



- Visegrad Fund



Petro Mohyla Black Sea National University,  
Mykolaiv, Ukraine



## PROGRAMME

The International Forum

# CLIMATE CHANGE & SUSTAINABLE DEVELOPMENT: NEW CHALLENGES OF THE CENTURY

September, 9–11, 2021

Mykolaiv, Ukraine

**Organizing the International Forum on  
Climate Change and Sustainable Development: New Challenges of the  
Century, September, 9–11, 2021. – Mykolaiv: PMBSNU:**

*Chairperson:*

Leonid Klymenko, Prof., DSc., Mykolaiv, Ukraine

*Deputy Chairpersons:*

Volodymyr Beglytsya, Prof., DSc., Mykolaiv, Ukraine

Olena Mitryasova, Prof., DSc., Mykolaiv, Ukraine

Piotr Koszelnik, Prof., PhD, DSc., Eng., Rzeszow, Poland

Małgorzata Kida, PhD, Eng, Rzeszow, Poland

Oleg Aleksandrowicz, DSc, Prof., Slupsk, Poland

Ruslan Mariychuk, Assoc. Prof., DSc., CSc., Prešov, Slovakia

Lenka Bobuľská, Dr., Prešov, Slovakia

Pavel Nováček, Assoc. Prof., Olomouc, Czech Republic

Eva Chmielewská, Prof., PhD, Bratislava, Slovakia

Martina Zvaríková, PhD, Bratislava, Slovakia

Mirko Bohus, PhD, Bratislava, Slovakia

Zoltán Juvancz, Prof., DSc., Budapest, Hungary

Liudmila Grygorieva, Prof., DSc., Mykolaiv, Ukraine

Victor Smyrnov, Assoc. Prof., Dr., Mykolaiv, Ukraine

Yevhen Bezsonov, Assoc. Prof., Dr., Mykolaiv, Ukraine (*secretary*)

Volodymyr Pohrebennyk, Prof., DSc., Lviv, Ukraine

Volodymyr Bogoliubov, Prof., DSc., Kyiv, Ukraine

Valentyna Iurchenko, Prof., DSc., Kharkov, Ukraine

Olena Kofanova, Prof., DSc., Kyiv, Ukraine

Olena Voloshkina, Prof., DSc., Kyiv, Ukraine

Svitlana Sovhira, Prof., DSc., Uman, Ukraine

*Venue of the Forum:* 54003, Ukraine, Mykolaiv, st. 68 Desantnykiv, 10,

The library reading hall

Format of the Forum is hybrid (offline & online, ZOOM platform)



**The project is co-financed by the Governments of Czechia, Hungary, Poland and Slovakia through Visegrad Grant from International Visegrad Fund. The mission of the fund is to advance ideas for sustainable regional cooperation in Central Europe.**

Thursday, September 9, 2021

**WELCOME SPEECHES**

11:00 - 11:20 EEST  
10:00 - 10:20 CEST

LEONID KLYMENKO, Rector of Petro Mohyla Black Sea National University, Mykolaiv, Ukraine

OLENA MITRYASOVA, Coordinator of the Visegrad project, Professor of the Ecology Department, Petro Mohyla Black Sea National University, NGO "Open Environmental University", Mykolaiv, Ukraine

PIOTR KOSZELNIK, Rector of Rzeszow University of Technology, Rzeszow, Poland

RUSLAN MARIYCHUK, Head of the Ecology Department, University of Presov, Presov, Slovakia

PAVEL NOVÁČEK, Head of the Development and Environmental Studies Department, Palacký University in Olomouc, Olomouc, Czech Republic

ZOLTÁN JUVANCZ, DSc., Professor of the Department of Environmental Engineering, Óbuda University, Budapest, Hungary

EVA CHMIELEWSKÁ, Professor of the Environmental Ecology and Landscape Management Department, Comenius University, Bratislava, Slovakia PhD, Bratislava, Slovakia

**KEYNOTES**

**Moderators: Olena Mitryasova (Mykolaiv, Ukraine)**

**Ruslan Mariychuk (Presov, Slovakia)**

11:20 - 11:40 EEST  
10:20 - 10:40 CEST

*Strategies of the Environmental Education Development*

OLENA MITRYASOVA, Coordinator of the Visegrad project, DSc., Professor of the Ecology Department, Petro Mohyla Black Sea National University, NGO "Open Environmental University", Ukraine

11:40 - 12:00 EEST  
10:40 - 11:00 CEST

*Searching for Sustainable Development*

PAVEL NOVÁČEK, Head of the Development and Environmental Studies Department, Faculty of Science Palacký University in Olomouc, Czech Republic

<p>12:00 - 12:20 EEST 11:00 - 11:20 CEST</p>	<p><i>Sustainable Development of Territories. Urban Adaptation in Mykolaiv City: the Ways of Adaptation to Climate Change</i></p> <p>DMYTRO MATS, Deputy Head of the Mykolaiv Regional State Department of Ecology and Natural Resources, Mykolaiv, Ukraine</p> <p>EVHENIYA ZHARIKOVA, Leading specialist of the Mykolaiv Regional State Department of Ecology and Natural Resources, Mykolaiv, Ukraine</p>
<p>12:20 - 12:40 EEST 11:20 - 11:40 CEST</p>	<p><i>Climate Change and Fluctuations at the Global and Regional Level: Scenarios and Their Consequences</i></p> <p>ROMAN MURMYLO, Deputy Head of the Meteorology Department, Mykolaiv Regional Centre for Hydrometeorology, Mykolaiv, Ukraine</p>
<p>12:40 - 13:00 EEST 11:40 - 12:00 CEST</p>	<p><i>Monitoring of Snow Cover at the Territory of Academic Vernadsky Polar Research Base</i></p> <p>SERHII KLOK, Senior Researcher, Ukrainian Hydrometeorological Institute, Kyiv, Ukraine</p>
<p>13:00 - 14:00 EEST 12:00 - 13:00 CEST</p>	<p><b>Lunch Break</b></p>
<p>14:00 - 14:20 EEST 13:00 - 13:20 CEST</p>	<p><i>Eco-friendly Synthesis of Gold Nanoparticles for Biomedical Applications</i></p> <p>RUSLAN MARIYCHUK, Dr., Head of the Ecology Department, University of Presov, Slovakia</p>
<p>14:20 - 14:40 EEST 13:20 - 13:40 CEST</p>	<p><i>Alteration of Natural Ecosystems by Plants Invasion: Insights from Soil Chemical Properties and Microbial Indices</i></p> <p>LENKA BOBULSKÁ, Dr., The Ecology Department, University of Presov, Slovakia</p>
<p>14:40 - 15:00 EEST 13:40 - 15:00 CEST</p>	<p><i>The Idea of a Modern University is a Conceptual Force and Hub For the Transition to Sustainable Development of Life</i></p> <p>OLEKSANDR MESHCHANINOV, DSc., Professor of the Department of Intelligent Information Systems, Petro Black Sea National University, Ukraine</p>
<p>15:00 - 15:20 EEST 14:00 - 14:20 CEST</p>	<p><i>Field Practice as a Tool for Sustainable Environmental Education. A Case Study in Alsó-hegy</i></p> <p>ZOLTÁN JUVANCZ, DSc., Professor of the Department of Environmental Engineering, Óbuda University, Budapest, Hungary</p>

<p><b>15:20 - 16:00 EEST</b> <b>14:20 - 15:00 CEST</b></p>	<p><b>Coffee Break</b></p>
<p><b>16:00 - 16:20 EEST</b> <b>15:00 - 15:20 CEST</b></p>	<p><i>Contaminated Bottom Sediments - Methods of Reducing the Environmental Impact</i></p> <p>PIOTR KOSZELNIK, DSc., Professor, Rector of Rzeszow University of Technology, Rzeszow, Poland</p> <p>MAŁGORZATA KIDA, PhD, Eng., Department of Chemistry and Environmental Engineering, Rzeszow University of Technology, Poland</p>
<p><b>16:20 - 16:40 EEST</b> <b>15:20 - 15:40 CEST</b></p>	<p><i>Adaptive Evolution of Domestic Animals in the Context of Climate Change</i></p> <p>IRYNA TKACHOVA, Vice-director, Institute of Animal Science of the National Academy of Agrarian Sciences of Ukraine, Kharkiv, Ukraine</p>
<p><b>16:40 - 17:00 EEST</b> <b>15:40 - 16:00 CEST</b></p>	<p><i>Analysis of Water Dynamics of the Southern Buh River</i></p> <p>RUSLAN TUZ, Head of the Basin Association and Technogenic and Environmental Safety Department, Regional office of water resources in the Mykolaiv area, Ukraine</p>
<p><b>17:00 - 17:30 EEST</b> <b>16:00 - 16:30 CEST</b></p>	<p><b>ROUND TABLE</b></p>

## Friday, September 10, 2021

### KEYNOTES

**Moderators: Olena Mitryasova (Mykolaiv, Ukraine)**

**Pavel Nováček (Olomouc, Czech Republic)**

<p><b>10:00 - 10:15 EEST</b> <b>09:00 - 09:15 CEST</b></p>	<p><i>Optimization of the Structure of Atmospheric Air Monitoring System</i></p> <p>VOLODYMYR BOGOLIUBOV, DSs., Professor of the General Ecology Department, National University of Life and Environmental Sciences of Ukraine, Kyiv, Ukraine</p>
<p><b>10:15 - 10:45 EEST</b> <b>09:15 - 9:45 CEST</b></p>	<p><i>The State of the Fauna of Bats in the Ukrainian Azov Region in Modern Environmental Conditions</i></p> <p>ANATOLY VOLOKH, DSc., Professor, Tavria State Agrotechnological University, Melitopol, Ukraine</p> <p>PETRO GORLOV, Dr., Assoc. Professor, Bogdan Khmelnytsky Melitopol State Pedagogical University, Melitopol, Ukraine</p>

	<p>VALERY SIOKHIN, Dr., Assoc. Professor, Bogdan Khmelnytsky Melitopol State Pedagogical University, Melitopol, Ukraine</p> <p>IGOR POLISHCHUK, Senior Researcher, Falz-Fein Biosphere Reserve «Askania Nova», Askania Nova, Ukraine</p>
<p>10:45 - 11:00 EEST 09:45 - 10:00 CEST</p>	<p><i>Climate Change Induced Biological Invasions of Economically Important Insect Pests and Mitigation Action Strategy</i></p> <p>MARTINA ZVARÍKOVÁ, RNDr, PhD, Department of Environmental Ecology and Landscape Management, Comenius University in Bratislava, Bratislava, Slovakia</p>
<p>11:00 - 11:15 EEST 10:00 - 10:15 CEST</p>	<p><i>Bird Conservation in the Light of the Climate Change and Sustainable Development – a Case of the European Roller Coracias garrulous</i></p> <p>MIRKO BOHUŠ, RNDr, PhD., Department of Environmental Ecology and Landscape Management, Comenius University in Bratislava, Bratislava, Slovakia</p>
<p>11:15 - 11:30 EEST 10:15 - 10:30 CEST</p>	<p><i>Adventive Plants of National Nature Park Buzkiy Gard During Climate Change</i></p> <p>HANNA KOLOMIETS', Dr., Researcher, National Nature Park «Buzkiy Gard», Mykolaiv region, Ukraine</p>
<p>11:30 - 12:00 EEST 10:30 - 11:00 CEST</p>	<p><b>Coffee Break</b></p>
<p>12:00 - 12:15 EEST 11:00 - 11:15 CEST</p>	<p><i>Ecological State of the Dniester River in the Climate Change Conditions</i></p> <p>VOLODYMYR POHREBENNYK, DSc., Professor of the Department of Ecological Safety and Nature Protection Activity, Lviv Polytechnic National University, Lviv, Ukraine</p>
<p>12:15 - 12:30 EEST 11:15 - 11:30 CEST</p>	<p><i>Transformation of the Water and Mass Exchange on the Shatsk National Natural Park Territory under the Influence of Climatic and Anthropogenic Factors</i></p> <p>SERHII TELYMA, Senior Researcher, Institute Hydromechanics of National Academy of Sciences of Ukraine, Kyiv, Ukraine</p>
<p>12:30 - 12:45 EEST 11:30 - 11:45 CEST</p>	<p><i>Sustainable Use of Plants of the Lamiaceae Lindl Family in the Southern Steppe Zone of Ukraine under Climate Change Conditions</i></p> <p>TETIANA MANUSHKINA, Dr., Assoc.Prof., Mykolayiv National Agrarian University, Mykolaiv, Ukraine</p>



<p>12:45 - 13:00 EEST 11:45 - 12:00 CEST</p>	<p><i>Weather's Comfort of Mykolaiv and Adaptation to Climate Change</i></p> <p>ALINA NIKULINA, NGO «Open Environmental University», Mykolaiv, Ukraine»</p>
<p>13:00 - 14:00 EEST 12:00 - 13:00 CEST</p>	<p><b>Lunch Break</b></p>
<p>14:00 - 14:15 EEST 13:00 - 13:15 CEST</p>	<p><i>Biological Reclamation and Decontamination of Disturbed Ecosystems</i></p> <p>LIUDMILA GRYGORIEVA, DSc., Prof., Head of the Ecology Department, Petro Mohyla Black Sea National University, Ukraine</p>
<p>14:15 - 14:30 EEST 13:15 - 13:30 CEST</p>	<p><i>Diagnosis of the Socio-Economic and Ecological State of the Agrosphere of the Urban Systems Zone of Influence for Indications of Sustainable Development</i></p> <p>ALLA PRYSHCHEPA, DSc., Professor of the Department of Land Management, Cadaster, Monitoring of the Earth and Geoinformatics, National University of Water and Environmental Engineering, Rivne, Ukraine</p>
<p>14:30 - 14:45 EEST 13:30 - 13:45 CEST</p>	<p><i>Solving Environment Problem of the Large Cities of Ukraine Related to Climate Change through the Implementation of the Green Buildings Principles</i></p> <p>ANTONINA SAVCHENKO, Senior Lecturer of the Department of Occupational Safety and Environment, National University of Construction and Architecture, Kyiv, Ukraine</p>
<p>14:45 - 15:00 EEST 13:45 - 14:00 CEST</p>	<p><i>Geoinformation System of Land Resources Management as a Tool for Land Reform in Territorial Communities</i></p> <p>VOLODYMYR YANCHUK, Assoc.Prof.,of the Department of Farming, Geodesy and Land Management, Petro Mohyla Black Sea National University, Ukraine</p>
<p>15:00 - 15:30 EEST 14:00 - 14:30 CEST</p>	<p><b>Coffee Break</b></p>
<p>15:30 - 15:45 EEST 14:30 - 14:45 CEST</p>	<p><i>Protective Forest Plantations as a System of Protection Biocenoses and Technocenoses from the Negative External Factors Impacts</i></p> <p>SVITLANA ABU DEEB, Postgraduate student, National University of Contracture and Architecture, Kyiv, Ukraine</p>

<p>15:45 - 16:00 EEST 14:45 - 15:00 CEST</p>	<p><i>Recultivation of Disturbed Lands During the Liquidation of Sludge Storage Limited Liability Company "Ocean Shipbuilding Plant"</i></p> <p>VICTOR SMYRNOV, Dr., Assoc.Prof., the Ecology Department, Petro Mohyla Black Sea National University, Ukraine</p>
<p>16:00 - 16:15 EEST 15:00 - 15:15 CEST</p>	<p><i>Prospects for Assessing the State of the Aquatic Ecosystem by the Number of Kairomones of Predatory Fish</i></p> <p>YEVHEN BEZSONOV, Dr., Assoc.Prof., the Ecology Department, Petro Mohyla Black Sea National University, Ukraine</p>
<p>16:15 - 16:30 EEST 15:15 - 15:30 CEST</p>	<p><i>Aspects of the Mechanism of Implementation of the Sustainable Development Strategy of Rural Areas of Ukraine</i></p> <p>SVITLANA PUSTOVA, Postgraduate student, National University of Life and Environmental Sciences, Kyiv, Ukraine</p>
<p>16:30- 16:45 EEST 15:30 - 15:45 CEST</p>	<p><i>Diversification of Rural Tourism on The Basis of Creativity and Balance</i></p> <p>NATALIA VENHERSKA, PhD, Assoc.Prof., Department of International Economics, Natural Resources and Economics of International Tourism, Deputy Dean of the Faculty of Economics for International Affairs, faculty`s project manager, Zaporizhzhia National University, Ukraine</p>
<p>16:45 - 17:30 EEST 15:45 - 16:30 CEST</p>	<p><b>ROUND TABLE</b></p>
<p><b>Saturday, September 11, 2021</b></p>	
<p><b>OFFSITE SESSION</b></p>	
<p>09:00 - 17:00 EEST 08:00 - 16:00 CEST</p>	<p><i>Sustainable Development of the National Nature Park «Buzkiy Gard» Territory in the Context of Climate Change</i></p> <p><b>Offsite Session Host</b> – VLADYSLAV ARTAMONOV, Head of the National Nature Park «Buzkiy Gard», Myhia, Mykolaiv region, Ukraine</p>
<p>16:30 - 17:00 EEST 15:30 - 16:00 CEST</p>	<p><b>FORUM CLOSING</b></p>