OBJECTIVES OF THE PROJECT

Global objective for 2014-2015 :

Democracy is a requisite if we are to build safer, more resilient societies. People have the right to be made aware of the risks surrounding them and public authorities have the duty to involve them in measures and procedures aimed to protect them from risks. One fundamental aspect of safety is access to the relevant information concerning the hazards that some industrial activity may pose to the population.

Bhopal (India) chemical accident in 1984 (approximately 3,800 people die and several thousand other individuals experience permanent and partial disabilities) and Chernobyl (Ukraine) nuclear accident in 1986 (more than 3 million people have been affected) have demonstrated a high risk attributed to hazardous materials, which have been released into environment. Chemical, radiological disasters or dam failure could affect millions of people on distance many kilometres, as have been demonstrated by Bhopal and Toulouse chemical accidents, Chernobyl or Fukushima nuclear accidents.

The awareness and knowledge people about nature of technological hazards and protection measures will help you save your life.

Emergency preparedness plan is a key tool of emergency prevention and preparedness. It has to be developed and clearly define all measures for effective emergency response. It has to identify the roles and responsibilities of all the parties concerned, including the general public. It should clearly indicate co-ordination among the parties, as well as the lines of communication and the means of obtaining the necessary technical, medical information and knowledge. The emergency plan should guarantee that the potentially affected public and people with disabilities specifically:

- is provided with general information about possible accidents at planned or operated hazardous installations or sites. This should include the nature and extent of technological risk, and potential effects on human health; and/or the environment, including property;
- is provided with timely information on the appropriate behaviour and safety measures they should adopt in the event of an accident involving radionuclides or other hazardous substances, dam failure. Other information that may be needed to understand the nature of the possible effects of an accident (such as information on radionuclides or other hazardous substances capable of causing serious off-site damage) should be available, and most importantly, information about being able to contribute effectively, as appropriate, to decisions concerning hazardous installations and the development of community emergency preparedness plans, taken to account special measures for people with disabilities.

In many countries general public is not involved in Emergency Plans development and is not informed about possible accidents at hazardous installations or sites, on the appropriate behaviour and safety measures, which should adopt in the event of an accident.

Specific objectives :

2014 : During first stage of project the best international and national experience of emergency planning in the case of man-made disasters, with a focus to public information and involvement in decision-making, taken to account special measures for people with disabilities will be collected and analyzed.

2015 : On the basis of analysis the recommendation for Emergency Plans in the case of man-made disaster, regarding public information and involvement, taken to account special measures for people with disabilities will be developed and distributed to participated countries together with recommended booklets, websites, pocket books and other documents about basic knowledge and behaviour in the event of emergency. People will receive more information about risk and will be better protected.

EXPECTED RESULTS

2014 : Collected and analyzed best international experience of emergency planning in the case of man-made disasters, with a focus - public information and involvement, taken to account special measures for people with disabilities will be collected and analyzed..

2015 : The recommendation for Emergency Plans in the case of man-made disaster, regarding public information and involvement, taken to account special measures for people with disabilities will be developed and distributed to participated countries together with recommended booklets, websites, pocket books and other documents about basic knowledge and behaviour in the event of emergency. People will receive more information about risk and will be better protected.

ASSOCIATED ACTIVITIES

(split by partner)

2014 : Collecting best international experience -all partners

2015 : Working group for analyzing international experience and developing recommendation will be created

RESULTS OBTAINED PREVIOUSLY (if any)

Internationally validated EUR-OPA products: BeSafeNet website, Booklets, Pocket Guides have been developed in English and other languages

2.B. Risk identification and vulnerability

Development of methods of fault monitoring in foundations of large engineering constructions and analysis of related risks

GHHD – European Centre on Geodynamical Risks of High Dams (Georgia)

DURATION :

2014

2015

2014 – 2015

LINE OF ACTION:

TITLE OF THE PROJECT :

TARGET COUNTRIES : Georgia, "the former Yugoslav Republic of Macedonia", Luxembourg, France

PARTNERS INVOLVED :

COORDINATING CENTRE : *GHHD Tbilisi, Georgia*

OTHER CENTRES: *ECGS Walferdange, Luxembourg ,
CERG Strasbourg, France , ECILS Skopje, FYROM ,*

OTHER PARTNERS :

OBJECTIVES OF THE PROJECT

Global objective for 2014-2015 :

Many important objects located in tectonically active areas are subjected to risks from potential activity of tectonic faults in foundations (dams, high buildings, cultural monuments). Development of new methods of fault monitoring in foundations of large engineering constructions (dams, high buildings,) based on cost-effective real-time monitoring using networks of strainmeters, tiltmeters and other sensors and linear/nonlinear dynamics methods of processing monitoring time series can be useful for prevention of mentioned risks.

Specific objectives :

2014 : *Development of network for monitoring of fault behavior in the foundation of the large engineering objects (or close to them). Testing of real-time telemetric monitoring/early warning systems at Enguri Dam International Test Area (EDITA) using the network of sensors with cost-effective scheme of collecting real-time information on time-dependent strains /tilts from sensors and transmitting by Internet to the diagnostic centre and its realization.*

Distribution of developed technology to cooperating centres and collection of the data on large engineering constructions in their countries, which need monitoring. Collection of long enough data bases of tilts, strains and low-frequency vibrations for linear/nonlinear analysis. Organization of conference on dam related risks in Tbilisi for interested organizations.

Collection of information on selected objects (Large dams, cultural monuments, etc) in partner countries and the monitoring systems installed in these objects.

2015 : *Compilation of data-base of recordings of sensors (tiltmeters, strainmeters, vibrometers) at EDITA and the selected objects in partner countries for an year 2014. Selection/development of data analysis linear (frequency, time-frequency, singular value decomposition, autocorrelation first zero crossing variation, etc.) and nonlinear (phase space structure, noise reduction, memory, long range correlation testing, etc.) methods, appropriate for measured tilt, strainmeter data sets during one year cycle. Selection of appropriate to the targeted problem linear (autoregressive) and nonlinear (based on topology of reconstructed attractor) fault behavior forecasting methods and creation of special diagnostic toolbox for analysis of tilt/strain time series.*

EXPECTED RESULTS

2014 : Identification of large engineering objects subjected to the risk of fault activation. Specification of equipment for strain/tilt monitoring. Selection of equipment and development of network for monitoring of fault behavior in the foundation of the large engineering objects. Testing of real-time telemetric monitoring/early warning systems in the foundation of Enguri Dam at the Enguri Dam International Test Area (EDITA) using the network of sensors with cost-effective scheme of collecting real-time information on time-dependent strains /tilts from sensors and transmitting by Internet to the diagnostic centre and its realization. Organization of Conference in Tbilisi for interested organizations.

2015 : Collection of monitoring data on fault dynamics at selected objects. Selection and application of linear (autoregressive) and nonlinear (based on topology of reconstructed attractor) fault behavior forecasting methods and creation of special diagnostic toolbox for analysis of tilt/strain time series.

ASSOCIATED ACTIVITIES
(split by partner)

2014 : GHHD: Development of of cost-effective scheme of collecting real-time information on time-dependent strains /tilts on the fault in the foundation of Large Engineering Construction (or close to them) from sensors and transmitting by Internet to the diagnostic centre. Installation of the equipment and testing of systems at the fault in Foundation of Enguri Dam at the International Test Area (EDITA) using the network of sensors. Distribution of developed technology to cooperating centres and collection of the data on large engineering constructions in their countries, which need monitoring and installed monitoring systems. Permanent acquisition of analog signal measurements from sensors (tiltmeters, strainmeters) and finding, whether the latter ones are representative for the main characteristics of fault dynamics. Creation of long enough data bases of tilts, strains and low-frequency vibrations for linear/nonlinear analysis. Organization of Conference in Tbilisi for interested organizations.

ECGS:.....collection of information on large engineering objects located on/close to the tectonic fault , consultations on technology of geodynamical observations and processing of monitoring time series;

CERG:collection of information on large engineering objects located on/close to the tectonic fault , consultations on technology of geodynamical observations and processing of monitoring time series;

ECILS:.....collection of information on large engineering objects located on/close to the tectonic fault , consultations on technology of geodynamical observations and processing of monitoring time series;

2015 : GHHD: Compilation of data-base of recordings of sensors (tiltmeters, strainmeters, vibrometers) at EDITA and the selected objects in partner countries for an year 2014. Selection/development of data analysis linear (frequency, time-frequency, singular value decomposition, autocorrelation first zero crossing variation, etc.) and nonlinear (phase space structure, noise reduction, memory, long range correlation testing, etc.) methods, appropriate for measured tilt, strainmeter data sets during one year cycle. Selection of appropriate to the targeted problem linear (autoregressive) and nonlinear (based on topology of reconstructed attractor) fault behavior forecasting methods and creation of special diagnostic toolbox for analysis of tilt/strain time series.

ECGS: Compilation of data-base of recordings of sensors (tiltmeters, strainmeters, vibrometers) at the selected objects in partner countries for an year 2014. Application of appropriate to the targeted problem linear and nonlinear fault behavior for analysis of tilt/strain time series.

CERG: Compilation of data-base of recordings of sensors (tiltmeters, strainmeters, vibrometers) at the selected objects in partner countries for an year 2014. Application of appropriate to the targeted problem linear and nonlinear fault behavior for analysis of tilt/strain time series.

ECILS: Compilation of data-base of recordings of sensors (tiltmeters, strainmeters, vibrometers) at the selected objects in partner countries for an year 2014. Application of appropriate to the targeted problem linear and nonlinear fault behavior for analysis of tilt/strain time series

RESULTS OBTAINED PREVIOUSLY (if any)

There are long time series of observations on the fault crossing foundation of the Large Enguri dam carried out by quartz strainmeter with photoregistration - the system will be updated using laser for displacement monitoring.

Vulnerability assessment of Historical Centers or Towns and safe evacuation in case of an Earthquake

ECPFE Athens, Greece

DURATION :

 2014 2015 2014 - 2015

TARGET COUNTRIES : Greece, Bulgaria, Romania, FYROM, Armenia

PARTNERS INVOLVED :

COORDINATING CENTRE : ECPFE Athens, Greece

OTHER CENTRES: ECRP Sofia, Bulgaria , ECBR Bucharest, Romania , ECILS Skopje, FYROM , CUEBC Ravello, Italy

OTHER PARTNERS : ECRM Yerevan, Armenia, ECCE, European Council of Civil Engineers

OBJECTIVES OF THE PROJECT

Global objective for 2014-2015 :

The monuments of the areas addressed by this proposal were the product of civilizations that had a significant impact on the Mediterranean, Balkan and European history and culture. Within this activity , cultural heritage will be protected, strengthened, and promoted. Moreover the protection of human life when visiting these Monuments is of great importance. Common problems that affect historical centers or towns are related concerning their protection and their need for upgrade, in all countries, as the seismic activity, the action of environmental factors on the structural materials, and time degradation and safe visitability. It is not easy to tackle these problems within the borders of a country and therefore there is a need for joint mitigation of their catastrophic consequences. There are many methods for this purpose. The main objective of this proposal is the achievement of convergence between the activities and methods related to the protection and promotion of the monument stock, as well as the safe evacuation especially in high tourist periods, in all countries involved, through joint implementation. Economic development and the facilitation of target sectors involved: the construction sector with workmen, technicians and commerce, the scientific sector with Archaeologists, Designers, Architects, Civil Engineers, and other Engineers and Restorers and the sector of tourism, with easy investments and without any risk of invested capital through utilization of existing infrastructures initially and possibility of larger investments at later stages. For these reasons, these Historical Centers or Towns will become attractive places for investment and employment.

Specific objectives :

2014 : 1. Selection of a Historical Town with rich monumental stock in each Country.

2. Assessment of the Vulnerability of the Historical Center/Town

2.1. The development of a methodology of a two-stage preseismic control of the Monuments, based on previous preseismic controls , carried out by EPPO, adapted to Monuments.

The two-stage preseismic control of the Monuments, sited in the whole area will be carried out as follows :

- the syntax of the forms in electronic format for a two-stage preismic control concerning the Historical Center-Town**
- The development of a proper algorithm for the assessment of the vulnerability of each Monument of the region ,so as to be ranked according to criteria, such as historic-architectural importance, hazard, restoration budget demanded.**

- The forms with the recorded rapid structural assessment records will be entered to a database created for this reason.**
- Finally, a seismicity monitoring network will be installed.**

2.2 The implementation of a pilot study in a selected monument of the historical center or town

- A Characteristic Monument of the Area will be selected according to its value, its high vulnerability and for its representativeness amongst others. A pilot study will be elaborated including experimental and analytical results as follows :**

Fully permanent instrumentation of this monument for continuous monitoring and response, for the experimental stage of the study.

High-level modelling techniques will be applied for the inelastic properties of structural elements of monuments , for the analytical stage of the study.

- Correlation of experimental and analytical results with critical provisions of the forthcoming Greek Code or other related codes of the involved countries for Interventions on Monuments and suggestions for revisions.**

2015 : .The development of a software application for safe evacuation of the whole area in case of an Earthquake taking into account the previous results.

This is a very useful tool especially in high tourist period when a congestion of people visiting the place occurs.

Escape routes need to be clearly signed and special provision must be taken into account for people with disabilities.

For this reason drills must be organized for testing the method and staff training.

2.Organizati on of a Seminar within the Stakeholders in order to present the goals achieved .

3.Dissemination of project outputs through Internet facilities to the general public (including tourists), Technicians, Engineers , Archaeologists, public institutions, thus assisting the increase of employment

EXPECTED RESULTS

2014 : The development of a Methodology of a two-stage preseismic control of the Monuments, the design and production of records for the preseismic control , the relevant algorithm as well as the Data Base , will serve also as a tool for future applications in other regions.

The pilot Case Study will contribute to the forthcoming Greek Code and to other Codes of the Countries involved, for Interventions on Monuments.

2015 : The design and production of a software application for the safe evacuation of the Historical Center/Town will also serve for future applications.

**ASSOCIATED ACTIVITIES
(split by partner)**

2014 :

2015 :

RESULTS OBTAINED PREVIOUSLY (if any)

ECPFE and EPP0 have been activated in the Sector of Earthquake Protection of Cultural Heritage both in National and Tran European level , with the contribution of the Ministry of Culture and Tourism , the EC of Ravello(CUEBC), Skopie(ECILS), Bulgaria(ECRP), Romania(ECBR), Portugal (CERU), Armenia(ECRM) and the European Council of Civil Engineers (ECCE).

More specifically ECPFE has organized :

Seminars :

1.Two-day meeting entitled "Aseismic Interventions to Monuments and Historic Settlements" in

Athens on 16-17 February 2006.

2. Two-day meeting entitled “Strategies towards Seismic Protection of Monuments” in Athens on 26-27, February 2009.

3. Seminar concerning “Seismic Protection of Monuments”, in Athens on 2-3 December 2013

Training Seminars :

1. Training course entitled “Seismic Risk Assessment in Specific Areas with Monumental Structures” by EPPO and ECPFE in Athens on 6-10 December 2010. 2. Seminar entitled “The Protection of the Integrity of Monuments under Seismic Actions” in Thessaloniki on 3-5 November 2011.

Publications:

- 1. Geotechnical Issues and Issues of Soil – Monuments Interaction, NTUA, G.Bouckovalas, 2009, in Greek**
- 2. Draft Regulatory Document , NTUA, Th.Tassios ,2010, in Greek**
- 3. Draft Framework Regulatory Document for Structural Interventions and Seismic Protection of Monuments, E.Vintzilaou, N.Miltiadou, F.Karantoni, 2011, in English**
- 4. State Of The Art Report For The Analysis Methods For Unreinforced Masonry Heritage Structures And Monuments , S. J. Pantazopoulou, 2013 in English**

Other

A preseismic control of Public buildings and Well Fare Institutions is under elaboration by EPPO , from 2001.

In Greece the national network of accelerographs , (Competent Authorities :EPPO & the National Observatory of Athens), is upgraded and with the collaboration and guidance of the Ministry of Culture a lot of Monuments are instrumented.

EPPO is being developing Software for the Seismic Hazard estimation of an Area according to Seismic Scenarios and other geomorphologic factors .

Methodology for Distance Automatic On-line Monitoring of Buildings and Engineering Construction Frames

ECNTRM Moscow, Russian Federation

DURATION :	<input type="checkbox"/> 2014	<input type="checkbox"/> 2015	<input checked="" type="checkbox"/> 2014 - 2015
LINE OF ACTION:			
TITLE OF THE PROJECT :	Methodology for Distance Automatic On-line Monitoring of Buildings and Engineering Construction Frames		
TARGET COUNTRIES :	all		
PARTNERS INVOLVED :			
COORDINATING CENTRE :	<i>ECNTRM Moscow, Russian Federation</i>		
OTHER CENTRES:	, , ,		
OTHER PARTNERS :	<i>Emercom of Russia</i>		

OBJECTIVES OF THE PROJECT

Global objective for 2014-2015 :

During the 2008-2010 period ECNTRM was developing Methodology for Distance Automatic On-line Monitoring of Buildings and Engineering Construction Frames. The work was done and the methodology is now successfully implementing in the Russian Federation.

According to the recommendations of the EUR-OPA Major Hazards Agreement auditors in order to present the work being done with the help of the Agreement thus publicise the results and raise visibility we plan to make a brochure with the description of the Methodology, translate it into different native languages for further distribution among the member states. We consider it very important to share knowledge that should be used to reduce vulnerability.

Specific objectives :

2014 : *To prepare Brochure layout in Russian, translate it in English*

2015 : *To accomplish the work on the brochure, popularize it through the publications in media and Agreement's web site as a EUR-OPA product , translate the Brochure in national languages of EUR-OPA member-states for further presentation in their countries*

EXPECTED RESULTS

2014 : *Brochure draft in English*

2015 : *Brochure in English*

ASSOCIATED ACTIVITIES

(split by partner)

2014 :

2015 : translation of the brochure into different languages of the EUR-OPA member-states. Financing could be split by partners who are interested in translation and publishing of the brochure

RESULTS OBTAINED PREVIOUSLY (if any)

2.C. Impact of climate change and environment

European Landslide Hazard Mapping: Integration of Triggering Factors

CERG - European Centre for Seismic and Geomorphological Hazards (France)

DURATION : 2014 2015 2014 – 2015

TARGET COUNTRIES : Europe continental level, and Georgia, Romania, France, Morocco and Ethiopia

PARTNERS INVOLVED :

COORDINATING CENTRE : *CERG Strasbourg, France*

OTHER CENTRES: *GHHD Tbilisi, Georgia , CEPRIS Rabat, Morocco , ISPU Florival, Belgium*

OTHER PARTNERS : *University of Strasbourg (UdS, J.-P. Malet, A. Puissant), IGRA (M. Micu), Joint Research Centre (JRC, J. Hervàs), German Geological Survey (BGR, A. Günther), National Research Council, Research Institute for Hydrogeological Protection (CNR-IRPI, P. Reichenbach), Ethiopian GeoSurvey (Addis Abeba)*

OBJECTIVES OF THE PROJECT

Global objective for 2014-2015 :

In 2013, the first version of the European Landslide Susceptibility map (ELSUS1000) has been released through a partnership among the JRC, the BGRn, the CNR-IRPI, the CNRS and the CERG/Council of Europe. The map delineates susceptibility classes for all types of landslides at a coarse resolution (1 km) using three spatial criteria related to landslide susceptibility: terrain gradient (e.g. slope), shallow subsurface lithology, and land cover. It is based on a climate-physiographic terrain differentiation, and the susceptibility assessment consists of heuristic spatial multicriteria evaluations performed separately for each model zone.

The map is currently being reviewed by a serie of 60 national experts in terms of location and ranking of the slope susceptibility levels at the national scale. During the period 2012-2013, several experiments of integration of triggering factors data and of the establishment of landslide typologically differentiated assessments have been carried out at the scale of countries (France, Romania, Georgia, Portual). These experiments conducted to the establishment of a methodology to update the current ELSUS map to a European landslide hazard map. Another aspect is to promote the genericity of the approach to other environments, and it is foressen to test the method on landslide national datasets in Africa (Ethiopia, Morocco) through established networks.

A survey is also currently being conducted in cooperation with ISPU on the pro and cons of available Landslide Risk Assessment Methodologies (LRAMs) in several countries. This should allow to propose some possible guidelines to establish a common strategy for landslide hazard assessment in Europe.

The Project has a European dimension and a significant impact within the activities of the "European and Mediterranean Major Hazards Agreement" since it involves four specialised centres (CERG, GHHD, CEPRIS, ISPU). The expertise of the academic partners (see above) guarantees the success of the research activities, as some of them (JRC-BGR-UdS-CNRS, EGS) are already working closely together within the 'Landslide Expert Group'. Co-funding to the research will be made available by each of the partners.

Specific objectives :

2014 :

Objective 1:

Quantitative analysis of the results of the survey on the performance of ELSUS v1 (possible location errors, possible local ranking errors in the susceptibility levels). Analysis of the on-going surveys on Landslide Risk Assessment Methodologies (LRAMs) conducted in collaboration with ISPU. (CERG; ISPU)

Objective 2:

Construction of ELSUS v2 through the:

- integration of landslide typological differentiation in the susceptibility assessment (e.g. rockfalls, shallow flows/slides, deep-seated complex slides) at the European scale through the use of new information on observed landslide locations (landslide inventories).

- integration of more detailed lithological information available at the continental scale (IHME - International Hydrogeological Map of Europe).

Objective 3: Quantitative assessment of Hazard at the country scale for France, Romania and Georgia through the integration of soil moisture data from JRC, rainfall estimates from European Weather Forecast, and Peak Ground Acceleration (PGA) information.

The test will be first carried out on these three countries before extension at the European scale.

Objective 4: Benchmarking of the method to test its genericity to African physiogeographic settings and data availability conditions. Collection and organisation of relevant data for the national and regional assessments in Ethiopia and Marocco in collaboration with local partners

2015 :

Objective 1:

Redaction of a synthetis report on the pro / cons of the LRAMs at the European scale, based on the results of the surveys.

Objective 2:

Production of the European landslide susceptibility map Elsus v2 including typologically differentiated information. Diffusion of the map, and writing of a joint publication.

Objective 3:

Production of the quantitative hazard maps at the national scale for France, Romania and Georgia. Diffusion of the map and of the results through joint publication

Objective 4:

Integration of all information available for Ethiopia and Marocco, and production of the national susceptibility maps. Comparisons with ancillary data.

EXPECTED RESULTS

2014 : See below (activities)

2015 : See below (activities)

ASSOCIATED ACTIVITIES

(split by partner)

2014 :

1) Organisation of a 2-days workshop to initiate the project (all partners)

2) Draft analysis report of the LRAMs survey ((CERG, ISPU)

3) Performance of the new factors maps for the construction of Elsus v2. (CERG; BGR, JRC, CNR-IRPI)

4) Methodology for integrating triggering factors for nation scale assessments (test in France, Romania, Georgia) (CERG, GHHD, IGRA)

5) Organisation of a landslide inventory database (for scientific purpose) with indication on landslide location and landslide type (the database will not be transferred), and organisation of a database of environmental factors (geology, slope, landcover, rain) for Ethiopia and Marocco. (CERG, CEPRIS)

2015 :

1) Organisation of a 2-days workshop to initiate the project (all partners)

2) Final report of the LRAMss surveys (CERG, ISPU)

3) Diffusion of Elsus v2 and joint publication (CERG, BGR, JRC, CNR-IRPI)

4) National scale landslide hazard maps for France, Georgia and Romania (CERG, GHHD, IGRA)

4) 1st version of national susceptibility map for Ethiopia and Marocco (CERG, CEPRIS)

RESULTS OBTAINED PREVIOUSLY (if any)

Follow up of the project 2012-2013: Pan-European and nation-wide landslide susceptibility assessment

Elsus V1 freely available at JRC/ESDAC data centre. Several published and submitted research papers. Establishment of new contacts at the European Scale with GeoSurveys and EGS.

Journées d'Informations et de Formation sur les Risques Côtiers

CERCO - Centre Européen des Risques Côtiers (France)

Présentation générale

Les enjeux du littoral s'intensifient face à la pression démographique et à l'élévation du niveau marin liée à des changements climatiques globaux dont les effets affectent en premier lieu les zones littorales. Le recul du trait de côte, les inondations, la salinisation des sols et des eaux souterraines sont autant d'aléas que l'on doit appréhender au mieux afin de préserver les intérêts communs que nous offrent les zones littorales. Les conséquences de ces phénomènes sont dans de nombreux cas exacerbées par la pression socio-économique croissante et la surexploitation des ressources qui ont durablement altéré la qualité des milieux et réduit leur résilience.

Pour mieux comprendre les tenants et les aboutissants d'une telle problématique, la communauté scientifique travaille durement à comprendre et prévoir l'évolution des systèmes côtiers tandis que les acteurs du littoral sont sans cesse confrontés à mener des actions décisives quant à la pérennité des activités des zones littorales. La mise en relation de cette communauté scientifique avec les acteurs et les professionnels du littoral est décisive pour apporter des informations et des connaissances aux professionnels et utilisateurs mais aussi en retour pour guider la recherche dans les domaines précis où la connaissance et la compréhension fait encore défaut.

Les récents travaux réalisés au niveau régional en Aquitaine ont abouti à de nouveaux textes et à la mise en place d'une stratégie régionale de gestion de la bande côtière en cohérence avec la stratégie nationale.

Ce travail est un exemple à l'échelle régionale très intéressant à faire valoir dans la gestion intégrée des zones côtières à l'échelle nationale et européenne. Cette stratégie met en avant le principe de prévention et encourage à développer la connaissance et la culture du risque. Véritable outil de gestion du risque, elle offre un cadre de gouvernance pour des prises de décisions partagées et concertées au niveau local. Pour mettre en oeuvre cette stratégie, il est maintenant important de sensibiliser les parties prenantes aux enjeux des risques côtiers et favoriser une approche intégratrice des différentes politiques pour gérer la bande côtière.

Objectifs

Dans cette optique, le Centre de la Mer de Biarritz à travers son programme de Centre Européen des Risques Côtiers (CERCo) propose la mise en place de session de formation annuelle sur la thématique des risques côtiers, dans la continuité des sessions de formations organisées par le centre jusqu'à présent en s'appuyant sur l'exemple du travail réalisé en Aquitaine où les méthodes de travail unique en Europe ont abouti à la mise en place d'une stratégie régionale qui s'intègre dans la stratégie nationale de gestion intégrée des zones côtières.

Compte tenu du retour d'expérience des précédentes sessions et du succès du colloque organisée en octobre 2011 à Biarritz nous proposons un nouveau format de formation qui sera bâti autour de rencontres d'une plus grande ampleur afin de créer une manifestation annuelle qui sera le siège de présentations des avancées tant au niveau des connaissances de la problématique que de la législation, la mise en place des directives communautaires et de la conduite à tenir à toutes les échelles.

Ces rencontres auront lieu sous le nom des « *Journées d'Informations et de Formation sur les Risques Côtiers* ».

Les grandes lignes de ces rencontres étant en priorité d'apporter une formation sur l'état des connaissances en matière de caractérisation des aléas et de gestion des risques aux gestionnaires et techniciens des collectivités et au-delà aux experts de bureaux d'études ainsi qu'aux étudiants, futurs gestionnaires. En outre cette manifestation permettra aussi de mettre en relation les approches des gestionnaires, des scientifiques et des organismes des différents états européens afin d'améliorer les processus d'échanges et de retour d'expériences en matière de gestion de l'environnement côtier. Les échanges qui ont ainsi lieu favorisent la communication entre acteurs et décideurs en faisant remonter les informations relatives par

exemple à la mise en application des directives communautaires permettant ainsi de les adapter pour faciliter leur application.

Nouveau format de la formation

Depuis 2009, le Centre de la Mer de Biarritz conduit des sessions de formation sur les risques côtiers auprès d'agents de collectivité, d'étudiants et d'entreprise. Ces précédentes sessions ont permis de jauger l'intérêt et les besoins de ce type de communication et d'échange. L'expérience qui en découle nous indique qu'un format plus adapté devrait être mis en place afin de répondre aux exigences économiques et à la disponibilité des stagiaires. C'est pour ces raisons qu'un nouveau format est présenté pour l'édition de 2014.

Ainsi pour répondre également à une ambition de fédérer les acteurs et les gestionnaires dans un moment de rencontre important qui pourra être reconduit au fil du temps, le nouveau format s'appuiera sur un cycle de conférence plénière avec une partie théorique et une partie pratique comprenant des ateliers sur le terrain.

Renouvellement annuel

Tous les sujets qui concernent les risques côtiers ne pourront pas être traités lors d'une même édition, c'est pourquoi il est proposé d'organiser une session par an avec un sujet principal de réflexion. Les thèmes abordés lors de cette première session seront centrés sur les problématiques érosion et surcote exclusivement, ceci afin de limiter la manifestation à deux jours pour permettre la mise à disposition des personnels sur une période courte. Ainsi chaque année les rencontres auront une thématique propre. Les thématiques proposées pour les trois premières manifestations peuvent être :

1. Érosion et surcote
2. Pollutions et qualité des eaux
3. Protection des zones marine et directives écologiques

Public visé

Les personnels susceptibles de participer à cette manifestation sont en première ligne les personnels des collectivités ainsi que les techniciens qui sont confrontés à la gestion des risques côtiers tels que des submersions soudaines et rapides, les problèmes de gestion du trait de côte face à l'érosion ou encore la gestion des zones touristiques face aux modifications engendrées par l'élévation du niveau marin qu'elles soient dues au réchauffement climatique ou pas. Au delà des agents de collectivités, les conférences s'adressent également aux acteurs et décideurs du littoral, personnels de bureaux d'études, professionnels du Littoral et étudiants.

Assessing drought recurrence in EUR-OPA countries using nonlinear approach

GHHD Tbilisi, Georgia

DURATION : 2014 2015 2014 - 2015

TARGET COUNTRIES : Algeria, Azerbaijan, Belgium, Bulgaria, Cyprus, France, Georgia, Germany, Greece, San Marino, Luxemburg, Italy, Malta, Armenia, Moldova, Ukraine, Morocco, Portugal, Romania, Russian Federation, France, “the former Yugoslav Republic of Macedonia”, Spain, Turkey

PARTNERS INVOLVED :

COORDINATING CENTRE : *GHHD Tbilisi, Georgia*

OTHER CENTRES: *ECMHT Baku, Azerbaijan , CRSTRA Biskra, Algeria , AFEM Ankara, Turkey , ECFE Athens, Greece*

OTHER PARTNERS :

OBJECTIVES OF THE PROJECT

Global objective for 2014-2015 :

It is presently documented by number of researches that the mean global surface temperature has increased by about 0.06 degree of Celsius per decade in the 20th century. Essential increase (by 0.19 degree of Celsius) was reported since 70th of last century and it is supposed that the warming is likely to continue. Because of such tendency in the global climate change, drought has become a recurrent phenomenon causing increasing threat and practical damage to society. Presently, in several countries across the globe, along with increase in surface air temperature, erratic and uncertain rainfall distribution especially in arid and semi-arid ecosystems is manifested. Moreover it becomes more and more obvious that frequently recurring and severe droughts, in nearest future, may become one of most important natural disasters resulting in serious economic, social, and environmental crises.

Therefore because of observed shortening of drought recurrence cycles while the affected area is widening by new parts of territories that were once unaffected, drought forecasting acquires immense importance in the mitigation of possible unwanted impacts. At the same time drought recurrence forecasting can not be possible without purposeful investigation of basics of underlying processes.

Traditionally, statistical models have been used for drought forecasting based on linear time series analysis methods. E.g. simple regression and autoregressive moving average (ARMA) are typical models on which drought related statistical time series analysis and drought forecasting is based. However, basically linear models assume that data are stationary, and practically do not enable to deal with non-stationarities and nonlinearities in related natural processes. Therefore it becomes understandable that alternative models and approaches should be used when nonlinearity and nonstationarity play a significant role in the forecasting of drought recurrence. In general, recurrence phenomenon is one of the most important features of complex dynamical systems which helps to understand their spatial and temporal behavior and thus to predict or even control systems behavior. At present there are already developed special data analysis methods enabling to reveal hidden recurrent properties in nonstationary noise systems which look completely random. Based on the above mentioned, the main objective of proposed research is to investigate features of drought recurrence on local scale spatial and temporal scales based on available weather variation data sets. Exactly, general objective is to carry out analysis of nonlinear and recurrence properties of min, max and average air temperature data sets as well as precipitation time series from different locations in West and East Georgia. Special

attention will be paid to data sets from weather stations located in areas where for last decade recurring droughts have been observed. All this activity allow to assess drought recurrence characteristics (persistence, return period, etc)

Specific objectives :

2014 : Establishing linear/nonlinear and recurrence properties of weather and precipitation data sets from the 10-20 main meteorological stations from arid areas of in Georgia, Greece, Azerbaijan, Algeria, Turkey for the last 60 years.

2015 : Establishing linear/nonlinear and recurrence properties of droughts using multidimensional data sets of weather variation and precipitation from arid areas in Georgia, Greece, Azerbaijan, Algeria, Turkey.

EXPECTED RESULTS

2014 : Understanding linear/nonlinear properties of meteorological data sets and especially precipitation and temperature time series for elucidation of characteristics of drought recurrence.

2015 : New Understanding of spatial variation of drought recurrence in Georgia, Greece, Azerbaijan, Algeria, Turkey and assessing drought predictive time scales in Georgia, Greece, Azerbaijan, Algeria, Turkey.

ASSOCIATED ACTIVITIES

(split by partner)

2014 : GHHD - Collecting weather (temperature and precipitation) electronic time series from 10 meteorological stations in Georgia for the last 60 years. Collecting statistical data on the droughts in the same time period. Testing linear/nonlinear methods of time series analysis for establishing the temporal pattern of droughts

ECMHT - Collecting weather (temperature and precipitation) electronic time series from 10 meteorological stations in Azerbaijan arid area for the last 60 years. Collecting statistical data on the droughts in the same time period. Sending data to GHHD.

CRSTRA - Collecting weather (temperature and precipitation) electronic time series from 10 meteorological stations in Algeria for the last 60 years. Collecting statistical data on the droughts in the same time period. Sending electronic data to GHHD

AFEM -Collecting weather (temperature and precipitation) electronic time series from 10 meteorological stations in Turkey arid area for the last 60 years. Collecting statistical data on the droughts in the same time period. Sending electronic data to GHHD

ECFF - Collecting weather (temperature and precipitation) electronic time series from 10 meteorological stations in Greece arid area for the last 60 years. Collecting statistical data on the droughts in the same time period. Sending electronic data to GHHD

2015 : GHHD - Analysis of weather electronic time series in Georgia for revealing temporal patterns corresponding to drought periods using linear/nonlinear methods. Preliminary prediction of future pattern of drought recurrence in Georgia

ECMHT and GHHD - Analysis of weather electronic time series in Azerbaijan for revealing temporal patterns corresponding to drought periods using linear/nonlinear methods. Preliminary prediction of future pattern of drought recurrence in Azerbaijan

CRSTRA and GHHD - Analysis of weather electronic time series in Algeria for revealing temporal patterns corresponding to drought periods using linear/nonlinear methods. Preliminary prediction of future pattern of drought recurrence in Algeria

ECFF and GHHD - Analysis of weather electronic time series in Greece for revealing temporal patterns corresponding to drought periods using linear/nonlinear methods. Preliminary prediction of future pattern of drought recurrence in Greece

AFEM and GHHD - Analysis of weather electronic time series in Turkey for revealing temporal patterns corresponding to drought periods using linear/nonlinear methods. Preliminary prediction of future pattern of drought recurrence in Turkey

RESULTS OBTAINED PREVIOUSLY (if any)

In 2012 the GHHD published paper: In 2012 the GHHD published paper: Climate Change in Georgia; statistical and nonlinear dynamics predictions. A. Amiranashvili, T. Matcharashvili, T. Chelidze. Journal of Georgian Geophysical Society, 2012, 15, 67-88.

Using Stable Isotope Application for Assessment and Sustainable Use of Grounwater Resources in arid areas

GHHD Tbilisi, Georgia

DURATION : 2014 2015 2014 - 2015

LINE OF ACTION: 2.C. Impact of climate change and environment

TITLE OF THE PROJECT : Using Stable Isotope Application for Assessment and Sustainable Use of Grounwater Resources in arid areas

TARGET COUNTRIES : Algeria, Azerbaijan, Belgium, Bulgaria, Cyprus, France, Georgia, Germany, Greece, San Marino, Luxemburg, Italy, Malta, Armenia, Moldova, Ukraine, Morocco, Portugal, Romania, Russian Federation, France, "the former Yugoslav Republic of Macedonia", Spain, Turkey

PARTNERS INVOLVED :

COORDINATING CENTRE : GHHD Tbilisi, Georgia

OTHER CENTRES: CRSTRA Biskra, Algeria , CEPRIS Rabat, Morocco , BE-SAFE-NET Nicosia, Cyprus , ECMHT Baku, Azerbaijan

OTHER PARTNERS :

OBJECTIVES OF THE PROJECT

Global objective for 2014-2015 :

The use of stable isotopes (particularly water isotopes of oxygen and hydrogen), established in hydrology and hydrogeology in the past five decades, complements the conventional hydrological, hydrogeological, geophysical and geochemical approaches. Isotopes can quantify variables that are not otherwise measurable– for example the residence time (age) of water in the aquifer, altitude of recharge areas of groundwater, contribution of river water or snowmelt to production wells, etc. In addition, isotopes can trace the origin and pathways of recharge or contamination, thus contributing to the assessment of groundwater vulnerability and sustainability in terms of both water quantity and quality. The novelty of the proposed project is the application of isotopic methods to better understand groundwater resources and links among the many water sources and stores in selected area.

For example, the Alazani valley in eastern Georgia contains valuable fractured and fractured-karstic aquifers. Total resources of underground waters of the area it is possible to estimate 26 m³/sec. Understanding the groundwater regime, interactions with surface waters and factors which influence groundwater quantity and quality is therefore of utmost importance to secure water supply for the local economy and population.

Isotopic information will be particularly instrumental for the assessment of the groundwater flow paths between the recharge and discharge zones, transit time of groundwater and origin of potential nitrate/ammonium pollution through organic or chemical fertilizers in the bank filtered water in the Alazani valley. A better knowledge of these conditions will allow building of future conceptual and numerical groundwater flow models of the Alazani catchment and therefore provide an improved base for decisions on groundwater extraction for drinking and irrigation purposes.

Isotopic techniques can help to expand the knowledge of water dynamics in Georgia and thus help guide better management and adaptation strategies.

We propose a reliable field sampling and monitoring programme for isotopes, consisting of data collection and interpretation from boreholes, springs and rivers in the recharge and discharge areas. The principal isotopic tracers will be $\delta^{18}O$ and δ^2H of water.

It is important to note that the project would not start from scratch. It would build on and supplement our recent work supported by the International Atomic Energy Agency (IAEA) that is an important promoter of isotopic hydrology.

The project's goal is maintenance and further development of isotopic monitoring of groundwater in Georgia, Algeria, Morocco, Cyprus, Azerbaijan to provide new data for better assessment of residence time of groundwater for sustainable utilization of water resources in arid areas: short residence time means fast replenishment of groundwater source and possibility of relatively extensive exploitation, whereas large residence time points to slow replenishment and risk of source dry up.

Specific objectives :

2014 : The objectives of the project are:

- 1. Selection of arid areas in Georgia, Algeria, Morocco, Cyprus, Azerbaijan, where underground water resources are intensively used.*
- 2. Collection of samples for measuring isotopic composition ($\delta^{18}O$ and δ^2H) of groundwater throughout the selected arid areas in Georgia, Algeria, Morocco, Cyprus, Azerbaijan basin to improve the understanding residence time in water sources,*
- 3. Measuring and distribution of the isotopic data via established International Atomic Energy Agency (IAEA) databases and a new Georgian database;*

2015 : Development of a conceptual hydrogeological model of the studied areas based on the new isotopic information;

- 4. Interpretation of the data on isotopic composition of groundwater for determination of water residence time;*
- 5. Elaboration of recommendations for sustainable utilization of water resources in the selected arid areas*

EXPECTED RESULTS

2014 : Selection of arid areas in Georgia, Algeria, Morocco, Cyprus, Azerbaijan, where underground water resources are intensively used. Collection of samples for measuring isotopic composition ($\delta^{18}O$ and δ^2H) of groundwater throughout the selected arid areas in Georgia, Algeria, Morocco, Cyprus, Azerbaijan basin to improve the understanding residence time in water sources,

2015 : Measuring and distribution of the measured isotopic data with conclusions on the residence time of groundwater in the selected source in order to improve capacity to provide sustainably operational, reliable and robust methods for decision makers on groundwater management of drinking water supply in the arid areas in Algeria, Azerbaijan, Georgia, Morocco, Cyprus, this project will create scenarios of groundwater dynamics, which will be available for local, regional and national authorities in groundwater management.

ASSOCIATED ACTIVITIES

(split by partner)

2014 : GHHD - Selection of arid area in Georgia where underground water resources are intensively used or planned to use. Collection of samples for measuring isotopic composition ($\delta^{18}O$ and δ^2H) of groundwater throughout the selected arid area in Georgia to improve the understanding residence time in water sources

CRSTRA - Selection of arid area in Algeria where underground water resources are intensively used or planned to use. Collection of samples for measuring isotopic composition ($\delta^{18}O$ and δ^2H) of groundwater throughout the selected arid area in Algeria to improve the understanding residence time in water sources,

CEPRIS - Selection of arid area in Morocco where underground water resources are intensively used or planned to use. Collection of samples for measuring isotopic composition ($\delta^{18}O$ and δ^2H) of groundwater throughout the selected arid area in Morocco to improve the understanding residence time in water sources

BE-SAFE-NET - Selection of arid area in Cyprus where underground water resources are intensively used or planned to use. Collection of samples for measuring isotopic composition ($\delta^{18}O$ and δ^2H) of groundwater throughout the selected arid area in Cyprus to improve the understanding residence time in water sources,

ECMHT - Selection of arid area in Azerbaijan where underground water resources are intensively used or planned to use. Collection of samples for measuring isotopic composition ($\delta^{18}O$ and δ^2H) of groundwater throughout the selected arid area in Azerbaijan to improve the understanding

residence time in water sources,

2015 : GHHD - Measuring and distribution of the measured isotopic data with conclusions on the residence time of groundwater in the selected source in order to improve capacity to provide sustainably operational, reliable and robust methods for decision makers on groundwater management of drinking water supply in the arid area in Georgia; this project will create scenarios of groundwater dynamics, which will be available for local, regional and national authorities in groundwater management.

CRSTRA - Measuring and distribution of the measured isotopic data with conclusions on the residence time of groundwater in the selected source in order to improve capacity to provide sustainably operational, reliable and robust methods for decision makers on groundwater management of drinking water supply in the arid area in Algeria; this project will create scenarios of groundwater dynamics, which will be available for local, regional and national authorities in groundwater management.

CEPRIS - Measuring and distribution of the measured isotopic data with conclusions on the residence time of groundwater in the selected source in order to improve capacity to provide sustainably operational, reliable and robust methods for decision makers on groundwater management of drinking water supply in the arid area in Morocco; this project will create scenarios of groundwater dynamics, which will be available for local, regional and national authorities in groundwater management.

BE_SAFE_NET - Measuring and distribution of the measured isotopic data with conclusions on the residence time of groundwater in the selected source in order to improve capacity to provide sustainably operational, reliable and robust methods for decision makers on groundwater management of drinking water supply in the arid area in Cyprus; this project will create scenarios of groundwater dynamics, which will be available for local, regional and national authorities in groundwater management.

ECMHT - Measuring and distribution of the measured isotopic data with conclusions on the residence time of groundwater in the selected source in order to improve capacity to provide sustainably operational, reliable and robust methods for decision makers on groundwater management of drinking water supply in the arid areas in Azerbaijan; this project will create scenarios of groundwater dynamics, which will be available for local, regional and national authorities in groundwater management.

RESULTS OBTAINED PREVIOUSLY (if any)

International Atomic Energy Agency (IAEA) that is an important promoter of isotopic hydrology. In addition to coordinating two principal global databases of oxygen and hydrogen isotopes in natural waters - Global Network of Isotopes in Precipitation (GNIP) and Global Network of Isotopes in Rivers (GNIR) (Aggarwal et al., 2010; Vitvar et al., 2007), the IAEA also supports research and technical cooperation in isotope hydrology and hydrogeology. Georgia embarked in this cooperation in 2007 and to date has participated in three projects.

Global change, cultural heritage and smart cities

CUEBC – European University for the Cultural Heritage (Italy)

DUREE : 2014 2015 2014 – 2015

PAYS VISES: All countries

PARTENAIRES IMPLIQUES :

CENTRE COORDINATEUR : CUEBC Ravello, Italy

AUTRES CENTRES: ICoD La Valletta, Malta , , ,

AUTRES PARTENAIRES : ISTITUTO DI SCIENZE DELL'ATMOSFERA E CLIMA (ISAC), CNR-Italy

OBJECTIFS DU PROJET

Objectif global pour 2014-2015 :

Intelligent cities need urgently to take into consideration cultural heritage in the face of risks by climate and global changes. The concept of smart cities implies the use of advanced technologies, including information communication technologies (ICT), for a better management of buildings, mobility, energy, tourism and education. This is a challenge for cultural heritage, which needs to be taken into account for a sustainable urban planning. Furthermore a crucial issue to be dealt with is the risk management towards a sustainable management of cultural resources. Green solutions need to be found for the use and application of advance solutions and technologies for the conservation and protection of cultural heritage in its broad meaning: objects, historical and monumental buildings, city centres, etc...

Objectifs spécifiques :

2014 : The specific objective of the activity on "The future of cultural heritage in smart cities" will develop pressure of climate and air quality on materials and structures, impact of green economy on cultural heritage, including construction, energy and mobility, use of ICT for tourism management. The course will be held in Ravello, Italy.

2015 : The specific objective of the activity on "Cultural heritage in smart cities in coastal areas" will focus on smart use and exploitation of territories, intended as sustainable development, management and protection of cultural heritage in cities located on the coast; coastal cultural heritage management, including sub-sea sites (underwater archeological sites); increased urban agglomeration, tourism destination (groups/individuals); cruising vs cities: congestion and accessibility, citizens livability and tourist well being; education and training for public administration for including cultural heritage in smart cities planning; changes in atmospheric pollution and chemistry due to the changing strategy for mobility within cities. The course will be held in Malta.

RESULTATS ESPERES

2014 : High level training for scientists, urban planners, engineers, architects, cultural heritage managers focused on impact of green economy on cultural heritage.

2015 : High level training for scientists, urban planners, engineers, architects, cultural heritage managers focused on management and protection of cultural heritage in cities located on the coast.

ACTIVITES ASSOCIEES (reparties par partenaire)

2014 : the edition of the content of the last 4 Courses on the subject (2010 to 2013) is initiated for being published in 2014.

2015 :

RESULTATS OBTENUS PRECEDEMMENT (si pertinent)

Council of Europe participated in the organization and funding of 7 important events between 2009 and 2013 on the following specific theme :

1- International Workshop « Climate Change and Cultural Heritage » in Ravello, 14 - 16 May 2009, with 42 participants from 17 countries and international organizations.

2- 1st Post Doc Course on « Vulnerability of Cultural Heritage to Climate Change », at the Council of Europe in Strasbourg, 7-11 September 2009, with 36 participants from 13 countries and 17 speakers from 7 countries.

3 - Publication of "Climate Change and Cultural Heritage" (R.-A. Lefèvre and C. Sabbioni, ed., Edipuglia, Publ., Bari), 201 p., 2010.

4 - 2nd Post Doc Course on " Management and Protection of Cultural Heritage facing Climate Change " at the CUEBC in Ravello, 4-9 October 2010, attended by 22 participants from 7 countries and 16 speakers 8 countries.

5 - 3rd Post Doc Course on "Climate Change, Cultural Heritage and Risk. Energy, Mobility and Access", at the CUEBC in Ravello, 3-7 October 2011, with 24 participants from 8 countries and 13 speakers from 4 countries pays.

6 - 4th Post Doc Course on "Global change and Risks for Cultural heritage", at the Palais du Louvre in Paris (Centre de Recherche et de Restauration des Musées de France), 3-7 September 2012, with 35 participants from 9 countries and 14 speakers from 5 countries.

7 - 5th Post Doc Course on "Climate change, Global change and Cultural heritage: Vulnerability, Impact and Adaptation", at the CUEBC in Ravello, 7-9 October 2013, with 25 participants from 10 countries and 13 speakers from 5 countries.

Coupling terrestrial and marine datasets for coastal hazard assessment & risk reduction in changing environments

ICoD La Valletta, Malta

DURATION :

 2014 2015 2014 - 2015

TARGET COUNTRIES : Euro-Mediterranean countries

PARTNERS INVOLVED :

COORDINATING CENTRE : ICoD La Valletta, Malta

OTHER CENTRES: CERG Strasbourg, France , , ,

OTHER PARTNERS : Università di Modena e Reggio Emilia (UNIMORE, Italy), Université de Caen Basse-Normandie (UNICAEN, France), Consiglio Nazionale delle Ricerche: Istituto di Scienze Marine (ISMAR, Bologna, Italy); CNR-IRPI (Padua, Italy)

OBJECTIVES OF THE PROJECT

Global objective for 2014-2015 :

The global objectives of this activity address 'the impact of climate change and the environment' (a priority within line of action 2.C) and 'risk mapping and vulnerability' (a priority within line of action 2.B).

The project considers novel approaches to risk reduction in coastal areas, within a multi-hazard context and including sea level rise and landslides, in the continuation of the previous initial EUR-OPA research phase (2012-2013).

Coastal hazards are a topical issue nowadays which involves scientists and stakeholders trying to define the best procedures to face risks and increase community resilience, either reducing natural hazards or diminishing vulnerability. Coastal environments are particularly sensitive and susceptible to relevant damages in case of both sudden events (e.g., tsunamis, landslides, storm surges) and long-term processes (e.g., sea-level changes). Coastal instability phenomena which cause heavy socio-economic consequences and fatalities have increased significantly in recent years due to global changes, which determine more frequent extreme meteorological events, and progressive urbanisation of coastal areas, especially in developing countries. Furthermore, if coastlines are located in tectonically active areas, such as the Mediterranean Sea, the situation can be even more problematic.

The study areas are the Normandy coast (France) and the coasts of the Island of Malta, which show different morphoclimatic and tectonic setting, but which have been and are at present affected by significant changes in sea level since the Last Glacial Maximum, when the sea level was some 120 metres lower than present.

The Projects involves two specialised centres, ICoD and CERG . The expertise of the academic partners (see above) guarantees the success of the research activities. Co-funding to the research will be made available by each of the partners.

Specific objectives :

2014 :

- Based on the results achieved in the initial (2012 - 2013) research phase, the project envisages further work in the challenge of integrating newly acquired terrestrial and marine datasets with existing ones;

- *Development of procedures to perform coastal hazard maps, focussing on sea level rise and presenting a case study of the potential impact of sea level rise on beach resources for selected coasts of Malta and Normandy.*

- *Extend the current monitoring programme of coastal processes in the context of related erosion and landslide hazards;*

2015 :

- *Outline a methodology for hazard assessment taking into account climate and sea-level changes;*

- *Define methods to perform offshore landslide monitoring;*

- *Continue the coastal hazard monitoring programme in relation to coastal erosion and landslides.*

EXPECTED RESULTS

2014 :

1) *Integration of newly acquired terrestrial and marine datasets*

2) *Development of procedures to produce a hazard map*

3) *Extension of monitoring of coastal processes*

2015 :

1) *Definition of methodology for hazard assessment taking into account climate and sea level changes*

2) *Definition of protocols methods to perform offshore andslide monitoring*

ASSOCIATED ACTIVITIES

(split by partner)

2014 :

Work package 1 (prepared by all partners involved)

Description: Integrating newly acquired terrestrial and marine datasets with existing ones;

Work package 2 (prepared by all partners involved)

Description: Identification of a clear procedure for the development of hazard maps, focussing on sea level rise.

Work package 3 (prepared by all partners involved)

Description: extension of current monitoring programme of coastal processes in the context of related erosion and landslide hazards.

2015 :

Work package 1 (prepared by all partners involved)

Description: Outline a methodology for hazard assessment taking into account climate and sea-level changes;

Work package 2 (prepared by all partners involved)

Description: Definition of methods to perform offshore landslide monitoring;

RESULTS OBTAINED PREVIOUSLY (if any)

Initiated in 2012, this project has to date:

- *coupled existing terrestrial and submarine datasets;*

- outlined marine level variations since the Last Glacial Maximum;
- acquired new data on submarine landforms and processes along the Normandy and Malta coastlines, using multi-beam surveys;
- monitored coastal processes initiated within the 'Coastlines at Risk' 2009 - 2011 project;
- integrated newly acquired and existing submarine data;
- proposed a temporal reconstruction of the evolution of the study areas, with particular emphasis on creating maps when the sea level was below the present-day one.

3.A. Policy studies

Unifying role of National Platforms and National Strategies for reducing risk disasters and development of sustainable national policy in Balkan countries

ECRP - European Centre for Risk Prevention (Bulgaria)

DURATION :

2014

2015

2014 – 2015

TARGET COUNTRIES : Bulgaria, Croatia, Greece, FYROM, Romania, Serbia, Turkey

PARTNERS INVOLVED :

COORDINATING CENTRE : ECRP Sofia, Bulgaria

OTHER CENTRES: ECPFE Athens, Greece , ECILS Skopje, FYROM ,

ECBR Bucharest, Romania , AFEM Ankara, Turkey

OTHER PARTNERS : Croatia, Serbia

OBJECTIVES OF THE PROJECT

Global objective for 2014-2015 :

Developing a sustainable national policy and providing a stable legal and institutional framework for reducing risk disasters. Development of institutional capacity for identifying and implementing actions to reduce risk disaster in all critical sectors.

The main objectives of Agreement are to reinforce and promote co-operation between member States in a multi-disciplinary context to ensure better prevention, protection and organization of relief in the event of major natural or technological disasters. The final aim of Agreement is to create more resilient where people are better protected against natural and technological hazards.

Activity of the Agreement have connection with political support the following international initiatives:

- The main priority of the activity of the Agreement: "Warning to the people as a major factor in reducing the risk of disasters: the improvement of warning and preparedness aimed at the improvement of effective governance".

- Hyogo framework for Action 2005 - 2015: "Building resilience of nations and communities to disasters". Hyogo Framework for Action determine the directions of activities to prepare the public for disasters to limit their consequences for people, the economy and the surrounding environment as well as to improve processes for response and recovery. Framework for Action calls and set each one responsible for creating a National platform and strategy for reducing the risk disasters;

- The Council of Europe has included the strengthening of the security of its citizens in its Action Plan /adopted at the meeting in Warsaw in 2005/. State and Government of the member states of the Council of Europe have ordered the Council of Europe to continue to develop and maintain a comprehensive policy and regulation warning of the consequences of disasters taking into account the tasks of sustainable development;

- The decision of the Council of the European Union to establish an EU Mechanism for Civil Protection in order to reduce the risk of disasters;

- Memorandum of Understanding on institutional framework of the initiative for preparedness and disaster prevention in South East Europe and the adoption of the biennial Strategy and Action Plan Initiative. The main objective is an effective regional approach to disaster management by analyzing the current situation and the options available, the challenge to expand regional cooperation in the areas of the preparedness and prevention.

Specific objectives :

2014 :

Collect information for National platforms and National strategies in Bulgaria, Croatia, Greece, FYROM, Romania, Serbia, Turkey.

2015 :

Assessment of the situation, exchange of experiences and the identification of

the activities carried out in order to develop sustainable national policies to reduce of the risk disaster in Bulgaria, Croatia, Greece, FYROM, Romania, Serbia, Turkey.

EXPECTED RESULTS

2014 :

Introduction National platforms and National strategies for reducing of the risk disaster in the partner countries during the workshop. Developing joint conclusions and recommendations. Collect and distribution of the materials. Discussions and results will support the process to improve of legal base in partner countries.

2015 :

Organize an International Conference on National policies to reduce the risk of disasters in the Balkans. Developing joint conclusions and recommendations. Collect and distribution of material between the partner countries. Discussions and results will support the process to improve of legal base in partner countries.

ASSOCIATED ACTIVITIES (split by partner)

2014 :

***Work Package 1 /partner is developed by European centers and countries/:
Explanation: Presentation of National strategies and National platforms to reduce the risk disaster at the workshop and develop conclusions and recommendations. Collect and distribution of materials for the state.***

- ECRP /Sofia/ - Collect the materials provided by the partners on National platforms and National strategy for the reducing of risk disaster and organization of workshop in Sofia;***
- ECPFE /Athens/ - Provides materials on the National platform and the National strategy for reducing the risk disasters in Greece and provides participation in the workshop;***
- ECBR /Bucharest/ - Provides materials on the National platform and the National strategy for reducing the risk disasters in Romania and provides participation in the workshop;***
- AFEM /Ankara/ - Provides materials on the National platform and the National strategy for reducing the risk disasters in Turkey and provides participation in the workshop;***
- ECILS /Skopje/ - Provides materials on the National platform and the National strategy for reducing the risk disasters in FYROM and provides participation in the workshop.***

2015 :

***Work Package 1 /partner is developed by European centres and countries/
Explanation: An International conference to assess the situation and identify the activities carried out in order to develop sustainable national policies to reduce risk disaster. Developing joint conclusions and recommendations for the partner countries. Results will support the process to improve legal base in this area in partner countries.***

- ECRP /Sofia/ - Assess the situation and identify the activities carried out in order to develop sustainable National policies to reduce risk disasters in Bulgaria. Organize an International Conference with the participation of the partners;***
- ECPFE /Athens/ - Assess the situation and the identify the activities carried out in order to develop sustainable National policies to reduce the risk disaster in Greece. Ensure the participation in the International Conference;***
- ECBR /Bucharest/ - Assess the situation and identify the activities carried out in order to develop sustainable National policies to reduce the risk disasters in***

Romania. Ensure the participation in the International Conference;
- AFEM /Ankara/ - Assess the situation and identify the activities carried out in order to develop sustainable National policies to reduce the risk disasters in Turkey. Ensure the participation in the International Conference;
- ECILS /Skopje/ - Assess the situation and identify the activities carried out in order to develop sustainable national policies to reduce the risk disasters in FYROM. Ensure the participation in the International Conference.

RESULTS OBTAINED PREVIOUSLY (if any)

National platforms and National strategies for reducing risk disaster taken in the partner countries.

Emergencies to be arisen as a result of chemical intoxicants and warning measures

ECMHT – European Centre on Training and Information of Local and Regional Authorities and Population in the Field of Natural and Technological Disasters (Azerbaijan)

DURATION: 2014 2015 2016 2014-2015-2016

Target countries: Azerbaijan, Ukraine, Bulgaria, Turkey, Rumania, France, San-Marino

Partners involved: Ukraine, Bulgaria, Turkey, Rumania, France, San-Marino

Coordinating centre: ECMHT- Baku, Ministry of Emergencies, University of Architecture and Construction (chair of emergencies and security of vital activity), Association "Fovgal", Open Joint-Stock Company Azerbaijan Railways; International Organizations: Baku Representation of the Humanitarian organization OXFAM and UNICEF.

Coordinating centre: ECMHT- Baku, Azerbaijan

Other centres: Ukraine, Bulgaria, Turkey, Romania, France, San-Marino

Other partners: Turkey

OBJECTIVES OF THE PROJECT

Global objective for 2014-2015-2016

Within the last period, the growth of production in chemical, petrochemical and oil processing enterprises all over the world exceeds the growth of industrial production.

The rapid development of the petrochemical industry is considered all over the world the fourth period of development of this field and is called the petrochemical period. The typical aspect of this period includes the high rate development of the petrochemical industry and technological treatment with liquid gases.

There are produced numerous products with different quality in the chemical and petrochemical industries.

The main part of chemical and petrochemical industry in our republic is located in Baku city and Sumgait industrial region. These enterprises produce various chemical substances, including chlorine, which is very dangerous.

Sumgait city, where there are produced substances with dangerous quality is populated by 500000 people (including settlements as Jorat, Jeyranbatan and Z.Tagiyev).

The distance from the chemically dangerous objects towards populated settlements is 800-1000 meters and from railways by which chemically toxic substances are transported – 10-15 meters. At the same time, the source of danger created by chemically dangerous and risky objects is surrounded by the populated settlements.

The problem essence is that the population's level of awareness about the emergency dangerous cases to be arisen by the effect of chemically toxic substances, the rules of treatment in such cases and knowledge level conforming to the warning are lower and it arouses regret.

That's why, the awareness of the population residing in the population settlements near to units of production, preservation and transportation of the potential toxic substances about such sources of danger, their enlightening as regards the accidents to be happened from these sources of danger and the rules of protection against them is one of the actual topics of the time. Because, enlightening the people about the preventive measures against the catastrophically dangerous chemical substances (CDCS) enables us to determine correctly the subordination and coordination of the interested sides and partners, including the population; it serves at the same time for the population to receive correct technical and synoptic information. On the other side, we have to take into account that in many cases the population don't prefer to participate in preparation of the plans against the emergencies and is not aware of

accidents to be happened in the dangerous objects, therefore it is not able to be protected against these accidents.

To raise the level of awareness of the community about the emergencies to be happened because of chemically toxic substances, their results and rules for protection we have to create the adequate conditions that will provide the population with corresponding level of knowledge.

To this effect, we have to acknowledge that this field is need of specialized personnel and conducting of enlightening works amongst the people, organization of discussion and use of visual aids – placards and so on.

Specific objectives:

Reducing to the minimum of the emergencies to be arisen as a result of influence of dangerous toxic chemical substances, optimizing of the effective preventive measures and strengthening the role of the executive power authorities and other officials.

This project has to embrace the cities, suburban settlements and objects, guiding personnel, employees, population mass, unemployed people, housewives and disabled people.

The specific goal of the project includes raising the level of knowledge and skills of the population against these accidents by organizing trainings and disputes providing them with scientifically substantiated information about the emergencies to be arisen because of catastrophically dangerous chemical substances, their subsequences and rules for protection and preparation visual aids (placards and booklets).

EXPECTED RESULTS

2014: Improvement of management of emergencies arisen as a result of catastrophically dangerous chemical substances in the objects, cities and settlements, strengthening of activity of heads of the objects, municipalities and other local executive power against the emergencies.

2015: Stirring up of population mass to the greater activity against the emergencies arisen as a result of catastrophically dangerous chemical substances in the cities and settlements, reducing of losses and wastes to the minimum at the expenses of the local sources through the preventive measures and decision-making activity.

2016: Distribution of the "methodology of forecasting and evaluation of catastrophically dangerous chemical substances and chemical circumstances and brochures drawn up in English amongst the partners, enlightening the specialists employed in the corresponding field of production of catastrophically dangerous chemical substances and strengthening their role in the fight against prevention of the accidents.

Activity to be carried out: 2014

1. Collection of the required information from two production units (catastrophically dangerous chemical substances) of the production union "Azerkimya" (SOCAR)
2. Drawing up of the structural part of the protection plan against the catastrophically dangerous chemical substances in Sumgait city.
3. Organizing the "Round table" joined by the experts of the objects producing the catastrophically dangerous chemical substances in Sumgait city.
4. To prepare in Azerbaijani the brochure "methodology of forecasting and evaluation of the chemical conditions as regards the catastrophically dangerous chemical substances"
5. Discussion of the brochure in the "round table", preparation for publication and publication
6. Distribution and reaching the brochure to the ministries, committees and the objects producing and preserving the catastrophically dangerous chemical substances

2015

1. Analysing the information collected within 2014.
2. Drawing up of the model plan of the catastrophically dangerous chemical substances producing objects in the chemical industry.
3. Translation and editing of the brochure into Azerbaijani.

4. Publication of the brochure in English and sending to the corresponding partner countries

5. Presentation of the brochure published in English.

6. Translation of the brochure drawn up in English by the partners into their languages, preparation and publication.

2016

1. Drawing up of recommendations as regards the improvement of the local warning systems in the objects of catastrophically dangerous chemical substances producing objects and the objects located nearby and the settlements.

2. Organizing the TV broadcast in TV channel "Dunya" in Sumgait city on the subject "How to be protected against the catastrophically dangerous chemical substances"

3. Conducting of the activity on studying of the "methodology of forecasting and estimating the catastrophically dangerous chemical substances, chemical conditions" in the regional and local workshops and training courses.

4. Conducting of international scientific-practical conference inviting the partners.

5. Evaluation and final report.

Discovering European's Preparedness and Awareness concerning Disasters: An EurOpa Public safety Survey

CEMEC – European Centre for Disaster Medicine (San Marino)

Duration: 2014 – 2015

TARGET COUNTRIES :

Algeria, Azerbaijan, Belgium, Bulgaria, Cyprus, France, Georgia, Germany, Greece, San Marino, Luxemburg, Italy, Malta, Armenia, Moldova, Ukraine, Morocco, Portugal, Romania, Russian Federation, France, "the former Yugoslav Republic of Macedonia", Spain, Turkey

PARTNERS INVOLVED :

Coordinating Centre: CEMEC San Marino

Other Centers: TESEC Kiev, Ukraine; GHHD Tbilisi, Georgia; ECMHT, Baku, Azerbaijan

Most, if not all, Centers of EurOpa should be available for translation and circulation of the survey in each country; alternatively the survey can be limited to selected countries/languages and extended to all partners in a second phase.

OBJECTIVES OF THE PROJECT

Foreward and rationale

During the last decade European Countries experienced an unprecedented number of disasters which ranged from floods to wildfires, mudslides and more. Yet despite this record-breaking decade, the public still remains largely unaware of critical communication processes, and in some cases are surprisingly apathetic to emergency notification warnings and potential disaster scenarios.

An online nationwide survey of 256 adults was conducted from April 3rd to October 5th, 2013 in San Marino

The survey found that, despite an increase in the number of disasters, too many San Marino citizens remain disturbingly complacent. Consequently, many people fail to act with a sense of urgency in times of crisis, which not only compounds the efforts of emergency managers, but will inevitably lead to tragic results.

The survey allowed to recognize apathy as a major concern and forced San Marino Government to spearheading initiatives that promote public safety as a nationwide priority, and that correspond directly with the goals of the nation's emergency management professionals.

Global Objectives

- To explore the preparedness and awareness concerning disasters among the general population of countries represented in the Open Partial Agreement of COE.
- To effectively address the host of human factors that impair or deter people in Europe from reacting in a responsible fashion to warning alerts and notifications
- To educate the public on the importance of maintaining an at-home safety plan for times of emergency.

EXPECTED RESULTS

2014

Work package 1

- Objective: Design a shared (among EurOpa members) list of questions to be included in the Survey
- Preparing members: CEMEC, TESEC, GHHD, ECMHT
- Deadline: April 30, 2014

Work package 2

- Objective: Implement the survey in different languages: English, French, Italian, Spanish, German, Bulgarian, Georgian, Greek, Armenian, Russian, Arabic, Portuguese, Romanian, Azerbaijani, Turkish, ...
- Preparing members: CEMEC
- Deadline: September 30, 2014

Work package 3

- Objective: implementing the survey to be available on-line, identifying additional communication tools to circulate the survey, collecting partners, Starting the survey
- Preparing members: CEMEC, TESEC, GHHD, ECMHT
- Deadline: November 30, 2014

2015

Work package 1

- Objective: closing the survey and analyzing data
- Preparing members: CEMEC
- Deadline: April 30, 2015

Work package 2

- Objective: publishing results on the web and by additional communication/dissemination systems
- Preparing members: CEMEC, TESEC, GHHD, ECMHT
- Deadline: September 30, 2015

Work package 3

- Objective: addressing issues raised in the context of an International Meeting to be held in Rome (Italy) on December 2015
- Preparing members: CEMEC

3.B. Awareness initiatives

Be Safe Net. Protect yourself by hazard

BE SAFE NET – European Centre for Disaster awareness with the use of the Internet (Cyprus)

DURATION :

2014

2015

2014 – 2015

TARGET COUNTRIES : Global

PARTNERS INVOLVED :

COORDINATING CENTRE : BE-SAFE-NET Nicosia, Cyprus

OTHER CENTRES: CERG Strasbourg, France , ICoD La Valletta, Malta ,

OTHER PARTNERS : The TESEC - European Centre of Technological Safety (Kiev, Ukraine) is member of the Be Safe Net Editorial Board but it is not listed in the " OTHER CENTRES". The following Centres contributed to the implementation of sections of Be Safe Net: AFEM - European Natural Disasters Training Centre (Ankara, Turkey), CUEBC - European University for the Cultural Heritage (Ravello, Italy), CRSTRA - Scientific and Technical Research Centre on Arid Regions (Biskra, Algeria), ECRP - European Centre for Risk Prevention (Sofia, Bulgaria), GHHD - European Centre on Geodynamical Risks of High Dams (Tbilisi, Georgia) , GFMC Freiburg, Germany

OBJECTIVES OF THE PROJECT

Global objective for 2014-2015 :

Be Safe Net project was created under the umbrella of Europa Major Hazard Agreement of Council of Europe (27 mainly Euro-Mediterranean Countries).

The Be Safe Net initiative wishes to achieve three main goals:

1. Promote a culture of safety among a new generation of people
 - .Raising awareness on implications of their actions and their way of thinking on emergency
 - Replacing fear with a culture of preparedness
 2. Disseminate knowledge to multilingual societies
 - Create a common knowledge base of best experience
 - Disseminate it in several languages to benefit a wider society
 3. Become a interactive tool
 - Open our website to other users and organisations for their benefit and comments
 - Enrich its content by contributions based on external experiences
- The target is general public especially for the school teachers and students.

The global objectives for 2014-2015 are:

1) the setting up of an 'on-line based Olympiad' which will test the knowledge gained from theBeSafeNet website. This will reflect the effectiveness of the website in terms of awareness raising, promoting a culture of safety, disseminating knowledge to a multi lingual society, and acting as an interactive tool.

Specific objectives :

2014 : 1) Translate in Greek, French, Russian and Italian languages all the hazards and review the content on wildfires

2) Send an official letter to Authorities to promote participation to the Olympiad

3) Design a leaflet and a poster for distribution to Ministries of Education for subsequent

circulation in secondary schools

4) Produce predefined questions and answers for creating multiple choice questions (covering all hazards)

5) Launch the registration of the Olympiad (october 2014)

2015 : 1) Organize the competition of the Olympiad (Spring)

2) Introduction of new languages : German, Spanish etc.

EXPECTED RESULTS

2014 : Completion of the web-site in a minimum of 5 main languages (English, Italian, French, Greek and Russian). To develop the knowledge of the Be Safe Net at least at an European Level.

2015 : To reach the aim of the website which is to become an educational tool in the hands of teachers, focusing at risk prevention, preparedness, immediate reaction and rehabilitation

ASSOCIATED ACTIVITIES

(split by partner)

2014 : BE-SAFE-NET Nicosia, Cyprus activities

- To Translate in Greek language the the content on "wildfires" after its approval by Editorial Board.

- To Translate in Greek language the hazards reviewed in 2013.

- To organize the next meeting in Cyprus. Arrange a meeting with the technical support company of our Website "Belugga" to explain and clarify the technical issues of the Olympiad.

CERG activities

- To review the content on "wildfires".

- To Translate in italian language the the content on "wildfires" after its approval by Editorial Board.

- To Translate in italian language the hazards reviewed in 2013.

- To develop 30 multi-choice questions (MCQ) in English for the following natural hazards : "Volcanic

Eruptions", "Earthquakes", " Landslides", "Floods", "Drought and Desertification", "Avalanches", "wildfires".

TESEC activities

-Translate in Russian languages the following hazards: avalanches, landslides, hurricanes, sea level rise, nuclear hazard, chemical hazard

-To develop logistic for organizing of Olympiad

-To develop 30 multi-choice questions (MCQ) in English per each: nuclear hazards, chemical hazards, dam failure,

-To participate in evaluation of MCQ for other hazards

ICoD La Valletta, Malta activities

- To develop 30 multi-choice questions (MCQ) in English for the following natural hazards :

"Tsunamis", "Hurricanes and Storm Surges" and "Sea Level Rise"

2015 :

RESULTS OBTAINED PREVIOUSLY (if any)

The first Be Safe Net website (still available at

<http://www.besafenet.org/main/default.aspx?tabid=9>) has been deeply modified in the contents as well as in the look. The changes have been carried out following decisions taken in occasion of meetings held in Strasbourg (2006), Cyprus (2007 and 2009), Ravello (2008), Lisbon (2008), Malta (2010), Modena (2010), Paris (2011) and Kiev (2011). The new website is available at www.besafenet.net. It has been presented at the International Conference Mountain Risks: Bringing Science to Society held in Firenze (Italy) from 24 to 26 November 2010 and at the 5th edition of the International Earth Science Olympiad (IESO 2011), for secondary school students, held in Modena (Italy) from 5 to 14 September 2011. To the IESO 2011 attended 115 students and 97 mentors/teachers/observers

coming from 34 countries from all over the world. The website launch during EUR-OPA 25th Anniversary (April 2012). During the meetings in Paris (November 2012-Kiev sept. 2013) a) finalised the matterial for tanslation on all the hazards.b) proposal for organise an Olympiad during 2015.

Development of informative Material concerning Earthquake Protection Measures, for People with disabilities

ECPFE Athens, Greece

DURATION :	<input checked="" type="checkbox"/> 2014	<input checked="" type="checkbox"/> 2015	<input checked="" type="checkbox"/> 2014 - 2015
TARGET COUNTRIES :	ALL THE COUNTRIES OF THE ACTIVITY		
PARTNERS INVOLVED :			
COORDINATING CENTRE :	ECPFE Athens, Greece		
OTHER CENTRES:	, , ,		
OTHER PARTNERS :	ALL THE CENTERS OF THE AGREEMENT		

OBJECTIVES OF THE PROJECT

Global objective for 2014-2015 :

Representing one-fifth of the world's population, people with disabilities have a fundamental right to a degree of protection against disasters that is comparable with that enjoyed by the rest of the population .

The main objective of this project addresses to people with disabilities as well as to their caregivers , so as to contribute to their education and training and thus to raise awareness about the importance of the Earthquake Protection Measures.

Earthquake Guidelines are classified into three sections:

Protection measures before earthquakes

(What you should do at this point onwards)

Protection measures during an earthquake

(What you should do during the few seconds that an earthquake lasts)

Protection measures after an earthquake

(Which steps you should follow right after the earthquake finishes)

Specific objectives :

2014 : Development of informative innovative material concerning Earthquake guidelines to people with disabilities .

Especially it is very important to translate this education material to special Languages addressed to people with disabilities like, "Easy-to-read", "Text for all" and augmentative alternative communication " MAKATON".

The target group of this activity are : people with Cognitive Impairments, Mentally retarded , illiterates , patients with Alzheimer syndrome , the whole range of autism , emigrants (that don't speak the local language) , caregivers of people with disabilities etc

2015 : Testing the provided material with drills and feedback.

Development of a software application for tablets and i-phones in several operation systems like : windows, iOS , Android ™ , Blackberry, etc

Organization of a Seminar in order to present the goals achieved .

EXPECTED RESULTS

2014 : The design and production of two posters in “easy-to-read” and to “MAKATON” language with Earthquake(before –during –after) Protection Measures to people with disabilities.

The design and production of two leaflets in “easy-to-read” and to “MAKATON” language with Earthquake(before –during –after) Protection Measures to people with disabilities.

2015 : The design and production of a software application

ASSOCIATED ACTIVITIES

(split by partner)

2014 :

2015 :

RESULTS OBTAINED PREVIOUSLY (if any)

The production of a booklet : “LEARNING ABOUT EARTHQUAKES AND PROTECTION MEASURES -GUIDELINES FOR PEOPLE WITH DISABILITIES”, in Greek and in English.

The creation of an e-learning platform and the design of a relevant questionnaire In Greek and in English , published in ECPFE’s website: <http://ecpfe.oasp.gr>

The translation of this booklet into BRAILLE language , applied to people with blindness.

Drills and evacuation exercises have been organized by EPPO and have taken place in competent bodies like: “Theotokos Foundation” – Training Center for People with Cognitive Impairments, ESEEPa – Special Vocational Training Center, Lighthouse for the Blind of Greece, Social Work Foundation “Hadjipaterion” R.C.C.C.P., Special School for the Deaf at the National Foundation for the Deaf and other.

Identification and risk awareness by pupils in case of flood problems: prevention, preparation and conduct during and after flood

ECMNR – European Centre for Mitigation of Natural Risks (Moldova)

DURATION :	<input type="checkbox"/> 2014	<input type="checkbox"/> 2015	<input checked="" type="checkbox"/> 2014 – 2015
LINE OF ACTION:	3.B. Awareness initiatives		
TITLE OF THE PROJECT :	Identification and risk awareness by pupils in case of flood problems: prevention, preparation and conduct during and after flood.		
TARGET COUNTRIES :	Member state of Agreement		
PARTNERS INVOLVED :	<p>COORDINATING CENTRE : ECMNR Chisinau, Moldova</p> <p>OTHER CENTRES: ECRP Sofia, Bulgaria , ECRB Bucharest, Romania , ,</p> <p>OTHER PARTNERS : TESEC, Kiev Ukraine</p> <p>-- Moldova's Water Agency (Ministry of Agriculture) Republic of Moldova</p> <p>- Service of Civil Protection and Emergency Situations of the Ministry of Internal Affairs</p> <p>- Ministry of Education of the Republic of Moldova</p> <p>- Institute of Education and Science of Moldova</p> <p>- State University of the Republic of Moldova</p>		

OBJECTIVES OF THE PROJECT
<i>Global objective for 2014-2015 :</i> Promoting educational initiatives for the establishment of common protection in case of flood problems
<i>Specific objectives :</i> 2014 : Accumulation of the existing materials and the results of pilot experiments, analysis of the positive experience and the best practice for risks prevention of Flood problems for pupils. 2015 : Pilot experiment at school on the ground of the 2014 results.
EXPECTED RESULTS
2014 : Decision approval and publication of seminar materials. 2015 : Presentation of the report on the pilot experiment results at a seminar.
ASSOCIATED ACTIVITIES (split by partner)
2014 : Presentation of the additional study material, reports about pilot experiments and other. 2015 : Support to the pilot experiment.
RESULTS OBTAINED PREVIOUSLY (if any)

Informer et impliquer la population dans la Prévention des risques sismique et de tsunami: minimiser les dommages et accroître la résilience des villes

CERU – European Centre on Urban Risk (Portugal)

DUREE :	<input type="checkbox"/> 2014	<input type="checkbox"/> 2015	<input checked="" type="checkbox"/> 2014 – 2015
PAYS VISES:	Portugal, Maroc,		
PARTENAIRES IMPLIQUES :			
CENTRE COORDINATEUR :	<i>CERU Lisbon, Portugal</i>		
AUTRES CENTRES:	<i>CEPRIS Rabat, Morocco, CUEBC Ravello, Italy , ,</i>		
AUTRES PARTENAIRES :	<i>IDL, Portugal</i>		

OBJECTIFS DU PROJET

Objectif global pour 2014-2015 :

L'objectif fondamental du projet est d'accroître la résilience de la population par rapport aux risques sismique et tsunami et d'améliorer la réponse collective à une situation de crise, proposant et réalisant des actions qui contribuent à la diffusion de l'information et de procédures.

La proposition est fondée sur :

- la caractérisation de la population, détermination des vulnérabilités et évaluation de sa capacité de résilience à un séisme.
- l'identification de l'information à transmettre à la population en tant que mesures de préparation pour un séisme, comme procédures à suivre lors de son apparition et dans la période immédiate : au niveau des individus, des ménages, des lieux de travail, des établissements publics.
- l'identification des actions à entreprendre pour accroître la culture du risque de la population : exercices, simulations...
- l'identification des formes de participation de la population en fonction de leurs organisations de base : associations de résidents, groupes socio-professionnels, associations culturelles et récréatives.
- l'identification des canaux d'information qui seront utilisées pour organiser la réponse collective à un séisme et / ou tsunami associé, encadrées dans les actions de la protection civile : informations sur les itinéraires d'évacuation, zones de concentration locale, brochures, matériel de signalisation locale, site WEB.

Objectifs spécifiques :

2014 : Collecte d'information, auscultation d'opinions et établissement des principes d'intervention

Analyse des plans d'urgence dans leurs aspects les plus importants pour la mise en place de la réponse collective organisée à la surveillance d'un séisme, comme la cartographie des risques et les procédures d'évacuation.

Préparation de la cartographie des risques éventuellement manquante, au niveau des zones inondables et des falaises instables.

Analyse sociale. Identification des groupes plus vulnérables avec spéciale attention pour les personnes handicapés.

Promotion de réunions avec les organisations associatives de base, avec un accent particulier pour ceux qui ont la responsabilité de la gestion des équipements définis comme zones de concentration locale en cas de catastrophe.

Évaluation du message à faire passer au niveau de la préparation pour un séisme,

la façon de réagir à un événement et dans l'après-tremblement de terre.

Organisation d'un séminaire local pour établir résultats et principes d'action : implication des autorités, protection civile, associations et entreprises

Réalisation d'une opération scientifique concrète sur le comportement en cas de séisme d'un bâtiment public (école et hôpital) en intégrant autorité, système éducatif et associations.

2015 : Diffusion des résultats et formulation de propositions

- **Proposition de signalisation de risque et d'évacuation des plages.**
- **Proposition d'information à placer dans les zones de concentration locale.**
- **Production de brochure bilingue sur les risques sismique et tsunami.**
- **Organisation d'une exposition itinérante.**
- **Organisation d'un séminaire dans chaque ville objet de l'étude.**
- **Préparation du rapport final.**

RESULTATS ESPERES

2014 : Mise en place de canaux de coopération par les institutions et les populations cibles

2015 : Proposition d'événements et d'outils visant l'initiation d'une culture de prévention visàvis des risques sismique et de tsunami. Proposition de mesures (techniques et politiques) pour augmenter la résilience des groupes plus vulnérables

ACTIVITES ASSOCIEES (reparties par partenaire)

2014 : Work package 1: (CERU Lisbonne, Portugal)

Description: Organisation d'un séminaire pour lancer le projet et établir résultats et principes d'action : implication des autorités, protection civile, associations et entreprises. Ce séminaire sera réaliser au Portugal et les responsables de la protection civile municipal des mairies côtières autour de Cascais jusqu'à Setubal (au sud de Lisbonne) seront invités à participer. Frais d'organisation pour le CERU.

Work package 2: (CERU Lisbonne, Portugal & CUEBC Ravello, Italie)

Description: Organization d'une réunion de travail au sud de Portugal (Lagos), en invitant les responsables de la protection civile municipal des mairies côtières de l'Algarve, pour établir résultats et principes d'actions avec aussi la participation d'associations et entreprises locales

Work Package 3: (CERU Lisbonne, Portugal)

Description: réalisation des études en manque sur la vulnérabilité sociale et sur la cartographie des risques

Work Package 4: (CEPRIS, Rabat, Maroc)

Organisation de journées pour le lancement du Projet aux niveaux des villes cibles au Maroc: Tanger et M'Diq

Work Package 5: (CEPRIS, Rabat, Maroc)

Travaux de terrain pour étudier la vulnérabilité d'un établissement scolaire et d'un Hopital à Tanger en invitant les autorités et les personnes cibles à suivre les différentes étapes de cette opération scientifique.

2015 :

Work package 1: (CERU Lisbonne, Portugal & CEPRIS Rabat, Maroc & CUEBC, Ravello, Italie)

Description: Organisation d'une exposition itinérante pour présenter dans les différentes paroisses et dans des associations locales

Workpackage 2: (CERU Lisbonne, Portugal & CEPRIS Rabat, Maroc) Description: Préparation et exécution de matériaux (dépliants, affiches, signalisation, etc.) pour placer dans les zones de risque, les zones de concentration de la population et pour distribuer dans les associations et les écoles

Work package 3: (CERU Lisbonne, Portugal & CEPRIS Rabat, Maroc & CUEBC, Ravello, Italie) Description: Organisation d'un séminaire finale pour la présentation des résultats.

RESULTATS OBTENUS PRECEDEMMENT (si pertinent)

Grace au projet VULRESADA, développé en 2012-13 par les 2 Centres promoteurs:
1- des liens ont été établis entre ces centres avec les autorités respectives des deux pays (Mairies et Provinces, protection civile) 2- A travers un séminaire itinérant tenu à travers les villes portugaises et marocaines programmées dans ce projet (Cascais - Tanger - M'Diq et Lagos) l'état d'avancement des travaux de ce projet ont été porté au décideurs et à la population cible. 3- une thèse de Master sera finaliser à la fin de 2013 sur les routes d'évacuation et les points de concentration dans la ville de Lagos, au Portugal.

Public Awareness and Education Tools for Disaster Risk Reduction and Preparedness in Earthquake Situation, including People with Disabilities

ECBR – European Centre for Rehabilitation of Buildings (Romania)

DURATION :	<input checked="" type="checkbox"/> 2014	<input checked="" type="checkbox"/> 2015	<input type="checkbox"/> 2014 – 2015
TARGET COUNTRIES :	ROMANIA, MOLDOVA, BULGARIA, UKRAINE		
PARTNERS INVOLVED :	COORDINATING CENTRE : ECBR Bucharest, Romania OTHER CENTRES: ECMNR Chisinau, Moldova , ECRP Sofia, Bulgaria , ,		
OTHER PARTNERS :			

OBJECTIVES OF THE PROJECT

Global objective for 2014-2015 :

Increase resilience and preparedness through education and awareness of public institutions staff and population for earthquake crisis that might be caused by subcrustal Vrancea source and crustal, shallow sources.

This is based on ECBR conclusion of 2012-2013 that in Romania we need a more specialized approach to increase resilience and preparedness through education and awareness of public institutions staff and population for earthquake crisis, while building rehabilitation is depending on such actions and is just a part of this long-term process.

Specific objectives :

2014 : Reinforce complementary national, local and regional actions in DRR.

2015 : Promote workshops, publications, multi-media information and website addressed to the specific and general public.

EXPECTED RESULTS

2014 : Risk awareness materials for local authorities and most vulnerable populations in areas at seismic risk

2015 : Improved content of web site for education on risk reduction, with Euro-Mediterranean coverage.

ASSOCIATED ACTIVITIES

(split by partner)

2014 : ECBR - Study of crisis situation and scenarios impact in case of deep Vrancea earthquakes and shallow earthquakes of other sources

2015 : ECBR - Proposals and delivery of knowledge transfer and training, using new earthquake education tools for public employees and population

RESULTS OBTAINED PREVIOUSLY (if any)

Data on past impacts caused by the Vrancea transboundary earthquakes in Romania, Moldova and Bulgaria, including behavior and response of population at risk .

Printed and website materials for earthquake disaster education of citizens, school students and other people in seismic areas.

The rationale for this objective is based on the recent crisis, covering different situations. In past years, ECBR activities were mainly directed towards convincing urban owners of apartments to strengthening of high-rise reinforced concrete buildings, dating before 1940 Vrancea earthquake, designed without seismic code. Such buildings are labelled for seismic risk, but in Bucharest only some 20...30 out of 123 were strengthened. On the other hand, some very old low-rise masonry buildings of the historical center of Bucharest are used with a high degree of occupancy, although they are in precarious state.

In 2012, some false predictions about a "Big One", triggered by some small

Vrancea earthquakes caused public concern, while mass-media exacerbated the stress and rumors when conveying unreliable news about an imminent great earthquake.

Starting with September 2013, a special crisis situation occurred in Galati County area, near epicentral Vrancea source, where a swarm of small and shallow (crustal) earthquakes disturbed the life of several villages. The area tectonic basement has some well-known major faults, but country people and media suspected the local oil wells as a cause. In 2013 some floods affected the same villages. Since the number of small shocks reached over 300, and some Vrancea intermediate depth earthquakes occurred randomly, the crisis increased, but local authorities were not able to manage the social concern.

The prime minister and the minister of education asked a scientific survey. Specialized institutions, including URBAN-INCERC and ECBR studied the damage of buildings in villages Izvoarele and Schela. It was concluded that a small local fault was a reason of shocks, while the local ground conditions amplified the motions. In November the swarm tended to decrease and eventually cease. This kind of swarm was a first case in recent history. It was obvious that media coverage was a main reason of aggravating the crisis, because of debates about wrong defined issues and citizens need more correct information and education about natural hazards. Some TV interviews and seismic motion demonstrations with building models in ECBR Seismolab in in October and November 2013 contributed to a better information and education transmitted to population. However, later on the Vrancea source is producing small quakes around magnitude 3, keeping some fear in the minds of neighbour areas and in half of Romania.

The crisis situation of Galati County has shown us that the scientist and authorities must address the earthquake protection not only for great shocks, but also for crustal shallow sources. We must address our materials for simple people, as well as for educated ones, but with due care about TV and newspapers that are feeding a kind of social unrest, misinterpreting the proper information.

In this respect, URBAN-INCERC and ECBR started a cooperation with IGSU-General Inspectorate for Emergency Situations to make TV clips for earthquake preparedness and response.

As far as we know, the tectonic conditions of R. Moldova, Ukraine and Bulgaria are likely to accomodate the same situation from crustal sources (Shabla, Strasitza etc), while Vrancea impact and forecasts is a common issue. Thus the EUR-OPA Specialized Centers can be appropriate partners.

3 C. Ethics and social values

Enhancing sustainability in regions exposed to natural calamities: preparedness of communities to emergencies and risk culture amongst population

ECMHT – European Centre on Training and Information of Local and Regional Authorities and Population in the Field of Natural and Technological Disasters (Azerbaijan)

Term : 2014

Target countries: Azerbaijan, Ukraine, Bulgaria, Romania, San Marino, France

Involved partners: Azerbaijan University of Architecture and Construction, Association "Fovqal "

Coordinating Centre: ECMHT- Baku, Azerbaijan

Other centres: Ukraine, Bulgaria, Romania, France, San Marino

Other partners: Turkey

PROJECT GOAL

Global goal within 2013-2014: Preparedness of communities to the fight against emergencies in the regions exposed more and more to the emergencies and enhancing of the risk culture amongst the population.

Special goal:

2013: Instruction to be provided for the local municipalities and executive powers in protection of population, economy and environment in the course of fight against the natural calamities, enhancing of activity

2014: To train the improvement of management and evaluation of risks, the skills of preparation of risks reducing maps and protection plan using the methods drawn up for this purpose in reducing of risks.

EXPECTED RESULTS

2013: Improvement of the risk management in communities, enhancing of competencies and activity rate of the fight of municipalities and local bodies of executive powers against the natural calamities

2014: Stirring up of the mass fight against emergencies in communities, taking preventive measures against the calamities at the expenses of the local resources, enhancing the sustainability, reducing of losses. Preparation and publication of the methodic means as regards evaluation of the risk of emergencies in Azerbaijani and translation into English. Translation of the methodic means into partners' languages and their publication.

Substantiation of the move of the settlements and villages located directly in the centres of natural calamities to the safe territories, agreeing with the local communities.

ASSOCIATED ACTIVITIES

2014: Preparation and publication of the popular book of the recommendation nature as regards the " rules of behaviour in case of emergencies and natural calamities" aimed at preparation of communities to the emergencies, education of population in spirit of preparedness of population to the natural calamities and distribution of this book in the pilot regions. We envisage to translate this book into English and send its copies to the centres located in partners countries, as well as European and Mediterranean countries.

We will held seminars and trainings of short term for the local municipalities and executive powers in the pilot regions.

The short encyclopedia on actions in emergency situations

ECMHT – European Centre on Training and Information of Local and Regional Authorities and Population in the Field of Natural and Technological Disasters (Azerbaijan)

DURATION: 2014-2015

Target countries: Azerbaijan, Ukraine, Bulgaria, Turkey, Rumania, Morocco.

Partners involved: Ministry of Emergencies of Azerbaijan, Association "Fovqal", University of Architecture and Construction of Azerbaijan, chair of emergencies and safety of vital activity

Coordinating centre: ECMHT- Baku, Azerbaijan

Other centres: Moldavia

Other partners:

OBJECTIVES OF THE PROJECT

Global objective for 2014-2015

In the conditions of increasing number of extreme situations, disasters, accidents and victims of them, it is very important for all population of the republic, especially for old men, disabled people (people with disabilities), and children of preschool and school age to remember about existing opportunities of disaster prevention and about readiness to increase the response to them.

The most vulnerable groups of the population to extreme situations are children and teenagers prior to 17 years who are unprepared for such situations, senior people older than 50 years, people with disabilities and the unemployed population.

In this connection, training (preparation) of the population of how to react to extreme situations is the major component in a solution of the problem of ensuring safety of the population. Training has to have the preliminary, organized and legal character.

It is necessary to recognize that problem of training of above listed categories of the population of how to act in extreme situations in reality has no solution of solving neither in school, at nursing homes, in workplaces but at the state level as well.

Specific objectives:

Actions for cultural development of the prevention of disasters and readiness for them has to be carried out at all levels, in social and professional circles in various age groups - for the children, youth, adult and seniors. This activity has already showed the efficiency in various parts of the world. It is already proven that information and training are the best ways of decrease in quantity of ES and reduction of their consequences. It is also known that the sooner people will study the basic principles of self-defense and realizes the responsibility for actions in the period of disasters; the better results will be reached and more effective will be the case study. Therefore, children and teenagers are important subjects for the information and educational companies who should carry out on a regular basis such trainings - in kindergartens, schools and higher educational institutions.

There is no unified and developed world system of approaches and views to this problem. They are formulated and are realized in the different countries by various ways. Therefore training of the state population in acting in extreme situations has to take a serious place in education and preparations.

The purpose of the project is training (preparation) of the population in acting in extreme situations, possession of necessary knowledge, skills. For this purpose it is necessary to develop and to publish the "Short Encyclopedia on Actions in Emergency Situations".

Relevance of training (preparation) of the population is obvious, and it increases every day. "The short encyclopedia on actions in emergency situations" creation and approbation has to become a solution for achievement of a goal.

EXPECTED RESULTS

The encyclopedia will be directed on population preparation to act in extreme situations and to formation of ability to solve scientific and informative, general and practical ethical, psychological, educational and methodical problems of education of younger generation in the spirit of careful attitude to the personality, the nature and material values.

For achievement of a main goal of the project on preparation of the country population it is necessary to organize and approve training of all population of the republic according to appropriate programs with the use of "The short encyclopedia on actions in emergency situations".

Expected results of the project and its long-term influence.

The general strategy of the project is that "The Short Encyclopedia on Actions in Emergency Situations" to be prepared in Azeri (Azerbaijani language) and published in 1000 copies. Later on it will be translated into English and to be also duplicated in a copy of 100 pieces. I.e. at the expenses of means of EUR-OPA – 1000 copies and at the expenses of the Ministry of Emergencies of Azerbaijan – 1000 copies. The prepared material will be sent to Bulgaria, Romania, Turkey, and Morocco and to Ukraine for a translation into the native language with the further publishing.

ASSOCIATED ACTIVITIES

Ways of the description of information received while project implementation.

During implementation of the project all received information will be submitted in the form of preliminary and final (on the end of all work) report. Results of all carried-out polls about the quality of the encyclopedia to be the subject of the statistical processing and to be input onto the reports.

Newsletter EUR-OPA

ISPU – Higher Institute of Emergency Planning (Belgium)

PROPOSITIONS POUR LES ACTIVITES 2014-2015

TERM: 2014-2015

DESCRIPTION :

Newsletter written by ISPU twice a year and distributed via email by the Secretariat to inform the platform of Permanent Correspondents about relevant news that happened in member countries: floods, storms, earthquakes, accidents, evacuations but also major ministerial meetings, new laws, conferences, seminars, innovations in risk management

TARGET COUNTRIES:

All member States

INVOLVED PARTNERS: EUR-OPA partners and other partners ISPU and the National Center for Belgian Crisis

COORDINATING CENTRE: ISPU

OTHER CENTRES: undefined

OTHER PARTNERS: Belgian Ministry of Interior, National Crisis Center and Eur-Opa Agreement

PROJECT OBJECTIVES

Global objective for 2014-2015 :

Be aware of all emergency situations occurring in the Member States

Specific objectives:

2014 : Implementation of the network - Survey - Lay out - Writing two Newsletter 2014, distributed by email by the Secretariat to partners after translation into English.

2015 : Assessment of the past activities- Improving the network set up in 2014 - Survey- Synthesis and formatting - Writing two Newsletter 2015, distributed by email by the Secretariat partners Eur-opa after translation into English

EXPECTED RESULTS

Promote dialogue and enhance the exchange of experiences between the Permanent Correspondents and facilitate the search for synergies and coordinated proposals between Specialized Centers programs.

ASSOCIATED ACTIVITIES

Best practices posted on the website www.ispu.eu

RESULTS OBTAINED PREVIOUSLY (if pertinent)

Soft skills in disaster preparedness and relief

CEMEC – European Centre for Disaster Medicine (San Marino)

DURATION: 2014 – 2015

TARGET COUNTRIES:

Algeria, Azerbaijan, Belgium, Bulgaria, Cyprus, France, Georgia, Germany, Greece, San Marino, Luxemburg, Italy, Malta, Armenia, Moldova, Ukraine, Morocco, Portugal, Romania, Russian Federation, France, "the former Yugoslav Republic of Macedonia", Spain, Turkey

PARTNERS INVOLVED:

Coordinating Centre: CEMEC San Marino

Other Centres:

OBJECTIVES OF THE PROJECT

Foreword and rationale

What are soft skills?

Soft skills, also called Non-technical skills, reflect the interpersonal (e.g. communication, teamwork, and leadership) and cognitive skills (i.e. decision-making and situational awareness), that complement rescuers technical skills. In case of emergency or disaster, non-technical aspects of performance are effectively captured by the way a team works together to deliver care safely.

Why is team-working/non-technical performance in rescue operations important?

Failures in teamwork and non-technical skills in rescue operations have been recently implicated in adverse events and failures to save lives and to mitigate the impact of the disaster. In contrast, empirical evidence has found that superior teamwork is associated with fewer errors and better efficiency of rescue teams.

What are the significant behavioral dimensions of teamwork?

The five behavioral dimensions of teamwork of interest are:

- **COMMUNICATION:** quality and quantity of information exchanged among members of the team.
- **COORDINATION:** management and timing of activities and tasks.
- **COOPERATION AND BACK UP BEHAVIOUR:** assistance provided among members of the team, supporting others and correcting errors.
- **LEADERSHIP:** provision of directions, assertiveness and support among members of the team.
- **TEAM MONITORING AND SITUATIONAL AWARENESS:** team observation and awareness of ongoing processes.

Global Objectives

- To publish a multilingual guide for improve non-technical skills awareness and use among non-health care rescue teams
- To design and to implement a learning project for soft-skills development by non-health care rescuers
- To organize an international meeting on the topic

EXPECTED RESULTS

2014

Work package 1

- Objective: to prepare a booklet titled: "Soft skills in disaster preparedness and relief" (In English)
- Preparing members: CEMEC
- Deadline: April 30, 2014

Work package 2

- Objectives: 1) to design a course (in English) to train people to teach soft-skills developments 2) select eligible participants to the course (one per centre); the eligibility will be under the responsibility of each centre based upon teaching and

communication attitudes and competencies.

- Preparing members: CEMEC, 5 partners
- Deadline: September 30, 2014

Work package 3

- Objective: to implement and run the course (2 days) that will be held in Rome; for budget reasons the course will be limited to 5 representative participants of 5 countries.
- Preparing members: CEMEC, 5 partners
- Deadline: December 31, 2014

2015

Work package 1

- Objective: to design a one day course to teach soft skills for non-health care rescuers
- Preparing members: CEMEC, , 5 partners
- Deadline: April 30, 2015

Work package 2

- Objective: to implement and run a one day course to teach soft skills in every of the participant countries
- Preparing members: CEMEC, 5 partners
- Deadline: September 30, 2015

Work package 3

- Objective: addressing issues raised in the context of an International Meeting to be held in Rome (Italy) on December 2015
- Preparing members: CEMEC

Late proposals

Extreme psychology

ECRM – European Interregional Scientific and Educational Centre on Major Risk Management (Yerevan, Armenia)

DURATION: 2014 – 2015

TARGET COUNTRIES: all member-states

PARTNERS INVOLVED:

COORDINATING CENTRE: ECRM Yerevan, Armenia

OTHER CENTRES: CEMEC San Marino, ECPFE Athens, Greece, other concerned centres

OTHER PARTNERS: Ukraine, the Russian Federation, , Georgia, Moldova, Bulgaria

OBJECTIVES OF THE PROJECT

Foreword and rationale

Safety of a man in an extreme situation will, in many respects, depend on his/her ability to retain self-control. One of the main tasks in training people to survive in emergencies is a cultivation and formation in people of this natural feature. Only on this condition is met, (the retained self-control), the correct assessment of the ongoing and making of proper adequate decision are possible.

In order to enable surviving in extreme situation everyone must possess the art of survival, especially its psychological aspect, as it is it, that will eventually decide whether we will survive or die.

The survival principle everywhere is universal. Only its compounds can vary.

Without mastering the basis of extreme psychology, the tasks assigned to any educational courses on safe life basis taught in educational establishments in many countries will not be resolved completely.

A man should be taught to control his feelings in childhood and continue to overcome any severe handicaps at any age. Very often our life and not only our life will depend on correct behavior in emergencies.

Global objectives for 2014-2015

Development of a brochure on "**Extreme Psychology**", whose main target is:

- to serve a universal Manual on training in cultivating a emotional- will self-regulation method in vast layers of the population, including school children, students as well as rescuers, volunteers and other specialists.
- to format and cultivate in people (rescuers, adults, young generation, children) the skills of retaining self-control.
- to teach by giving correct assessment of the ongoing and mastering skills to make adequate decisions which is realistic only if this condition is met.

The brochure will present some psychological aspects towards survival in emergencies. It is mainly targeted to cultivating in people, especially children some personal performances required to successfully combat critical situations; raising faith and developing skills enabling the maximum use of opportunities in times of a temporal lack of help in order to overcome any severe handicaps and emergency related dangers.

It also can serve a manual assigned to the use of teachers, students and their parents, rescuers, peacekeepers, volunteers involved into intervention of a first psychological aid in communities; as well as for specialists engaged into emergency response; for all those who wish to improve their psychological abilities in order to survive in emergencies

Specific yearly objectives:

2014: Developing a first draft of the "**EXTREME PSYCHOLOGY**" in English and Russian; translation of the booklet into national languages by the concerned countries; distribution to responding national institutions for comments, questions and proposals from the experts and different categories of the public; discussion of it at national levels. Sending to ECRM for compilation and merging of proposals from partner-countries

2015:

Development of a final version text and its translation into national languages publishing brochures in national languages and in English and Russian; organization of national training courses.

EXPECTED RESULTS

2014:

The draft brochure: **EXTREME PSYCHOLOGY** in English, Russian and national languages of partner-countries with contribution made at national levels

2015:

Final variant of **EXTREME PSYCHOLOGY** in English, Russian and national languages of partner-countries with contribution made at national levels. Discussion of the brochure in partner-countries, organization of training courses

RESULTS OBTAINED PREVIOUSLY

In 2012-2013 in the framework wider project: "Development of additional materials aimed to raise awareness and improve preparedness to disasters and their pilot adoption in schools and other educational institutions" there were elaborated a first approach to the booklet containing some elements from the first two tasks mentioned in section "Global objectives".

Involving people with disabilities in disaster planning and preparedness, as an integral part of disaster preparedness and response

ECRM – European Interregional Scientific and Educational Centre on Major Risk Management (Yerevan, Armenia)

DURATION: 2014-2015

TARGET COUNTRIES: all member-states

PARTNERS INVOLVED:

COORDINATING CENTRE: ECRM Yerevan, Armenia

OTHER CENTRES: ECPFE Athens, Greece, CEMEC San Marino, TESEC Kiev, Ukraine, other concerned centres

OTHER PARTNERS: the Russian Federation, Georgia, Moldova, Bulgaria

OBJECTIVES OF THE PROJECT

Foreword and rationale

The key to copying all potential problems for people with disabilities that may arise after the strong disaster strikes is to plan thoroughly for preparedness measures for a disaster by given all the facts that can impact livelihood on live line functions during a disaster.

It is important to note that all plans to assist people with disabilities are local in their implementation and outcome, and hence attention needs to be devoted to this level. The local level is the "bedrock" level of emergency planning, this is always the "theater of operations" when an emergency occurs. The essence of emergency planning is to predispose things (personnel, supplies, vehicles, communications, fuel, equipment and so on) so that urgent needs can be met in the most efficient way possible.

Ensuring the provision of equal opportunities in the field of disaster risk reduction and reducing vulnerability to the people with disabilities requires in line with resolving legislative and other strategic goals also to bring the people with disabilities, as well as administration and personnel of institutions, where they work or study, administration, teachers, personnel of a specialized and other kind of establishments where the people with disabilities especially disabled children, are taken care of, to the emergency management table with the first responders to introduce the two sides of each other; to make people with disabilities active participate in disaster planning and preparedness, teach them how to survive in emergencies, encourage them to cultivate creative skills, first- and self- aid skills included.

Global objectives for 2014-2015

Development of information-educational material (brochure) on "Involving people with disabilities in disaster planning and preparedness as an integral part of disaster preparedness and response", whose main target is:

- To serve a basic information-educational material with concrete recommendations and detailed proposals on how to develop an Individual Plan, enabling to be prepared for disasters for people with disabilities, a Family Plan, Neighborhood Plan, Plan for institution, where people with disabilities work or study, Plan for specialized institutions where people with disabilities, especially children are provided care, on integration of these Plans into Municipal Plans on disaster risk reduction and emergency management,
- To serve an information-educational material for people with disabilities on what to do to be ready for a disaster already today, to cultivate self-reliance, what to do before, during and after disaster.

Specific yearly objectives:

2014:

Developing a first draft of the "**Involving people with disabilities in disaster planning and preparedness, as an integral part of disaster preparedness and response**" in English and Russian; translation of the brochure into national languages by the concerned countries; distribution to responding national institutions for comments, questions and proposals from the experts and different categories of the public; discussion of it at national levels. Sending to ECRM for compilation and merging of proposals from partner-countries

2015:

Development of a final version text and its translation into national languages publishing brochures in national languages and in English and Russian; organization of national training courses.

EXPECTED RESULTS**2014:**

The draft brochure: **Involving people with disabilities in disaster planning and preparedness, as an integral part of disaster preparedness and response** in English, Russian and national languages of partner-countries and contribution made at national levels

2015:

Final variant of the brochure: **Involving people with disabilities in disaster planning and preparedness, as an integral part of disaster preparedness and response** in English, Russian and national languages of partner-countries with contribution made at national levels. Discussion of the brochure in partner-countries, organization of training courses

RESULTS OBTAINED PREVIOUSLY

In 2012-2013 in the framework of the Project: "Development of information-educational materials on awareness raising and improved preparedness to an earthquake and on rules of behavior for people with disabilities, especially children" developed the "Manual on preparedness and behavior rules for people with disabilities, especially children, if an earthquake is real or seems imminent (the priorities for action)".

Memorandum first aid pocket guide

ECRM – European Interregional Scientific and Educational Centre on Major Risk Management (Yerevan, Armenia)

DURATION: 2014-2015

TARGET COUNTRIES: all member-states

PARTNERS INVOLVED:

COORDINATING CENTRE: ECRM Yerevan, Armenia

OTHER CENTRES: CEMEC San Marino, ECPFE Athens, Greece, TESEC Kiev, Ukraine

OTHER PARTNERS: Ukraine, the Russian Federation, Georgia, Moldova, Bulgaria

OBJECTIVES OF THE PROJECT

Foreword and rationale

According to the data provided by the World Health Organization in general if a first aid is lacking during the first hour-30% percentage of the disaster affected victims, having severe or moderate wounds will die; three hours-60 %; six hours-90%.

Not seldom when the saving of life of the suffered will depend on competent first aid shown by the witnesses of the accident, including the close -ones who are not able to save their lives and, which is worse, by undertaking improper actions can only bring bad effects of their health.

One should take into account the fact, that by administering first aid in acute stress situations even those who were well trained can forget some elements in first aid chain, caused by agitation, can be bewildered and fail to fulfill the vital necessary actions resulting in someone's death.

The mustering by everyone (including students, school children and housewives) at least several most important skills in rendering first aid, the possibility to regularly consolidate the knowledge gained and skill through a pocket guide comfortable for use, as well as, which is no less important, to pass by rescuers and volunteers at the scene a reliable "crib", that contains some urgent search elements to find the required information and instills confidence in the correctness of the carried out actions, would have saved thousands of lives annually.

Global Objectives for 2014-2015.

Development of the "**MEMORANDUM FIRST AID POCKET GUIDE**" whose main target is to serve as a:

- manual for vast layers of the population (including students, school children and housewives, rescuers, volunteers...) as a brief summary comfortable for studying and regular consolidation of gained knowledge and skills on administering first aid,
- normative document which will provide insurance in actions while showing first aid with strictly defined spectrum of competence and abilities of a man, his rights and duties, consequence in decision making and further actions,
- "crib", containing some elements of urgent search for the required information (a "brief guidebook" regards this manual for prompt orientation and finding the needed section).

Eventually, the "**MEMORANDUM FIRST AID POCKET GUIDE**" is called to promote the dissemination of knowledge and mustering the basic skills on administering first aid by general population of the countries, represented in the EUR-OPA Agreement.

It will enable people- the witnesses of the extreme situation to do all possible in order to avoid the death of casualties on the scene as well as to reduce the number of dead outcomes before the rescuers and specialized medical personnel arrive.

Specific yearly objectives:

2014:

Developing a first draft of the "**MEMORANDUM FIRST AID POCKET GUIDE**" in English and Russian; translation of the booklet into national languages by the concerned countries; distribution to responding national institutions for comments, questions and proposals from the experts and different categories of the public; discussion of it at national levels. Sending to ECRM for compilation and merging of proposals from partner-countries

2015:

Development of a final version text and its translation into national languages; publishing booklets in national languages and in English and Russian; its distribution at national and international levels; organization of national training courses.

EXPECTED RESULTS**2014:**

The draft booklet: " **MEMORANDUM FIRST AID POCKET GUIDE** " in English, Russian and national languages of partner-countries and contribution made at national levels

2015:

Final variant of the booklet " **MEMORANDUM FIRST AID POCKET GUIDE** " in English, Russian and national languages of partner-countries with contribution made at national levels. Dissemination of the booklet in partner-countries and other concerned countries ; organization of training courses

RESULTS OBTAINED PREVIOUSLY (if any)

In 2012-2013 in the framework wider project: "Development of additional materials aimed to raise awareness and improve preparedness to disasters and their pilot adoption in schools and other educational institutions" there were elaborated a first approach to the booklet, containing some elements from the first two tasks, mentioned in section "Global objectives", although without element of the third important task on urgent search for information.

Elaborate the system of measures to solve the problems of trans-boundary countries in order to prevent heavy pollution of Kur river

ECMHT- (Baku, Azerbaijan)

DURATION: 2014-2015

TARGET COUNTRIES: Turkey, Georgia and Azerbaijan.

PARTNERS INVOLVED: Ministry of Ecology and Natural Resources, Azerbaijan Melioration of Water Supply Joint Stock Company, Research Institute of Water Problems, "Azersu" joint-stock company, "Fovqal" Association

COORDINATING CENTER: ECMHT- Baku, Azerbaijan

OTHER CENTERS: AFEM - Turkey, GHHD -Georgia

OBJECTIVES OF THE PROJECT

Global objectives for the years 2014-2015:

Starting in northeastern Turkey in two directions (the Kura from the north, the Araz from the South) the giant river flows through Azerbaijan where it receives the Aras River (at the Saatli-Sabirabad regions of Azerbaijan) as a right tributary, and enters the Caspian Sea. The total water basins of this river is 204 thousand square kilometers. About 28% of the water basin falls to Turkey's share and 72% to countries of the South Caucasus. The river covers 52% of the territory of Georgia (with Kura tributary), 80% of the territory of Azerbaijan (with Kura and Araz tributaries), the almost the whole area of Armenia and plays a very important role in the economic life of these countries. Its water is used for the purpose of irrigation and drinking. In particular, the vast majority of the administrative districts use the drinking water from this river.

Intensive pollution of Kura river by harmful industrial and everyday wastes has caused serious trouble after the collapse of the Soviet Union, because of the general lack of control. Hundreds of million cubic / m, metallurgy, chemical, mining, electric power industries, including Nuclear Power Station and domestic waste are discharged into the river without purification, from the countries of the region every year. Intensive pollution of Kura river gets very a serious negative influence to the health of people and on the productivity of lands and causes pollution of the Caspian Sea and it is becoming a real tragedy.

The aim of project : According to the International Helsinki Convention on the Protection of trans-boundary watercourses, to elaborate the system of measures and to organize the control of implementation of these measures to prevent this tragedy only joint participation of countries alongside Kura and Araz rivers. For this purpose, To check the radioactive and chemical contamination (dirty) degree of the beginning and end of the river area, to find out pollutant dangerous objects, to get known the situation (state) of the water cleaner systems and to develop recommendations for their elimination.

SPECIFIC OBJECTIVES:

2014: To create database by specifying the degree of the pollution of the Kura River and determining the most dangerous sources of pollutants and their reasons involving appropriate state agencies, municipalities, experts, scientists and coastal residents.

They are:

- The degree of the pollution of water and river-bed of Kura river;
- The Condition of water purification plants if any available and content harmful wastes that discharging into the river;
- Probable accidents happened cause of the pollution of water. Their influence on the productivity of lands and health of people;
- The collection of necessary facts to solve this problem.

2015: To elaborate appropriate recommendations to prevent intensive pollution of Kura river on the basis of the collected information of the trans-boundary countries in 2014 and submit to the appropriate state authorities to organize it control.

EXPECTED RESULTS

2014: To increase responsibility of the leaders of the institution that pollute water resources. To provide popularity of the control of solving this problem and to involve the countryside population (beside experts, scientists, representatives of local government and municipalities).

2015: The intensive pollution of the river will be decrease after the implementation of the system of measures to prevent technical pollution of Kura river. It will be create a reliable foundation to begin to fundamentally purify the irrigation lands and drinkable water for the population living in the coastal regions.

COORDINATING ACTIVITIES

2014: To prepare appropriate recommendation to protect the health of people living in the coastal regions and use the water of Kura river as the drinkable water and to print and distribute these recommendations in the booklet form.

2015: To organize short-term seminars for municipalities of coastal regions