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Erasmus+ Programme
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PROGRAM



Smart Green & Smart Blue
exploring nature-based solutions
and ecosystem services approaches
in environmental management,
planning & policy

Open Science Conference



Lviv,
7-9 November 2019

An overview:

Thursday, November 7

9:00 – 10:00 – Registration, welcome coffee (Lviv Chamber of Commerce and Industry (Lvivska Torhovo-Promyslova Palata), Lviv, Stryiski Park 14)

10:00 – 13:00 – opening and keynote speeches (Lviv Chamber of Commerce and Industry (Lvivska Torhovo-Promyslova Palata), Lviv, Stryiski Park 14)

13:00 – 14:00 – lunch (Lviv Chamber of Commerce and Industry (Lvivska Torhovo-Promyslova Palata), Lviv, Stryiski Park 14, 2nd floor)

14:00 – 15:30 – session 1

15:30 – 16:00 – coffee break

16:00 – 17:00 – session 2

17:00 – 18:00 – the public signing ceremony of the agreement on the establishment of the INTENSE international doctoral school

18:00 – the Conference dinner (Lviv, Samchuka str. 8, Restoran “Suputnyk”)

Friday, November 8

9:00 – 11:00 – keynote speeches (Institute of Ecology of the Carpathians NAS of Ukraine, Kozelnytska str., 4, 3 floor, room 333)

11:00 – 11:30 – Coffee break

11:30 – 13:00 – parallel sessions 3, 4

13:00 – 14:00 – lunch (Lviv, Samchuka str. 8, Restoran “Suputnyk” or Lviv, Kozelnytska str., 1a «Intempo – from breakfast till dinner! « or «UCU» Canteen in Ukrainian Catholic University.(Lviv, 2a Kozelnytska Str.)

14:00 – 15:30 – parallel sessions 5, 6

15:30 – 16:00 – coffee break

16:00 – 18:30 – INTENSE coordination meeting (Institute of Ecology of the Carpathians NAS of Ukraine, Kozelnytska str., 4, 3 floor, room 333)

Saturday, November 9

9:00 – 14:00 – excursion

Understanding Lviv, walking in Stryiski Park (<https://city-adm.lviv.ua/portal/catalog/pam-jatniki-parki-ta-sadi/parki-ta-sadi/6394>), an excursion to the regional landscape park Znesinnia (<https://city-adm.lviv.ua/portal/catalog/vidpochinok-u-misti/parki-ta-sadi/6388>) and to Shevchenkovskiy Hai (Museum of Folk Architecture and Life, <https://shevchenko-ethnopark.virtual.ua/ua/>)

The conference venues:

November 7 (9:00 – 18:00): Lviv Chamber of Commerce and Industry (Lvivska Torhovo-Promyslova Palata), Stryiskyi Park 14

November 8 (9:00 –18:30): Institute of Ecology of the Carpathians NAS of Ukraine, Kozelnytska str., 4, 3rd floor

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Keynote speeches

Thursday, November 7

10:00 – 13:00 – Lvivska Torhovo-Promyslova Palata),

Lviv, Stryiskyi Park 14, 2 floor

Chairs: Mykola Kozlovsky, Kaley Sepp

Miguel Villoslada,

*Estonian University of Life Sciences,
Estonia*

A multifunctional perspective
of urban green networks

Volodymyr Zhuk,

*Lviv Polytechnic National University,
Ukraine*

Estimation of the parameters
of stormwater runoff from the
territory of the Lviv city at the
inlet of the municipal wastewater
treatment plant

Thị Vân Hà Nguyễn,

*HoChiMinh City University
of Natural Resources and Environment,
Vietnam*

Green (including biobased,
circular etc) economy for cities
and territorial resilience

Viktar Kireyeu,

*Erda Research, Technology, Education,
The Netherlands*

Blue-green infrastructure and
cultural landscapes in urban
planning: transformations in
municipal governance practices

Raimonds Ernšteins,

University of Latvia, Latvia

Application of key principles for
coastal sustainable governance:
systems approach, integration,
and collaboration

Friday, November 8

9:00 – 11:00 – Institute of Ecology of the Carpathians NAS of Ukraine,
Kozelnytska str., 4, 3 floor, room 333

Chairs: Raimonds Ernšteins, Sergii Stepanenko

Hans-Peter Nachtnebel,

*University of Natural Resources and
Life Sciences, Austria*

Soft and green measures to
successfully restore a former
Danubian side in the city of
Vienna for recreational purposes

Oksana Masryshevych,

*Institute of Ecology of the Carpathians,
NAS of Ukraine*

Vision of Lviv city Smart green
and Smart blue

Kalev Sepp,

*Estonian University of Life Sciences,
Estonia*

Challenges of Landscape Sciences
in Environmental Management
and Society

Altansukh Ochir,

*National University of Mongolia,
Mongolia*

Application of the City Blueprint
Approach: A case study of
Ulaanbaatar, Mongolia

Yaroslav Henyk,

*Ukrainian National Forestry
University, Ukraine*

Lviv green areas, structure and
problems of operation

Conference Chairs



Mykola Kozlovsky,
*Institute of Ecology of the Carpathians of the National
Academy of Sciences, Ukraine*
Conference co-chair

Mykola Kozlovsky (DSc in Biology) is a corresponding member of the National Academy of Sciences of Ukraine, professor, and the director of the Institute of Ecology of the Carpathians of the National Academy of Sciences of Ukraine. The scope of his research interests includes soil biodiversity, bioindication, ecosystemology, forest ecology (in particular ecology of spruce communities in mountainous conditions), as well as ecology and biodiversity of Ukrainian Carpathians and adjacent regions in general.



Kalev Sepp,
Estonian University of Life Sciences
Conference co-chair

Kalev Sepp (PhD) is a Professor of Environmental Protection and Landscape Management at the Estonian University of Life Sciences (EMU). He reads courses on landscape ecology, environmental policy and nature resource management. His research and publications focus on evaluating the human impact to agricultural landscapes, ecosystem services, management of protected areas, landscape and biodiversity monitoring, applying the concept of ecological networks in planning. He is a former Vice-President of the International Union for Nature Conservation and a member of the EU Horizon 2020 Programme Committee for Environment.



Sergii Stepanenko,
Odessa State Environmental University
Conference co-chair

Professor Sergiy Stepanenko, DSc (Physics and Mathematics), is the Rector of Odessa State Environmental University, and National focal point of the UNECE Strategy for Education for Sustainable Development. The areas of Sergiy's expertise include Mesoscale Meteorology, Boundary Layer Meteorology, Regional Aspects of Climate Changes and Adaptation to Their Effects, Environmental Education and Education for Sustainable Development. Author of about 170 published papers.

Keynote speakers



Miguel Villoslada,
Estonian University of Life Sciences, Estonia

Miguel Villoslada Peciña (PhD Candidate) is a Junior Researcher at the Department of Landscape Management and Nature Protection of Estonian University of Life Sciences. He is a GIS specialist with research focus on Remote Sensing, Applications of Unmanned Aerial Vehicles, Ecosystem Services, and Global Change Modelling.



Volodymyr Zhuk,
Lviv Polytechnic National University

Volodymyr Zhuk (PhD in Technical Sciences) is a Deputy Head and Associate Professor at the Department of Hydraulic and Sanitary Engineering, Lviv Polytechnic National University. His research interests include surface runoff management in urban areas, designing rainwater drainage networks and structures, sewage treatment and purification, and sewage sludge treatment.



Thị Vân Hà Nguyễn,
HoChiMinh City University of Natural Resources and Environment, Vietnam

Thị Vân Hà Nguyễn is Dean of Faculty of Environment at HoChiMinh City University of Natural Resources and Environment and a Lecturer at HCMC University of Technology and Nong Lam University. She is an expert in Urban, Rural, Industrial and Water Resources Management, Environmental Planning, and Environmental Risk Assessment.



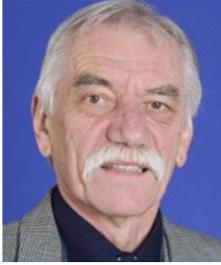
Viktar Kireyeu,
Erda RTE, The Netherlands

Viktar (PhD in Environmental Sciences and Policy) is a Postdoctoral Researcher at the Institute of Earth Sciences, Saint Petersburg State University. He is a climate change adaptation researcher, trainer and consultant, focusing on issues of rural/urban development, forestry, biodiversity conservation, and environmental communication.



Raimonds Ernšteins,
University of Latvia, Latvia

Dr.hab.paed. Raimonds Ernšteins is a Professor of Environmental Science/Public Governance and Leading Researcher at the Department of Environmental Science, Faculty of Geography and Earth Sciences, University of Latvia. He is a Chairman of UNESCO Chair on Sustainable Coastal Development. His field of expertise is in Integrated Coastal Management, Environmental System Analysis, Environmental Policy and Planning, and Environmental Governance.



Hans-Peter Nachtnebel,
University of Natural Resources and Life Sciences, Austria

Em. O.Univ.Prof.Dipl.Ing.Dr. Dr.h.c. H.P. Nachtnebel is Emeritus Professor at the Department of Water-Atmosphere-Environment of the University of Natural Resources and Life Sciences (BOKU). Hans-Peter serves on the Board of Directors for the Society of Integrated Disaster Risk Management. He is a board member of the Austrian Hydrological Society. His area of expertise is in eco-hydrological modelling and management, river modelling and river restoration.



Oksana Masryshevych,
Institute of Ecology of the Carpathians, NAS of Ukraine

Dr. Maryshevych (PhD in Ecology) is a Senior Researcher at the Institute of Ecology of the Carpathians, an Assoc. Prof. in Ecology, Country Coordinator for Ukraine at the Foundation for the Eastern Carpathians Biodiversity Conservation (Switzerland), Adviser to the Committee of the Verkhovna Rada of Ukraine on Ecological Policy, Natural Resource Use and Elimination of the Consequences of the Chernobyl Catastrophe, and a member of Council of Lviv Regional State Administration on Ecology and Natural Recourses.



Altansukh Ochir,
National University of Mongolia, Mongolia

Altansukh Ochir, PhD is a Professor at the Department of Environment and Forest Engineering of National University of Mongolia. His research interests include water quality assessment, water harvesting, water quality modelling, land use/cover change along the Mongolia part of the China-Mongolia-Russia economic corridor, and suitability analysis for surface water harvesting sites.



Yaroslav Henyk,
Ukrainian National Forestry University, Ukraine

Yaroslav Henyk, DSc is a Professor and Head of the Department for Landscape Architecture, Landscape Gardening and Urban Ecology of Ukrainian National Forestry University. His research focuses on transformation processes in beech wildwood ecosystems of Borzhava in the Ukrainian Carpathians, revitalization of anthropogenically violated ecosystems, soil transformations in post-technogenic areas, forest resource accessibility and illegal logging in Ukraine.

Parallel sessions:

1. Plant and landscape ecology

Chair: Viktor Kireyeu

November 7, 14:00 – 15:30 (Lvivska Torhovo-Promyslova Palata), Lviv, Stryiski Park 14, 2 floor)

First author / other authors	Affiliation of the first author	Country	Paper title
Amarjargal Ayurzana	Khovd University	Mongolia	Chemical composition of essential oils, oxidation on <i>Nepeta Sibirica L</i> and technology of cultivation
Volodymyr Mokryy	Lviv Polytechnic National University	Ukraine	Fluorescent monitoring of plants in ecological-phytocenotic zones of Lviv
Nataliya Horbenko	Ukrainian National Forestry University	Ukraine	Medicinal and aromatic vascular plants within the territory of Lviv city (Ukraine)
Nadiya Maksymenko	V.N. Karazin Kharkiv National University	Ukraine	Landscape segment of ecosystem services in management decision
Anatolii Smaliychuk	Ivan Franko National University of Lviv	Ukraine	Ecosystem-based adaptation to climate change: pioneering new approach in Ukrainian biosphere reserves
Anatolii Polovy	Odessa State Environmental University	Ukraine	Productivity Formation of Meadow and Steppe Vegetation in Connection with the Climate Change

2. MOOCs for advancing multidisciplinary approaches in research training in sustainability studies

Chair: Raimonds Ernšteins

November 7, 16:00 – 17:00 (Lvivska Torhovo-Promyslova Palata), Lviv, Stryiski Park 14, 2 floor)

First author / other authors	Affiliation of the first author	Country	Paper title
Kateryna Utkina	V.N. Karazin Kharkiv National University	Ukraine	MOOC on the precautionary principle and sustainability transition
Thị Vân Hà Nguyễn, Bích-Thuy Ly	HoChiMinh City University of Natural Resources and Environment, Hanoi University of Science and Technology	Vietnam	MOOC on sustainable energy
Altansukh Ochir	National University of Mongolia	Mongolia	MOOC on nature-based solutions and green planning
Hans-Peter Nachtnebel, Oleg Shabliy	University of Natural Resources and Life Sciences / Odessa State Environmental University	Austria / Ukraine	MOOC on sustainable water resources

3. Nature-based solutions for resilient cities

Chair: Kaley Sepp

November 8, 11:30 – 13:00 (Institute of Ecology of the Carpathians NAS of Ukraine, Kozelnytska str., 4, 3 floor, room 333)

First author / other authors	Affiliation of the first author	Country	Paper title
Anton Shkaruba	Estonian University of Life Sciences	Estonia	Governance landscapes for water-related nature-based solutions in Belarus, Russia and Ukraine
Kateryna Husieva	Odessa State Environmental University	Ukraine	Nature-Based Solutions to Improve the Comfort of Living in Odessa
Valeriya Ovcharuk	Odessa State Environmental University	Ukraine	The modern method of determining characteristics of the maximum rivers runoff as part multi-functional nature-based watershed management
Lidiia Popova	Odessa State Environmental University	Ukraine	Nature-Based Solutions for extreme weather events induced by atmospheric blocking over the Ukraine territory
Thị Vân Hà Nguyễn	HoChiMinh City University of Natural Resources and Environment	Vietnam	Increasing carbon sequestration through nature-based solutions

4. Green and blue for smart cities

Chair: Miguel Villoslada

November 8, 11:30 – 13:00 (Institute of Ecology of the Carpathians NAS of Ukraine, Kozelnytska str., 4, 3 floor, room 333)

First author / other authors	Affiliation of the first author	Country	Paper title
Viktar Kireyeu	Central European University	Hungary	Transformations in urban-rural continuum: governing conflicting perspectives on landscape quality
Maryna Moniushko	Odessa State Environmental University	Ukraine	Main principles of integrated coastal zone management in Ukraine
Vladyslava Yatsenko	Odessa State Environmental University	Ukraine	Vulnerability and adaptation of built infrastructure to extreme weather events. Uzhhorod case study
Svitlana Burchenko	V.N. Karazin Kharkiv National University	Ukraine	Green infrastructure strategy for water management in Kharkiv

5. Green and blue for smart cities

Chair: Viktor Kireyev

November 8, 14:00 – 15:30 (Institute of Ecology of the Carpathians NAS of Ukraine, Kozelnytska str., 4, 3 floor, room 333)

First author / other authors	Affiliation of the first author	Country	Paper title
Ganna Titenko	V.N. Karazin Kharkiv National University	Ukraine	Managing Stormwater Runoff through Implementation of SUDS and Blue-Green Infrastructure: Examples from Scotland and Ukraine
Bayarkhuu Batbayar	Khovd University	Mongolia	Smart green development context and urban regeneration of the city /Khovd/ Mongolia
Yuriy Shandra	Ivan Franko National University of Lviv	Ukraine	Improvement of the aquatic environment in Lviv urban systems through landscape planning

6. Urban health and pollution

Chair: Bich-Thuy Ly

November 8, 14:00 – 15:30 (Institute of Ecology of the Carpathians NAS of Ukraine, Kozelnytska str., 4, 3 floor, room 333)

First author / other authors	Affiliation of the first author	Country	Paper title
Anna Bohushenko	Odessa State Environmental University	Ukraine	Impact of climate change on human health. Odessa case study
Khac-Uan Do	Hanoi University of Science and Technology	Vietnam	Application of membrane technology to reuse wastewater from car wash stations in Hanoi – a case study
Yen Doan	Hanoi University of Science and Technology	Vietnam	Microalgae-based CO ₂ sequestration solutions for Urban air pollution
Bich-Thuy Ly	Hanoi University of Science and Technology	Vietnam	The effect of meteorological factors on PM _{2.5} and O ₃ in an Urban site in Hanoi

The conference venues:

Wednesday, November 6 – Dorm #1 of Lviv National University (only for INTENSE partners from Mongolia, Vietnam and Ukraine)

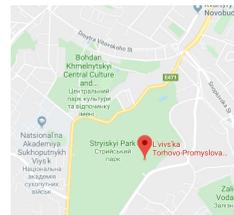
Arrival of the participants of the conference, check in to the guest rooms of the Lviv National University (Lviv, Stetska, 3, <http://students.lnu.edu.ua/campus/hurtozhytky/hurtozhytok-1/>, Hurtozhytok 1 on the map)



Thursday, November 07 (9:00 – 14:00) – Lviv Chamber of Commerce and Industry (Lvivska Torhovo-Promyslova Palata)



Lviv Chamber of
Commerce and Industry
lcci@cci.lviv.ua
Strytskyi Park, 14, Lviv,
Ukraine,

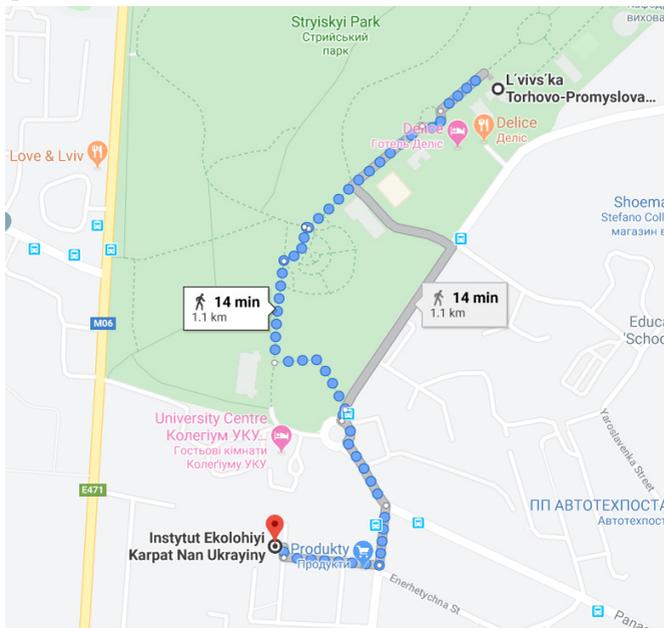


Thursday, November 7 (14:00 – 18:00) and Friday, November 8 (9:00 – 13:00, 14:00 – 18:30) – Institute of Ecology of the Carpathians of NAS of Ukraine (Instytut Ekolohiyi Karpat NAN Ukrainy)

Institute of Ecology of the
Carpathians of NAS of Ukraine,
Kozelnytska Str., 4, 3rd floor



A route from Lviv Chamber of Commerce and Industry to Institute of Ecology of the Carpathians



The field trip:

Stryiski Park



It is one of the oldest and most beautiful parks of Ukraine. The park has a status of a monument of landscape art of national importance. Stryiski Park was designed by the famous architect Arnold Rering in 1876-1877 on the territory of the former Stryi Cemetery. In 1894, the “Regional Exhibition” was held in the park, numerous exhibition pavilions were built, and narrow-gauge railway lines were constructed. There are more than 200 species of trees and plants in Stryiski Park. There is a greenhouse, rock garden, sycamore and linden alleys. Here one can find red oak, tulip tree, magnolia, Weymouth pine, Japanese lilac, Manchurian aralia, and ginkgo.

Znesinnia Regional Landscape Park



This is the largest park in Lviv. Together with the High Castle, the hills of Park Znesinnia form Lviv’s distinctive city skyline, known from drawings going back to the 16th century. The park is located on green hilly parts of the historical village Znesinnia, one of the first areas settled by men inside the present boundaries of Lviv. Being commenced due to a public initiative in 1993, Park Znesinnya is one of the first Regional Landscape Parks in Ukraine founded within the territory of a large city. The Park’s Mount Lion and Mount Stefan have also been designated as geological monuments of nature.

Shevchenkivskyi Hai - Museum of Folk Architecture and Life



This is an open air museum located on the wooded hills of Rastochya, near the High Castle park, within the boundaries of Znesinnia Regional Landscape Park. Its area of 60 hectares is divided into six ethnographic zones with monuments from Boykivshchyna, Transcarpathia, Lemkivshchyna, Lvivshchynan, Bukovina, Pokuttya, Huzulshchyna, Polissia, and Volyn. On the territory of Shevchenkivskyi Hai there are more than 120 architectural monuments, 6 of them are churches. The oldest exhibit is a peasant hut from 1749. There is also a forge, a school, a sawmill, a cloth mill, a water and a windmill.



The conference is organized by Institute of Ecology of the Carpathians of the National Academy of Sciences, Ukraine under the project Erasmus+ CBHE INTENSE - Integrated Doctoral Program for Environmental Policy, Management and Technology (<http://intense.network/>) with support from Lviv City Council, and in cooperation with Estonian University of Life Sciences, Kharkiv V.N. Karazin National University and Odessa State Environmental University.

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