



APCTT
Asian and Pacific Centre
for Transfer of Technology



**RUSSIAN HOUSE
OF INTERNATIONAL
SCIENTIFIC AND TECHNICAL
COOPERATION**

Concept Note
International Conference on
Technologies for the Sustainable Use of Natural Resources
3 December 2025, Moscow and online
Venue: Financial University, 51/1 Leningradsky Avenue, Moscow

Jointly Organised by
Russian House of International Scientific and Technical Cooperation, Moscow, Russian
Federation
and
Asian and Pacific Centre for Transfer of Technology (APCTT) of the
United Nations Economic and Social Commission for Asia and the Pacific (ESCAP)

Background

The sustainable use of natural resources is essential for ensuring the well-being of current and future generations. Sustainable practices for natural resource management help preserve biodiversity, maintain ecosystem balance, and reduce environmental degradation. However, sustainable use of natural resources is challenged by overexploitation, environmental degradation, and unequal access. Weak regulations and limited awareness further hinder conservation efforts, while climate change disrupts natural systems, making responsible management increasingly difficult. By adopting innovative technologies and responsible management strategies, we can optimize utilization of resources while safeguarding the environment. This approach not only supports long-term economic and social development but also fosters resilience against climate change and resource scarcity.

The International Conference on “Technologies for the Sustainable Use of Natural Resources” will serve as an essential platform for experience exchange, peer learning, and sharing of best practices in emerging technologies for sustainable management of natural resources. The conference will provide a platform to deliberate on a broad spectrum of emerging technologies for subsoil resource management including geological exploration, application of artificial intelligence in geosciences, oceanographic research, international cooperation in environmental governance, management of minerals, groundwater, and geothermal energy, sustainable extraction processes, key minerals for the transition to clean energy (e.g., lithium, cobalt, and rare earth elements), emerging low-carbon technologies, and the environmental consequences of subsoil exploitation.

The conference will bring together scientists, researchers, innovators, industry leaders, and government representatives to deliberate on innovative approaches in assessment and sustainable use of geological and other subsoil resources, explore opportunities for technological innovations, entrepreneurial initiatives and cross-border collaboration in the Asia-Pacific region. This inclusive approach aims to strengthen collective efforts toward sustainable development and the responsible utilization of natural resources.

Objectives

- To explore innovative and enabling policies and strategies that promote the sustainable use of natural resources across the Asia-Pacific region.
- To strengthen institutional and human capacities by sharing technological innovations, experience, and best practices that support sustainable resource management.
- To foster cross-border collaboration and partnerships among member States for joint initiatives, technology transfer, and harmonized strategies addressing shared challenges in natural resource management.

Target audience

Representatives of government agencies, relevant ministries and departments of the Asia-Pacific countries, experts, leading practitioners in the field of geology, subsoil use, mining, oil and gas industry, scientists and researchers, representatives of relevant educational and scientific organizations.

TENTATIVE PROGRAMME

Date: 3 December 2025 | Time: 09:00 am–18:30 pm (Moscow Time GMT+3.00) Hybrid

Time	Agenda item	Panelist
09:00-10:00	Registration	
10:00-11:00	PLENARY SESSION (Room 1006)	
10:00-10:10	Welcome address	Dr. (Mr.) Igor Fedorov Chairman of the Board of Directors, RC Complex Systems and Vice president Russian House of International Scientific and Technical Cooperation (RH ISTC), Moscow, Russian Federation
10:10-10:20	Opening address	Ms. Preeti Soni Head, Asian and Pacific Centre for Transfer of Technology (APCTT) of United Nations Economic and Social Commission for Asia and the Pacific (ESCAP)
10:20-10:30	Special address	Ms. Armida Salsiah Alisjahbana Under-Secretary-General of the United Nations and Executive Secretary of the Economic and Social Commission for Asia and the Pacific (ESCAP) (Video Message)
10:30-10:40	Special address	Mr. Andrey Klimov Member of the Bureau of the Supreme Council of the United Russia Party, Deputy Chairman of the Party Commission for International Cooperation and Support of Compatriots abroad; Coordinator of the Russian parliamentary Eurasian Dialogue
10:40-11:00	Group photo and Coffee break	
11:00-12:30	Technical Session 1: Innovative and Emerging Technologies for Sustainable Development of Natural Resources in the Asia-Pacific Countries (Room 1006)	
	Moderator: Ms. Elena Panova Chief of Staff of the State Duma of the Federal Assembly of the Russian Federation for Ecology, Adjacent Territory and Environmental Protection the Russian Federation	
11:00-11:15	<i>India's Experience with Innovative Technologies for Sustainable Development and Resource-Efficient Infrastructure</i>	Dr. (Mrs.) N. Anandavalli Director, Council for Scientific and Industrial Research - Structural Engineering Research Centre, Chennai, India
11:15-11:30	<i>Hybrid Power Supply Systems for Facilities Based on the Use of Non-Conventional and Renewable Energy Sources (NCRES)</i>	Dr. (Mr.) Gasho Evgeny Associate Professor Department of Environmental Engineering and Occupational Safety, National Research University Moscow Power Engineering Institute, the Russian Federation
11:30-11:45	<i>Sustainable Technologies for Natural Resource Management in Iran: Opportunities and Challenges</i>	Dr. (Mr.) Alireza Allahyari General Director Iranian Research Organization for Science and Technology Ministry of Science, Research & Technology, Tehran Islamic Republic of Iran
11:45-12:00	<i>Technologies for Assessing the Ecological Status of Marine and Coastal Ecosystems for Sustainable Natural Resource Management in Tropical Regions</i>	Dr. (Mr.) Gorbunov Roman Director, A.O. Kovalevsky Institute of Biology of the Southern Seas, Russian Academy of Sciences, Moscow, the Russian Federation
12:00-12:15	<i>Recent Developments in Geological Data Processing</i>	Mr. Yuri Panov Rector of Sergo Ordzhonikidze Russian State University for Geological Prospecting, Moscow Russian Federation

12:15-12:30	Q & A and Moderator's Comments	
12:30-13:30	Break	
13:30-14:30	Technical Session 2: Innovative technologies in the field of water conservation (Room 1006)	
	Moderator: Dr. (Mr.) Vipin Shukla Scientist, Department of Scientific and Industrial Research, Ministry of Science and Technology Government of India	
13:30-13:45	<i>Application of Biosensors and Artificial Intelligence for Biomonitoring Aquatic Ecosystems Towards Achieving Sustainable Water Utilization</i>	Mr. (Mr.) Alexander Grekov Candidate of Technical Sciences Hydroacoustics Laboratory, Kovalevsky Institute of Biology of the Southern Seas, Russian Academy of Sciences, Moscow Russian Federation
13:45-14:00	<i>Approaches to Water Conservation and Management</i>	Dr. (Mr.) Vivek Kumar Professor, Centre for Rural Development and Technology, Indian Institute of Technabvology Delhi, India
14:00-14:15	<i>Science, Technology, and Innovation for Community-Led Water Sustainability: Thailand's Good Practices Advancing Climate Resilience</i>	Ms. Jittiporn Chantarojsiri Director of Special Project, Collaboration, and Corporate Communications Division (on behalf of Dr. Royboon) Hydro-Informatics Institute Bangkok, Thailand
14:15-14:30	Q&A and Moderator's comments	
14:30-14:45	Coffee break	
14:45-15:45	Technical Session 3: Living Labs Approach for Technologies for Sustainable Natural Resource Management (Room 1006)	
	Moderator: Dr. (Mrs.) Eun Joo Kim Principal Researcher Science and Technology Policy Institute (STEPI) The Republic of Korea	
14:45-14:50	Introduction by Moderator	
14:50-15:05	<i>Climate Change and International Cooperation</i>	Professor Dr. (Mr.) Tae Dong Lee Yonsei University The Republic of Korea
15:05-15:20	<i>Digital Twin Based R&D for Social Problem Solving</i>	Dr. (Mr.) Sang Hwa Jung Korea Institute of Civil Engineering and Building Technology (KICT) The Republic of Korea, and Dr. (Mr.) Changbeom Choi Professor, Hanbat National University The Republic of Korea
15:20-15:35	<i>Social innovation with focus on Maker Living Lab case in Korea (Video Presentation)</i>	Mr. Noah Min CEO, Gongsang The Republic of Korea
15:35-15:45	Q&A and Moderator's comments	
15:45-17:20	Technical Session 4 A: Modern methods and new technologies for the sustainable development of subsoil resources as the basis for stable socio-economic development of the region (Room 1006)	
	Moderator: Mr. Andrey Klimov Member of the Bureau of the Supreme Council of the United Russia Party, Deputy Chairman of the Party Commission for International Cooperation and Support of Compatriots abroad; Coordinator of the Russian parliamentary Eurasian Dialogue	
15:45-16:00	<i>Instruments for BRICS low -carbon development programs</i>	Dr. (Mrs.) Irina Yarygina Professor and Head of the Department of Economics and Banking, Moscow State Institute of International Relations (MGIMO) University, Moscow

		The Russian Federation
16:00-16:15	<i>Low Carbon Programmes from India</i>	Dr. (Mr.) Vipin Shukla Scientist Department of Scientific and Industrial Research Ministry of Science and Technology Government of India
16:15-16:30	<i>Projects of SEC "Sever" in rational environmental management in the cryolithozone</i>	Mr. Evgeniy Kolganov Director Sever LLC Moscow, the Russian Federation
16:30-16:45	<i>The Control of Deep Processes and Lithospheric Architecture on Metallogenic System in Continental Collision Zones</i>	Mr. Rui Wang Full Professor, Dean of Institute of Earth Sciences Executive Director of State Key Laboratory of Geological Processes and Mineral Resources, China University of Geosciences, Beijing People's Republic of China
16:45-17:00	<i>Net-zero Joule Heating Upcycling of Plastics for Carbon Neutrality</i>	Professor (Mr.) Wang Ying UNEP-Tongji Institute of Environment for Sustainable Development, Shanghai People's Republic of China
17:00-17:15	<i>Risk management as an element of sustainable development and effective use of natural resources</i>	Grigory Pugachenko Deputy Head of Strategic Risk Management in Energy Industry Risk Department, RC Insurance Broker LLC
17:15-17:20	Q&A and Moderator's comments	
16:00-17:20	Parallel Technical Session 4 B: Young Scientists for the Planet: Breakthrough Research in Ecology and Environmental Management (Room 214)	
	Moderator: Mr. Pavel Seleznev Dean of the Faculty of International Economic Relations, Financial University under the Government of the Russian Federation, Financial University, the Russian Federation	
16:00-16:15	<i>Enhancing the reliability of reservoir properties assessment in saline hydrocarbon-bearing formations</i>	Mr. Anton Ryabukhin Leading engineer, Center for Petroleum Science and Engineering, Skolkovo Institute of Science and Technology, the Russian Federation
16:15-16:30	<i>Mathematic Modeling as the Instrument for Rational Use of Natural Recourses</i>	Mrs. Adelina Tkachenko Deputy General Director, RC Complex Systems JSC, The Russian Federation
16:30-16:45	<i>Sustainable Natural Resource Management Technologies in Fiji: Trends and Challenges</i>	Dr. (Ms.) Leba Salusalu Republic of Fiji High Commission Malaysia
16:45-17:00	<i>Development of High-Efficiency Graphene-Based Photothermal Composites for Sustainable Solar Desalination Technologies</i>	Mr. Tran Quoc Thinh Postgraduate student, National Research University "MPEI" Department of Low-Temperature Engineering Moscow, the Russian Federation
17:00-17:15	<i>Evaluating the Vulnerability of Coastal Ecosystems to Climate Change: A Case Study of International Cooperation Efforts</i>	Ms. Tatiana Gorbunova Candidate of Geographical Sciences, Senior Researcher, A.O. Kovalevsky Institute of Biology of the Southern Seas of the Russian Academy of Sciences, Moscow Russian Federation
17:15-17:20	Q&A and Moderator's comments	
17:20-18:35	Technical Session 5: Panel Discussion – Opportunities for Regional Technology Cooperation for Sustainable Use of Natural Resources (Room 1006) Representatives from member States will share opportunities, challenges and success stories in implementing and scaling up sustainable resource management technologies. Moderator: Ms. Preeti Soni, Head, APCTT	
	Panelists: Country representatives	

	Bangladesh: Mr. Abu Sayed Md. Kamruzzaman China: Ms. Liu Xin Fiji: His Excellency Ratu Etueni Quilele India: Dr. (Mr.) Vipin Shukla Islamic Republic of Iran: Dr. (Mr.) Alireza Allahyari Malaysia: Ms. Fauzana Binti Abdul Muhi Nepal: Mr. Prasanta Bohara Pakistan: Mr. Zain ul Abedin Republic of Korea: Dr. (Ms.) Eun Joo Kim Russian Federation: Ms. Anastasia Ryabukhina Sri Lanka: Dr. Mr. Balamurugan A/L Nallamuthu Thailand: Ms. Nongnuch Chunbandhit Uzbekistan: Mr. Asror Egamberdievich Norov	
18:35-18:55	CLOSING SESSION <i>(Room 1006)</i>	
18:35-18:45	Closing Remarks	Ms. Preeti Soni Head Asian and Pacific Centre for Transfer of Technology of United Nations Economic and Social Commission for Asia and the Pacific (ESCAP)
18:45-18:55	Closing Remarks	Dr. (Mr.) Igor Fedorov Vice president Russian House of International Scientific and Technical Cooperation (RH ISTC), Moscow The Russian Federation