

4th Global Congress on

CLIMATE CHANGE

September 09-10, 2024 *at* Lisbon, Portugal

Venue: Masa hotel campo Grande; Campo Grande 56 56A, 1700-093 Lisboa, Portugal

Website URL: <https://global-climatechange.com/> | **Email:** climatechange@innovinc.org



Day
1

MONDAY

4th Global Congress on

CLIMATE CHANGE

September 09-10, 2024 at Lisbon, Portugal

Meeting Hall - Auditorio

08:30-09:00 Welcome & Registrations

09:00-09:15 Opening Remarks

Moderator: Rachel Hay, James Cook University, Australia

KEYNOTE FORUM

09:15-09:45 ----- Options for Reducing Greenhouse Gas Emissions from Agriculture and Food Systems

Rob Vos, International Food Policy Research Institute, USA

09:45-10:15 ----- Community-Academic Partnerships to support climate Adaptation to Recent and Future Hydroclimatic Shifts over Central America

Iris Stewart-Frey, Santa Clara University, USA

10:15-10:45 ----- Climate change and the Anthropocene

Carlo Jaeger, Global Climate Forum / Potsdam University, Germany

Group Photo & Refreshment Break 10:45-11:05

Technical Session-1

Session Theme: Sustainability and Climate Change
Pollution and Climate Change

Session Chairs:

M. Reza Najafi, Western University, Canada

&

Ulises Javier Jauregui Haza, INTEC, Dominican Public

11:05-11:25 ----- Motivators and barriers to adoption of Improved Land Management Practices for water quality improvement in Great Barrier Reef catchments

Rachel Hay, James Cook University, Australia

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MONDAY

4th Global Congress on

CLIMATE CHANGE

September 09-10, 2024 at Lisbon, Portugal

11:25-11:45 ----- Aviation non-CO₂ emissions reduction scenarios and climate impact mitigation

Md Anwar Hossain Khan, *University of Bristol, UK*

11:45-12:05 ----- Off-Site Construction as a means for building deep renovation and urban regeneration: ENEA case studies

Maria-Anna Segreto & Andrea Cignarella, *ENEA: Italian National Agency for New Technologies, Energy and Sustainable Economic Development, Italy*

12:05-12:25 ----- Development of EGAO technology and its application to the mitigation of climate change impacts

Motoaki Seki, *RIKEN Center for Sustainable Resource Science, Japan*

12:25-12:45 ----- Under what conditions SMEs could mitigate climate change impact

Ashraful Alam, *University of Salford, UK*

Lunch Break 12:45-13:35

Technical session- II

Session Theme: *Natural Hazards and Disaster Management
Sea-Level Rise, Oceans and Climate Change
Ecology and Ecosystems*

Session Chairs:

Michael Blum, *University of Kansas, USA*

&

Carlo Jaeger, *Global Climate Forum / Potsdam University, Germany*

13:35-13:55 ----- Disappearing deltas: role of subsidence, global sea-level rise, and coupled atmospheric and oceanographic processes in Mississippi Delta land loss

Michael Blum, *University of Kansas, USA*

13:55-14:15 -----	Dynamic Assessment of Compound Flood Risks: Insights from Historical Trends and Future Projections M. Reza Najafi, <i>Western University, Canada</i>
14:15-14:35 -----	Phenology reveals climate change effects on plant behavior as indicator for the Swedish environmental objective Reduced Climate Impact Ola Langvall, <i>Swedish University of Agricultural Sciences, Sweden</i>
14:35-14:55 -----	Characterization of sargassum accumulated on Dominican beaches in 2021: analysis of heavy, alkaline and alkaline-earth metals, proteins and fats Ulises Javier Jauregui Haza, <i>INTEC, Dominican Public</i>
14:55-15:15 -----	Driving Climate Solutions with Data: Building Energy Codes and B-READY Environmental Insights Jayashree Srinivasan, <i>The World Bank Group, USA</i>
15:15-15:35 -----	The Significance of the Oceans and Coastal Information Management System for South Africa's Ocean Governance and Conservation Marjolaine Krug, <i>Department of Forestry, Fisheries and the Environment, South Africa</i>
Refreshment Break 15:35-15:50	
15:50-16:10 -----	Predicting severe weather in mainland Portugal based on deterministic and ensemble forecasts Margarida Belo-Pereira, <i>Portuguese Institute for Sea and Atmosphere, Portugal</i>
16:10-16:30 -----	Land and sea transport options for the installation of green artificial reefs (GARs) in shallow waters: A Galician case study Alicia Munín Doce, <i>University of A Coruña, Spain</i>

16:30-16:50 -----	Coral habitat migration for the climate change adaptation along the Kuroshio Current, the subtropical western boundary current in the North Pacific Ocean <i>Motohiko Kashima, Kobe Gakuin University, Japan</i>
16:50-17:10 -----	Magnitude and hotspots of soil erosion types during rainstorm events on the Loess Plateau: Implication for watershed management <i>Juying Jiao, Northwest A&F University, China</i>
17:10-17:30 -----	Resilience assessment and obstacle factor analysis of urban areas facing waterlogging disasters: a case study of Shanghai, China <i>Xiansheng Chen, Shanghai University of Finance and Economics, China</i>
Panel Discussion & End of the day	

Tuesday, Sept-10	Tuesday Sept-10 (Parallel Session)
<i>Hall Name: Auditorio</i>	<i>Hall Name: Estrela</i>
Morning Session-11:00-13:00	Morning Session-11:00-13:00
Poster Presentations- 13:40-14:10	Poster Presentations- 13:40-14:10
Afternoon Session-14:10-17-25	Afternoon Session-14:10-15:30

Day
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TUESDAY

4th Global Congress on

CLIMATE CHANGE

September 09-10, 2024 at Lisbon, Portugal

Meeting Hall - Auditorio

Moderator: Rachel Hay, *James Cook University, Australia*

KEYNOTE FORUM

- 09:15-09:45 ----- **Climate Data to Inform the Design of Climate Resilient, Low Carbon Buildings, and Building Designs adapted using Nature Based Solutions in Canada**
- Abhishek Gaur, National Research Council Canada, Canada*
- 09:45-10:15 ----- **PV panels laminated by soft polysiloxane gel – New simple eco friendly recycling method**
- Vladislav Poulek, Czech University of Life Sciences, Czech Republic*
- 10:15-10:45 ----- **Gender dynamics in agrifood value chains: advances in research and practice over the last decade**
- Rhiannon Pyburn, KIT Royal Tropical Institute, The Netherlands*

Refreshment Break 10:45-11:00

Note: There is a paralell session from 11:00-15:30 in Meeting Hall - Estrela

Technical session- III

Session Theme: *Climate Change Adaptation
Emissions and Control*

Session Chairs:

Abhishek Gaur, National Research Council Canada, Canada
&
Stein T. Holden, Norwegian University of Life Sciences, Norway

- 11:00-11:20 ----- **Can climate shocks make vulnerable subjects more willing to take risks?**
- Stein T. Holden, Norwegian University of Life Sciences, Norway*

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TUESDAY

4th Global Congress on

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11:20-11:40 ----- Analysis of long-term changes in wetlands (1842 - 2017) - a starting point for their restoration as part of adaptation to climate change?

Jan Skaloš, *Czech University of Life Science, Czech republic*

11:40-12:00 ----- A Systematic Study of LED Degradation Patterns for Better Environmental Outcomes

Dariusz Kacprzak, *The University of Auckland, New zealand*

12:00-12:20 ----- Transatlantic Cooperation in Reducing Methane Emissions from Oil and Gas: Monitoring, Measurement, Reporting, and Verification Challenges

Tetiana Semeniutina, *University of Calgary, Canada*

12:20-12:40 ----- Digital Banking's Role in Reducing Carbon Emissions: Impact on Climate Change in G7 Countries

Nur Badriyah Mokhtar, *BPP University, UK*

12:40-13:00 ----- From Vision to Action: Community-Centered Approaches to Climate Resilience and Smart Technology

Dan Zhu, *City of Gainesville, USA*

Lunch Break 13:00-13:40

Poster Viewing 13:40-14:10

Technical session- IV

Session Theme: *Global Climate Strategies and Policies
Biodiversity and Biological Conservation
Green Technology and Green Production
Climate and Energy Policy*

Session Chairs:

Thomas Kinnaman, *Bucknell University, USA*
&

Robert D. Chandler, *Public Works Department, City of Salem, Oregon, USA*

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TUESDAY

4th Global Congress on

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14:10-14:30 ----- The Empirical Effects of a Carbon Price

Thomas Kinnaman, *Bucknell University, USA*

14:30-14:50 ----- Local Government and Climate Action: Promises and Perils

Robert D. Chandler, *Public Works Department, City of Salem, Oregon, USA*

14:50-15:10 ----- Long-Term Spatiotemporal Dynamics of Freshwater Temperature: A Nationwide Study in Japan (1982-2016)

Satoshi KAMEYAMA, *National Institute for Environmental Studies, JAPAN*

15:10-15:30 ----- Enhancing Genetic Diversity and Adaptation in Man-Made Forests: The Role of Hybridization in Climate Change Resilience

Rakefet David-Schwartz, *Institute of Plant Sciences, Israel*

15:30-15:50 ----- Review of the Global Evolution of Regulations on Single-use Plastics and Lessons Drawn for Canada

Leila Ahmadi, *National Research Council Canada, Canada*

Refreshment Break 15:50-16:05

16:05-16:25 ----- Novel Technology Utilization for Hybrid Green Energy Towards Zero Emission Achievements

Musse Mohamud Ahmed, *UNIMAS, Malaysia*

16:25-16:45 ----- Biomass Corrosiveness in Fluidized Bed Combustion Plants

M Luisa Contreras Rodríguez, *CIEMAT, Spain*

16:45-17:05 ----- Monitoring yeast cultures grown on corn stover hydrolysate for lipid production

Afonso Palos Fontes, *LNEG, Portugal*

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17:05-17:25 -----

Estimation of the impact of methane emissions on climate change. How does the DICE model respond after including it?

Sofia Aleshina, *University of Malaga, Spain*

Panel Discussion & End of the day

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TUESDAY

4th Global Congress on

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Parallel session

Meeting Hall - Estrela

Session Theme:
Agricultural Sustainability and Climate Change
&
Atmospheric Changes

Session Chairs:
Tercio Ambrizzi, *University of Sao Paulo, Brazil*
&
Tyagaraja Sooprayen Modelly Cunden, *Universite des Mascareignes, Mauritius*

11:00-11:20 ----- Effects of framing, nomenclature, and aversion to tampering with nature on consumer acceptance of cultivated meat in Singapore

Mark Chong, *Singapore Management University, Singapore*

11:20-11:40 ----- Influence of climate change on far-future phosphorus mobilisation and delivery in agricultural catchments

Per-Erik Mellander, *Teagasc, Ireland*

11:40-12:00 ----- Spatial modelling and policy evaluation of offshore wind potential: The case of Mauritius

Tyagaraja Sooprayen Modelly Cunden, *Universite des Mascareignes, Mauritius*

12:00-12:20 ----- Genomic approaches to mitigate climatic stress in beef cattle: balancing heat tolerance and productivity

Raluca Mateescu, *University of Florida, USA*

12:20-12:40 ----- Innovative Carbon Capture and Utilization: Transforming CO₂ into Sustainable Industrial Solutions with Antimicrobial and Insulating Properties

Ubirajara Pereira Rodrigues-Filho, *Instituto de Quimica de Sao Carlos- Universidade de Sao Paulo, Brazil*

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12:40-13:00 ----- The Effect of Geomagnetic Storms on Aircraft Accidents Between the Years 1919-2023 in Civil Aviation

Ümit Deniz GÖKER, *Astronomical Institute of Czech Academy of Sciences, Czech Republic*

Lunch Break 13:00-13:40

Poster Viewing 13:40-14:10

14:10-14:30 ----- Mesoscale Convective Systems over the Amazon Basin and Climate Change

Tercio Ambrizzi, *University of Sao Paulo, Brazil*

14:30-14:50 ----- Spatiotemporal distribution of agrometeorological disasters in China and its impact on grain yield under climate change

Fenli Zheng, *Northwest A&F University, China*

14:50-15:10 ----- Negative impact of heat stress on bovine reproduction: how this impairs production and efficiency

Luís Rafael Guerreiro Capela, *Universidade de Lisboa, Portugal*

15:10-15:30 ----- Forecasting carbon prices in China's pilot carbon market: A multi-source information approach with conditional generative adversarial networks

Zhigang Huang & Weilan Zhang, *Fuzhou University, China*

Panel Discussion & End of the day

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Poster Presentations(13:40-14:10)

- P-01**----- Is overheating in dwellings a cause of concern in the health of vulnerable adults.
- Martin Donald S Adlington, *University of Derby, UK*
- P-02**----- The responses of cladoceran communities to the single and simultaneous effects of environmentally relevant increases in temperature and phosphorus concentration in freshwater ecosystems
- Malgorzata Adamczuk, *University of Life Sciences in Lublin, Poland*
- P-03**----- Developing a country's sustainability indicator: an analysis of the effect on trade openness
- Karen Gloria Vargas Santander, *Universidad Católica del Norte, Chile*
- P-04**----- Linking low-carbon practices with ESG performances: Exploration evidence from the configurational perspective
- Huang Ruogu, *Fuzhou University, China*
- P-05**----- Using the interaction between cations and biomass to improve regenerative agriculture in the tropics
- Vanessa Silva Melo, *State University of Maranhão , Brazil*
- P-06**----- Ecosystem services improve eco-physiological indices and soil organic carbon accumulation
- Maria Karoline De Carvalho Rodrigues De Sousa, *State University of Maranhão , Brazil*
- P-07**----- Integrated crop-livestock-forestry system: alternatives and advances in Northeast Brazil
- Valéria Xavier De Oliveira Apolinário, *State University of Maranhão , Brazil*
- P-08**----- Perception of risk of climate change in rice cultivation in the Dominican Republic
- Ulises Javier Jauregui Haza, *INTEC, Dominican Public*

Virtual Scientific Program



Join Zoom Meeting



Meeting ID: 813 9782 4150

Passcode: 800482

Day
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MONDAY

4th Global Congress on CLIMATE CHANGE

Virtual Program

Time Zone: Western European Standard Time (Lisbon Time)

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- 13:00-13:20 ----- **Study of heterogenous catalytic selective hydrogenation of vegetable oil with different reaction schemes**
- Andrea Di Giuliano, Università degli Studi dell'Aquila, Italy*
- 13:20-13:40 ----- **Regeneration patterns in canopy gaps in the Bialowieza Forest**
- Dobrowolska Dorota, Forest Research Institute, Poland*
- 13:40-14:00 ----- **Immunosuppression of aquatic organisms exposed to elevated levels of manganese: From global to molecular perspective**
- Bodil Hernroth, Kristianstad University, Sweden*
- 14:00-14:20 ----- **Keynote: Risk and opportunity assessment and management – climate change and inland and marine aquaculture and fisheries**
- Michael Elliott, International Estuarine & Coastal Specialists Ltd/University of Hull, UK*
- 14:20-14:40 ----- **Sustainable and Resilient Management of Chernozem Soils in the Republic of Moldova**
- Boris Boincean, Selectia Research Institute of Field Crops, Republic of Moldova*
- 14:40-15:00 ----- **Understanding an invasive soil-dwelling insect as part of a climate change feedback loop**
- Douglas Richmond, Purdue University, USA*
- 15:00-15:20 ----- **Mapping the distribution, threats, and protection coverage of a Chilean endemic amphibian considered a living fossil**
- Juan Enrique Contardo Lacleto, Universidad de Chile, Chile*
- 15:20-15:40 ----- **Metabolic Engineering for Hyper-accumulation of Lipids in Energycane**
- Fredy Altpeter, University of Florida, USA*
- 15:40-16:00 ----- **A review of energy and waste production during surgical care in the operating room and practical guideline for greening the delivery of surgical care**
- Ursula Galway, Cleveland Clinic, USA*

Day
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MONDAY

4th Global Congress on

CLIMATE CHANGE

Virtual Program

Time Zone: Western European Standard Time (Lisbon Time)

16:00-16:20 ----- Building resilience: a transdisciplinary approach for climate change adaptation in artisanal fishing in Rio Lagartos-Yucatan, Mexico

Laura Patricia Avila Callejas, *National Autonomous University of Mexico, Mexico*

16:20-16:40 ----- Aliança Program: Advancing Energy Efficiency and Environmental Sustainability in Brazilian Industries

Paulo Augusto Pezzan Miotto, *Legasys Engineering, Brazil*

Panel Discussion & End of the day

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TUESDAY

4th Global Congress on

CLIMATE CHANGE

Virtual Program

Time Zone: Western European Standard Time (Lisbon Time)

- 08:20-08:40----- Composting with crop straws in cold region based on climate change and black soil conservation**
- Jie Liu, Heilongjiang Academy of Agricultural Sciences, People's Republic of China*
- 08:40-09:00----- Re-Imagining Wild Rivers in Aotearoa New Zealand – implications for climate adaptation and mitigation**
- Dan Hikuroa, Waipapa Taumata Rau - University of Auckland, New Zealand*
- 09:00-09:20----- Reducing the vulnerability of tourists to tsunamis: challenges for decision-makers**
- Azin Fathianpour, Massey University, New Zealand*
- 09:20-09:40 ----- Biophysical feedbacks of climate change effects on soil hydraulic functions and soil water repellency**
- Vilim Filipovic, University of Queensland, Australia*
- 09:40-10:00 ----- Stability Analysis of Multi-Layer Highwall Mining: A Sustainable Approach for Thick-Seam Open-Pit Mines**
- Ya Tian, China University of Mining and Technology, China*
- 10:00-10:20 ----- Slope Stability Prediction Method based on Intelligent Optimization and Machine Learning Algorithms**
- Yukun Yang, China University of Mining and Technology, China*
- 10:20-10:40 ----- Resilient Healthcare and Sustainable Community**
- Hiroto Ito, Tohoku Medical and Pharmaceutical University, Japan*
- 10:40-11:00 ----- Deep Learning for ENSO Forecasts**
- Cuicui Zhang, Tianjin University, China*

Day
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TUESDAY

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Virtual Program

Time Zone: Western European Standard Time (Lisbon Time)

- 11:00-11:20 ----- Multidecadal Variability in Mediterranean Sea Surface Temperature and Its Sources**
- Xiaoqin Yan, Hohai University, China*
- 11:20-11:40 ----- Climate-induced change in understory and over story competition in a forest?: advanced timing of forest fine root production with reduced snow cover in northern Japan**
- Karibu Fukuzawa, Hokkaido University, Japan*
- 11:40-12:00 ----- Rise of ocean temperatures and their impact on geopolitical security -- A Japanese perspective**
- Keishi Ono, National Institute for Defense Studies, Japan*
- 12:00-12:20 ----- Temporal-spatial characteristics of seismo-ionospheric influence observed by the CSES satellite**
- Mei Li, Institute of Earthquake Forecasting, China Earthquake Administration, China*
- 12:20-12:40 ----- Impact of Extreme Weather and Climate Events on Farmers: A review**
- Madhuri, Symbiosis Law School Noida, Symbiosis International Deemed University, India*
- 12:40-13:00 ----- Assessing community vulnerability to extreme events in the presence of contaminated sites and waste management facilities: An indicator approach**
- Paramita Sinha, RTI International, India*
- 13:00-13:20 ----- Green & Sustainable Logistics – An empirical hypothesis to achieve Net Zero Emissions complying to BRSR in compliance with COP – 29 in Indian context**
- Paniendra Dutt Kolluru, GITAM University, India*
- 13:20-13:40 ----- Variation in estimates of heat-related mortality reduction due to tree cover in U.S. cities**
- Paramita Sinha, RTI International, India*

Day
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TUESDAY

4th Global Congress on

CLIMATE CHANGE

Virtual Program

Time Zone: Western European Standard Time (Lisbon Time)

- 13:40-14:00 ----- Impact of sea level rise on land use/land cover – A case study in the Kingdom of Bahrain**
- Aysha Aljawder, National Space Science Agency, Kingdom of Bahrain*
- 14:00-14:20 ----- Nine-years effect of harvesting and mechanical site preparation on bryophyte decomposition and carbon stocks in a boreal forested peatland**
- Ange-Marie Botroh, Abitibi-Temiscamingue University of Quebec, Canada*
- 14:20-14:40 ----- Climate change-related health hazards in daycare centers in Munich, Germany: risk perception and adaptation measures**
- Hannah Lehmann, University Hospital Munich; Ludwig-Maximilians-University Munich, Germany*
- 14:40-15:00 ----- Emerging climate-sensitive infections of the North**
- Tomas Thierfelder, Swedish University of Agricultural Sciences SLU, Sweden*
- 15:00-15:20 ----- Impact of cyclone-cyclone interaction on a false-alarmed lake-effect snowstorm**
- Zuohao Cao, Environment and Climate Change Canada (ECCC), Canada*
- 15:20-15:40 ----- Developing Aerosol Constraints for Climate & Air Quality Modeling Applications from Multi-angle, Multi-spectral Satellite Remote Sensing**
- Ralph A. Kahn, The Laboratory for Atmospheric & Space Physics, University of Colorado, USA*
- 15:40-16:00 ----- Tail Dependence as a Measure of Teleconnected Warm and Cold Extremes of North American Wintertime Temperatures**
- Mitchell Krock, Argonne National Laboratory, USA*

Day
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TUESDAY

4th Global Congress on

CLIMATE CHANGE

Virtual Program

Time Zone: Western European Standard Time (Lisbon Time)

16:00-16:20 ----- **Landslides Susceptibility assessment using Multivariate Logistic Regression Model in the Xopanac Watershed, Eastern flank of Iztaccihuatl volcano, Mexico.**

Gabriel Legorreta Paulin, *Instituto de Geografia, Universidad Nacional Autonoma de Mexico, Mexico*

16:20-16:40 ----- **Save the microbes to save the planet**

Rino Rappuoli, *Fondazione Biotechnopolo di Siena, Italy*

16:40-17:00 ----- **Emerging pollutants in rivers and climate change, a complex relationship not yet completely understood.**

Amado Enrique Navarro Frometa, *Technological University of Izucar de Matamoros, Mexico*

Panel Discussion & End of the day

We wish to see you again at



5th Global Congress on

CLIMATE CHANGE

September 29-30, 2025 at Berlin, Germany

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