



# ECOSF NEWSLETTER



## President ECOSF invited as the Chief Guest in the International Conference on Nanomaterials “New Trends in Development and Applications” organized by Forman Christian College (A Chartered University) in Lahore

The International Conference on Nanomaterials “New trends in Development and Applications” was organized by the Forman Christian College (A Chartered University), Lahore on January 29-31, 2019. The conference brought together eminent scientists and researchers, faculty and students, working in the field of nanoscience and nanotechnology to discuss and share ideas and innovations in the field, to network and to establish collaborations based on mutual interests.



President ECO Science Foundation Prof. Dr. Manzoor Hussain Soomro opened the conference as the Chief Guest of the international event. Prof. Soomro appreciated the efforts of leadership of FC college for organizing this important conference to discuss the recent innovations, trends and practical challenges in the field of Nanomaterials. Prof. Soomro underlined that the research in nanomaterial is growing rapidly and it is of interdisciplinary nature; wherein chemists, physicists, biologists, Environmentalists, engineers and medical doctors work together to explore new nanomaterials for specific applications.

Prof. Dr. Soomro briefly introduced the ECOSF and its flagship programs for promotion of STI based economic development in the ECO region. Prof. Soomro shared that ECOSF has established strategic partnerships with world’s leading organizations to promote Science, Technology and Innovation in the ECO region. Prof. Soomro assured the partners and young scientists that the Foundation will continue to strive to promote young scientists in the emerging technologies including nanotechnology for the sustainable development in the region.



## Ministry of Foreign Affairs of Pakistan launched the 'Science Diplomacy' Initiative to leverage international cooperation and collaboration to achieve UN SDGs

Ministry of Foreign Affairs (MoFA) Government of Pakistan organized the first-ever high level inter-agency meeting of Science Diplomacy initiative at the foreign office on January 16, 2019 in Islamabad. The meeting was inaugurated by the Foreign Minister of Pakistan Shah Mahmood Qureshi. The meeting was attended by senior representatives from both public and private sector dealing with health, education, science and technology, energy, climate change, food security, industries and SDGs. On behalf of ECOSF, its President Prof. Dr. Manzoor Hussain Soomro and Engr. Khalil Raza Scientific Officer ECOSF participated in the meeting.

The initiative would focus on establishing international research collaborations, capacity building, improving public health, matching labour skills with international market requirements and to improve Pakistan's access to smart technologies and international technical assistance, especially in the context of the implementation of the UN SDGs. It is important to mention here that MoFA has also designated a focal point for Science Diplomacy Division to act as a liaison between national S&T stakeholders and international partners.



In his welcome remarks, the Foreign Minister Shah Mahmood Qureshi outlined the main contours of the Science Diplomacy initiative which is to promote constructive international partnerships in science and technology and to deal effectively with trans-boundary challenges such as climate, energy, water, poverty reduction, health and education.

Foreign Secretary Ms. Janjua in her remarks highlighted the fact that the idea of using Science as an instrument for Diplomacy was not new. This was being actively pursued by many countries as a vital tool of foreign policy

The important role of relevant ministries, government departments, educational institutions and private sector entities in international collaborations in Science and Technology was also underscored. Foreign Office hoped to act as a catalyst for all such endeavors in line with the national development priorities and S&T policies and strategies.

Dr. Tariq Banuri, (Chairman), Higher Education Commission, Dr. Yusuf Zafar, (Chairman), Pakistan Agricultural Research Council (PARC), Prof. Dr. Iqbal Chaudhry, Director HEJ institute, University of Karachi, Brig. Dr. Aamer Ikram, (Executive Director), National Institute of Health, Islamabad, Dr. Erum Khan, (Chair of Institutional Biosafety Committee), Agha Khan University and Dr. Nasir Khan, Executive Director, National Vocational and Technical Training Commission (NAVTTTC), presented proposals in their areas of expertise outlining possible avenues for international cooperation and the role of Ministry of Foreign Affairs in that regard.

**ECOSF participated in a Training Program on 'Gender, Water Management and Climate Adaptation' organized by the IMSciences Peshawar and IHE Delft Institute for Water Education**



The Centre for Public Policy Research at the Institute of Management Sciences (IMSciences) Peshawar together with International Education for Water Education (IHE), Netherlands coorganised a Tailer Made Training for Water and Climate Change professionals from across Pakistan from January 28 to February 01, 2019 in Islamabad.

The opening ceremony was addressed by Dr. Muhammad Mohsin; Director IMSciences, Professor Margreet Zwarteveen; Head of IHE Delft, Ms. Josephine Frantzen; Charge d’Affairs Embassy of Netherlands, and Ms. Sitara Ayaz; Chairperson Standing Committee on Climate Change. Training attracted a large number of distinguished processionals form the government, academia, media, international organizations as well as the private sector. On behalf of ECOSF, Mr. Khalil Raza Scientific Officer Participated in the five-day event.

Prof. Margreet Zwarteveen was the lead resource person for the training. The training covered numerous aspects of water governance, including the trans-boundary water challenges, Integrated Water Management, Public Policy and Politics of Climate Adaptation, and other key topics. Prof Zwarteveen said that climate change and other associated global environmental issues had manifested the fact that all old knowledge, policies and mechanisms had gone outdated and insufficient to cope with the induced matter of water scarcity. Thus there is a dire need to build mechanisms and understanding of the water governance and management concepts in an integrated manner.

**ECOSF participated in a meeting on Man and the Biosphere (MAB) Programme organized by the UNESCO**

UNESCO organized a meeting on Man and the Biosphere Programme (MAB) on January 4, 2019 at UNESCO office in Islamabad. UNESCO's Man and the Biosphere Programme (MAB) is an Intergovernmental Scientific Programme that aims to establish a scientific basis for the improvement of relationships between people and their environments. The aim of the meeting was to identify the Climate Change Challenges and formulate a formal action plan to work on climate change hazards. The meeting also discussed the conservation of biospheres natural resources.



Ms. Vibeke Jensen, Director UNESCO Islamabad welcomed the participants to the meeting and highlighted the efforts of UNESCO in conservation of natural resources. Dr. Miguel CLÜSENER-GODT, Director, Division of Ecological and Earth Sciences, Secretary, Man and the Biosphere (MAB) Programme presented the detailed outline of Biosphere programs.



President ECO Science Foundation Prof. Dr. Manzoor Hussain Soomro participated and contributed to the discussion in the meeting. Subsequently, the way forward was presented to restore the biospheres and implement preventive measures on emergency basis to be taken to face the upcoming challenges of climate change.

### ECOSF and PAEC held a meeting to review and discuss on-going collaboration for implementation of IBSE in PAEC School System

A meeting was held at the Headquarters of Pakistan Atomic Energy Commission (PAEC) on 2 January 2019. The purpose of the meeting was to review the on-going program for implementation of the Inquiry Based Science Education (IBSE) activities in the schools of PAEC in collaboration with ECOSF. The meeting was attended by Prof. Dr. Manzoor H. Soomro, President ECOSF, Maj Gen (R) Ghulam Qamar, Member (Admin) PAEC; Dr. Muhammad Masood ul Hassan, Member (Science), PAEC; Dr. Iftikhar Ahmad, Director (Education), PAEC and Mr. Ghulam Abbas, Assistant Director, ECOSF. Member (Admin) PAEC warmly welcomed the distinguished guests.



After the welcome, President ECOSF briefly introduced the Foundation and its programme. He mentioned that the IBSE programme is a flagship programme of the Foundation which was launched in June 2015 in ECO region from Astana-Kazakhstan. The programme is successfully run in Pakistan and Iran. He further said that the programme is being expanded in other countries of ECO region. He further said that after meeting with the then Chairman PAEC Dr. Ansar Pervez in 2014, the IBSE program was initiated in PAEC schools in 2015. Since then, the programme is undergoing and expanding successfully.

Member Admin thanked the Foundation and Prof. Soomro in his personal capacity for fostering the IBSE program in PAEC Education System through training of core PAEC teachers as Master Trainers. He delightfully shared that the program is successfully under going in the schools and so far 68 teachers have been trained on IBSE methodology. He further shared that the IBSE methodology is being introduced in more schools of the Commission.

Prof. Soomro appreciated the efforts and dedication of PAEC for continuity of IBSE program and training for more teachers on IBSE. He suggested that the various modules based on local examples and materials should be prepared and the resource centres can be developed for easy access of the teachers and students for the demonstration of IBSE in the class. He further suggested that the PAEC services may be provided to nearby schools for training of teachers. President ECOSF informed the PAEC management that ECOSF is collaborating with Cantt Garrison Schools, thus, the Foundation is willing to utilize the services of Master Trainers of PAEC for imparting training to the teachers of Cantt Garrison Schools. Apart from this, the services of PAEC

Master Trainers can be utilized in ECO region. President ECOSF assured PAEC team for maximum possible support of the Foundation for enhancement of IBSE program in PAEC Education System.

The management of PAEC praised the proposal of ECOSF and agreed in principle. At the end, Member (Admin) on behalf of Chairman PAEC presented shield of PAEC to President ECOSF.

### **Pakistan Academy of Sciences organized the Popular Science Lecture on Science and Humanities**

Pakistan Academy of Sciences organized a Popular Science Lecture on "Science and Humanities" by Prof. Dr. Sayed Amjad Hussain, Emeritus Professor of Cardiovascular Surgery at the University of Toledo USA on January 8, 2019. A number of senior scientists, academicians, policy makers, students and teachers from different educational institutions attended the lecture. On behalf of ECOSF, its President Prof. Dr. Manzoor Hussain Soomro and Engr. Khalil Raza Scientific Officer ECOSF participated in the meeting.

Prof. Hussain underscored that relentless emphasis on STEM (Science, Technology, Engineering and Medicine) curriculum has resulted in highly competent scientists while lacking the interest or insight into important disciplines of humanities such as the arts, literature, music, history and philosophy. This lack of engagement can be traced back to relative lack of exposure to humanities during college education.



Prof. Hussain discussed the scope of humanities and the array of subjects that constitute the spectrum of humanities. He also gave examples where a literary description of a disease is more memorable and enjoyable than the textbook description. Prof. Hussain concluded that humanities are the stories, the ideas and the words that help individuals make sense of lives and world and in the process make their lives more rich, fulfilling and satisfying.

### **The Delegation led by Science Diplomacy Division of MoFA Pakistan called upon the President ECOSF**

The two member delegation led by Mr. Mohammad Kamran Akhtar, Director General of newly established Science Diplomacy Division at the Ministry of Foreign Affairs (MoFA) along with Dr. Zafar Iqbal, DG Strategic Export Control Division of MoFA, Government of Pakistan called upon the President ECOSF Prof. Dr. Manzoor Hussain Soomro on January 3, 2019. President ECOSF welcomed the delegation and appreciated their efforts for setting up a Science Diplomacy division at MoFA for promotion of international scientific and technological collaboration. Prof. Soomro apprised them that ECOSF has been contributing to various initiatives to promote Science Diplomacy



among ECO Member and other states. Prof. Soomro also shared various programmes and initiatives undertaken by ECOSF in collaboration with its international partners.

Mr. Mohammad Kamran Akhtar appreciated the contribution of ECOSF for promotion of science and technology in the region. He underlined important role of science in diplomacy and realizing its potential, MoFA has established a Science Diplomacy Division dedicated to promotion of science with its focus on UN Sustainable Development Goals (SDGs). He further shared that in this context, MoFA is set to initiate a dialogue among relevant stakeholders of Science and Technology in Pakistan to seek their guidelines for effective implementation. Mr. Akhtar sought support of ECOSF to provide strategic inputs and he also invited the President ECOSF to participate in its first brainstorming meeting that is scheduled this month. Prof. Soomro assured the delegation the full cooperation and support of ECOSF to contribute to this initiative.

### **Artificial Intelligence Initiative at Pakistani Schools- ECOSF held an Online Meeting with Technology Experts based in Canada, US and Pakistan**

Artificial Intelligence is no longer just contained in science fiction films. It is a part of our everyday lives, realizing the dire need of Artificial Intelligence Learning in our daily lives, an online meeting was held on January 10, 2018 to discuss the way forward to introduce Artificial Intelligence (AI), Machine Learning and Deep Learning at schools in Pakistan. It is worth mentioning that this meeting was facilitated by Mr. Imran Siddiqui, the Consul General of Pakistan in Toronto, Canada and Mr. Mohammad Kamran Akhtar, Director General of ACDIS/Science Diplomacy Division at the Ministry of Foreign Affairs, Pakistan. Other members of the group include Prof. M. Iqbal Chaudhary of ICCBS Karachi, Prof. Sarosh Lodhi- VC of NED Engineering University Karachi, Prof. Manzoor H. Soomro- President ECOSF and other Pakistanis in USA, Canada and Pakistan. Those who joined the online meeting were; Dr. Shamim Sheikh, Dr. Adeel Zafar, Dr. Manzoor Soomro, Ahmed Roowala, Omer J Ghani, and Hassan Syed.

**Mr. Hassan Syed**, Founder and CEO of Bir Ventures USA Ltd., set up an online conference call and moderated the meeting. In his welcoming remarks, Mr. Hassan briefly introduced the impact of Data Sciences in modern age and stressed upon the need for developing a curriculum for introducing in secondary level. Mr. Hassan said they have already developed a curriculum for teaching AI to the university level which will be shared with the members.

**Prof. Manzoor Hussain Soomro**, President ECOSF, highlighted various programmes initiated by the Foundation for promotion of Science and Technology. He also shared that ECOSF in collaboration with many international partner organisations, initiated the Inquiry Based Science Education programme in the ECO region. During the meeting, Dr. Soomro pointed out the need for training of teachers for teaching science subjects at school level and shared with them that the Foundation is running a programme for teachers training in IBSE for STEM and assured his full support to the initiative. He also emphasized on the need for system approach for sustaining the initiative and suggested engagement of school systems rather than single schools.

**Prof. Shamim Sheikh** joined the meeting from Toronto, Canada. Prof. Shamim is the representative of the DIL (Developments in Literacy) Trust, UK, and The Citizens Foundation (TCF) working for the school education in various parts of the country. He pointed out that different organisations and NGOs are working in their capacity to improve the education systems especially at secondary level, but more focus is needed on Artificial Intelligence at school level.

**Dr. Adeel Zafar**, Head of the Executive Department of LUMS, Business School said there is a great potential in the younger society and we need to put focus on the curriculum at the school level to develop cognitive, data driven analysis and decision making approach amongst our students from secondary level. In this context, he suggested while developing the curriculum, we need to first define the scope and level of difficulty in terms of different age groups. Secondly, there should be a defined ladder for migrating from old to new curricula. For this capacity building of teachers training is also very crucial. He also focused on institutions to understand the need and importance of teaching AI to students at school level and identify more partner institutions for this project.

**Distinguished Visitors to ECOSF**

January 16, 2019: Dr. Sarosh Hashmat Lodi, Vice Chancellor, NED University of Engineering and Technology called upon President ECOSF Dr. Manzoor H. Soomro at his office.



January 10, 2019: Mr. Istaqbal Mehdi Chairman and CEO Al Aman Holdings, Former President of ZTBL called upon the President ECOSF Prof. Dr. Manzoor Hussain Soomro to discuss various measures for promotion of Science and Technology and as wells as improving the trade and effective management of public enterprises in the ECO Region



January 8, 2019: Dr. Ozair Chaudhry, Member/ Advisor (DEAC) Durham Head Quarters. Regional Municipality of Ontario, Canada (2nd right); Dr. Naeem Hashmi (2nd left) former DG NARC Islamabad; Dr. M. Azeem, Member Food and Agriculture, Planning Commission of Pakistan (left); Dr. Abdul Majid (right) Country Director (Pakistan) ICARDA visiting ECOSF and meeting President ECOSF Dr. Manzoor H Soomro



**Upcoming Events posted on ECOSF website and Facebook page**

**5th Science and Technology Exchange Program on Challenges of Communicable and Non-Communicable Diseases**

Read more: <http://eco4science.org/STEP-5>

**5th STEP entitled, "Cutting Edge Pharmaceutical Approaches to Meet Health Challenges of CDs and NCDs; with an emphasis on female scientists' contributions"**

Read more: <http://eco4science.org/5th-STEP>

**Invitation To The international Festival Of Engineering Sciences and technology I-FEST<sup>2</sup> 2019 - TUNISIA , Student Science Project Competition**

Read more: <http://eco4science.org/I-FEST>