

CABARET PROJECT – A MODERN CAPACITY BUILDING INTERNATIONAL TOOL

Boyko Ranguelov¹, Richard Haigh², Dilanthi Amaratunga², Fathimath Shadiya³,
Ruben Paul Borg⁴, Francesco Romagnoli⁵, Marlon Era⁶

¹University of Mining and Geology, Bulgaria

²University of Huddersfield, United Kingdom

³Maldives National University, Maldives

⁴University of Malta, Malta

⁵Riga Technical University, Latvia

⁶De La Salle University, Philippines

e-mail: branguelov@gmail.com

Keywords: Natural hazards, early warnings, education, capacity building, Asia

Abstract: CABARET (Capacity Building in Asia for Resilience EducaTion) is a co-funded by an EU Erasmus+ programme project run for three years and led by the University of Huddersfield's Global Disaster Resilience Centre, based in the UK. They are joined by a group of experts from a consortium of 14 European and Asian higher education institutions from Bulgaria, Indonesia, Latvia, the Maldives, Malta, Myanmar, the Philippines, Spain, Sri Lanka, and the United Kingdom. The Intergovernmental Oceanographic Commission of UNESCO (IOC-UNESCO), the Asian Disaster Preparedness Centre and the Federation of Sri Lankan Local Government Authorities are Associate Partners helping to promote the benefits across Asia and beyond.

CABARET emphasises the role of Higher Education in supporting global priorities and targets on disaster risk reduction. The project provides capacity development to support regional cooperation on multi-hazard early warning systems (MHEWS) in coastal communities, with a particular focus on Asia. The paper deals with the main tasks of the project, their execution and outcomes and benefits after it finished.

ПРОЕКТ САВАРЕТ – МЕЖДУНАРОДЕН МОДЕРЕН ИНСТРУМЕНТ ЗА ИЗГРАЖДАНЕ НА КАПАЦИТЕТ В ОБРАЗОВАНИЕТО

Бойко Рангелов¹, Ричард Хайг², Диланти Амаратунга², Фатима Шадиа³, Рубен Пол Борг⁴,
Франческо Романьоли⁵, Марлон Ера⁶

¹University of Mining and Geology, Bulgaria

²University of Huddersfield, United Kingdom

³Maldives National University, Maldives

⁴University of Malta, Malta

⁵Riga Technical University, Latvia

⁶De La Salle University, Philippines

e-mail: branguelov@gmail.com

Ключови думи: Природни опасности, системи за ранно предупреждение, образование, изграждане на капацитет, Азия

Резюме: CABARET е тригодишен проект съфинансиран по програмата Erasmus+ и ръководен от Университета в Хъдърсфилд. Привлечени са експерти в консорциум от 14 висши учебни заведения от Европа и Азия. CABARET изпълнява ролята на инструмент за подкрепа на глобалните приоритети за намаляване на риска. Насочен е към комплексните системи за ранно предупреждение в крайбрежните региони и обучение на населението как да реагира при подаване на сигнал за бедствие.

Introduction

A The CABARET includes a consortium of 14 European and Asian higher education institutions from Bulgaria, Indonesia, Latvia, the Maldives, Malta, Myanmar, the Philippines, Spain, Sri

Lanka, and the United Kingdom [Final Report]. The Intergovernmental Oceanographic Commission of UNESCO (IOC-UNESCO), the Asian Disaster Preparedness Centre and the Federation of Sri Lankan Local Government Authorities are Associate Partners helping to promote the benefits across Asia and beyond – Fig.1.

European partners:

- University of Huddersfield, United Kingdom (Lead Institution)
- University of Central Lancashire, United Kingdom
- University of Cantabria, Spain
- University of Mining and Geology, Bulgaria
- University of Malta, Malta
- Riga Technical University, Latvia

Asian partners:

- University of Moratuwa, Sri Lanka
- University of Peradeniya, Sri Lanka
- Bandung Technical Institute, Indonesia
- Andalas University, Indonesia
- Maldives National University, Maldives
- De La Salle University, Philippines
- Ateneo de Manila University, Philippines
- Mandalay Technological University, Myanmar
- University of Yangon, Myanmar

Associate partners:

- IOC-UNESCO
- Asian Disaster Preparedness Centre
- Federation of Sri Lankan Local Government Authorities, Sri Lanka



Fig.1. Partners and locations of the CABARET participants

Work packages

The activities were structured in eight Work Packages (working groups) according to the program of the project:

- WP1 - Intra- and inter-regional capacity building framework
- WP2 - Project management
- WP3 - Quality assurance and monitoring
- WP4 - Regional innovation hub on MHEW
- WP5 - Regional cooperation for MHEW
- WP6 - Partnerships with social and economic actors
- WP7 - Learning and teaching tools, methodologies and approaches
- WP8 - Dissemination and exploitation

All partners have been coordinated by the University of Huddersfield (UK) and include educational, research and administrative units integrated in a unique team – Fig.2.

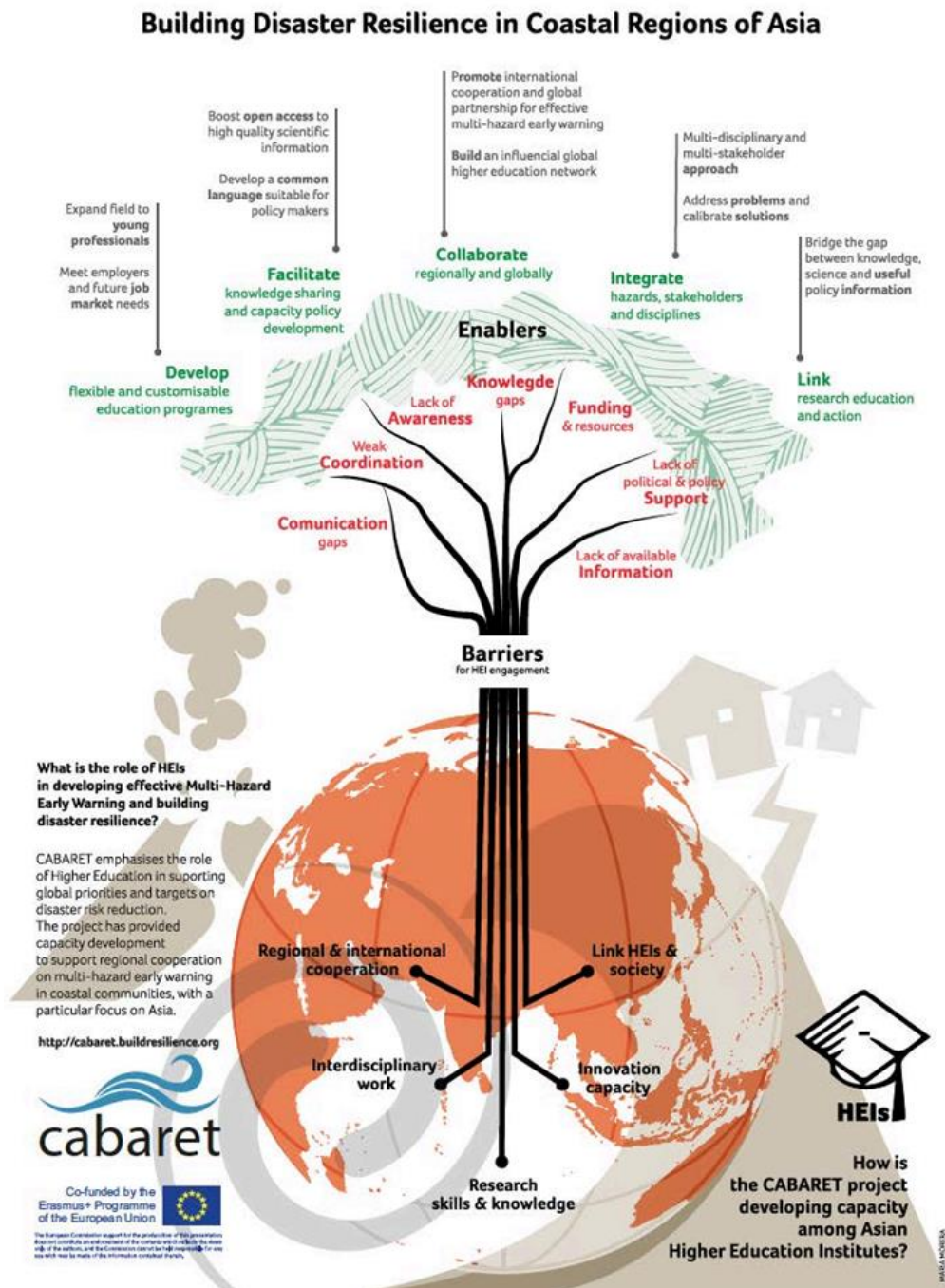


Fig. 2. Partners and locations of the CABARET participants

The area of the Indian Ocean and surroundings is one of the most disasters' prone areas in the world. Many hazards are developed and acting to the population and the infrastructure of the countries located there. Strong earthquakes, devastating tsunamis terrible hurricanes, landslides, large floods, forest fires, droughts, and some others are bringing deaths and tremendous economic losses. During the last years these disasters increased their frequency and destructive power. These facts are investigated and reflected in all National Position Papers (NPP) developed by the teams of the respective countries and summarized in a Regional Position Paper (RPP). In these papers the partners presented main hazards, sustainable development targeted to the resilience and mitigation and revealing the main gaps of the preparation and safety of population and the infrastructure – Fig.3.

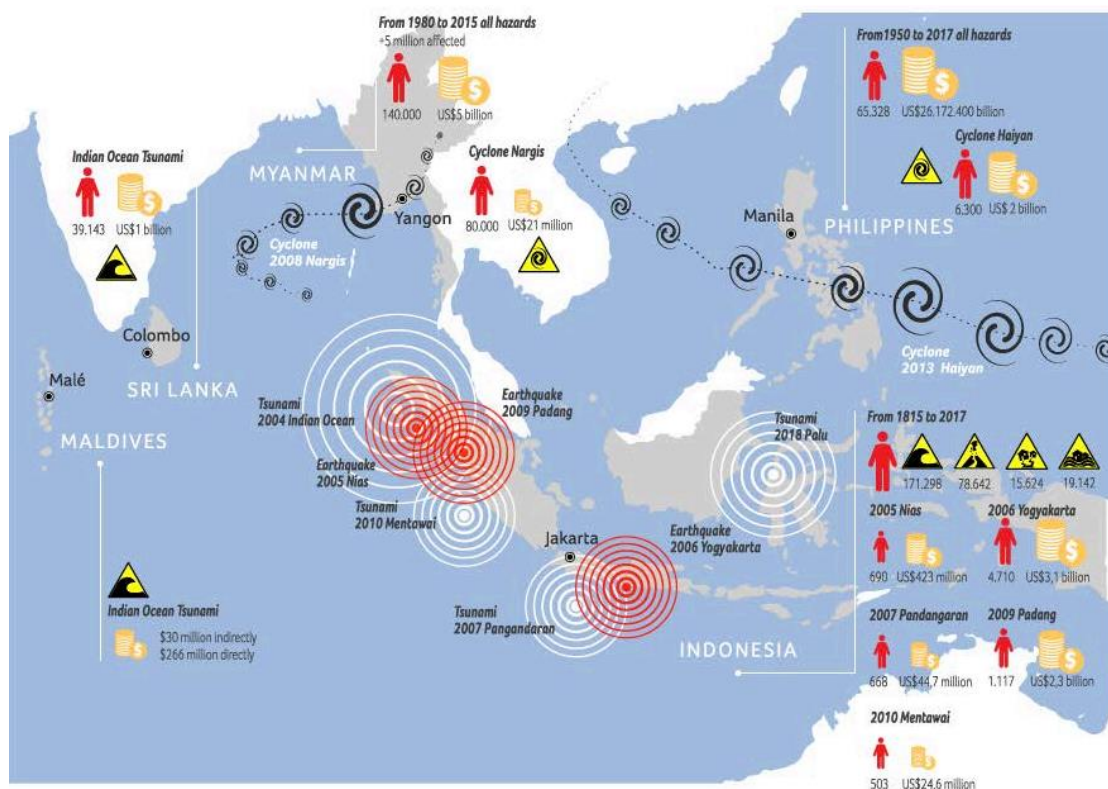


Fig. 3. Recent disaster impacts in Asia (source: EM-DAT: The Emergency Events Database - Université catholique de Louvain (UCL) - CRED, D. Guha-Sapir - www.emdat.be, Brussels, Belgium)

Results and benefits

1.1. Major achievements by Asian partners

1.1.1. Indonesia

- Identification of gaps in the country's interface arrangements for tsunami early warning
- ITB and BMKG forged new regional links with HEIs in partners in other parts of the region, and coordinated a survey of tsunami preparedness in conjunction with IOC-UNESCO IOTWMS
- Hosted a major international conference on disaster risk reduction, with over 150 participants from across the region and world, and national and regional stakeholders in disaster management

1.1.2. Maldives

- Development of multi-institution and international OERs that are to be used in the country's first

Bachelor level disaster management program

- Development of small island state research and collaboration agenda, in collaboration with Maltese partners
- Development of new linkages between HEIs and the Maldivian Ministry of Environment and Energy

In Maldives and under the chairmanship of WP7 (MGU and MNU) the MOOC's have been developed for the distant education platform.

1.1.3. Myanmar

- HEIs developed new links with the country's Department of Meteorology and Myanmar Disaster Preparedness Agency, and who are now collaborating on joint early warning research

- MTU participated in their first EU-Asia regional collaborative project, gained research management experience by co-leading a WP, and forged new links with other Asian HEIs

- Development of research agenda on flood risk assessment with coastal communities

1.1.4. Philippines

- Hosted a mentor program for early career researchers that drew upon international expertise from the EU and across Asia.

- Conducted a secondment activity with the Municipality of Lian Batangas, including with the Mayor, representatives of the local departments, members and officers from the Lian Batangas and more than 100 participants

- Development of a regional special interest group on disaster resilience education

1.1.5. Sri Lanka

- Development of new linkages between the Sri Lankan HEIs and the country's national Disaster Management Centre, who are now collaborating on joint research projects

- Developed strong researcher links between engineering and social science disciplines across UoM and UoP, including on the issue of evacuation and marginalized groups

- Development of a sustainable international platform promoting international collaborative initiatives and are now seeking to lead a proposal in Horizon Europe

International cooperation

At the international level, CABARET was partnered with the 7th, 8th and 9th International Conferences on Building Resilience, held in Thailand (300+ participants), Portugal (200+ participants) and Indonesia (180+participants and for which ITB was the local host). These provided key dissemination forums for the project.

In Indonesia, 49 papers were submitted and presented by CABARET researchers, many of which are being published in peer reviewed journals and books [3]. The event also involved policy dialogues and panel discussions, workshops and keynote addresses with national and regional scientific, administrative and socio-economic actors. A flyer, infographics and events specific website pages were produced. The international collaboration includes six Steering Committee meetings (followed by executable decisions), more than 40 scientific papers and publications, seven sandpit events, visits to responsible institutions of MHEWS in different countries, visits in the host universities, participation to the International Day of Disasters, Lectures and Power Point Presentations in front of practitioners, mentoring students at different educational levels and many others.

1.2. Major outputs

- Twenty multi-institutional research papers have been published based on sandpit activities.
- Two multi- institution research proposals were completed based on some sandpit outcomes.
- Seven short term scientific mission reports have been completed.
- Four international trainings on MHEW and Coastal Resilience have been convened in Sri Lanka, Myanmar, Philippines and Indonesia.
- Online platform on the Capacity Development Courses was developed – [1].
- Four Major Online Open Courses (MOOC's) have been produced and included in Bachelor's program in Maldives.
- More than thirty quality assurance questionnaires have been distributed, fulfil and analysed
- Project web site was created as well as for the separate WP's, six Newsletters edited and sustainability plan developed [2].
- One book and four book chapters published by the international publishers.
- Five national position papers and one regional position paper were constructed, analysed and recommendations issued.
- More than one hundred and twenty scientists, students at different levels and administrative staff was involved in the numerous events related to the CABARET activities
- In total more than one hundred scientific and popular papers were published, many TV and radio emissions performed, enormous number of lectures presented.

Conclusions

High effective international project CABARET is a clear example of the successful application of the EU Erasmus+ Program. The cooperation between the European partners (called in the project – “program countries”) and the Asian partners called “partner countries” demonstrates the extreme success in the field of the MHEWS. The obtained results, the produced outputs, the explored deliverables are very applicable saving human lives and exploring large possibilities for infrastructure safety increasing the knowledge base of the HEI's in the partner's countries.

The exchanged knowledge, the joint international partners (scientific, teaching and administrative) fills the gaps at national and regional level in the coastal communities. Focused to the tsunami and earthquake hazard (the most destructive disasters) in the area of the Indian Ocean and surroundings, but also including other hazardous disasters (like hurricanes, volcanic eruptions, floods, etc.) the correct and reliable information targeted to the population of the threaten territories; these achievements can help significantly the resilience of the coastal societies.

The CABARET project can serve as an excellent example of the effective and fruitful international cooperation leaded by the EU programs.

Acknowledgments: This work is supported by the CABARET Project No 573816-EPP-1-2016-1-UK-EPPKA2-CBHE-JP of EU Erasmus+ Program.

The European Commission support for the production of this publication does not constitute an endorsement of the contents which reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

References:

1. Ranguelov B., F. Shadiya, F. Nistaran, M. Humra, M. Eeman, M. Haikal Ibrahim., 2019. Project CABARET – Educational Platform (WP7, MOOCs and Development). Proc. XV Intl. Conf. SES2019. p-ISSN 2603 – 3313 e-ISSN 2603 – 3321. pp. 209–212.
2. Ranguelov B., F. Shadiya., 2018. CABARET Erasmus+ Project WP7 - progress and achievements. Proc. Fourteenth International Scientific Conference SPACE, ECOLOGY, SAFETY, 7 – 9 November 2018, Sofia, Bulgaria (on CD)
3. Ranguelov B., 2017. PROJECT C A B A R E T - E U TOOL FOR SUSTAINABLE M H E W EDUCATION FOR COASTAL COMMUNITIES., НАЦИОНАЛНА НАУЧНА КОНФЕРЕНЦИЯ „ОБРАЗОВАНИЕ И НАУКА – ЗА ЛИЧНОСТНО И ОБЩЕСТВЕНО РАЗВИТИЕ“, 27–28 октомври 2017 г. гр. Смолян. pp. 396-404. <https://uni-plovdiv.bg/pages/index/1318/>
4. Public Report on Capacity Building in Asia for Resilience EducaTion (CABARET) Project – final version (http://cabaret.buildresilience.org/images/CABARET_Public_Report_v1.pdf)
5. www.disaster-resilience.net/cabaret
6. http://cabaret.buildresilience.org/images/CABARET_flyer.pdf