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MEHRAN UNIVERSITY
of Engineering & Technology
Jamshoro, Sindh, Pakistan



USAID Deputy Mission Director for Sindh & Balochistan Visits the Center

USAID Deputy Mission Director for Sindh & Balochistan John Smith-Sreen and USAID Deputy Office Director Michael Hryshchysyn visited the center and held meetings with students, faculty, staff and the Vice Chancellor of the university

It was once reiterated that USAID provided \$23.8 million to create the U.S. – Pakistan Center for Advanced Studies in Water (USPCAS-W) jointly implemented by MUET Jamshoro and the University of Utah. Alongside; USAID has also funded the construction of an academic, laboratory, and research complex at MUET to house the Water Center.

During the campus visit, USAID officials interacted with MUET students and faculty who have completed their exchange program abroad. They learned about their academic experience and impressions about



life in the United States. Over 100 students have completed exchange programs in the universities of the United States. Smith-Sreen expressed that the U.S. government was proud to partner with Mehran University and the University of Utah on such an important issue: "Water drives economic growth, is critical for good health, and represents a fundamental

building block for Pakistan's development," he noted. He further informed that the US had invested in multiple water-related activities in Sindh and Balochistan: "Our higher education collaboration between Mehran and Utah Universities is an important component of our overall water investments in Pakistan," he concluded.

Diploma Course for Officials of Sindh Irrigation Department Concluded



Justice Retired Amir Hani Muslim, Chairman Supreme Court-mandated Commission on Water and Sanitation, Sindh said that water is life which essentially means that we must divert our attention and develop strategies and action plans to solve water-related issues, this he said in the closing ceremony of the Diploma Course on "Flood Forecasting and Flood Hazard Management" held at USPCAS-W, MUET Jamshoro.

On the concluding note, he appreciated the efforts taken by the MUET's National Water Center serving as a nucleus and a laboratory to facilitate adoption of necessary measures in translation of water Sustainable Development Goal (SDG). He suggested with collaborative efforts through this Center the policy measures and action plans could be identified which could help to address the Water Sustainable Development



Goal (SDG-6) as per Pakistan's commitment to the United Nations.

On this occasion, MUET Vice Chancellor Dr. Mohammad Aslam Uqaili said that prevailing water situation and climate change conditions place us in the state of high responsibility to prepare ourselves and all those concerned in effective management of our water resources and also equip ourselves in dealing with extreme weather events. He

“Flood Forecasting and Flood Hazard Management”

July 21, 2018



said that the Diploma Course which focused on a very important need of the region – “Flood Forecasting and Flood Hazard Management” was actually a fine example of not only recognition of the potential of the MUET Water Center in meeting the challenges of water sector but it is also an example of joint and coordinated efforts of the Center and the Sindh Government. In his speech Dr. Steve Burain explain added that the course included seven training modules and 16 credit hours that was designed by the experts of USPCAS-W MUET and the University of Utah, USA. Speaking in the ceremony, Secretary Irrigation Jamal Mustafa Syed said that this diploma

course has enhanced the capacity of the officers of the department and now they will apply the knowledge in the field with their acquired skills and expertise. He further said that two more diploma or short course certification training courses will soon be started for the officials of the irrigation department with the collaboration of MUET Water Center. He appreciated the efforts of trainers and management of USPCAS-W MUET for the successful completion of the diploma course. During technical session, the course participants led by their group leads Engr. Zarif Iqbal Khoro, Project Director Chotiari Reservoir Circle, Engr. Mansoor Ahmed Memon, Project Director

LBOD and Engr. Habib Ursani, Deputy Director Technical of Irrigation Department gave presentations on their assigned projects which demonstrated their capabilities in applying the knowledge, skills, and expertise acquired by them from the diploma course. The diploma course is a collaborative effort of USPCAS-W MUET and Sindh Irrigation Department, Government of Sindh under the MoU signed between the two entities. The resource persons of the course included Dr. Sajjad Ahmad, University Nevada, Las Vegas, Dr. Steve Burain, University of Utah, Dr. Arjumand Zaidi, Dr. Kamran Ansari, and Mr. Waqas Ahmed from USPCAS-W and Mr. Babar Naeem and others from SUPARCO.

Young Researchers’ National Conference on Water and Environment



Young Researchers’ National Conference on Water and Environment (NCWE) is held every year at USPCAS-W, MUET Jamshoro, with the overall objective of providing an ideal academic platform to young researchers and scholars from all over the country to present, share and exchange their latest findings

on water and environment-related issues. This was 2nd conference (NCWE-18) held for two days on August 02-03, 2018. The NCWE-18 consisted of two plenary sessions, 12 technical sessions, besides opening and closing sessions. Alongside Dr. Kamran Ansari as Convener of the organizing committee, the

conference was organized with active participation and support of the MS and PhD students of the center.

Speaking at the inaugural session, Vice Chancellor MUET Dr. Mohammad Aslam Uqaili said the community is the ultimate beneficiary from the academic research, particularly



in water, energy and agriculture sector. Dr. Uqaili said that triple helix model had been replaced by the quadruple helix model in which the role of communities is included along with academia-industry-government relations. He said that apart from the academic program, USPCAS-W focuses on applied research in the water sector and in this connection, the National Water Research Network (NWRN) has been established for

joint consultation and undertaking collaborative activities under the umbrella of the Water Center. He further assured full support from the Center for supporting government agencies to implement the water policies and water agenda.

The Project Director Dr. Bakhshal Lashari said that the Center lays primary focus on Sustainable Development Goals (SDGs),

particularly SDG-6 "to ensure availability and sustainable management of water and sanitation for all." "MUET Water Center is helping Government of Sindh in providing safe and clean drinking water," he added. Dr. Lashari thanked USAID, the University of Utah, Higher Education Commission (HEC) Pakistan, Government of Sindh and other organizations for their generous support to the Center.

Former Senator Nisar A. Memon concludes the 2nd National Conference on Water and Environment at MUET Water Center



Only a knowledge-based society can bring socio-economic development with a people-centric approach where our National Water Policy 2018 and Climate Change Policy 2013 is thoughtfully and meticulously implemented and this is the way forward for us to be not only secure but sovereign country. This was expressed by Nisar A. Memon, former Federal Minister & Senator, speaking as the Chief Guest at the closing ceremony. He said that the conference paved the way for the youth researchers to present their research work, learn from peers and participate in national research endeavors. He further expressed the hope that experienced youth scientists will preserve, protect and promote the water and environment assets of about 7,250

glaciers and Indus basin, the largest irrigation system in the world. He also participated in different technical sessions of the conference and appreciated the efforts of MUET Water Center for organizing such a vibrant conference. Dr. Kamran Ansari, the Conference Convener briefed that 55 (out of 100 received) research papers were shortlisted which were presented by 50 young researchers in the two-day young conference. Dr. Bakhshal Lashari, Project Director USPCAS-W MUET presented recommendations of the two-day conference which included development of policies for regulating the use of groundwater, effective implementation of national water policy, improvement in irrigation water resources management which can save

water equivalent to one dam. While sharing the recommendations, he stressed on the institutional audit of the water resources on periodic basis to help planners and administrative bodies to make informed decisions and on modernizing and equipping irrigation infrastructure to manage water resources properly. He also recommended for promotion of behavioral change to reduce wastage of water by raising public awareness through media campaigns and incorporating water conservation lessons in syllabi/curricula at primary, secondary and tertiary levels. He further recommended that all the industries should install their waste treatment plants and water conservation technology may be adopted to save water.

IUCN Country Head Mahmood Akhtar Cheema Emphasizes Water Conservation

Referring the Pakistan Natural Conservation Strategy, Mr. Mahmood Akhtar Cheema said that Pakistan is one of the countries with lowest vegetative cover in the world and so faced difficulties to adopt the climate changes. He emphasized upon the catchment protection, integration of natural resources management, vegetation cover and focused on the target initiatives. He specified the IUCN initiatives for the vegetation of

the country and informed that with efforts of IUCN Astola in Balochistan is the first Island in Pakistan which is marine protected. "A just world that values and conserves nature," is the mission of IUCN, he added. He further shared that IUCN is partnering with different organizations for water conservation in Pakistan and efforts for the formulation of provincial nature conservation strategies.



A "Resource conserved is a Resource Generated", says former DG PCRWR



Speaking in the plenary session of the 2nd NCWE18, former Director General, Pakistan Council of Research in Water Resources (PCRWR) Dr. Mohammad Ashraf said that poor coordination amongst policy, research and development institutions made the water situation worst.

He said that complete neglect of construction of large reservoirs after 1970s coupled with reduction in storage capacity of the existing dams due to sedimentation is

aggravating the water availability problems. He added that "a resource conserved is a resource generated". He emphasized upon the conservation of water resources by way of efficient water management, including recharge of the groundwater aquifers. He suggested that along with water experts and managers, the center should prepare water diplomats who can speak and debate on water issues argumentatively on the national, regional and international forums.

Water Stands as Top Priority of Government of Sindh, says Project Coordinator WSIP

Project Coordinator Water Sector Improvement Project (WSIP), Planning and Development Department Government of Sindh, Dr. Fateh Mari said that water stands as a top priority of the government in the province and that the efforts were underway for formulation of Sindh Water Policy.

He viewed that "climate change is not only a threat but an opportunity as well if we could avail it efficiently". He appreciated the efforts of the MUET National Water Center for preparing young generation who has sought the sustainable and cost-effective solutions to water challenges of the Country.



Integrated Water Resources Management – a Key Driving Factor in Development Programs, says Water Resource Specialist



Mr. Muhammad Abid – the Water Resources Specialist working on a World Bank project with Government of Baluchistan made a detailed presentation on World Bank funded project "Balochistan Integrated Water Resource Management and Development" He said that 100

small dams are being developed at different locations in Balochistan province as to provide water for domestic and agriculture use. The Project Development Objective (PDO) of the project effectively links development in Balochistan to integrated management of water resources, he said.

Pakistan Ranks Third among the Countries facing Acute Shortage of Water, says Environment Specialist

Talking to the delegates of 2nd Young Researchers National Conference on Water & Environment, Engr. Beena Riaz, Environment Specialist of Karachi Neighborhood Project (KNIP), Government of Sindh said that Pakistan has the world's fourth highest rate of water use and is third among countries facing acute shortage of water. She stated four reasons behind the water crisis: population growth, rapid

urbanization, climate change and poor water management. "More than 86 countries of the world are surviving on less water than us through efficient management", she added. She suggested for climate change adaptation, investing in building of water reservoirs and planting more trees and also for adopting and implementing a strategy of water-pricing.



Water Center Students Depart for Exchange Visit to USA

As a regular feature of the Center programs, eighth group consisting of 18 MS Scholars departed for one-semester exchange visit to the United States. During their four-month exchange visit, the students would attend specific courses and work on their research projects in co-supervision of their respective professors at University of Utah and Colorado State University. The University of Utah is the partner university providing technical

assistance for advancing the development and sustainability of the Center. Before this cohort, 91 students including 14 faculty members and two technical staff have availed the exchange visit opportunity. Before their departure, USAID Education Specialist Hafeez Samo held a briefing sessions with the departing exchange students. While congratulating the selected students for the exchange program, Mr. Samo said that they are among a few out of

hundreds of thousand students who are studying in the country and could avail an opportunity to visit and study abroad, especially in USA. He said that the students exchange program is not merely learning academic courses but it also paves the way for socio-cultural activities and exploring the wonders of America like hiking on the hills. He further said that the exchange program also serves as a great opportunity for networking with other students from different parts of the world.



MoU Signed with Indus Earth Trust for Collaborative Research

The MUET Water Center and the Indus Earth Trust (IET) signed the (MoU) to undertake collaborative activities for joint advocacy and research leading to the sustainable development and management of water resources in Pakistan. The MoU was signed by Mr. Shahid Sayeed Khan, IET Chief Executive Officer and Dr. Bakhshal Lashari, Project Director of MUET Water Center.



Seminar on Pakistan's Water Challenges: Need for Integrated Water Resources Management



Dr. Hassan Abbas, a renowned hydrologist and water expert of Pakistan and resource person for this graduate seminar said that a mega vision and strong will were needed to tackle the water challenges of Pakistan. Dr. Abbas said that one of the biggest challenges the country was facing is water pollution instead of water scarcity. Talking about the Indus Delta, he said that the balance between the sea and the delta was only possible with the natural flow of water. He said that 24 acres of land in delta were being affected and 8 acres were utterly inundated due to sea intrusion on a daily basis.

Dr. Abbas said the existing irrigation system based on irrigation canals coupled with flood irrigation caused land degradation due to water logging and salinity. While discussing the economic benefits and losses



due to the construction of dams on foreign loans, Dr. Abbas said that dams have temporary benefits in power generation and agriculture production, but due to dams the country was to bear permanent losses riverine economy and environment. His emphasis was on an adaptation of efficient irrigation practices of the 21st century and to get rid of outdated flood irrigation and do away with colonial legacies. He also suggested developing riverine well fields for clean, fresh and sustainable water supply for both agriculture and domestic purposes. He also recommended that the businesses on the intrinsic value of water, i.e., developing water-front real estates, ecotourism, water sports, etc. and to invoke the grand economic engine of inland navigation. Sharing the way forward, he said that Sindh being in the

lower riparian region could provide leadership for effective and efficient water governance and IWRM in the country. In this connection, he stressed and illustrated on efficient irrigation in Rohri canal command, inland navigation up to Kotri, urban canal for aquifer recharge and intrinsic value projects in Karachi. He said that it was rightly said that water is heavier than oil and through the efficient water management, the water economy of Pakistan can earn more money than that of the oil economy of the Middle East. In his initial talk, Dr. Abbas presented the historical background of Indus Basin, water practices used in the past, construction of barrages, dams, and canals for irrigation purposes and their benefits and losses. He also highlighted the Indus Waters Treaty and shared its pros and cons.

Promoting Technology Innovation and Entrepreneurship: Ecosystem of Universities of Pakistan

The resource person of the seminar Dr. Zeeshan Khatri, Professor of Textile Engineering MUET said that passion is the most effective motivator for an entrepreneur while a businessman only focuses on the profit. He noted that entrepreneurship is the mindset for an idea generation and innovation and value addition while technopreneurship is the value creation by the use of technology in the products. Dr. Khatri said that the technology is not for love or hate but for its proper utilization.

He said in the market customers always try to find uniqueness in the products so in this way the entrepreneur innovates and customer validates the products. Speaking on the importance of the technology, Dr. Khatri said that technology plays a vital role in the innovation and transformation of the product for its utility. *"Successful entrepreneur is one who believes in the achievable dreams, and for entrepreneurs, big problems are the bigger opportunities,"* he added.



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