

THE C A B A R E T PROJECT AND BULGARIAN PARTICIPATION

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Abstract: The **CABARET** (**Capacity Building in Asia for Resilience EducaTion**) Project is funded by the European Union under the Erasmus+ program, to foster regional cooperation for more effective multi-hazard early warnings and increased disaster resilience among coastal communities. The goal of the Project is to strengthen the evidence-base in support of the implementation of the new framework. The participants of a consortium of 14 European and Asian higher education institutions from nine countries - four from Europe and five from Asia. The Intergovernmental Oceanographic Commission of UNESCO (IOC-UNESCO), the Asian Disaster Preparedness Center and the Federation of Sri Lankan Local Government Authorities are Associate Partners of the project, and will help to promote the benefits across Asia and beyond. The Project covers three years period and intend many meetings among participants for data and knowledge exchange. The Bulgarian participation is active as co-chair of the WP7 - Learning and teaching tools methodologies and approaches to the MHEW and sustainable development of the resilience education as well as most other working packages of the CABARET Project.

ПРОЕКТЪТ С А В А R E T И БЪЛГАРСКОТО УЧАСТИЕ

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Резюме: Проектът CABARET (**CA**capacity **B**uilding in **A**sia for **R**esilience **E**duca**T**ion) е финансиран от Европейската Комисия по програмата Erasmus. Той има за основна цел да засили международното и междуконтинентално сътрудничество в обучението по важната тематика – създаване и използване на комплексни системи за ранно предупреждение от природни опасности. Създаден е консорциум от 14 институции от висшето образование от 9 страни – 4 европейски и 5 азиатски. (Азия, като най-застрашен континент от комплексни опасности – земетресения, цунами, тайфуни, наводнения и др.) Основната част от изследванията и практическите приложения са в създаването

на програми и лекционни курсове за обучение в областта на природните бедствия и разпространението на информацията от комплексните системи за ранно предупреждение. Описано е и планираното българско участие.

Introduction

A new Erasmus+ project called CABARET explore the possibilities about sustainable education for the early warning systems covering multihazards events. Fourteen institutions from Bulgaria, Indonesia, Latvia, the Maldives, Malta, Myanmar, the Philippines, Sri Lanka, are included in the consortium and the United Kingdom that hosts the University of Huddersfield's Global Disaster Resilience Centre, leading partner of the CABARET project (Capacity Building in Asia for Resilience Education, 2016). The organization of the Project is constructed by two main groups of partners – so called “program countries” and so called “partner countries”. There are also some associated partners – usually internationally recognized organizations - like ADPC, IOC (UNESCO), etc. The mutual cooperation is established to develop and use effectively the knowledge, experience and expertise, together with the education of the specialists, decision-makers and population of the countries threaten by complex natural hazards, which has developed (or intend to do so in near future) early warning systems. The exploitation of the world positive practices and examples will be broadly incorporated in the educational platform. The structure of the Project suggests initial collection of data, gaps and needs definition of the threaten countries. Then assessment, scientific approach to the gaps and needs formulation and sustainable solutions will be preformed. The partner countries collect initial information and data. The program countries assess need and gaps and produce recommendations. Both types of partners, participate to the educational platform development, fulfilling needs, providing sustainability and producing manual and other educational materials. The regional innovation hub is intended to use modern technologies in case of multihazards early warnings. The final purpose is to integrate the local needs, educational materials and multihazard early warning systems to the global initiative for people and infrastructure protection by the developed educational platform. To build capacity for international and regional cooperation among Asian HEIs (Higher Education Institutions) and European ones is another very important aim of the Project. The coordination, quality assurance and dissemination activities to bring the results to the wider public and scientific community are also among the purposes of the Project (Capacity Building in Asia for Resilience Education, 2016).

General subject and objectives

The General objectives can be formulated to the following way:

- The capacity building for resilience education of some Asia countries related to the multihazards early warnings by use of world experience and European expertise
- Outline the gaps and needs for resilience education related to the complex early warnings
- Strengthening the cooperation among partner and program countries to provide high reliable end effective resilience education of students in HEIs, between the decision makers and among the population
- Creation of innovative hub for use of the recent technologies (“smart sensors”, satellite communications, smart phones, supercomputers, digital world and social networks) to provide resilient societies threaten by multihazards.
- Introduction of the innovative platforms for resilient education related to the multihazard early warning systems including – on-line education at different levels, manuals, major online open courses, manuals, etc. to support the education and practical application to the costal societies.

All these tasks will be executed by seminars, on site education, on-line surveys, networking and frame working workshops, etc. The extended dissemination policy is intended to cover wide social groups and extended cooperation with economic and social partners.

Work Program and Packages

The Work program of the project is intended to be execute for 3 years period. All works to be performed are organized in several working packages:

Work Package 1 – Title: Intra- and inter-regional capacity building framework

This is the main package. It has coverage of all aspects of the Project, focusing on the current status of the countries' preparation, MHEWS in action or intended, questionnaire distribution about needs and gaps and preparation of the country report called “country position paper” for the partner countries. The role of the program countries is to assess the reliability and the regional monitoring framework, as well as the outlined needs and gaps.

Work package 2 – Title: Project management

The package deals with the project management and coordination between coordinator and partners, as well as among the partners. The creation of a Steering committee as executive body during the time of the project is intended. The visits about meetings, partners exchange and other actions as well as time schedules are also included.

Work Package 3 – Title: Quality assurance and monitoring

The package is targeted to the quality control and monitoring of all actions related to the Project activities. The data collected and assessment need to be done according the recent criteria of the scientific approach and to avoid negative influence of rumors and fake news.

Work Package 4 – Title: Regional innovation hub for multihazards early warning systems

The hub is one of the important issues of the Project, because the fast development of the technologies, communications and “smart sensors” as well as warning issues dissemination among the decision makers and population is a critical element to the effective functionality of any MHEW.

Work Package 5 – Title: Regional cooperation for multihazards early warning systems

This package is important from point of view of integration and unification of the local EWS to the regional and/or global level. The technologies transfer, warning issues, common protocols, unified data formats, etc. are important parts of the regional cooperation. It can serve as pioneering work in this direction and to be a good example of the developed tools.

Work Package 6 – Title: Partnership with social and economic actors

Specific actions in this working package is very important, because the partnership between social and economic partners and the educational communities can help the deeper understanding of the prevention and safety measures performed by the whole society.

Work Package 7 – Title: Learning and teaching tools methodologies and approaches

One of the most important packages due to the deliverables targeted to all target groups. The created platform, MOOCs (Major Online Open Courses), technical manuals and brochures, together with the use of the Internet abilities for distant education are modern tools for HEIs high effective performance of the knowledge for real practical purposes.

Work Package 8 – Title: Dissemination and exploitation

The results obtained during the Project execution need to be largely distributed among specialists, scientific communities, HEIs (teaching staff and students), decision makers and wide population about the MHEWS. All possible ways will be explored in these directions – workshops, meetings, conferences, newsletters, web-pages, social media, TV, newspapers and magazines, teaching programs and platforms, interviews, press-releases, etc. The dissemination topic is considered as one of the most important.

Products and Benefits

The work program is focused to produce and promote deferent types of deliverables as main products of the investigations, scientific analysis and practical results for larger use and performance. Among others the most important are:

- A regional monitoring and assessment network report (WP1)
- Country positions papers (WP1)
- Regional position paper (WP1)
- Organizing events (WP2)
- Interim and Closure Reports (WP2)
- Steering committee establishment (WP2)
- Quality board meetings and minutes (WP3)
- Quality plan (WP3)
- Independent evaluation reports(WP3)
- Partners' and participants' evaluation surveys and statistical analysis (WP3)
- Annual self-evaluation (WP3)
- Creation of regional innovation hub (WP4)
- Sandpit events organization (WP4)
- Short term scientific missions for innovations seminars (WP4)
- Innovation training workshops and materials (WP4)
- Capacity building roadmap for regional gaps and priorities (WP5)
- Regional cooperation training program and materials (WP5)
- Regional cooperation training events (WP5)
- University - social and economic partnership and secondment plan. (WP6)
- Secondments (WP6)
- University - social and economic partnership training events (WP6)
- Functional and technical specifications (WP7)

- Online regional capacity building platform (WP7)
- Manual for regional capacity building platform (WP7)
- Major Online Open Courses (WP7)
- Dissemination and exploitation plan (WP8)
- Project website(WP8)
- Promotional kit (brochures, articles, press-release, posters) (WP8)
- Sustainability plan (WP8)
- Briefings on the Project (WP8)
- Training materials (WP8)
- Conference and Journals papers (WP8)

The target groups and management

The target groups included to the project activities and achievements are separate in several groups:

- Teaching staff – an important group which must be educated by the best ways and to get maximum knowledge from the results of the project to be able to transfer this knowledge to others.
- Students – the main consummator of the knowledge and practices
- Technical staff – to learn the lessons and to apply the knowledge to the laboratories, maintaining staff and technical solutions.
- Trainees – important part of the educated components at all levels.
- Administrative staff – to have knowledge about correct solutions and effective management in any critical case and situation appearance.
- Librarians – for effective transfer of the knowledge to larger groups of people using literature. Wide population is also a target group even not explicitly mentioned. The prevention could be effective, if all population benefits from the project achievements.

The project management provides different roles to the different participants. As program country Bulgaria participates in all assessment procedures of the survey for gaps and needs. The partner countries position papers will be integrated to the regional positions paper with the intensive participation and expertise use of the program countries. As a operative ruling body, the Steering Committee includes representatives from all participating institutions. In such way, MGY has a membership participant in the Steering committee. MGU together with the University of Maldives are leading partners to the working package 7 - Learning and teaching tools methodologies and approaches. In this frame the UM will develop a resilient education platform and all other activities will be executed simultaneously. MGU will play an important role in:

- Multihazard early warning systems education – development and shearing software and hardware experience for the complex geological and meteorological marine hazards and risk reduction (Ranguelov, B., 2014; Parushev I., et al, 2015; Parushev I, and B. Ranguelov., 2014).
- The process of shearing knowledge and experience, especially kinematic models of MHEWS. Such kinematic models (Ranguelov, B., 2011), related to the earthquakes and tsunamis have been developed for Azerbaijan (Baku case) (Ivanov Y., et al, 2016) and Italy (Venice case – Parushev I, and B. Ranguelov., 2014). Several others have been produced during the execution of different projects – MARINGEOHAZARDS (Ranguelov B., et al, 2011), DACEA (Ranguelov B. (2013), SCHEMA and SIMORA Ranguelov B., 2010), etc.
- Education of any interested people at different levels – from population to the higher educational institutions and decision makers Ranguelov, B., 2011).
- Input preparation for the other partners to the related topics
- Involvement to the research for some examples and case studies for other partner countries Ranguelov B., 2013).

The importance of the CABARET Project to MGU can be summarized as:

- cooperation with specialists from different countries with different environment and threats to the population and infrastructure
- exchange knowledge, educational experience at different levels and to create new tools for education about Natural and anthropogenic hazards

- development of the larger platform for prevention and protection activities and to increase the knowledge of the specialists and population to the field of Natural and Anthropogenic hazards and multiple hazards early warning systems (Ranguelov, B., 2011).

Conclusions

The participants in the Project CABARET believe in its pioneering role and the Project development, execution and deliverables and achievements reached are clearly outlined due to the following factors:

- Innovative approach to the capacity building of the sustainable education, international framework and specialized HEIs programs about use and effectiveness of the Multihazrds early warning systems and their application in everyday practice.
- Hub creation about the use of innovative technologies, smart sensors, fast early warnings communications and new technologies like electronics, robotics, distant methods and imaginary, space technologies, etc. is an new approach to this direction.
- Educational platform, specific tools and specialized manuals for the educational aims, large application of the MOOCs and other innovative tools about higher education related to the MHEWS are among the first developed methodologies and approaches, which could be rather useful to any other country, local or regional framework, as well as for everyday educational practice for the Integrated Coastal Areas Management..

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