

Development of master curricula for natural disasters risk management in Western Balkan countries

NatRisk project and SDI

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SDI Days 2018 and 14th International Conference on Geoinformation
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Content

- Basic information about Erasmus+ NatRisk project
- Motivation - Why we are studying natural disasters?
- Goals and Sustainability of NatRisk projekta
- Inclusion of the SDI into the curriculum of the new master course - Protection from Natural Disasters

Basic Information

1

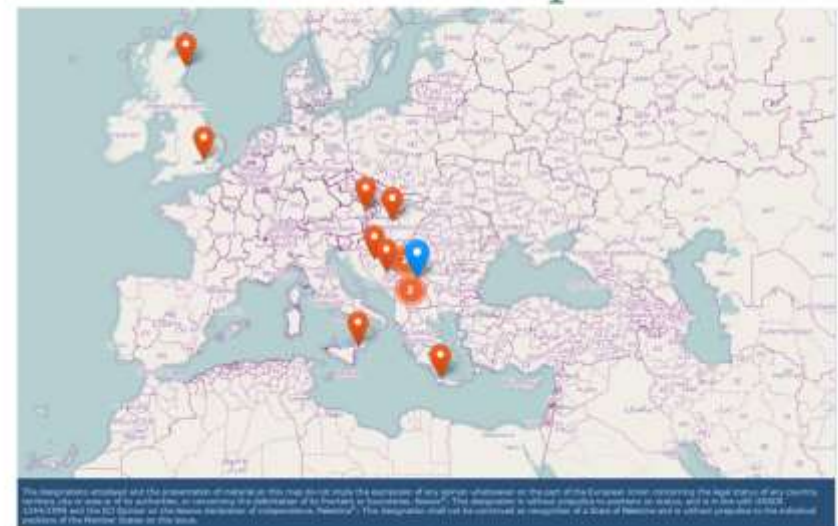
Contract number	573806-EPP-1-2016-1-RS-EPPKA2-CBHE-JP
Project acronym	NatRisk
Project name	<i>Development of master curricula for natural disasters risk management in Western Balkan countries</i>
Project duration	15th October 2016 - 14 th October 2019
Programme	ERASMUS+ – Call for Proposals EAC/A04/2015
Total cost	1,245,746.00 €
Coordinator	University of Niš, Serbia Univerzitetski trg 2, 18000 Niš, Serbia
Project website	www.natrisk.ni.ac.rs
Project e-mail	natriskuni@gmail.com



Development of master curricula for natural disasters risk management in Western Balkan countries



NatRisk Map



Consortium

Western Balkan partners



University of Niš (UNI, Serbia)



Academy of Criminalistics and Police Studies (KPA, Serbia)



University of Pristina in Kosovska Mitrovica (UPKM, Kosovo)



University of Sarajevo (UNSA, Bosnia and Herzegovina)



University of Banja Luka (UNBL, Herzegovina)



Technical College of Applied Sciences (TCA), temporary seat in Leposavić



University of Defence in Belgrade



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Consortium

EU partners



University of Natural Resources and Life Sciences, Vienna (BOKU, AUSTRIA)



Middlesex University Higher Education Corporation (MUHEC, UK)



University of Messina (UNIME, ITALY)



Óbuda University (OE, HUNGARY)



Technical University of Crete, Chania (TUC, GREECE)

Work Packages

Preparation WP1: Analysis of natural disasters needed to be managed in Western Balkan region

Leader: **University of Natural Resources and Life Sciences, Vienna**

Preparation WP2: Development of master curricula

Leader: **University of Messina**

Preparation WP3: Development of trainings for citizens and public sector

Leader: **University of Defence in Belgrade**

Development WP4: Implementation of developed master curricula and trainings

Leader: **University of Sarajevo**

Work Packages

Quality Plan WP5: Quality assurance and monitoring

Leader: **Middlesex University Higher Education Corporation**

Dissemination & Exploitation WP6: Dissemination

Leader: **University of Niš**

Dissemination & Exploitation WP7: Exploitation

Leader: **University of Niš**

Management WP8: Project management

Leader: **University of Niš**



flood



earthquake



heavy snowfall



tornado



landslide



thunderstorm



drought



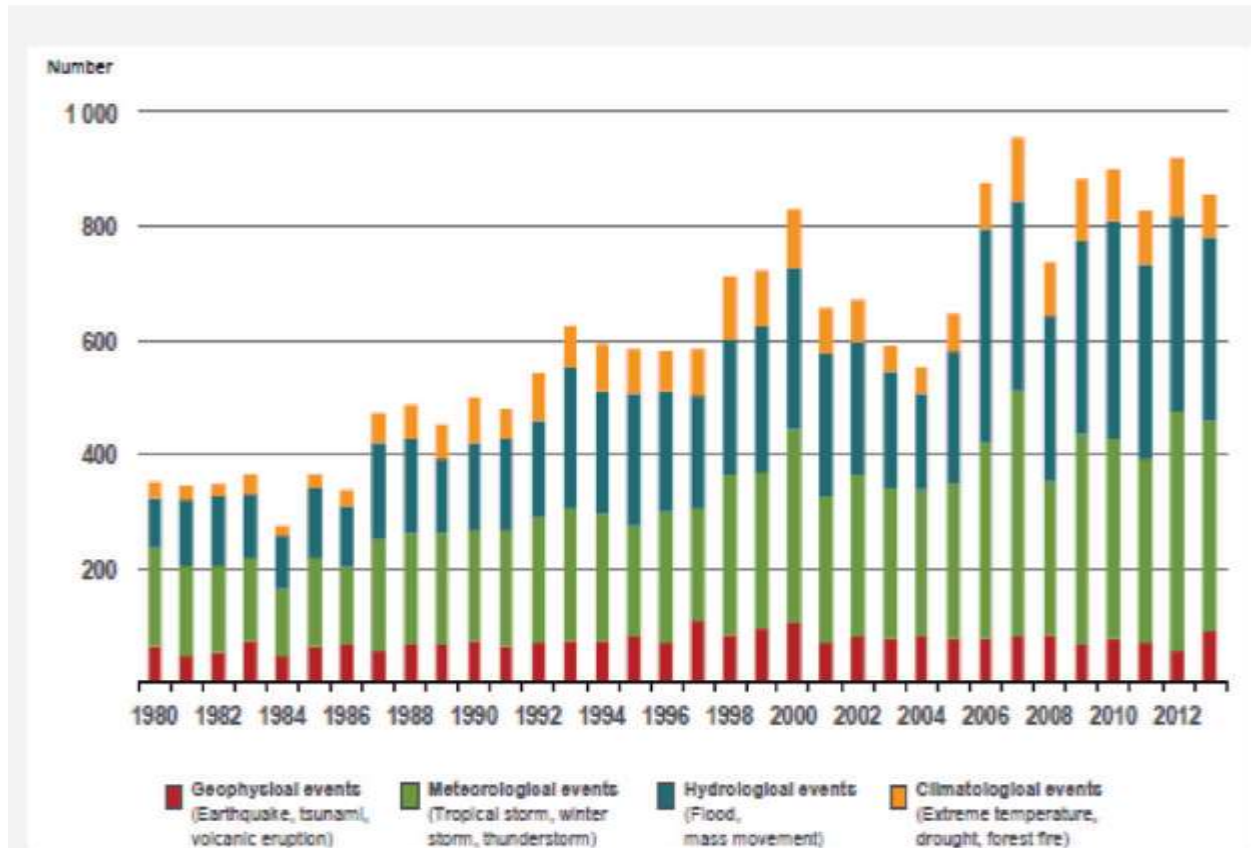
high wind speed



volcanic eruption

2. Motivation

- Natural hazards cause directly significant loss of life, set back economic and social development, reductions in crop yields, destruction of homes and other infrastructure and indirectly increased food prices and food insecurity.
- We cannot avoid natural hazards, but we can prevent them from becoming disasters.
- Management of natural disasters became the greatest global challenge and an indispensable requirement for sustainable development and is set as a goal both in Europe 2020 (target 3. climate change) and the 2030 agenda for Sustainable Development United Nations (“Goal 13. Take urgent action to combat climate change and its impacts”).
- WB countries should above all develop new or improve the existing education in this field, to raise technical capacity and accomplish creation of more efficient systems for better response when natural disasters occur.



Climate change or climate variability are also reflected on the frequency and strength of many types of extreme events

Climatic extremes can not be avoided, but with timely prognosis and prediction, while strengthening the society's ability to prepare and adapt to the changes that have occurred, can significantly mitigate or even avoid their negative consequences.

Importance of EDUCATIN !!!!!

Overall Broader Objective of NatRisk Project

Education of experts for prevention and management of natural disasters in the region of Western Balkan (WB) according to the national and EU policies.

Specific Objectives

- **Development and implementation of methodology for identification of natural disasters** to be managed in WB region and all aspects of prevention and consequences in order to define specific competencies for professional practice
- Development and implementation of the **new advanced master curricula in Natural Disasters Risk Management (NDRM)** in line with the Bologna requirements and national accreditation standards
- **Development of trainings** for the public sector and citizens for reaction in case of various natural disasters

Sustainability

- **Seven new master programmes in NDRM** at the WB partner HEIs that will be developed, accredited and implemented.
- **Three new training programmes in NDRM** (one per each WB partner country) with training materials for public sector and citizens developed and conducted.
- **Retrained teaching staff** with up-to-date knowledge in NDRM to teach on the new master programmes.
- **Introduced new laboratory equipment, library units and software** necessary for the continuation of the new master programmes.

Specific Objective that came about through the implementation of the project

- Particular attention is paid to the importance of spatial planning through the project and use of modern technologies (such as GIS), which could greatly contribute to reducing the consequences of natural disasters.
- The current approach to protecting the society from natural disasters was largely unsystematic, with a pronounced disaster after the disaster in order to save people and goods and reconstruction.
- However, in the new century, with increasing frequency of occurrences of disasters, emphasis is increasingly on prevention.
- Namely, education as an important factor that can greatly contribute in increasing the resistance of society to reduce or at best avoid possible disasters.

At the University of Sarajevo, Center for Interdisciplinary Studies, a new master course in the field of protection and management of natural disasters, starts in the 2018/19 school year



website

INTERDISCIPLINARNI MASTER STUDIJ ZAŠTITA OD PRIRODNIH KATASTROFA

O STUDIJU

Studijski program **Zaštita od prirodnih katastrofa** je interdisciplinarni akademski master studij, razvijen kroz Erasmus+ projekt izgradnje kapaciteta u visokom obrazovanju **Razvoj master kurikula za upravljanje rizicima od prirodnih katastrofa u zemljama Zapadnog Balkana (NatRisk)**.

Koordinator *NatRisk* projekta je Univerzitet u Nišu, a Partnerske institucije iz zemalja Zapadnog Balkana su:

- Univerzitet odbrane u Nišu,
- Univerzitet u Prištini sa sjedištem u Kosovskoj Mitrovici,
- Univerzitet u Sarajevu,
- Kriminalističko-policijska akademija u Beogradu, RS
- Fakultet bezbjednosnih studija, Univerzitet u Banja Luci
- Visoka tehnička škola strukovnih studija iz Uroševca sa sjedištem u Leposaviću.

Partnerske institucije iz zemalja Evropske Unije su:

- University of Natural Resources and Life Sciences, Vienna (Austrija),
- Middlesex University Higher Education Corporation (Velika Britanija),
- University of Messina (Italija),
- Óbuda University (Mađarska),
- Technical University of Crete, Chania (Grčka).

Pridružena članica

- Republički hidrometeorološki zavod Srbije

CILJ STUDIJA

Svrha ovog studijskog programa je obrazovanje magistara zaštite od prirodnih katastrofa u skladu sa potrebama društva i njihovo akademsko usavršavanje u skladu sa savremenim zahtjevima upravljanja rizicima od prirodnih katastrofa. Studijski program je koncipiran tako da obezbjeđuje sticanje kompetencija i razvoj akademskih vještina iz oblasti upravljanja rizicima od prirodnih katastrofa. Opći cilj projekta je



1.2 Nastavni plan

R. br.	Stat.	Naziv predmeta	Broj časova P+V	ECTS	Odgovorni nastavnik/ca
PRVI SEMESTAR					
1.	O	Prirodne nepogode i katastrofe	2+2	5	Prof. dr Đenari Čerimagić
2.	O	Upravljanje rizicima od prirodnih katastrofa	2+2	5	Prof. dr Emina Hadžić
3.	O	Prostorno planiranje u funkciji smanjenja rizika od katastrofa	2+2	5	Prof. dr Dženana Bijedić
4.	I	Izborni predmet 1	2+2	5	
5.	I	Izborni predmet 2	2+2	5	
6.	I	Izborni predmet 3	2+2	5	
IZBORNI PREDMETI	I.1	Sistem zaštite i spašavanja u prirodnim katastrofama			Doc. dr Hata Milišić
	I.2	Vodno - okolišni problemi u slučaju prirodnih katastrofa			Prof. dr Emina Hadžić
	I.3	Zaštita od voda i održivi razvoj			Prof. dr Emina Hadžić
	I.4	In-situ testiranje i monitoring			Doc. dr Adis Skejić
	I.5	Procjena i ojačanje postojećih konstrukcija			Prof. dr Naida Ademović
	I.6	Zemljotresi i numeričko modeliranje konstrukcija			Prof. dr Naida Ademović
	I.7	Rehabilitacija objekata kulturno historijskog naslijeđa			Prof. dr Naida Ademović
	I.8	Trajnost materijala kao mjera prevencije			Prof. dr Azra Kurtović
	I.9	Kartografija			Prof. dr Slobodanka Ključanin
	I.10	Topografski/kartografski modeli			Prof. dr Slobodanka Ključanin
	I.11	Prostorne baze podataka i IPP			Prof. dr Slobodanka Ključanin
	I.12	Daljinska istraživanja			Prof. dr Admir Mulahusić
	I.13	Geoinformacione i komunikacione tehnologije za upravljanje rizikom od prirodnih katastrofa			Prof. dr Nusret Drešković
DRUGI SEMESTAR					
7.		Istraživanje iz oblasti master rada	0+20	15	
8.		Master rad		15	
Ukupno			12+32	60	

Recognized the importance of SDI and INSPIRE - increasing mitigation ability of the society

Conection to BestSDI:

- Spatial databases and SDI
- Geoinformation and communication technologies for risk management from natural catastrophes

NatRisk in media

PROJECTS

DEVELOPMENT OF MASTER CURRICULA FOR NATURAL DISASTERS RISK MANAGEMENT IN WESTERN BALKAN COUNTRIES (NATRISK)

The project is co-financed by the Education, Audiovisual and Culture Executive Agency through the Erasmus+: Higher Education – International Capacity Building (KA2 – Capacity Building in the field of Higher Education). The overall aim is to educate experts for prevention and management of natural disasters in the region of Western Balkan (WB) according to the national and EU policies.

PROJECT



Posted on: 10.12.2016

Project date: December 2016 - December 2019 Acronym: NatRisk

Coordinating institute: University of Niš

Work methodology of NatRisk project is elaborated through eight work package types, encompassing in total 34 activities necessary to achieve project aims and objectives. Precise milestones and delivery dates as well as the content of the deliverables are defined in a detailed work plan.

CALENDAR INTERN EXTERN CALL

DECEMBER 2016						
MO	TU	WE	TH	FR	SA	SU
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

LATEST NEWS

- [Event Review] 5th Clustering workshop: Biomass for growth: potentials and challenges of bioenergy in the Danube Region.
- [Event Review] Open Evaluation 2016

<http://www.natrisk.ni.ac.rs/dissemination/radio-television-videos>

<https://www.youtube.com/watch?v=U5SMhu0Pkhc>



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Western Balkan Countries



*This designation is without prejudice to positions on status, and is in line with UNSCR 1244 and the ICJ Opinion on the Kosovo declaration of independence.

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KICK-OFF MEETING FOR PROJECT 'DEVELOPMENT OF MASTER CURRICULA FOR NATURAL DISASTERS RISK MANAGEMENT IN WESTERN BALKAN COUNTRIES'

Event date

December 15-16, 2016

Venue

Niš

Country

Serbia

Short description

The meeting, which will launch the project 'Development of master curricula for natural disasters risk management in Western Balkan countries (573806-EPP-1-2016-1-RS-EPPKA2-CBHE-JP)', is being organized by the University of Niš. Serbia will take place in Niš on December 15-16, 2016.

Description

The event is to gather project partners and regional stakeholders to promote the project overall broader objective i.e. education of experts for prevention and management of natural disasters in the region of Western Balkan (WB) according to the national and EU policies.

The project is co-financed by the Education, Audiovisual and



[Link 1](#)

[Link 2](#)

<https://wbc-rti.info/object/event/15578#rel>