



**School of Governance  
and Society**



**INTERNATIONAL CONFERENCE ON  
GOVERNANCE, SUSTAINABILITY AND RESILIENCE  
IN A POST-COVID PERIOD (HYBRID)**

**January 23-25, 2023**

**Abstract Book**

Organized by  
School of Governance and Society, University of Management and Technology, Lahore



DRAFT (TO BE UPDATED AFTER CONFERENCE)

## Conference Management Patrons



Dr Ahmad Omar Murad  
Chairman, UMT



Abid H K Shirwani  
Director General, UMT



Ibrahim Hasan Murad  
President, UMT

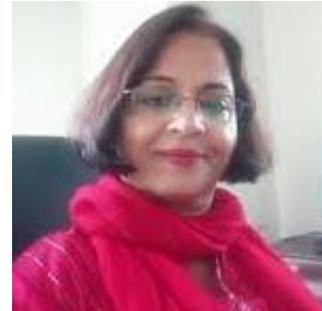


Dr. Asif Raza  
Rector, UMT

## Conference Management



Conference chair  
Dr. Aisha Azhar  
Diretor SGS,UMT



Conference Convener  
Semi waheed  
Assistant professor, SGS



Conference Co-Chair  
Rahat ul Ain  
Professor of Practice , SGS



Conference Co-Chair  
Sohail Ahmad  
Professor of Practice,SGS

## **1. Editorial Committee**

- Dr. Aisha Azhar, Director SGS
- Seemi Waheed, SGS
- Rahat ul Ain, SGS
- Sohail Ahmad, SGS
- Dr. Zerish Tasleem, SGS

<b>Invited Speaker's name</b>	<b>Email Address</b>	<b>Affiliation</b>
Dr. Muhammad abid bodla	Memengg@pndpunjab.gov.pk	Member water / id / env. &cc Planning and development board Lahore
Dr. Faisal sultan sahib,	Sceo@skm.org.pk	The chief executive officer of shaukat khanum memorial cancer hospital and research centre, Pakistan
Dr rizwan naseer	Dg.office@rescue.gov.pk	Secretary, punjab emergency service department
Dr sajid rashid	Sajidpu@yahoo.com/ principal.cees@pu.edu.pk	Principal, college of earth, environment studies, university of the punjab, Lahore
Dr. Sikandar hayat	Sikandarhayat@fccollege.edu.pk	Professor of history and public policy and dean, faculty of social sciences. Forman Christian College
Dr. Yusuf zafar	Yzafar23@gmail.com	Usda cochran fellow and presently director on board of pakistan mercantile exchange (pmex).
Dr. Hassan abbas	Hassan.shahji@gmail.com	Currently he is engaged in master planning for water supply and storm water drainage systems for major cities in Pakistan.
Mr. Kamran nadeem		Wash specialist · UNICEF Pakistan
Simi kamal		
Dr arfa zehra		
Dr edella schlager	Schlager@arizona.edu	Director and professor, school of government and public policy, university of arizona, tucson, az, USA
Dr. Saeed shafqat	cpgg@fccollege.edu.pk	Founding director & professor, centre for public policy and governance, fcc university, Lahore.
Ahmad Rafay Alam	Rafay@saleemalam.com	Environmental lawyer and partner at Saleem, Alam & Co. A law firm and consultancy specializing in the energy, natural resources, water and urban infrastructure sectors.
Dr faisal sultan		
Dr danish mustafa	Daanish.mustafa@kcl.ac.uk	Professor in critical geography Department of geography, king's college London
Olivia Bulla and Renato Peneluppi	Oliviabulla@gmail.com	Huazhong University of Science and Technology, College of Public Administration, Department Member
Muhammad amjad saqib		Pakistani social entrepreneur, development practitioner, former civil servant and author.
Sabharwal, meghna	Mxs095000@utdallas.edu	
Dr. Edella schlager	Schlager@arizona.edu	Director and professor, school of government and public policy, university of arizona, tucson, az, USA
Dr saleemul huq	Saleemul.huq@iccad.org, <a href="mailto:saleemul.huq@iied.org">saleemul.huq@iied.org</a> , noor.elahi@iccad.org	DirectorInternational centre for climate change and development Independent university bangladesh dhaka, Bangladesh
Sajid rasheed		

Dr. Saba siddikki	Ssiddiki@syr.edu	
Rubina iqbal	Bintefalak@yahoo.com	Child protection officer
Mam Seemi and Anushi Manahil		
Dr. Shabana naveed		Associate professor, faculty of management sciences, University of the Punjab
Dr. Madiha rehman farooqi	Madiha.rehman@ue.edu.pk	Assistant professor, university of education
Dr. Aisha rizwan	Aisharizwan.ias@pu.edu.pk	Institute of administrative sciences, university of the Punjab
Amna siddique	Amna.siddique@umt.edu.pk	Senior officer (liaison), school of governance & society university of management & technology (umt), amna.siddique@umt.edu.pk
Dr. Mahnoor farooq	Mahnoorfarooq200@gmail.com	Assistant professor, Lahore college for women's university
Muhammad asif amjad	M.asifamjad22@gmail.com	Department of economics and statistics, school of business and economics, university of management and Technology, Lahore, Pakistan
Nabila asghar	Drnabeelakhan.eco@gmail.com	Associate professor, department of economics and business administration, division of management and Administrative science, university of education, Lahore, Pakistan.
Hafeez ur rehman	Hafeez.rehman@umt.edu.pk	Professor of economics, department of economics and statistics. Hsm. University of management and Technology, Lahore, Pakistan.
Muhammad waqas ashraf,	F2019330011@umt.edu.pk	Ph.D. Scholar department of economics and statistics University of management and technology Lahore, Pakistan

Foreign Speakers/ discussant	National Speakers/ discussant
<p>Dr Edella Schlager Director and Professor, School of Government and Public Policy, University of Arizona, Tucson, AZ, USA <a href="mailto:schlager@arizona.edu">schlager@arizona.edu</a></p>	<p>Dr Sikandar Hayat, Distinguished Professor of History and Dean Faculty of Social Sciences FCC University, Lahore <a href="mailto:sikandarhayat@fccollege.edu.pk">sikandarhayat@fccollege.edu.pk</a></p>
<p>Dr Saba N Siddiki, Associate Professor Associate Professor and Director of the M.P.A. Program, Public Administration and International Affairs Department, Maxwell School of Citizenship and Public Affairs, NY, USA. <a href="mailto:ssiddiki@syr.edu">ssiddiki@syr.edu</a></p>	<p>Dr Saeed Shafqat, Founding Director &amp; Professor, Centre for Public Policy and Governance, FCC University, Lahore</p>
<p>Professor Dr Saleemul Huq, Director International Centre for Climate Change and Development (ICCC&amp;D) Bangladesh <a href="mailto:saleemul.huq@icccad.org">saleemul.huq@icccad.org</a> <a href="mailto:noor.elahi@icccad.org">noor.elahi@icccad.org</a></p>	<p>Dr Sajid Rashid. Principal, College of Earth, Environment Studies, PU, Lahore <a href="mailto:Sajidpu@yahoo.com">Sajidpu@yahoo.com</a></p>
<p>Dr. Meghna Sabharwal Professor of Public and Nonprofit Management, Program Head of Public and Nonprofit Management The University of Texas at Dallas School of Economic, Political and Policy Sciences (EPPS) <a href="mailto:meghna.sabharwal@utdallas.edu">meghna.sabharwal@utdallas.edu</a></p>	<p>Dr. Hassan Abbas, Hisaar Foundation <a href="mailto:Hassan.Shahji@gmail.com">Hassan.Shahji@gmail.com</a></p>
	<p>Advocate Ahmad Rafay Alam <a href="mailto:rafay@saleemalam.com">rafay@saleemalam.com</a></p>
	<p>Mr. Rahat ul Ain, Founder Director SGS, Umt <a href="mailto:rahat.ain@umt.edu.pk">rahat.ain@umt.edu.pk</a></p>
	<p>Mr. Sohail Ahmed</p>
	<p>Dr Abid Bodla</p>
	<p>DR. MUHAMMAD JAVED Director SPRU Punjab Irrigation Department</p>

## President's Message

I am happy that UMT's School of Governance and Society has organized this Conference on the critical issues of Governance, Sustainability, and Resilience. Climate change results in unpredictable water availability, and extreme weather events which in turn impacts life on earth. This reminds us of Allah SWT's message in the Holy Quran, where He describes how water ( ماء mā' ) is the building block of all living things. Allah SWT says, *"AND GOD sends down water from the skies, giving life thereby to the earth after it had been lifeless: in this, behold, there is a message indeed for people who listen.* (Al Quran, An-Nahl (The Bee) 16:65). We, at the University of Management and Technology, have listened to this message. As such, we are striving to better prepare for the many challenges posed by the impacts of climate change by highlighting the importance of resilient policies and necessary technologies required for ensuring water security. As we all know, the United Nation's Sustainable Development Goals (2015-2030) include resilient and sustainable development as its areas of focus. Pakistan, being a signatory to the SDG's agenda, is committed to devise policies that would help face the looming threat of glacial melt in the Himalayas and the consequent flooding and droughts that would follow if no action is taken to adapt and protect the environment. In that sense, it is indeed encouraging and opportune that the School of Governance and Society has taken the initiative to organize this International Conference on the critical issues of Governance, Sustainability, and Resilience. I congratulate the Director SGS and the team at UMT School of Governance and Society to have organized this Conference. I hope the participants will have a result-oriented discussion and I wish the Conference success.

## **Rector's Message**

I am greatly pleased to see that the UMT School of Governance and Society has organized the second International Conference on Governance, Sustainability, and Resilience. Climate change and covid-like pandemic situations affect multiple levels of human life and development outcomes. Pakistan is not only one of the most adversely impacted countries due to climate change it is also amongst the countries least prepared for it. Systematic and coordinated development initiatives, resilient policies, governance, and technologies can help us prepare for the challenges ahead. This Conference organized by SGS is a timely initiative as Pakistan is still struggling to cope with the devastating after-effects of the worst flooding in our history, destroying crops, demolishing homes, and leaving more than 30 million people in need of humanitarian assistance. I am confident that the Conference will highlight sustainability, and resilience challenges at multi-level dimensions, introduce a conceptualization of resilience in the post-covid era, and present robust ideas to translate resilience and sustainability in our local context. Lessons learned at the Conference should help communities adapt by developing sustainable strategies and should form the basis for better governance and climate-resilient development.

## **Message of Conference Chair**

It is my great pleasure to welcome you to the Conference on Governance, Sustainability, and Resilience in a Post-COVID Period (ICGSR) organized by the School of Governance and Society (SGS) at the University of Management and Technology (UMT). This conference brings together a diverse group of experts, scholars, and practitioners from around the world to explore the critical issues facing our society today.

As the conference chair, I am honored to have the opportunity to lead this important event and to facilitate the exchange of ideas and perspectives among our distinguished speakers and attendees. The theme of this conference, governance, sustainability, and resilience in a post-COVID period, is particularly relevant and timely as we continue to navigate the ongoing challenges posed by the pandemic.

Throughout the conference, we will hear from a wide range of perspectives on the ways in which we can build more resilient and sustainable societies in the face of these challenges. I am confident that the insights and recommendations shared at this conference will be of great value to policymakers, practitioners, and scholars alike.

I would like to extend my sincerest gratitude to all of the speakers, organizers, and attendees for their contributions to this conference. Your participation has made this event a truly international and collaborative effort. I would also like to thank all of the sponsors for their support in making this conference possible.

I hope you will enjoy the conference and that you will find the discussions stimulating and thought-provoking. Thank you again for joining us and I look forward to hearing your feedback and engaging in further discussions.

## Conference Convenor Message

In June 2022, The School of Governance and Society created **Sustainable Water Resources Initiatives (SWRI)** platform to bring diverse stakeholders (including public sector practitioners, private sector and researchers) to undertake multiple activities related to 'water'. The mandate included deliberate, discuss, organize seminars, and collaboratively, with other interested stakeholders, design, plan and execute research to understand and explain the challenges of governing water resource in a new normal, be it pandemic or climate change. This resource exists in many shape and forms, (including normal water, grey water, black water, glacial melt, surface water and ground water). Climate change due to increase in temperature affect life in general and human life in particular. The diverse impacts of climate change on life, like water scarcity, flooding, food security, disease, hunger to name a few, raise the bar for designing better policies, plans, improve governance and adaptation to meet the climate change challenges. Therefore, from the SWRI platform, The Second International Conference on Governance, Sustainability and Resilience in Post-Covid Period was conceived. This conference aims to bring diverse stakeholders to the Conference who would present their work and share thoughts for understanding the new normal challenges, accordingly devise policies and effective implementation plan using available data. The deliberations will point areas requiring new data and updating the existing one. I congratulate the Conference Committee for organizing the Conference on a topical area.

## **List of Abstracts to be presented at the conference**

**Dr. Meghan Sabharwal**

### **Collaborative Governance: A must Tool to Manage Climate Change Vulnerabilities in Developing World**

#### **Abstract**

Collaborative governance involves the government, community and private sectors communicating with each other and working together to achieve more than any one sector could achieve on its own. The ultimate goal is to develop a contingency approach of collaboration that can highlight conditions under which collaborative governance will be more or less effective as an approach to policy making and public management. Collaborative governance covers both the informal and formal relationships in problem solving and decision-making. Conventional government policy processes can be embedded in wider policy processes by facilitating collaboration between the public, private and community sectors. Collaborative Governance requires three things: support; leadership; and a forum. The support identifies the policy problem to be fixed. The leadership gathers the sectors into a forum. Then, the members of the forum collaborate to develop policies, solutions and answers.

**Dr Meghna Sabharwal**

**Building Inclusive Communities: A Social Inclusion Approach**

**Abstract**

In 2015, the United Nations developed and adopted 17 Sustainable Development Goals (SDGs), of which two goals explicitly focus on social equity and justice. Goal 5 calls for gender equality with the aim to empower women and girls by ending all forms of discrimination against them globally by 2030. Goal 10 broadly focuses on reducing inequities among the most vulnerable populations that include women, indigenous people, people with disabilities, children, and older people. To address the vast inequities faced by developing nations, the talk will focus on using the social inclusion theory to address some of the injustices faced by marginalized and vulnerable populations. Social inclusion is defined as the “process of improving the terms of participation in society, particularly for people who are disadvantaged, through enhancing opportunities, access to resources, voice and respect for rights” (United Nations, 2016, p.17). The presentation will examine the elements of exclusion and inclusion and the challenge to empirically measure these concepts, while highlighting some of the trends that prevent access and participation of marginalized groups globally.

**Ahmad Rafay**

**Integrating climate adaptation in the planning process of land use.**

**Abstract**

Land use policy and legislation determine the use of land and its effect on climate change. Increasing population, unabated and uncontrolled use of land like converting agriculture land, forest, and converting water channels and storm water channels into sewerage channels has ramifications on increasing temperatures, evapotranspiration and precipitation. This research shall show the land use policy and its weak implementation in big cities of Pakistan has reduced forestation and aquifer recharge.

**Muhammad Asif Amjad, Nabila Asghar, Hafeez Ur Rehman**

**Can Social Progress Ensure Resilience to Extreme Climate Change Events?**

**Abstract**

Climate change and its resilience is the most debatable topic worldwide. The growing global temperature plays a treacherous role in climate vulnerability. In this regard, this study examines the role of extreme weather events on deaths by using nonlinear analysis. Furthermore, social progress is used as the moderator to assess its potential to increase our capacity to withstand increasing extreme climate change events. For analysis purpose the present study uses Panel Quantile Regression (PQR) estimation technique using the data of 27 South, East Asian & Pacific countries for the period 2011-2019. The results of this study show that frequency of extreme climate change is adaptable at low levels but causes human losses at high levels. Furthermore, the moderation of social progress is observed the shifting the turning point to the left side of the U-shaped curve and further flattens in the middle quantile. The study concludes that social progress is feasible to enhance resilience among nations with extreme climate risk and recommends that there is a need to focus on improving the social progress assessment to minimize the deaths due to extreme events.

**Keywords:** Adaptive Capacity; Human Life Losses; Social Development

**Dr. Abid Bodla**

**Integrating climate adaptation in the planning process of water use**

**Abstract**

Water is one resource essential for life. The water, land, food and energy nexus is the core of sustainable development. Agriculture use 90% fresh water, and water is used to produce energy which is used in farming as well. Demand for water is increasing for all four. Land use also require water. Pakistan is becoming water scarce due to increasing population and poor management of water resources. The presentation will show the major water challenges and the Pakistan's capacity to harness this resource.

**Dr. Faisal Sultan**

**Managing the Pandemic and creating shared meaning for addressing the challenge**

**Abstract**

In 2020 Pakistan, like whole world was faced with serious social and economic challenges during Covid 19 pandemics. While pandemic needed to be managed however, the most difficult challenge was to create shared meaning to manage pandemic. The country's socio-economic condition was not favorable to complete lock down. At the same time there were divergent views between complete lock down and smart lock down. At the highest level and the lowest level there were serious controversies. Through negotiated deliberation the situation was managed and WHO appreciated Pakistan approach to managing pandemic. The talk shall detail the challenges.

**Dr Rizwan Naseer**

**Risk mitigation and the need for diverse disciplines and skill**

**Abstract**

For any shock, whether natural or manmade, timely risk mitigation is necessary to reduce loss of property and life. Risk mitigation cuts across multiple levels and scale. The multiple levels and scales call for multi-skills, diverse knowledge, expertise, and resources to name the few. In the Rescue 1122 we promote and encourage the coordination and cooperation of diverse skills, knowledge, and expertise. I will in my talk elaborate the challenges faced to mitigate loss and damage and how Rescue 1122 addresses those challenges.

**Dr. Yousuf**

**Integrating climate adaptation in the planning process of ensuring food security**

**Abstract**

Rising temperature along with deforestation and converting agriculture land into concrete jungle, water scarcity has serious ramification for agriculture and food security. In Pakistan 2010 and 2022 floods destroyed million hectares of farmland. Besides million hectares of agriculture land is guzzled for developing housing estates. All this causes food shortage. Planning for climate adaptation means new cropping patterns, temperature resistant and varieties of seeds and water conservation mechanism need to be adopted for food security and agriculture production.

**J. Renato Peneluppi Jr, Olívia Bulla**

**Smart Cities in China: governance policy focused on sustainability**

**Abstract**

This abstract refers to a full-length paper submission inserted at the discussion on sustainability and public administration. The proposal is based on the analysis of the cities' "reinvention" through the application of new technologies and the use of data in urban spaces to enable sustainable practices by considering the greatest balance in the management of environmental resources and between urban and rural areas. In this context, the objective is to present the evolution of the so-called smart cities in China, considering Chinese government's plan to create a new phase of economic growth, more sustainable and with greater regional integration, through institutional management, improving infrastructure and protecting the natural resources and the environment, with a focus on energy transition and innovation, also taking into account sustainable finance. A previous analysis of the crisis management of the pandemic as a public policy action has shown that Covid-19 dissemination triggered specific challenges in each country, horizontalizing the world in the face of the same public health emergency. Consequently, it was noticed that the effectiveness of China's response in combating the spread of the coronavirus serves as an example in the implementation of public policies, when compared to liberal democracies, once in China there was no false dilemma between life and economy, as if people had to choose between living or making money. The instruments used in China to lessen the effects of the global health crisis resulted in solutions for application in reality, opening a new path for economic growth in greater harmony with the United Nation 2030 Agenda. The convergence of these tools enable a new pattern of interaction of sustainable practices towards the UN's Sustainable Development Goals (SDGs), allowing to combine the use of digital technology in favor of economic development and global cooperation, alongside green finance and carbon emissions trading. At the same time, the new coronavirus pandemic is considered to have intensified the global debate on sustainable development by highlighting the vulnerability of the human being to diseases, amid the culture of hyper consumption and climate change. Besides that, China's goal of peaking carbon emissions before 2030 and reaching neutrality by 2060 shows the effort to face tensions between environmental pressure and economic growth, which became more evident with the Covid-19 spreading. By this, the Chinese government's proposal for the development of smart cities and regional integration is described as a new phase of opportunities for the economy, with urbanization playing a central role in the economic-sustainable axis while full digital application allows to update the industrial sector and accelerate the stages of production, circulation, distribution and consumption. Such analysis tends to identify possible lessons from the Chinese experience, once fighting climate change means seeking a new stage of economic and technological development, and aims to contribute to a better understanding of sustainability as a main issue. As a theoretical and empirical paper, the authors make use of a literature review to point out challenges and to identify solutions in order to contribute to a better understanding of the context and thus inform decisions and policies on the subject.

Keywords: smart cities, China, sustainability, ESG, neutral carbon.

**Anusha Manahil and Seemi Waheed**

**An Orphaned Water Commons: The Tragedy of nullah of Lahore:**

**Abstract:**

The complex polycentric governance of the Commons involves multiple actors at different levels and scales. The commons include water, fisheries and forests to name a few. One such commons are the storm water channels which once captured excess rain water to save crops from inundation and carry back the rain water to the river. The city of Lahore alone had 30 such storm water channels. These water channels as commons are under studied. This research aims to study only one case of nullah of Lahore, that is The Ruhi nullah. The 18 km Nullah runs in East of Lahore, shaped by the changing landscape of water commons in the city. The storm water drains face neglected fate of water commons channels converting into a sewage drain. This Nala snakes through ten main administrative zones of Lahore. From the theoretical perspective of polycentricism and common pool resource theory and the design principles, particularly the seventh principle “Recognition of rights to organize, by external government authorities” which explores the potential solutions to appropriators having legitimacy to self-organize in order to avoid the tragedy of the Nala, the study seeks to answer three questions. What organizations manage the nullahs, particularly Ruhi nullah? What is the present state of nullah? What communities live on the nullah? Communities’ usage of nullah, and environmental hazards from nullah’s present state. This exploratory study uses field visits, interviews, and government data on nullahs. The findings show that the nullah, though owned by the Irrigation Department, has multiple owners, leaving it to its fate. The neglect by its main owner has converted it into a sewage channel. The land use policy was oblivious to the usage of nullahs. The future research should analyze the land-use policy and the effect of sewage nullahs on ground water contamination and health hazards of people living in surroundings of the nullahs.

## **Miss Rubina Iqbal**

### **Abstract**

For a population of about 22.8 million children who are out of school and are connected to street activities as off-street children or on-street children, the plight is inflating with dwindling economic conditions, political instability and climate change. These children are either not enrolled in schools or are dropouts due to certain circumstance of inadequate focus of government on the child rights centric policies to reintegrate and rehabilitate them. Protection, shelter, health, education and equality are the rights which are unheard and inaccessible to them. These children face hunger and poverty when they live on street, work on street, might have support networks on street and are involved in informal street economic activities with longer work hours and meager sustenance. Their age to begin street life varies depending upon the family and community structure. Street children are either abandoned by their families, are employed by parents in unskilled labor to augment the family income, escape from abusive parents, escape from home with fear of punishment from schools and madrassas. These situations result in the neglect and exploitation of the destitute street children. Major factors are poverty, broken family system, remarriage of parents, imprisoned parents, parents involved in unskilled occupation, domestic violence, choosing between work and school and barriers to entry in school based. In these circumstances the children partially or completely leave their homes and get involved in child labor, forced labor, bonded labor, begging, disguised begging, cleaning vehicles, shoe polishing, rag picking, vending drugs, betting, sexual activities and more. Pandemic and climate change worsens the equation of economic burden towards the number of children connecting to the street. The street children are vulnerable to exploitation, physical abuse, psychological abuse, drug abuse, sexual abuse, abduction, human trafficking and murder. The number keeps inflating in the absence of appropriate governmental policies. There are a number of bodies working in Pakistan to address the plight of street children. This research study will analyze the child protection policies of government and government bodies working for this purpose, the scope of work of presently functioning policies especially in the post-Covid era considering the impacts of pandemic, natural disasters, climate change, economic condition and political unrest. This study is quantitative and qualitative in nature and will use the primary data. Quantitative cross-sectional study design and phenomenological qualitative designs will be applied. The data will be collected by employing the tool of interview from street children to assess the background factors. The study will employ the empirical analysis tools to calculate the impact of the independent variables on the number of children reaches the street in changing dynamics. Chi-square test and multiple binary logistic regression will be applied to study the variation among dependent and independent variables. Qualitative data will be studied using the thematic analysis technique. This study will further discuss the effectiveness of already in effect policies and will suggest the state level policy interventions to decriminalize, destigmatize, rehabilitate, and reintegrate the street connected children. This will also suggest the needed and preventive measures to be taken in order to incubate the high risk families' children before they reach the street.

**Keywords** Street Children, Destitute and Neglected Children, Effective Governance

**Irum Ilahi**

**Hurdles and Challenges in Hybrid Education Model in Pakistan: A Post-Covid Analysis**

**Abstract**

Education is not only the backbone of any nation but is also equally essential for any individual too. Education is what makes a country keep running on the path of growth and development and this is much evident from the fact that it is at goal number four of the sustainable development goals list of united nations. Education is an umbrella term encompassing varying forms and types of education being practiced and delivered across the globe. As, the world has recently seen unprecedented episode of a pandemic with the name of coronavirus. It has reshaped, remolded and redesigned the whole human life along with varying other consequences. Due to the sudden arrival of the epidemic and the ensuing closing of schools, educators and educational systems all over the world made a significant endeavor to adapt as well as innovate. These adjustments were made as rapidly as the situation called for. This time from the start of 2020 has put special attention towards hybrid form of education as mode of learning keeping in mind the prevalent circumstance of the universe. In simplest meaning a hybrid form of education is a mixture of physical and online classes for the students keeping in view the possibility and convenience of delivering by the teachers or schools. Schools changed to teach pupils in vastly diverse ways as a result of the Internet, conventional post offices, television and radio, and other media. In spite of the results, for varied lengths of time, remote learning then became standard technique of delivering education. Teachers reacted quickly and with strong support for the changes in how lessons were taught. Therefore, it is evident and widely acknowledged that the current crisis has sparked innovation in the field of education. Instead of taking this chance to rethink education, most of the reforms were focused on meeting the immediate as well as urgent needs of continuing education, online teaching, and coming up with innovative ways to reach learners at home. Universities and colleges have closed, face-to-face instruction and assessment have switched to an online model, and the Covid-19 outbreak has produced issues and disruption throughout the education sector. This study will look into the hybrid education model of Pakistan which is recently evolved at a huge scale due to covid-19 related restrictions around the world. The study will dive into the hurdles and will put emphasis on explaining about challenges in service delivery while particularly focusing on post-covid19 era. This has laid stress on existing governance and policies which need to be revamped and restricted in order to have highest level of efficiency of any existing system. The study will be quantitative in nature and researcher will use SPSS or e-views as a tool for finding the results. The target audience will be teachers and students from varying levels of education. Data will mainly be collected through questionnaire or survey. Along with this content analysis and different reports will also be utilized to conclude the study.

**M shehzad Sardar**

**The role of Institutional Quality and Competitiveness in Determining the Carbon Emissions of Transport Sector: A Robust Global Perspective**

**Abstract**

The post-industrial revolution created number of challenges for human beings on grounds of environmental pollution which resulted in climate change. The rising Greenhouse Gas (GHG) emissions and its high concentration in atmosphere is increasing global mean temperatures which results in squeezing of winter seasons and expansion of summer seasons. The climate change is resulting in number of catastrophes such as high prevalence of heat waves, flash floods, storms and unprecedented rains. Millions of people have died in such catastrophes across Globe in recent past. The health ailments and food security issues have increased with changes in climate change. The Intergovernmental Panel on Climate Change (IPCC) in its various reports issued from time to time have highlighted to limit the global mean temperature to minimum threshold level to avoid increasing catastrophes of global warming. The Paris agreement and Conference of Parties-26 (CoP-26) highlighted the need for nations to pledge for necessary targets for reduction of GHG emissions. In this regard, the adaptive and mitigation strategies are highly important to cope with challenges of climate change. The carbon dioxide has major share of GHG emissions as it is above seventy percent in total GHG emissions. However, the share of transport sector in total Carbon emissions is above twenty-five percent in total GHG emissions. The different modes of transportation such as road, rail, aviation and marine transportation plays central role in promoting economic growth by increasing trade volumes. The transport sector mostly uses fossil fuels which directly emits carbon emissions and increases environmental pollution which results in global warming. The rising population across globe requires more transportation services and significantly increases carbon emissions. Furthermore, the nations of World have targeted high trajectories of economic growth for combating poverty and increasing living standards of people which have significantly increased energy consumption. The major source of this energy is fossil fuels which increases carbon emissions. The green technologies, renewable energy and emission reduction strategies are highly important to mitigate carbon emissions of transport sector. In this regard, the role of governance by strengthening institutions is highly important to curb carbon emissions of transport sector. This research study is inclined to envisage the role of institutional quality in determining the carbon emissions of transport sector. The literature indicates that improved governance by strengthening of institutions can implement the environmental protection policies which tends to mitigate carbon emissions of transport sector. However, weak institutions result in exacerbating carbon emissions of transport sector. To validate the role of institutional quality in determining the carbon emissions of transport sector, the data for 121 countries was taken for time period from 2008 to 2018. The role of transport competitiveness was also engaged in determining the carbon emissions of transport sector.

Furthermore, the Environmental Kuznets Curve (EKC) is engaged for sustainability analysis. The inverted U shape EKC indicates that expansion of economic growth increases carbon emissions of transport sector in first phase, while, tends to mitigate carbon emissions of transport sector in second phase. The data was divided into four groups on the basis of carbon emissions of transport sector. These groups are regarded as low CO<sub>2</sub>, low medium CO<sub>2</sub>, high medium CO<sub>2</sub> and high CO<sub>2</sub>. The robust approach of Panel Quantile Regression (PQR) is used for analysis of study results.

**Muhammad Waqas Ashraf, Dr. Hafeez ur Rehman**

**Achieving sustainable development resilience through moderating role of social progress with environment on health vulnerability in developing countries**

**Abstract**

Climate change, environment and human health are reflected as the key objectives of Sustainable Development Goals (2015). Healthy environment and good health are considered the oxygen of an economy; without better health conditions it is difficult to run the wheel of the economy. This study analyzes the association between environmental degradation and human health by using the moderation effect of social progress in eighty-two developing economies. The panel data is collected from the World Development Data Base 2021 and ND-GAIN from 2011 to 2020. Panel co-integration, FGLS and Panel quintile regression (PQR) model have been applied to find the long-run impact of environmental degradation on human health. The study measures human health by health vulnerability index while environmental degradation by CO<sub>2</sub> emissions. The study concludes that environmental degradation adversely affects the human health and also causes the climate change. Whereas social progress has a positive impact on human health. The study suggests that the government of the developing countries should expand the social progress and try to diminish the carbon emissions for attaining the better health conditions.

**Keywords:** Climate change, Human health, Quartiles, Environmental degradation, Urbanization

**Zohaib Ahmed, Laiba Bilal, Zoha Sajjad and \*Dr. Shahnila Tariq**

**Resilience, mental toughness and psychological wellbeing in sports persons**

**Abstract**

The research was conducted to investigate the relationship of resilience, mental toughness and psychological well-being in Sportsperson. It was hypothesized that there is likely to be a positive relationship between resilience, mental toughness and psychological well-being in sportsperson. It was further hypothesized that resilience, mental toughness and psychological well-being likely predict among sportsperson. The data was collected from sportsperson (N=200) of age range 18 to 26 years (M=21.26, SD=2.28). Brief Resilience scale (Smith, 2008), Mental toughness inventory MTI scale (Gucciardi, 2015) and Psychological Well-being Scale (SWLS); (Sarah, 2008) were used as assessment measures. Results revealed that Age is positively correlated with psychological well-being and Eudemonic while Gender is positively correlated with Resilience, Mental Toughness and Mental Well-being. Furthermore, Resilience, Mental toughness, Mental Well-being, Eudemonic and Hedonic were also positively predicted with psychological wellbeing. Findings of this research could be implemented generally to improve the resilience, mental toughness and psychological well-being of sports persons.

*Keywords: Mental toughness, Resilience, Psychological wellbeing, Sportsperson*

**TRACK: Sustainable new normal through Public Value Co-Creation for the  
Users, Citizens and Society**

**Track Chair: Dr. Shabana Naveed**

**Proposal**

Public service logic (PSL) focuses on how public service organizations (PSOs), citizens and other actors from public, private and third sector integrate their resources to co-create public value (Osborne, 2018). Whilst, co-production assumes that the public service organization is dominant and the logic is linear, the logic of co-creation assumes a dynamic and participatory connection in which ‘value is created at the nexus of interactions among multiple stakeholders (Osborne, 2018. p.225). Moreover, it is being recognized that resource integration takes place in service ecosystems (Vargo and Akaka 2012) which include not only organizations and users, but also other connected. As a result, the concept of the service ecosystem alters our understanding of value creation from a dyadic perspective to the one in which value is co-created by several linked resource integrating actors. The importance of value co-creation is further enhanced during the period of COVID-19 pandemic where governments were in need to extensively involve multiple actors to handle the wicked issues. Indeed, sustainable solutions, to the wicked and complex issues of the society, can only be devised through engagement and resource integration of numerous stakeholders. This track aims to contribute to PSL literature through empirical evidences of value co-creation and sustainable solutions from South-Asia context.

## **Paper 1:**

**Dr. Madiha Rehman Farooqi**

### **Processual Analysis of Public Value Co-creation in Higher Education Commission in Pakistan**

#### **Abstract**

Co-creation techniques, in which a variety of public and private actors pool their experiences, resources, and ideas to create public solutions, are on the rise. Governments are increasingly attempting to include citizens in the provision of public services as well as the resolution of social and political issues and difficulties. Addressing this critical domain, this study explores the concept of co-creation in federal level organizations in Pakistan- Higher Education Commission (HEC) and highlights the role of end-users as significant in co-creating value to the public service. The aim of the study is to explain the nature of public service logic in HEC and the path of co-creation in public service. The data is collected from the end-users and the HEC officials to identify and understand the role of citizens and their perspectives to add value to the process. The study establishes that the future of government administrations does not lie in top-down planning. Meeting social difficulties necessitates innovation, particularly value co-creation, in which end-users and government agencies collaborate with the citizens to provide better services. The main contribution of the study is explanation of the process through which the user feedback becomes an input to create value in the service delivery.

Key words: Co-creation; PSL; Higher Education; citizen engagement

## **Paper 2:**

**Dr. Aisha Rizwan**

### **Strategies and actions to Combat COVID-19 in Pakistan: Public Service Logic Perspective**

#### **Abstract**

Considering the service eco-systems perspective, this paper explains and evaluates the strategies and actions adopted by the Government of Pakistan to handle COVID-19 crises in light of public service logic. Secondary sources including published papers, policy documents, policy briefs, governmental reports, third party evaluations/reports and media publications were subjected to in-depth analyses to take stock of government strategies to tackle the pandemic. The paper also suggests future strategies for policymakers responsible for providing sustainable societal solutions to combat the pandemic induced social, economic and administrative challenges. A multi-stakeholder approach was evident during the pandemic period in an effort to better manage the crisis while having an immense social, cultural, economic and political impact on the lives of the citizens. Collaborative efforts among stakeholders (government, private and third sector) were witnessed, resulting in a coherent response. The successful management of COVID-19 in Pakistan is attributed to multiple factors including the formation of a specialized public organization which effectively and proactively took data-driven informed decisions and aggregated the efforts of the center and provinces for a timely response. This paper presents insights for policymakers to create a sustainable post-pandemic socio-economic environment by building resilient structures across the government while promoting cooperation and collaboration. It also provides a learning experience for other similar national contexts since Pakistan has been found to manage and contain the pandemic in a much more efficient way.

**Keywords** COVID-19, Co-creation, Policies, Pakistan

### **Paper 3:**

**Anna Siddique**

## **Evolution of Public Service Innovation Networks (PSINs) in Collaborative Governance and Value Co-creation in Public Service(s)**

### **Abstract**

The volatile, uncertain, complex, and ambiguous (VUCA) policy challenges are transforming the traditional paradigms of public administration into innovative and sustainable ones. The man-made catastrophes including pandemics, floods, wildfires, heat waves, and drought have drastic effects on the geo-political and economic fragments of liberal democracies. In this post-pandemic epoch, governments and their public are favoring digitization and technology adaptability. The global leadership is bringing forth regional coalitions among nations to respond proactively to their mutual civic problems by supporting the notion of transnationalism and domestic policy arena and also integrating this new normal hybrid world. In a post-covid period, scholars have observed a latest shift towards networked form of governance inclusively created by resilient collaborations, reciprocal interactions and Public Service Logic (PSL) and it resulted in forming Public Service Innovation Networks (PSINs) - the actual enablers in the value co-creation. They are mobilizing multiple policy stakeholders specifically the service recipients (citizens) to co-produce innovations and have synergistic impact within their ecosystem. These networks are need to be explored through the lens of New Public Governance (NPG) in the public sector of Pakistan at national, regional and global levels. This article aims to deepen the definition and description of PSINs, especially in comparison with other known network forms including Traditional Innovation Networks (TINs) and Public Private Innovation Networks in Services (PPINSs), and to examine in particular how PSINs are formed and function to co-create, more or less efficiently, value in public service(s) through innovation. It will be a cross-sectoral and transdisciplinary research which will add valuable contribution in the literary and practical fronts of public affairs in the public sector of Pakistan.

**Paper 4:**

**Dr. Mahnoor Farooq**

**Co-creation of Public Value through Digital Transformation: The Case of Police Services in Pakistan**

**Abstract:**

Governments are seeking to use new digital technologies to improve their policies and management methods while also delivering better services. Indeed, digitalization of services can enable the public service organizations (PSOs) to achieve greater satisfaction of users through the process of public value co-creation with the involvement of users, citizens and other stakeholders. This study aims to explore the process of public value co-creation through the use of digital technology for the provision of services. The study has taken the case of Punjab Police Services in Pakistan where great digital transformation took place in the last decade. Data is collected through policy documents and semi-structured interviews with the police officers to explore the digitalized services provided to the public. Moreover, the users' satisfaction and involvement in the value-creation process is explored through interviews with the citizens in the Panjab Province. The findings are explained in light of service eco-system perspective and e-government framework.

Key words:

Co-creation; digitalization; public value; citizen's involvement; Punjab Police

**Dr Daanish Mustafa**

**The River system in the Upper Indus Basin**

**Abstract**

River systems originating from the Upper Indus Basin (UIB) are dominated by runoff from snow and glacier melt and summer monsoonal rainfall. These water resources are highly stressed as huge populations of people living in this region depend on them, including for agriculture, domestic use, and energy production. Projections suggest that the UIB region will be affected by considerable (yet poorly quantified) changes to the seasonality and composition of runoff in the future, which are likely to have considerable impacts on these supplies. Given how directly and indirectly communities and ecosystems are dependent on these resources and the growing pressure on them due to ever-increasing demands, the impacts of climate change pose considerable adaptation challenges. The strong linkages between hydro climate, cryosphere, water resources, and human activities within the UIB suggest that a multi- and inter-disciplinary research approach integrating the social and natural/environmental sciences is critical for successful adaptation to ongoing and future hydrological and climate change. Here we use a horizon scanning technique to identify the Top 100 questions related to the most pressing knowledge gaps and research priorities in social and natural sciences on climate change and water in the UIB. These questions are on the margins of current thinking and investigation and are clustered into 14 themes, covering three overarching topics of “governance, policy, and sustainable solutions”, “socioeconomic processes and livelihoods”, and “integrated Earth System processes”

**Dr Edella Schlager**

**Title: Adaptive Water Management for a Non-Analog World**

**Abstract**

Water management practices and activities assume that hydrologic cycles are relatively fixed, meaning that the past provides an analog, or a reliable guide, to current and future settings. Hydrologic cycles, however, are shifting as climate change unfolds with significant implications for water management. Water management practices and activities that may be well suited for an historical water setting are becoming outdated and mismatched with emerging hydrological cycles that are novel, or non-analog. As a result, non-analog hydrologic cycles may lead to economic and socially destructive outcomes, confronting water managers and water users with increasing demands to revise water management practices, from how water is allocated and used, to how dams and other infrastructure are managed, to protection of communities and property from too much water, to maintenance and restoration of riparian ecosystem services. In this presentation, I introduce and apply a set of policy tools that allow water managers and users to diagnose diverse types of water governance challenges and problems and prescribe alternatives to existing forms of water management. The policy tools emphasize adaptation, adjusting management practices to changing settings. A variety of water settings from different countries are used to illustrate the policy tools.

**Dr Saleemul Huq**

**Adaptation to Climate Change in Developing Countries Through Community Based  
Adaptation**

**Abstract**

Community-based adaptation (CBA) is gaining traction as a powerful and effective tool to help vulnerable communities cope with the impacts of climate change. CBA as an approach champions local knowledge, resources and institutions as a more sustainable foundation for adapting to climate change and building resilience over the longer term. Empowering communities to use their own knowledge and decision-making processes to take action on climate change gives a strong sense of ownership and helps ensure local priorities and, needs are met. A growing community, galvanized by IIED's annual CBA conference, is seeking to find ways to further enhance the effectiveness of CBA in policy and practice.

**Dr. Siddiki**

**Title: Adaptive Policy Design and Implementation in a Post-Covid Period**

**Abstract**

Description: In this talk, Dr. Siddiki will discuss characteristics and qualities of the Post-Covid period that beg institutions and governance models that accommodate adaptability to changing social and environmental conditions. As part of this discussion, she will talk about how institutions and governance models can be designed in anticipation of change, not just engaged in response to evolving conditions. Finally, Dr. Siddiki will identify opportunities for cross-sector and interdisciplinary partnerships for adaptive policy design and implementation.

# **Overcoming Barriers to Successful Climate and Health Adaptation Practice: Notes from the Field**

## **Abstract**

State and local public health agencies are at the forefront of planning and responding to the health challenges of climate hazards but face substantial barriers to effective climate and health adaptation amidst concurrent environmental and public health crises. To ensure successful adaptation, it is necessary to understand and overcome these barriers. The U.S. Centers for Disease Control and Prevention Climate-Ready States and Cities Initiative (CRSCI) provides funding to state and local health departments to anticipate and respond to health impacts from climate change using the Building Resilience Against Climate Effects (BRACE) framework. This paper explores the barriers to and enablers of successful adaptation projects among BRACE West CRSCI grantees, including Arizona, California, Oregon, and the city and county of San Francisco. The barriers included competing demands such as the COVID-19 pandemic, dependence on partners with similar challenges, staff and leadership turnover, uncertain and complex impacts on at-risk populations, and inadequate resources. The enablers included effective partnerships, leadership support, dedicated and skilled internal staff, and policy windows enabling institutional change and reprioritization. These findings highlight effective strategies in the field that state and local health departments may use to anticipate potential barriers and establish their work in an environment conducive to successful adaptation. © 2022 by the authors. Licensee MDPI, Basel, Switzerland.

Author keywords

adaptive capacity; climate change adaptation; evaluation; resilience