

Book of Abstracts



Editors:

Aleksandar Djordjević, PhD
Danica Šantić, PhD
Marija Jeftić, PhD
Velimir Šećerov, PhD
Zora Živanović, PhD

International Scientific Conference

GREEN AGENDA FOR WESTERN BALKANS

UNIVERSITY OF BELGRADE
FACULTY OF GEOGRAPHY

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INTRODUCTION

International Scientific Conference GREEN AGENDA FOR WESTERN BALKANS (GAWBs) will be joining together, for the first time, scientific and professional audience from Europe and beyond. The transition task ahead of us, researchers and scholars but also technology leaders, companies, institutions, policy makers, other stakeholders, etc., is giant and challenging in the forthcoming decision-making period.

Conference aims to create inspiring and stimulating environment for exchanging ideas, knowledge and experiences, not only within the academia researchers but also among numerous relevant stakeholders. Within three-days event, filled with inspiring keynote speeches, panel discussions and high-level networking, participants will have a chance to experience the unique collaborative culture in the Republic of Serbia and meet entrepreneurs, investors, corporations, developers and frontrunners within green transition.

Key areas of the Conference and book of abstracts` focus are the themes connected to the European Commission guidelines for implementing the GAWBs. It envisages actions around five pillars, covered also by the European Green Deal: (I) climate action, including decarbonization, energy and mobility (II) circular economy, addressing in particular waste, recycling, sustainable production and efficient use of resources (III) biodiversity, aiming to protect and restore the natural wealth of the region (IV) fighting air, water, and soil pollution and (V) sustainable food systems and rural areas.

Besides above mentioned five key areas, spatial planning is in the spot too, as a one of the key implementation instruments, but also exploring different patterns of Green Transition reflections on a spatial organization. Within the GreenFORCE – Green agenda and spatial planning section (VI), organizers offered a platform that enables exchange and dissemination of scientific knowledge on spatial planning and linked scientific disciplines.

Special attention is given to the young researchers (VII), with papers presenting their outputs and offering new and fresh perspective on Green Transition.

Authors of the abstracts presented here belong to a large variety of different backgrounds and sectors, enabling very valuable and important diversity of the perspectives and approaches on the latest developments in key areas and providing valuable perspectives on the road ahead. This book of abstracts rises numerous questions and important topics, and hopefully shown presentations and discussions following, will lead to a successful implementation of the GAWBs countries. Presented innovative approaches and best practise examples, numerous strategic documents, projects, analyses etc. will lead us to high quality conclusions that can be used for further affirmation, improvement and more efficient implementation of the Green Transition concept in the Western Balkan (WBs). Also, conclusions that will be used for further research and will be presented to the policy makers in order to support them with their further decisions.

We believe that this book of abstracts with more than 60 presented topics and more than 200 authors from Serbia, Romania, Slovenia, Sweden, North Macedonia, Albania, Italy, Bosnia and Herzegovina, Montenegro, Greece, Slovakia, Poland and Hungary will be of interest to the students of all levels (undergraduate, graduate), academics as well as to practitioners in governments (both inside and outside of the WB's), the WB institutions, private sector, research institutes, ext. Additionally, it will contribute to the better understanding of Green Transition in the WBs, boost wider discussion among different stakeholders and present solid ground both for the further research and networking.

Scientific committee, editors and organizers would like to thank all the authors for their contribution to the book of abstracts and the Conference as a whole.

We would also like to express our gratitude to the Chamber of Commerce and Industry of Serbia and the UNDP project "EU for Green Agenda in Serbia" for their support in organizing this Conference.

Editors

CONFERENCE TOPICS:

SECTION 1: Clean energy sources and climate protection

ENERGY COMMONS IN THE WESTERN BALKANS: GREEN TRANSITION AS A COMMUNITY CAPACITY TO SELF-GOVERN EXERCISE

Daniel Pop 11

THE WESTERN BALKANS GREENWAYS NETWORK

Mirko Radovanac 12

GREEN TRANSITIONING IN THE CITY OF KRAGUJEVAC- TOWARDS SUSTAINABLE MOBILITY STRATEGY

Velimir Šećerov, Marija Jeftić, Aleksandar Djordjević, Zora Živanović, Branko Protić 13

ANALYSIS OF THE PHOTOVOLTAIC SYSTEMS CONSTRUCTION CAPACITIES AND CONDITIONS ON THE RESIDENTIAL ROOFTOPS IN SERBIA

Iva Batić 14

APPLICATION OF FUZZY LOGIC IN THE RANKING OF RIVERS FROM THE ASPECT OF HYDROPOWER POTENTIAL, EXAMPLE OF RIVERS IN SERBIA

Ivan Novković, Marko Langović, Ana M. Petrović, Vanja Jakšić 15

SECTION 2: Towards circular economy

CIRCULAR BIOECONOMY STRATEGY AND THE IMPORTANCE OF THE NATIONAL BIOECONOMY HUB ESTABLISHMENT IN SERBIA

Ljiljana Brašanac-Bosanac, Nevena Čule, Ilija Đorđević, Goran Češljarić, Aleksandar Lučić, Ljubinko Rakonjac 16

WHICH TOPICS WILL BE THE MOST INTERESTING FOR MARKET LEADERS IN GREEN AND DIGITAL TRANSITION?

Lazar Pavić, Matevž Obrecht 17

CHANGE AGENCY IN GREEN INNOVATIONS: EMPIRICAL CASE STUDY ON MODERN WOOD CONSTRUCTION IN SWEDEN AND FINLAND

Alberto Giacometti, Hilma Salonen 18

SECTION 3: Depollution of air, water and soil

USING SPACE OBSERVATIONS IN STUDYING WATER-ENERGY-FOOD NEXUS

Garik Gutman 19

FLOATING ISLANDS: AN EFFECTIVE NATURE-BASED SOLUTION FOR RESTORING WATER QUALITY AND ACHIEVING ECONOMIC, ENVIRONMENTAL, SOCIAL, AND CULTURAL SUSTAINABILITY

Nevena Čule, Aleksandar Lučić, Marija Nešić, Suzana Mitrović, Tatjana Ćirković-Mitrović, Goran Češljarić, Ljiljana Brašanac-Bosanac 20

HYDROLOGICAL MONITORING AND WATER QUALITY MONITORING OF LAKES AND RESERVOIRS IN NORTH MACEDONIA

THE WAY TO A MORE EFFICIENT HYDROLOGICAL AND WATER QUALITY MONITORING

Ana Marija Petrovska, Marjan Nikolov, Vesna Garvanlieva Andonova 21

CHANGES IN HYDROLOGICAL REGIME OF SOKOBANJSKA MORAVICA RIVER UNDER THE INFLUENCE OF CLIMATE CHANGE

Marko Stanković 22

DIVERSITY OF APPENDICULARIA IN BOKA KOTORSKA BAY (SOUTHERN ADRIATIC SEA; NE MEDITERRANEAN)

Vera Vukanić, Miodrag Malović 23

AIR DEPOLLUTION IN KOSOVSKA MITROVICA REGION INDICATED BY LICHENS BIOTA

Gordana R. Aleksić, Tatjana R. Jakšić 24

EFFECTIVE APPROACH FOR OBTAINING HIGH-PURITY PREBIOTICS USING MEMBRANE SEPARATION TECHNOLOGY

Milica Veljković, Milica Simović, Katarina Banjanac, Ana Milivojević, Marija Ćorović, Ana Vukočić, Dejan Bezbradica 25

MAPPING ARSENIC AS A CHEMICAL OF PUBLIC HEALTH CONCERN FOR FURTHER HEALTH RISK ASSESSMENT DUE TO ITS ABUNDANCE IN ENVIRONMENTAL MEDIA IN SERBIA

Branislava I Matić, Dragana Jovanović, Snežana Dejanović, Snežana Živković Perišić 26

IMMOBILIZATION OF LACCASE FROM TRAMETES VERSICOLOR ON DIFFERENT NANOCARRIERS AND ITS APPLICATION IN THE SYNTHESIS OF FLAVONOID OLIGOMERS

Ana Vukočić, Ana Milivojević, Katarina Banjanac, Anja Petrov Ivanković, Marija Ćorović, Aleksandar Marinković, Jose Miguel Palomo, Dejan Bezbradica 27

SECTION 4: Sustainable agriculture and food production

FUNCTIONAL AND INTEGRATED AGRICULTURAL KNOWLEDGE AND INNOVATION SYSTEM IN THE WESTERN BALKANS

Ankica Kondić-Špika, Ana Marjanović Jeromela, Dori Pavloska – Gjorgjieska, Boban Ilić, Charalambos Kasimis, Edvin Zhllima, Sabahudin Bajramovic, Željko Vaško, Iliriana Miftari, Milan Markovic, Dragan Gjosevski, Ana Simonovska, Emelj Tuna 28

CROSS-COUNTRY LINKS IN THE WESTERN BALKANS AS A PRECONDITION FOR ESTABLISHMENT OF THE REGIONAL AGRICULTURAL KNOWLEDGE AND INNOVATION SYSTEM (AKIS)

Ana Marjanović Jeromela, Ankica Kondić-Špika, Dori Pavloska – Gjorgjieska, Boban Ilić, Charalambos Kasimis 29

DEVELOPMENT OF LOW-COST MULTISPECTRAL CAMERA AND ITS APPLICATION FOR DETECTION OF A GRAPEVINE DISEASE FLAVESCENCE DORÉE

Marko Barjaktarović, Massimo Santoni, Michele Faralli, Massimo Bertamini, Lorenzo Bruzzone 30

THE IMPACT OF GLOBAL CLIMATE CHANGE ON THE RELOCATION OF AGRICULTURAL CROPS

Aleksandar Valjarević 31

137CS REDISTRIBUTION IN THE AGRICULTURAL SOIL OF CENTRAL SERBIA

Kristina Kalkan, Sofija Forkapić, Jan Hansman, Robert Lakatoš, Branislav Pejak, Sanja Brdar 32

PRESENTATION OF ACHIEVEMENTS IN THE CULTIVATION, EXPLOITATION AND PROCESSING OF MEDICINAL PLANTS

Mila Nadrljanski, Mira Pavlinović, Stipe Lozina 33

NEW AGRONOMIC MANAGEMENT TOWARDS CARBON NEUTRALITY

Ana Marjanović Jeromela, Dragana Rajković, Ankica Kondić-Špika, Biljana Kiprovski, Dragana Miladinović, Federica Zanetti, Andrea Monti 34

REDUCE GHG EMISSIONS FROM LIVESTOCK OPERATIONS

Solnja Lepitkova, Vlatko Trpeski 35

VALORIZATION OF SUNFLOWER MEAL TOWARD THE PRODUCTION OF EMERGING PREBIOTICS

Milica Veljković, Milica Simović, Katarina Banjanac, Anja Petrov Ivanković, Valentina Nikolić, Dejan Bezbradica 36

THE ECONOMIC JUSTIFICATION OF THE USE OF MULCH FILM IN THE PRODUCTION OF MELLISA OFFICINALIS

*Stefan V. Gordanić, Dragoja Radanović, Tatjana Marković, Natalija Čutović,
Petar Batinić, Snežana Mrđan, Jelena Golijan-Pantović, Sara Mikić, Željana Prijjić* 37

SECTION 5: Protection of biodiversity and ecosystems

STAKEHOLDERS COLLABORATION FOR MULTILEVEL CLIMATE CHANGE GOVERNANCE IN FORESTRY AND RELATED SECTORS

Mirjana Stanišić, Jelena Nedeljković, Dragan Nonić 38

CITIZEN SCIENCE PRACTICES FOR PARTICIPATORY ECOSYSTEM SERVICE EVALUATION IN WETLAND AREAS. CASE STUDY: THE KUNE-VAINI LAGOON

Kejt Dhrami, Rea Muka 39

THE QUEST FOR ECOLOGICAL INTEGRITY AS A LANDSCAPE SCALE TOOL FOR MEETING GREEN AGENDA IN SERBIA

Boris Radić, Suzana Gavilović, Dragana Čavlović, Siniša Polovina 40

SUSTAINABILITY IN NATURE PROTECTION IN BOSNIA AND HERZEGOVINA: ISSUES AT STAKE AND THE WAY FORWARD

Senka Mutabdžija Bećirović, Jovanka Četković and Adna Backović-Hodžić 41

IDENTIFICATION OF ECOLOGICAL CORRIDORS FOR THE LARGE CARNIVORES AS AN IMPORTANT INPUT FOR INFRASTRUCTURE PLANNING IN SERBIA

Marina Nenковиć-Riznić; Marija Maksin 42

NATIONAL PARKS BIODIVERSITY PRESERVATION AND IMPROVEMENT: THE CASE STUDY OF DJERDAP

Jelena Basarić, Ljubiša Bezbradica, Danijela Srnić 43

EXPERT VALUATION OF NATURE'S CONTRIBUTION TO PEOPLE WITHIN THE NATIONAL ECOSYSTEMS ASSESSMENT IN BOSNIA AND HERZEGOVINA

*Dženan Bećirović, Senka Barudanović, Vladimir Stupar, Amila Brajić,
Mersudin Avdibegović* 44

SECTION 6: GreenFORCE – Green agenda and spatial planning

IS DEMOGRAPHY A REAL PROBLEM FOR SUSTAINABILITY?

Danica Šantić, Milica Langović 45

FOSTERING GREEN TRANSITION. A COMPARATIVE REVIEW OF GOOD ADAPTATION PRACTICES IN EUROPE

Martina Caputo, Grazia Brunetta, Ombretta Caldarice 46

SPATIAL PLANNING SYSTEMS AND URBANISATION PROCESSES IN THE WESTERN BALKANS. WHAT NEXUS?

Erbilin Berisha, Giancarlo Cotella 47

THE ROLE OF ACTORS IN CROSS-BORDER AND TRANSNATIONAL COOPERATION IN THE ENVIRONMENTAL FIELD IN THE WESTERN BALKANS

Ilijana Radaković, Erblin Berisha 48

CROSS-BORDER CONTEXT OF SPATIAL PLANNING FOR WESTERN BALKANS GREEN AGENDA

Ana Nikolov 49

ROLE OF THE INNOVATIVE PARTICIPATIVE PLANNING CULTURE IN THE PROCESS OF FOSTERING JUST GREEN TRANSITION

Milan Husar, Matej Jasso, Michal Hajduk 50

TOWARDS SUSTAINABLE URBAN PLANNING IN WESTERN BALKAN REGION, CASE STUDY IN ALBANIA

LITERATURE REVIEW	
<i>Flora Krasniqi, Sadmira Malaj</i>	51
GREEN URBAN DEVELOPMENT IN BELGRADE	
<i>Nikola Jocić, Aljoša Budović, Ivan Ratkaj</i>	52
FOSTERING SUSTAINABLE TRANSITION PATHWAYS VIA URBAN AND ARCHITECTURAL DESIGN PROJECTS: THE CASE OF KISELA VODA, SKOPJE	
<i>Isabella M. Lami, Alessandro Armando, Elena Todella</i>	53
REMOTE SENSING OF URBANIZATION ON THE EXAMPLE OF SKOPJE REGION	
<i>Pavel Veljanoski, Blagoja Markoski</i>	54
THE IMPORTANCE OF GREEN PUBLIC SPACES IN RESIDENTIAL AREAS FOR QUALITY OF LIFE: THE EXAMPLE OF SOCIALIST AND POST-SOCIALIST HOUSING IN NOVI SAD, SERBIA	
<i>Violeta Stefanović</i>	55
URBAN GARDENING FOR BUILDING RESILIENT CITIES	
<i>Slavica Čepić, Jelena Tomićević-Dubljević</i>	56
GREEN CERTIFICATION AS A BUILDING QUALITY VERIFICATION IN THE REPUBLIC OF SERBIA: INSTRUCTIONS FOR FURTHER APPLICATION	
<i>Marko Milosavljević, Dejan S. Đorđević, Zlatko Stojmenović</i>	57
JUST GREEN TRANSITIONS IN SOCIAL MEDIA BETWEEN THE TERMINOLOGICAL USE IN THE OFFICIAL LANGUAGE AND THE PUBLIC DEBATE	
<i>Yahya Shaker, Simone Persico</i>	58
ANALYSIS OF EXISTING CONSTRAINTS IN THE PROCESS OF ADAPTATION TO CLIMATE CHANGE THROUGH THE SPATIAL PLANNING SYSTEM IN THE REPUBLIC OF SERBIA	
<i>Dejan Filipović, Ljubica Duškov</i>	59
TRANSFORMATION OF THE TOURIST SYSTEM IN THE CONTEXT OF SPATIAL AND SOCIOLOGICAL SUSTAINABILITY OF THE DESTINATION	
<i>Ivo Županović, Milica Jablan</i>	60
LAND PLANNING AND GREEN TOURISM IN DANUBE SPACE IN SERBIA: A PRELIMINARY RESEARCH	
<i>Rui Alexandre Castanho, Ana Vulevic</i>	61
EDUCATION FOR GREEN TRANSITION AND DEVELOPMENT	
<i>Đorđe Nadrljanski, Irena Mašće, Kristina Vidović</i>	62
SPATIAL PLANNING EDUCATION FOR CLIMATE ACTION: CASE OF THE UNIVERSITY OF BELGRADE - FACULTY OF GEOGRAPHY	
<i>Tijana Dabović, Bojana Pjanović</i>	63
SECTION 7: Young researchers /MSc and PhD students/	
INNOVATIVE BIOTECHNOLOGICAL APPROACHES IN VERTICAL FARMING	
<i>Kristina Ljumović, Nico Betterle, Anna Baietta, Matteo Ballottar</i>	64
GREEN CONSTRUCTION	
<i>Marija Mladenović</i>	65
ASSESSMENT OF THE GEN-ECOLOGICAL POTENTIAL OF EUROPEAN WHITE ELM FROM THE NATURAL PROTECTED AREA „VELIKO RATNO OSTRVO“	
<i>Marina Nonić, Jovana Devetaković, Ivona Kerkez Janković, Filip Maksimović, Mirjana Šijačić-Nikolić</i>	66
MANAGEMENT OF PROTECTED AREAS UNDER CLIMATE CHANGE: VIEWS OF MANAGERS AND STAKEHOLDERS ON CAPACITIES, NEEDS AND LIMITATIONS	
<i>Ivana Vasić, Jelena Nedeljković, Dragan Nonić</i>	67

DEPOLLUTION THROUGH THE BAN OF PLASTIC BAGS: LESSONS FROM KENYA <i>Benjamin Chemarum, Biljana Jović, Olga Gajanić</i>	68
WITH SOLAR PANELS TO "PURE ELECTRIC ENERGY AND ENERGY INDEPENDENCE" <i>Dragan Nedić</i>	69
SOLUBILITY PREDICTION OF THE PET HYDROLYZING ENZYME'S DOUBLE MUTANTS FOR PRODUCTION IN ESCHERICHIA COLI <i>Aleksa D. Savić, Jelena Z. Radosavljević</i>	70
COMPARATIVE ANALYSIS OF SOIL POLLUTION LOAD OF CB AND PB IN THE AREA OF THE MUNICIPALITIES OF BAR AND ŽABLJAK IN MONTENEGRO <i>Stefan Miletić, Angelina Novaković, Jelena Beloica, Snežana Belanović-Simić</i>	71
THE IMPACT OF THE PERVIOUS AND IMPERVIOUS SURFACE RATIO IN LOCAL CLIMATE ZONE CLASSIFICATION (CASE STUDY: CITY OF TIRANA) <i>Anja Cenameri, Gaspar Albert</i>	72

BOOK OF ABSTRACTS

FLOATING ISLANDS: AN EFFECTIVE NATURE-BASED SOLUTION FOR RESTORING WATER QUALITY AND ACHIEVING ECONOMIC, ENVIRONMENTAL, SOCIAL, AND CULTURAL SUSTAINABILITY

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Abstract: The Trešnja locality near the city of Belgrade, which was once identified as a significant area for excursion tourism, has been neglected for decades. The lake's water quality is under threat due to the unregulated disposal of untreated wastewater from settlements' septic tanks. However, efforts have been made to restore the lake. To achieve this, fifty floating islands were set up on the lake over two growing seasons, resulting in the water of excellent and good ecological status. The floating islands were effective in reducing various pollutants, including organic and inorganic matter, excess nutrients, heavy metals, and pathogenic microorganisms. In addition to water purification, the floating islands represented an opportunity to achieve a balance of economic, environmental, social, and cultural sustainability on the site and beyond. The analysis of the project showed that this green technology was economically justified and can be repaid within 2.58 years. The integrity of the floating islands and the environment was established based on the structure of the flora and fauna and sustainability of natural resources was enabled. The project improved the life quality of the residents and visitors who use the lake for fishing and swimming in the summer months. It also created conditions for eco-development that respects local, economic, cultural, and social specificities. Although floating islands for the treatment of polluted waters are not recognized in the relevant laws and regulations of the Republic of Serbia, examples of good practice, such as this one, can open the way not only for financing new projects but also for changing the legal regulations regarding the use of different biological systems as part standard infrastructure for the treatment of polluted water. The restoration of the lake and setting up of the floating islands proved to be a viable and sustainable solution for water treatment, economic development, and environmental protection.

Keywords: phytoremediation, water pollution, water quality, eco-development, green infrastructure

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