



# INTERNATIONAL CONFERENCE ON ENVIRONMENTAL SCIENCE AND TECHNOLOGY

## THE FIFTH INTERNATIONAL CONFERENCE ON ENVIRONMENTAL SCIENCE AND TECHNOLOGY – EST 2025 CONFERENCE PROGRAM

**MEETING LOCATION:** MJ (JUULCHIN) BALLROOM, THIRD FLOOR, GALLERIA  
ULAANBAATAR (EAST SIDE OF THE SUKHBAATAR SQUARE), MONGOLIA  
**MEETING DATES:** JUNE 18 & 19, 2025

DAY ONE: JUNE 18, 2025	
REGISTRATIONS AND PRESENTATION PREPARATIONS (08:00-09:00)	
08:00-09:00	Conference Registration – Registration Desk on the 3 <sup>rd</sup> Floor
08:00-09:00	Poster installation on the designated board in MJ (Juulchin) Ballroom, 3 <sup>rd</sup> Floor
08:00-09:00	Oral presentation uploading to the respective meeting rooms
OPENING CEREMONY – JUULCHIN BALLROOM (09:00-10:00)	
Time	Opening Remarks
09:00-09:10	Conference opening performance
09:10-09:15	<b>Opening speech:</b>  <b>Dr. Dashtseren Avirmed,</b> Director of the Institute of Geography and Geoecology, Mongolian Academy of Sciences
09:15-09:20	<b>Greetings from:</b>  <b>Khurelsukh Ukhnaa,</b> President of Mongolia
09:20-09:25	<b>Academician Regdel Duger,</b> Member of the Parliament of Mongolia
09:25-09:30	<b>Academician Demberel Sodnomsambuu,</b> President of the Mongolian Academy of Sciences
09:30-09:35	<b>Dr. Battogtokh Dorjgotov,</b> Director General, Department of Science and Technology Integrated Policy, Ministry of Economy and Development, Mongolia
09:35-09:40	<b>Dr. Oyunsanaa Byambasuren,</b> Director General of the National Forest Agency, Government of Mongolia
09:40-09:45	<b>Ms. Chinguundari Navaan-Yunden,</b> Director of the COP17 Preparatory Office at the Ministry of Foreign Affairs
09:45-10:00	Group Photo (All participants)
10:00-10:20	Coffee Break – Juulchin Ballroom on 3 <sup>rd</sup> Floor

<b>KEYNOTE PRESENTATIONS - JUULCHIN BALLROOM ON 3<sup>RD</sup> FLOOR (10:20-13:00)</b>	
<b>Time</b>	<b>Moderator: Host</b>
10:20-10:40	<b>Dr. Dashtseren Avirmed</b> “Causes of land degradation and natural resource depletion in Mongolia” <i>Director, Institute of Geography and Geoecology, Mongolian Academy of Sciences, MONGOLIA</i>
10:40-11:00	<b>Dr. Tao Wang</b> "Climate change and water manage to the oasisification and aeolian desertification in arid region of China". <i>Northwest Institute of Eco-Environment and Resources, Chinese Academy of Sciences, CHINA</i>
11:00-11:20	<b>Dr. Clare Webster</b> “Measuring boreal forest and snow cover with UAV-Lidar” <i>Department of Geography, University of Zurich, SWITZERLAND</i>
11:20-11:40	<b>Dr. Markus Hauck</b> “Mongolia’s boreal forests and grasslands under climate change” <i>Chair of Applied Vegetation Ecology, University of Freiburg, GERMANY</i>
11:40-12:00	<b>Dr. Battogtokh Dorjgotov</b> “Sustainability in a Global Context: Transdisciplinary Research Model as a Sustainable Development Model” <i>Director General, Department of Science and Technology Integrated Policy, Ministry of Economy and Development, MONGOLIA</i>
12:00-12:20	<b>Dr. Mamoru Ishikawa</b> “On the Southernmost permafrost zones: in depth collaboration between Mongolia and Japan for past 25 years” <i>Hokkaido University, JAPAN</i>
12:20-12:40	<b>Dr. Dong Suocheng</b> “China-Mongolia jointly Construct Ecological Security Shelter and Green Evelopment Modes on Mongolian Plateau” <i>Director, Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences, CHINA</i>
12:40-13:00	<b>Dr. Sarantuyaa Zandaryaa</b> “UNESCO: Advancing science to address global water and climate challenges” <i>Division of Water Sciences, Intergovernmental Hydrological Programme (IHP), UNESCO (Paris, France), MONGOLIA</i>
<b>LUNCH (13:00-14:00)</b>	
<b>CONFERENCE MAIN AND SUB-SESSIONS (14:00-18:00)</b>	
<b>Session 1. Environmental Challenges and Climate Change: Sub-session 01: Climate Change and Its Impact on Natural Resources (14:00-18:00) – Juulchin Ballroom on the 3<sup>rd</sup> Floor</b>	
<b>Time</b>	<b>MODERATORS: DR. TONGHUA WU &amp; DR. TSEYENKHAND PUNSANTSOGVOO (14:00-16:00)</b>
14:00-14:15	"Analysis of climate change and permafrost landscapes of Yakutia over the past 60 years". <b>Alexander Fedorov, ScD,</b> <i>Melnikov Permafrost Institute, Siberian Branch, Russian Academy of Sciences, RUSSIA</i>
14:15-14:30	"Impacts of global warming on summer precipitation trend over northeastern Eurasia using large-ensemble experiments". <b>Hironari Kanamori, PhD,</b> <i>Faculty of Business Administration, Kobe Gakuin University, JAPAN</i>

14:30-14:45	"The significant uncertainty of water availability based different datasets in arid regions—Taking Mongolia as an example". <b>Yanmin Yang, PhD,</b> <i>Center for Agricultural Resources Research, Institute of Genetics and Developmental Biology, Chinese Academy of Sciences, CHINA</i>
14:45-15:00	"Freshening Arctic water cycle demonstrated by tracer model simulation". <b>Hotaek Park, PhD,</b> <i>Japan Agency for Marine-Earth Science and Technology (JAMSTEC), JAPAN</i>
15:00-15:15	"Impacts and Adaptation Strategies of Climate Change in Asian Grassland Regions". <b>Qinxue Wang, PhD,</b> <i>National Institute for Environmental Studies, JAPAN</i>
15:15-15:30	"Monitoring and estimation of aufeis area dynamic changes using remote sensing and machine learning in Erdeneburen soum of Khuvsgul province in Mongolia". <b>Temuujin Khurelbaatar, PhD,</b> <i>Institute of Geography and Geoecology, Mongolian Academy of Sciences, MONGOLIA</i>
15:30-15:45	"Creation of information on hydrological cycle variability contributing to the maintenance of resilience in Mongolia (HyCyReMon)". <b>Tetsuya Hiyama, PhD,</b> <i>Institute for Space-Earth Environmental Research, Nagoya University, JAPAN</i>
15:45-16:00	"Summer precipitation characteristics over Mongolia revealed by GPM DPR observations". <b>Hatsuki Fujinami, PhD,</b> <i>Institute for Space-Earth Environmental Research, Nagoya University, JAPAN</i>
16:00-16:15	COFFEE BREAK
<b>Time</b>	<b>MODERATORS: DR. QINXUE WANG &amp; DR. ODSUREN BATDELGER (16:15-17:45)</b>
16:15-16:30	"Climate Change Impacts on Riverine Communities in Alaska and Mongolia". <b>Alexander Shiklomanov, PhD,</b> <i>University of New Hampshire, USA</i>
16:30-16:45	"Rising River Temperatures in Mongolia Under Climate Change: Implications for Salmonid Species". <b>Saulyegul Avlyush, PhD,</b> <i>Wild Salmon Center, MONGOLIA</i>
16:45-17:00	"Soils of Paleolithic archaeological sites of the Orkhon-Selenga Middle Mountains (Northern Mongolia)". <b>Dmitrii Kobylkin, PhD,</b> <i>V. B. Sochava Institute of Geography, Siberian Branch, Russian Academy of Sciences, RUSSIA</i>
17:00-17:15	"Physicochemical variations and water quality conditions of the Delgermurun River Basin, Khuvsgul Province". <b>Gerelt-Od Dashdondog, MSc,</b> <i>Institute of Geography and Geoecology, Mongolian Academy of Sciences, MONGOLIA</i>
17:15-17:30	"Fine-scale Evaluation of Phosphorus Dynamics in Sediments of Typical Cold-arid Lakes in China and Mongolia". <b>Chao Han, PhD,</b> <i>Nanjing Institute of Geography and Limnology, Chinese Academy of Sciences, CHINA</i>
17:30-17:45	"Spatiotemporal assessment of water quality and geochemical evolution of Ugii Lake". <b>Uuriintuya Gantsetseg, MSc,</b> <i>Institute of Geography and Geoecology, Mongolian Academy of Sciences, MONGOLIA</i>
<b>Session 1. Environmental Challenges and Climate Change:</b> <b>Sub-session 03: Interaction Between the Changing Cryosphere and Ecosystems</b> <b>(14:00-17:45) -Urgoo Ballroom on the 3<sup>rd</sup> Floor</b>	
<b>Time</b>	<b>MODERATORS: DR. FEI LI &amp; DR. NARANGEREL SERDYANJIV (14:00-16:00)</b>

14:00-14:15	"FLEX-Cryo: A Process-Based Hydrological Model for Cryospheric Basins". <b>Hongkai Gao, ScD,</b> <i>East China Normal University, CHINA</i>
14:15-14:30	"Importance of ice albedo at the glaciers in Mongolia". <b>Akiko Sakai, ScD,</b> <i>Nagoya University, JAPAN</i>
14:30-14:45	"Influence of Geomorphic Settings and Anthropogenic Activities on CO2 and CH4Emissions from High-Mountain Streams to Arid Region Rivers". <b>Zhiheng Du, ScD,</b> <i>Northwest Institute of Eco-Environment and Resources, Chinese Academy of Sciences, CHINA</i>
14:45-15:00	"Spatiotemporal Variations of MODIS LST in the China-Mongolia-Russia Economic Corridor". <b>Fujun Niu, ScD,</b> <i>Shanghai Normal University, CHINA</i>
15:00-15:15	"Icings in the Selenga River basin as an indicator of climate change". <b>Vladimir Chernykh, PhD,</b> <i>Baikal Institute of Nature Management, Siberian Branch, Russian Academy of Sciences, RUSSIA</i>
15:15-15:30	"Mapping of peatland in Mongolia along the southern fringe of Siberian permafrost region" <b>Saruulzaya Adiya, PhD,</b> <i>Institute of Geography and Geoecology, Mongolian Academy of Sciences, MONGOLIA</i>
15:30-15:45	"Influence of seasonal temperature and circulation changes on groundwater and ice formation in caves of northern Mongolia". <b>Aleksandr Kononov, PhD,</b> <i>Irkutsk National Research Technical University, RUSSIA</i>
15:45-16:00	"Permafrost Problems and Mitigative Measures along China-Russia Crude Oil Pipeline". <b>Guoyu Li, PhD,</b> <i>Northwest Institute of Eco-Environment and Resources, Chinese Academy of Sciences, CHINA</i>
16:00-16:15	COFFEE BREAK
<b>Time</b>	<b>MODERATORS: DR. ALEKSANDR KONONOV &amp; DR. SARUULZAYA ADIYA (16:15-17:45)</b>
16:15-16:30	"How to map changes in permafrost temperature and thaw depth in Mongolia from satellite data". <b>Sebastian Westermann, PhD,</b> <i>University of Oslo, NORWAY</i>
16:30-16:45	"Establishment of Siberia-Mongolia-Tibet Permafrost Observation Transect: Progress & Perspective". <b>Tonghua Wu, PhD,</b> <i>Northwest Institute of Eco-Environment and Resources, Chinese Academy of Sciences, CHINA</i>
16:45-17:00	"Spatiotemporal variability in the soil's thaw depth in two eastern Siberian larch forests". <b>Taro Nakai, PhD,</b> <i>National Taiwan University, TAIWAN</i>
17:00-17:15	"Potential environmental challenges in rapidly developing economy of Mongolia". <b>Xiaoming Wang, PhD,</b> <i>Northwest Institute of Eco-Environment and Resources, Chinese Academy of Sciences, CHINA</i>
17:15-17:30	"A Comparative Study on the in situ soil thermal conductivity of the top active layer between the Arctic tundra and the alpine meadow on the Qinghai-Tibet Plateau".

	<b>Ren Li, PhD,</b> <i>Northwest Institute of Eco-Environment and Resources, Chinese Academy of Sciences, CHINA</i>
17:30-17:45	"Recent CO2 and water vapor fluxes at Udleg forest research station, Northern Mongolia". <b>Ayumi Kotani, PhD,</b> <i>Nagoya University, JAPAN</i>
<b>Session 2. Environmental Policy and Regional Development:</b> <b>Sub-session 02: Resilience to Environmental Hazards</b> <b>(14:00-16:30) – Sky Ballroom on the 3<sup>rd</sup> Floor</b>	
<b>Time</b>	<b>MODERATORS: DR. MASATO SHINODA &amp; DR. ALTANBAGANA MYAGMARSUREN (14:00-16:30)</b>
14:00-14:15	"Formation of Lake and Drained Lake Basin systems associated with permafrost thaw in northeastern Eurasia and its impacts". <b>Yoshihiro Iijima, ScD,</b> <i>Tokyo Metropolitan University, JAPAN</i>
14:15-14:30	"The effects of climate change on nomadic communities in the Khövsgöl province". <b>Mariia Kuklina, PhD,</b> <i>ARCTICenter, University of Northern Iowa, USA</i>
14:30-14:45	"Revegetation in Desert Area: Water Balance Matters". <b>Xinping Wang, PhD,</b> <i>Northwest Institute of Eco-Environment and Resources, Chinese Academy of Sciences, CHINA</i>
14:45-15:00	"Drought and high salinity increased apatite phosphorus in the sediment of cold-arid lakes". <b>Cheng Liu, PhD,</b> <i>Nanjing Institute of Geography and Limnology, Chinese Academy of Sciences, CHINA</i>
15:00-15:15	"Engineering geomorphological mapping based on land surface process with remote sensing approach in bigger area". <b>Odbaatar Enkhjargal, PhD Candidate,</b> <i>Institute of Geography and Geoecology, Mongolian Academy of Sciences, MONGOLIA</i>
15:15-15:30	"Assessing climate hazard risks for Mongolian herders: A County level study in Khovd, Bayankhongor, Dundgovi provinces". <b>Saruul Galtbayar, PhD Candidate,</b> <i>Institute of Geography and Geoecology, Mongolian Academy of Sciences, MONGOLIA</i>
15:30-15:45	"Nutrients migration in cold-arid lakes: a comparative study of Lake Ulansuhai (China) and Lake Ugii (Mongolia) under anthropogenic and climatic drivers". <b>Wenxuan Han, MSc,</b> <i>Nanjing Institute of Geography and Limnology, Chinese Academy of Sciences, CHINA</i>
15:45-16:00	"Adapting to the new normal: Challenges and strategies for landlocked Asian mountainous countries in the face of extreme climate events". <b>Dulguun Damdin-Od,</b> <i>International Think Tank for LandLocked Developing Countries (LLDCs), MONGOLIA</i>
16:00-16:15	COFFEE BREAK
16:15-16:30	"Experimenting with BSC technology in Mongolia". <b>Akihito Sakura,</b> <i>Nippon Koei Co., Ltd, JAPAN</i>
<b>Session 2. Environmental Policy and Regional Development:</b> <b>Sub-session 03: Policies for Sustainable Land and Natural Resource Use</b> <b>(16:30-18:00) – Sky Ballroom on the 3<sup>rd</sup> Floor</b>	
<b>Time</b>	<b>MODERATORS: DR. NATALIYA EMELIANOVA &amp; DR. ARIUNBOLD ERDENEGEREL (16:30-18:00)</b>

16:30-16:45	"The current state of the specially protected natural areas system in the Ömnögovi aimag, Mongolia". <b>Tatyana Kalikhman, ScD,</b> <i>V. B. Sochava Institute of Geography, Siberian Branch, Russian Academy of Sciences, RUSSIA</i>
16:45-17:00	"Sustainable Futures for Rangelands and Pastoralism: Climate Risks and Policy Pathways". <b>Nandintsetseg Banzragch, PhD,</b> <i>International Platform for Dryland Research and Education, Tottori University, JAPAN</i>
17:00-17:15	"Ecological security and green development on the Mongolian Plateau: A China–Mongolia collaborative response to climate change". <b>Hao Cheng, PhD,</b> <i>Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences, CHINA</i>
17:15-17:30	"Interaction between vegetation change and grazing activities against climatic variation on the Sonid grassland, northern China". <b>Shulin Liu, PhD,</b> <i>Northwest Institute of Eco-Environment and Resources, Chinese Academy of Sciences, CHINA</i>
17:30-17:45	"Can the Mining Industry Improve Social Welfare? Evidence from Mongolian Provinces". <b>Li Chen, PhD,</b> <i>Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences, CHINA</i>
17:45-18:00	"Typical Industry System Development under Global Change on the Mongolian Plateau" <b>Fei Li, PhD,</b> <i>Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences, CHINA</i>

## DAY TWO: JUNE 19, 2025

### CONFERENCE MAIN AND SUB-SESSIONS (09:00-13:00)

Session 1. Environmental Challenges and Climate Change:  
Sub-session 02: Land Cover Change, Desertification, and Drought  
(09:00-12:00) – Sky Ballroom on the 3<sup>rd</sup> Floor

Time	MODERATORS: DR. JIE LIAO & DR. URTNASAN MANDAKH (09:00-10:30)
09:00-09:15	"Addressing desertification towards sustainable herding and grasslands". <b>Masato Shinoda, ScD,</b> <i>Nagoya University, JAPAN</i>
09:15-09:30	"Determination of soil salinization in Gobi area, Mongolia". <b>Davaadorj Davaasuren, PhD,</b> <i>National University of Mongolia, MONGOLIA</i>
09:30-09:45	"Divergent Biotic-Environmental Controls on the Temporal Stability of Gravel and Sandy Desert Ecosystems in Arid Northwest China". <b>Wenzhi Zhao, PhD,</b> <i>Northwest Institute of Eco-Environment and Resources, Chinese Academy of Sciences, CHINA</i>
09:45-10:00	"IRIMHE-Tottori University Collaborative Research on Aeolian Desertification: Field Surveys at the Tsogt-Ovoo Dust Monitoring Site and their Application to Numerical Dust Emission Models". <b>Yasunori Kurosaki, PhD,</b> <i>Arid Land Research Center, Tottori University, JAPAN</i>



10:00-10:15	<p>"Carbon and Water Exchange over a Temperate Semiarid Shrubland in the Mu Us Desert of Northern China".</p> <p><b>Xin Jia, PhD,</b> <i>Beijing Forestry University, CHINA</i></p>
10:15 -10:30	<p>"Exploring dust outbreak conditions in terms of meteorology, hydrology, and topography in the Gobi Region".</p> <p><b>Dai Matsushima, PhD,</b> <i>Chiba Institute of Technology, JAPAN</i></p>
10:30-10:45	COFFEE BREAK
<b>Time</b>	<p><b>MODERATORS: DR. SEBASTIAN WESTERMANN &amp; DR. NANDINTSETSEG BANZRAGCH (10:45-12:00)</b></p>
10:45-11:00	<p>"Spatio-temporal change of Mongolia Landscape patterns and its driving factors from 2000 to 2020".</p> <p><b>Xiaodong Wu, PhD,</b> <i>Northwest Institute of Eco-Environment and Resources, Chinese Academy of Sciences, CHINA</i></p>
11:00-11:15	<p>"Towards comprehensive evaluation of ecosystem dynamics in arid and semi-arid regions of Mongolia by a process-based eco-hydrology model".</p> <p><b>Tadanobu Nakayama, PhD,</b> <i>National Institute for Environmental Studies, JAPAN</i></p>
11:15 -11:30	<p>"Soil pollution in Ulaanbaatar, Mongolia".</p> <p><b>Ganzorig Ulgiichimeg, PhD Candidate,</b> <i>Institute of Geography and Geoecology, Mongolian Academy of Sciences, MONGOLIA</i></p>
11:30-11:45	<p>"Changes in vegetation communities in the different natural zones of Mongolia".</p> <p><b>Otgontsetseg Davaanyam, MSc,</b> <i>Institute of Geography and Geoecology, Mongolian Academy of Sciences, MONGOLIA</i></p>
11:45-12:00	<p>"Topoclimatic drivers of land cover change in the Mongol Altai Mountains using random forest and eXtreme gradient boosting algorithms".</p> <p><b>Batnyam Tseveengerel, MSc,</b> <i>Institute of Geography and Geoecology, Mongolian Academy of Sciences, MONGOLIA</i></p>
<p><b>Session 2. Environmental Policy and Regional Development:</b> <b>Sub-session 01: Economic Geography and Environmental Planning for the Development of Cities and Regions</b> <b>(09:00-12:45) – Urgoo Ballroom on the 3<sup>rd</sup> Floor</b></p>	
<b>Time</b>	<p><b>MODERATORS: DR. FUJIA LI &amp; DR. SAULYEGUL AVLYUSH (09:00-10:30)</b></p>
09:00-09:15	<p>"Comparative geographical analysis of the new resource-industrial development of the east russia and the south mongolia: features, priorities, differences".</p> <p><b>Leonid Bezrukov, ScD,</b> <i>V. B. Sochava Institute of Geography, Siberian Branch, Russian Academy of Sciences, RUSSIA</i></p>
09:15-09:30	<p>"Suburbanization and demographic processes in the Irkutsk agglomeration"</p> <p><b>Konstantin Grigoriev, ScD,</b> <i>A.E. Favorsky Irkutsk Institute of Chemistry, Siberian Branch, Russian Academy of Sciences, RUSSIA</i></p>
09:30-09:45	<p>"Environmental protection infrastructure of urbanized territories (using Irkutsk as an example)".</p> <p><b>Tatiana Zabortceva, ScD,</b> <i>V. B. Sochava Institute of Geography, Siberian Branch, Russian Academy of Sciences, RUSSIA</i></p>
09:45-10:00	<p>"Analysis of Tourism Resources and Spatial Patterns in Inner Mongolia".</p> <p><b>Chang An, PhD,</b></p>

	<i>Inner Mongolia Normal University, INNER MONGOLIA</i>
10:00-10:15	"Experience of social-environmental-economic study of the Umnugovi Aimag new industrial development areas". <b>Nataliia Emelianova, PhD,</b> <i>A.E. Favorsky Irkutsk Institute of Chemistry, Siberian Branch, Russian Academy of Sciences, RUSSIA</i>
10:15 -10:30	"Comparative analysis of the efficiency of transportation corridors in Mongolia". <b>Altanbagana Myagmarsuren, PhD,</b> <i>Institute of Geography and Geoecology, Mongolian Academy of Sciences, MONGOLIA</i>
10:30-10:45	COFFEE BREAK
10:45-11:00	"Social problems of mining areas: comparison of Russian and Mongolian examples". <b>Gerelma Dugarova, PhD,</b> <i>V. B. Sochava Institute of Geography, Siberian Branch, Russian Academy of Sciences, RUSSIA</i>
<b>Time</b>	<b>MODERATORS: DR. CHENG HAO &amp; DR. SONOMDAGVA CHONOKHUU (11:00-12:45)</b>
11:00-11:15	"System dynamics model and input–output model in regional ecological economy analysis and international research prospects". <b>Fujia Li, PhD,</b> <i>Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences, CHINA</i>
11:15 -11:30	"Tourism in the Indigenous Homelands of Northern Mongolia". <b>Natalia Krasnoshtanova, PhD,</b> <i>V. B. Sochava Institute of Geography, Siberian Branch, Russian Academy of Sciences, RUSSIA</i>
11:30-11:45	"Assessment of the current condition of Mongolian Road Border Ports". <b>Nandin-Erdene Amartuvshin, BSc,</b> <i>Institute of Geography and Geoecology, Mongolian Academy of Sciences, MONGOLIA</i>
11:45-12:00	"Sustainable Development policy in Mongolia: National Aspirations and Local Priorities for the Resource Regions". <b>Konstantin Tszian, MSc,</b> <i>A.E. Favorsky Irkutsk Institute of Chemistry, Siberian Branch, Russian Academy of Sciences, RUSSIA</i>
12:00-12:15	"Preliminary results of the suitability assessment of the aspiring Geopark sites in the South Gobi region in Mongolia". <b>Undrakhtsetseg Tsogtbaatar, MSc,</b> <i>Institute of Geography and Geoecology, Mongolian Academy of Sciences, MONGOLIA</i>
12:15 -12:30	"Plastic waste collection route optimization: Bulgan province". <b>Enkhbaatar Dembereldash, MSc,</b> <i>Erdenet Institute of Technology, MONGOLIA</i>
12:30-12:45	"Healthcare Characteristics in the Yakut Arctic" <b>Anna Romanova, ScD,</b> <i>Yakut Science Centre of Complex Medical Problems, RUSSIA</i>
<b>Session 3. Environmental Technology and Innovation:</b> <b>Sub-session 01: Ecosystem Restoration and Nature-based Solutions for Environmental Challenges (09:00-12:45) – Juulchin Ballroom on the 3<sup>rd</sup> Floor</b>	
<b>Time</b>	<b>MODERATORS: DR. XIAODONG WU &amp; DR. TEMUJIN KHURELBAATAR (09:00-11:15)</b>
09:00-09:15	"Halophytic shrubs as key species for restoration in degraded arid ecosystems". <b>Ariunbold Erdenegerel, PhD,</b> <i>Institute of Geography and Geoecology, Mongolian Academy of Sciences, MONGOLIA</i>



09:15-09:30	"Monitoring Surface Deformation and Identifying Driving Factors in Mongolian Permafrost Using Multi-Temporal InSAR". <b>Hasi Bagan, PhD,</b> <i>Shanghai Normal University, CHINA</i>
09:30-09:45	"Environmental conditions in the mining areas of the Umnugovi aimag of Mongolia". <b>Olga Gagarinova, PhD,</b> <i>A.E. Favorsky Irkutsk Institute of Chemistry, Siberian Branch, Russian Academy of Sciences, RUSSIA</i>
09:45-10:00	"Influence of an increase in the moisture content of the active layer on the formation of permafrost in the conditions of Central Yakutia". <b>Aleksandr Zhirkov, PhD,</b> <i>Melnikov Permafrost Institute, Siberian Branch, Russian Academy of Sciences, RUSSIA</i>
10:00-10:15	"Innovative Carbon Solutions: Integrating CCU into Energy Production". <b>Enkhbayar Shagdar, PhD,</b> <i>University of Niigata Prefecture, JAPAN</i>
10:15-10:30	"Estimating the nitrogen nutrition index in grass seed crops using a UAV-mounted multispectral camera". <b>Wang Hui, PhD,</b> <i>Southwest Minzu University, CHINA</i>
10:30-10:45	COFFEE BREAK
10:45-11:00	"Ecosystem disturbances and their impact on ground temperatures". <b>Robin B. Zweigel, PhD Candidate,</b> <i>University of Oslo, NORWAY</i>
11:00-11:15	"Assessment of Ground-Based Pandora NO <sub>2</sub> Observations in Ulaanbaatar for Satellite Validation Applications". <b>Davaanyam Enkhbaatar, PhD Candidate,</b> <i>Information and Research Institute of Meteorology, Hydrology, and Environment, MONGOLIA</i>
<b>Session 3. Environmental Technology and Innovation:</b> <b>Sub-session 02: AI and Big Data Applications in Environmental Monitoring, Prediction, and Risk Assessment</b> <b>(11:15-12:45) – Juulchin Ballroom on the 3<sup>rd</sup> Floor</b>	
<b>Time</b>	<b>MODERATORS: ACAD. AMARSAIKHAN DAMDINSUREN &amp; DR. HASI BAGAN (11:15-12:45)</b>
11:15-11:30	"Comparison of machine learning, supervised, and unsupervised algorithms for a land cover classification in Northern Mongolia". <b>Amarsaikhan Damdinsuren, ScD,</b> <i>Institute of Geography and Geoecology, Mongolian Academy of Sciences, MONGOLIA</i>
11:30-11:45	"High-Resolution Simulation of Frozen Ground Dynamics in the Bulgan Gol Basin, Altai Mountains". <b>Kang Wang, PhD,</b> <i>East China Normal University, CHINA</i>
11:45-12:00	"Synergistic use of PRISMA hyperspectral and sentinel-1B SAR data for land cover classification". <b>Amarsaikhan Damdinsuren, ScD,</b> <i>Institute of Geography and Geoecology, Mongolian Academy of Sciences, MONGOLIA</i>
12:00-12:15	"Machine-learning integration of multiple satellite and meteorological datasets for long-term monitoring of surface vegetation and water states across the Pan-Arctic region". <b>Hiroki Mizuochi, PhD,</b> <i>Geological Survey of Japan, National Institute of Advanced Industrial Science and Technology, JAPAN</i>

12:15 -12:30	"Interspecific interactions and their importance in a shrub-dominated community of the Mu Us Desert". <b>Yuqing Zhang, PhD,</b> <i>Beijing Forestry University, CHINA</i>
12:30-12:45	"Advancing hydrological understanding in cold regions: development and application of the WEP model for lateral flow estimation in the Great Lakes Depression of Mongolia". <b>Batsuren Dorjsuren, PhD,</b> <i>National University of Mongolia, MONGOLIA</i>
<b>LUNCH (13:00-14:00)</b>	
14:00-15:30	<b>POSTER SESSION – JUULCHIN BALLROOM</b> All poster presenters are expected to remain near their posters during the entire session for Q&A
<b>Time</b>	<b>VIP MEETINGS (12:00-13:00 &amp; 14:00-17:50) - SKY BALLROOM ON THE 3<sup>rd</sup> FLOOR</b>
12:00-13:00	<b>Opening Ceremony for Mongolia Branch of the International Research Center for China-Mongolia-Russia Cold and Arid Regions Environment and Engineering (IRC-CMR-CAREE)</b>
13:00-13:30	<b>Institute of Geographic Sciences and Natural Resources Research</b>
14:00-15:00	<b>Permafrost4Life Group Meeting</b>
15:00-16:00	<b>COP 17</b>
16:00-16:30	<b>Northwest Institute of Eco-Environment and Resources</b>
16:30-17:00	<b>Southwest Minzu University</b>
17:00-17:30	<b>Beijing Forestry University</b>
18:00-22:00	<b>CONFERENCE RECEPTION – MJ RESTAURANT</b>
<b>THE CONFERENCE PROGRAM ENDS</b>	

# EST 2025 – POSTER SESSION ON JUNE 19, 2025 (14:00-15:30)

Poster No	Session 1. Environmental Challenges and Climate Change: Sub-session 01: Climate Change and Its Impact on Natural Resources
01	“Water stable isotope study of Selbe River”. <b>Purew-Erdene Erdemjargal, BSc,</b> <i>Institute of Geography and Geoecology, Mongolian Academy of Sciences, MONGOLIA</i>
02	“Seasonal variation in groundwater quality along the Kherlen river valley” <b>Enkhjargal Togtokh, MSc,</b> <i>Institute of Geography and Geoecology, Mongolian Academy of Sciences, MONGOLIA</i>
03	“Soil organic carbon labile fractions and carbon management index in pasture soil” <b>Zoljargal Khavtgai, PhD,</b> <i>Institute of Geography and Geoecology, Mongolian Academy of Sciences, MONGOLIA</i>
04	“Soil carbon management index under different land use” <b>Zoljargal Khavtgai, PhD,</b> <i>Institute of Geography and Geoecology, Mongolian Academy of Sciences, MONGOLIA</i>
05	“Impacts of climatic and anthropogenic factors on surface changes in the Khar-Us Lake basin” <b>Tsolmonbayar Galbadrakh, BSc,</b> <i>Institute of Geography and Geoecology, Mongolian Academy of Sciences, MONGOLIA</i>
06	“Water temperature changes and trends of the Kherlen river” <b>Bayasgalan Sodnom, BSc,</b> <i>Center for Hydrometeorological Environmental Nonitoring of Khentii Province, MONGOLIA</i>
07	“Assessment of post-thinning growth and reproductive performance of planted trees: a case study in the northern Mongolia” <b>Batsaikhan Ganbaatar, PhD,</b> <i>Institute of Geography and Geoecology, Mongolian Academy of Sciences, MONGOLIA</i>
08	"Results of planting <i>pea</i> varieties in non-irrigated conditions in the forest-steppe zone" <b>Khishigsuren Nayantai, MSc,</b> <i>Research Institute of Animal Husbandry, MONGOLIA</i>
09	"Seasonal change of water quality in Khuvsgul Lake" <b>Erdenechimeg Surenjaw, BSc,</b> <i>Institute of Geography and Geoecology, Mongolian Academy of Sciences, MONGOLIA</i>
10	"The results of the research on pasture plants in the Kherlen River basin" <b>Uuriintsolmon Enkhtaivan, MSc,</b> <i>Institute of Geography and Geoecology, Mongolian Academy of Sciences, MONGOLIA</i>
11	"Effects of growth regulators and composition of nutrient media on in vitro regeneration of <i>Juniperus sabina</i> L" <b>Uuganzaya Myagmarjav, PhD,</b> <i>Research Institute of Animal Husbandry, MONGOLIA</i>
12	"Participatory assessment of environmental and climate change in the Ugiinuur Region" <b>Tsogtbaatar Solongo, MSc,</b> <i>Institute of Geography and Geoecology, Mongolian Academy of Sciences, MONGOLIA</i>
13	"Ice regime on Lake Khovsgol, Mongolia, detection by time series movement from threshold value with MODIS " <b>Davaajargal Boldbaatar, PhD,</b> <i>Institute of Geography and Geoecology, Mongolian Academy of Sciences, MONGOLIA</i>
14	"Results of the study of the riparian forests of the Delger River Basin" <b>Tsendsuren Dagdan, PhD,</b> <i>Institute of Geography and Geoecology, Mongolian Academy of Sciences, MONGOLIA</i>
Poster No	Session 1. Environmental Challenges and Climate Change: Sub-session 02: Land Cover Change, Desertification, and Drought

15	"Dust transport dynamics over the Mongolian Plateau and its regional impacts" <b>Yuanyuan Zhao, PhD,</b> <i>Beijing Forestry University, CHINA</i>
16	"An Experimental investigation into the establishment and growth dynamics of drought-tolerant tree and shrub species in arid steppe ecosystems" <b>Enkhtur Tsendsuren, MSc,</b> <i>Institute of Geography and Geoecology, Mongolian Academy of Sciences, MONGOLIA</i>
17	"Study of soil and vegetation changes in pastureland (On soum of Selenge province)" <b>Delgertsetseg Renchinmyadag, MSc,</b> <i>Institute of Geography and Geoecology, Mongolian Academy of Sciences, MONGOLIA</i>
18	"Effect of wildfire and clear-cutting on soil organic carbon content in larch forest" <b>Bolormaa Tseden-Ish, MSc,</b> <i>Institute of Geography and Geoecology, Mongolian Academy of Sciences, MONGOLIA</i>
19	"Estimating the spatial distribution of urban heat islands in 6 districts of Ulaanbaatar using machine learning" <b>Byambadolgor Batdorj, MSc,</b> <i>Institute of Geography and Geoecology, Mongolian Academy of Sciences, MONGOLIA</i>
20	"The Socio-economic impacts for desertification and land degradation" <b>Gantsetseg Gantumur, MSc,</b> <i>Institute of Geography and Geoecology, Mongolian Academy of Sciences, MONGOLIA</i>
21	"Land cover and land use study in Mongolia: Initial result of literature review" <b>Unurnyam Jugnee, MSc,</b> <i>Institute of Geography and Geoecology, Mongolian Academy of Sciences, MONGOLIA</i>
22	"Desertification and land degradation problems in soums in different natural regions of Mongolia" <b>Altantuya Dorjsuren, PhD,</b> <i>Institute of Geography and Geoecology, Mongolian Academy of Sciences, MONGOLIA</i>
23	"The drought impact on the socio-economic stability and the resilient countermeasures in Bayankhongor province, Mongolia" <b>Oyundari Borkhuu, BSc,</b> <i>Institute of Geography and Geoecology, Mongolian Academy of Sciences, MONGOLIA</i>
Poster No	Session 1. Environmental Challenges and Climate Change: Sub-session 03: Interaction Between the Changing Cryosphere and Ecosystems
24	"Time-lag effects of snowmelt on vegetation gross primary productivity in the Tibetan Plateau" <b>Yan Huang, PhD,</b> <i>East China Normal University, CHINA</i>
25	"Seasonal water yield modelling of the Baidrag River Basin" <b>Purevsuren Munkhtur, MSc,</b> <i>Institute of Geography and Geoecology, Mongolian Academy of Sciences, MONGOLIA</i>
26	"Long-term climate changes in the permafrost region of Mongolian Altai" <b>Nemekhbayar Gankhuyag, MSc,</b> <i>Department of Environment and Forest Engineering, School of Engineering and Technology, National University of Mongolia, Mongolia</i>
27	"Features of the chemical composition of groundwater within the Selenga catchment area" <b>Mikhail Kolobov, PhD,</b> <i>Department of General Ecology and Hydrobiology at Lomonosov Moscow State University, RUSSIA</i>
28	"Evaluating the Impact of Soil Enthalpy upon the Thawing Process of the Active Layer in Permafrost Regions of the Qinghai–Tibet Plateau Using CLM5.0" <b>Shenning Wang, PhD,</b> <i>Northwest Institute of Eco-Environment and Resources, Chinese Academy of Sciences, CHINA</i>
Poster No	Session 2. Environmental Policy and Regional Development: Sub-session 01: Economic Geography and Environmental Planning for the Development of Cities and Regions

29	"Research on opportunities of using GEP accounting in Mongolia: A case study of the valuation of ecosystem services in Khovd" <b>Gerelsuren Gaanjuur, MSc,</b> <i>Western Region Branch, National University of Mongolia, MONGOLIA</i>
30	"Study on the Estimation and Optimization of the Irrigation System for the Green Zone" <b>Zoljargal Tuvshin, BSc,</b> <i>Institute of Geography and Geoecology, Mongolian Academy of Sciences, MONGOLIA</i>
31	"Vertical distribution and source study of heavy metal contamination in soil" <b>Zoljargal Tuvshin, BSc,</b> <i>Institute of Geography and Geoecology, Mongolian Academy of Sciences, MONGOLIA</i>
32	"Human impacts on pasture degradation (A case study of the Dornod, Sukhbaatar, Khentii provinces)" <b>Narantsatsral Tseren, MSc,</b> <i>Institute of Geography and Geoecology, Mongolian Academy of Sciences, MONGOLIA</i>
33	"Interrelated factors influencing the human development potential in the Central region of Mongolia /For example Umnugovi province/" <b>Ayauli Yerlan, MSc,</b> <i>Department in Bayan-Ulgii, Institute of Philosophy, Mongolian Academy of Sciences, MONGOLIA</i>
Poster No	Session 2. Environmental Policy and Regional Development: Sub-session 02: Resilience to Environmental Hazards
34	"Heavy metal contamination in soil surrounding a waste battery recycling facility" <b>Elbegzaya Gankhuyg, PhD Candidate,</b> <i>Institute of Geography and Geoecology, Mongolian Academy of Sciences, MONGOLIA</i>
35	"Study on assessment and remediation technology of heavy metal pollution in soils of Ulaanbaatar city, Mongolia" <b>Bilguun Ulziibat, PhD Candidate</b> <i>Institute of Geography and Geoecology, Mongolian Academy of Sciences, MONGOLIA</i>
36	"Feasibility Study on Cost Optimization for Flood Protection Channel Design: A Case Study in Dry Riverbeds near Dari-Ekh and Gants Khudag" <b>Munkhtur Batsukh, MSc,</b> <i>Institute of Geography and Geoecology, Mongolian Academy of Sciences, MONGOLIA</i>
37	"Assessing environmental vulnerability in drylands: A Multi-Thematic geospatial approach for the Sainshand region of Mongolia" <b>Sainbayar Dalantai, PhD,</b> <i>Institute of Geography and Geoecology, Mongolian Academy of Sciences, MONGOLIA</i>
38	"Topographic analysis of the Ulaanbaatar fault in central Mongolia: results from drone mapping and RTK GPS survey" <b>Narangerel Serdyanjiv, PhD,</b> <i>Institute of Geography and Geoecology, Mongolian Academy of Sciences, MONGOLIA</i>
Poster No	Session 2. Environmental Policy and Regional Development: Sub-session 03: Policies for Sustainable Land and Natural Resource Use
39	"The effect of tree species on soil organic carbon stock in Mongolian forest" <b>Byambaa Ganbat, PhD Candidate,</b> <i>Institute of Geography and Geoecology, Mongolian Academy of Sciences, MONGOLIA</i>
40	"A Study on the Soil Washing Efficiency of copper (Cu) and lead (Pb) contaminated Soil according to Soil Particle Size Separation" <b>Sainzaya Sharav, MSc,</b> <i>Institute of Geography and Geoecology, Mongolian Academy of Sciences, MONGOLIA</i>
41	"Water-Nutrient Interaction Mechanisms in Maize Under Conservation Tillage Systems" <b>Cuihua Huang, PhD,</b> <i>Northwest Institute of Eco-Environment and Resources, Chinese Academy of Sciences, CHINA</i>
42	"Coupled Effects of Halophytes and Soil Texture on Water and Salt Movement in Unsaturated Saline Soils" <b>Xian Xue, PhD,</b> <i>Northwest Institute of Eco-Environment and Resources, Chinese Academy of Sciences, CHINA</i>

43	"Response of Saproxyllic Beetle Diversity in Relation to Forest Degradation in the Green Belt of Ulaanbaatar, Northern Mongolia" <b>Batchudur Bat-Amgalan, PhD Candidate,</b> <i>Institute of Geography and Geoecology, Mongolian Academy of Sciences, MONGOLIA</i>
44	"Knowledge-based geoecological mapping for sustainable land management in Khuvsgul region" <b>Boldbaatar Natsagdorj, MSc,</b> <i>Institute of Geography and Geoecology, Mongolian Academy of Sciences, MONGOLIA</i>
Poster No	<b>Session 3. Environmental Technology and Innovation: Sub-session 01: Ecosystem Restoration and Nature-based Solutions for Environmental Challenges</b>
45	"Environmental Changes in the Area Surrounding Lake Ugii: Preliminary Results from a Joint Mongolian-Chinese Research Study" <b>Odsuren Batdelger, PhD,</b> <i>Institute of Geography and Geoecology, Mongolian Academy of Sciences, MONGOLIA</i>
46	"Patterns of soil bacterial communities along a precipitation gradient in Mongolia" <b>Tulga Enkhjargal, BSc,</b> <i>National University of Mongolia, MONGOLIA</i>
47	"Research on the Sustainability of Traditional Ecological Knowledge (TEK) Based on SDGs: Taking Ovoo Worship as an Example" <b>Baomenaodu Boldbaatar, PhD,</b> <i>National University of Mongolia, MONGOLIA</i>
48	"Prospects for restoring ecosystems in the Pasvik River Basin" <b>Olga Khlebosolova, PhD,</b> <i>Sergo Ordzhonikidze Russian State University for Geological Prospecting, RUSSIA</i>
49	"The effect of air pollution on the pigment content of <i>Picea obovata</i> L." <b>Otgonbayar Khishigdelger, MSc,</b> <i>Botanic Garden and Research Institute, Mongolian Academy of Sciences, MONGOLIA</i>
50	"Baseflow separation using the digital filter method (Kharaa River)" <b>Enkhtuya Minjuurlunden, MSc,</b> <i>Institute of Geography and Geoecology, Mongolian Academy of Sciences, MONGOLIA</i>
Poster No	<b>Session 3. Environmental Technology and Innovation: Sub-session 02: AI and Big Data Applications in Environmental Monitoring, Prediction, and Risk Assessment</b>
51	"Predicting range shifts of arctic/boreal plants under climate change scenarios" <b>Zhang Yan, MSc,</b> <i>Beijing Normal University, CHINA</i>
52	"Hydrological study of Kherlen river basin, Mongolia using geospatial inputs" <b>Saranchimeg Batsukh, MSc,</b> <i>Institute of Geography and Geoecology, Mongolian Academy of Sciences, MONGOLIA</i>
53	"Detection of Frost-Susceptible Zones in Ulaanbaatar using InSAR Analysis" <b>Tatsuya Watanabe, PhD,</b> <i>Kitami Institute of Technology, JAPAN</i>
54	"Mapping and estimating area of pasture irrigation on Gobisumber province in Mongolia" <b>Shinebayar Otgon, MSc,</b> <i>Institute of Geography and Geoecology, Mongolian Academy of Sciences, MONGOLIA</i>
55	"Drivers of soil water holding capacity across ecological zones in Mongolia" <b>Gerelmaa Zorigtbaatar, MSc,</b> <i>Institute of Biology, Mongolian Academy of Sciences, MONGOLIA</i>
56	"State of the forest fund of Khuvsgul province" <b>Udval Bayarsaikhan, PhD,</b> <i>Institute of Geography and Geoecology, Mongolian Academy of Sciences, MONGOLIA</i>



57	<p>"Permafrost risk assessment and ecosystem service valuation in Khuvsgul Province"</p> <p><b>Purevdulam Yondonrentsen, BSc,</b>  Institute of Geography and Geoecology, Mongolian Academy of Sciences, MONGOLIA</p>
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