

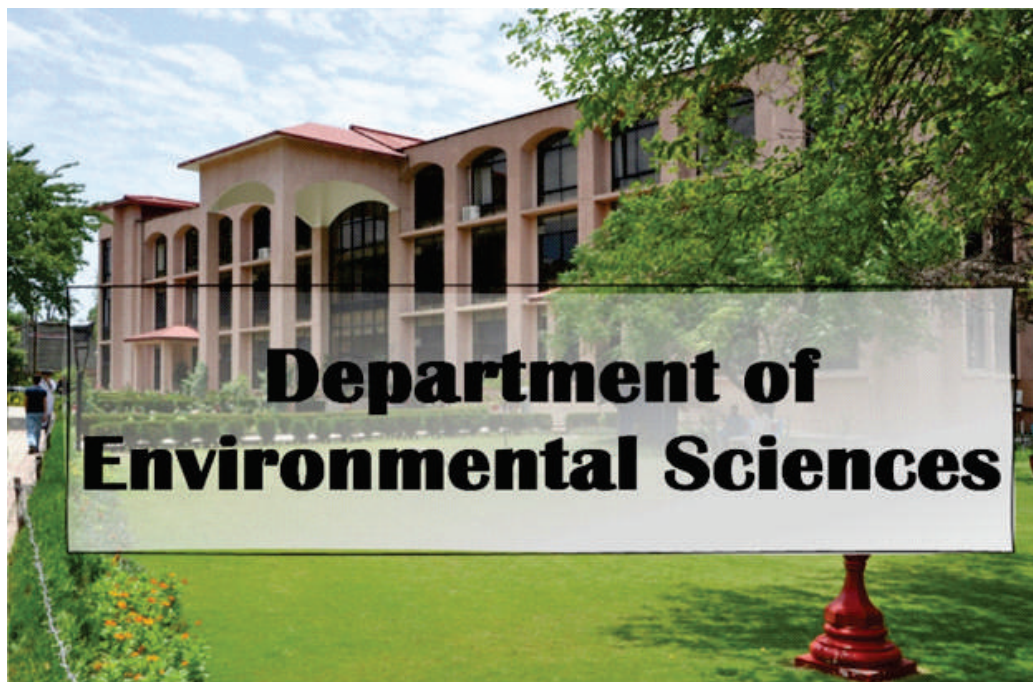


SDG-15 LIFE ON LAND

SDG 15 focuses on "Life on Land" and aims to protect, restore, and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and biodiversity loss.

Achieving these targets under SDG 15 is crucial for ensuring the health and sustainability of terrestrial ecosystems, protecting biodiversity, and promoting the well-being of present and future generations. It involves a collective effort from governments, businesses, communities, and individuals worldwide to address the complex challenges associated with land use and conservation.

Comsats University Islamabad, as an educational institution, may have initiatives and programs aimed at maintaining and extending existing ecosystems and their biodiversity. These efforts could include research, conservation projects, and educational campaigns focused on protecting threatened ecosystems and the plants and animals within them. COMSATS University Islamabad is working with local communities on the conservation of Ecosystems. CUI offers programs on flora and fauna like Fundamentals of Biology, Landscape Design, and natural resource management



ADMISSION FALL 2022
DEPARTMENT OF
**ENVIRONMENTAL
SCIENCES**
Handsome Scholarships for
BS | MS | PhD
EXTENDED DATE
2nd September 2022
PH: 0992-383591-6 Mobile: 0333-5577624 (9 A.M. TO 5 P.M.)
COMSATS UNIVERSITY ISLAMABAD, ABBOTTABAD CAMPUS

COMSATS University Islamabad offers programs related to the management of land for agriculture. These programs include disciplines such as soil science, environmental geology, soil and water conservation, and natural resource management. These fields of study focus on understanding and implementing sustainable practices for land use, soil health, water conservation, and the management of natural resources in agricultural settings. Additionally, COMSATS University Islamabad also provides consultancy services to the local farmers on postharvest of vegetables. This involves offering expertise and guidance on techniques and technologies to ensure the proper handling, storage, and preservation of vegetables after they have been harvested.

COMSATS University Islamabad offers programs focused on the conservation and restoration of land. These programs include disciplines such as soil and water conservation and natural resource management. These fields of study aim to develop strategies and techniques for the sustainable use and management of land resources, including soil and water, to prevent degradation and promote conservation.

COMSATS University Islamabad, Abbottabad Campus (CUI) signs MoU with the Tech Valley Pakistan – February 23, 2022

On February 23, 2022, COMSATS University Islamabad's Abbottabad Campus signed a Memorandum of Understanding (MoU) with Tech Valley Pakistan, recognizing the mutual importance of endorsing and promoting professional relations between the two institutes.

The signing ceremony took place on the Abbottabad Campus of COMSATS University Islamabad. The MoU's honorable signatories were Ms. Najm-us-Sahar, Project Manager and Incubation Lead, Tech Valley Pakistan, and Merit. Prof. Imtiaz Ali Khan, Director COMSATS University Islamabad, Abbottabad Campus. The Memorandum of Understanding covers bilateral collaboration activities in mutually beneficial areas. The signing of the MoU emphasizes both institutions' efforts to collaborate, providing opportunity for all members to participate in a number of joint activities and projects. The ceremony was graced with the presence of all the Heads of Academic Departments and other officials of administration.

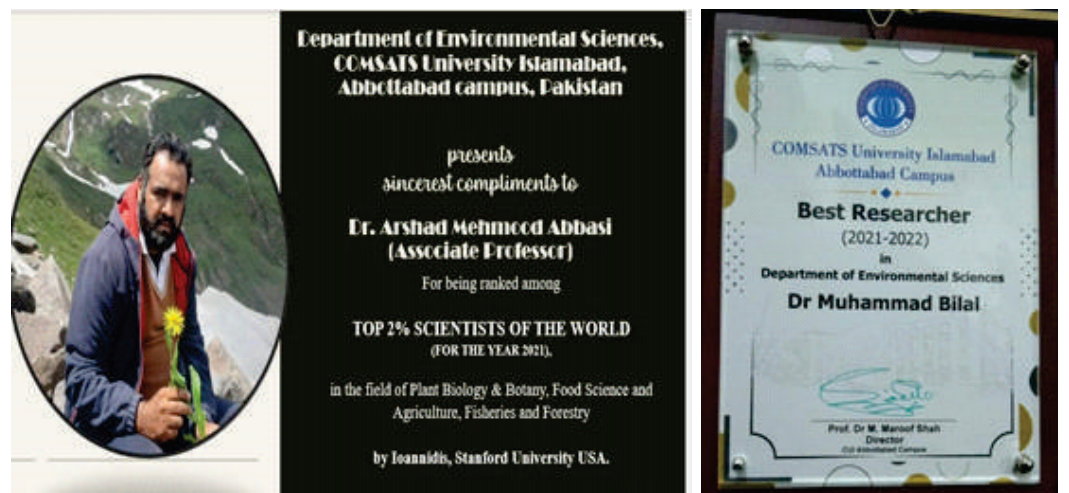
Ms. Najm-us-Sahar spoke to the audience about the Tech Valley on this momentous occasion. She told that Tech Valley was established in June 2015 in response to a lack of digital businesses operating in Pakistan's most picturesque places. The institution's mission is to improve the mountainous regions' entrepreneurial ecosystem by working in six areas: entrepreneurship, capacity building, education, government engagement, technology, and, of course, tourism. She praised the efforts of the COMSATS University Islamabad, Abbottabad Campus, which resulted in the successful signing of the aforementioned Memorandum of Understanding.

Director of COMSATS University Islamabad, Abbottabad Campus, stated that CUI, Abbottabad Campus looks forward to common interest activities, community development, tourism advancement, fruitful student exchange for internships, and other activities that will undoubtedly benefit the world today. He ended by stating that the CUI Abbottabad Campus is delighted to expand its collaboration with Tech Valley, Pakistan.

COMSATS University Islamabad is involved in research and initiatives related to the restoration of heavy metal and salt-



affected soils. These efforts may involve studying the impact of heavy metals and salts on soil health, developing remediation techniques, and implementing restoration projects to improve the quality and productivity of affected soils. CUI follows government policy on conservation, restoration, and sustainable use of terrestrial ecosystems in particular forests, mountains, and drylands.

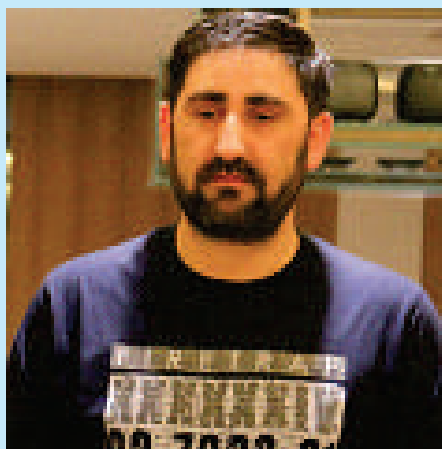


Dr. Javed Iqbal Tanoli, Assistant Professor, Department of Earth Sciences has won the grant worth 5.3 Million PKR for the NRPUR Research Project

Dr. Muhammad Qasim, Head, of Department of Earth Sciences, has won a grant worth 10.6 Million PKR

Dr. Muhammad Qasim, Head, of Department of Earth Sciences, has won a grant worth ~10.6 Million PKR for the NRPB research project entitled “SUTURING PROCESS AND TIMING OF INDIA-ASIA COLLISION ALONG THE NORTHWESTERN MARGIN OF INDIAN PLATE, PAKISTAN”. This project will address the processes involved in shaping the Himalayan mountain system and their impact on generating the metallogenic provinces from 65 Million years ago to the present. The data of this project is equally important to know the dynamics of Climate change associated with the mountain-building processes that turned the fertile agricultural lands into a desert.

Dr. Javed Iqbal Tanoli, Assistant Professor, Department of Earth Sciences has won the grant worth ~5.3 Million PKR for the NRPB research project entitled “Debris Flow Hazard Assessment in NW Pakistan; Application of GIS and Geomorphological Technique”. This project will address the regional potential threat of the Debris flow Hazard in Hunza, Chitral, and Indus river basins. The debris flow generates an enormous sediment supply to the drainage system that ultimately affects the infrastructure, settlements, and particularly micro and mega hydro projects. We heartily congratulate him on this achievement and wish many of him more such achievements in the future

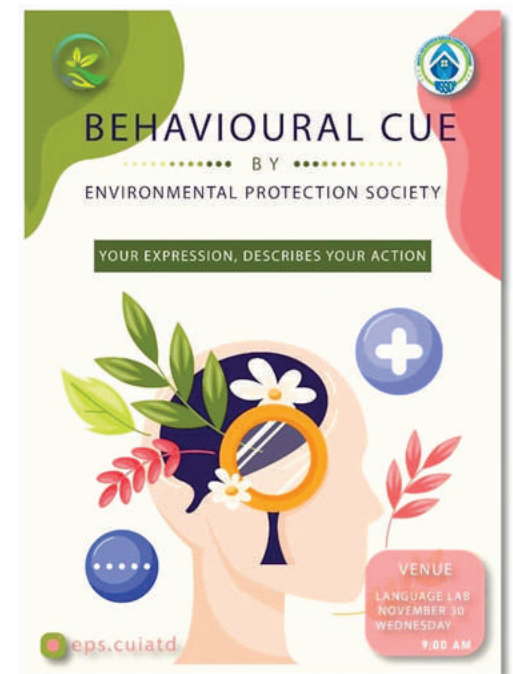


COMSATS University follows the Govt. of Pakistan Bio-Diversity Action Plan which identifies, monitors, and protects any IUCN Red Listed species and national conservation list species that affect the operations of the university and takes measures accordingly.

COMSATS University Islamabad places a special emphasis on maintaining local biodiversity during the planning and development process. The university follows relevant bylaws and regulations to ensure that biodiversity conservation is

integrated into its planning and development activities. This commitment may involve conducting environmental impact assessments, implementing mitigation measures, and incorporating sustainable practices to minimize the negative impacts on local biodiversity.

At COMSATS University Islamabad, the plantation is conducted following standard procedures of sustainable landscape management. This approach ensures that the planting practices are environmentally friendly, socially acceptable, and economically viable. The university aims to create a sustainable and diverse landscape that benefits both the campus community and the local ecosystem. To promote local biodiversity and support the local flora and fauna, COMSATS University Islamabad focuses on planting native and adopted species of plants. By selecting these plant species, the university encourages the growth of local biodiversity and contributes to the preservation of the natural environment.



List of Native Plants at COMSATS University Islamabad

Trees							
Sr.	Common/local name	Technical name	Foliage	Shape	Flowering time	Flower color	Planted size
01	Alstonia	Alstonia scholaris	E	Vase shape	Late spring	Greenish white	4'-5'
02	Amaltas	Cassia fistula	SD	Vase shape	August, July	Yellow golden	3'-4'
03	Arjun	Terminalia arjuna	SD	Columnar	Late spring	Shiny green	4'-5'
04	Ashoke tree	Saraca indica	E	Round oval	Foliage	Foliage	3'-4'
05	Bakain	Melia azedarachta	SD	Vase shape	Foliage	Foliage	2'-3'
06	Bottle brush	Callistemon lanceolatus	E	Weeping	Summer	Red crimson	4'-5'
07	Cheer/pine	Pinus roxburgii	E	Pyramid	Foliage	Light green	1.5' 2'-3'
08	Fiddle wood	Citharexylum fruticosum	E	Round oval	Foliage beauty	Foliage	4'-5'
09	Kachmar	Bahunia alba	SD	Vase	Spring	White, purple	4'-5'
10	Kanak champa	Pterocarpium acrifolium	E	Upright	Foliage	Foliage	4'-5'
11	Neelum	Jacaranda mimosifolia	D	Spreading	Late spring	Lavender blue	4'-5'
12	Rubber plant	Ficus elastica	E	Round oval	Foliage beauty	Foliage green	4'-5'
13	Silver oak	Gravillea robusta	E	Pyramid	Foliage beauty	Silver green	4'-5'
14	Such chain	Pongamia glabra	SD	Round	Foliage beauty	Bright foliage	4'-5'

Key: E: Evergreen, D: Deciduous SD: Semi Deciduous

Tree plantation drive at CUI Abbottabad

COMSATS University Islamabad organized a tree plantation drive at Lady Garden Abbottabad. Such initiatives demonstrate the university's commitment to environmental conservation and ecosystem preservation. Tree plantation drives play a crucial role in enhancing biodiversity, mitigating climate change, and improving the overall ecological health of an area. By organizing such events, COMSATS University Islamabad contributes to the restoration and protection of ecosystems, including the promotion of green spaces and the conservation of natural resources. These efforts align with the university's focus on sustainable practices and environmental stewardship.



Tree Plantation Drive 2022 at CUI Attock

Deputy Commissioner Attock, Mr Muhammad Naeem along with



AC Attock and Director CUI Attock Prof Dr Muhammad Junaid Mughal launched the tree plantation drive 2022 at CUI Attock on 21st March 2022. Students from Comsats environmental society made all the arrangements and briefed the participants about their goals for clean and green Pakistan.



COMSATS University Islamabad has committees dedicated to bio-safety and maintaining water quality standards on campus. These committees typically work to ensure that water sources meet the required standards for safe consumption. In regard to the provision of clean water, universities often have infrastructure in place to provide filtered water to students, staff, and faculty members. This may include water filtration plants or other water treatment systems on campus.

The Food and Services Committee of COMSATS University Islamabad is dedicated to minimizing the use of plastic on campus. They recognize the importance of reducing plastic waste and its impact on the environment. As part of their efforts, COMSATS University Islamabad organized a community service walk on the topic of "Say No to Plastic." This event aimed to raise awareness among the campus community about the harmful effects of plastic and promote sustainable alternatives. By organizing such activities, the university demonstrates its commitment to environmental sustainability and encourages individuals to adopt eco-friendly practice.

COMSATS University Islamabad has implemented a particulate matter emission control system for waste incineration, it indicates their commitment to reducing air pollution and ensuring proper waste management practices. Banning

Styrofoam crockery and plastic bags also aligns with efforts to reduce plastic waste and promote sustainability.

Managing Plastic Pollution

Carrot, Stick or Nudges: Testing the effectiveness of Plastic Bag Compliance Behavior in Islamabad, Pakistan

Grand Challenge Fund (GCF)

HEC funded this project under Grand Challenge Fund

The Plastic Challenge

Plastic pollution is a significant urban challenge the world faces today. More than half of the world's population lives in cities, which is expected to rise to 70 percent by 2050. Strengthening institutional capacity is crucial to responding to this challenge for a transition to more equitable, inclusive, and sustainable cities.

In Pakistan, the number of plastic bags used exceeded 55 billion in 2018, which is expected to increase by 15% annually. The government slapped a ban to curb single-use plastic bags in 2019, but the consumption of single-use plastic bags is still widespread. Given the limited resources at the government's disposal, more effective policies are needed to ensure compliance with environmental regulations. This project aims to provide evidence of the effectiveness of enforcement measures and environmental nudges in generating plastic bag compliance behavior. To ensure that our research has maximum policy impact, we have engaged with various stakeholders including academia, Environmental Protection Agency (EPA-PAK), Sustainable Development Policy Institute (SDPI), and World Wide Fund for Nature (WWF). Details can be found on the following link:

<https://lahore.comsats.edu.pk/Economics/GrandChallenge.aspx>

COMSATS University Islamabad, Lahore Campus is forming a group of new scientists dedicated to delivering innovative solutions to single-use plastic challenges.

To solve the problem of single-use plastic in Pakistan, it is crucial to train high-level economists with an inclusive vision. Innovative projects of nine graduate students will be funded under Grand Challenge Fund project No. GCF-860 for three years. These projects will deliver practical solutions to solve the growing plastic pollution problem.

Plastic pollution is a global environmental crisis that harms land and marine ecosystems. It is estimated that more than 3 million tonnes of plastic are used in Pakistan yearly. But we are struggling with how best to address this crisis.

Dr. Muhammad Khan, Principal Investigator of the GCF-860, said it is essential to understand individual behaviors and industry practices to develop meaningful solutions. Research is vital to shaping that understanding and delivering the actions that can be taken to transform those behaviors to change the tide of plastic pollution.

Research is vital to shaping our understanding of individual behaviors and industry practices causing plastic pollution and the policy actions to transform those behaviors to change the tide of plastic pollution

Dr. Muhammad Khan, Principal Investigator of the GCF-860

A dedicated team of researchers supervised by senior academics in the field will help accelerate our search for plastic solutions. Their research will be part of the holistic research agenda around managing plastic pollution. We believe that this cluster of researchers will be able to develop solutions and action plans for meeting the challenge of plastic pollution.

In terms of impact, this program will provide trained human resources in an important area of national importance. The program will also steer that trained pool of researchers towards impact research and help them find their place in the field or their

role in the larger research picture.

Our researchers are working on the following projects in the years 2022-2023:

- Nudges to curb the single-use of plastic – Supervised by Dr. Muhammad Khan
- The impact of plastic bag bans on environmental quality (especially PM 2.5), the panel data analysis – Supervised by Dr. Rafi Amir Ud Din
- Analyzing the consumption behavior of reusable bag: An evidence from the theory of planned behavior– Supervised by Dr. Rao Muhammad Atif

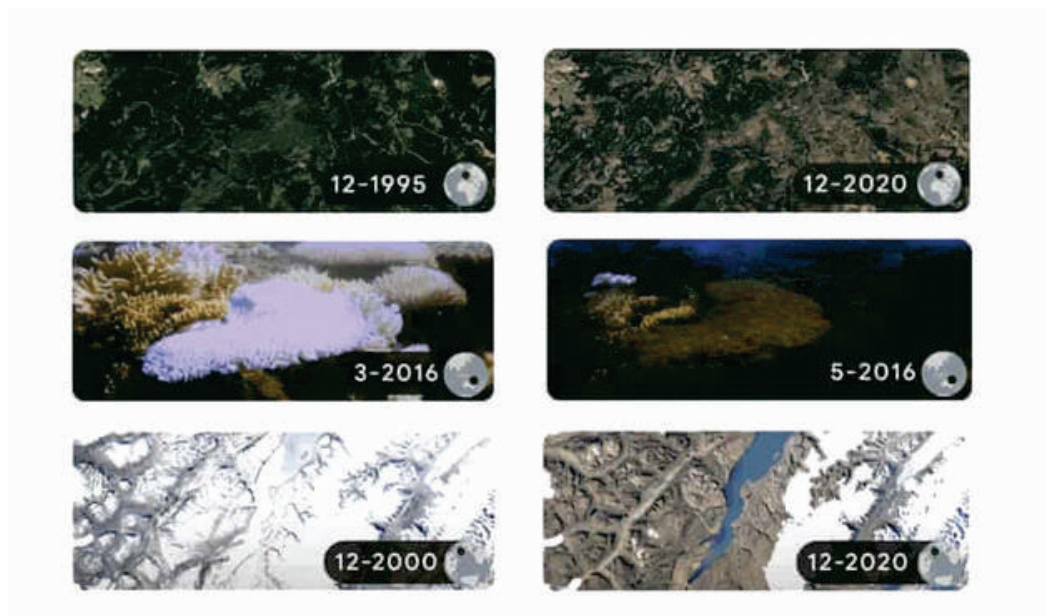


World Environmental Day organized by Department of Environmental Sciences

Department of Environmental Sciences COMSATS University Abbottabad Campus organized a one-day event on world environmental day. This day is specially celebrated to aware the people of environmental issues and this event. Environmental protection society Department of Environmental Sciences and collaboration with WASSA and WWF jointly organized the event mainly lead by the chairman Prof. Dr. Irshad, HoD, Dr. Faridullah and also convene with Dr. Malik Tahir Hayat, and advertising committee Dr. Shumaila, DOO Environmental Sciences Dr. Awais

Arfeen, and their team. At this event, they invite some students from City School. They performed different activities about environmental issues. A quiz competition was also taken. Later on, Director WASSA and deputy WWF give the awareness about environmental issues, and then at the closing ceremony Director CUI, ATD Campus Dr. Maroof Shah, and chairmen Dr. Irshad also explain to people about the environmental issues and they conclude the vote of thanks.

Each year on April 22, the world celebrates Earth Day to create awareness about the vital need to protect our planet from pollution by taking part in activities like planting trees or picking litter.



Adventure Club Clean Up Drive at Shimla Hill

Adventure Club organized a cleanup drive at Shimla Hill Abbottabad where several students and faculty members participated. The place was cleaned of trash and awareness was given to the public there regarding cleanliness. A very positive message was demonstrated by the students and faculty on behalf of COMSATS University Islamabad, Abbottabad Campus. Adventure Club plans to organize and execute similar ventures in future to make our city clean and green.



COMSATS University, Abbottabad Campus sign MoU with Water and Sanitation Services Company, Abbottabad (WSSCA) on Friday, July 29, 2022

At Department of Environmental Sciences COMSATS University Islamabad (CUI) – Abbottabad Campus a working Memorandum of Understanding (MoU) has been signed with Water and Sanitation Services Company, Abbottabad (WSSCA). The signing ceremony was held in CUI-Abbottabad campus on 29.07.2022 (Friday) in the Conference room of Admin Block from 11:00 am to 12:00 pm. CUI-Abbottabad campus-director Prof. Dr. Muhammad Maroof Shah and Chief Executive Officer (CEO) WSSCA-Abbottabad signed the document as the representatives of contributing organizations.

The mentioned MoU is intended to establish a mutually beneficial relationship built on academic, scientific and cultural cooperation in accordance with the legal provision of both partners. Area of the collaboration includes solution to the current and future environmental problems on the solid as well as

liquid waste management; safe provision of drinking water supply and storage, human resource development and integration of the scientific work of academia for the provision of leadership in addressing the emerging environmental issues and in advancing the science and technology for risk assessment and disaster management.

The active participation in this MoU from both organizations will be a source of motivation, particularly for contributing students. The feedback and response of the diversified faculty present at the ceremony were enthusiastically engaging. Hopefully, the organizations, under the umbrella of such MoU's interactive activities will positively serve in image building for both organizations and community service, at large.



COMSATS University Islamabad signed a research project agreement with Engro Foundation and Engro Polymers and Chemicals Ltd

COMSATS University Islamabad signed a research project agreement with Engro Foundation and Engro Polymers and Chemicals Ltd on September 22, 2022, Thursday at the Islamabad Campus of the former. Ms. Naz Baloch, Parliamentary Secretary,

Ministry of Climate Change participated in the signing ceremony as Chief Guest. Prof. Dr. Sajid Qamar, Acting Rector CUI & Dean Faculty of Sciences, Mr. Favad Soomro, Head Engro Foundation along with senior officials from Engro Corporation and CUI participated in the signing ceremony.

The project is aimed at understanding the socio-economic and political factors that lead to low implementation of Basel Amendments through a transdisciplinary approach and to conduct a value-chain analysis, social network analysis, and policy coherence study to identify these factors.

Using these research outputs the project is expected to enhance the capacity of government stakeholders and help them develop a policy action-plan. The project is funded by Asia-Pacific Network for Global Change Research.



Seminar was held on “Earth Observation and Smart Sensing for Natural and Urban Ecosystems”.

Dr. Sawaid Abbas (PolyU, RSGCRL-NCGSA-PU) delivered a talk on Earth Observation and Smart Sensing for Natural and Urban Ecosystems at COMSATS University, Islamabad on 17-03-2022.

This seminar was exclusively designed for M.Phil research students. Dr. Sawaid enlightened the students on Smart Sensing Technologies for Urban Ecology and Smart Cities, and Earth Observation remote sensing to map and monitor secondary

forest succession, large scale afforestation, history and future of forest cover assessments in Pakistan.



1. Dr. Rehan Ahmed, Tenured Associate Professor, Department of Meteorology, CUI, delivered a seminar on “The Recent Heatwave in Pakistan”, on May 19, 2022, at Seminar Hall of Business Incubation Center (BIC), COMSATS University Islamabad (CUI), Islamabad. The concept and importance of atmospheric conditions that define a heatwave, as well as the possible causes of the current heatwave in different parts of the country, were presented. The seminar also focused on the importance of research in atmospheric science and climate change, emphasizing the need to scientifically establish the increasing frequency and intensity of heatwaves in Pakistan. This would enable policymakers to concentrate on potential impacts.



2. The Training Workshop on “Geospatial Techniques for Hydrological Resources” was organized by the Department of Meteorology, CUI, Islamabad, on June 22, 2022.

The Training Workshop on Geospatial Techniques for Hydrological Resources was an excellent educational experience that contributed to Pakistan's progress toward SDG 15. The training was conducted and organized by Mr. Irfan Mahmood, Research Assistant, Dr. Farooq Iqbal, Assistant Professor and Dr M Imran Shahzad, Tenured Associate Professor and Head Department of Meteorology. The program helped to strengthen participant's capacity to address difficult water management concerns and promote sustainable development by providing them with knowledge and skills in GIS approaches for hydrological resources.



The Policy Conclave on E-Waste Management was organized under the Bilateral Research Project entitled “Investigation of Selected Persistent Organic Pollutants (POPs) and Heavy Metals Pollution from E-waste Processing Facilities,” funded by the Pakistan Science Foundation (PSF), Pakistan, and the Scientific and Technological Research Council (TÜBİTAK), Turkey. The event took place at the SSBC Hall, COMSATS University, Islamabad, on August 04, 2022. The event was organized by Dr. Jabir Hussain Syed, Tenured Associate Professor, from the Department of Meteorology at COMSATS University Islamabad.

The event provided a platform to discuss the latest research on e-waste management and to develop recommendations for

effective policies and practices. This is essential for raising awareness about the e-waste problem and for promoting sustainable solutions. Overall, the Policy Conclave on E-Waste Management was an important event that helped Pakistan attain SDG's. The conclave contributed to a more informed and engaged citizenry committed to addressing the e-waste problem by encouraging knowledge sharing, raising awareness, and enabling participants to act.

The Project Inception Meeting titled “Value chain mapping and capacity building of Pakistani government stakeholders to implement Basel Convention's amendments to enhance control of the transboundary movements of plastic waste (CBA2021-12SY-Syed)” was held at G-8 Faculty Block-I, COMSATS University Islamabad, on December 5, 2022. The event was organized by Dr. Jabir Hussain Syed, Tenured Associate Professor, from the Department of Meteorology at COMSATS University Islamabad.

The project promotes knowledge sharing and collaboration between experts and stakeholders on the important issue of plastic waste management. It raises awareness about the Basel Convention's amendments and their implications for Pakistan. This project empowers Pakistani government stakeholders to implement the Basel Convention's amendments and to develop effective plastic waste management policies and practices.



A project inception meeting on “Value chain mapping and capacity building of Pakistani government stakeholders to implement Basel Convention's amendments to enhance control of the transboundary movements of plastic waste.”