

PROGRAM

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# Understanding Risk Balkans Conference

September 17-19, 2018 | Belgrade, Serbia



THE WORLD BANK  
IBRD • IDA



GFDRR  
Global Facility for Disaster Reduction and Recovery



# Schedule at-a-glance

## Monday, September 17

### Yugoslav Film Archive Museum

09:00-13:00	Disaster-Resilient Balkans: Empowering Young Professionals Room A	Fundamentals of Disaster Risk Financing: Training Room B
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### City Hall

13:00-15:00	Registration
	Welcome Statements
15:00-16:00	Opening Remarks
	Keynote Speech
16:00-16:30	Coffee
16:30-18:00	Ignite Presentations
18:00-20:00	Reception

## Tuesday, September 18

### Yugoslav Film Archive Museum

08:00-09:00	Breakfast	
09:00-10:30	<b>SESSION 1</b> Demystifying the Main Growth Drivers of the Catastrophe Insurance Market Room A	<b>SESSION 2</b> Flood Risk Mapping within the EU Flood Directive: No Data, No Result? Room B
10:30-11:00	Coffee	
11:00-12:30	<b>SESSION 3</b> Community Resilience via Crowdsourcing and Collaborative Mapping Room A	<b>SESSION 4</b> Flood Protection Is Everyone's Responsibility Room B
12:30-14:00	Lunch	
14:00-15:30	<b>SESSION 5</b> The Role of Social Protection Systems in Preparing for and Responding to Disasters Room A	<b>SESSION 6</b> Transboundary Sava River Cruise with Views on Successful Multi-Hazard Early Warning Advisory Systems Room B
15:30-16:00	Coffee	
16:00-17:30	<b>5x15: Five Outstanding Individuals Have 15 Minutes to Tell Stories about Risk</b>	

## Wednesday, September 19

### Yugoslav Film Archive Museum

08:00-09:00	Breakfast	
09:00-10:30	<b>SESSION 7</b> Seismic Risk in Multifamily Apartment Buildings: Engineering, Social, Financial, and Policy Implications Room A	<b>SESSION 8</b> Getting Informed: Disaster and Climate Risk Tools for Improved Decision Making Room B
10:30-11:00	Coffee	
11:00-12:30	<b>SESSION 9</b> Advancing the State of Open Data and Its Use for DRM in the Balkans Room A	<b>SESSION 10</b> Integrating Risk Assessments in Road Asset Management Room B
12:30-14:00	Lunch	
14:00-15:30	<b>SESSION 11</b> Enhancing Resilience: From City to Asset Scale Room A	<b>SESSION 12</b> From Assessing Risk to Managing Risk: The Science-Policy Interface Room B
15:30-16:00	Coffee	
16:00-16:30	Keynote Closing	
16:30-17:00	Closing Remarks	



## Monday, September 17

09:00–13:00

### Disaster-Resilient Balkans: Empowering Young Professionals

#### Room A

Young professionals and researchers have a vital role to play in understanding and managing disaster risk in the Balkan region, now and into the future. They have the motivation and drive to innovate but need capacity-building opportunities to capitalize their potential and support their growth as multicultural and interdisciplinary thinkers.

This event brings together a community of young professionals, researchers, and students working on disaster risk management (DRM) from all parts of the Balkans, gives them the space to share knowledge on DRM across disciplines and geographic borders, and builds their capacity to think creatively and innovatively in addressing challenging DRM issues. The event will do this in four stages: it will outline current youth initiatives in the DRM sphere; lead participants through a creative networking exercise to identify the challenges for youth engagement in DRM in the Balkans; engage participants in an interactive role-playing game on DRM in the Sava River Basin; and finally give a selection of young researchers the opportunity to pitch and get feedback on their DRM research.

### Fundamentals of Disaster Risk Financing: Training

#### Room B

Disaster risk financing (DRF) helps countries improve their financial resilience against natural disasters by implementing sustainable and cost-effective financial protection measures. It helps to minimize post-disaster funding needs, optimize the timing for meeting those needs, and protect development goals, fiscal stability, and well-being. By promoting comprehensive financial protection strategies, it ensures that governments, homeowners, small and medium-sized enterprises, agricultural producers, and the most vulnerable populations can meet post-disaster funding needs as they arise. It is an integral part of disaster and climate risk management that complements investments in risk reduction, prevention, and resilience. It addresses residual risk—the risk that cannot be reduced or prevented, for either practical or financial reasons. Only by looking at the financial impact of disasters comprehensively can governments build the financial resilience of society as a whole.

The training in Fundamentals of Disaster Risk Financing aims to increase understanding of the purpose, scope, principles, and development impact of DRF. This event presents key DRF concepts and illustrates them with real-world examples. In particular, a former official of Mexico's Natural Disaster Fund will explain how DRF measures have increased the financial resilience of Mexico in the face of disasters, thus reducing impacts on both the public and public finances.

Monday, September 17

15:00–16:00

## Welcome Statements



**Marko Blagojevic** is the Director of the Serbian Government's Public Investment Management Office. After the catastrophic 2014 floods, he joined the government as Director of the newly established Office for Flood-Affected

Areas Relief and Reconstruction. In that role, he oversaw the transition of the office's mandate from post-flood recovery and reconstruction to disaster risk management.

As Director of the Public Investment Management Office—the successor agency to the Office for Flood-Affected Areas Relief and Reconstruction—he is now involved in establishing Serbia's disaster risk management system. His tasks include implementation or oversight of a variety of infrastructure projects in health, education, agriculture, energy, and local infrastructure sectors.

In 1997, Blagojevic founded the Center for Free Elections and Democracy (CeSID), the first Serbian watchdog organization, which specializes in issues of transparency, responsiveness, and accountability. It is now a leading regional polling organization that specializes in public affairs research and analysis. As CeSID's Director, he worked closely with international clients, including the Council of Europe, Organization for Security and Co-operation in Europe (OSCE), USAID, UN agencies, and the World Bank.

Blagojevic has also worked as an international consultant for OSCE, National Democratic Institute, International Republican Institute, Soros Foundation, and Freedom House, on projects in the Balkans and elsewhere.



**Sameh Wahba**, an Egyptian national, is the Global Director for Urban and Territorial Development, Disaster Risk Management and Resilience at the World Bank Group's Social, Rural, Urban and Resilience Global Practice, based in

Washington, DC. He oversees the formulation of the World Bank's strategy for, design of, and delivery of all lending, technical assistance, and policy advisory activities as well as partnerships at the global level.

He was formerly Practice Manager for the Urban and Disaster Risk Management Unit in Africa and the Global Urban and Resilience Unit, and he served as Acting Director of Operations and Strategy for the Social, Rural, Urban and Resilience Global Practice. He also worked as Sustainable Development Sector Leader for Brazil and as Urban Specialist for two regions, Latin America and the Caribbean and the Middle East and North Africa. Before joining the Bank in 2004, he worked at the Institute of Housing and Urban Development Studies in Rotterdam and at the Harvard Center for Urban Development Studies.

Wahba holds an MA and PhD in urban planning from Harvard University and a BSc and MSc in architectural engineering from Cairo University. Most recently, he co-authored the Bank's flagship publication *Regenerating Urban Land: A Practitioner's Guide to Leveraging Private Investment*.



An Italian career diplomat, **H. E. Sem Fabrizi** has been the European Union (EU) Ambassador to Serbia since July 2017. He was previously the EU Ambassador to Australia and has also served as an advisor in international relations to the President

of the European Council in Brussels and to the Prime Minister of Italy in Rome.

His earlier postings included Geneva, at the Italian Permanent Mission to the World Trade Organization and UN, and the Italian Embassy in Beijing. At the Ministry of Foreign Affairs in Rome, he held positions in the EU Department and the Secretary General's Office.

Fabrizi holds degrees in international law and international economy from Sapienza University of Rome, and he has served as a lieutenant in the Italian Army. He was awarded the honor of Cavaliere Ufficiale dell'Ordine al Merito della Repubblica Italiana.

## Opening Remarks



**Zoran Radojičić** is a Serbian pediatric surgeon and politician who has served as the Mayor of Belgrade since June 2018. Before taking office, he practiced pediatric urology at University Children's Hospital in Belgrade, and he was also a professor of surgery at the University of Belgrade Faculty of Medicine.

He is a member of the European Association for Pediatric Urology (ESPU), European Association of Children's Surgery (EUPSA), and Supervisory Board of the Budget Fund for the treatment of diseases, conditions, and injuries that cannot be successfully treated in Serbia. He was also Coordinator of the Ministry of Health for Pediatric and Child Surgery.

In 2016, Radojičić's biography was included in the Oxford Book of Successful People of Serbia. He has published a large number of works and has presented papers at major world congresses as well as at conferences of the American Pediatric Academy.

## Keynote Speech



**Zoran Vojinovic** is an expert in urban water systems, risk assessment, climate change adaptation, and hydroinformatics who works for the IHE Delft Institute for Water Education in the Netherlands. He has over 23 years of practical and

academic experience working in Europe, Asia, New Zealand, Australia, Central and South America, and the Caribbean. His publications on urban hydroinformatics have led to a paradigm shift within the field.

He holds the position of Honorary Professor at the Centre for Water Systems at the University of Exeter (UK) and is also Visiting Professor at the Technical University of Munich (Germany), Adjunct Professor at the National Cheng Kung University (Taiwan, China), Visiting Professor at the School of Civil Engineering University of Belgrade (Serbia), and Guest Faculty at the Asian Institute of Technology (Thailand).

Vojinovic has worked closely with international and national donors and development organizations, including the European Commission (EC), the Asian Development Bank (which has recognized him as a Water Champion), the World Bank, and the United Nations Development Programme. He has also advised governments on water and wastewater management, flood risk mitigation, and climate change adaptation. He leads the EC-funded FP7 PEARL project, which brings together 24 international partners to develop adaptive and resilient sociotechnical risk management measures and strategies for coastal cities subject to extreme hydrometeorological events. He also leads the EC-funded RECONNECT project, a collaboration of 37 international partners working to develop and demonstrate innovative large-scale nature-based solutions for hydrometeorological risk reduction across Europe, Asia, Central and South America, and the Caribbean.



## Tuesday, September 18

### SESSION 1

## Demystifying the Main Growth Drivers of the Catastrophe Insurance Market

09:00–10:30

### Room A

The session will review the core insurance products and insurance technologies developed under the ongoing World Bank Southeast Europe Catastrophe Risk Insurance Facility Project. In addition, the session will discuss the role of public policy and regulatory environment in promoting catastrophe insurance as an alternative means of post-disaster risk financing. Specifically, the session will cover (i) innovative climate risk insurance products—at both micro and macro levels; (ii) insurance IT technologies that enable clients to buy insurance products from the web with only a few clicks; (iii) web-based public information tools such as CATMonitor that help homeowners assess the disaster vulnerability of their homes; and (iv) the role of public policy, legal, and regulatory environments in facilitating the growth of insurance penetration.

### Moderator

**Eugene Gurenko**, Lead Insurance Specialist, World Bank

### Speakers

**Marijana Lemic-Saramandic**, Chief Underwriting Officer, Europa Re

**Nadica Jovanovska Boshkovska**, Head of Representative Office of Europa Re, FYR Macedonia

**Goce Vangelovski**, General Manager, Croatia Insurance Non-life, FYR Macedonia

**Slavica Radovanovic**, Head of Claims, Europa Re

**Andrej Teshler**, Chief IT Officer, Europa Re

**Klime Poposki**, President, Insurance Supervision Agency, FYR Macedonia

### SESSION 2

## Flood Risk Mapping within the EU Flood Directive: No Data, No Result?

9:00–10:30

### Room B

The session on the EU Flood Directive and flood risk mapping will focus on the question of how to carry out flood risk assessments in a data-poor environment such as the Western Balkans and surrounding areas. But is the lack of data really a problem? Are we too focused on digital data? Do we undervalue other information sources? In this session, key players from the Western Balkans will share their experiences and lessons learned, with case studies on Serbia, Croatia, and Poland. Since EU flood risk mapping occurs on a six-year cycle, these experiences and lessons can be applied in the next mapping round(s).

### Moderators

**Mathijs van Ledden**, Senior Disaster Risk Management Specialist, World Bank

**Darko Milutin**, Disaster Risk Management Specialist, World Bank

### Speakers

**Merita Borota**, Senior Advisor, Directorate of Water, Serbia

**Janusz Zaleski**, Professor, Institute of Meteorology and Water Management, Poland

**Darko Barbalić**, Senior Engineer, Hrvatske Vode, Croatia

## SESSION 3

## Community Resilience via Crowdsourcing and Collaborative Mapping

11:00-12:30

### Room A

This session will highlight different citizen-led initiatives currently taking place in a variety of urban landscapes, which seek to raise awareness on disaster resilience options by crowdsourcing risk information and galvanizing preparedness efforts at a local level. For example, in Albania, a regional risk map currently informs heritage professionals and emergency responders about potential disaster risks that museums and cultural heritage sites across the Western Balkans may face at any time, and is being used to develop location-specific risk mitigation solutions such as the traditional cisterns project, and other forms of risk mitigation measures adapted to cultural heritage sites. In Romania, the session will examine how the Seismic-Alert platform will raise awareness on earthquakes risk and to act as a disaster relief app in the aftermath of a major earthquake. The platform intends to have a crowdsourcing component to better geo-reference the state of seismic vulnerability of buildings across the country. In case a major earthquake takes place, the platform will turn into a disaster relief app, centralizing information on shelters, food banks and any other forms of immediate assistance available. Finally, in Armenia, a disaster risk education module applies innovative and interactive learning mechanisms to raise awareness on disaster risks. The e-game Super David developed by Dasaran Educational Program consists of a range of questions and challenges relating to 8 types of natural disasters: "Earthquakes", "Fires", "Landslides", "Floods" and others. The e-game is currently used by more than 1 million registered users from around 1500 schools across the country.

### Moderator

**Margaret Arnold**, Senior Social Development Specialist, World Bank

### Speakers

**Lejla Hadzic**, Executive Director, Cultural Heritage without Borders, Albania

**Olivia Vereha**, Cofounder/Chief Operations Officer, Code for Romania, Romania

**Mihai Șercăianu**, Director, MKBT: Make Better, Romania

**Rima Sargsyan**, Program Manager, DASARAN Education Program, Armenia

## SESSION 4

## Flood Protection Is Everyone's Responsibility

11:00-12:30

### Room B

This session will present insights into recent initiatives, new technologies, and research results aimed at decreasing flood risk in the Balkans. Disaster management authorities at all levels of government need better situational overviews, vulnerability analysis, and urban water management systems. Climate change projections indicate an expected increase in the frequency and intensity of floods, such as the May 2014 event that the region is still recovering from. In order to decrease predicted adverse effects of floods, Balkan countries need to increase risk awareness and prevention capacities of local communities, citizens, and (in particular) vulnerable populations.

The session will look into complex interactions between flooding and society, as highlighted by conceptual mathematical models that describe economic decisions related to long-term flood protection strategies and impact-based forecasting of extreme weather events. It will also look at the response, recovery, and disaster risk reduction actions taken by the United Nations Development Programme (UNDP) in Bosnia and Herzegovina; at the Organisation for Economic Co-operation and Development (OECD) mission to Serbia and the DRAS (Disaster Risk Analysis System) for authorities and individuals; and at the We4DRR (Women Exchange for Disaster Risk Reduction) network, which seeks to promote gender-sensitive policies in disaster risk management.

### Moderator

**Christian Resch**, Managing Director, Disaster Competence Network Austria

### Speakers

**Aida Hadzic-Hurem**, Disaster Risk Reduction Project Manager, UNDP Bosnia and Herzegovina

**Olivera Zurovac-Kuzman**, National Environmental Affairs Officer, OSCE Mission to Serbia

**Reinhard Perfler**, Vice-Head, Institute of Sanitary Engineering and Water Pollution Control, University of Natural Resources and Life Sciences Vienna

**Michael Freiburger**, Doctoral Student in Technical Mathematics, Vienna University of Technology

**Annegien Tijssen**, Flood Risk Management Advisor, Deltares

#### SESSION 5

## The Role of Social Protection Systems in Preparing for and Responding to Disasters

14:00-15:30

### Room A

The aim of this session is to better understand how we can improve social protection outcomes for the most vulnerable population during and in post disaster situations. Disaster responsive social protection is an emerging concept in the Balkan region. While some elements of disaster response are integrated in the countries' social protection legislation, systematic crisis responses remain underspecified and underdeveloped. The evolution of disaster responsive social protection has principally been a by-product of the response to crisis situations. The social protection systems have demonstrated considerable crisis response capacities. This has been evidenced in the aftermath of the 2008 financial crisis when some countries in the region expanded the social assistance coverage of the population to include newly targeted groups or in the institutional support provided during the devastating floods and more recently with the arrival of a large share of refugees. These and similar responses signal that the countries' social safety nets have the potential to adapt and possibly mitigate the adverse impacts of natural disasters ex ante and to build resilience. By drawing the lessons from the recent experience with earthquakes in Mexico, the discussion will focus on ex ante adaptations in the social protection information system for improved planning and response to disasters. We will learn about the role that the social inclusion program (PROSPERA) played in responding to the earthquakes. Within this context, we will discuss different options for adapting the countries' social safety net programs.

### Moderator

**Sandra Nedeljkovic**, Deputy Director, Public Investment Management Office (PIMO), Government of Serbia

### Speakers

**Roberto Sanchez Avalos**, Director of the Data Science Lab, General Directorate of Geostatistics and Beneficiary Registries, Mexican Ministry of Social Development

**Selene Salomón**, Director, General Directorate of Geo-Statistical Information, Analysis and Evaluation of PROSPERA, Mexico

**Biljana Barošević**, Acting Assistant Minister, Serbian Ministry of Labor, Employment, Veterans and Social Affairs (TBC)

**Zdravko Maksimović**, Head of Civil Protection Department, City of Kraljevo, Serbia

#### SESSION 6

## Transboundary Sava River Cruise with Views on Successful Multi-Hazard Early Warning Advisory Systems

14:00-15:30

### Room B

This session will explore technical and coordination issues for developing and operating transboundary multi-hazard early warning systems. It will share lessons learned from experiences in the Sava River basin (covering Bosnia and Herzegovina, Croatia, Montenegro, Serbia, and Slovenia) and from the scale-up to the South-East European Multi-Hazard Early Warning Advisory System (SEE-MHEWS-A). Critical issues to be addressed include the agreements and technical processing needed for transboundary sharing of data and forecasts.

### Moderator

**Daniel Kull**, Senior Disaster Risk Management Specialist, World Bank

### Speakers

**Sari Lappi**, Project Coordinator, World Meteorological Organization (WMO)

**Mirza Sarac**, Advisor, Protection against Detrimental Effects from Waters and Extraordinary Impacts on the Water Regime, International Sava River Basin Commission (ISRBC)

**Beatriz Revilla-Romero**, Flood Foresight Project Manager, JBA Consulting

**Michael Staudinger**, Director, Austrian Central Institute for Meteorology and Geodynamics (ZAMG)

**Jugoslav Nikolic**, Director, Republic Hydrometeorological Service of Serbia (RHSS)

### Discussant

**Imra Hodzic**, Flood Risk Management Specialist, Deltares



# 5x15

## Five Outstanding Individuals Have 15 Minutes to Tell Stories about Risk

16:00–17:30

### Auditorium



**Lučka Kajfez Bogataj** is the Head of the Centre for Agrometeorology and Professor of Climatology at the University of Ljubljana, where she researches climate change scenarios and impacts on ecosystems and human well-being. In

2008 she was elected Vice Chair of the Intergovernmental Panel on Climate Change (IPCC), having participated in its work since 2002. She served as Vice Chair of Working Group II for the IPCC Fourth Assessment Report and was a review editor of the IPCC Fifth Assessment Report.

Kajfez Bogataj was also a member of the GCOS (Global Climate Observation System) Steering Committee at the World Meteorological Organization (WMO), where she acted as a link between GCOS and IPCC. She serves on the GWP (Global Water Partnership) Steering Committee, and in 2016 became a member of the UNESCO Ad Hoc Expert Group on the Declaration on Ethical Principles in Relation to Climate Change. She has shared her expertise at many national and international conferences and on television.



**Vigor Majic** is founder and director of the Petnica Science Center, which specializes in extracurricular training and support of high school students interested in the sciences and technology. It is the largest such institution in Europe and

the leading regional institution of its kind.

Formally trained in geoscience and environmental studies, Majic has focused much of his career on general education, educational policy development, science teaching, and school administration. In 2001–2002, he served as Serbia's Deputy Minister of Education. In 2014–2015, he was Governor of the Rotary District Serbia-Montenegro, which

at that time was focused on local and regional disaster relief activities and projects after catastrophic floods. He is also highly experienced in leading training projects, including training of teachers, state administration officers, and other professionals.



**Panos Gianopoulos** is a meteorologist-forecaster at the Hellenic National Meteorological Service. For many years he has served as a weather broadcaster for Greek Public TV (ERT) and for the private media company Real FM/Real News.

He is a member of the Greek Meteorological Society (EMTE), serves on the Board of Directors of the International Association of Broadcast Meteorology (IABM), is a founding member of Climate Without Borders, and is a Fellow of the Royal Meteorological Society (FRMetS). He was formerly a member of the expert team on Public Weather Services for the World Meteorological Organization (WMO). A member of the Working Group for the Cooperation of European Forecasters (WGCEF) since 2006 and of the Selection Committee for the EMS TV Weather Forecast Award from 2014 to 2018, he has presented his research at European Meteorological Society (EMS) meetings.

Gianopoulos holds a BSc in Physics and an MSc in Meteorology from the University of Athens.



**Miljana Radivojevic** is a lecturer in archaeomaterials at University College London. As a trained materials scientist working in archaeology, she studies how technologies such as metallurgy shaped the dynamics of social evolution in the

past and played a role in the collapse and rise of various archaeological phenomena. In her study of past lifeways, she uses technological approaches to illuminate human behavior and related cultural, economic, and ecological

systems. Her regional studies have focused on the Balkans and Central Asia and span 4,000 years, from 5000 BCE to 1000 BCE.

An alumna of the Petnica Science Center and Cambridge University, Radivojevic spent her undergraduate years in Belgrade as a student vice rector and an active member of student organizations and national groups writing laws on higher education in Serbia. She holds a degree in archaeology from the University of Belgrade and in archaeological science from University College London.



**Alex Beard** is a writer and educator who has traveled the world in search of the practices that will shape the future of learning. He has written about his experiences for the Independent, the Financial Times, and Wired. His global study of education systems is the basis for his book *Natural Born Learners* (2018), a user's guide to transforming learning in the 21st century.

Beard started out as an English teacher in an inner-city school in London, then completed his MA at the Institute of Education before joining Teach For All, a growing network of independent organizations working to ensure that all children fulfill their potential. He also works on projects for the European Commission and the Bill & Melinda Gates Foundation.

Wednesday, September 19

#### SESSION 7

### Seismic Risk in Multifamily Apartment Buildings: Engineering, Social, Financial, and Policy Implications

9:00–10:30

#### Room A

Between 1960 and 1990, many countries across Europe, the Caucasus, and Central Asia responded to shortages in housing by mass-producing prefabricated large panel buildings. Today, many of these buildings have outlived their design life span and suffer from deterioration and poor maintenance. In addition, the buildings are not designed to modern seismic code standards, and their seismic vulnerability is not well understood. The issues of seismic safety are also compounded by the fact that many apartments have been reconfigured by the owners through the removal of load-bearing walls.

This session will highlight recent projects and advances in understanding the seismic risk of pre-1990s multifamily buildings, with a focus on the Balkan region. It will address social and financial challenges associated with risk reduction in these buildings and explore potential intervention strategies. Finally, the session will examine the link between seismic strengthening and energy efficiency improvements.

#### Moderator

**Alanna Simpson**, Senior Disaster Risk Management Specialist, World Bank

#### Speakers

**Ashna Mathema**, Senior Urban Development Specialist, World Bank

**Anton Andonov**, Technical Director, Mott MacDonald Group, Sofia

**Radu Vacareanu**, Professor of Structural Reliability and Risk Analysis, Technical University of Civil Engineering, Bucharest

**Marianna Ercolino**, Senior Lecturer, Department of Engineering Science, University of Greenwich, London

## SESSION 8

## Getting Informed: Disaster and Climate Risk Tools for Improved Decision Making

9:00–10:30

### Room B

This session will highlight where disaster risk assessments have taken limitations into consideration and grown more sophisticated, with efforts to model the evolution of risk. It will engage with a technologist, earthquake engineer, environmental engineer, and urban planner participating in the complex network of disaster and climate risk information delivery, highlighting different disaster and climate risk tools currently being utilized in a variety of urban landscapes, and a variety of approaches that can support decision-making, facilitate action, and clearly communicate risks across Governments and communities. For example, the real-time monitoring from space of natural hazards such as cyclones, floods, drought and volcanoes provides us with reliable and actionable information that is end-user friendly for planners, technical experts, farmers, air traffic, and others; in other words, for all of society. Such information – like that supported by Sentinel Hub – can provide the foundation for decisions that determine how cities are planned, how communications and transport function, how farmers plant and harvest, the productivity of fisheries, public health planning and decision-making, and many other critical areas of development planning.

### Moderator

**Elif Ayhan**, Senior Disaster Risk Management Specialist, World Bank

### Speakers

**Mustafa Erdik**, Professor Emeritus, Bogazici University

**Matej Batic**, EO Research Team Leader, Sinergise

**Albert Schwingshandl**, Founder and CEO, RIOCOM

**Gülsen Yilmaz**, Urban Planner, Turkish Ministry of Environment and Urbanization

### Discussant

**Zaklina Gligorijevic**, Lead Planner, Strategic Planning Department, Belgrade Urban Planning Institute

## SESSION 9

## Advancing the State of Open Data and Its Use for DRM in the Balkans

11:00–12:30

### Room A

A lack of information is often cited as one of the main barriers to disaster risk management (DRM) in the Balkans. But what is the actual extent of this data gap? What can we do to address it? And how can we make sure data are effectively used once made available?

This session will start with an introduction to the Open Data for Resilience Index, a global effort to track natural hazard data availability and ease of use around the world. Speakers will then be invited to discuss preliminary results for the Balkans, the impact of this data-constrained environment on their projects, and changes that could improve the state and use of open data for better DRM. This session will bring together the perspectives of disaster management and risk communication experts, policy makers, and open data specialists from several Balkan and neighboring countries, including Romania, Greece, and Serbia, as well as preliminary insights from the European Program for Disaster Risk Assessment and Mapping in the Western Balkans and Turkey.

This session will be also an opportunity to reflect on the data framework in the European Union, including the Public Sector Information and INSPIRE Directives, and on how this framework could be leveraged to advance the state of open data and its use for DRM in the Balkans.

### Moderator

**Maryia Markhvida**, Doctoral Student, Stanford Urban Resilience Initiative

### Speakers

**Pierre Chrzanowski**, Data Specialist, Global Facility for Disaster Reduction and Recovery (GFDRR)

**Stella Karafagka**, Researcher, Soil Dynamics and Geotechnical Earthquake Engineering, Aristotle University of Thessaloniki

**Georgiana Ilie**, Reporter and Senior Editor, DoR Magazine, Romania

**Roberto Rudari**, Research Director, CIMA Research Foundation

SESSION 10

## Integrating Risk Assessments in Road Asset Management

11:00–12:30

### Room B

Road authorities in Albania, Bosnia and Herzegovina, and Serbia are trying to launch network-wide risk assessments as part of the basis for mainstreaming climate change adaptation in road asset management. On top of resource limitations, road authorities are challenged by limitations in data availability, georeferenced road network information, and data collection and sharing protocols. So how can they benefit from risk assessment methodologies developed in the European Union, New Zealand, and the United States, which require a plethora of data and capacity? What kind of risk assessment methodologies can the Western Balkans develop to make sure they are implementable? Can we simplify them without undermining the relevance of the assessment? What do countries need to work on to ensure these assessments will be carried out at regular intervals and become a regular element of road asset management? As these countries develop their road asset management systems, how can they efficiently include recommendations from risk assessments, considering the limitation in resources? How will prioritization be done?

The session will address these questions and present key elements of the risk assessment approaches developed in the Western Balkans. It will discuss significant bottlenecks in the current constrained environment, explore how road asset management systems will be enhanced to include risk assessments, and showcase major elements of the ongoing technical assistance in Albania, Bosnia and Herzegovina, and Serbia for integrating risk assessment in road asset management.

### Speakers

**Sarah Reeves**, Climate Resilience Specialist, TRL Ltd, UK

**Senad Smajlovic**, Engineer, Public Enterprise Roads of Federation of Bosnia and Herzegovina

**Biljana Abolmasov**, Professor, Faculty of Geology and Mining, University of Belgrade, Serbia

**Mike Woning**, Senior Consultant, Deltares

SESSION 11

## Enhancing Resilience: From City to Asset Scale

14:00–15:30

### Room A

The technical session will focus on tools and approaches for enhancing resilience and case studies of their adoption. This will be a practical session on how risk fits into the wider context of resilience. The session will cover different scales of resilience from individual asset to city resilience:

- Resilience of the Corridor X Highway Project and other infrastructure in the Western Balkans, including measures taken to strengthen environmental and social performance
- The World Bank Urban Rail Design Guidebook, which offers practical guidance on embedding resilience to climate and natural hazards in urban rail projects
- City Resilience, with specific examples of implementation of the City Resilience Index, which is the first comprehensive tool allowing cities to understand and assess their resilience, thus enhancing their ability to build sound strategies and plans for a strong future
- The Resilience Shift, a global initiative to reorient professional practice from a focus on infrastructure as an asset, to a focus on infrastructure as part of a system—one that provides services under both ordinary and extraordinary circumstances

### Moderator

**Savina Carluccio**, Project Lead on the Resilience Shift, Arup

### Speakers

**Aleksandar Bajovic**, Leader of the Belgrade Office, Arup

**Áine Ní Bhreasaill**, Senior Engineer, Arup

**Sachin Bhoite**, Associate in International Development, Arup

**Savina Carluccio**, Project Lead on the Resilience Shift, Arup



## SESSION 12

## From Assessing Risk to Managing Risk: The Science-Policy Interface

14:00-15:30

### Room B

Ensuring the prevention and reduction of disaster risks relies on a robust knowledge base on disaster risks and efficient sharing of knowledge, best practices and information. Strong knowledge on disaster risks and the contribution of science are important for countries to undertake risk assessments, assess their risk management capabilities and to prepare their risk management plans.

Disaster risk reduction and climate change adaptation are intrinsically linked in reducing risks and vulnerabilities to climate-related hazards. Both rely on the availability of robust knowledge and data at all levels. Knowledge and data are key in defining scenarios and projections according to which adaptation measures are developed, in monitoring progress of implementation and in developing innovative instruments/tools to increase resilience.

Building sound knowledge on DRR and CCA is strongly dependent on improving the recording of loss and damage data, which relies on robust systems, models and methodologies. Science will help improve the understanding of risks and the undertaking of the vital first steps towards DRM and adaptation planning.

### Moderator

**Montserrat Marin Ferrer**, Scientific Project Manager, European Commission Joint Research Centre (JRC)

### Speakers

**Aslan Mehmet Coskun**, Planning and Mitigation Branch Manager, TEKIRDAG AFAD

**Marco Massabò**, Programme Director, CIMA Research Foundation, Italy

**Boris Erg**, Director, IUCN Regional Office for Eastern Europe and Central Asia (ECARO)

**Zivko Babovic**, Risk Department Head, Sector for Emergency Management, Serbian Ministry of Interior

## Keynote Closing

16:00-16:30

Auditorium



Design Scientist and Systems Theorist **Melissa Sterry** is an authority on the science, technology, and thinking aimed at building a brighter future. Specializing in futures in the built environment, utilities, manufacturing, engineering, design,

publishing, media, and communications, she has spent her career working with leading-edge researchers and practitioners worldwide. She has received several national and international awards for innovation, creativity, and enterprise, including the Mensa Education and Research Foundation International Award for Benefit to Society.

She has been a visiting/guest lecturer, visiting fellow, workshop host, master's thesis supervisor, and guest critic at several European architecture and design research institutes, including the Bartlett School of Architecture (University College London), the University of Salford School of the Built Environment, and the Institute for Advanced Architecture of Catalonia.

Sterry is the founder and director of Bionic City®, an initiative that asks how nature would design a city and that explores the potential of biomimetics, biotechnology, and biology in the built environment. Bionic City® has attracted a global community of interest and has collaboration and cocreation partners worldwide.

Sterry's work has appeared in international scientific, industry, and consumer publications, including the Global Innovation Science Handbook, for which she authored the chapter on biomimetics. She has also served as a committee member, peer reviewer, and editorial board member to several journals, conferences, societies, and awards. She is the founder of the sustainability think tank and collaborative laboratory Societás; cocreator of New Frontiers, a sustainable design initiative; and cofounder of the world's first online international visual arts awards, the Creative Graduate Prize and the Iconique Societás Awards.

## Closing Remarks

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16:30-17:00

Auditorium



**Stephen Ndegwa** is the World Bank Country Manager for Serbia. In his time at the World Bank, he has worked on programs in governance, political economy, and public sector capacity building across several regions, including Africa, Latin America, the Middle East, South Asia, and East Asia and the Pacific. He previously served as the Operations Manager for the World Bank program in Afghanistan and as Adviser with Operations Policy and Country Services at the World Bank's Global Center on Conflict, Security and Development. He was also part of the core team writing the 2011 World Development Report on conflict, security, and development and served as a Lead Specialist in the Governance Global Practice.

Before joining the World Bank through the Young Professionals Program in 2002, he was Associate Professor of Government at the College of William and Mary in Virginia. He was a Rice Family Faculty Fellow at Yale University in 2010 and a nonresident Visiting Fellow at the National Endowment for Democracy in spring 2011.

Ndegwa is the author or editor of several books and has published articles in leading journals, including award-winning work in the *American Political Science Review*. He holds a PhD in political science and public policy from Indiana University.



**Predrag Marić** is the Serbian Assistant Minister of Interior and Head of Sector for Emergency Management. He was previously Deputy Head of the Fire Protection Unit and Head of the Directorate for Fire Protection and Rescue in the Ministry of Interior. Since 2010, he has also been a lecturer at the Criminal Police Academy in Belgrade, where he shares his expertise on the prevention and suppression of fires, accidents, and explosions.

Marić has received several awards for his work, including the First Award of the Ministry of Interior in 2004, the

Best Citizen of Belgrade award in 2009, and the Gold Medal for Zealous Service in 2011. In addition, he is the author of several books—*Terrorism and Organized Crime*, *Emergency Management*, and *Transit of Explosives*—as well as the manual *Administration and Inspection Supervision in the Field of Fire Protection* and numerous papers on emergency and disaster management.

Marić graduated from the University of Belgrade Faculty of Law in 1990. He also holds a master's degree in terrorism, organized crime, and security from the University of Belgrade and has completed a multinational crisis management course at the NATO School Oberammergau in Germany.

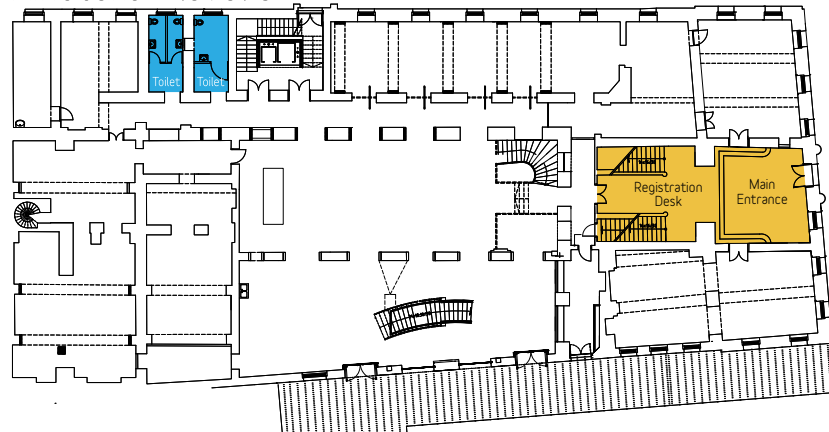


**Sandra Nedeljkovic** is the Deputy Director of the Public Investment Management Office (PIMO) in the Government of Serbia, responsible for implementing the National Disaster Risk Management Program. The focus of her professional interest is to ensure that resilience and risk reduction is mainstreamed as a crosscutting policy in all sectors, and to ensure full implementation of Sendai framework in Serbia.

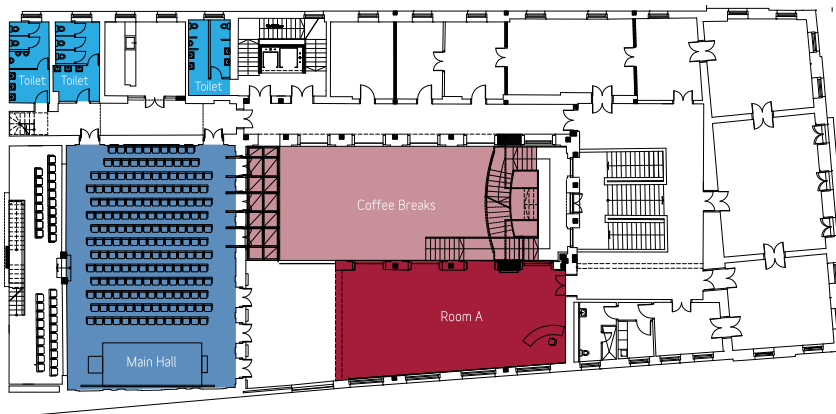
After working in the fields of journalism, marketing, public relations and business, she entered public administration, and started to work for the Government of Serbia in local self-government and decentralization. In 2014 when Serbia was flooded, she entered the newly formed Government Office for Flood-Affected Areas Relief and Reconstruction. Being in the resilience reconstruction process from the beginning, she was involved in upgrading and reforming the Disaster Risk Management process in Serbia with the focus of enhancing risk reduction.

Nedeljkovic holds a degree at the University of Political Science in Belgrade in the field of international relations and diplomacy. She also has an MA in public administration, local self-government and public policy from the same University, specializing in European studies.

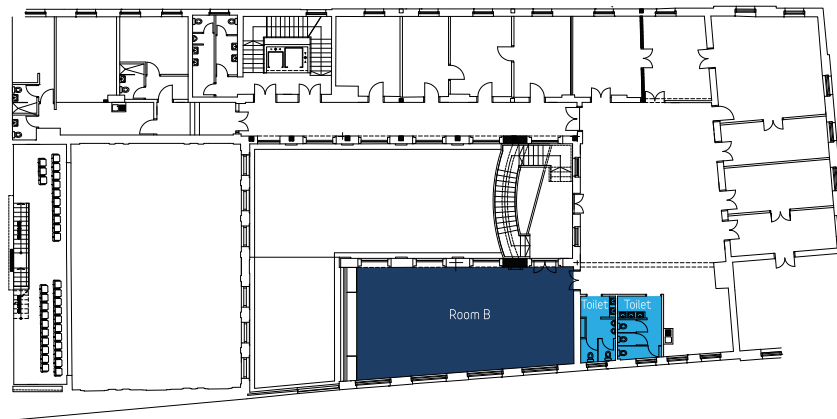
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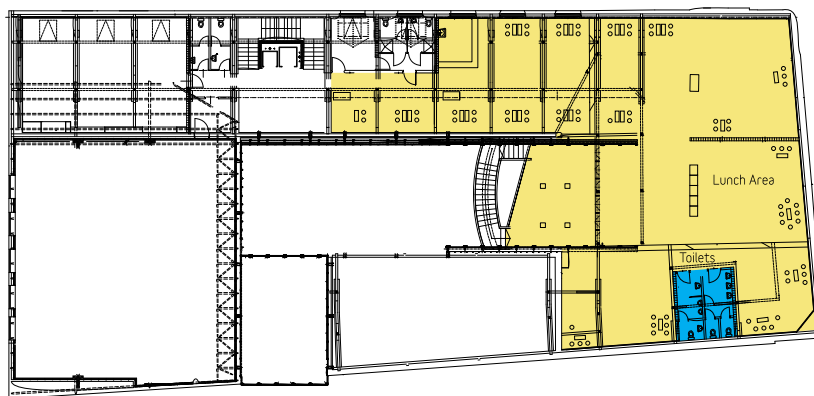
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# Understanding Risk Balkans Conference



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