S&T Priority Areas for Research Funding identified by ECO Science Foundation to Promote Innovation and Economic Growth in ECO Region

Investment in S&T research is considered as a key driver for technopreneurship and economic development. Priority-setting processes are critical in aligning research funding with national/regional needs and in identifying the research questions necessary to fill knowledge gaps and to set the general trends of the S&T development. Thus, identifying research priorities is vital, since it informs the decision makers for effectively targeting issues that have the greatest potential for public benefit. As such, the process of setting research priorities is of pivotal importance for favouring the science, technology, and innovation (STI)-driven development of low- and middle-income countries.

ECOSF has established a "S&T Fund" for financing collaborative research among the 10 ECO member states. The modalities of this "S&T Fund" have been approved by the ECO Council of Foreign Ministers (COM), however the member states have yet to contribute finances to the Fund. The ECO Science Foundation through its "S&T Fund" and in collaboration with the Higher Education Commission (HEC) of Pakistan has a great potential to pursue the S&T based economic development in the region. This initiative becomes even more important and strategic in the wake of China-Pakistan-Economic Corridor and the China's "one belt one road".

ECO Science Foundation (ECOSF), being Specialized Agency of the ECO for promotion of Science and Technology leading to economic development in ten ECO countries has taken the lead in setting the priority research agenda in the region and organized a two days Meeting of Eminent Scientists/Experts of ECO Member States on 28-29 December 2015 at Islamabad-Pakistan to Prioritize Focus Areas of Research for Funding under its "S&T Fund".
The main objective of the meeting was to ascertain the strengths and ongoing activities of scientific institutions in ECO Member States and to prioritize the focus areas of research for funding under S&T Fund of ECOSF. Additional objective was to facilitate networking among the scientific and technological community of ECO region for research collaboration. Some 17 participants from ECO Member Countries contributed in the meeting.

President ECO Science Foundation Prof. Dr. Manzoor Hussain Soomro in his opening remarks welcomed the distinguished participants from member countries and made a presentation on the programmes, activities, brief highlights of achievements and future plans of ECOSF. Afterwards presentations were made by the heads of delegations highlighting the S&T activities in their countries along with their Priorities Research Areas. Subsequently a moderated brain storming session was conducted to finalize the priority research areas in line with the UN Sustainable Development Goals (SDGs). A presentation on the UN SDGs was also made by a UNDP officer for awareness and capacity building of participants to link their research and academic activities with the 17 SDGs set for 2016-2030.

As an outcome of the meeting the following Priority Research Areas were finalized to Promote Innovation and Economic Growth in the ECO Region.

**Priority-1**
- a) Energy: Clean/ Renewable Energy and Natural Resource of Energy in ECO Region
- b) Applied/ Basic Sciences: Nanotechnology, Biotechnology and Seismology

**Priority-2**
- a) Water: Water use efficiency, water pollution and recycling
- b) Space Industry:

**Priority-3**
- a) Food Security: Agriculture, Food & Food Security

**Priority-4**

The ICT and Advanced Research Infrastructure Network, S&T Education, Gender, Knowledge sharing mechanism, Education online and Policy Research, were agreed as overarching areas to be considered in every research project to be funded by the Foundation.

The Federal Secretary for Ministry of Science and Technology, Government of I.R of Pakistan Mr. Fazal Abbas Maken hosted a dinner for the delegates of the meeting; wherein numerous heads of S&T Organizations and Diplomats from ECO countries were also present. On the occasion, the outcome of the meeting was shared by the President ECOSF with the Secretary and the diplomats. In his remarks, Mr. Maken welcomed the guests and appreciated the dynamic leadership of ECO Science Foundation and appreciated
that S&T Research Priority Areas have been determined; which are very much in-line with the priorities of the Government of Pakistan and should also address the Sustainable Development Goals (SDGs) targets. He assured full cooperation and support of his Ministry for the ECOSF.

ECOSF Delegation attended 26th Meeting of ECO Regional Planning Council (RPC) held in Tehran-Iran

The 26th Meeting of the Regional Planning Council (RPC) of the Economic Cooperation Organization (ECO) was held on 13th-17 December, 2015 at the ECO Secretariat, Tehran. In addition to the Opening and Plenary sessions, the Sectoral Committee meetings were also held and their outcomes converged in the Closing Plenary on 17 December; wherein, the final RPC report was presented and adopted with consensus. The Meeting was attended by the delegations of all the 10 Member States, the Observers; the Turkish Cypriot State and the Cooperation Council of Turkic Speaking States; as well as by the ECO Specialized Agencies, Regional Institutions and Affiliated Bodies.

The ECO Secretary General H.E. Ambassador Halil Ibrahim Akça, in his opening remarks, welcomed the visiting delegations to the 26th RPC Meeting and presented a comprehensive overview of the main activities of the Organization during 2015. The Secretary General highlighted major achievements and progress made in various key areas, including; trade, investment, transport, communications, energy, environment, agricultural, industry, tourism, economic research, statistics, human development, disaster risk reduction, against the spread of drugs and organized crimes, and the international relations. He impressed upon the Member States to put ECOTA on fast-track and complete its procedural requirements without further delay. The Secretary General mentioned the
need in the field of trade and investment for expeditious signing and ratification of already development agreements as the challenges need special consideration of the Member States to translate the efforts into socio-economic sustainable development for the betterment of the people of the region. He requested the Member States to play a proactive role to host the ECO meetings/events in their countries. He also emphasized the importance of the 26th RPC Meeting keeping in view the implementation of the EPG recommendations and the need to formulate a new ECO Vision for the upcoming decade. He said that the Secretariat has initiated preparation of a roster list of the experts and training facilities available with the ECO Region for capacity building and training of the officials on issues related to drugs and organized crimes.

The Meeting was inaugurated by His Excellency Dr. Seyed Abbas ARAGHCHI, Deputy Foreign Minister of the Islamic Republic of Iran. In his inaugural address he on his behalf and also on behalf of the Government of the I.R. of of Iran, warmly welcomed the distinguished delegates of the ECO Member States. He said that the ECO has achieved many important milestones in its work for regional development through common efforts, building on the Member States’ close cultural ties, shared historical past and joint plans for the future.

In the Plenary Session, the heads of delegations of member counties shared their statements/progress on behalf of their countries on the decisions taken in last RPC Meeting. The heads of Observers and specialized agencies’ delegations also made their statements.

The President ECOSF Prof. Dr. Manzoor H. Soomro made statement on behalf of Foundation. In his statement, he thanked the ECO Secretariat for organizing the meeting amicably and shared the progress of the Foundation during 2015. Prof. Soomro urged the member states to fully support ECOSF so that the objectives of the Foundation can be achieved through its various scientific activities. President ECOSF expressed deep gratitude to all the Member States and ECO Secretariat for their continuous support to the Foundation and special thanks to the Government of Pakistan for patronizing ECOSF through its Ministries of Science & Technology and Foreign Affairs. President ECOSF also appreciated the Government of Pakistan’s Ministry of Science and Technology for official allocation of a rent-free office space to the Foundation in its newly constructed building. Prof. Soomro also urged the concerned member states to ratify the ECOSF charter so as to benefit from its programs and let the Foundation function at its fullest strength. He mentioned in his statement that ECOSF is cognizant of the UN Sustainable Development Goals (SDGs) and all ECOSF current and future programmes have been tuned to SDGs. He further mentioned that ECOSF would be pleased to assist member states in pursuing their SDGs particularly of S&T research, Education, Gender and Environment. In this regard, the Foundation has submitted its recommendations to the ECO Secretariat for developing the ECO Vision for next decade.

The President ECOSF reported that ECOSF initiated the first scientific research collaboration agreed upon between two ECO member states; Pakistan and Tajikistan. It is among the International Centre for Chemical
and Biological Sciences (ICCBS) of the University of Karachi- Pakistan and the Academy of Sciences of Republic of Tajikistan through its Institute of Chemistry and Botany. The collaboration was coordinated and co-sponsored by ECOSF and the institutes have signed a Memorandum of Understanding (MoU) for joint research projects as well as exchange of scientists and students among them under the auspices and patronage of ECO Science Foundation. The ICCBS has offered 10 fellowships/scholarships to Tajikistan under the MoU. Similar interactions are being promoted among other member states as well and the Foundation would welcome proposals.

The meeting was informed that ECOSF has developed good interaction with numerous international science and technology organizations and Donors including UNESCO, International Science, Technology and Innovation Centre (ISTR), Kuala Lumpur- Malaysia, the La main a la pate Foundation of France, the European Union, ISESCO, Islamic Development Bank (IDB), COMSATS, EvK2CNR Foundation of Italy, Science Education Programme (SEP) of Inter-Academy Panel (IAP), ISTC Astana- Kazakhstan as well as many Pakistani institutions and has received in-kind technical support from them for programs of the Foundation. The President ECOSF updated the meeting that with the support of Foundation’s international collaborators, a very successful International Capacity Building workshop on "Inquiry Based Science Education (IBSE)" was jointly organized by ECOSF and the Committee of Science under the Ministry of Education and Science, Government of Republic of Kazakhstan on 22-25 June, 2015 at Astana-Kazakhstan. Follow-up activities of this initiative are planned in Iran, Pakistan and Turkey. The activities carried out during the year were also briefly described in the statement.

Two separate sessions on ECO Specialized Agencies/Regional Institutions/Affiliated Bodies including ECOSF were also held during the meeting, wherein, the progress/achievement of the agencies/institutions was discussed in detail. The Council appreciated the activities and initiatives of the Foundation for developing and promoting cooperation among the Member States in the field of science and technology and for the promotion of scientific research in the Region.

An exclusive brainstorming session on ECO Vision 2025 was arranged by ECO Secretariat on 15 December 2015. The session was attended by the Ambassadors, Head of Delegations and Experts of ECO region and all participants of the session were invited to present their ideas. On behalf of ECOSF, the President joined the session and actively contributed, with emphasis on UN SDGs and Cooperation & Collaboration" among the organizations and institutions. Finally, a variety of ideas were collected and qualitative ideas were picked up which will be used for ECO Vision 2025.

At the end of the RPC meeting, on behalf of all the participating delegation, the Council expressed its appreciation and thanks to the ECO Secretariat for making excellent arrangements for this important meeting. The Council concluded with a vote of thanks to the Chair for conducting the deliberations of the meeting in a smooth and efficient manner. The Council also thanked the Chairmen of various Sectoral Committees for successfully conducting the business of their respective Committees. It also appreciated the efforts made by the Secretary General and his staff for preparing comprehensive Working Papers and other documents for the Council. The Council decided to organize the next 27th RPC Meeting in early December 2016.
ECO Science Foundation (ECOSF), UNESCO Islamabad and Pakistan Science Foundation (PSF) celebrated the World Science Day on 11 November 2015 at PSF to create awareness and encourage students towards scientific education and research with a view of sharing ideas between the scientists and students. In this context, various awareness raising activities supported by ECO Science Foundation were also organized by the PSF Science Caravans across the country.

Federal Secretary, Ministry of Science and Technology Government of I.R.of Pakistan Mr. Fazal Abbass Maken, was the chief guest. He said that World Science Day is aimed at renewing national and international commitment to use science and technology for national development and achieving peace by appropriate use of its applications.

Speaking at the convention of scientists and students, President, ECOSF, Dr. Manzoor Soomro said that this year’s World Science Day has a special importance for the world for two reasons. One, the UN Sustainable Development Goals (SDGs) 2016-2030 have been approved by the UN General Assembly in Sept; and two, the UNESCO Report 2015 has been launched just yesterday in UNESCO Headquarters Paris during the ongoing 38th Session of UNESCO General Conference. He said that it is pertinent to note that 10 November was chosen to launch the UNESCO Report to commemorate the World Science Day in a befitting manner. Dr. Soomro emphasized on rigorously pursuing the SDG-4 "Quality Education and Lifelong Learning for all". He pointed out that recent report by Alif Ailan shows that out of the total 54.91 million school age children (5-16 years age) in Pakistan, over 25 million children remain out of school, with greater number of girls! He said that, those that go to schools, are faced with dismal quality of education, and if that situation continues, achieving the SDG-4 for Pakistan during the next 15 years, seems impossible!

Dr. Soomro further stressed that education methodology was another major issue worldwide and Pakistan should emphasize on training and motivation of teachers; they should be trained through hands on methodology with focus on "inquiry" and "activity based learning". Furthermore, he said that the SDG-5 "gender equality and empowerment of women and girls" should be considered and declared as an over-arching goal for all the 17 SDGs; that way the chances of achieving this goal would be greater. He said that ECO Science Foundation in collaboration with UNESCO and national organizations in the 10 ECO member countries, is making all out efforts to promote science, research and education; and hoped that the collaboration will further be strengthened in future.
Director UNESCO Pakistan Ms. Vibeke Jensen, in her remarks, said that World Science Day for Peace and Development is an occasion to remember that the sciences should be at the service of humanity as a whole, and should contribute to providing everyone with a deeper understanding of this planet and its people. She said that science education and research capacity need to be built to allow countries to develop their own solutions to their specific problems. UNESCO provides countries with guidance in developing or revising their national Science Technology and Innovation (STI) policies and in strengthening national capacities in science education and research.

Earlier, Dr. Muhammad Ashraf, Chairman, Pakistan Science Foundation in his welcome remarks thanked all the distinguished guests and extended his gratitude to UNESCO for its continuous support and execution of science programmes and to ECOSF and its President for partnering with PSF for the event. Eminent scientists of Pakistan, Prof. Dr. Aslam Baig, HI, SI, TI, and Professor at the National Centre for Physics in his talk said that the prerequisite for development and prosperity is huge investment in Science and Technology which will enable us to enhance the skilled Human Resource Development as the future of Pakistan lies on the knowledge based economy. His talk focused on the 2015 as the Year of Light.

Dr. S.T.K. Naeem, Consultant at COMSTEC in her speech, said that science is the greatest glory for mankind. It is the search for answers to questions about the nature. She said that science is important equally for all the countries of the world. She emphasized on more investment in research and development (R&D) which is the key to economic growth. The institutions should be strengthened and right environment should be provided for the improvement of science in the country.
At the end of the event, PSF Gold Medals, certificates and cash prizes co-sponsored by PSF and ECOSF were distributed among the winner students of Inter-Board Competitions, Intel ISEF and the Asian Science Camp-2015.

The Mustafa Prize for Science & Technology in the Islamic World Launched in Tehran- Iran

The Mustafa (PBUH) Prize for significant contributions in the field of science and technology in the Islamic World was launched recently in Tehran, Iran with the announcement of two prizes for 2015. The first ever Mustafa Prize Award Ceremony was held on Friday December 25 at Vahdat Hall (Talar-e-Vahdat). It began in the presence of senior political, cultural, scientific and social officials, scholars from Islamic countries, and guests of this top science and technology award in Vahdat Hall- Tehran. Over 60 guest scientists from 28 countries participated in the ceremony. Mustafa Prize was granted to Professor (Ms.) Jackie Y. Ying, the Executive Director of the Institute of Bioengineering and Nanotechnology of Singapore, and to Professor Omar Yaghi from Jordan. Professor Yaghi is the Co-Director of Kavli Energy Nanosciences Institute and faculty member of University of California, Berkeley. Mustafa (pbuh) Prize in its first round was awarded in "Nanoscience and Nanotechnology" and top scientific achievement in other fields/categories.

Dr. Sourena Sattari, Vice President for Science and Technology, Dr. Alireza
Marandi, President of Iranian Academy of Medical Sciences and Dr. Abdolsalam Al-Majali President of Islamic World’s Academy of Sciences gave the prestigious Mustafa (pbuh) Prize to the winners. Laureates of Mustafa (pbuh) Prize also received scientific badge of the Academy of Sciences handed to them by the President of Iranian Academy of Sciences.

The Mustafa Prize is a top science and technology award granted to the top researchers and scientists of the Organization of Islamic Cooperation (OIC) member states biennially. The Mustafa Prize seeks to encourage education and research and is set to play the pioneering role in developing regional relations between science and technology institutions working in the OIC member countries. It also aims to improve scientific relations between academics and researchers in order to facilitate the growth and perfection of science in the OIC member states.

The Mustafa Prize is purposed to encourage and to promote science and technology development in order to enhance the quality of life by appreciating the top works of Scientists within the Islamic world. It is to improve scientific relations between academics and researchers in order to facilitate the growth of science in OIC Member state. It is one great prize to encourage the development in science and innovation technologies and its implication in the Muslim world.

The Mustafa Prize Award Ceremony was also attended by President ECOSF Professor Manzoor Hussain Soomro, who made a commitment to contribute financially towards the Endowment Fund established to the Prize. On the occasion, Prof. Soomro also met the Vice President of Iran for Science and Technology Dr. Sourena Sattari and introduced ECOSF to him.

On the occasion, a group of scientists and guests of Mustafa (pbuh) Prize paid a visit to the Centre for Innovation and Technology Cooperation of the Presidency and were introduced to the growth and developments in the field of science and technology. President ECOSF Professor Dr. Manzoor Hussain Soomro from Pakistan, Professor Ideris from Malaysia, , Professor Kuku from Nigeria, Professor Parker from South Africa, Professor Riazuddin, Professor M. Iqbal Chaudhary, Dr. Imtinan Elahi and Dr. Shaukat Hameed Khan from Pakistan and Professor Faizan from India were also present. Mohammad Lawal Boga, President of Raw Material Development and Deputy Minister of Science and Technology Development Council of Nigeria were among the participants.

Distinguished guests and scientists also visited Pardis Technology Park and Biotechnology and Nanotechnology corporations. Professor Omar Yaghi, faculty member of University of California, Berkeley, Professor Manzoor Soomro President of ECO Science Foundation, Professor Imitinan Elahi Qureshi from Pakistan, Professor Faizan Ahmad from India and Professor Mostafa El-
Sayed University professor in USA were among this group. Professor Al-Majali, Chairman of the Islamic World Academy of Sciences from Jordan, Professor Abdallah Daar University professor in Canada from Oman, Prof. Sheikh Riazuddin from Pakistan, Prof. Aderemi Oluyomi Kuku from Nigeria, Professor Saghar Taghrir from Jordan, Prof. Aini Ideris from Jordan, Professor Goerge Chi Yang, University professor in USA were also among this group. Amin Reza Khaleghian General Director of Public Relations Office of Pardis Technology Park accompanied the guests to show them the park’s achievements exhibition which presented cell therapy services of Sinacell, the molecular detection methods, scientific achievements of Pargasiran Co., Sina Kavosh Electrics and some other technological systems. During the visit Professor Manzoor Soomra was also interviewed by an Iranian TV Chanel.

The visit was followed by a meeting with Mahdi Safarinia, President of Pardis Technology Park and Secretary of Policy Making Council of Mustafa (pbuh) Prize. At the meeting Khaleghian explained about the history of Pardis Technology Park and Iran’s scientific status. The products of the park were also presented to the guests and they asked questions about these products. After the meeting, the guests visited Biotechnology companies like Pouyesh Darou and Nanotechnology ones like Ara Pazhoughesh.

A visit to AryoGen Bio-medicine Company was also arranged by the hosts. An introductory photo slide was played which gave information about pharmaceutical and health products of the company. Then, Mohammad Saffarioun, Quality Assurance Director of the company answered questions of the guests about products, scientific and technological achievements of the company. He then outlined the developments of AryoGen in the field of pharmaceutical products and explained the procedures of the company. He also talked about different sectors of the company, and the number of employees and their education. It is worth noting that according to Saffarioun explanation, AryoGen has been active in transferring knowledge and technologies to ECO Member States.

**SASTIW and ECOSF Collaboration begins with Water in Focus**

The Secretariat for the Advancement of Science and Technology in Islamic World (SASTIW) is a centre for enhancing cooperation between scientists and scholars in the Islamic world and across the globe. SATIW was established at the University of Tehran after the first International Congress on "The Advancement of Science and Technology in the Islamic World" was held in Tehran in 1992. SASTIW seeks to advance science and innovation as well as scientific cooperation throughout the Islamic World.
On Tuesday, 15 December 2015, SASTIW held a meeting of its Scientific Council to discuss the plan of a Water Summit planned on 2-3 March 2016 in Tehran; wherein, the ECO Science Foundation has joined as partner of SASTIW. President ECOSF Prof. Dr. Manzoor Hussain Soomro also attended the meeting as member of the Scientific Council. The Members of the scientific council of SASTIW include University of Tehran Vice President for Research, Vice President for International Affairs, Vice President for Planning and Information Technology, Dean of the College of Engineering of the University of Tehran, Dr. Mohammad Ali Mousavi (University of Tehran Professor and Advisor to the Minister of Economics and Financial Affairs) and Prof. Dr. Ali Akbar Moosavi-Movahedi (Dean of the Institute of Biochemistry and Biophysics and Secretary General of SASTIW), Dr. Mohammad Hossain Sarrafzadeh (University of Tehran Professor and Executive Secretary of the Summit on Health and Lifestyle: Water, Sustainable Development and Healthy Life), and Dr. Alavipanah, a Professor at University of Tehran and Executive Secretary of the Summit on Health and Executive Secretary of the Summit on Health and Lifestyle, and Threats of Soil Erosion.

The meeting began with introduction of SASTIW by Dr. Moosavi-Movahedi, who explained about the First Congress on the Advancement of Science and Technology in the Islamic World that was held in 1992. He then explained about the Second Congress which will be held in the form of three international summits under the theme of Health and Lifestyle. The summits on Culture and Cyberspace, Water and Sustainable Development and Healthy Life, and Threats of Soil Erosion will host prominent Muslim scholars from around the world as well as some internationally renowned non-Muslim scholars in January, March, and May 2016 respectively. The main objectives of the three summits are to propose policies to policy-makers in the Middle East and the Islamic World on the topic of each summit.

Dr. Soomro suggested for contacting UNESCO Science Bureau for Asia and the Pacific at Jakarta as well as Islamic Development Bank to seek support for the upcoming summits. He also added that ECOSF has approved the financial support for the Summit on Water and Sustainable Development and
expressed the possibility of ECOSF’s support for the summit on Soil Erosion. Dr. Soomro held that the scholars who are also involved in policy-making in their country should be prioritized for the invitation to the summits. He also accepted Dr. Sarrafzadeh’s invitation to attend the Summit on Water and Sustainable Development and deliver a speech on the relevant topics of the summit.

The meeting was a great step towards furthering collaboration between ECOSF and SASTIW to conduct activities in line with the objectives of sustainable development.

The meeting was a great step toward further collaboration between ECOSF and SASTIW to conduct activities in line with the objectives of sustainable development.
ECO Science Foundation (ECOSF) through its President, joined the 7th World Science Forum (WSF) organized in Budapest, Hungary from 4-7 November 2015. The 7th WSF 2015, with the theme "The Enabling Power of Science" was organized and hosted by the Hungarian Academy of Sciences jointly with the Government of Hungary, UNESCO, International Council of Science (ICSU), American Association for the Advancement of Science (AAAS), The World Academy of Sciences (TWAS) and European Academies Science Advisory Council (EASAC). Over 800 Science Leaders and participants from more than 100 countries joined the Forum. The Forum was inaugurated by the Prime Minister of Hungary H.E. Mr. Viktor Orbán on November 4, 2015. The Opening Ceremony was addressed by the President of WSF and of the Hungarian Academy of Sciences, Prof. Lászlo Lovász, the President of ICSU Prof. Gordon McBean, CEO of AAAS Dr. Rush D. Holt, Assistant Director General (Natural Sciences) UNESCO Dr. Flavia Schlegel and the EU Commissioner for Education, Culture, Youth and Sports Mr. Tibor Navracsics; while a video message of UN Secretary-General H.E. Mr. Ban Ki-Moon was also played in the Opening Ceremony.

The programme of the Forum offered 6 main plenary sessions: a key component was a 'sustainability update' bringing together leading decision-makers in the run-up to the December 2015 Conference of the Parties (COP21) on Climate Change in Paris and very much influenced by the UN's 2030 Agenda for Sustainable Development approved in September 2015. Two further plenary sessions dealt with 'confidence in science' and 'communicating with society'; where the issue of ethics and scientific integrity came to the fore. This year's programme also offered 9 thematic sessions: over 50 organizations were invited in to enrich questions and answers style debates with delegates on a broad range of topics. From 'global health policies' looking at responses to Ebola, Autism, HIV/Aids and Substance Addiction; the latest in 'brain research' or 'building climate resilience' and 'disaster risk reduction'; to insights into 'science governance in Africa', 'science for peace' or the 'international year of light, a truly who's who of experts were on-hand at WSF 2015. Numerous side events were also organized by various internationals mainly under the patronage of UNESCO, but also by EU JRC (Joint Research Centre), IEEE, AAAS/ACADEMIA EUROPEA/ISTIC, IAP (Inter-Academy Partnership)/ICORS/A WAYS/GYA, ERC and MTA/IPBES on various aspects including Youth engagement, STEM Education, Role of Engineering, SDGs and Environment/Biodiversity & Ecosystem Services etc. Ceremonies of UNESCO Kalinga Prize sponsored by India and UNESCO Sultan Qaboos Prize sponsored by Oman, were also held on the occasion.
President ECOSF Dr. Manzoor Hussain Soomro was one of the High Level Expert Judge along with IAP Co-Chair, Dr. Mohamed Hassan; Executive Officer of the Academy of Science of South Africa, Dr. (Ms.) Roseanne Diab; Director of Division of Science Policy and Capacity-Building Sector for Natural Sciences at UNESCO, Mr. Maciej Nalecz and the Senior Science Policy Specialist at UNESCO Latin America and the Caribbean, Mr. Ernesto Fernandez Polcuch for a competition among the global young scientists and members of Global Young Academy (GYA). The competition called, "Lion's Den" jointly organized by IAP/GYA and CORSA, was on "Scoping the Future: Views and Ideas of Young Scientists to tackle Global Challenges" with the objective to brainstorm ideas, applications and solutions from youth for implementation of UN Agenda 2030- the UN SDGs 2016-2030. In all, 50 selected young scientists from 20 countries participated in the competition. The competition was won by the team- Jobs (SDG No. 9). The activity was originally proposed by the IAP- a network of 130 National Academies of Sciences, Engineering and Medical.

During the four days Forum, President ECOSF also interacted with various dignitaries including the President of WSF 2015 (President of Hungarian Academy of Sciences), Prof. Lászlo Lovász; Adviser Science to Prime Minister of Malaysia, Dr. Abdul Hamid Zakri, who is also the Chairman of IPBES; Dr. Mohamad Hassan the Co-Chair of IAP; Prof. Koji Omi the founder and Chairman of STS Forum South Korea; Dato’ Ir. Lee Yee Cheong the Chairman of ISTIC Governing Board and many others.

Dr. Soomro was also invited to participate in a UNESCO Roundtable on "Galvanizing Science Education & research for Fostering an Innovation Culture in the Arab Region" on 4 November 2015. This side event was co-organized and partnered by UNESCO, ISTIC, Arab Academy of Sciences and Academia Europaea. He also participated in another side event organized by the IEEE entitled; "New Paradigms for Integrating Sustainable Development into Science and Engineering Education through IEEE Educational Activities". It was addressed by the IEE MD Engr. Dr. Douglas Gorham, Vice President IEE Engr. Dr. Tariq Durrani from UK.

ECOSF Collaborators ISTIC Kuala Lumpur- Malaysia through its Chairman of Governing Board Academician Dato Lee Yee Cheong also participated as a Panelist in the WSF 2015 Plenary Session II entitled; "Science Engagement: Communicating with Society" and gave a talk. He spoke on the 17 UN SDGs with emphasis on SDG4-Education and SDG5-Gender Equality.
The final day (7th Nov) of the Forum was held at the historical and beautiful building of the Hungarian Parliament. The day was opened by the President the Republic of Hungary, H.E. Mr. János Áder. In his address the President said that whatever solutions to our global challenges that are found in the world’s laboratories, will not be effective without the active involvement of politicians and the public. It is the role of politicians to help scientists and for communicating research results to the public. His Majesty King Abdullah of the Hashemite Kingdom of Jordon addressed the participants of the WSF through a video message and stressed upon the importance of adopting a global policy and having appropriate infrastructure to support scientists, both men and women, especially young people. His Majesty asserted Jordan’s commitment to supporting national capabilities in the fields of science & technology and encouraging innovation, adding that the Kingdom looks forward to hosting the 2017 World Science Forum.

Director-General of UNESCO H.E. Ms. Irina Bokova also addressed the audience and emphasized on the need for innovative solutions that can balance the growing scarcity of resources in the world and suggested to make use of the greatest source of renewable energy. She spoke about the SDGs and the Climate Change effects as well as COP-21 scheduled for December 2015 in Paris. Afterwards, the last Plenary Session IV “Parliamentary Session: Science in Policy Making” began and was moderated by Dr. Peter Gluckman, Chief Scientific Advisor to the Prime Minister of New Zealand. Panellists of this most important Session were; Prof. Patrick Cunningham from Trinity College Irland, Ene Ergma the former
President of Estonian Parliament; Dr. Rush D. Holt the CEO of AAAS; Prof. Gordon McBean President of ICSU; Prof. Koji Omi the founder and Chairman of STS Forum South Korea; Ms. Naledi Pandor Minister of S&T of South Africa; Mr. Vladimir Sucha, DG of JRC of European Commission and Dr. Abdul Hamid Zakri, Science Advisor to the Prime Minister of Malaysia & Chair of IPBES. This final Plenary Session brought together above nine well-known current and former ministers, science advisers and the ‘suppliers’ of public research to examine the strengths and weaknesses of ‘science in policy-making’. The Science Leaders in their remarks called for a more responsible and ethical use of science to address pressing global challenges especially pertaining to Poverty, Climate Change, Education and Health as well as Terrorism.

After the Plenary Session, UNESCO Report 2015 was presented by the ADG (Natural Science) UNESCO Dr. Flavia Schlegel. Finally the Declaration of the 7th World Science Forum was presented, discussed and adopted and committed by all the participants. It read as under:

“We, the participants of the World Science Forum, call for concerted action and will mobilize the international scientific community to play our role to advance the use of science to support global and national initiatives to meet the objectives defined in the Agenda 2030, the Sendai Framework for Disaster Risk Reduction 2015-2030 and the upcoming agreement of the COP21 Paris Climate Summit. We support the use of scientific evidence in policy making and call for international collaboration to advance science as the foundation of sustainable development worldwide. We seek for improved quality in science education in particular at the early stage as an important pre-condition for young generations to enter into science and engineering careers”.

The main articles of the Declaration were:
1. Shift for new, sustainable development paths
2. Agreement on Climate Change
3. Knowledge-base for disaster risk reduction
4. Scientific advice for policies
5. International collaboration for capacity-building and mobilization in the developing world
6. Balanced investment in science

At the end of the forum’s session, Her Royal Highness Princess Sumaya bint El Hassan, President of the Royal Scientific Society of Jordon took over presidency of the 2017 World Science Forum and made the WSF 2015 closing speech. In her remarks, she underscored the message His Majesty the King of Jordan and the need to support scientists, in light of their contributions towards building a better future. She also invited all participants to join the 8th WSF in 2017 in Jordan. That way the WSF 2015 came to a close.
Chairman, ISTIC Governing Board, Dato’ Ir. Lee Yee Cheong and President ECO Science Foundation Prof. Soomro (Member ISTIC GB) visited the European Institute of Innovation and Technology (EIT) on 6 Nov 2015, during their stay in Budapest for attending the World Science Forum (4-7 Nov 2015) hosted by the Hungarian Academy of Sciences.

The EIT aims to enhance Europe’s ability to innovate, which translates into adapting quickly to the fast pace of development, being one step ahead in providing solutions to rapidly emerging societal problems and developing products that meet the demands and desires of consumers. During the meeting Dato’ Ir. Lee Yee Cheong, Prof. Dr. Manzoor H. Soomro and Acting Director EIT, Martin Kern discussed the possibility for collaboration between ISTIC, ECOSF & EIT for integrating education and entrepreneurship with research and innovation.

The International workshop entitled, "Children and Sustainable Development: A Challenge for Education" was organized by the Pontifical Academy of Sciences (PAS) on 13-15 November 2015 at the Vatican City. President ECO Science Foundation (ECOSF) Professor Manzoor Hussain Soomro being member of the International Organizing Committee participated in the workshop as an invited speaker. Dr. Soomro spoke on "Ethics and Education in Pakistan- Principles, Policies and Practice". Dr. Soomro's talk generated good discussion on some important issues of global society today and identified the major cause - lack of proper basic education especially in poor and marginalized societies and countries. He emphasized on the world to ponder upon the reasons of injustice, disparity and imbalanced distribution of wealth; which in his opinion has led to devastating ills in the global society including radicalism, extremism and terrorism. Dr. Soomro raised the question, whether all human beings are not the children of one God-Allah, Baghwan, Eshwar? Do children have a religion? Do religions teach wrong-doing? And recommended to find out what common point various religions have and to promote inter-faith dialogue to address all issues of all people of God. He also added that Pope Francis has done a historic effort by bringing USA and Cuba together, the Pope can perhaps lead to bring various faiths together in the name of global peace, and the staring common point could be Education of
Children. Dr. Soomro also proposed a Science Adviser to each Head of Government and State. He also proposed a Science Advisor of the Pope, who can take the lead in promotion of Science Education as a Common point for various faiths; drawing guidance from nature, the Biblical and Quranic verses as Qur'an speaks of Knowledge & Learning (education), Science, Technology, Biodiversity, Environment and Research, for which indications have been provided in the Qur'an.

The workshop was opened by the President of Pontifical Academy of Sciences (PAS), Professor Werner Arber (Nobel Laureate) while Bishop Marcelo Sánchez Sorondo, Chancellor of the PAS and Pontifical Academy of Social Sciences (PASS) made a speech with reference to vision of the Pope and objectives of PAS-PASS.

The workshop was organized in context of UN Sustainable Development Goals (SDGs) aimed at defining the goals of school education more clearly, making them more manageable and focused, in view of the sustainable development issues, including climate change, which most severely affects the poor as well as to build through education, an inclusive society in which all people can have the resources to develop a life project in harmony with their culture and beliefs, trans-cultural universal values and respect for the environment. So that children can develop an approach open to the others as oneself so that the world, without losing the richness of diversity, can become ever more integrated.

About 60 specialists from all over the world, Chancellor of the PAS and PASS helped to understand the sustainability issues and to examine possible ways to transform education in order to face them. The issues related to sustainable development in its inseparable dimensions - environmental, economic, and social - and their inter linkages were also addressed. It drew on the UN Sustainable Development Goals (SDGs), with emphasis on the goals related to education & gender and all aspects of children's well being. A special feature of the Workshop was a whole session by school children from Italy, France, Germany and USA. Children presented in an unusual way their views on the SDGs and rights of children including girls.

The workshop closed with adoption of a Declaration comprising consensus recommendations.
President ECOSF Prof. Dr. Manzoor Hussain Soomro visited Bishkek, Kyrgyzstan and held a meeting with the Deputy Minister of Education and Science (MES) of Kyrgyzstan- H.E. Mr. Adilet Bekboev on 6 October 2015 in the Ministry. Mr. Adilet Bekboev warmly welcomed the President ECOSF and a very good discussion was held on various matters pertaining to ECOSF and participation of Kyrgyzstan in Foundations’ programmes. Prof. Soomro emphasized on the ratification of ECOSF Charter and its Additional Protocol by the Kyrgyz Republic. He further stressed that for sustainable scientific and technological development leading to economic enhancement, science/STEM (science, technology, engineering and mathematics) education at schools is fundamental and the proper training of teachers through Inquiry Based Science Education (IBSE) can play a very vital role. Thus training of school teachers by involving researchers and university faculty/scientists together with education professionals is required, he said. President ECOSF also discussed the launch of IBSE programme in Bishkek and its implementation in ECO member countries together with international partners of ECOSF. Dr. Soomro further emphasized that IBSE implementation would also help member countries in achieving particularly the Goal 4 of the UN Sustainable Development Goals (SDGs) 2016-2030. President ECOSF also highlighted the importance of S&T Fund of the Foundation and requested Kyrgyzstan Government to contribute to the Fund so that further collaboration in S&T sector may be made possible.

Mr. Adilet Bekboev showed his keen interest towards all the pending actions to be taken by Kyrgyz Republic and assured their full support in completion of the required process with the support of Ministry of Foreign Affairs. He however, shared that the Republic had elections recently (4 Oct 2015) and the new Parliament is going to be in place soon. Thus as soon as the Parliament takes place and the Minister of Education and Science is appointed, they would initiate the process of ratification of the ECOSF Charter and its Additional Protocol. The meeting then ended with vote of thanks from both sides.
strengthening the linkage between Kyrgyzstan S&T Institutions and ECOSF, as well as with Pakistani research Institutions/universities.

Dr. Soomro highly appreciated Mr. Sangi being one of the very active, communicative and facilitating young diplomat for his generous support during his stay in Bishkek. The Charge d’Affairs was very much pleased and thanked Dr. Soomro for taking time to visit the Embassy and updating him about ECOSF activities especially in Kyrgyzstan. He appreciated the efforts of ECO Science Foundation for promotion of S&T research and education in the ECO region and assured of full cooperation from the Embassy.

National Academy of Sciences of Kyrgyz Republic assures its full Cooperation to ECO Science Foundation

President ECOSF called upon the President of National Academy of Sciences of Kyrgyz Republic Prof. Abdygany ERKEBAEV in Bishkek on 7 October 2015. The meeting was another effort of President ECOSF Prof. Dr. Manzoor Hussain Soomro to encourage ECO member states to actively participate and contribute to the programs and plans of the ECO Science Foundation. He was accompanied by Ms. Ainura Israilova from the Ministry of Education and Science of Kyrgyzstan. Prof. Soomro briefed the hosts on the historical background of ECOSF, the establishment and aims & objectives as well as programmes, activities and plans for future. He shared with them the international linkages developed by ECOSF and its international partners and collaborators viz., Academy of Sciences France through its La main a la pate Foundation, International Science, Technology and Innovations (ISTIC) Malaysia and Inter-Academy Partnership (IAP) through its Science Education Programme (SEP). President ECOSF emphasized on the need for a stronger "Cooperation and Collaboration" in S&T research institutions among the 10 ECO member countries including the Kyrgyz Republic. Dr. Soomro further said that ECO Science Foundation will play the role of an activator and provide a platform to develop linkages with the S&T institutions and organizations of ECO countries as well as international organizations partnering with ECOSF.

Dr. Soomro requested the Kyrgyz Academy of Sciences to be more active and invited them to join hands with ECOSF in implementation of STI research, and inquiry based science education (IBSE) program as recently launched in Astana-Kazakhstan. Its implementation in ECO member states will lead to innovation and a change in education system that is very much required. President ECOSF also emphasized on the need for ratification of ECOSF Charter and its Additional Protocol by the Kyrgyz Republic, for which he had already met the Deputy Minister of Education and Science and was also to meet the Deputy National Academy of Sciences of Kyrgyz Republic assures its full Cooperation to ECO Science Foundation
Minister of Foreign Affairs of the Country for the purpose. President of the Academy of Kyrgyz Republic Prof. Abdygany ERKEBAEV assured their full cooperation with ECOSF. However, he indicated that major role will be of the MES.

Ministry of Foreign Affairs of Kyrgyz Republic Supportive to ECOSF

Ministry of Foreign Affairs (MFA) of Kyrgyz Republic is appreciative of ECO Science Foundation (ECOSF) and its programmes and assures of their full support, said Deputy Minister of Kyrgyz MFA H.E. Mr. Emil Kaikiev in a meeting with President ECOSF Prof. Manzoor Hussain Soomro at MFA in Bishkek on 7 October 2015. Prof. Soomro after meetings with the Ministry of Education and Science and the National Academy of Sciences, had called upon the Deputy Minister MFA to pursue them for expediting the process of ratification of the Charter of ECOSF and support its initiatives in the ECO Region.

The Deputy Minister MFA very warmly welcomed the President ECOSF in the Ministry. Prof. Soomro briefed him about the background of establishment of the Foundation and shared with him the programmes initiated so far and the plans for future with emphasis on the benefits that the Kyrgyz Republic can gain through ECOSF and its international collaborators. The President ECOSF then briefed the Deputy Minister about his meetings with the Ministry of Education & Science and the National Academy of Sciences, and requested him for support to the Foundation. The Deputy Minister highly appreciated the personal efforts of the President ECOSF. He informed that the process of ECOSF Charter ratification would be initiated by the Ministry of Education which will finally submitted to the new Parliament of Kyrgyzstan, and the MFA will fully support it. Dr. Soomro appreciated the gesture of Deputy Foreign Minister Mr. Emil Kaikiev and thanked him for his support.

President ECOSF Visits the International University of Innovation Technologies (IntUIT) in Bishkek, Kyrgyz Republic

President ECOSF Prof. Dr. Manzoor Hussain Soomro while being in Kyrgyz Republic visited the International University of Innovation Technologies (IntUIT) in Bishkek on the invitation of the Rector Professor Dr. Ulugbek T. BEGALIEV, on 7 Oct 2015. The Rector Prof. Begaliev enthusiastically welcomed Prof. Soomro and showed him around various facilities and laboratories of the university. The university is in private sector and under the patronage of National Academy of Sciences and former Prime Minister of Kyrgyzstan Academician Mr. Jumaliev. The university has processing plants to train the students on innovative technologies for recycling of various waste materials; to produce products on commercial basis. It is one of the great symbol of live form of Science, Innovation and
Technology. President ECOSF sought possibility of collaboration of the esteemed university [www.intuit.kg] with institutions in the ECO Region, under the auspices of ECO Science Foundation.

Dr. Soomro also had an opportunity to meet Academician Jumaliev and discuss with him and the Rector, the possible collaboration of the university with institutions in other ECO member countries. H.E. Mr. Jumaliev has again been elected as member of the Kyrgyz Parliament during the elections held on 4 Oct 2015. Thus President ECOSF also discussed with him the process of ratification of ECOSF Charter and its Additional Protocol by the Parliament of Kyrgyz Republic; to which, Academician Jumaliev assured to support. Subsequently Dr. Soomro spoke to the faculty of the University and gave brief introduction of ECOSF and answered their questions. The Rector Professor Dr. Ulugbek T. BEGALIEV was very much pleased to meet President ECOSF and assured his full cooperation and support in promotion of STI in ECO Region.

**ECOSF Initiates Dialogue with AKDN & University of Central Asia in Kyrgyzstan**

While being in Kyrgyzstan, President ECOSF availed an opportunity to initiate a dialogue for cooperation and collaboration with the Aga Khan Development Network- AKDN and their project in Kyrgyzstan; the University of Central Asia. The dialogue began in separate meetings of President ECOSF Prof. Manzoor Hussain Soomro with the Diplomatic Representative of AKDN in Kyrgyz Republic & Executive Chair of the University of Central Asia H.E. Mr. Shams Kassim-Lakha and the Director General of University of Central Asia Prof. Bohdan Krawchenko in Bishkek on 8 Oct 2015.

Both the Gentlemen warmly welcomed the President ECOSF on his maiden visit to the University. They gave a brief introduction of the University and its establishment. They also briefed Prof. Soomro about the ongoing projects in the University. President ECOSF gave a brief account of ECOSF activities and plans for future. He shared with them the international linkages developed by ECOSF and emphasized on the need for a stronger “Cooperation and Collaboration” in S&T research institutions among the 10 ECO member countries including
the Kyrgyz Republic. Dr. Soomro also talked about ECO Science Foundation’s vital role to provide a platform to develop linkages with the S&T institutions, organizations as well as universities of ECO countries and the international organizations partnering with ECOSF. He then highlighted the ECOSF programme of inquiry based science education (IBSE) recently launched in Astana-Kazakhstan and its implementation in ECO member countries together with international partners of ECOSF.

Both the gentlemen were very positive about cooperation and collaboration with ECO Science Foundation. It was thus agreed in principle to keep in touch and the ECOSF will write formally to the University management on the initiatives and options for cooperation. Meanwhile Dr. Soomro invited the University to benefit from ECOSF programs with the concurrence of national Governments of Kyrgyzstan, Kazakhstan and Tajikistan, where the university is operating and Pakistan. It is pertinent to mention that the University has its main seat in Bishkek Kyrgyzstan but campuses in the process of establishment in Kazakhstan and Tajikistan as well; all three countries members of ECO. They highly appreciated the initiatives of ECOSF and assured President Soomro of their cooperation and support.

President ECOSF Addresses the International Scientific and Technical Conference at the Kyrgyz State Technical University, Bishkek

An International scientific and technical conference dedicated to 80th anniversary of Professor K. Djamankulov was held at the Kyrgyz State Technical University Bishkek, Kyrgyz Republic on 9-10 October 2015. Late Prof. Djamankulov was a celebrated teacher of mechanics and had greatly contributed to the institution. His relatives were also invited to participate in the conference. President ECO Science Foundation Prof. Dr. Manzoor Hussain Soomro was invited through the Ministry of Foreign Affairs and Embassy of Kyrgyzstan in Pakistan to speak in the inaugural Session of the Conference. Dr. Soomro was warmly welcomed by the Rector and faculty of the university.

The conference was opened by the Rector of Kyrgyz State Technical University Dr. Duishenaliev Turatbek. He shared with the audience the historical background and mission of the university and the milestones achieved since inception of the university. Prof. Turatbek informed that the university had been upgraded from a polytechnic Institute and their primary motive to optimise the institutions of the University to increase the level of professionalism of students, and bring reforms in the scientific sphere. He also shared the international activities particularly in Europe saying that now their German-Kyrgyz faculty is functioning, Kyrgyz-Russian Consortium is also active; in which 23 Russian Universities are participating. He further said that the Chinese Confucius classes are also being started in line with Chinese Technical universities. He stressed that the
The faculty of their university is interested in research projects in the disciplines, which are not much developed in Kyrgyz Republic.

The President ECOSF Prof. Dr. Manzoor Hussain Soomro in his speech thanked the hosts for the invitation and warm hospitality and made a presentation on; "ECO Science Foundation and its role in Science and Technology based Economic Development in ECO Region". President ECOSF emphasized on the "Cooperation and Collaboration" the major factor for promotion and strengthening S&T base. He emphasized that the university and scientific communities should promote "responsible conduct and use" of science and technology for economic development. He said, S&T plays a major role in economic development and to sustain scientific and technological progress leading to economic development, education plays the critical role for nurturing well informed & responsible scientists and citizens. President ECOSF also elaborated the role of Inquiry Based Science Education (IBSE) and its implementation in ECO region emphasizing on the role of ECOSF in promotion of science and technology in whole region.

Afterwards, the President ECOSF visited university's Korea-Kyrgyz IT Centre and the Food Processing and Training Centre. Finally, President ECOSF and Rector of Kyrgyz State Technical University held a formal meeting and discussed possible support that the university can get from ECOSF. The rector assured Prof. Soomro of his highest consideration to collaborate and cooperate further in science development and technology oriented projects to ensure a better developed science sphere in ECO.

UNESCO and ECO Science Foundation agree to jointly organize the meeting of South and Central Asian MAB Networks (SACAM)

Ms. Kristine Tovmasyan Science Officer of the UNESCO Cluster Office Almaty-Kazakhstan called upon the President ECO Science Foundation Prof. Dr. Manzoor Hussain Soomro on 12 October 2015 in Almaty for the discussion on collaborative activities especially the UNESCO MAB (Man and Biosphere) program. Ms. Tovmasyan also required consultation of Dr. Soomro for jointly organizing the next meeting of South and Central Asia MAB Networks (SACAM). It is pertinent to mention that Dr. Soomro had been instrumental in reviving the MAB program of Pakistan and then leading it successfully when he was chairman of Pakistan Science Foundation (PSF). The MAB program is now being promoted by ECOSF under the leadership of Dr. Soomro in collaboration with various International stakeholders specially UNESCO. The UNESCO Cluster Office in Almaty-Kazakhstan is catering for the UNESCO activities in four countries viz, Kazakhstan, Kyrgyz Republic, Tajikistan and Uzbekistan. These are all member states of ECO. Owing to the aim of promotion of stronger collaboration among ECO member states, ECO Science
Foundation has agreed to jointly organize these meetings with UNESCO. Ms. Tovmasyan discussed the necessary arrangements with Prof. Soomro for organizing SACAM-ECO joint activity in Almaty. President ECOSF guided her for finalization of the documents and other necessary preparations. He also suggested that senior experts from UNESCO HQs Paris and Regional Science Bureau Jakarta as well as from Russia may be invited to participate. He also proposed to invite Director Environment of ECO Secretariat.

President ECOSF moderates the Panel Discussion in the International Nanomedicine Symposium at NORI Islamabad under the Pak-Norway Institutional Cooperation

President ECO Science Foundation Dr. Manzoor H Soomro, moderated the panel discussion on, "Nanotheranostics: Opportunities, Challenges and Priorities" in an International Nanomedicine Symposium. The symposium was organized jointly by the Nuclear and Oncology & Radiotherapy Institute (NORI) Islamabad and Norwegian University of Science and Technology, (NTNU), Trondheim, Norway on November 26th, 2015 under their Pak-Norway Institutional Cooperation project titled, "Capacity building in cancer Nanotheranostics using multifunctional particles".

The Panelists of the session included Prof. Catharina Davis (Principal Investigator of project from Norway side), Dr. N M Butt, Director PINSAT, Dr. Mushtaq, Director NILOP, Dr Wahid S Shakoor Head Nanobiotechnology at NIBGE, Dr. Javaid Irfan, Director NORI, Dr Johanna from Norway, and Dr Shazia, Head Nuclear Medicines. The panel discussion was followed by an open discussion where audience also put questions to the panel. The active participation of young scientists in the session was very encouraging and showed the growing interest of young generation in this new field.

Dr. Soomro while summing up the panel discussion said that it has been proven that the role of technology has now increased in medical treatment and that multidisciplinary groups of researchers have to work together to pursue the developments and solutions of difficult ailments, which is very encouraging. He emphasized on the
need to teach medical students the use of technology and appreciated that in each development there is role for other disciplines as well; and that way by collective wisdom, "out of box" solutions can be thought of.

He further proposed to the organizers to think of holding such a training workshop at Islamabad in 2016 for ECO member countries under the patronage of ECO Science Foundation.

Finally, the Closing Ceremony was held; Prof Ahsan Iqbal, Federal Minister Planning, Development and Reforms was the Chief Guest. The Federal Minister was given briefing about the project and seminar activities by the Project Director (from Pakistan side) Dr. Abida Raza, Head Diagnostics, NORI. Earlier the symposium was opened by Prof Anwar-ul-Hassan Gillani, Chairman Pakistan Council for Science & Technology (PCST) as the Chief Guest. Whereas, Prof Zabta Khan Shinwari, Secretary General Pakistan Academy of Sciences, and Prof N M Butt, Chairman PINSAT, and Dr Fayyaz Ahmad, Director MS PAEC, were the among the guest of honors.

### Management of Technology - 5th International and 9th National Conference by the Iranian Association for Management of Technology (IRAMOT), Tehran

The 5th International and 9th National conference on "Management of Technology" was organized by the Iranian Association for Management of Technology (IRAMOT) at the IRIB Int'l Conference Centre (IICC), Tehran on Dec 16-17. Theme of the conference was, "Learning and Technological Innovation in large Enterprises and Networks". President ECO Science Foundation participated as a special invitee.

The conference began with a welcome note by the Chairman of IRAMOT, Dr. Manouchehr Manteghi. IRAMOT's Scientific Committee Chairman, Dr. Mohammadreza Arasti gave a keynote address. Further talks and panel discussions were held by well renowned names in technological innovation around the developed world and Iran.

Since President ECO Science Foundation also participated in the conference as a special invitee. He had good networking and interaction with other scientific community engaged in S&T based entrepreneurship, particularly with the Chairman of IRAMOT, the Head of IRAMOT Steering Council Syed H. Tabatabaeian and the Member of the Board of IRAMOT Syed Kamal Tabaiian, as well as with Mr. Ali Morteza Birang the Deputy of International Affairs and Technology Exchange at the Vice-Presidency for Science and Technology of Iran. Participation of Dr. Soomro in the conference was strategically important for developing further collaboration, cooperation and networking of the Foundation with not only the scientific institutions and innovative research centres but also with the business people.

### The Asian Regional School "FPGA Design for Scientific Instrumentation" by ICTP and MUET Jamshoro, 7-18 December 2015 held

President ECOSF Inaugurated the School

President ECO Science Foundation was invited as a Chief Guest to inaugurate the Asian Regional School on FPGA Design for Scientific Instrumentation in Pakistan at the Mehran University of Engineering and Technology (MUET), Jamshoro held from 7-18 December 2015 at MUET. The FPGA school for Asian
countries was jointly organized by the Abdus Salam International Centre for Theoretical Physics (ICTP), Trieste- Italy and the MUET Jamshoro-Pakistan. This is the very first time that Pakistan is hosting the ICTP event on FPGA Design. The ICTP has been organizing various technical trainings at Trieste, Italy and in developing regions around the globe including Pakistan. One of the popular technical trainings offered by the ICTP is training on FPGA for scientific instrumentations.

FGPAs are key players in the smart systems. Purpose of this jointly organized school was to conduct a hands-on training activity to provide an opportunity for engineers, physicists and computer scientists in the countries of the region, to access new technologies and gain the necessary skills for designing and developing complete high-performance systems for scientific applications at low cost. Pakistan will benefit more since large number of participants are always from the host country.

President ECOSF appreciated the joint efforts of Mehran University of Engineering and Technology and ICTP for organizing this conference. He briefly introduced the ECO Science Foundation to the audience and shared the aims and objectives of the organization. During his address he discussed the importance of UN Sustainable Development Goals and their implications for the sustainable societal development. His speech was mainly focused on SDG-4 Education: ensure inclusive and equitable quality education and promote lifelong learning opportunities for all, and SDG-5 Gender Equality: achieve gender equality and empower all women and girls. He pointed that over 50% of Pakistan's population is girls & women, and if we do not utilize and encourage them to contribute in the societal development, it means, half of our talent will go waste! Thus we need to encourage females to participate and contribute in the society, he stressed. Talking about UN SDG No. 4, he stressed over the importance and implementation of Inquiry Based Science Education (IBSE) in the schools so that critical thinking and innovation can be identified, encouraged and inculcated at grass root level.
He further said, "if we do not train our children through innovative and inquiry based learning, the nation will be not be able to compete in the committee of nations. And considering the fact that Pakistan today had over 54 million children in the ages of 5-16 years and around 50% of those are out of formal schooling as per latest data; it could be a great strength of Pakistan but it can also turn into time bomb, if those millions of young people are not groomed well."

Focusing on the dilemma of terrorism viz.-a-viz., Pakistan, President ECOSF said that it's the need of time to educate children of even terrorists, because just killing them may not stop the continuing growth of young people indulging such criminal activities. He said that just killing them may not solve the problem and the economics of security and anti-terrorism measurement should be considered critically. Dr. Soomro further said, we need to investigate into the reasons why people attempt suicidal attacks, what are the reasons behind such an act, as killing oneself, after all, is not an easy task! We need to educate them through reasons in the light of Quran. If we keep on killing the terrorists, there is no end and solution to it. Table talk, negotiations and education of such disgruntled and detracked people is required.

Dr. Soomro also mentioned that for sustainable development and growth in Pakistan, Science Diplomacy is one of the important factors which needs to be focused on in collaboration with international organizations and HEC Pakistan. ECOSF is playing its part in bringing ECO member states together at the platform of the Foundation via different collaborative activities and workshops for development in Science and Technology sector.

President ECOSF Prof. Dr. Manzoor Hussain Soomro has congratulated the Pakistan Engineering Council (PEC) and appreciated its efforts towards being accredited as member of the Federation of Engineering Institutions in Asia & Pacific (FEIAP).

FEIAP is a regional Regulatory Body for quality assurance and standardization of Engineering in the Asia and Pacific region. He attended a meeting at PEC on "Equivalence of Pakistan's Engineering Qualifications in Asia & Pacific", proclaiming Pakistan's membership in FEIAP, held on 17 Dec 2015. The meeting was arranged by PEC in collaboration with UNESCO and ECOSF; and a large number of Engineers, the Chairman PEC Engr. Mr. J. Saleem and Engr Dr Shahbaz Khan, Director UNESCO Science Bureau for Asia and Pacific Region, Jakarta-Indonesia, the Ambassador of Tajikistan H.E. Mr. Sherali Jononov and representative of Embassy of Turkmenistan, attended the meeting. Dr. Soomro in his remarks said that for quality assurance, it is necessary to implement Inquiry Based Learning at the primary level. "If we do not implement Inquiry Based Science Education (IBSE) at grass root level, we will not be able to produce a generation of entrepreneurs and innovators", he said. He further added that personality and character building starts from the primary level and teachers play a major role in the grooming of a child. Unfortunately due to our politically influenced teaching
system, we do not have trained teachers who have this competence to train a student with ethical values and induce an inquiry mode in them.

Dr. Soomro shared an example of ISTIC in KL-Malaysia how they have initiated entrepreneurial learning and understanding the program at their school level, to inculcate a sense of entrepreneurship among their school going children. He suggested for building an interaction between the Engineering Universities and primary schools; so that the Engineers can train school teachers and students for STEM education in a better manner. He concluded his talk by proposing that connecting Pakistan Engineers with the Engineers from West and Central Asia as well as to help HEC towards establishment of Central Asian University in Pakistan with their campuses at ECO member states with particular reference to China-Pakistan Economic Corridor that will result into more cooperation and collaboration among Central Asian countries and Pakistan.

Dr Shahbaz Khan, Director UNESCO declared it as a great achievement for the country whereby cross border mobility for Pakistani engineering graduates will be enhanced in the region resulting in greater job opportunities. He expressed his interest for establishment of Technology Incubation Centers, prioritizing Water, Food and Energy sectors through involvement of active research by the HEIs.

The Chairman PEC, Engr. Jawed Salim Qureshi thanked ECOSF and UNESCO for their continued support to PEC and hoped that both the organizations will continue to extend its support in the future endeavors as well.

Chairman PEC assured that the quality of engineering education will not be compromised at any cost and the standard of Higher Education Institutions will be improved through further reforms and strict implementation of PEC regulations and accreditation criteria.
Finally it was tentatively agreed that, ECOSF, PEC, UNESCO, FEIAP plan to hold next joint workshop in 2016 with collaboration of Tajikistan in Dushanbe as proposed by H.E the Ambassador Sherali Jononov.

President ECOSF as Guest of the Day in live Talk Show "Rabta" at Radio Pakistan Islamabad

President ECO Science Foundation Prof. Manzoor Hussain Soomro was invited as Guest of the Day on a live Radio Talk Show "Rabta" (Contact) at Radio Pakistan, Islamabad Station on 2nd Dec 2015. The Talk Show was broadcast live on national hook-up and heard around the country and abroad. Purpose of this live programme is to raise awareness among the society about various important issues related to societal and developmental issues. Live phone calls are also taken during the program and the guest has to answer those.

Dr. Soomro shared with audiences that in spite of being born in a resource poor farming family he studied up to Ph.D. He highlighted the fact that he had a brilliant academic career and studied on merit scholarships from Primary schooling till Ph.D., Later on he briefly introduced the ECO Science Foundation. In response to question of a caller, he explained how a country can get the membership of ECOSF via their diplomatic channel.

Dr. Soomro mentioned during the program that Pakistan is full of talented people; however, it is not much developed in Science & Technology sector. The need of the time is to excel in Science and Technology but also Education and to improvise, standardize and implement inquiry based science education- promoting critical thinking and reasoning at grass root level. He emphasized that science centers and science museums may also be established to attract the growing young generation towards science. He highlighted the fact that almost 25% of Pakistan’s population today is in the ages of 5-16 years and if they are not engaged in positive activities of proper education, some might go stray and become rebellions in the society!

Prof. Soomro also stressed over the importance of the environment and teachers’ role in the character building of students. He added that nature is full of indications; one must look into the natural phenomena and inquire into the nature to learn. He also discussed the major programs initiated by ECOSF. The one pertinent to mention is Inquiry Based Science Education (IBSE), in which teachers are trained well and they then train their students to seek learning through inquiry of things and experimentation rather than memorization or rote learning. He spoke about the research and innovation initiatives of the Foundation. He also spoke about the UN Sustainable Development Goals (SDGs) especially the SDG-4 Education and lifelong Learning and SDG-5 Gender Equality and Empowerment of Women and Girls. He said that since more than 50% of our population is women, and if we do not empower and utilize them to contribute in the society, our 50% talent will go waste. Thus he emphasized that more females should be encouraged and facilitated to come forward and serve the nation. But he said, the workplace environment and attitude of men towards women must change and there should be required facilities for females at workplaces. President ECOSF also entertained different callers during the program, answered their queries related to science, education, innovation and the society, and guided them through.
ECO Science Foundation begins Travel Grants for participation of Scientists, Engineers and Technologists in International S&T Conferences/Workshops abroad (within ECO region)

Participation of Researchers/Scientists/Engineers/Technologists in international S&T conferences/workshops/symposia plays a pivotal role in furtherance of their researches and in developing collaboration with peers in other countries. The participation also allows participants to share each others’ experiences and evaluate their work. Thus, ECOSF encourages participation of ECO scientific community in international Science, Technology and Engineering conferences/workshops especially organized within the ECO member countries, but also outside the ECO region to a limited extent.

In this regard, the desiring Researchers/Scientists/Engineers/Technologists can apply for the grants through self explanatory Request Form (ECOSF-TG2), which can be downloaded from the ECOSF website. The filled-in form can be sent to following email address: registry.ecosf@eco4science.org.

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