



**International Conference on Science, Technology &
Innovation (STI): Catalysts for Regional Connectivity and
Sustainable Development in the ECO Region
(ECONEX) 2025**

April 17-18, 2025 | Higher Education Commission – H-9 Islamabad, Pakistan



Acknowledgments

The International Conference on Science, Technology, and Innovation (STI): Catalysts for Regional Connectivity and Sustainable Development in the ECO Region (**ECONEX 2025**) is organized by the ECO Science Foundation (ECOSF), Pakistan, in partnership with the **Higher Education Commission of Pakistan** and the **ECO Secretariat**, Tehran, Iran. We extend our heartfelt gratitude to our thematic session partners: the CAREC Institute, ECO Educational Institute (Türkiye), National Energy Efficiency and Conservation Authority (NEECA, Pakistan), International Water Management Institute (IWMI, Pakistan), Islamic Relief Pakistan, Health Services Academy (Pakistan), COMSTECH, Islamic Relief Pakistan and Pakistan Science Foundation (PSF, Pakistan) for their invaluable contributions in shaping impactful discussions on regional connectivity, sustainability, and innovation. Their expertise and commitment would be instrumental in advancing the goals of ECONEX 2025.

Organized by:

- **Economic Cooperation Organization Science Foundation (ECOSF), Pakistan**

In Collaboration with Co-Organizers:

- **Higher Education Commission of Pakistan**
- **Economic Cooperation Organization (ECO) Tehran, Iran**

Thematic Session Partners:

- **CAREC Institute, China**
Enhancing Regional Trade and Connectivity in the ECO Region
- **ECO Educational Institute, Türkiye & Organization for Development of International Science and Technology Collaboration (ODISTC), Iran**
Human Capital Development in the ECO Region
- **National Energy Efficiency & Conservation Authority (NEECA), Pakistan**
Building a Sustainable and Resilient Energy Future for ECO Member Countries
- **International Water Management Institute (IWMI) & Islamic Relief Pakistan**
Agriculture, Water, and Food Security in the ECO region
- **Health Services Academy, Pakistan**
Fostering Regional Collaboration on Healthcare Innovation and Biotech in the ECO Region
- **Pakistan Science Foundation (PSF), Pakistan & COMSTECH, Pakistan**
Regional Collaboration on Science, Technology, and Innovation (STI) Ecosystem

Background

Science, Technology, and Innovation (STI) are critical enablers of economic progress and regional integration. Despite shared cultural and historical ties, ECO Member Countries face varying levels of technological development and innovation capacity challenges. The ECO Science Foundation (ECOSF), a specialized agency of the Economic Cooperation Organization (ECO) is hosting an **International Conference on Leveraging Science, Technology, and Innovation (STI) for Regional Connectivity and Sustainable Development in the ECO Region (ECONEX) on April 17-18, 2025 at the Higher Education Commission (HEC) H-9, Islamabad**. This conference provides a platform for bridging the knowledge gaps in various economic sectors by fostering STI collaboration among ECO Member States. Shared knowledge, resources, and expertise in STI can reduce development disparities, enhance competitiveness, and address regional challenges like, water scarcity, climate change, economic relations, capacity building of human resources, energy security and climate change.

The ECO Member Countries—Afghanistan, Azerbaijan, Iran, Kazakhstan, Kyrgyzstan, Pakistan, Tajikistan, Türkiye, Turkmenistan, and Uzbekistan—share deep scientific, cultural and economic ties. Despite these commonalities, the region faces significant challenges in fostering economic integration, regional trade, and technology transfer.

The **ECONEX 2025** aligns with ECOSF's mission to utilize STI as a catalyst for economic development and regional cooperation. This initiative also reflects ECOSF's commitment to addressing the critical barriers to regional cooperation in STI, investment and trade promotion by providing an inclusive platform for stakeholders to collaborate and find actionable solutions.

About ECOSF

ECO Science Foundation is the specialized agency of the Economic Cooperation Organization (ECO) and an intergovernmental organization for scientific and technological cooperation, with its 10-member states (Afghanistan, Azerbaijan, Iran, Kazakhstan, Kyrgyzstan, Pakistan, Tajikistan, Türkiye, Turkmenistan, Uzbekistan). ECOSF has an extensive exchange and cooperation among the ECO member states as well as with international scientific and technological organizations in Africa, Asia, Europe and other regions.

ECOSF serves as the strategic platform for sustainable economic and social development of ECO Member Countries utilizing the means of Science, Technology and Innovation (STI) and industrial cooperation.

ECONEX: Bridging Borders. Building the Future

ECONEX symbolizes a nexus for the ECO Member Countries, represents the conference's role as a pivotal platform for fostering regional connectivity, collaboration, and innovation.

Bridging Borders emphasizes breaking barriers and strengthening partnerships across the region. The conference will serve as a forum to facilitate the exchange of ideas, promote cooperation, and drive economic growth through cross-border collaboration.

Building the Future underscores the focus on innovation, sustainability, and progress. By addressing shared challenges and exploring opportunities, the conference will inspire actionable strategies to shape a prosperous and sustainable future for the ECO region.

ECONEX encapsulates the essence of this event, uniting diverse nations to achieve shared goals of connectivity and development.

The **ECONEX Conference** is vital for the region as it serves as a strategic platform to address shared challenges and unlock opportunities for sustainable growth and regional integration. By bringing together policymakers, industry leaders, scholars, and researchers from ECO Member Countries, the conference fosters collaboration in Science, Technology, and Innovation, which are essential for overcoming regional challenges. It provides actionable pathways for leveraging STI to enhance connectivity, boost economic productivity, and promote sustainable development, ensuring a prosperous and resilient future for the ECO region.

ECONEX Goals and Objectives

ECO Member Countries face common challenges such as limited innovation, industrial productivity, gaps in trade policies, and barriers to technology transfer and commercialization. Thus, engaging government officials, industry leaders, and scholars from academia and research in policy dialogues and knowledge-sharing sessions can enable identification of these barriers and the development of actionable solutions. Policy frameworks crafted during the conference will help shape future STI strategies tailored to the region's unique needs. Below are some of the concrete goals and objectives of this conference:

1. **Strengthen STI Cooperation:** Facilitate regional collaboration in science, technology, and innovation to address shared challenges.
2. **Promote Policy Dialogues:** Engage policymakers, industry leaders, and experts in discussions on sustainable economic growth and integration.
3. **Address Barriers:** Identify gaps in regional trade and propose actionable solutions for enhancing technology transfer and commercialization.
4. **Expand Partnerships:** Create opportunities for ECO Member Countries to explore new areas of cooperation and strengthen institutional and industrial ties.

Conference Program

Day 1: Thursday April 17, 2025

Inaugural Session

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| 9:30 AM | Registration and Networking |
| 10:00 AM | <i>National Anthem and Recitation</i> |
| 10:05 AM | Dr. Ghulam Muhammad Memon , Executive Director, ECO Science Foundation |
| 10:10 AM | Prof. Seyed Komail Tayebi , President ECO Science Foundation |
| 10:20 AM | Prof. Mukhtar Ahmad , Chairman Higher Education Commission, Pakistan |
| 10:30 AM | H.E. Dr. Asad Majeed Khan , Secretary General, Economic Cooperation Organization (ECO) |
| 10:40 AM | H.E. Mehmet Fatih Kacir , Minister for Industry and Technology, Türkiye, delivered by Mr. Ahmet Halit HATİP , General Director of European Union and Foreign Affairs, MoIT, Türkiye. |
| 10:50 AM | H.E. Mr. Khalid Hussain Magsi , Federal Minister for Science and Technology, Pakistan |
| 11:00 AM | Chief Guest – Minister for Planning, Development & Special Initiatives or Minister for Education and Professional Training (TBC) |

Group Photo

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|----------------------------|---------------------|
| 11:15 AM - 11:30 AM | Coffee Break |
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Plenary Session – I: Regional Collaboration on Science, Technology, and Innovation (STI) Ecosystem

Partners: Pakistan Science Foundation (PSF)

Science, Technology, and Innovation (STI) are key drivers of economic growth, industrial development, and global competitiveness. In the ECO region, while several countries have made significant strides in STI, regional cooperation remains fragmented, limiting the potential for knowledge sharing, technology transfer, and joint research initiatives. The discussions will focus on best practices in STI governance, collaboration in technology parks, investment in R&D, and developing an enabling environment for innovation-led growth in the ECO region.

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| 11:30 AM | Dr. Ganigar Chen , Vice President, National Science Museum (NSM) of Thailand, Bangkok, Thailand <i>Expanding Science Museums and Public Engagement in STI Development</i> |
| 11:45 AM | Ambassador Dr. Mohammad Nafees Zakaria , Executive Director COMSATS |
| 11:55 AM | Dr. Syeda Tanveer Kausar Naim , Former Chairperson, Pakistan Council for Science and Technology (PCST), Pakistan <i>Pakistan's Vision for STI-Led Development and Regional Collaboration</i> |
| 12:10 PM | Mr. Reza Aslani , Head of International Affairs - Pardis Technology Park, Tehran, Iran |
| 12:20 PM | Prof. Dr. Qi Yuansheng , Dean of the School of Printing and Packaging Engineering, Beijing Institute of Graphics and Communication, Beijing, China. <i>The Pillars of Success: Decoding China's Science, Technology, and Innovation (STI) Ecosystem</i> |
| 12:30 PM | Prof. Dr. Akram Shaikh , Chairman, Pakistan Science Foundation (PSF), Pakistan, |
| 12:40 PM | Q&A Moderator: Khalil Raza, Programs Manager, ECO Science Foundation (ECOSF) |
| 1:00 PM - 2:00 PM | Lunch Break |

Plenary Session – II: Enhancing Regional Trade and Connectivity in the ECO Region

Partner: CAREC Institute, China

The ECO region possesses immense economic potential, with abundant resources, a strategic geographic position, and a growing consumer base. However, intra-regional trade remains significantly below its potential, hindered by trade barriers, inadequate infrastructure, and policy misalignment. This session will provide a high-level platform to discuss policy frameworks, infrastructure development, and trade facilitation measures necessary to strengthen economic ties within the region.

- 2:00 PM Keynote Address: H.E Senator Mushahid Hussain Syed**, Chairman, Pakistan-China Institute, Pakistan
Emerging World Order & Regional Connectivity: Pakistan's Role & Relationships.
- 2:15 PM H.E. Dr. Asad Majeed Khan**, Secretary General, Economic Cooperation Organization (ECO), Tehran, Iran
- 2:30 PM Dr. Ghulam Samad**, Chief of Research Division, CAREC Institute, Ürümqi, China
- 2:45 PM Dr. Abid Qayyum Suleri**, Executive Director, Sustainable Development Policy Institute (SDPI), Pakistan
- 3:00 PM Mr. Muhammad Jamil Ahmed, Chairman** Pakistan International Freight Forwarders Association (PIFFA), Pakistan
- 3:15 PM Mr. Laeeq Daraz Khan**, Director, Trade Development Authority of Pakistan (TDAP) Islamabad, Pakistan
- 3:30 PM Representative**, Planning Commission of Pakistan (TBC)
- 3:45 PM Discussant** - Prof. Seyed Komail Tayebi, President ECO Science Foundation
- 3:50 AM Q&A**
Moderator: Dr. Moazzam Hashmi, Media Consultant and Adjunct Professor, Quaid-e-Azam University and National Defense University (NDU), Islamabad

4:00 PM - 4:10 PM Coffee Break

Plenary Session – III: Human Capital Development in the ECO Region

Partner: ECO Educational Institute, Türkiye

Human capital development is the cornerstone of economic growth, innovation, and sustainable development. In the ECO region, investing in education, skills development, and capacity-building is essential for strengthening regional competitiveness and fostering a knowledge-based economy. This session will bring together experts in higher education, vocational training, and technology-driven learning to explore strategies for improving education systems, expanding digital and technical skills, and strengthening regional cooperation in human capital development.

- 4:10 PM Keynote: Prof. Mehmet Akif KİREÇÇİ, President**, ECO Educational Institute, Ankara, Türkiye
- 4:25 PM Dr. Zia Ul-Qayyum, Executive Director** - Higher Education Commission (HEC), Pakistan
- 4:40 PM Prof. Dr. Mohammad Mujahid**, Rector, Pak Austria Fachhochschule Institute of Applied Sciences & Technology (PAF-IAST), Pakistan
- 4:55 PM Prof. Dr. Osman Hassan**, Pro-Rector (Academics), National University of Sciences and Technology (NUST), Pakistan
- 5:10 PM Prof. Seyed Ali Akbar Safavi**, Professor of Systems and Control Engineering and IT Expert, School of Electrical and Computer Engineering, Shiraz University Iran
- 5:25 PM Ms. Gulmina Bilal Ahmad, Chairperson** National Vocational and Technical Training Commission (NAVTTTC), Pakistan
- 5:40 PM Prof. Dr. Manzoor Hussain Soomro**, Former President/Advisor ECOSF
Inquiry Based Education (IBE)
- 5:55 PM Q&A**
Moderator: Dr. Gonca Biltekin - Education Expert, ECO Educational Institute (ECOEI), Türkiye

6:10 PM

Close of the First Day of the Conference

Day 2: Friday, April 18, 2025

Plenary Session – IV: Fostering Regional Collaboration on Healthcare Innovation and Biotech in the ECO Region

Partner: Health Services Academy, Pakistan (HSA)

Healthcare innovation and biotechnology are crucial for addressing public health challenges, improving medical research, and enhancing healthcare delivery in the ECO region. This session will provide a platform for policymakers, healthcare professionals, researchers, and industry leaders to exchange knowledge, explore opportunities, and develop strategies to strengthen healthcare innovation and biotechnology cooperation across the ECO region.

9:30 AM **Mr. Malik Mukhtar Ahmad Bharath**, Minister of State for National Health Services, Regulation and Coordination, Government of Pakistan (TBC)

9:45 AM **Prof. Dr. Shahzad Ali Khan**, Vice Chancellor, Health Services Academy, Pakistan

10:00 AM **Prof. Dr. Ali Akbar Moosavi-Movahedi**, Biophysicist & Biophysical Chemist, Institute of Biochemistry and Biophysics, University of Tehran, Iran

10:15 AM **Dr. Tariq Mahmood Ali**, Dean of Social Sciences, / Associate Professor, Health Services Academy, Pakistan

10:30 AM **Prof. Dr. Shahid Baig**, Head of Life Sciences Department, Health Services Academy, Pakistan

10:45 AM **Dr. Obaidullah** - Chief, Executive Officer, Drug Regulatory Authority of Pakistan (DRAP) (TBC)

11:00 AM **Dr. Maryam Tajabadi Ebrahimi**, Founder & Managing Director - Takgene Zist Group, Tehran, Iran

11:15 AM **Q&A**

Moderator: **Dr. Ahmad Hussen Tareq**, Ex. AMR Technical Officer, WHO, Addis Ababa, Ethiopia

11:00 AM **11:15 AM**

Break

Plenary Session – V: Building a Sustainable and Resilient Energy Future for ECO Member Countries

Partner: National Energy Efficiency and Conservation Authority (NEECA) Pakistan

The ECO Member Countries are undergoing a critical energy transition, driven by the need for sustainability, energy security, and economic resilience. This session will provide a strategic platform for policymakers, energy experts, and industry leaders to discuss pathways for accelerating the clean energy transition, enhancing energy security, and addressing policy and infrastructure challenges in the ECO region. The discussions will focus on regional energy collaboration, investment in renewable energy and energy efficiency, and advancing research and innovation in sustainable energy technologies.

11:15 AM Keynote address by **Minister/Minister of State for Energy, Government of Pakistan (TBC)**

11:30 AM **Dr. Sardar Mohazzam**, Managing Director, National Energy Efficiency and Conservation Authority (NEECA), Pakistan

11:45 AM **Mr. Razi Raziuddin**, Chairman/CEO Razi Energy PVT Ltd.

12:00 PM **Prof. Abbas Rajabi**, Head of Sharif Energy Research Institute, Sharif University, Tehran, Iran

12:15 PM **Khalil Raza**, Programs Manager – Energy & Climate, ECOSF

12:30 PM **Q&A**

Moderator: **Mr. Muhammad Kamil Quddus**, Energy Sector Specialist, Ministry of Planning, Development and Special Initiatives

12:45 PM **2:00 PM**

Lunch and Prayer Break

Plenary Session – VI: Groundwater Management in the ECO Region

Partner: International Water Management Institute (IWMI) & Islamic Relief Pakistan

Groundwater plays a critical role in supporting agriculture and food security across the ECO region. However, it faces mounting pressures from rapid population growth, escalating agricultural demands, and the impacts of climate change. Unsustainable extraction, inadequate management practices, and climate-induced stress are depleting aquifers, deteriorating water quality, and jeopardizing the long-term sustainability of this essential resource.

This session will address the key challenges in groundwater management, emphasizing the roles of science, technology, and policy in ensuring long-term sustainability. Experts will explore innovative solutions like Managed Aquifer Recharge (MAR) and discuss the need for regional cooperation and capacity building to address shared groundwater issues. Panelists will also engage in deliberations on achieving sustainable groundwater management. Furthermore, the session will also highlight how ECO countries can collaborate to protect groundwater for future generations through enhanced management and policy frameworks.

2:10 PM Engr. Ahmed Kamal, Welcome Remarks Water Resource Management Expert, and former chairman Federal flood commission Pakistan

Keynote Presenters:

2:25 PM • Dr. Muhammad Ashraf, *Experience Sharing Groundwater from Monitoring to Management*-Country Representative- International Water Management Institute (IWMI), Pakistan

2:40 PM • Dr. Muhammad Arshad, *Application of Managed Aquifer Recharge: A leading-edge technology to replenish Aquifers* - Deputy Country Representative - International Water Management Institute (IWMI), Pakistan

2:55 PM • Mr. Asif Sherazi, Country Director - Islamic Relief Pakistan (IRP)

3:10 PM Q&A

Moderator: Ms. Sitara Gill, Senior Research Officer, IWMI-Pakistan

Rapporteur: Ms. Iqra Akram, Senior Research Officer, IWMI-Pakistan

3:30 PM

Closing Ceremony

Prof. Mukhtar Ahmad, Chairman Higher Education Commission, Pakistan

H.E. Dr. Asad Majeed Khan, Secretary General, Economic Cooperation Organization (ECO), Pakistan

Prof. Dr. Rasoul Roknizadeh, President, University of Isfahan Isfahan, Iran

Prof. Seyed Komail Tayebi, President ECO Science Foundation (ECOSF), Pakistan