



6th Karachi International Water Conference

27th & 28th November 2023

**BRING
WATER
BACK TO
CLIMATE
DISCOURSE**



Water Matters - Bring Water Back to Climate Discourse

Proceedings of the Sixth Karachi
International Water Conference



Report writing and compilation by

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Foreword

This conference was an idea whose time had come. The climate emergency was taking all the attention and people had forgotten about the water crisis, including many decision-makers both inside and outside government.

As of this moment, the entire global water regime is affected, driving the shifting of seasons, natural regions, ecosystems and agro-ecological zones. Water-related disasters are the major manifestation of the climate emergency, and managing these disasters should be a major preoccupation of governments and the full range of corporates, the private sectors, civil society sectors, citizens' movements, families and individuals.

This conference was, therefore, a very successful attempt to convince a range of groups, individuals and influencers about why water matters and why it is crucial to bring water back, right into the center of climate discourse, where it actually belongs.

The global policy environment appeared somewhat feasible for positive reinforcement of water management, nature-based solutions and resilience-based programming. We also wanted more emphasis for developing platforms for water and climate action led by women and young people. These two groups were helped to get to the forefront of the action, including chairing, moderation, presentations, coordination and reporting. Five pre-events were held to channel the energy of young people and women into this conference.

The Board Members of Hisaar Foundation, who had founded and propelled the Karachi International Water Conference (KIWC) in its first 10 years, took on a guidance role from the backseat, to help new team members and speakers to get familiar with how conferences of this scale and complexity are developed and managed. These included Mr. Zohair Ashir, Mr. Ashraf Kapadia, Ms. Meher Marker Noshirwani, Dr. Pervaiz Amir, Ms. Barbara Schreiner, and Mr. Tofiq Pasha Mooraj. The Academic Committee got a new Chair, Dr. Areba Syed, and Ms. Sanaa Baxamoosa had increased responsibilities as Conference Director.

It is my sincere wish that the new groups of people and young people will carry the baton passed on to them, effectively and comprehensively from the next conference.

The conference brought in several new elements: opening plenary in an interactive debate mode without a "chief guest", art photography exhibition and games, an extensive exhibition of water-related products, posters by students and MOUs signed. Media people were given a free hand to interact with, film and interview any one. A post-conference media and social media dialogue was initiated and there was a full day meeting of the Universities for Water Network (UWN) at the Panjwani-Hisaar Water Institute (PHWI), one of our co-sponsors for this conference. There were non-traditional sponsors from private equity firms to population organizations.

The conference participants talked about how the climate and water emergency has exposed the underlying dysfunctions in global, national and local economies and shown how these systems are failing to produce economic, environmental and social justice for people and for planet Earth. Many ideas were put forward for global and local actions in this context.

Hisaar Foundation is known for ‘walking the talk’ as we develop not only the intellectual and academic research base, but focus on actions that have impact.

This time, through the Conference Declaration, we have identified the following for action:

- Establishment of a National Panel on Water to expand and take forward the work of the Think Tank on the Rational Use of Water
- Establishment of a Water and Climate Justice Committee to systematically incorporate water justice within the human rights framework
- Launch of the Youth Water Network to enhance and further inclusive and youth-centric water management as the key to building a more sustainable and water-secure future
- Identification of themes and topics of relevance through the conference for development of courses to be executed through the PHWI
- Strengthening of the Women and Water Networks and expansion of its scope to include food, environment and climate change



Simi Kamal
Chairperson
Hisaar Foundation

The past iterations of this conference has led to the emergence of young water scientists, professionals, researchers, academics and innovators who can take forward what is being called the transformative agendas of water. This conference paid particular attention to the establishment of an expanded body of water experts to further the strategic thinking on the intersection and linkages between water and climate.

I am proud to have been associated with Hisaar Foundation for 20 years, and with KIWC for the past 10 years. I look forward to a new generation of professionals and committed thinkers and researchers coming forward.

Acknowledgements

As the Conference Director of the 6th Karachi International Water Conference entitled "Water Matters - Bring Water Back to Climate Discourse," it is my privilege to present this proceedings report, encapsulating the insightful discussions, innovative solutions, and collective aspirations shared during our conference.

Water, the essence of life, stands at the forefront of the global climate crisis. Yet, its significance often remains overshadowed in climate discourse. Recognizing the urgent need to rectify this oversight, our conference brought together a diverse array of stakeholders, including policymakers, scientists, practitioners, activists, and youth leaders, to elevate the role of water in climate discussions.

Throughout the conference, participants engaged in dynamic dialogues, exchanged knowledge, and showcased groundbreaking initiatives aimed at addressing the complex interplay between water and climate change. From exploring the impacts of climate variability on water resources to advocating for nature-based solutions and community-driven approaches, our discussions underscored the indispensable linkages between water and climate resilience.

The theme of "Bring Water Back to Climate Discourse" served as a rallying cry, inspiring us to reframe the narrative and amplify the voice of water in shaping climate policies and actions

By highlighting the intrinsic connections between water security, adaptation, mitigation, and sustainable development, we strive to catalyze transformative change and forge pathways towards a more water-secure and climate-resilient future.

Organizing the 6th Karachi International Water Conference, with 16 sessions, 89 speakers, and 1,200 participants, was a significant endeavor requiring months of planning and collaboration. We couldn't have achieved this without our sponsors and partners, particularly Infra Zamin Pakistan, our lead partner, whose contributions were instrumental. All 19 partners and sponsors played a critical role in enabling the Hisaar Foundation team to organize this event seamlessly.

Special thanks to our Council of Mentors: Ms. Simi Kamal, Mr. Zohair Ashir, Mr. Ashraf Kapadia, Ms. Meher Marker Noshirwani, Dr. Pervaiz Amir, Ms. Barbara Schreiner, Dr. Imran Ahmed, and Mr. Tofiq Pasha Mooraj for their invaluable advice, support and guidance to our young team of conference organizers.

A big thank you to the members of the Academic Committee, chaired by the capable Dr. Areba Syed with invaluable support from Ms. Kausar Hashmi. Many thanks to the entire Hisaar Foundation team for their tireless work behind the scenes. Gratitude also extends to the teams at Jump Activations, Backspace Works, Starlinks PR and TV One for event management and conference coverage.

Finally, I extend my sincere gratitude to all conference participants, speakers, facilitators, partners and sponsors for their invaluable contributions and unwavering dedication. Together, let us continue to champion the cause of water, for it is not merely a matter of survival but a cornerstone of sustainable development and planetary well-being.

As we reflect on the outcomes of our conference, it is evident that the journey towards integrating water into climate discourse is multifaceted and ongoing. This proceedings report serves as a testament to our collective commitment and determination to prioritize water as a fundamental component of climate solutions

Thank you for joining us on this journey. May our shared efforts propel us towards a future where water truly matters in the climate discourse. We look forward to seeing you again in 2025!

Sanaa Baxamoosa
Conference Director
"Water Matters - Bring Water Back to Climate Discourse"



Conference Statistics

27th & 28th November, 2023

1432

Attendees

6

Pre & Post
Conference Events

16

Sessions

19

Sponsoring
Organizations

15

Exhibitors



President of Pakistan
Chief Guest

3000

Views on Facebook
LIVE Video

CONFERENCE HASHTAGS
ON SOCIAL MEDIA

#6KIWC
#watermatters

Comments by Speakers and Participants



Dr. Adil Najam

Congratulations on another excellent event and thank you for making me part of it. It was a pleasure being there, I learned a ton and I enjoyed our innovative opening session tremendously. Bravo, and thank you.



Mr. Boo Hock KHOO

It was an absolute pleasure to be part of the panel and the conference. Thank you for the opportunity to be your partner.



Ms. Inga Jacobs-Mata

Thank you Hisaar Foundation for providing the opportunity to participate in the business-unusual session, a great way to start a conference.



Ms. Shazina Masud

One of the most informative and meaningful conferences of 2023. Well done.



Mr. Shah Muhammad Tanweer

Success is never accidental. It's a 4D commitment to attain the goal and that are Desire, Dedication, Devotion and Determination. Hisaar Foundation deserves a standing salute for organizing a very successful event in all respects to match on international standards. Congratulations for attaining this success.



Ms. Amber Alibhai

Hisaar Foundation, please accept my immense appreciation for your extraordinary team, the vision, the hard work. Great, great show. Well done. Always the best. Thank you for inviting me and making me a part of this great event. Bless your work always.

Delegates and Participants



Conference Background

10 Years of the Karachi International Water Conference

In 2013, Hisaar Foundation embarked on an ambitious trajectory of an international water conference of global significance held in Karachi every two years. In 2023, the Karachi International Water Conference (KIWC) is a fixture on the global and national calendar of water events, attracting the best minds on water, environment, climate change and food security from many countries and from all corners of Pakistan.

Over the past 10 years, the Karachi International Water Conference has evolved and attained a position of prominence as a ‘must attend’ major water event in the region.

KIWC has become not only the place for discourse by a range of participants from governments to grassroots, but the space where Hisaar Foundation holds itself accountable every two years and takes inspiration for its own future direction and engagements. The Universities for Water Network, the Citizen’s Water Policy, the Think Tank on the Rational Use of Water, the Panjwani-Hisaar Water Institute, all emerged from the deliberations of these conferences and Hisaar Foundation put itself under timelines to deliver.

The conference provides a neutral platform for people from all walks of life to come together and engage in discourse, deliberations and debate a wide variety of water related topics, challenges, issues and solutions from international, regional and Pakistan perspectives. Participants share insights, knowledge, research findings and innovations.

From modest beginnings in 2013, when the first conference was attended by about 700 delegates mostly from Karachi, the Conference has grown in size and stature and now elicits interests from far and wide. The 6th Karachi International Water Conference was attended by over 1400 participants. From local organizations to multinationals, to bilateral and multilateral bodies; prominent personalities in the water sector have attended the previous conferences. The profile of this 6th conference was raised further with greater involvement of international organisations, agencies and practitioners from development, finance, renewable energy, agriculture, food and nutrition sectors.



Conference Themes

Bringing Water Back to Climate Discourse

It appears that the climate emergency has taken all the attention and everyone has forgotten about the water crisis. While the last two centuries were about putting carbon into the atmosphere, this century is about its direct impact on the world's water: boiling oceans, melting ice, rising sea levels, unprecedented downpours, major and more frequent storms, pluvial and fluvial floods. The entire global water regime is affected, driving the shifting of seasons, natural regions, ecosystems and agro-ecological zones.

Today, water-related disasters are the major manifestation of the climate emergency, and managing these disasters should be a major preoccupation of governments, corporates, organizations, academics and citizens. This conference aimed to show how and why water matters and brought water back, right into the center of climate discourse, where it rightfully belongs.

The climate and water emergency has exposed the underlying dysfunctions in global, national and local economies and shown how these systems are failing to produce economic, environmental and social justice for people and for planet Earth. Pakistan has successfully made its case in COP 27 that it is a very small producer of global greenhouse gases, but carries the brunt of the pollution caused by the developed world. The floods of 2022 in Pakistan, caused by unprecedented rainfall, affected 30 million people and its impact is likely to last over decades.

The global policy environment appears somewhat feasible for positive reinforcement of water management, nature-based solutions and resilience-based programming. Time is also ripe for developing platforms for water and climate action led by women and by young people.

This conference advocated for women and youth taking up their rightful place in policy, strategy, decision-making platforms, and on local adaptation, preparedness and resilience initiatives and interventions. It also aimed to bring together the thought leaders, actors and players of the water, environment, climate, health and food security sectors, along with representatives of groups that are impacted by water and climate-related challenges.

It was also endeavoured that the outcomes and conclusions that emerged from the conference informed the discussions at COP 28 in Dubai (which was held immediately after the conference) and would also feed into the next World Water Forum in March 2024 and support the efforts of the government of Pakistan.

Water Matters for Health and Population

Access to clean water and sanitation is critical for promoting public health and well-being, particularly in the face of population growth. As populations increase, the demand for water grows, exacerbating existing water scarcity issues in many regions. The lack of access to clean water and proper sanitation facilities can lead to a range of health issues, including water-borne diseases, malnutrition, and stunting, particularly in children.

Addressing water scarcity and improving water quality is crucial for preventing the spread of disease and improving overall health outcomes. Ensuring access to safe water and sanitation facilities is vital for achieving global health goals and improving the health and quality of life of communities and populations, particularly in areas with rapid population growth and limited water resources

Water Matters for Social Justice

Water is a basic human need and a fundamental right. However, access to clean water and sanitation facilities is not distributed equally, leading to significant disparities in health outcomes and social justice. Water scarcity disproportionately affects vulnerable populations, including low-income communities, rural populations, and marginalized groups. In many regions, the burden of water collection falls primarily on women and girls, limiting their educational opportunities and economic mobility. Furthermore, water shortages can lead to conflict and displacement, exacerbating existing social inequalities.

Addressing water scarcity and improving access to clean water and sanitation facilities is crucial for promoting social justice and reducing health disparities

Ensuring that all communities have access to safe water and sanitation is an essential step towards building a more equitable and just society. In a country where water rights are a proxy to land rights, the inequities and challenges of the landless, vulnerable and marginalized peoples are further exacerbated.



Ms. Barbara Schreiner and Ms. Shazina Masud (right to left)

Water Matters for Food and Nutrition

Water and food security are inextricably linked, backed by compelling facts and statistics. Approximately 70% of the world's freshwater resources are used for agriculture, making water a vital component in food production (FAO). Insufficient access to clean water hampers crop growth, causing significant yield losses and exacerbating food scarcity. According to the World Health Organization (WHO), around 844 million people lack basic access to clean water, leading to compromised food security.

Inadequate water sanitation and hygiene contribute to the spread of waterborne diseases, affecting food safety and nutrition. Conversely, unsustainable agricultural practices contribute to water pollution and depletion, further challenging food security. Thus, promoting sustainable water management becomes imperative, not only for food production but also for securing food access and nutrition for communities worldwide.

Water Matters for Prosperity

Water plays a critical role in alleviating poverty, and the connection is evident when considering the following statistics. Access to clean water is a fundamental requirement for basic human needs, health, and sanitation. Shockingly, around 785 million people still lack access to safe drinking water (UNICEF). The burden of water scarcity falls disproportionately on the impoverished, particularly in rural areas and informal settlements. Women and children, who often bear the responsibility of fetching water, face time constraints that hinder their ability to engage in education and income-generating activities.

By providing reliable access to clean water, we can break the cycle of poverty. Access to water for irrigation and productive activities can enhance agricultural productivity, generate income, and create job opportunities. Additionally, improved sanitation and hygiene practices, facilitated by access to water, reduce the prevalence of water-borne diseases, resulting in lower healthcare costs and increased productivity. By addressing the water needs of the poor, we can uplift communities, empower individuals, and pave the way for sustainable poverty alleviation.

Water Matters for Finance and Investment

Finance and investment in the water sector are crucial for ensuring sustainable water management and addressing global water challenges. As the world faces increasing water scarcity due to climate change, population growth, and industrial demands, the need for reliable water infrastructure and technology has never been greater. Investment in the water sector supports the development of efficient water treatment systems, distribution networks, and wastewater management, all of which are vital for providing clean and safe water to communities.

Additionally, financial resources directed toward the water sector can drive innovation, enabling the adoption of water-saving

technologies and sustainable practices. This not only benefits the environment but also reduces operational costs and mitigates risks for businesses and industries. Moreover, investing in the water sector promotes social equity by improving access to clean water and sanitation, which has far-reaching impacts on public health and economic development.

Ultimately, finance and investment in the water sector are key to building resilient infrastructure, fostering innovation, and promoting equitable access to water resources, contributing to a sustainable and secure future for all



Conference Declaration

The 6th Karachi International Water Conference was centred on the theme "Water Matters in Climate Discourse," recognizing water's pivotal role in and beyond climate change.

During the conference, a profound truth emerged: water's significance transcends its role in climate considerations; it is inherently central in every realm of life, influencing financial landscapes, matters of justice and human rights, health, population and nutrition, circular economy principles, and women's empowerment. In essence, water is life.

Recognizing water as the essence of life, the conference advocated for the establishment of a unified platform comprising water scientists, researchers, thinkers, policymakers, academics, representatives from civil society, and relevant government officials. This collective entity is crucial for public trust and governmental responsiveness.

Advocating for the establishment of the "Pakistan Panel on Water," the conference envisioned a preeminent, independent platform, leading research initiative, disseminating reports and influencing pivotal water-related decisions in the country across all levels. In its pursuit of excellence and sustainable impact, the Pakistan Panel on Water invites collaboration with esteemed United Nations agencies and international development partners, especially UNDP, UNESCO and IWMI.

Modeling its approach after the success of the Intergovernmental Panel on Climate Change (IPCC), the Pakistan Panel on Water aims to replicate its influential role in shaping policies and data within the water sector, progressing from grassroots to national, regional and international stages. The long-term goal is to become an international panel on water, amplifying the voices of the global majority.

Another outcome of the conference was the formation of the "Climate and Water Justice Committee" as a dedicated working group that will systematically incorporate water justice within the human rights framework, focusing on identifying and safeguarding water rights to construct a cohesive narrative. Acknowledging challenges in fragmented legislation governing water law and rights, the initiative proposes a robust mechanism for holding the public sector and government accountable for water rights and water justice. The National Commission on Human Rights committed to be co-hosts of this initiative and to integrate water justice into its mandate.

Recognizing that accessing micro-finance relies on the participation of the poorest in a comprehensive poverty graduation system, the conference proposed partnerships with grassroots organizations. The financial sector would have to look at cash and asset transfers, skills training, and community-based infrastructure development to support water-related infrastructure and programming. This necessitates out-of-the-box thinking and innovative financial instruments from the corporate sector.

Recognizing that water and climate sectors work in silos, and to bridge this gap, the conference called upon the Panjwani-Hisaar Water Institute to identify relevant themes and topics around which short certificate courses can be designed and developed, such as Circular Economy of Water, Water Justice, Water and Food Security, Water Sciences, Blue Economy and Water and Sustainability for different audiences, in tandem with its regular academic and research program.

The conference reaffirmed that the relationship between water, health, and population is fundamental, as access to clean water and sanitation plays a crucial role in safeguarding public health and supporting the well-being of growing populations worldwide. Rapid population growth and urbanization strain water resources and health facilities, which, in turn contribute to the spread of waterborne diseases, malnutrition, and poor health outcomes, particularly among vulnerable populations. Addressing the nexus between water, health, and population is essential for transformative futures in water.

Despite the critical role that women play in water management, their leadership and involvement in decision-making processes within the water and climate nexus remains significantly underrepresented. The conference called for recognizing women as a formidable and independent stakeholder group, and expanding the scope of Women and Water Networks to include food, environment and climate change.

Inclusive and youth-centric water management is key to building a more water-secure future. Hisaar Foundation, in partnership with International Water Alliance Young Water Professionals (IWA YWP) Pakistan, has launched the Youth Water Network. This network aims to guide young people to embrace water professions, obtain appropriate education and training and to take up water challenges facing Pakistan today.

The conference symbolized the passing of the torch, emphasizing that the future of water management lies with young people and women. The primary goal is to inspire increased participation in both the water and climate sectors, cultivating a critical mass to serve as torchbearers for transformative change.



Mr. Rafay Alam reading the Conference Declaration

*This declaration includes feedback received in the period December 2023 to March 2024.

Conference Proceedings

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SESSION 1

Opening Plenary: Water Matters in Climate Change

Facilitator Ms. Simi Kamal, Chairperson Hisaar Foundation

Keynote Dr. Adil Najam, Dean Emeritus Pardee School,
Boston University President, WWF International

Debaters Mr. Rafay Alam, Environmental Lawyer
Ms. Inga Jacobs-Mata, Director of Water, Growth and Inclusion, IWMI
Mr. Basharat Saeed, Water Resources Specialist, World Bank
Ms. Syeda Malaika Zehra, Student of NED University

This session was sponsored by Hisaar Foundation.

The opening plenary session of the 6th Karachi International Water Conference was conducted in two parts – the first focused on the formal opening of the conference, with a presentation on the purpose of the conference, and introduction of the conference theme “Water Matters – Bring Water Back to Climate Discourse,” while the second part was conducted in a most unique way – with a parliamentary style debate on the motion “The greatest impact of climate change is on water, and in order to adapt and survive in a fast-changing world, we must return to nature and come up with nature-based solutions.”



Opening Plenary guests and delegates

Welcome Remarks

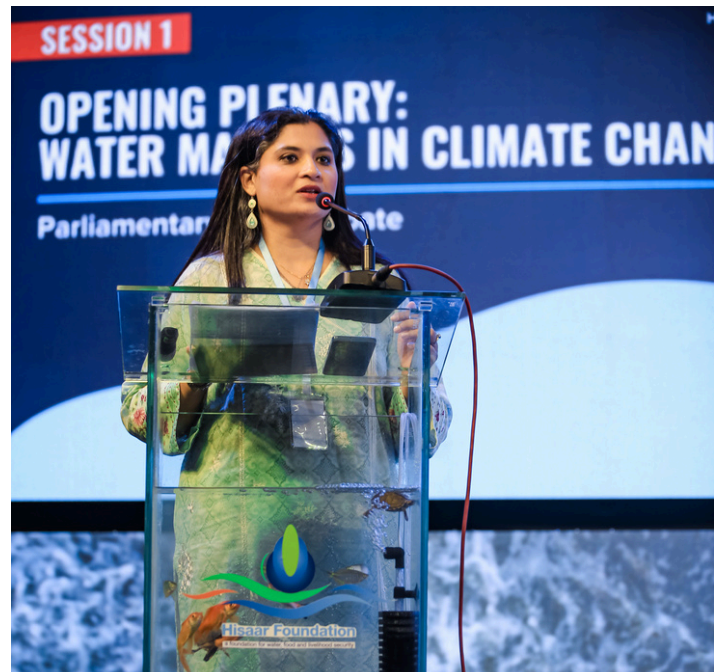
The Opening Session commenced with Ms. Sanaa Baxamoosa, Conference Director, welcoming the audience comprising of speakers, delegates and guests. This was followed by a recitation and translation of an excerpt of the Holy Quran and a rendition of the Pakistan national anthem. Ms. Sanaa Baxamoosa then invited Ms. Simi Kamal, Chairperson, Hisaar Foundation, to deliver the opening address.

Opening Address

Ms. Simi Kamal began her opening remarks by talking about the global scenario in the context of water and climate. She then spoke of the water and climate situation in Pakistan and highlighted the issue of income inequality and the consequent unequal access of natural resources and the domination of water management influenced by patriarchy and feudal norms.

Ms. Kamal called Pakistan's economy a water economy, and stressed the need to redefine Pakistan's economy in terms of the water value chain. She also elaborated on the water-poverty nexus and highlighted the need for a transformative framework to tackle these issues, which are compounded by the impacts of climate change.

Switching gears and reflecting on Hisaar Foundation's 20 years, she advocated for the involvement of young people in the growth of the Foundation. She emphasized that with the emergence of the digital age,



Ms. Sanaa Baxamoosa, Conference Director, opening the 6th Karachi International Water Conference

young people are equipped with new tools, firm resolve and an innate concern for the planet Earth.

Ms. Kamal briefed the audience on the importance of the theme of the conference – “Water Matters: Bring Water Back to Climate Discourse.” She explained that the focus of the usual discourse on climate change is on carbon emissions in the atmosphere and there is no discussion around water. She emphasized that it is imperative to shift the focus to water because the impacts of climate change are manifested entirely on water resources and the water regime.

Ms. Kamal reflected on the 10 years of the Karachi International Water Conference (KIWC), a flagship event of Hisaar Foundation that occurs on a bi-annual basis. She explained that each conference has resulted in tangible outcomes including but not limited to the Think Tank on the Rational Use of Water, the Citizen's Water Policy, and the conceptualization of the Panjwani-Hisaar Water Institute. She added that through the sixth conference, the aim is to establish an 'IPCC' on water that comprises of scientists and experts.

In conclusion, Ms. Kamal praised the efforts of the young conference organizers. She informed the audience that the sixth conference symbolizes a passing of the torch to a younger group of conference organizers and she thanked the Council of Mentors by name for the support and guidance they have given in the past.



Ms Simi Kamal, Chairperson Hisaar Foundation

Parliamentary Style Debate

The second part of the Opening Session was conducted in the form of a parliamentary style debate and was introduced by Ms. Simi Kamal. Dr. Adil Najam was appointed the Speaker and Ms. Simi Kamal took on the role of the Deputy Speaker. The motion of the debate was “the greatest impact of climate change is on water, and in order to adapt and survive in a fast-changing world, we must return to nature and come up with nature-based solutions” with Mr. Rafay Alam and Ms. Syeda Malaika Zehra on the proposing team and Dr. Inga Jacobs-Mata and Mr. Basharat Saeed arguing in opposition.



Dr. Adil Najam and Ms. Simi Kamal as Speaker and Deputy Speaker during Parliamentary Debate Session

Redefining Humanity's Relationship with Nature

Mr. Rafay Alam argued in favor of the motion by referencing the United Nations Framework Convention on Climate Change. He pointed out that despite its establishment to stabilize greenhouse emissions, emissions have continued to increase over the past three decades. With global temperatures surpassing the 2°C mark, Mr. Alam argued that the Earth is no longer habitable for humans.

To support his argument, Mr. Alam provided examples of recent extreme rainfall events and resulting flooding in Pakistan, Greece, and Libya, which affected millions of people and caused significant damage. He emphasized the need for nature-based solutions that focus on the protection, sustainable management, and restoration of ecosystems.



Mr. Rafay Alam opening for the proposition team

However, Mr. Alam also acknowledged that nature-based solutions alone are not sufficient to address the disruption of ecosystems. He stressed the importance of drastically reducing greenhouse emissions through societal changes, transitioning to fossil fuel-free economies, and adopting low-carbon lifestyles. He criticized the use of technologies and finances that harm nature, the irresponsible exploitation of natural resources, labor exploitation that perpetuates wealth inequality and poverty, and increased consumption driven by patriarchal influences.

With reference to Pakistan's agricultural and irrigation practices, Mr. Alam highlighted the unsustainable utilization of water by the agriculture sector, particularly by 100 sugar mills.

He advocated for redesigning irrigation systems to avoid transferring water between basins and allowing rivers to flow freely.

Mr. Alam also called for changes in urban lifestyles to reduce energy consumption and pollution. He suggested implementing renewable energy sources and rethinking city design to create more compact and livable spaces. He emphasized the importance of protecting forests for carbon sequestration, mitigating the impact of floods, and preventing coastal erosion.

In conclusion, Mr. Alam emphasized the need for a lifestyle that embraces nature instead of working against it as the key to combating climate change.



Harnessing Innovation: Advancing Technological Solutions for Climate Resilient Water Infrastructure

Dr. Inga Jacobs-Mata presented her opposition to the motion. She challenged the prioritization of nature-based solutions, while acknowledging their righteous intent. Instead, she argued that the urgency and scale of the climate crisis require a robust emphasis on technological innovation and infrastructure development.

Dr. Inga Jacobs-Mata advocated for climate-proofed water infrastructure, considering it the foundation of an inclusive, equitable, and sustainable society. She argued that nature-based solutions, although sustainable, lack the speed and scale needed to effectively address climate change. Instead, she presented advanced water treatment plants, desalination technology, and smart water management systems as promising solutions. Dr. Jacobs-Mata emphasized that technological solutions provide greater accuracy and control compared to natural methods. She highlighted the use of water management systems operated through Artificial Intelligence (AI) to precisely track water distribution and argued that such precision is essential for monitoring extreme conditions related to water scarcity and floods.

She also argued that investing in water technology and infrastructure development has significant economic benefits. It leads to job creation in engineering, construction, technology sectors, boosting our economies.

The development of a robust water infrastructure can be a catalyst for industrial growth and urban development and its opposition is against economic progress.



Dr. Inga Jacobs-Mata speaking against the motion

Empowering Youth Leadership in Climate Action

Youth representative, Ms. Syeda Malaika Zehra delivered a passionate speech to a group of parliamentarians and climate change advocates, highlighting the critical role of water in addressing climate change. She condemned the contradiction between technological progress and the stark reality that millions lack access to safe drinking water, particularly in Pakistan, where over 80% of the population consumes bacterially contaminated water.

Ms. Zehra stressed that water is a lifeline, not just a resource, and pointed to the impact of climate change on water resources, with rising temperatures, melting ice caps, and extreme weather conditions signaling a planet in distress. She called for bold action, urging authorities to prioritize water issues alongside other crises like Pakistan's financial troubles.

Ms. Zehra advocated for nature-based solutions, including green infrastructure and sustainable practices, and suggested a return to community-based water management systems like Karez and Rod Kohi. She rallied the youth to lead the charge, emphasizing that they are ready to make sacrifices for a more sustainable future.

In conclusion, Ms. Zehra called on the audience to redefine their relationship with water, treating it as a gift to be cherished, not a resource to be exploited. She urged everyone to become "architects of change" to ensure safe and clean water is accessible to all.



Ms. Syeda Malaika Zehra speaking in proposition



Balancing Progress and Preservation: The Case for Engineered Solutions in Pakistan's Water Management

Mr. Basharat Saeed spoke in opposition to the motion. He critiqued the idea of reverting to nature-based solutions, arguing that the country's reliance on engineered systems is critical for water supply and food security. He pointed out that cities like Karachi, with over 25 million residents, depend on complex infrastructure to transport and distribute water from the Indus River. Without these systems, the city would face severe shortages.

Mr. Saeed emphasized that Pakistan's extensive irrigation network, which supports 16 million hectares of agricultural land, is vital for food production and groundwater recharge. Dismantling this system would disrupt the lives and livelihoods of millions of people, threatening food security for over 230 million people.

To argue his case, Mr. Saeed highlighted the challenges of regions with little engineering infrastructure. He said that this area is plagued by poverty and water scarcity. However, with recent engineering projects, he informed the audience that the Nari River is now providing critical water access to 2 million people.

While acknowledging the need for modernization and improved efficiency in water management, he cautioned against abandoning engineered solutions. He recommended smarter engineering practices and regenerative agriculture to enhance sustainability without compromising water distribution. Mr. Saeed concluded by asserting that sustainability involves managing existing infrastructure effectively, not reverting to a simpler, nature-based approach and warned that doing so could lead to disastrous consequences for millions in Pakistan.



Mr. Basharat Saeed leading the opposition team

Questions and Answers

Ms. Simi Kamal thanked the four debaters for presenting their viewpoints and opened the floor for questions and answers.

In the question and answer session, various speakers and participants discussed the relationship between nature-based solutions and engineered infrastructure in the context of water management and climate change. Some participants cautioned against large-scale engineering projects that attempt to tame or challenge nature, citing the potential for displacing communities and causing environmental disasters, such as floods while others suggested that technology is crucial, but without proper enforcement and equitable regulation of water, engineering solutions could lead to disaster. Another participant emphasized that water sustainability cannot be considered in isolation from other factors like population growth and urbanization, especially in Pakistan. Most of the audience advocated a balanced approach between nature and technology, suggesting that the ultimate goal should be joint existence, emphasizing the importance of infrastructure for the short to mid-term while acknowledging the need for degrowth and a shift toward nature-based solutions in the long term.

Overall, the discussion underscored the importance of finding a balance between nature-based solutions and engineered infrastructure, with a recognition that both are necessary to address the complex challenges posed by climate change and water management.

Closing Arguments

After the Q&A session, Ms. Simi Kamal invited the leaders of the proposition and opposition to make their closing arguments.

Proposition

In his closing speech, Mr. Rafay Alam criticized the opposition for wanting to maintain the status quo despite the urgent need to address climate change. He pointed out recent extreme weather events, like Brazil's record wet bulb temperature of 58°C, to illustrate the dangers of continuing with business as usual.

He argued that the technology and infrastructure supporting the status quo, such as dams and electricity, primarily benefit urban elites and wealthy industries, while environmental degradation worsens and highlighted how these developments have enriched a small group of the elite at the expense of broader societal well-being.

Mr. Alam refuted the claim that overpopulation is to blame for environmental stress, suggesting that the habits of the global elite, who consume over 50% of the Earth's resources, are the real issue. He asserted that the opposition's position reflects a desire to preserve existing power structures rather than address climate change. To counter this, Mr. Alam called for a societal shift towards a new morality based on empathy and sustainability, advocating for a pollution-free future that works with nature, not against it. He concluded with a demand for systemic change, emphasizing that the current approach is unsustainable and a new transformative pathway is needed.

Opposition

In his closing speech, Mr. Basharat Saeed argued against his opponent's proposition of favoring nature-based solutions, suggesting that a return to such methods could be detrimental in today's context. He highlighted that human progress has historically involved managing and taming nature, from the domestication of animals to the cultivation of crops and warned that a sudden shift to nature-based solutions could disrupt the lives of millions, given the unpredictability of nature, especially in the context of climate change.

Mr. Saeed suggested that while regenerative agriculture and intercropping could be more sustainable alternatives to monocropping, these changes require advanced technology, such as remote sensing and data analysis. He emphasized that managing large-scale agriculture and water resources demands modern engineering and strategic interventions.

He acknowledged that large dams might not be the ideal solution, but urged a more strategic approach to water management, using engineering to distribute resources equitably. Mr. Saeed concluded by rejecting the proposition, stating that it could harm millions if implemented without consideration of broader impacts. He summed up his argument by recommending a balanced approach that combines technology and nature-based solutions to ensure sustainability and equity.

Closing Summary

After the closing arguments had been presented by both leaders of the proposition and opposition parties, Ms. Simi Kamal invited Dr. Adil Najam to conclude the debate. He commended the participants for their passion while stressing the need to move beyond binary thinking in discussions about climate change and water issues. Dr. Najam criticized framing debates as "climate vs. water," "technology vs. regulation," or "dams vs. no dams," arguing that this approach is counterproductive.

Instead, he proposed "nature-based thinking," which involves understanding whether humans are custodians of nature or part of it. This perspective leads to solutions that harmonize with both environmental and human needs. He rejected the notion of compromise, emphasizing that it's not about finding a middle ground but identifying the best solutions that work for the system as a whole.

In summation, Dr. Najam urged the audience to focus on solutions that prioritize ecological balance and human well-being, avoiding debates that pit people against the planet. He thanked the participants of the debate and encouraged them to work collectively towards a sustainable future.

Ms. Simi Kamal then requested all the speakers to leave the stage and invited Dr. Adil Najam to present his Keynote Address.

Keynote Address

In his keynote, Dr. Adil Najam highlighted the importance of addressing climate change and water management with innovative approaches. He proposed three key questions for consideration:

1. What is the climate telling us? He urged the audience to focus on direct climate impacts rather than relying solely on scientific reports or policy debates.
2. Why is water crucial when discussing climate change in Pakistan? He explained that climate change is fundamentally a water problem, affecting floods, droughts, sea-level rise, and glacial melting.
3. What can Pakistan offer in terms of adaptation? He emphasized that adaptation is the necessary response to climate change, as mitigation efforts alone may not be enough.

Dr. Najam stressed the need for climate justice, pointing out that those most responsible for climate change often have the resources to adapt, while those most affected do not. He presented the concept of a "Living Indus," underscoring the cultural and economic significance of the Indus River and the need for solutions that support a thriving Indus Basin.

Dr. Najam discussed the consequences of climate change, including record-breaking temperatures and extreme heat waves, emphasizing that these impacts are already a reality. He encouraged a holistic approach to climate and water management, integrating people-centered solutions and social justice.

In conclusion, Dr. Najam urged the audience to move away from traditional siloed approaches and to embrace a broader perspective that aligns climate action with water management and social equity. Despite the challenges, he expressed confidence in humanity's ability to adapt and overcome, provided that collective wisdom prevails over isolated knowledge.



Dr. Adil Najam delivering the Keynote Address

SESSION 2

Why Water Matters for Finance: Investing in the Water Economy

Facilitator Ms. Sanaa Baxamoosa, Director External Relations, Hisaar Foundation

Moderator Mr. Moin Iqbal, Head of Business Origination, Infra Zamin Pakistan

Keynote Mr. Boo Hock KHOO, Chairman, Infra Zamin Pakistan

Panelists Mr. Emilio Cattaneo, Head of Technical Assistant Fund, PIDG
Ms. Maheen Rahman, CEO, Infra Zamin Pakistan
Mr. Kazim Saeed, Public Policy Expert
Mr. Francois Onimus, Senior Water Resources Specialist, World Bank
Mr. Amir Shahzad, Executive Director, Unity Foods

Closing

Keynote Ms. Sun Yan Evans, Technical Director, Mott MacDonald

Infra Zamin Pakistan was the session partner for this session.

The second session of the conference, titled "Why Water Matters for Finance: Investing in the Water Economy," addressed the importance of water in finance and the broader economy. The session was moderated by Moin Iqbal, Head of Business Origination at InfraZamin Pakistan, and featured multiple expert panelists discussing the intersections between water and finance, the challenges, and the solutions to invest in the water economy.



Panel discussion on Why Water Matters in Finance



Keynote Address by Mr. Boo Hock KHOO,
Chairman Infra Zamin Pakistan

Keynote Address

Mr. Boo Hock KHOO, Chairman of InfraZamin Pakistan, opened the session by discussing the critical role of finance in water-related projects. He likened the financial system to a water system, where public finance represents government resources (like a dam), and private finance represents individual or institutional savings. Khoo emphasized the importance of balancing public and private investment, managing government debt, and ensuring confidence in financial markets to maintain a sustainable flow of funds. He highlighted that effective management of debt is crucial for continued confidence in financial markets and that private savings could be a significant source of funding for water projects.

Panel Discussion

Ms. Maheen Rahman discussed the role of Infra Zamin in bridging the gap between commercial finance and development needs. She emphasized the importance of commercial viability in water projects to attract private sector investment. Rehman noted that a significant proportion of domestic capital remains untapped for water-related projects and suggested innovative solutions, such as gender bonds, to incentivize investment in the sector.

Mr. Emilio Cattaneo outlined the challenges of investing in water, citing low returns, high operational risks, and government restrictions. He advocated for a more supportive regulatory environment, public-private partnerships (PPPs), and innovative financing mechanisms to mobilize private capital. Mr. Cattaneo shared examples from various countries where private sector involvement in water projects led to positive outcomes, emphasizing the importance of blended finance and technical assistance.

Mr. Amir Shahzad highlighted the challenges faced by the private sector in accessing finance for agriculture-related water projects. He emphasized the need for financial institutions to align with the needs of the agricultural sector, citing infrastructure issues and the need for long-term investment. Shahzad advocated for backward integration in agricultural production and efficient water management to boost productivity.

Mr. Francois Onimus discussed the importance of improving water service delivery, especially in irrigation systems, to ensure sustainability. He highlighted the need for clear communication and stakeholder engagement to address water-related challenges. Mr. Onimus emphasized that better management of water resources could lead to more reliable services and increased economic efficiency.

Mr. Kazim Saeed addressed the myth of water scarcity in Pakistan, arguing that inefficiencies and poor management are more significant issues than absolute water scarcity. He suggested focusing on improving agricultural productivity through better seed quality and water management techniques, such as laser leveling and drip irrigation, to maximize the value of water.



Ms. Maheen Rahman, CEO Infra Zamin Pakistan



Mr. Moin Iqbal moderating the panel discussion with Ms. Maheen Rahman, Mr. Emilio Cattaneo (and Mr. Amir Shahzad (left to right)

Questions and Answers

The panelists answered several questions from the audience, addressing topics such as corruption in water infrastructure projects, regulation of private sector involvement in water, and the role of the public sector in building water infrastructure. The discussion underscored the importance of transparency, stakeholder engagement, and robust regulation to ensure sustainable and equitable access to water resources.

Closing Keynote

Ms. Sun Yan Evans, Technical Director at Mott MacDonald, delivered a virtual keynote presentation focusing on the importance of investing in a sustainable and resilient water economy. She outlined the challenges posed by water-related disasters, emphasizing that investing in flood and drought resilience can yield significant returns. Ms. Evans highlighted the need for a holistic and integrated approach, recommending the adoption of a circular economy model for water management. She provided examples from Singapore and Amsterdam to illustrate how a circular water economy can lead to multiple benefits, including economic growth and social well-being.



Ms. Sun Yan Evans, Technical Director, Mott MacDonald (online)

Conclusion

The session concluded with a strong emphasis on the need for a sustainable and resilient water economy. The discussion highlighted the importance of commercial viability, stakeholder engagement, and innovative financing mechanisms to attract private sector investment. The panelists and keynote speakers urged collaborative efforts to address water-related challenges and called for urgent action to build a more sustainable future.

Conference Proceedings

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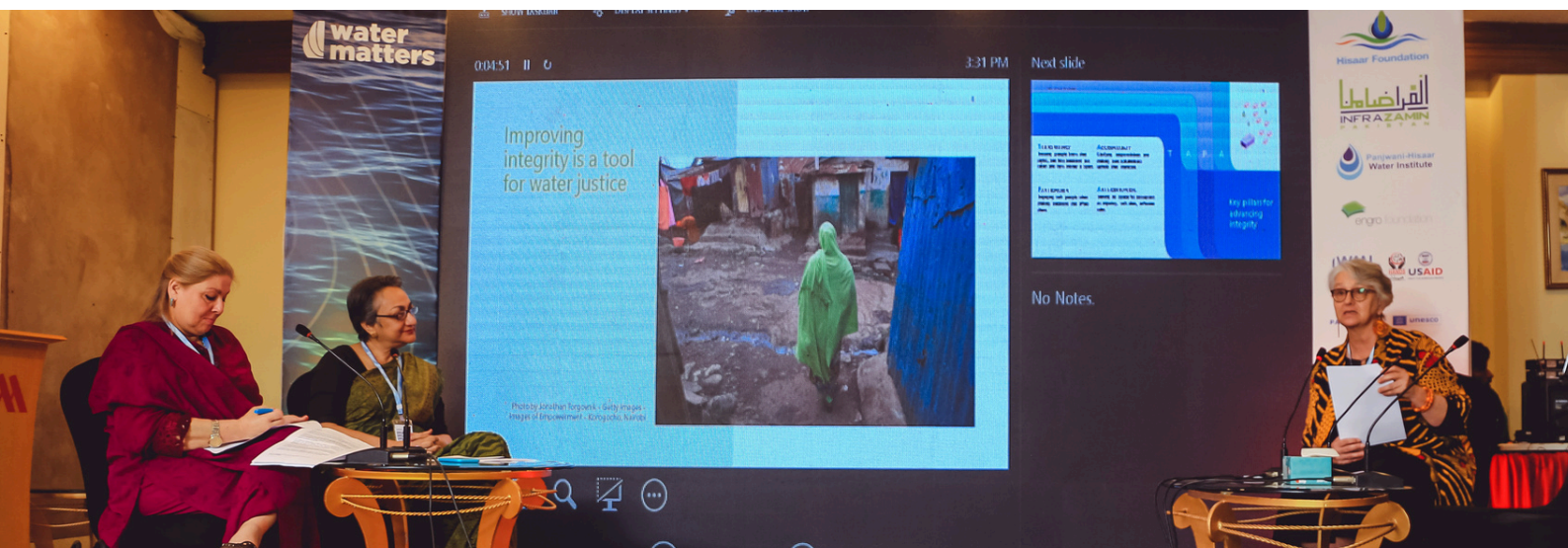
SESSION 3A

For Whom Does Water Matter: Justice Denied

- Facilitator** Ms. Simi Kamal, Chairperson Hisaar Foundation
- Chair** Ms. Rabiya Javeri Agha, Chairperson National Commission for Human Rights
- Keynote** Ms. Barbara Schreiner, Executive Director at Water Integrity Network (WIN)
- Panelists**
- Mr. Muhammad Arfan, Centre for Climate and Environmental Research, Institute for Art and Culture Lahore
 - Mr. Rabel Akhund, Founder and Managing Partner of Akhund Forbes
 - Mr. Nazeer Ahmed Memon Essani, Project Coordinator of the Sindh Water Sector and Barrages Improvement Project
 - Mr. Shahab Usto, Advocate, Shahab Usto and Associates
 - Ms. Fiza Qureshi, World Food Program

The session aimed to highlight international practices on integrity and how corruption can play a crucial role in impacting water rights. It also aimed to explore how weak governance and inadequate enforcement leads to corruption, creating barriers to equitable access to water resources. To address these challenges, laws must be reformed to focus on accountability, transparency, and enforcement, ensuring oversight mechanisms are in place.

This session was sponsored by the Panjwani-Hisaar Water Institute.



Session Chair Ms. Rabiya Javeri Agha, Moderator Ms. Simi Kamal & Keynote Speaker Ms. Barbara Schreiner (left to right)

Opening Remarks

The session, titled "For Whom Does Water Matter? Justice Denied," was chaired by Ms. Rabia Javeri Agha, a distinguished bureaucrat with extensive experience in public service and human rights in Pakistan. Ms. Simi Kamal introduced the session and its theme, emphasizing the importance of justice in water management. She outlined the format for the session, with a keynote address followed by a panel discussion, and framed the context of water justice in Pakistan. The keynote speaker was Ms. Barbara Schreiner, Executive Director of the Water Integrity Network.

Keynote Presentation

In her keynote, Ms. Barbara Schreiner highlighted that the lacunae in existing laws often perpetuate corruption, allowing certain groups to control water access. Addressing these gaps requires legal reforms and stringent regulations to ensure equitable distribution of water resources.

She noted that establishing water justice in environments with skewed land rights requires tackling power imbalances and promoting community involvement in water management. Redistributing land ownership, enhancing community land tenure, and ensuring inclusive governance can help overcome these imbalances, providing equitable access to water for all.

Ms. Schreiner discussed the role of integrity in addressing corruption in the water sector. She highlighted three key points:

1. Water injustice is a choice, not an accident: Those in power make decisions that lead to water injustice, but this can be changed.
2. Corruption exacerbates inequality and injustice in the water sector.
3. Corruption can be addressed through sectoral and institutional approaches. These solutions include preventative measures, enforcement, and civil society engagement.

Ms. Schreiner provided examples of corruption in the water sector and their impact on communities, illustrating how water injustice links to broader issues of corruption. She also discussed the importance of transparency, accountability, participation, and specific anti-corruption measures in improving water justice.



Ms. Rabia Javeri Agha, Session Chair

Panel Discussion 1

The panel included Mr. Muhammad Arfan, Mr. Nazeer Ahmed Memon, and Ms. Fiza Qureshi. Each panelist addressed different aspects of water justice and inequity.

Mr. Muhammad Arfan discussed his research on water allocation in canal head and tail sections, revealing significant inequity. Despite reforms, water distribution remains skewed, benefiting upstream landowners while disadvantaging tail-end farmers and marginalized groups.

Mr. Nazeer Ahmed Memon highlighted challenges in implementing water management reforms in Sindh.

He discussed issues related to water theft, unequal distribution, and the influence of powerful landowners. He emphasized the need for accountability and community participation in addressing water injustice.

Ms. Fiza Qureshi focused on the inequities faced by women water users and farmers. She shared examples of how women are excluded from water-related decision-making processes and emphasized the need for their inclusion in water reforms and governance bodies.



Panelists Mr. Muhammad Arfan, Mr. Nazeer Ahmed Memon & Ms. Fiza Qureshi (left to right)



Panelists Mr. Shahab Usto and Mr. Rabel Akhund

Panel Discussion 2

The final part of the session featured discussions with two lawyers, Mr. Shahab Usto and Mr. Rabel Akhund, who addressed legal aspects of water contamination and human rights in Pakistan.

Mr. Shahab Usto explained the broader systemic issues leading to water contamination and the failure of government action. He highlighted the role of elite groups in perpetuating inequity and discussed the lack of accountability in managing water resources.

Mr. Rabel Akhund discussed the existing body of water law in Pakistan and the lack of enforcement. He cited a 2021 judgment that emphasized the right to life, which includes access to clean water, but noted that enforcement remains a challenge. He suggested community action as a way to pressure political systems to enforce water rights.



Ms. Rabiya Javeri Agha with Ms. Simi Kamal

Closing Remarks

Ms. Rabiya Javeri Agha, Session Chair, concluded the session by emphasizing the importance of recognizing water as a fundamental human right. She discussed the role of the National Commission for Human Rights (NCHR) in addressing water-related human rights issues and outlined the commission's mandate. She also highlighted the need for a collaborative approach to bridge the gap between legal provisions and ground realities.

Session Outcome

Ms. Simi Kamal closed the session by announcing the formation of a working group to engage with the NCHR and other stakeholders to promote water justice and human rights. This group aims to take water issues into the human rights arena and work towards tangible outcomes. The session ended with a commitment to continued engagement and action on water justice in Pakistan.

SESSION 3B

Water Matters in Health and Nutrition: Links that are not Obvious

Facilitator Dr. Areba Syed, Asst. Prof. Department of Civil Engineering, NED University

Chair Mr. Zohair Ashir, Governor, Hisaar Foundation

Keynote Dr. Ghazala Mansuri, Lead Economist, Poverty Reduction Equity Group, World Bank

Panelists Dr. Zulfiqar Umrani, Director of Quality Enhancement, Ziauddin University
Mr. Sheikh Ali Hussain, Deputy Country Director, Pathfinder International

This session aimed to highlight and understand the hidden links between water quality and human health, especially in relation to malnutrition and stunting and ensuring better well-being for the human population

This session was sponsored by Pathfinder International.



Dr. Areba Syed moderating the session

Welcome and Introduction

Dr. Areba Syed introduced the theme and objectives of the session and invited Mr. Zohair Ashir, Session Chair to give his remarks.

Opening Remarks

Mr. Zohair Ashir began the session noting the importance of discussing the link between water and health. He expressed concern that this connection is often overlooked despite its significance, as highlighted by the 2010 UN General Assembly's declaration of safe drinking water and sanitation as a human right, and Sustainable Development Goal 6's focus on universal access to these essentials.

Mr. Ashir mentioned that inadequate water management and sanitation can lead to severe health issues, citing the 2022 floods, where over 2 million children were affected by acute malnutrition. He emphasized that factors like insufficient food quality and poor sanitation play a role in this crisis.

To explore solutions, he referenced the expertise of Dr. Ghazala Mansuri and Dr. Kulsum Ahmed, known for their work on malnutrition and invited them to present their keynote. He also mentioned that he was looking forward to the insights from the panelists and that he would conclude the session by summarizing the key takeaways from the discussion.

Keynote Presentation

Dr. Mansuri discussed child stunting in Pakistan, noting that despite a decrease in extreme poverty, stunting rates from 2001 to 2018 remained unchanged. Stunting can lead to chronic health issues, cognitive delays, and reduced labor productivity.

She identified poor sanitation and contaminated water as primary causes of stunting, with fecal contamination and industrial pollutants leading to subclinical gut infections that impair nutrient absorption. Although open defecation has decreased, many flush toilets in Pakistan lead to open drains, further contaminating water sources.



Dr. Ghazala Mansuri delivering her Keynote Presentation

Dr. Mansuri emphasized that the critical period from conception to age two is crucial for a child's development, and if mothers are unhealthy during this time, the effects can be irreversible. Pakistan has a significant water contamination problem, with 30-50% of water testing positive for bacteria, and even higher rates in rural Sindh.

Panel Discussion

The panel discussion focused on the impact of water contamination on public health, particularly in the context of child stunting, and examined broader issues like nutritional changes, climate effects, and solutions for sustainable water management.

The panel discussion began with the moderator asking a question about water contaminants other than E. coli that could contribute to stunting. Dr. Ghazala Mansuri, responded by identifying several problematic contaminants:

1. Nitrates (from chemical fertilizers)
2. Lead (particularly in urban areas)
3. Arsenic (in smaller pockets)
4. Industrial pollutants (often untreated and discharged into surface water)

Dr. Mansuri highlighted that most industrial waste is unfiltered, which could have significant health implications. She noted that while the direct impact on stunting requires further research, these contaminants likely affect public health.



Dr. Areba Syed moderating the panel discussion with Mr. Zohair Ashir, Dr. Ghazala Mansuri, Dr. Zulfiqar Umrani and Mr. Sheikh Ali Hussain (left to right)

Nutritional Changes and Soil Degradation

The panel also addressed whether changes in food quality over the past few decades could contribute to stunting. Dr. Mansuri explained that conventional agriculture has led to soil degradation, reducing nutrient density in plants. This, combined with climate change (especially extreme heat), impacts protein levels in crops. The solution involves regenerative or restorative agriculture to restore soil health.

Risks of Industrial Wastewater in Agriculture

The panel discussed the risks associated with growing food with industrial wastewater. Dr. Zulfiqar Umrani noted that fragile vegetables, such as lettuce and tomatoes, which are consumed with their skins, are more prone to bacterial contamination. However, perennials and trees are less at risk due to their natural filtration systems.



Behavior Change and Community-Based Solutions

The discussion shifted toward practical solutions at the community level. Dr. Mansuri suggested low-cost interventions, such as:

1. Chlorinating water to reduce contamination risk
2. Keeping infants away from animal feces
3. Improving waste management practices

Mr. Sheikh Ali Hussain stressed that effective behavior change requires community engagement and proper messaging to raise awareness about water contamination risks.

Role of Education and Youth Involvement

The panel highlighted the role of educational institutions in promoting water-related awareness and encouraging youth involvement. Engaging students in discussions like these helps raise awareness and prepares them to tackle future challenges.

The panel concluded by emphasizing the importance of a holistic approach to water management, considering both environmental and human factors. By valuing water appropriately and adopting community-based solutions, societies can move toward a healthier and more sustainable future.

Questions and Answers

An audience member from Pathfinder International asked about community-owned solutions to water contamination. Dr. Mansuri recommended developing behavior change modules and systematic messaging to guide communities toward better water practices. Regular water testing can raise awareness of potential contamination, helping communities take preventive measures.

Closing Remarks and Key Takeaways

Mr. Zohair Ashir, the Session Chair, wrapped up the discussion by summarizing key takeaways and offering recommendations for addressing the links between water and health.

He noted that while extreme poverty in Pakistan has decreased from 64% to 21%, child stunting remains high at 40%. This inconsistency suggests that factors like neural damage from birth contribute to long-term disadvantages. The discussion revealed a disappointing level of government spending on crucial areas like nutrition, hygiene, sanitation, and water, which impacts public health outcomes.

Mr. Ashir emphasized the need for government involvement, noting that large-scale interventions by organizations like Pathfinders can only do so much. He recommended that the World Bank use its influence with the IMF to mandate that aid to Pakistan be spent on health and nutrition.

Mr. Zohair Ashir concluded by suggesting that future sessions devote more time to exploring the presented data and thanked the panellists and moderator for their insights.



Mr. Zohair Ashir, Governor Hisaar Foundation

SESSION 3C

Watershed Management Matters- Nature Based Solutions from Source to Sea

Facilitator Ms. Sanaa Baxamoosa, Director External Relations, Hisaar Foundation

Moderator Ms. Afia Salam, Journalist

Chair Ms. Aban Marker Kabraji, UN Advisor

Keynote Dr. Adil Najam, Dean Emeritus Pardee School, Boston University President, WWF International

Panelists Mr. Faisal Mueen Qamer, Manager, Resilient River Basins, ICIMOD
Dr. Mohsin Hafeez, Country Representative, IWMI, Pakistan
Ms. Meher Marker Noshirwani, Governor, Hisaar Foundation
Dr. Imran Ahmed, Director PHWI, NED University

This session focused on the vital role of nature-based solutions in fostering climate resilience across the Indus Basin and its watersheds. Experts and practitioners came together to discuss comprehensive watershed management strategies, covering the entire range of upstream-downstream connections—from source to sea. The discussion especially highlighted the Living Indus project and the work of its prospective partners.

ICIMOD and Hisaar Foundation co-sponsored this session.



Ms Afia Salam, Journalist



Dr Imran Ahmed, Director PHWI, NED University

Opening Remarks

Ms. Sanaa Baxamoosa, Conference Director opened the session and introduced its objectives. She then invited Dr. Adil Najam to deliver his keynote address on the Living Indus Initiative.

Keynote Address

In his keynote speech, Dr. Adil Najam emphasized the need to move from debates to action, particularly in addressing climate change and water management in Pakistan. He introduced the concept of a "Living Indus," which involves a holistic approach to managing the Indus River and its ecosystems, focusing on sustainability and interconnectedness.

Dr. Najam highlighted that there's no single solution to the complex challenges of climate change, but rather a range of context-specific solutions. The Indus River is central to Pakistan's culture and geography, shaped by the Himalayas and the monsoon. He suggested that achieving the Living Indus concept requires collaboration among government, civil society, international organizations, and municipalities. He stressed that the concept encompasses more than just water; it includes forests, lakes, migratory birds, and the river's underground recharge system.

Dr. Najam concluded his speech by urging a shift in perspective. Instead of seeing humans as mere custodians of nature, he urged that we should view ourselves as part of the ecosystem, alongside other species. This inclusive approach, he argued, is crucial for meaningful climate action and a sustainable future for the Indus Basin.

Panel Discussion

Dr. Imran Ahmed shared the challenges of conducting water-related research in Pakistan, contrasting it with his 18 years of experience in the US and Canada. He pointed out that it's more difficult in Pakistan due to limited departmental support and a lack of accessible data.

In the US and Canada, comprehensive data is readily available, aiding research. However, in Pakistan, data management is weak, with hydrological data typically collected only for major projects like dams. This limited access to data complicates efforts to study river systems, water flow, and watershed management.

Dr. Imran Ahmed explained that without robust data, it's hard to improve water quality or estimate water usage. He highlighted that this fundamental data gap makes progress in water research and management challenging in Pakistan.



Moderator Ms. Afia Salam with Dr. Imran Ahmed, Ms. Meher Noshirwani, Dr. Mohsin Hafeez, Mr. Faisal Qamar, Dr. Adil Najam (left to right)

Dr. Mohsin Hafeez discussed IWMI's extensive experience in water sectors in China and Australia, noting that the Living Indus Initiative in Pakistan reminded him of Australia's Living Murray Initiative, which began about 15 years ago. He echoed Dr. Adil Najam's point that Pakistan often works against nature instead of with it.

Dr. Mohsin Hafeez advocated for a holistic approach to managing the Indus River, stressing the need to view the system's connections to food, energy, and ecosystems rather than treating them in isolation. He highlighted the data issues in Pakistan, contrasting them with other countries that use technology like satellites, remote sensing, AI, and drones to gather water-related data.

He pointed out that in Pakistan, data is often treated as a commodity, signaling a need to shift this mindset. Dr. Hafeez mentioned that IWMI has extensive data and is willing to share it. Dr. Hafeez explained that data, when properly analyzed, can be converted into knowledge, enabling informed decision-making for better water management in the Indus Basin, from the glacial regions to downstream at the Kotri Barrage.

The next panelist, Mr. Faisal Qamar discussed water management challenges, emphasizing that the problem is no longer data scarcity but rather how to link existing data to decision-making. He noted that remote sensing technology, digitization, and institutional liberalization have led to an abundance of data and the challenge now is using this data effectively.

Referencing a report from the International Center for Integrated Mountain Development (ICIMOD), Mr. Qamar revealed a 65% increase in glacial melt since 2010, and cautioned that projections state 80% of glaciers could be gone by 2100 if current emissions trends continue.

Mr. Qamar noted that this is particularly concerning for the Indus Basin, where 60% of water flow comes from glacier and snowmelt and a reduction in water flow could lead to a 25% deficit in the lower Indus Basin by 2100. This would affect food production and threaten food security. In essence, he called for a broader perspective on water management and food production, emphasizing the need for innovative solutions to ensure sustainability and resilience in the Indus Basin.

Ms. Meher Marker Noshirwani, the final panelist of the session spoke about Hisaar Foundation's Million Ponds Project which is one of the eight priority interventions of the Living Indus Initiative. This low-cost, community-based project aims to revitalize groundwater and improve access to water

resources along the Indus Basin, reviving traditional hydrological practices in South Asia.

She highlighted the project's focus on gender, recognizing the crucial role women play in water management and their disproportionate burden due to climate change. The project seeks to involve women in its design and implementation, addressing issues like water scarcity and its impact on women's lives. She also mentioned the Pakistan Climate Change Gender Action Plan (CCGAP), developed with support from the Ministry of Climate Change, IUCN, and the Green Climate Fund. The CCGAP offers a framework for integrating gender-disaggregated data into climate change research and provides recommendations for sectors like agriculture, coastal management, and forestry. Ms Noshirwani suggested that the Living Indus Initiative could align with the CCGAP to promote a more comprehensive and inclusive approach to water management. In conclusion, she called for collaboration and information sharing to address water and gender issues in the Indus Basin, advocating for projects that integrate community involvement and gender considerations.



Questions and Answers

Dr. Ali Asghar, Deputy Director, Sindh Irrigation Department, raised several issues related to the Indus River and its data management. He noted that although there was historical rainfall data from the British era, data collection has since declined, with significant gaps in the current catchment data. This lack of data has led to mismanagement and inconsistent water flows downstream, particularly at the Kotri Barrage, impacting the ecosystem and environmental flows.

He questioned whether the Indus River can be considered "living" if it does not consistently reach the sea, highlighting that only a few months see water flow downstream. Dr. Mohsin Hafeez responded, acknowledging the importance of consistent environmental flows to maintain a healthy river system. He also emphasized the need to consider both water quality and quantity, mentioning that IWMI is currently reviving a study to understand environmental flows in the Indus, with results expected soon.

Dr. Imran Ahmed added that there's a significant data gap in Pakistan, which affects proper planning and management downstream of the Kotri Barrage. He shared his own study on the Kotri Barrage, revealing that while most years had sufficient flow, the drought year of 2000 saw a dramatic reduction. This inconsistency highlights the need for better data collection and management.

The discussion also touched on the importance of silt in river ecosystems, with Ms. Afia Salam questioning the impact of reduced silt flow due to barrages and other constructions. Another participant from the audience, Mr. Tariq Alexander Kaiser brought up the issue of soil salinity and its impact on agriculture, asking about ongoing studies on saline agriculture in Pakistan. Dr. Mohsin Hafeez mentioned a World Fish study on saline aquaculture, indicating that farmers need better guidance on selecting suitable fish species for saline conditions.

Ms. Maliha Abbas Zaidi asked about the impact of glacial melt on the Indus River's flow, referencing a 65% increase in glacial melt. Dr. Imran Ahmed responded, explaining that while glacial melt contributes to base flow, it has not significantly impacted the overall flow at Tarbela Dam. He suggested further study is needed to determine the exact effects of glacial melt on the river system.

The panel concluded with Ms. Afia Salam noting the need for further discussion and collaboration on these complex issues affecting the Indus River and its ecosystem. She then invited Dr. Adil Najam to present a summary of the panel discussion.

Summary of Panel Discussion

To conclude the discussion, Dr. Adil Najam shared three key insights about rethinking climate change and water management. First, he highlighted the need to ask new questions, noting that rehashing old assumptions won't help address current challenges. He cited the example of engaging UNICEF as a new partner in addressing water issues, suggesting that fresh partnerships are crucial.

Second, he stressed the importance of broadening the focus from just water quality and quantity to include ecology and biodiversity. He encouraged considering the entire ecosystem, not just human needs, to create a truly "Living Indus."

Third, he discussed the need to democratize data, making it accessible and meaningful to the public.

In summary, Dr. Najam urged a new mindset for addressing climate change and water management, advocating for innovative approaches, a broader perspective on ecology, and accessible data to guide better decisions. He concluded by emphasizing the importance of respecting nature to create a sustainable future for the Indus region.

Closing Remarks

The Session Chair, Ms. Aban Kabraji began her closing remarks by pointing out that the aquarium podium was a poignant symbol of what a living river should look like. It is crystal clear, oxygenated and has life in it. Ms. Kabraji advocated for a new approach to climate change, water management, and environmental sustainability in Pakistan. She highlighted those traditional practices for managing the Indus River, based on static models of monsoon patterns, are outdated and inadequate in the face of climate change and instead called for innovative, holistic solutions that encompass not only water but also ecology, biodiversity, agriculture, and human survival.



Keynote Speaker, Dr. Adil Najam & Session Chair, Ms. Aban Marker Kabraji (left to right)

Ms. Kabraji noted that while data is available, it's often siloed and not effectively integrated, hindering informed decision-making. She urged research institutes to synthesize and share data, especially regarding environmental flows, criticizing the government for potentially manipulating data to suggest minimum water flows in the Indus during floods while ignoring the rest of the year.

She concluded with optimism, pointing to the success of the Living Indus initiative in gaining support from various stakeholders, including international organizations like the United Nations and the Green Climate Fund. She emphasized that the initiative is not just a government project but a collaborative effort that everyone in Pakistan should support to ensure a sustainable future for the Indus River.



Mr. Faisal Mueen Qamar, Manager Resilient River Basin, ICIMOD



Dr. Mohsin Hafeez, Country Representative, IWMI



Ms. Mehar Marker Noshirwani, Governor Hisaar Foundation

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SESSION 4A

Women Matter in Water: Examples of Action

- Facilitator** Ms. Sanaa Baxamoosa, Director External Relations, Hisaar Foundation
- Chair** Ms. Seema Taher Khan, CEO, Airwaves Media & HF Think Tank Member
- Panelists** Ms. Mahnaz Rahman, Regional Coordinator Aurat Foundation
Ms. Nayab Raza, CEO BHAAN
Ms. Zahra Ali, Founder Crops in Pots (online)
Dr. Lubna Ghazal, Asst. Prof. Department of Geography, University of Karachi (online)

The session aimed to feature women water champions of Pakistan and highlight their work as success stories and examples of action.

British Council Karachi and Hisaar Foundation partnered together for this session.



Video presentation of excerpts from Ms. Seema Taher Khan's feature film

Opening Remarks

Ms. Sanaa Baxamoosa opened the session by outlining the objectives of the session. She then introduced and invited Ms. Seema Taher Khan to deliver her Keynote Address

Keynote Address

Ms. Seema Taher Khan delivered the keynote address during the "Women Matter in Water - Examples of Action" session. She is a communications and media specialist with a strong background in environmental advocacy and women's empowerment. She began by highlighting the importance of women in addressing Pakistan's water challenges, emphasizing that women are crucial stakeholders in water management.

Ms. Khan discussed the low ranking of Pakistan in gender equality, revealing that the country stands at 145 out of 146. She stressed the need for implementing existing laws supporting women's rights and spoke about how women, particularly in rural areas, play significant roles in the economy despite facing obstacles and discrimination. Seema suggested that women's role in water management should be emphasized, not just because they are often the primary users and carriers of water in rural areas, but also because they have the potential to lead change through awareness and education.

She called for a narrative shift in how women are perceived in Pakistan, urging NGOs and government bodies to see women not just as victims needing aid, but as assets with the capacity to drive economic and social change.



Ms. Seema Taher Khan delivering her Keynote Address

She proposed that women, with their empathy and diplomatic skills, are well-suited to promote water conservation and fair distribution, both within their homes and in broader communities.

Ms. Seema Taher Khan's speech underscored the importance of recognizing women's contributions to water sustainability and the need to involve them more actively in policymaking and community development.

Following her Keynote Address, a video presentation was shown featuring Ms. Khan's work in creating awareness through drama and other forms of communication.



Moderator Ms. Sanaa Baxamoosa with panelists Ms Mahnaz Rahman and Ms Nayab Raza (left to right)

Panel Discussion

Ms. Sanaa Baxamoosa introduced the session and started the discussion by asking Ms. Mahnaz Rehman from the Aurat Foundation about their recent work on water and climate change. Ms. Rahman mentioned that the Aurat Foundation has been focusing on research to understand the impact of climate change and water scarcity on women. A recent study conducted by Ms. Simi Kamal for the Aurat Foundation has been well received, with recognition from key figures such as the Minister for Climate Change Ms. Sherry Rehman.

She noted that women play a critical role in addressing climate change, given their roles as caregivers and their unique understanding of environmental issues. She emphasized the importance of women's involvement in climate action, citing the Aurat Foundation's Memorandum of Understanding (MOU) with the Hisaar Foundation since 2019.

Ms. Sanaa Baxamoosa highlighted that the Aurat Foundation's innovative approach integrated climate action into women's movements, which is an interesting shift from the traditional perspective. Ms. Mahnaz Rahman elaborated that women should be seen as part of the solution, especially in the context of climate-related disasters. She urged for a focus on women's roles in combating these crises.

Next, Ms. Nayab Raza shared her journey in creating bio-fertilizers from micro-algae species. She explained that her interest in this field began during her studies and that she developed the idea to create bio-fertilizers to address soil infertility and overuse of chemical fertilizers. Ms. Raza's product captures CO₂ and requires specific nutrients for growth, offering a sustainable solution to soil issues.

Ms. Raza described the challenges of scaling her bio-fertilizer project from one liter to one thousand liters, including obtaining funding and overcoming setbacks caused by the COVID-19 pandemic. Her work has been recognized in the Green Innovators Program by UNDP and UNICEF, leading to initial funding that helped her scale her production. She emphasized the need for action rather than mere talk, given the serious issues with soil salinity and infertility in Pakistan.

Ms. Sanaa Baxamoosa praised Ms. Raza's achievements and acknowledged the journey ahead, recognizing that Ms. Nayab Raza's work aligns with the overall theme of empowering women in water and climate-related fields and she truly is an example of action.

The next panelist, Ms. Zahra Ali spoke about her experiences in Iraq, highlighting the challenges faced by war-torn regions and the impact of large-scale religious events on water resources. She discussed her platform, The Green Pilgrim, which aims to address environmental impacts during religious events and promote sustainable practices. Ms. Ali also shared her experiences in working with diverse communities, emphasizing that women often bear the brunt of water-related challenges.

Finally, Dr. Lubna Ghazal presented her project on water conservation using air conditioning units, where water generated from ACs was collected and used to nurture plants and trees. This approach resulted in a successful orchard project that attracted birds and improved the environment at Karachi University.

The panel discussion concluded and the floor was opened up to the audience for questions.

Question and Answers

Ms. Sabiha Shah praised the efforts of the Hisaar Foundation's Women and Water Network, which began several years ago, for raising awareness about water issues among women in various towns and regions. She recalled the work done on plantations in collaboration with Mr. Tofiq Pasha Mooraj and suggested reviving the program, incorporating awareness about air conditioning and its impact on water usage. She proposed reinitiating the awareness programs to empower women to grow vegetables at home, engage in kitchen gardening, and plant various types of plants for sale. Ms. Shah congratulated the organizers for the conference and thanked them for their efforts.



Ms. Naheed Abro highlighted the foundation's training programs on kitchen gardening and manure preparation. She mentioned that master trainers and community members were taught about composting using natural materials like ground dirt and organic waste. She noted that these techniques were shared with women across various villages, with 166 women receiving training. She recalled that Ms. Farzana Saleem, who was the CEO at the time, visited these communities, bringing hand pumps and conducting kitchen gardening training. Ms. Abro appreciated the support and cooperation from the Hisaar Foundation, which provided essential resources during floods and conducted training sessions throughout the years.

Ms. Sanaa Baxamoosa expressed her gratitude to the Hisaar Foundation's implementation partners, including Ms. Abro, for turning their work into reality.

Ms. Farzana Saleem noted that the Hisaar Foundation's project aimed to support the most marginalized communities across Pakistan by providing water filters, hand pumps, and training for kitchen gardening. She emphasized the need to continue these efforts and scale up the work in various communities. Ms. Saleem acknowledged the bravery and resilience of women who face challenging conditions, maintaining cleanliness and taking care of their children's health despite limited access to clean water. She encouraged everyone to continue learning and practicing sustainable methods.

Ms. Anis Umar, President of the Lyari Water Network, expressed gratitude for being invited to the conference and discussed the work her team had done in Lyari. She recalled that they had collaborated with the Hisaar Foundation on agricultural projects, water conservation, and kitchen gardening in different schools and colleges. Ms. Umar mentioned the challenges the people of Lyari face due to lack of water, electricity, and gas, and called for more support to address these issues.



Ms. Mahnaz Rehman concluded the discussion by pointing out that two major problems facing communities are water scarcity and climate change. She highlighted the impact of fossil fuels on global warming and urged a return to natural and organic methods, as practiced by previous generations. Ms. Rahman emphasized the need for sustainable solutions to combat climate change and reduce the risk of environmental disasters.

Ms. Sanaa Baxamoosa thanked the panelists and the audience for their participation. The session ended with the screening of “Milaap” a documentary by Ms. Marvi Mazhar produced under the British Council Gender Ecologies Grant about the lives of three women and their experiences with urbanization and river areas, providing a poignant reminder of the human cost of environmental degradation and the role of women in addressing these issues.



SESSION 4B

Circular Economy Matters

Facilitator Dr. Areba Syed, Asst. Prof. Department of Civil Engineering, NED University

Moderator Mr. Khalil Mughal, Founder and President, Eco-Norm

Chair Dr. Iqbal Choudhary, Director ICCBS, Coordinator General COMSTECH

Keynote Mr. Rui Owase, Head of overseas business development, Daiki axis

Speakers Ms. Naila Jabeen – MPhil student, IES, University of Karachi
Mr. Shah Muhammad Tanweer- CE, SITECH International
Dr. Imran Ahmed, Director PHWI, NED University
Dr. Shakeel Hayat, WASH and Climate Change specialist- Water Aid

Session 4B, entitled "Circular Economy Matters," was a comprehensive discussion focusing on various aspects of water-related topics, with a specific emphasis on circular economy. The session featured multiple speakers, each contributing unique insights into water treatment, pollution, sustainability, and more. Below is a detailed summary of the key points discussed during the session:

Eco-Norm and Panjwani-Hisaar Water Institute jointly sponsored this session.



Session audience



Session Moderator, Mr. Khalil Mughal with Session Chair, Dr. Iqbal Choudhary

Introduction

Dr. Areba Syed opened the session by introducing the moderator, Mr. Khalil Mughal. Mr. Mughal emphasized the importance of natural resources, specifically water, as it is becoming increasingly scarce. He introduced the concept of circularity in relation to water, outlining the 9 Rs of circularity: Refuse, Rethink, Reduce, Reuse, Repair, Refurbish, Remanufacture, Repurpose, Recycle, and Recover.

Opening Remarks by Session Chair

Dr. Iqbal Choudhary discussed the need for technical solutions to address water issues, expressing optimism due to the innovative approaches within the circular economy. He mentioned the newly established Panjwani-Hisaar Water Institute, emphasizing its role in integrating technical, engineering, scientific, and social aspects of water management.

Papers and Presentations

The moderator, Mr. Khalil Mughal provided insights into the global market for circularity and water reuse, highlighting the significant growth in the sector. He stated that the global market size for circularity and reuse of water was USD 15.59 billion in 2021 and is expected to reach USD 30.55 billion by 2030.



Session Chair Dr. Iqbal Choudhary

Keynote Presentation

Mr. Rui Owase from Daiki Axis Japan presented the Johkasou system in detail, describing its functionality and advantages over conventional septic tanks. He highlighted its energy efficiency, low maintenance requirements, and high performance in reducing pollutants, making it a viable solution for water treatment in various contexts. A video presentation showcased Eco-Norm's purpose, products, and services. It highlighted Johkasou, a decentralized wastewater management system developed in partnership with Daiki Axis Japan. The product was described as a sustainable solution for wastewater treatment, offering flexibility, scalability, and energy efficiency.



Ms. Naila Jabeen and Mr Rui Owase (left to right)

Papers and Presentations

Drinking Water Quality Study in Hunza

Ms. Naila Jabeen presented a study on drinking water quality in Karimabad, Hunza, revealing high levels of heavy metals in the water, despite physical parameters being within permissible limits. She emphasized the need for further analysis and treatment solutions to ensure the safety of drinking water.

Desalination in Pakistan - Practical or Not

Mr. Shah Muhammad Tanweer addressed the challenges of water quality and management in Pakistan. He discussed the potential of desalination as a solution to meet the country's growing water needs and outlined the current trends in water stress, exploitation, and inefficiency in water use.

Dr. Imran Ahmed focused on water quality in Pakistan, highlighting the prevalence of water-borne diseases and the need for effective water treatment solutions. He shared insights from his own research, emphasizing the importance of circular economy principles in addressing water-related challenges.

Closing Remarks

The Session Chair, Dr. Iqbal Choudhary concluded the session by reinforcing the significance of the circular economy in improving water quality and promoting sustainability. He highlighted the importance of science and technology in finding innovative solutions to complex water issues, commending the speakers for their contributions to the session.

Overall, the session provided a thorough examination of circular economy concepts in the context of water, featuring practical solutions, case studies, and a focus on sustainability and health impacts.



Session audience

SESSION 4C

Water Disasters Matter

Chair Mr. Ashraf Kapadia, IT Specialist & Council Member, Hisaar Foundation

Speakers Mr. Jamal Ansari, CEO, Akber Associates and Member HF Think Tank
Ms. Barkha Soomro, Research Assistant, NED University
Mr. Imdad Hussain Siddiqui, Director Operations, PDMA Sindh
Ms. Nusrat Nasab, CEO Aga Khan Agency for Habitat
Mr. Sirajuddin Khan, Manager, Relief & Field Operations, Hisaar Foundation
Mr. Mashooque Birhamani, CEO Sujag Sansar Organization

This session aimed to highlight the causes of water related disasters, their impact on the society, and adaptation strategies to reduce the impact of them such as investing in early warning systems and disaster preparedness measures, building resilient infrastructure and communities, managing water resources sustainably, and addressing climate change.

This session was jointly sponsored by Pakistan Poverty Alleviation Fund (PPAF) and Water Aid Pakistan.



Opening Remarks

Mr. Ashraf Kapadia, representing the Hisaar Foundation, opened the "Water Disasters Matter" session by emphasizing the shared responsibility for water-related issues. He reminded the audience that "water is life" and that everyone must take responsibility for water management and disaster prevention. He outlined the objectives of the session, including discussing the causes and impacts of water-related disasters, strategies to reduce their effects, and addressing climate change.

Mr. Kapadia noted that the session would cover topics like 2D flood risk modeling, the impact of water disasters, disaster relief operations, and the role of NGOs in disaster mitigation. He acknowledged the absence of one speaker, Dick Van Dyke, due to technical and scheduling issues, and introduced the lineup of presenters. He then invited Mr. Jamal Ansari to begin his presentation.

Papers and Presentations

Role of NGOs in Disaster Mitigation

Mr Jamal Ansari discussed the role of NGOs in disaster mitigation, emphasizing that nature is unforgiving, making it crucial to respect and protect natural resources. NGOs play a critical role in countries like Pakistan, where government resources are limited. He outlined key roles for NGOs, including identifying disaster impacts, supporting government capacity, and mobilizing resources.



Mr. Ashraf Kapadia, Council Member
Hisaar Foundation

Mr. Ansari also identified challenges for NGOs, such as resource limitations, security issues, and difficulty reaching local communities. To address these, he recommended infrastructure maintenance, watershed management, policy advocacy, and a greater focus on education and empowerment.

Mr. Jamal Ansari also highlighted successful initiatives led by local NGOs in water purification, flood-resistant housing, and early warning systems. Despite these successes, NGOs face challenges such as resource limitations, security issues, and reaching marginalized communities.

Flood Risk Assessment in Kunhar River Basin

Ms. Barkha Soomro discussed efforts to manage water-related disasters, including early warning systems, evacuation plans, and community-based disaster preparedness. She described

how NED University collaborates with the government and other agencies to implement comprehensive disaster response measures.

Ms. Soomro emphasized the importance of involving women in disaster management and early warning systems, acknowledging that traditional communication methods might not always reach them. To address this, the organization trains both men and women, ensuring inclusivity in disaster response. Early warning systems include sirens and other alerts, enabling rapid evacuation in the event of a disaster.

Her presentation highlighted the importance of flood risk assessment, and the need for inclusive and effective early warning systems to protect vulnerable communities from water-related disasters.

Response of AKDN to Pakistan Floods 2022

Ms. Nusrat Nasab highlighted the efforts of the Aga Khan Development Network (AKDN) in response to the 2022 floods in Pakistan, emphasizing a collaborative approach with various agencies and partners. They discussed the evacuation of 8,000 people from flood-prone areas, winter preparedness initiatives, and the construction of prefabricated homes for affected families. The speaker stressed the importance of addressing water supply and sanitation challenges, including the restoration of water supply schemes and the construction of flood protection walls. Additionally, they outlined AKDN's contributions to education, environmental initiatives, and disaster management, including the implementation of early warning systems involving both men and women in affected communities. The audience raised questions about communication methods for women during emergencies, prompting a discussion on the use of community-based monitoring posts, religious centers, and sirens to ensure inclusive communication and effective evacuation procedures.



Session Chair, Mr Ashraf Kapadia with Speaker, Ms Nusrat Nasab (left to right)



Mr. Imdad Hussain Siddiqui presenting his Paper

Relief and Rescue Operations by PDMA Sindh in Pakistan Floods 2022

Mr. Imdad Hussain Siddiqui, Director of Operations at the Provincial Disaster Management Authority (PDMA) in Sindh, presented on the 2022 floods that devastated the province. The floods were triggered by intense rainfall, with the town of Padidhan receiving 1,765 mm of rain in a few days, causing 16.43% of Sindh to be submerged. The floods led to 1,100 deaths, 8,500 injuries, 7.3 million people displaced, and 13 million affected.

Infrastructure suffered significantly, with over 8,000 roads, 2,000 causeways, and 200 bridges damaged. Crops on 3.7 million acres were destroyed. In response, the PDMA coordinated relief efforts, providing 0.9 million tents, 0.5 million tarpaulins, 3.6 million mosquito nets, 2.4 million ration bags, and 1.8 million blankets. Over 500 people were rescued with assistance from the armed forces.

The PDMA's efforts, which involved coordination with various stakeholders, including UN agencies and humanitarian organizations, were commended by the Honorable High Court of Sindh. Siddiqui concluded by emphasizing the importance of effective disaster response and inviting questions from the audience.

Hisaar Foundation's Response to Pakistan Floods 2022

The last presentation was jointly made by Mr. Sirajuddin Khan, Hisaar Foundation and Mr. Mashooque Birhamani, Sujag Sansar Organization. They outlined the response of their organizations to the 2022 floods in Sindh and Balochistan. They mentioned that Hisaar Foundation and Sujag Sansar Organization jointly embarked on a Rehabilitation and Recovery Program in Taluka Johi of District Dadu in Sindh Province. They noted that Taluka Johi was one of the worst affected areas of the floods of 2022 which affected more than 33 million people and inundated one third of the country. Mr. Sirajuddin Khan and Mr. Mashooque Birhamani explained that the Johi Recovery and Rehabilitation Program focused on providing food, water, shelter, and other essentials to affected families, distributing supplies such as rice, dal, sugar, tea, porridge, and biscuits. Additionally, they provided tents, blankets, and jackets for those who lost their homes, and set up water coolers in areas with contaminated drinking water.

They elaborated that Hisaar Foundation's three phase program (relief, recovery and rehabilitation), running from December 2022 to December 2024, includes initiatives to help communities rebuild, such as distributing seeds, providing livestock, and constructing new homes in higher areas to avoid future flooding. They also plan to build bathrooms and other essential facilities.

The speakers expressed concerns about arsenic contamination in drinking water and highlighted the impact of malaria during the floods, with one village reporting 35 malaria-related deaths. They urged larger organizations, including the Provincial Disaster Management Authority (PDMA), to support local efforts and address these serious health and safety issues.



Mr. Siraj Uddin Khan, Hisaar Foundation
Mr. Mashooque Birahmani, Sujag Sansar Organization

Closing Remarks

Session Chair and Moderator, Mr. Ashraf Kapadia wrapped up the session by thanking the speakers for their valuable insights and the audience for their patience during the long day. He noted that while Hisaar Foundation has worked on various relief efforts and point solutions, these interventions are not enough to address broader issues with water management.

To tackle these challenges, Mr. Kapadia introduced Hisaar Foundation's biggest and most ambitious initiative to date - the Panjwani-Hisaar Water Institute (PHWI). He explained that PHWI aims to provide education, research labs, and training for professionals across various fields, promoting a more comprehensive and multidisciplinary approach to water management. The ultimate goal is to change public attitudes toward water conservation and management.

Mr. Kapadia closed by expressing his apologies for any delays and encouraged continued efforts to address water-related issues. He reiterated that a fundamental shift in planning, managing, and valuing water is essential for sustainable solutions.

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SESSION 5A

Making Water Economy Deliver: Moving People from Poverty to Prosperity

Facilitator Ms. Simi Kamal, Chairperson Hisaar Foundation

Panelists Mr. Boo Hock KHOO, Chairman Infra Zamin Pakistan
Mr. Nadir Gul Barech, CEO PPAF (Online)
Mr. Mahmood Nawaz Shah, President, Sindh Abadgar Board
Dr. Allah Nawaz, CEO, Thardeep Rural Development Program
Mr. Favad Soomro, Head, Engro Foundation
Ms. Inga Jacobs-Mata, Director of Water, Growth and Inclusion, IWMI

The session aimed to delve deeper into the concept of the “Water Economy”, examining its significance in various contexts. The session explored how farmers and local communities can benefit from microfinancing institutions, particularly in the water and agriculture sectors. The discussion also centered on the role that the corporate sector plays in reaching small-scale farmers and other water users, assessing how businesses can support these groups. Furthermore, both global and Pakistani perspectives were explored and deliberated upon, offering insights into the broader applications of the Water Economy and its potential to drive sustainable development and community resilience.

The session partner for Session 5A was Infra Zamin Pakistan.



Panelists (from left to right): Dr. Inga Jacobs-Mata, Mr. Favad Soomro, Dr. Allah Nawaz, Mr Boo Hock KHOO

Opening Remarks

Ms. Simi Kamal began the session with a warm welcome and outlined the focus on Pakistan's water economy, exploring how it could drive communities out of poverty. She said that the topics to be discussed would include the role of financing institutions in water and agriculture sectors, corporate support for small farmers, in both global and Pakistani contexts.

Panel Discussion

Mr. Nadir Gul Barech, CEO of the Pakistan Poverty Alleviation Fund (PPAF), discussed how PPAF addresses water-related issues and poverty alleviation in Pakistan. The organization focuses on providing financial support for both public and private goods, aiming to improve water access and infrastructure, which in turn helps alleviate poverty.

Pakistan's agriculture sector consumes 98% of available water, contributing 24% to the GDP, while 38% of the population is multi-dimensionally poor. PPAF uses a "graduation model" to help households escape poverty through asset provision, skill-building, and financial services. They support small-scale infrastructure projects such as hand pumps and water storage tanks, and larger public goods like check dams and irrigation systems. Additionally, they offer grants to support agricultural value chains, with a focus on smallholder farmers.

Despite progress, challenges remain. Microfinance loan sizes may be too small for significant agricultural projects, and interest rates can be high, impacting low-income entrepreneurs. PPAF acknowledges these challenges and emphasizes the need for ongoing innovation and support to enhance water access and combat poverty in Pakistan.

The discussion with Dr. Allah Nawaz Samoo centered on microfinance and public goods in Pakistan's rural development. Ms. Simi Kamal acknowledged Mr. Nadir Gul Barech's role in the microfinance sector through the Pakistan Poverty Alleviation Fund (PPAF) and asked Dr. Samoo about challenges in building micro water systems through microfinance.

Dr. Samoo outlined three key learnings from TRDP's journey. First, conventional microfinance often excludes the poorest due to their low paying capacity. To address this, TRDP adopted a "poverty graduation" approach, focusing on gradually building financial stability for low-income families. Second, microfinance success requires additional resources and skills, such as agricultural tools, along with consideration of seasonal demand fluctuations. Third, he highlighted the significance of microfinance without interest and the success of digitized banking solutions, like the Electronic Payment System (EPS), in connecting previously disconnected communities.

Ms. Simi Kamal summarized the "poverty graduation" concept, which includes asset building, skill development, and community infrastructure, leading to interest-free loans and then microfinance. Digitized banking solutions have facilitated this progression, supporting a pathway to small and medium enterprises (SMEs). She emphasized the importance of learning from institutions like PPAF and TRDP to ensure sustainable microfinance practices.

Mr. Fawad Soomro from Engro Foundation discussed their approach to working with smallholder livestock farmers, focusing on women, as part of their dairy business. Engro's business model included training women in basic livestock management and creating micro-entrepreneurs called "lady livestock workers" who provided affordable healthcare services to the community's livestock.

This approach improved productivity and empowered women, though involving men was also necessary to support women's mobility.

Mr. Soomro explained that Engro set up aggregators to ensure sustainable market access for smallholder farmers, fostering a supportive ecosystem. While many entrepreneurs succeeded, some faced challenges. Mr. Soomro emphasized the importance of understanding the context in designing such programs and highlighted the need for collaboration between philanthropic and risk capital to create functional markets that can help communities rise from poverty and actively participate in the economy.



Session Modertor, Ms Simi Kamal with Panelists (from left to right): Dr.Inga Jacobs-Mata, Mr Favad Soomro, Dr Allah Nawaz, Mr Boo Hock KHOO and Mr Nadir Gul (online)

As a member of the Board of Khushali Microfinance Bank, Ms Simi Kamal informed the audience that she would also be filling in for Mr. Aameer Karachiwalla, President & CEO, who was unable to attend. Ms. Simi Kamal's discussion highlighted the concept of aligning corporate and social sector financing to serve the poor. Corporate financing focuses on returns, while the social sector aims to meet community needs, so a balance is needed for sustainable development. To bridge this gap, the poverty graduation model is crucial, offering a path from basic asset provision to skill development, interest-free loans, microfinance, and ultimately access to traditional banking. This approach provides a framework for individuals to climb out of poverty and into sustainable livelihoods.

Dr. Inga Jacobs-Mata expanded on this, sharing her work with the International Water Management Institute, focusing on building agricultural ecosystems and supporting small and medium-sized enterprises (SMEs). She discussed the importance of innovation and partnerships, highlighting a model that combines scaling grants with technical support. The goal is to address financial inclusion and capacity building for SMEs, especially in regions with high poverty levels.

One unique approach mentioned by Dr. Jacobs-Mata involves partnering with media to spread awareness and offer practical solutions through television programs. An example is Zambia's "Munda Makeover," a reality show that showcases farm improvements by bringing experts to help local farmers address specific needs



Panelists (from left to right): Dr. Inga Jacobs-Mata, Mr. Favad Soomro, Dr. Allah Nawaz, Mr Boo Hock KHOO

This innovative communication strategy bridges knowledge gaps and promotes climate-smart agriculture practices.

Ms. Simi Kamal also discussed how financial inclusion for the poor is essential, requiring a structured process that includes asset-building, skill development, community infrastructure, and other social goods. Corporate financing seeks returns on investment, while the social sector focuses on public goods and community needs. To connect the two, a poverty graduation model helps guide individuals from basic needs to financial stability and microfinance, ultimately leading to traditional banking.

Mr. Boo Hock KHOO then shared his experience, emphasizing the importance of perceiving microfinance as "massive finance" for borrowers.

To those in finance, it may seem small, but it can profoundly change the lives of borrowers, offering them opportunities for growth. He highlighted the need for financial instruments to align with the borrowers' needs, advocating for a re-evaluation of risk perceptions and a more flexible approach to loan structures.

He illustrated this with a personal anecdote from his work in the Philippines, where he attended collection meetings and observed how these "small" loans had a huge impact on borrowers' lives. Mr. KHOO suggested that extending loan repayment terms could significantly ease the financial burden on the poor and reduce poverty risks. He stressed the importance of avoiding high-interest loans like those found in black markets and called for technology to help identify and support prime borrowers.



Mr. Favad Soomro, Head of Engro Foundation



Dr. Allah Nawaz Samoo, CEO TRDP

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In conclusion, Mr. KHOO suggested that changing the way financial institutions perceive risk and extending loan terms could lead to significant changes in the lives of low-income people. These changes could encourage the flow of funds to areas and sectors often overlooked by traditional finance.

Ms. Simi Kamal shared her personal reflections on the perception of risk in lending and the unfair treatment of poor borrowers compared to rich ones



She highlighted how microfinance initiatives often focus on lending to women, who have a much lower risk of default, citing an almost 100% repayment rate. In contrast, traditional lending practices tend to favor the rich with lower interest rates and longer repayment terms, even though the default rates are high. For poor borrowers, who are least able to bear financial burden, microfinance can charge exorbitant interest rates—sometimes as high as 40%—with shorter repayment periods. This creates a disparity between how banks treat the rich and the poor.

Ms. Kamal suggested that financial practices should incorporate empathy and fairness. She emphasizes the importance of rethinking risk perception and adopting more just lending practices that consider the unique challenges faced by poorer borrowers. Kamal invites attendees to be open to changing their minds and embracing financial justice.

She also discussed the role of community-based solutions for nature and the importance of supporting financial ecosystems at the grassroots level. Dr. Samoo's insights highlighted that communities can grow financially vibrant even without being linked to the broader international economy.

To conclude the panel discussion, Ms. Simi Kamal opened the floor for questions from the audience, inviting a deeper discussion on the themes raised during the session. She encouraged everyone to participate, reinforcing the need to address issues of financial inclusion, fairness, and justice in lending practices.



Questions and Answers session with audience

Dr. Inga Jacobs-Mata expanded on this, emphasizing the importance of decolonizing development approaches, which require including community-based solutions and altering traditional Western-centric models. She shared examples from Southern Africa, where they are working to institutionalize community-based water service delivery.

Mr. Fawad Soomro added that while there are constraints on the supply side, the spirit of experimentation and innovation must remain to meet community expectations. He mentioned randomized control trials (RCTs) as a tool for experimentation and urged continued exploration of different approaches.

Questions and Answers

During the Q&A session, Ms. Simi Kamal addressed a question from the audience posed by Ms. Irum Ayaz from Pakistan Red Crescent, asking why there's often a gap between community input during project planning and the actual implementation, where the community's suggestions aren't fully considered. Dr. Allah Nawaz Samoo responded, acknowledging the common issue of divergence between community needs and project implementation, often due to predetermined agendas by donors or organizations. He noted that this discrepancy can occur because those with more influence or vocal power may shape the perceived needs, even if they do not reflect the broader community's perspective.



Session audience

Ms. Simi Kamal then asked Mr. Boo Hock KHOO from Infra Zamin Pakistan about his journey from conventional finance to embracing microfinance. He explained how his outlook changed by asking "why not?" instead of outright saying no, inviting exploration and learning. He shared that Infra Zamin Pakistan aims to embrace this attitude, focusing on why not instead of immediately dismissing ideas.

Finally, Mr Nadir Gul Barech, who joined the session remotely, contributed by discussing the Pakistan Poverty Alleviation Fund's (PPAF) approach to bottom-up development. He shared that PPAF's projects are driven by community needs and aspirations, with community involvement from planning to implementation and maintenance. This approach ensures that projects are genuinely community-based, with long-term sustainability.

Concluding Remarks

The session concluded with Ms. Simi Kamal inviting attendees to participate in upcoming sessions and explore the event's exhibits, emphasizing the importance of taking action to avoid a "gray world." She thanked the panelists and audience for their participation and highlighted the need for quick, effective measures in addressing environmental and social challenges.



Conference Proceedings

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SESSION 5B

Blue Economy Matters: Oceans, Wetlands and Biodiversity

Facilitator Dr. Areba Syed, Asst. Prof. Department of Civil Engineering, NED University

Moderator Ms. Meher Marker Noshirwani, Governor, Hisaar Foundation

Keynote Dr. Nuzhat Khan, CEO BLUENET+

Speakers Mr. Tariq Alexander Qaiser, Founder and Principal Architect, TAQ Associates
Mr. Sohail Ali Naqvi, Director Freshwater Programme, WWF-Pakistan

Session 5B focused on the importance of the blue economy, the significance of mangroves in Karachi, and innovative approaches to environmental management in Pakistan's coastal regions. The session featured presentations by Mr. Tariq Alexander Qaiser, Dr. Nuzhat Khan, and Mr. Sohail Ali Naqvi, offering insights into various aspects of the blue economy, including the critical role of mangroves, sustainable use of marine resources, and potential solutions for environmental challenges.

This session was jointly sponsored by The Asia Foundation and Hisaar Foundation



Dr. Nuzhat Khan delivering her Keynote Presentation as Session Chair, Ms. Meher Marker Noshirwani looks on

Opening Remarks

The session began with an introduction of the Session Chair, Ms. Meher Marker Noshirwani, and her opening remarks, set the tone for discussions on gender, environmental management, and climate change.

Keynote Presentation

The moderator, Dr. Areba Syed introduced Dr. Nuzhat Khan, CEO of BlueNet Plus and former Director General of the National Institute of Oceanography, as a maritime policy expert specializing in coastal and offshore resources, and sustainable development.

During her presentation, Dr. Nuzhat Khan underscored the immense potential inherent in the blue economy, highlighting the pivotal role of oceans in global trade and biodiversity conservation, given their vast coverage of the Earth's surface. She emphasized that while oceans present abundant opportunities for sustainable development and economic advancement, they are concurrently threatened by issues such as mismanagement, inadequate infrastructure, and environmental degradation. Central to her discourse were several key points: the imperative for sustainable utilization of marine resources across diverse sectors encompassed by the blue economy, the burgeoning prospects of coastal tourism as a significant industry by 2030, and the pressing need for enhanced management and infrastructure along Pakistan's coastline, particularly in pivotal ports like Karachi and Port Qasim.



Dr Nuzhat Khan delivering her Keynote Presentation as Session Chair

Dr. Khan also drew attention to the plight of mangrove forests, crucial for carbon sequestration and fisheries support, which face endangerment due to factors such as sea water intrusion and sediment erosion. Advocating for a comprehensive approach, she called for improved planning and management strategies that incorporate local communities, establish marine protected areas, and foster innovation through initiatives like a marine incubation center. In conclusion, Dr. Khan urged a strategic outlook towards unlocking the blue economy's potential, stressing the importance of sustainable practices, stakeholder engagement, and leveraging Pakistan's youthful demographic for the creation of a robust and sustainable blue economy.

Exploring the Blue Economy and Environmental Consciousness

Mr. Tariq Alexander Qaiser began his presentation by discussing a philosophical question: if a tree falls in a forest and no one hears it, does it exist? He then raised a more poignant question: if there are no trees in a forest that used to be there, did the forest ever exist? He highlighted the disconnection of the dots in environmental awareness and his commitment to addressing this through his work in the mangrove forests. Citing Einstein, he stressed the need for a new approach to humanity's relationship with the environment. He also mentioned Isaac Asimov's writings that explore the existential problem of being human and the challenges of developing a human civilization.

Mr. Qaiser described his journey from architecture to environmental work, dedicating 50% of his time to environmental projects funded by his architectural practice.



Mr. Tariq Alexander speaking about Oceans, Wetlands & Biodiversity

He expressed his gratitude for the support of the Aman Foundation and the "Voices from the Roof of the World," which commissioned him to create a film about the mangroves. He concluded by stating his hopes to increase his environmental work as he approaches retirement.

Floating Treating Wetlands

Mr. Sohail Naqvi discussed the \$44 trillion potential of the blue economy, stressing the importance of biodiversity and ocean health. He mentioned the Biodiversity Risk Filter, a free online tool to help businesses assess biodiversity-related risks.

He explained that WWF works with fishermen communities to promote mangrove plantation and collaborates with the government and private sector for capacity building. Mr. Naqvi highlighted the role of wetlands, known as the "kidneys of the planet," and emphasized that 19 of Pakistan's 219 wetlands are RAMSAR sites but lack proper management.

WWF has introduced innovative solutions like floating treatment wetlands (FTWs) to treat wastewater, reducing biological oxygen demand by 80% and absorbing heavy metals. WWF is expanding this technology across Pakistan and invites further collaboration to address wastewater and blue economy challenges.

In conclusion, Mr. Naqvi urged collaboration to improve water management and biodiversity in Pakistan and encouraged visiting the WWF website for more information.



Mr. Sohail Ali Naqvi talking about Floating Wetlands

Another audience member, Dr. Ali Asghar, urged Mr. Qaiser to document the broader Indus Delta and its 17 creeks, focusing on the impact of reduced freshwater flow. Mr. Qaiser agreed that more exploration is needed but mentioned the challenges due to limited resources.

Mr. Basharat Saeed raised concerns about the potential for double-counting the blue economy's value when combining conservation and energy extraction. He also questioned the sustainability of Pakistan's growing seafood exports, asking if it was due to systematic planning or short-term exploitation.

Questions and Answers

An audience member at the session praised Mr. Tariq Alexander Qaiser for highlighting the need to protect Karachi's mangroves and suggested that building a bypass road could reduce traffic and minimize mangrove deforestation. He also proposed exploring energy generation from tidal forces and recommended Gwadar as a deep-water port to ease congestion at Karachi's ports.

Dr. Nuzhat Khan discussed the importance of business-based solutions for sustainable mangrove conservation, suggesting carbon trading as an incentive. She also noted the potential for various ocean-based energies, including tidal energy.



Session audience

Concluding Remarks

The Session Chair, Ms. Meher Marker Noshirwani concluded the session by summarizing the key points from the presentations. She thanked Dr. Nuzhat Khan for outlining the importance of the blue economy and its potential, emphasizing the need to explore the coastline, ecotourism, biodiversity, and community engagement. She noted that Dr. Khan's presentation shed light on innovative ideas and emerging issues related to the blue economy.

Ms. Noshirwani also praised Mr. Tariq Alexander Qaiser for his documentary on mangroves, acknowledging his thorough exploration of biodiversity and ecosystem health. She expressed gratitude to Mr. Qaiser for honoring Mr. Tahir Qureshi, whose work on mangrove conservation has been significant.

Additionally, Ms. Noshirwani appreciated WWF's efforts in developing floating wetlands as a new approach to waste management, highlighting their role in providing localized solutions. She mentioned that these efforts align with the conference's broader goal of exploring new ways of thinking and addressing climate change, community needs, and biodiversity conservation.

Concluding the session, she reiterated the need to seek new pathways, moving away from conventional approaches, and thanked everyone for their contributions. She ended by acknowledging that there was much more to discuss but that time was limited.



SESSION 5C

SDGs Matter: National Stocktaking

- Facilitator** Ms. Sanaa Baxamoosa, Director External Relations, Hisaar Foundation
- Moderator** Ms. Sameen Akhund, Sustainability Research Manger, CERB
- Chair** Mr. Jamal Ansari, CEO, Akbar Associates Group and Member HF Think Tank
- Panelists**
- Ms. Nazish Shekha, Head of Initiative, CERB
 - Mr. Asim Khan, Managing director, Radiant Chemical (Pvt) Ltd
 - Mr. Wasik Ali Syed, Head of Manufacturing for BU, Consumer products, Packages Limited
 - Ms. Salima Hemani, GM Sustainability, Engro Corporation
 - Mr. Sarfraz Cheema, COO & Head of Sustainability, Soorty Enterprises

The session aimed to introduce the Sustainable Development Goals (SDGs) providing a foundational understanding of the global benchmarks for sustainable development. The session also aimed to delve into Pakistan's current progress toward achieving its SDG targets, offering a comprehensive overview of the nation's advancements and areas needing improvement. Furthermore, the session explored the link between SDGs and water, focusing on the perspective of the private sector. This examination aimed to highlight the role of businesses and industry in contributing to the achievement of SDGs, particularly in relation to water sustainability.

Hisaar Foundation and Center for Excellence in Responsible Business (CERB) jointly sponsored this session.



Opening Remarks

Facilitator Ms. Sanaa Baxamoosa commenced the session by thanking the Centre of Excellence in Responsible Business (CERB) for being the Session Partner and inviting Ms. Nazish Shekha to introduce CERB and deliver her technical presentation.

Technical Presentation

Ms. Nazish Shekha emphasized the growing focus on the link between water and climate change, particularly in Pakistan, where climate change impacts the Indus River system and, consequently, freshwater availability. This, in turn, creates competition for resources between corporate and community needs.

Ms. Shekha discussed the role of the Center of Excellence in Responsible Business, which advocates for environmental stewardship, gender equality, and climate action. She stressed the need for companies to align with the Sustainable Development Goals (SDGs), focusing on SDG 6, which addresses clean water and sanitation. The goal includes water use efficiency, wastewater treatment, and integrated water resource management.

She noted that only 9% of water use efficiency has improved since 2015, while 80% of wastewater remains untreated globally. The corporate sector must measure and reduce their water footprint and manage risks related to climate change. She underlined the importance of addressing financial, compliance, and reputational risks, along with water pollution control.



Ms Nazish Shekha speaking about the link between SDGs and Water

Ms Shekha concluded by introducing Ms. Sameen Akhund, who would moderate a panel discussion, inviting attendees to explore solutions for sustainable water use and management in the corporate sector.

Panel Discussion

Ms. Sameen Akhund led a panel discussion exploring corporate water stewardship and the private sector's role in ensuring a sustainable water future for Pakistan. The conversation highlighted the need for actionable solutions as the country transitions from being water-scarce to water-starved.

The panelists included industry leaders such as Mr. Sarfraz Cheema, COO of Soorty Enterprise, who shared his company's approach to water sustainability through significant investments in wastewater recycling and innovative technologies.

He emphasized the importance of reducing water consumption in textile manufacturing by employing European machinery and advanced technologies like ozone and laser processes, which dramatically cut water use.

Next, Mr. Asim Khan, Managing Director of Radiant Chemicals, discussed how his company provides industrial and residential wastewater recycling solutions. He emphasized that recycling technology could address Karachi's water shortage by treating wastewater for reuse, reducing dependence on freshwater resources. Mr. Khan also noted that their solutions are now being used in residential areas, demonstrating the practical application of water sustainability in everyday life.

Mr. Wasiq Ali Syed, Head of Manufacturing at Packages Limited, highlighted his company's efforts in reducing water usage by investing in energy-efficient technology and water treatment infrastructure. The company's Bulleh Shah packaging plant, home to the country's second-largest effluent treatment plant, recycles 60% of its treated water for local agricultural use.

This demonstrates a collaborative approach to water sustainability, with benefits extending to the surrounding community.

Ms. Salima Hemani from Engro Corporation discussed her company's commitment to water sustainability by adopting various technologies to reduce water consumption, like ultrafiltration and reverse osmosis, in their plants. She pointed out that water sustainability is critical for business operations and environmental stewardship.

Ms. Sameen Akhund concluded the panel by summarizing the key takeaways, emphasizing the importance of corporate social responsibility in managing water resources. She referenced Dr. Adil Najam's remark that water is to adaptation as carbon is to mitigation, stressing the need for businesses to address water as a core part of their operations and environmental impact. The discussion concluded with a call for continued innovation and community-focused solutions to ensure a sustainable water future for Pakistan.



Moderator Ms. Sameen Akhund with panelists Mr. Wasik Ali Saeed, Mr. Asim Khan, Ms Salima Hemani, and Mr. Sarfaraz Cheema (left to right)

Question and Answers

Participants discussed the importance of bridging the gap between academia and industry, with a focus on water sustainability. The questions and answers highlighted the need for better collaboration and addressed specific challenges faced by academic institutions and the private sector.

Ms. Faria Uqaili raised the concern that industries in Pakistan are not collaborating enough with academic institutions. She shared her experience where students from her MS environment program approached Soorty Enterprises for internships but were denied. She noted that in developed countries, industry-academia collaborations are common, where industries work on projects with universities, allowing students to conduct research and provide value to companies. Ms. Uqaili also criticized Engro Corporation for not continuing its support for the Indus Dolphin Conservation project after 2019, emphasizing that Engro's efforts could have a more significant impact if they pushed for continued conservation work.

Mr. Sarfraz Cheema from Soorty Enterprises addressed these concerns by explaining that Soorty actively collaborates with academic institutions like NED, TIP, and Karachi University. He indicated that the rejection of Ms. Uqaili's students might have been due to a lack of communication with the appropriate department. Cheema highlighted that Soorty offers hands-on training and internships to TIP students, providing them with practical experience every Tuesday.

Ms. Salima Hemani from Engro Corporation clarified that the Indus Dolphin Conservation project is ongoing, with a resurvey conducted recently. Although results from the latest survey have not been compiled, the project is still active. Ms. Hemani also shared that Engro engages with academic institutions, such as the recent collaboration with Indus Valley School for a resilient housing design competition. She acknowledged that there is a gap between academia and industry, but Engro is working to bridge it through various initiatives.

Ms. Sanaa Baxamoosa posed a question about the disconnection between the private sector and academia. She noted that development sector events often feel like exclusive gatherings of private sector representatives, creating a silo effect. She asked how companies can address this gap and work towards greater inclusivity.

Mr. Sarfraz Cheema suggested that changing the culture requires continuous awareness and counseling. He acknowledged that the private sector often prioritizes targets and productivity, making it challenging to focus on sustainability. However, he noted that Soorty is making efforts to provide sustainability training to workers and engage with local communities. Mr. Cheema stated that private sector companies are becoming more aware of the importance of sustainability and investing in long-term solutions, even if they are costly.

Ms. Hemani noted the need for research and innovation and appreciated that Hisaar Foundation and CERB provide platforms to academia for collaborations with the private sector.

Mr. Asim Khan emphasized that sustainability has a high price, but the benefits outweigh the costs when considering long-term perspectives. He mentioned that the private sector's mindset is changing, with businesses now seeking guidance on sustainability. Mr. Khan acknowledged that this evolution is a gradual process and that it will take time for substantial changes to occur.

Ms. Sameen Akhund concluded by stating that although progress has been made, more work is needed to bridge the gap between academia and industry. She noted that the private sector is showing increased interest in sustainability, and that ongoing efforts to create collaborations will be crucial for achieving long-term success. Ms. Akhund then invited Mr. Jamal Ansari to provide closing remarks and thanked all participants for their insights.



Ms. Robina Wahaj, Senior Land and Water Officer FAO

Closing Remarks

In his closing remarks, the Session Chair, Mr. Jamal Ansari spoke about the importance of optimizing water use, noting that Pakistan's low water tariffs contribute to overuse and pollution. He compared this to Al Capone's dumping of industrial waste, pointing out that many industries view water as a free resource. He criticized the over-reliance on reverse osmosis (RO) for recycling, suggesting that converting black or brown water into industrial or agricultural water is more efficient and less damaging to the environment.

He mentioned that Karachi's untreated sewage is damaging the ocean, leading to increased insurance costs due to rusting ships. To address this, he proposed converting sewage into industrial-grade water, which could be used by industries to reduce pressure on municipal water supplies.

Regarding the Indus Dolphin Conservation project, Ansari announced a \$70 million UN grant for the first phase of the Indus Cascade project, aimed at recharging the Indus River. He urged companies like Soorty, Engro and Packages to lead in adopting sustainable practices, breaking away from harmful habits like overwatering crops.

SESSION 6

Café of the Unheard: New Voices Matter

Facilitator Ms. Sanaa Baxamoosa, Director External Relations, Hisaar Foundation

Moderator Mr. Zohair Ashir, Governor, Hisaar Foundation

Table Experts Mr. Kazim Saeed, Development, Policy & Strategy Expert
Dr. Pervaiz Amir, Senior Economist, Director Pakistan Water Partnership
Dr. Mark Smith, Director General IWMI, Colombo, Sri Lanka
Ms. Mahim Mahar, Journalist
Dr. Imran Ahmed, Director PHWI, NED University
Ms. Barbara Schreiner, Executive Director at Water Integrity Network (WIN)
Ms. Simi Kamal, Chairperson Hisaar Foundation

The session was designed for participants to directly engage in conversation with experts about water issues and topics pre-selected by the participants. It provided the opportunity for participants to speak and be heard by professionals and experts.

This session was jointly sponsored by AASA Consulting and Hisaar Foundation.

Participants were divided into seven groups on the topics identified as follows, and partnered with experts to discuss themes and challenges that are typically not included in mainstream narratives.



Speakers at the 6th Karachi International Water Conference

Corporatization of Agriculture

This group discussion was led by Mr. Kazim Saeed. Participants discussed the state of agriculture in Pakistan, highlighting that most of it is operated by small-scale farmers with low productivity, pointing to inefficiencies in the water infrastructure, which he described as operating on a "Build, Neglect, Rebuild" model.

They addressed four questions about corporatization in agriculture: why do it, how it would work, who would benefit, and whether Pakistan has missed the opportunity. They discussed that corporatization could improve livelihoods and productivity, proposing that it might help increase exports and reduce imports, however, they stressed the need to fix infrastructure issues, improve seed quality, ensure reliable water supply, and address storage problems.

It was suggested that small farmers could form cooperatives to strengthen their position. Malaysia's palm oil industry was cited as an example of how large-scale and small-scale agriculture could coexist successfully. Regarding the implementation of corporate agriculture, the table participants questioned whether Pakistan could adopt corporate agriculture without causing environmental or social harm, emphasizing the need for a balanced approach.

Water and Society

This discussion was led by Dr. Pervaiz Amir. Participants explored key issues surrounding drinking water quality in Pakistan. While Pakistan does not face severe water shortages like some Middle Eastern and African countries, the quality of drinking water remains a concern, as it varies across regions, times, and seasons. Dr. Amir noted that waterborne diseases impact about 40% of the population and highlighted the importance of careful management to reduce risks like dengue, especially with projects involving ponds.

The group also discussed land ownership and urbanization, indicating that much of the rural land previously used for ponds has been absorbed by urban development, requiring new sites for similar projects. Participants noted a disparity in studies on water, with over 42 focusing on supply but only two on demand. They called for more research to address this imbalance.

Additionally, the discussion examined issues of water rights for marginalized groups, questioning if constitutional guarantees for clean water were being met, especially in rural areas. Participants pointed out that urban areas tend to receive more attention for water distribution, often leaving rural regions underserved. They suggested that changing agricultural practices, like reducing water-intensive crops such as rice and cotton, could help decrease water use and lower carbon emissions.

To address these challenges, Dr. Amir advocated for "principled pragmatism," a concept that emphasizes flexibility and adaptability, acknowledging that climate change could lead to unpredictable situations requiring innovative solutions. The discussion concluded by emphasizing the need to educate society, youth, and government officials about water issues and expressing concern about the lack of expertise in government bodies to interpret and act on scientific data effectively.

Building the Science of Water

This group discussion was led by Dr. Mark Smith. The discussion centered on building the science of water with a focus on empowering women for climate resilience. Participants identified various challenges, including droughts, floods, and providing safe, clean, and affordable drinking water. They emphasized that to address these issues, water science must become more interdisciplinary, moving away from traditional silos like water quality, infrastructure, and transboundary water management.

The participants stressed the importance of integrating traditional knowledge into water science, recognizing that conventional academic approaches often overlook local expertise. They highlighted the need for community engagement, especially involving women, in developing practical solutions.

This led to a discussion on citizen science, where local communities actively participate in the research process, ensuring that scientific findings are relevant and applicable to real-world scenarios.

Communication was identified as a crucial aspect of making water science more engaging and accessible. The group suggested that scientists need to collaborate with communities, adopting a more inclusive and cooperative approach. This collective action would help bridge the gap between science and practice, ultimately contributing to climate resilience and better water management.

In summary, Dr. Smith elucidated that the group emphasized a more holistic and integrated approach to water science, one that values traditional knowledge, engages with communities, and promotes collective action to tackle the complex challenges of water management and climate resilience.



Dr. Mark Smith, Director General IWMI, Colombo, Sri Lanka

Reimagining Water in Media

Ms. Mahim Maher, a seasoned journalist led this discussion. Participants discussed the media's inadequate coverage of water issues in Pakistan. They highlighted that traditional media, particularly television, often avoids water-related topics due to pressure from water mafias, censorship, and a lack of public interest. This is compounded by a shift toward focusing on problems rather than solutions.

The table participants noted that social media platforms like TikTok and Instagram are becoming more popular, especially among younger audiences, who are more interested in environmental content. Searches for topics like "how to save water" are common, indicating that the younger generation is engaging with these issues online, while traditional media struggles to keep up.

The discussions pointed out that shrinking newsrooms and a loss of specialized reporters have led to a decline in comprehensive coverage of water issues. Even detailed stories on significant water projects like K-IV fail to gain traction, making it difficult to justify long-term investments in such coverage.

Despite these challenges, the Ms. Maher explained that the participants were of the view that social media might offer a solution by allowing citizens to share their experiences with water issues and by fostering community-driven content.

This new form of media engagement could help bridge the gap left by mainstream media's shortcomings in addressing water-related topics.

Data Scarcity

Dr. Imran Ahmed was the table expert. The discussion focused on the unreliability of data in Pakistan's government and private sectors. Participants noted that much of the data is fabricated or inaccessible, hampering research and emergency planning. Despite attempts by the Planning and Irrigation Department to digitize data, reliable information is scarce, making it difficult to model flood conditions and prepare for disasters.

The 2022 floods in Sindh exposed the consequences of poor data management, as no comprehensive studies or flood maps were created to prevent future damage. Instead of addressing the root causes, authorities have rebuilt homes in flood-prone areas without developing long-term strategies.

The discussion also touched on false data in the agriculture sector, raising concerns about accountability and the impact on national planning. The consensus was that significant improvements in data collection, digitization, and sharing are needed to ensure effective disaster response and sustainable agricultural practices. Without these changes, Pakistan risks repeating past mistakes and leaving communities vulnerable to future disasters.

How to Deal with Corruption in the Water Sector

Ms. Barbara Schreiner led this discussion. Participants addressed several types of corruption, including the well-known tanker mafia and corruption in sanitation projects, which contributes to pollution in the Indus River. An issue was raised whether strict anti-corruption measures might delay project implementation, posing a dilemma. Some suggested that donor-funded projects could opt to not finance government initiatives to avoid corruption.

The discussion shifted focus to potential solutions to avoid spiraling into negative scenarios. Participants identified three key areas for improvement. First, capacity building and education, starting with grassroots communities, to raise awareness about legislation and rights, empowering them to stand against corruption.

Further, technical project implementers like hydrologists and engineers often lack understanding of corruption issues, suggesting the need for their capacity building. Additionally, including corruption and anti-corruption topics in school curriculums was proposed as a way to instill moral values and accountability in future generations.

The second solution emphasized improving systems and reforming urban water supply infrastructures. Local governance restoration at a grassroots level was suggested, with education and transparency improvements for better accountability. Corruption within educational institutions was another concern, with a focus on ensuring fair processes for both students and supervisors, rather than nepotism. Enhancing budget transparency was highlighted as a critical step, with references to issues like ministerial directives that complicate financial tracking.



Full House during Café of the Unheard session

Finally, participants discussed strategies for combating corruption. Social accountability, where communities hold governments accountable, was mentioned as a key strategy, alongside the importance of investigative journalism in promoting transparency and uncovering corruption. Participants encouraged breaking down corruption into manageable sectors or institutions, focusing on creating "islands of integrity" as a step-by-step approach to tackling corruption.

Anything Goes

The discussion at this table, led by Ms. Simi Kamal, covered a wide range of topics focusing on data transparency, government accountability, youth representation, violence against women, and the informal water economy.

Data Transparency and Government Accountability

Participants raised concerns about the lack of reliable data, with many believing that the government often manipulates or restricts data, making it difficult for researchers and the public to access accurate information. They highlighted the need for data digitization, better metadata collection, and a more transparent process. The security barrier, requiring multiple permissions to access data, was identified as a major obstacle.

Youth Representation and Involvement

Young people expressed the desire for more involvement in government policy-making and suggested that the Higher Education Commission (HEC) facilitate this. There was mention of a recent attempt to include a youth representative in a decision-making body, which was rejected due to university policies. The banning of student politics and social groups was noted as further restricting youth engagement.

Violence Against Women and Climate

The discussion also addressed how climate-related emergencies, like COVID-19 or natural disasters, increase violence against women. Participants cited cases where families had to resort to selling their daughters to survive, emphasizing the need for greater awareness and support to prevent such exploitation.



Informal Water Economy and Natural Contaminants

Another point of discussion was recognizing the informal water economy and considering it part of the formal economy, suggesting it be documented for better understanding and management. Participants also raised concerns about natural contaminants like arsenic, fluoride, and calcium in water, which affect public health.

In summary, Ms Kamal exclaimed that the discussion concluded with a call for a long-term struggle to address these complex issues, suggesting that change could come from both inside and outside the system.

It was proposed that brilliant young women should pursue careers in the army or civil services to make change from within, while external pressures from youth movements and women's rights groups could drive change from the outside. Participants emphasized that significant change would require continuous effort and adaptation.

Overall, the discussion underscored the need for greater data transparency, youth involvement, and proactive measures to address issues related to violence against women and the informal water economy, with a focus on long-term solutions.



Table Experts Dr. Imran Ahmed, Ms. Mahim Meher, Dr. Pervaiz Amir, Dr. Mark Smith, Ms. Barbara Schreiner, Mr. Kazim Saeed, Ms. Simi Kamal (right to left)

SESSION 7A

Does Water Matter to Anyone in Karachi

Facilitator	Dr. Areba Syed, Asst. Prof. Department of Civil Engineering, NED University
Moderator	Ms. Afia Salam, Journalist
Chair	Dr. Noman Ahmed, Dean AMS, NED University
Speaker	Dr. Lubna Ghazal, Asst. Prof. Department of Geography, University of Karachi
Panelists	Mr. Shoukat Alvi, Senior Transport and Civil Engineer, KNIP Mr. Sulaiman Chandio, Ex-MD KWSB Mr. Shakeel Qureshi, PD KWSSIP Mr. Muhammad Toheed, Karachi Urban Lab Ms. Seema Taher Khan, Airwaves Media Ms. Amber Ali Bhai, General Secretary, SHEHRI Mr. Yasir Hussain, Founder, Green Pakistan Coalition

Session 7A was envisioned as a dialogue between the citizens of Karachi and the government representatives. The dialogue aimed to address key questions regarding Karachi's water supply: Is it sufficient for the city's 20 million inhabitants? Is it safe for consumption? What government measures are in place to enhance the situation? Additionally, participants also discussed the city's current status and future direction concerning water management, emphasizing progress and sustainable practices.

This session was jointly sponsored by Panjwani-Hisaar Water Institute and PCMU.



Opening Remarks

Ms. Afia Salam introduced the objectives of this session and informed the audience that the session format would be conducted in a different way than originally planned. She then introduced the panelists for this session and invited Dr. Lubna Ghazal to deliver the technical presentation to set the context of the discussion.

Technical Presentation

Dr. Lubna Ghazal, from Karachi University's Geography Department, presented on Karachi's water crisis, stressing its severity. She noted projections indicating potential food shortages by 2025 due to increasing water scarcity, with Pakistan ranking among Asia's most water-stressed nations. Karachi, facing rapid population growth and rainfall variability, struggles to meet demand, despite being Pakistan's most populous city.

Dr. Ghazal noted that Karachi's daily water supply of 550 million gallons falls far short of the required 972 million gallons, worsened by leaks and theft. She added that groundwater depletion, urban expansion, and inadequate infrastructure exacerbate the shortfall. Dr. Ghazal highlighted concerns with Reverse Osmosis (RO) plants, often lacking mineral additives and operating illegally, exacerbating groundwater depletion and land subsidence risks. She emphasized that effective governance and regulation are essential to tackle the crisis, including addressing its root causes, ensuring infrastructure maintenance, and regulating RO plants. Dr. Ghazal underscored the urgent need for action to safeguard Karachi's sustainability and residents' well-being.



Dr. Lubna Ghazal delivering her Technical Presentation

Panel Discussion

The panel discussion focused on the severe water crisis in Karachi, emphasizing the myriad challenges and proposed solutions. Mr. Sulaiman Chandio noted that since 2006, Karachi has not increased its water capacity, contributing to a significant shortage. He also mentioned the proliferation of reverse osmosis (RO) plants, with about 80% sourcing water from the Karachi Water and Sewage Board (KWSB) while claiming to be tapping underground sources. Chandio highlighted the various quality issues with these RO plants, including the lack of proper treatment and the toxic residue they often produce, leading to severe health risks.

Further complicating the problem, he explained, is the fact that Keenjhar Lake, one of Karachi's primary water sources, is experiencing water shortages due to reduced water flow from the Indus River.

This reduction stems from multiple upstream sources, including power plants, industrial zones, and other regions, dumping untreated sewage into the river. Despite efforts to address these issues, like the K4 water scheme intended to supplement Karachi's water supply, significant setbacks persist due to mismanagement, poor planning, and corruption.

The focus then shifted to governance and the need for institutional reforms. Mr. Shakeel Qureshi emphasized that the problem lies in governance, with a history of ineffective leadership, inconsistent project execution, and systemic corruption. He mentioned the Karachi Water and Sewerage Services Improvement Project (KWSSIP), which aims to address these governance issues through a reform-led investment program. The project seeks to revamp the KWSB's infrastructure and introduce a governance structure with broader representation from civil society and academia, alongside a tenure-secured CEO to ensure stability.



Session Panelists: Ms. Amber Alibhai, Mr. Muhammad Toheed and Mr. Sulaiman Chandio

Ms. Amber Ali Bhai from SHEHRI addressed the need for greater transparency and accountability, criticizing the KWSB for a lack of proactive disclosure. She raised concerns about the contractual relationships between the KWSB and tanker mafias and emphasized that many issues contributing to water scarcity stem from mismanagement and lack of accountability. Ms. Alibhai also pointed out the adverse impact of construction activities on water resources due to excessive extraction of sand and stone, critical for groundwater recharge.

Ms. Seema Taher Khan shared insights into the resistance from civil society members to join the KWSB board due to the risks and threats they face from corrupt practices within the institution. She explained how media is often restricted in discussing sensitive topics related to water management due to political pressure and noted that public office requires integrity and transparency, which is often lacking.

Mr. Muhammad Toheed raised serious concerns about the significant inequity in water distribution across the city. He highlighted the disparity in water supply, pointing out that some areas, such as Orangi and Baldia Town, have experienced a complete lack of pipeline water for six months, while other parts of Karachi continue to receive adequate supply.

He also brought up the issue of water wastage and mismanagement. Approximately 35%, or 192 million gallons of water, is lost to leakage and theft due to institutional incompetence. Mr. Toheed criticized the Karachi Water and Sewage Board (KWSB) for its role in overseeing two failed projects: the K4 water scheme and the S3 project. Despite these challenges, there is a lack of accountability and no clear plan to rectify the situation.

Mr. Toheed also questioned why water can be obtained from hydrants and tankers, but not through the city's pipelines.



Session Panelists: Dr. Noman Ahmed, Ms. Seema Taher Khan, Mr. Shaukat Alvi and Mr. Shakeel Qureshi (left to right)

Overall, Mr. Toheed emphasized that the current water distribution system fails to meet the needs of Karachi's most vulnerable communities, urging a closer examination of the KWSB's role and demanding greater accountability. He concluded by questioning whether the current processes in place are sufficient to address the city's water crisis, given the many shortcomings and failures he outlined.

The discussion, moderated by Ms. Afia Salam, focused on the various issues facing Karachi's water supply and sewage systems. The panelists presented a bleak picture of Karachi's water crisis, with governance and mismanagement as the core issues. They called for comprehensive reforms, transparency, and accountability to address the growing challenges of water scarcity and ensure equitable water distribution for all residents of Karachi.



Closing Remarks

The Session Chair, Dr. Noman Ahmed began by summarizing the key points, emphasizing that while there have been multiple reforms in Karachi's water and sewage services, significant challenges remain. He highlighted the importance of addressing the composition of management and key decision-makers within the institution, noting the new development where the Mayor of Karachi chairs the board of the water and sewage corporation. This change was seen as a shift in power from the provincial government to local governance.

Dr. Noman Ahmed also touched on human resource challenges, noting that over the past 30 years, the quality of professionals joining the organization had declined. To reverse this trend, strategies are needed to attract top talent. He criticized the corporation's consumer relations, mentioning that complaint centers have not been established despite being planned, which has contributed to poor service and inadequate response to consumer needs. Additionally, he mentioned the corporation's revenue issues, citing a study indicating a widespread belief among Karachi residents that water is a "God-gifted service," leading to a reluctance to pay for it. This belief, prevalent even in affluent areas, complicates efforts to make the corporation self-sufficient.



Ms. Afia Salam moderating the panel discussion

Dr. Noman Ahmed also addressed the issue of external funding from the World Bank, which could lead to increased debt for the country. An audience participant agreed that borrowing from external sources is not ideal, but acknowledged that large capital injections are necessary to improve the water and sewage systems. He stressed the importance of reforms to ensure that the capital is used efficiently and sustainably, incorporating environmental and climate resilience considerations.

Conclusion

Ms. Afia Salam concluded by emphasizing the importance of accountability and transparency, urging participants to continue the conversation in other forums to address the broader issues of equity and justice in Karachi's water and sewage systems. She apologized for the abrupt end to the discussion but reiterated that these topics are crucial and need ongoing attention.

SESSION 7B

Transformative Water Matters in Food Security: Wake up Pakistan!

Facilitator Dr. Mohsin Hafeez, Country Representative, IWMI, Pakistan

Chair Dr. Mark Smith, Director General IWMI, Colombo, Sri Lanka

Keynote Dr. Akissa Bahri, Board Member IWMI

Panelists Dr. Mohsin Hafeez, Country Representative, IWMI, Pakistan
Ms. Simi Kamal, Chairperson, Hisaar Foundation
Dr. Robina Wahaj, Land and Water Specialist at FAO
Mr. Umer Karim, Agriculture Engineer
Dr. Pervaiz Amir, Senior Economist, Director Pakistan Water Partnership

The session aimed to provide insight into research, innovation, policy, and intervention needs for water security implementors and stakeholders, improving understanding of future water risks and the impact of mission-led research in Pakistan. It generated alliances, highlighted collective innovation potential, explored research gaps, and identified transformative solutions for the water-food security nexus.

This session was sponsored by International Water Management Institute (IWMI).





Session Moderator Dr. Mohsin Hafeez

Opening Remarks

Dr. Mohsin Hafeez opened the session by introducing the session objectives. He then introduced the keynote speaker Dr. Akissa Bahri and invited her to deliver the Keynote presentation.

Keynote Presentation

Dr. Akissa Bahri's presentation addressed the shift from food security to food sovereignty, focusing on Tunisia's experience. Food security ensures everyone has access to sufficient food, while food sovereignty emphasizes local control over food systems.

Dr. Bahri discussed Tunisia's challenges, including water scarcity, reliance on food imports, and climate change's impact on agriculture. She highlighted the need for agrarian reform, protection of natural resources, and local food production.

The presentation also pointed out that food security and sovereignty policies must address water productivity and prioritize less water-intensive crops.

The discussion touched on the role of the private sector, the importance of supporting small farmers, and the necessity to reform agricultural subsidies. Dr. Bahri called for international cooperation and a national agricultural policy that promotes sustainable practices to ensure a more secure and sovereign food system.

The session had to be broken in two parts because the President of Pakistan was scheduled to speak in the Closing Session.

Transformative Water Security Initiative

In the second part of Session 7B, the discussion revolved around the challenges and transformative approaches related to water and food security in Pakistan. The session began with a presentation by Mohsin Hafiz from the International Water Management Institute (IWMI) on the transformative future for water security initiative (TFWS). The presentation highlighted the need for bold actions due to increasing pressures on water resources, climate change effects, and the implications of these on food security. Firstly, the Transformative Future for Water Security (TFWS) Initiative was highlighted, aiming to develop ambitious missions for water research and innovation to tackle critical issues like water for food production, energy generation, and climate change impacts.

Secondly, Dr. Hafeez addressed the pressing water security challenges in Pakistan, emphasizing the country's severe water crisis marked by diminishing water availability and escalating competition for resources. Recent climate-related disasters, such as the 2022 floods, have inflicted substantial economic losses and displacement, underscoring the urgent need for transformative shifts in water management practices.

Panel Discussion

During the panel discussion, each speaker highlighted a distinct aspect of addressing water and food security challenges:

Ms. Simi Kamal emphasized the necessity of challenging the status quo and promoting collaboration among various sectors—government, private, and civil society.

This approach ensures a comprehensive and holistic response to water-related issues, facilitating the achievement of transformative goals.

Dr. Pervaiz Amir stressed the crucial link between research and policy implementation. He advocated for translating research findings into actionable policies that directly benefit the farming community, underlining the importance of effective policy implementation to address pressing agricultural challenges.

Dr. Mark Smith emphasized the power of collective action and coordination across stakeholders and scales. By fostering collaboration and synchronization of efforts, transformative change can be achieved more effectively, with brokers playing a pivotal role in facilitating communication and collaboration among diverse stakeholders.



Session Panelists

Dr. Robina Wahaj highlighted the importance of engaging and educating youth on water-related issues. By involving younger generations through meaningful consultation and leveraging social media platforms, awareness and understanding of water and food security challenges can be enhanced, fostering a more informed and engaged future populace.

Mr. Umer Karim underscored the significance of proper policy implementation and the need for rigorous monitoring and evaluation. Ensuring policies achieve their intended outcomes requires thorough oversight and assessment, facilitating adjustments and improvements as necessary to address evolving challenges.

Dr. Akissa Bahri emphasized the importance of inclusivity in policy-making processes, particularly in ensuring the participation of marginalized and vulnerable groups.

She noted that civil society can play a pivotal role in bridging the gap between these groups and policymakers, advocating for their needs and ensuring their voices are heard in decision-making processes.

Closing Remarks

In his closing remarks, the Session Chair, Dr. Mark Smith stressed the interconnected challenges of water and food security, highlighting the need for collective efforts and effective brokering to drive transformative change. He emphasized the urgency of swift action to achieve significant systemic transformations, urging stakeholders to prioritize collaboration and innovation to address these pressing issues.

The session concluded with a call for continuous collaboration, innovative solutions, and bold actions to address Pakistan's water and food security issues, with a focus on inclusive and participatory approaches.



Mr. Umar Karim, Dr. Mohsin Hafeez, Dr. Mark Smith, Dr. Pervaiz Amir, Dr. Akissa Bahri, Ms. Simi Kamal, Dr. Robina Wahaj (left to right)

SESSION 7C

Public Private Partnership Redefining Municipal Services

Moderator Mr. Tauseef Lateef, Chief of Party, USAID's Water Governance for Sindh Activity (WGS)

Panelists Dr. Fozia Parveen, Assistant Professor AKU-IED
Mr. Muhammad Rafi, Director (Tech), WASA Faisalabad
Mr. Khalid Mehmood Shaikh, CEO, SPHF
Dr. Amir Iqbal, CEO, SECMC
Dr. Shaikh Tanveer Ahmed, Chief Executive, HANDS

This session brought together a diverse panel to discuss the challenges and potential solutions in water supply, wastewater management, and public-private partnerships (PPPs) in Pakistan.

This session was co-sponsored by HANDS-USAID.



Mr. Tauseef Latif, Dr. Fozia Parveen, Mr. Muhammad Rafi, Mr. Khalid Mehmood Sheikh, Mr. Amin Iqbal, Mr. Shaikh Tanveer Ahmed (left to right)

Opening Remarks

Mr. Tauseef Lateef, the moderator of the session commenced it with opening remarks and introductions of the esteemed panelists. He then asked each of the panelists to speak on a particular aspect of the topic at hand.

Panel Discussion

Dr. Fozia Perveen opened the discussion by examining the environmental consequences of inefficient water supply systems, solid waste, and waste water. She pointed out that despite Pakistan's overall water richness, poor infrastructure and planning have led to significant environmental issues. Dr. Perveen highlighted the absence of comprehensive wastewater treatment systems and noted that most cities direct untreated wastewater into storm drains, which leads to water bodies. She emphasized the need to value water and discussed how interconnected issues of plastic pollution, microplastics, and poor solid waste management affect the environment. Dr. Perveen concluded by suggesting that innovation and better management are required to address these issues.

Mr. Muhammad Rafi discussed the financial and maintenance challenges faced by the Water and Sanitation Agency (WASA) in managing water treatment plants in Punjab. He noted that while donors often fund new projects, the maintenance costs can be prohibitive, leading to reluctance in adopting new initiatives. Mr. Rafi highlighted the need for effective water metering to control waste and improve revenue generation.

Mr. Khalid Mehmood Shaikh then spoke about the importance of public-private partnerships (PPPs), noting that the success of these ventures depends on clear governance frameworks and political will. He shared insights from his experience with PPPs in Sindh, indicating that political support is crucial for creating a conducive environment for these partnerships. Mr. Shaikh stressed the need for a robust institutional framework, transparency, and accountability in PPP projects, emphasizing that political vision is key to success.

Mr. Amir Iqbal elaborated on the financial viability of PPPs, emphasizing that successful partnerships require clear expectations and a transparent relationship between the public and private sectors. He mentioned that the government's role is to provide infrastructure and policy frameworks, while the private sector brings innovation and efficiency. Mr. Iqbal noted that a successful PPP model must balance public and private interests and called for political stability to ensure the continuity of policies.

Finally, Dr. Shaikh Tanveer Ahmed focused on the challenges faced in health and education sector PPPs, highlighting the importance of a transparent tender process, budget definition, and asset management. He mentioned that bureaucratic red tape and lack of defined budgets create barriers to successful PPPs, particularly in health and education sectors. Dr. Ahmed emphasized the need for better engagement with local bodies to ensure smooth implementation and raised concerns about the lack of a holistic approach in health care PPPs.



Session Panellists

Questions and Answers

Questions were raised about the government's reluctance to embrace PPPs and the challenges in maintaining political will. Dr. Ahmed and Mr. Shaikh suggested that mistrust and financial constraints often contribute to the government's hesitation to engage in PPPs, while Mr. Iqbal pointed out that a stable policy environment and competent regulators are crucial for successful public-private partnerships.

Overall, the session highlighted the complexities and challenges involved in municipal services and PPPs, stressing the need for political will, effective governance, and innovative approaches to address these issues.



SESSION 8

Closing Plenary: Water Matters for the Future

Facilitator (Part 1)	Mr. Zohair Ashir, Governor, Hisaar Foundation
Facilitator (Part 2)	Ms. Sanaa Baxamoosa, Director External Relations, Hisaar Foundation
Chief Guest	H.E Dr. Arif Alvi, President of Pakistan (online)
Conference Declaration	Mr. Ahmed Rafay Alam
Speakers	Ms. Simi Kamal, Chairperson, Hisaar Foundation Ms. Nadira Panjwani, Chairperson, Panjwani Charitable Foundation Professor Dr. Muhammad Tufail, Pro-Vice Chancellor NED University Mr. Amir Iqbal, CEO, SECMC Dr. Youssef Filali-Meknassi, Director, UNESCO Pakistan Ms. Rachel Grant, Deputy Director USAID “SOS from the Kids” Song by the KGS Middle Section Choir
Acknowledgements	Ms. Sanaa Baxamoosa, Director External Relations, Hisaar Foundation

This session was sponsored by the Hisaar Foundation.

The Closing Plenary session of the 6th Karachi International Water Conference was conducted in two parts. The first part was entitled “Panjwani-Hisaar Water Institute: Vision to Reality to Future” and was moderated by Mr. Zohair Ashir, a visionary Governor of Hisaar Foundation. This session focused on showcasing the Panjwani-Hisaar Water Institute and celebrating its achievements and milestones. The second part was geared towards formally closing the conference with the reading of Conference Declaration and remarks from esteemed dignitaries. The conference closed with a beautiful and powerful rendition of the song “SOS from the Kids” by the Choir of the Karachi Grammar School Middle Section.

Part 1 – Panjwani-Hisaar Water Institute: From Vision to Reality to Future

Opening Remarks



The closing session of the Sixth Karachi International Water Conference, titled "Vision to Reality to Future," began with remarks from Mr. Zohair Ashir, a key figure in the leadership of Hisaar Foundation. He welcomed the distinguished guests, including the President of Pakistan, Dr. Arif Alvi, and reflected on the journey that began four years earlier with the establishment of the Panjwani Hisar Water Institute (PHWI). Mr. Ashir noted the significant progress made since then and introduced key speakers to further elaborate on the developments..

The Vision



Ms. Simi Kamal, Chairperson of the Hisaar Foundation, shared the story behind the creation of PHWI at NED University, explaining that the institute was conceived to promote innovative water education and research. She emphasized the multidisciplinary approach that combines engineering, water sciences, social sciences, and economics to address water challenges in Pakistan and globally. Ms. Kamal highlighted the institute's commitment to fostering a broader understanding of water-related issues and its role in facilitating informed policy and action.



Ms. Nadira Panjwani, Chairperson Panjwani Charitable Foundation, speaking about PHWI

Public Private Partnership

Dr. Mohammad Tufail, Pro Vice-Chancellor of NED University, provided historical context, noting the university's longstanding association with water-related studies. He praised the unique partnership between NED University, the Hisar Foundation, and the Panjwani Charitable Foundation, which led to the establishment of PHWI. Dr. Tufail acknowledged the crucial government support, including a grant of 500 million rupees, which facilitated the acquisition of high-end equipment for research labs. He also extended an open invitation to visit the institute to witness its progress firsthand.

Making it Happen

Ms. Nadira Panjwani, Chairperson of the Panjwani Charitable Foundation, discussed her organization's role as the lead donor for PHWI and the ongoing construction of the institute's complex on the NED University campus. She mentioned that PHWI had already begun offering short courses, seminars, and workshops, with full-fledged PhD programs set to commence in 2024. Ms. Panjwani also highlighted the collaboration with international experts, notably a team from Jordan, to help develop the curriculum for the institute.



Dr. Muhammad Tufail, PVC NED University with Mr Zohair Ashir, Governor Hisaar Foundation

Supporting Implementation of the Vision

The session also included remarks from Mr. Amir Iqbal, CEO of SECMC, a subsidiary of the Engro Corporation. Mr. Iqbal discussed the corporate sector's responsibility in addressing pressing water issues and underscored the potential social tensions arising from water inequality. He expressed pride in Engro's partnership with the Hisar Foundation and commitment to supporting PHWI's mission.

Chief Guest Address

The President of Pakistan, Dr. Arif Alvi, shared his thoughts on the importance of water management in addressing the critical issues facing Pakistan, such as climate change and water scarcity. He highlighted the need for public

awareness and behavioral change regarding water use, emphasizing the significance of water in Pakistan's history and civilization. Dr. Alvi commended the Hisar Foundation and its partners for their work in promoting sustainable water management and suggested that these efforts require a national spirit and collaboration among various stakeholders.

Part 2 – Water Matters for the Future

The session resumed with Ms Sanaa Baxamoosa expressing gratitude for the attendees' patience and apologizing for the interruption. She then proceeded to introduce the next segment of the session with an introduction of Ms Rachel Grant, Deputy Director, USAID.



Dr Arif Alvi, President of Pakistan addressing the audience at the Closing Plenary Session



Mr. Youssef Felali-Mehnassi, Pakistan Country Director UNESCO

Remarks

Ms. Rachel Grant, Deputy Director, USAID, commended the participants for their contributions to tackling critical climate issues impacting Sindh and Pakistan. She expressed gratitude to the Hisaar Foundation and USAID's Water Governance for Sindh activity for their efforts in organizing the conference. Ms. Grant emphasized the importance of collective action and public-private partnerships in addressing water-related challenges and highlighted successful initiatives in collaboration with the Sindh government.

Ms. Grant concluded her remarks, thanking the participants for their dedication to addressing water challenges in Sindh. She expressed optimism for a brighter future and extended her appreciation to all involved in making the conference a success.

After that, Dr. Youssef Fillali Mknasssi, Director of UNESCO Pakistan, was invited to the stage to deliver his remarks. Dr. Mknasssi highlighted the significance of data in water resource management and introduced the Water Information Network System (WINS) platform developed by UNESCO. He emphasized the importance of data-driven decision-making and the potential of WINS in facilitating access to water-related information. He congratulated the team at Hisaar Foundation on the success of the conference and offered the support of UNESCO in future initiatives.



Ms. Rachel Grant, Deputy Director USAID



Establishing the Future (MOU Signing Ceremony)

Representatives of Hisaar Foundation, Econorm, and AXIS Daiki proceeded to sign a Memorandum of Understanding (MOU) for establishing future collaborations. The signing ceremony was followed by congratulatory remarks and acknowledgments to the parties involved.

“SOS from the Kids” Song

Hassan Zulfikar Causer from Karachi Grammar School delivered a special announcement, presenting a performance by the school's Middle Section choir. The performance aimed to highlight the importance of water and amplify youth voices in water conservation efforts. Lubaba Khurram, Sadia Dada, Mohammad Usman, Maryam Yasir, Alaina Adnan, Salman Ahmad, Sheherzad Ahmad, Alizeh Usman, Myra Hashmi, Myra Amin, Amna Salim Awan, Noor Ayub, Sakina Nooruddin, Zaahid Zulfikar Causer, Rayyan Qayyum, and Zain Ali, students of the Karachi Grammar School Middle Section, delivered a poignant message about the importance of water conservation and environmental awareness.



Conference Declaration

Mr. Rafay Alam read the Conference Declaration, outlining key recommendations and initiatives proposed during the conference. The declaration emphasized the establishment of a National Panel on Water, integration of water justice into human rights frameworks, and empowerment of youth and women in water management.



Conference organizing team

Acknowledgements

Ms. Sanaa Baxamoosa, the Conference Director, wrapped up the session by thanking all the contributors, including the Hisaar Foundation team, sponsors, partners, and organizing committee, for their hard work in making the conference a success. She invited attendees to a closing tea reception and wished everyone well until the next conference in 2025.



Ms. Sanaa Baxamoosa , Conference Director closing the 6th KIWC

Conference Exhibition



Reaching Out: Exhibiting Ideas and Solutions

No conference is complete without spaces where ideas, solutions, systems, art, installations, posters and activities can be shared, where people can linger, meet old friends and make new ones, contemplate and share their own experiences.

This conference had three such spaces: an exhibition of framed photographs and an art book of water photographs, three booths of the main sponsors outside the main conference hall, and a larger exhibition hall with stalls, booths and interactive spaces.

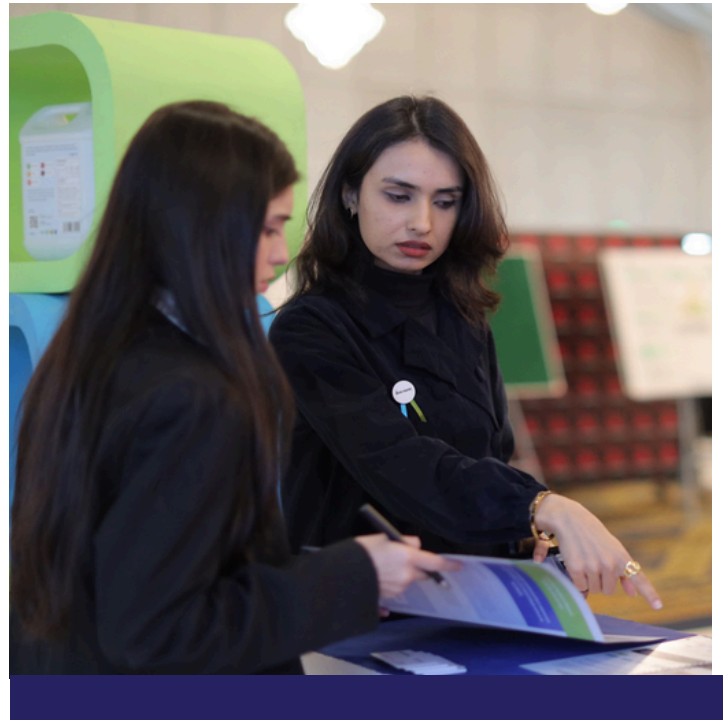
The framed photographs and the art book of photographs is covered in 20 Year Celebration of Hisaar Foundation

Three organizations had their booths in the same space: Hisaar Foundation's booth displayed its publications and program, including a continuous reel of videos, interviews and photographs. Panjwani-Hisaar Water Institute (PHWI) had a booth with staff available for discourse. Infra Zamin Pakistan booth had an interactive space where people could relax, talk to each other and simply hang out.





The main exhibition hall had 15 stalls and/or booths where organizations put out their ideas, publications, products and water systems and where staff members were available throughout the two days to provide information and demonstration.



Senior students from NED University prepared a poster exhibition of their research projects and were available to share their work.



Conference Partners, Sponsors & Exhibitors

Hisaar Foundation wishes to thank its partners and sponsors whose support and encouragement made it possible for us to hold the 6th Karachi International Water Conference. The conference partners, sponsors and exhibitors reflected a wide range of development, government, UN and corporate sector organizations.

We are especially grateful to Infra Zamin Pakistan who supported us as the lead partner for the 6th Karachi International Water Conference.

Partners & Sponsors

Infra Zamin Pakistan
Panjwani-Hisaar Water Institute (PHWI)
Engro Foundation
UNESCO
International Water Management Institute
HANDS - USAID
Pathfinder International
Pakistan Poverty Alleviation Fund (PPAF)
Water Aid
The Asia Foundation (TAF)
ICIMOD
World Bank
MyWater
British Council
PCMU (Government of Sindh)
AASA Consulting
Air Waves Media

Thematic Partners

Youth Partner
IWA Young Water Professionals Pakistan

Women Engagement Partner
Aurat Foundation

Bio-Safety & Hygiene Partner
Karefield

Conference Exhibitors

Hisaar Foundation
Infra Zamin Pakistan
PHWI
IWMI
HANDS - USAID
Pathfinder International
Engro Foundation
MyWater
GIZ
WWF
Eco-Norm
Sitech International
PCMU
TRDP - UBL
Asani.io

Media Partners

TvOne & Airwaves Media
Starlinks | PR & Events

Event & Design Partners

Jump Activations
Backspace Works
Alif Design

Social Media

The 6th Karachi International Water Conference was promoted across various social media platforms primarily to generate awareness for the Conference, its themes and its outcomes. The social media campaign for the 6th Karachi international Water Conference commenced in September 2023, two months prior to the Conference. A mix of posts highlighting quotes from speakers, sponsors and partners, conference themes, outcomes, details of registration, information on sessions, countdown posts and special days and its relevance to the conference theme were published. The hashtags used were #6KIWC and #WaterMatters.

Facebook

Hisaar Foundation consistently published updates and details of the 6th Karachi International Water Conference on the Foundation's Facebook Page. The social media campaign dedicated to the promotion of the 6th Karachi International Water Conference was successful on Facebook as the posts published on the platform garnered 1200 interactions and a reach of 11600 in the 2-month long period of the social media campaign. A reach of 6400 was achieved during the 2-day conference. Many sessions were also broadcasted live on Hisaar Foundation's Facebook Page.

Instagram

Hisaar Foundation's social media team actively posted the conference's updates on Instagram before, during and post conference. A series of stories were posted during the conference to update the audience on the on-going sessions in real time. Posts highlighting details of sessions and respective speakers were published across Hisaar Foundation's social media platforms.

X (Formerly Twitter)

All content accumulated impressions around 250-500+ with the highest number being 543. Quotations from speakers were tweeted with tags to the speaker and relevant accounts helping KIWC content being reposted and recognized amidst a larger audience. Content posted garnered 250-600 impressions per post before and during the conference.

LinkedIn

Hisaar Foundation's LinkedIn page actively published updates on 6th KIWC before and during the Conference. Multiple posts, including the Conference Brochure, were published on LinkedIn, garnering engagement from academics, activists and professionals in the water sector of Pakistan and across borders. Live updates were published on LinkedIn during the conference. All content reposted garnered 250-500 impressions in the pre-conference promotion.

Website

The 6th KIWC website was the prime source of information for all interested in attending the conference. The website featured details on conference objectives and outcomes, schedule and format, speakers, profiles of speakers, submission of abstracts as well as details on the online registration process. List of sponsors and participating organization was also displayed on the Conference's website.

Media Coverage

The 6th KIWC was extensively covered by both the electronic and print media, with the conference proceedings reported by several news channels, newspapers, and other programs. More than 90 representatives from the media participated in the conference over both days.

Conference Participants

Over 1400 participants attend the conference representing a diverse and rich variety of stakeholders. The conference brought together a wide selection of water sector experts and professionals and included non-traditional players within its ambit and scope as well. The event was attended by international speakers from UNESCO USAID, International Water Management Institute (IWMI), Infra Zamin Pakistan and Eco-norm.

YouTube

Hisaar Foundation's YouTube channel is an archive of webinars, informative videos and documentaries on the work of Hisaar Foundation. It features videos on Hisaar Foundation and its programs along with interviews with the speakers and their views about the conference. The channel had featured presentations, discussions and dialogues of renowned speakers on water and climate. The channel also displays post-conference coverage by various television media channels.

It was also attended by dignitaries from World Bank, FAO, ICIMOD and UN Living Indus. It was attended by a large number of renowned government representatives and heads of water management institutions. Corporate leaders, members of academia, representatives of donor agencies, professional bodies, members of women and water networks and representatives of community based organizations also participated in the conference. The 6th Karachi International Water Conference was also attended by university and research organizations, International water organizations, and non-government organizations. Media representatives, partners of Hisaar Foundation, youth and students organizations, water related manufacturers and service providers also participated.

Pre and Post Conference Events



Pre Conference Event: Colloquium on Climate Action & Role of Women, October 2023, Karachi

Women's Colloquium

Two women colloquiums and one signature campaign on Climate Action and Role of Women were hosted by Hisaar Foundation prior to the 6th Karachi International Water Conference.

As part of a series of events on Climate Action and Role of Women, a Signature Campaign on Climate Change was organised by Hisaar Foundation in association with Aurat Foundation and the Gender Studies Department at the University of Punjab on November 23, 2023. The purpose of this campaign was to engage youth, particularly women, in creating mass awareness for climate action with their strong commitment towards saving water. Hundreds of students participated in this event, leaving their signatures on the banner with key messages, pledging to save water. The students were also excited to become part of the Women and Water Network.

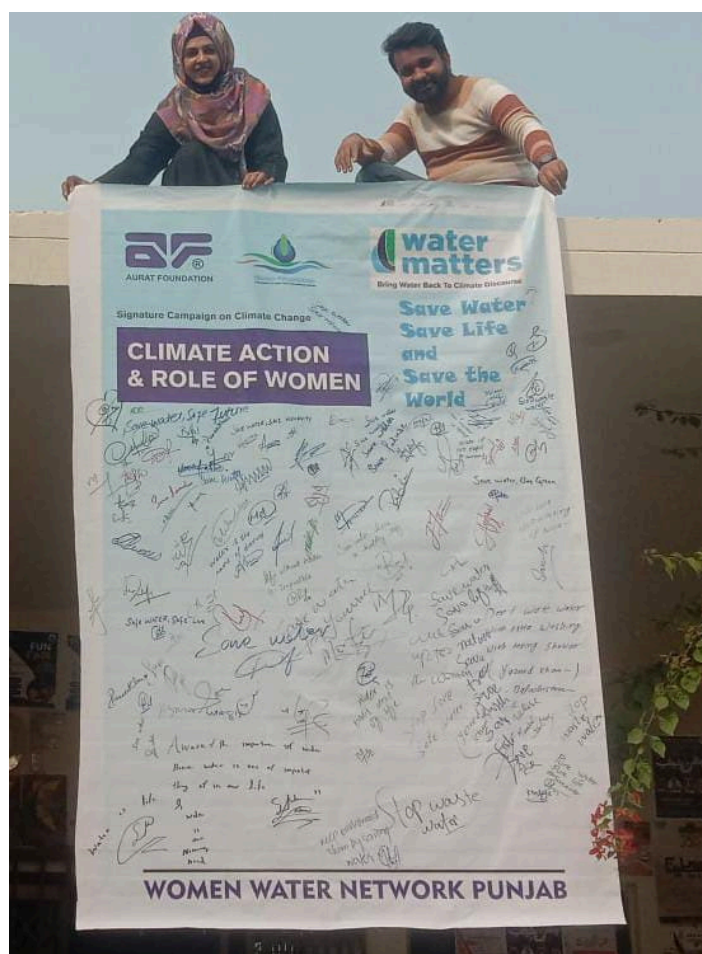
A Women Colloquium on Climate Action and Role of Women organised by Hisaar Foundation in collaboration with Aurat Foundation was held on October 12, 2023 at Aurat Foundation's premises in Karachi. This event was attended by a diverse group of women from different walks of life.



Pre Conference Event: Colloquium on Climate Action & Role of Women at PHWI, November 2023, Karachi

Ms. Kausar Hashmi from Panjwani-Hisaar Water Institute introduced Hisaar Foundation and the Panjwani-Hisaar Water Institute and their programs and projects. Ms. Mahnaz Rehman, Resident Director at Aurat Foundation, Karachi delivered a presentation on Climate Action and Role of Women. The participants of this event discussed different development issues especially in the context of water and the environment.

A second Women Colloquium was hosted by Hisaar Foundation on November 8, 2023 at the Panjwani-Hisaar Water Institute at NED University. The focus of the event was on why women's participation and empowerment is crucial for climate action. Dr. Imran Ahmed, Director Panjwani-Hisaar Water Institute, discussed the issues of water and climate change in relation to women. Ms. Mahnaz Rehman, Resident Director at Aurat Foundation, Karachi discussed why women's participation is necessary for saving planet Earth. Ms. Rana Ansar, Ex-Opposition Leader Sindh Assembly, shared her work experience in the water sector as a politician. Women councillors, students, NGO representatives and teachers participated in the event.



Pre Conference Event: Signature Campaign on Climate Action & Role of Women, November 2023, Lahore



Pre Conference Event: Climate Action & Role of Women, November 2023, Lahore



Pre Conference Event: Youth Jamboree, October 2023, Karachi

Youth Jamboree

A Youth Jamboree was held on October 28, 2023 to discuss pressing issues related to water and its management. The event's format revolved around a series of motions, each featuring an expert, a young water professional, and a consultant, who collectively engaged in thought-provoking dialogues.

Each motion focused on various themes. Motion 1 focused on Young Water Professionals and Employment, Motion 2 focused on Young Water Professionals, Ownership and Climate Sensitivity, Motion 3 focused on Young Water Professionals and Access to Monetary Support, Motion 4 focused on Young Water Professionals and International Projection and Motion 5 focused on Young Water Professionals and Academics. The Rangoonwala Trust Community Center, provided a fitting backdrop for the event, and Mr. Mustafa Bhaiwala warmly welcomed all attendees to this meaningful gathering.

The keynote address, delivered by Ms. Simi Kamal, Founder & Chairperson at Hisaar Foundation, set the scene for the in-depth discussions that were to follow. Amid these intellectually stimulating discussions, the event also featured moments of recognition. Attendees received mementos as tokens of appreciation.

The day culminated in a final declaration, where participants reaffirmed their commitments and resolutions regarding water-related challenges. Mr. M. Anique Azam, the Country Chair of IWA YWP Pakistan, delivered a heartfelt vote of thanks, acknowledging the contributions of all involved. At the end certificates were awarded to volunteers, symbolising their dedication and efforts in making the event a success. The Youth Jamboree attracted a significant turnout of attendees, with a good number of participants and guests converging to actively engage in discussions and collaborative initiatives. A detailed report of the Youth Jamboree is available online.

Universities for Water Network (UWN) Meeting

The 8th meeting of the Universities for Water Network was held on November 29, 2023, as a post-conference event. The meeting was held on the premises of the Panjwani-Hisaar Water Institute (PHWI), and the participants later took a tour of the premises.

Several international speakers from the conference joined this meeting, along with the mentors of the network, Ms. Simi Kamal and Dr. Pervaiz Amir. The meeting was hosted by Dr. Imran Ahmed, Director of PHWI.

There were 18 participants, including the following international delegates of the conference:

1. Ms. Barbara Schreiner, Water Integrity Network (WIN), Germany
2. Mr. Khalil Mughal, Eco-Norm, Netherlands
3. Mr. Katagiri Takuya, Daiki Axis, Japan
4. Ms. Tasneem Hyarat, University of Jordan, Jordan
5. Prof. Amal Al-Abbali, University of Jordan, Jordan

Ms. Simi Kamal explained the significance of the universities for water network formed in 2013 and its progress to date, with its 20 plus universities as of now. Dr. Imran Ahmed shared the concept of a shared data space on cloud storage for all the members of the UWN. This cloud space will provide access to all research and data available with different universities and will help in ensuring maximum information sharing. After an in-depth discussion, Dr. Pervaiz Amir provided some very practical and insightful recommendations for PHWI and the UWN.



20 Year Celebration of Hisaar Foundation



Ms. Sanaa Baxamoosa, Director External Relations launching the Hisaar Foundation 20 year report “Looking Back, Looking Forward”

Hisaar Foundation commemorated its two-decade journey with a grand 20 year event held on November 26, 2023, at the Marriott Hotel in Karachi. The event brought together a diverse array of attendees, including Board of Governors Council Members, Associates, and Staff members, to honor their collective contributions to Hisaar Foundation's mission.

Twenty Years of Hisaar Foundation

The event commenced with the unveiling of the 20 Year Report, a comprehensive retrospective capturing Hisaar Foundation's transformative trajectory and its relentless efforts to address Pakistan's water and climate crises. Ms. Sanaa Baxamoosa, Director External Relations delivered remarks on the report's significance, highlighting Hisaar Foundation's pivotal role in driving change over the past two decades. She made a brief presentation on the work of Hisaar Foundation over the last 20 years, especially highlighting its milestones and achievements.

Celebrating the People of Hisaar Foundation

Following the report launch, Ms. Simi Kamal, Founder and Chairperson of Hisaar Foundation commenced the Award Ceremony.



Ms. Sanaa Baxamoosa , Director External Relations, presenting memento to Ms. Simi Kamal, Founder and Chairperson, Hisaar Foundation



Ms. Sanaa Baxamoosa , Director External Relations, presenting memento to Ms. Nadira Panjwani, Governor Hisaar Foundation

The award ceremony recognized and applauded individuals who played instrumental roles in Hisaar Foundation's journey. Awards were conferred upon Board of Governors, Council Members, members of the Think Tank on the Rational Use of Water, donors, partners, staff members, and associates for their unwavering commitment and support.

Next, Mr Zohair Ashir, Governor Hisaar Foundation, conducted an engaging open mic discussion. Friends and associates of Hisaar Foundation, both old and new, shared their insights and experiences and shared their congratulations. Ms. Afia Salam was invited to speak about her experience and findings from conducting the 20-year impact assessment of Hisaar Foundation. She provided her valuable feedback and reflections on the Foundation's work and provided some recommendations for the future.



Board Members, Council Members and Think Tank Members of Hisaar Foundation



Mr. Zohair Ashir, Governor Hisaar Foundation, moderating the open mic session



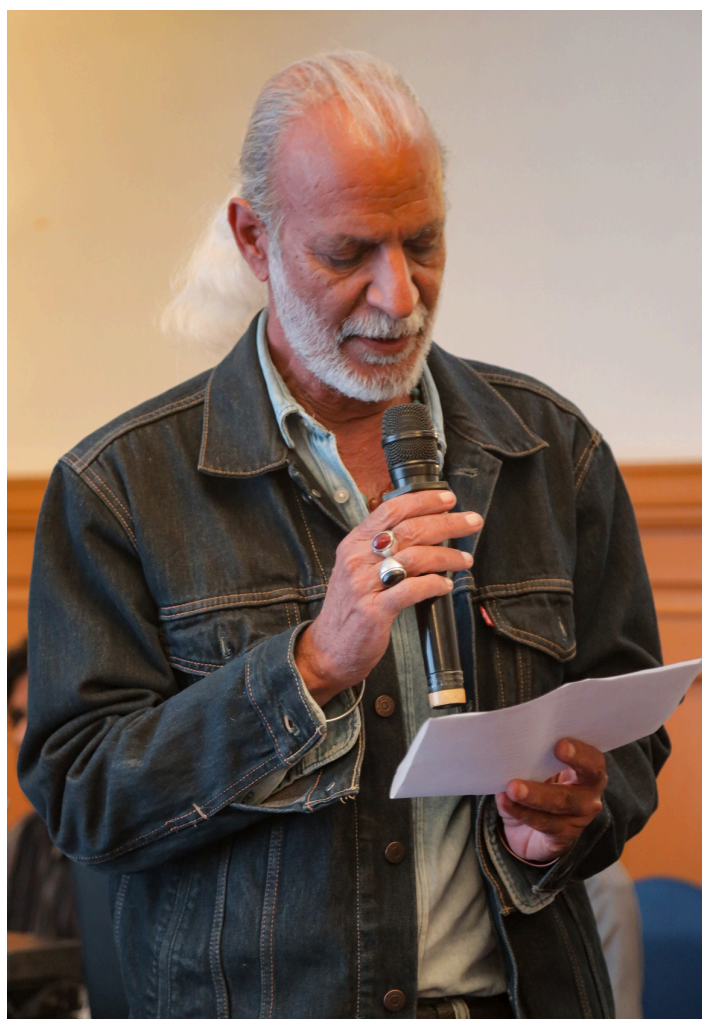
Ms. Simi Kamal, Chairperson, launching "Undertow" (art book of photographs)

Undertow – Art Book of Photographs

The evening culminated with the unveiling of "Undertow," a captivating book of photographs by Mr. Maazin Kamal. Ms. Simi Kamal launched the art book of photographs paying her thanks to the photographer. Undertow's concept was further reiterated through the reading of an evocative excerpt from the book read by Mr. Tofiq Pasha Mooraj, Governor Hisaar Foundation. The launch served as a poignant reminder of Hisaar Foundation's enduring legacy and its commitment to catalyzing positive change through visual storytelling.

Closing

The evening ended on a positive note with congratulations being shared amongst all those present. In the end, Ms Simi Kamal invited all the attendees to the Opening Plenary session of the 6th Karachi International Water Conference to be held the next morning.



Mr. Tofiq Pasha Mooraj, Governor Hisaar Foundation reading excerpt from "Undertow" (art book of photographs)



Undertow exhibition gallery

Art Book of Photographs

Undertow, the art book of photographs by Mr Maazin Kamal, was launched at Hisaar Foundation's 20 Year Event held on November 26, 2023. The book and selective framed photographs featured in the book were displayed at a dedicated gallery space at the 6th Karachi International Water Conference.

Mr. Maazin Kamal received the Nigaah Art Award in Photography 2023 for his works which include the photographs featured in Undertow.

Undertow is a current of water below the surface that moves in a different direction from surface currents. It is often implicit, underlying the visible, the apparent. It leaves an impression, or creates an event unlike one that is expected.

It can pull you to the sea from the breaking waves, giving you an exhilarating experience or drown you.

It can create spectacular landscapes through hidden movements. Now you see it, now you don't. Sometimes it is just on the edge of your vision, and sometimes you will look for it and not find it. It is where water meets its nemesis but also where it meets its balancing companion. Undertow is the "other self" of the visible spectrum of water bodies, water movements and water currents.



Exhibition of Undertow - Art book of photographs

In this book of photographs, one is invited to sense the undertow and appreciate the relationships around water. This is the milieu of Hisaar Foundation's work – water in all its visible, hidden and balancing aspects. In these depictions you will sense Hisaar Foundation's own work of 20 years.

Sometimes we have been the 'undertow' to the relentless programs to tame and control rivers and lakes until they have dried up or become drains and dumps. At other times we have faced the 'undertow' when our work is seen as going in another direction from the established norms.

We have responded to climate and water emergencies, served communities, developed strategies and policies, built lasting partnerships, faced challenges and found solutions.

All proceedings from Mr. Maazin Kamal's limited edition works from the Undertow series will contribute towards Hisaar Foundation's Endowment Fund Appeal, launched on November 26, 2023.



UNDERTOW

Selected Photographs by Maazin Kamal

Conference Committees & Groups

Report Preparation

- Ms. Sanaa Baxamoosa
- Ms. Umama Leghari
- Ms. Suroor Ansari
- Ms. Faryal Azam

Council of Mentors

- Ms. Simi Kamal
- Mr. Zohair Ashir
- Ms. Meher Marker Noshirwani
- Dr. Pervaiz Amir
- Ms. Barbara Schreiner
- Dr. Syed Imran Ahmed
- Mr. Tofiq Pasha Mooraj
- Mr. Ashraf Kapadia

Academic Committee

- Dr. Areba Syed (Chair)
- Dr. Anique Azam
- Dr. Lubna Ghazal
- Dr. Nuzhat Khan
- Ms. Kausar Hashmi (Secretary)

Reporting Group

- Ms. Aisha Lipardo Ayub
- Mr. Asif Tehseen
- Ms. Barkha Soomro
- Ms. Khadija Fatima
- Ms. Mehwish Mushtaq
- Mr. Nadir Ali
- Ms. Naila Jabeen
- Ms. Sabeen Rizvi,
- Ms. Sana Mooro
- Mr. Shazil Anwar
- Ms. Simra Abbas
- Ms. Tayyaba Nafees

Management Committee

- Ms. Sanaa Baxamoosa
(Conference Director)
- Mr. Ahmed Palwa
- Mr. Nadeem Siddiqui
- Mr. Altaf Hussain
- Mr. Muhammed Jamil
- Mr. Raheel Haider
- Ms. Sabah Siraj
- Mr. Saifullah
- Ms. Suroor Ansari
- Ms. Umama Leghari
- Mr. Muhammed Aqib
- Mr. Dileep Kumar
- Ms. Faryal Azam (Secretary)

Declaration Committee

- Ms. Simi Kamal
- Ms. Barbara Schreiner
- Mr. Adil Mansoor
- Dr. Areba Syed
- Mr. Rafay Alam
- Ms. Suroor Ansari
- Ms. Faryal Azam

Appendix A

Conference Schedule

Day 1 - Monday, November 27, 2023

Day 1 - Monday, November 27, 2023			
Time	Session & Topic		
0900 - 0930	Registration		
930 - 1130	Session 1: Opening Plenary: Water Matters in Climate Change Welcome Address, 10 years of KIWC, Parliamentary Style Debate, Keynote Address Room: CBR		
1130 - 1200	Tea Break		
1200 - 1330	Session 2 Why Water Matters for Finance: Investing in the Water Economy Keynote Presentation & Panel Discussion with Financing Institutions Room: CBR		
1330 - 1430	Lunch		
1430 - 1600	Session 3A For Whom Does Water Matter: Justice Denied Keynote Presentation & Panel Discussion Room: Dumpukhat	Session 3B Water Matters in Health and Nutrition: Links that are not Obvious Keynote Presentations, Respondents & Open Discussion Room: Ambassador 1	Session 3C Watershed Management Matters: Nature Based Solutions from Source to Sea Keynote Presentation & Panel Discussion Room: CBR
1600 - 1730	Session 4A Women Matter in Water: Examples of Action Feature Film & Panel Discussion Room: CBR	Session 4B Water Quality Matters: Circular Economy Papers & Presentations Room: Dumpukhat	Session 4C Water Disasters Matter Papers & Presentations Room: Ambassador 1
1730 - 1800	Tea		

Conference Schedule

Day 2 - Tuesday, November 28, 2023

Day 1 - Monday, November 27, 2023			
Time	Session & Topic		
0930 - 1100	Session 5A Making Water Economy Deliver: Moving People from Poverty to Prosperity Panel Discussion with Corporate Sector, Agriculturists and Microfinance Institutions Room: CBR	Session 5B Blue Economy Matters: Oceans, Wetlands and Biodiversity Presentation & Panel Discussion Room: Dumpukhat\	Session 5C Water & SDGs: A Global Stocktake Presentation & Panel Discussion Room: Ambassador 1
1100 - 1130	Tea Break		
1130 - 1300	Session 6 Café of the Unheard: New Voices Matter Café Style Open Dialogue between Mentors & Participants Room: Ambassador 1		
1300 - 1400	Lunch Break		
1400 - 1530	Session 7A Does Water Matter to Anyone in Karachi Townhall between Government Reps. & Participants Room: Dumpukhat	Session 7B Transformative Water Matters in Food Security: Wake up Pakistan! Keynote Presentations, Respondents & Open Discussion Room: CBR	Session 7C Synergizing Growth: Public Private Partnership Redefining Municipal Services Panel Discussion Room: Ambassador 1
1530 - 1730	Session 8 Closing Plenary: Water Matters for the Future Showcasing of Panjwani-Hisaar Water Institute, Address by Chief Guest, Conference Declaration and Moving Forward Room: CBR		
1730 - 1800	Tea		

Appendix B

Chairs, Speakers, Panelists & Other Featured Participants

Name	Designation	Organization
Aban Marker Kabraji	Senior Advisor on Climate Change and Biodiversity	UN Development Coordination Office for Asia-Pacific
Dr. Adil Najam	President	WWF International
Afia Salam	Trustee	Indus Earth Trust
Dr. Akissa Bahri	Agriculture Minister of Tunisia Board Member	IWMI
Dr. Allah Nawaz Samoo	CEO	TRDP
Amber Alibhai	General Secretary	Shehri-Citizens for a Better Environment (CBE)
Amir Iqbal	CEO	Sindh Engro Coal Mining Company (SECMC)
Amir Shehzad	Executive Director	Unity Foods
Dr. Areba Syed	Assistant Professor	NED University
Dr. Arif Alvi	Former President of Pakistan	
Ashraf Kapadia	Council Member	Hisaar Foundation
Asim Khan	Managing Director	Radiant Chemical (Pvt) Ltd
Barbara Schreiner	Executive Director	Water Integrity Network (WIN)
Barkha Soomro	Research Assistant	NED University
Basharat Saeed	Water Resources Specialist	World Bank Group
Boo Hock KHOO	Chairman	InfraZamin Pakistan
Dick van Dijk	Chairman	Enviro-Pure Foundation
Dure Sameen Akhund	Sustainability Manager	CERB - Pakistan Business Council (PBC)
Emilio Cattaneo	Head of Technical Assistance	Private Infrastructure Development Group (PIDG)
Faisal Qamar	Intervention Manager	ICIMOD
Favad Soomro	Head	Engro Foundation
Fiza Qureshi	Program Policy Officer	World Food Program

Name	Designation	Organization
Dr. Fozia Parveen	Associate Professor	Aga Khan University
François Onimus	Senior Water Resources Specialist	World Bank
Dr. Ghazala Mansuri	Lead Economist	Poverty Reduction Equity Group, World Bank
Imdad Hussain Siddiqui	Director Operations	PDMA Sindh
Dr. Imran Ahmed	Director	PHWI
Dr. Inga Jacobs - Mata	Director - Water, Growth and Inclusion	IWMI
Dr. Iqbal Choudhary	Director PCF Representative	ICCBS
Jamal Ansari	Chief Executive	Akbar Associates Group
Kazim Saeed	Development, Policy and Strategy Expert	
Khalid Mehmood Shaikh	CEO	Sindh People's Housing For Flood Affectees (SPHF)
Khalil Mughal	Founder & President	Eco-norm
Dr. Kulsum Ahmed	Director	Integrated learning Means (ILM)
Dr. Lubna Ghazal	Assistant Professor	Karachi University
Maheen Rahman	CEO	InfraZamin Pakistan
Mahim Maher	Media Consultant	AKU
Mahnaz Rahman	Resident Director	Aurat Foundation Karachi
Malaika Zehra	Student	NED University
Dr. Mark Smith	Director General	IWMI
Mashooque Birahmani	CEO	Sujag Sansar Organization (SSO)
Meher Marker Noshirwani	Governor	Hisaar Foundation
Dr. Mohsin Hafeez	Director of Water, Food and Ecosystems	IWMI

Name	Designation	Organization
Moin Iqbal	Chief Investment Officer	Infra Zamin Pakistan
Muhammad Arfan	Senior Researcher	Centre for Climate and Environmental Research (CCER)
Muhammad Khaliq	Provincial Manager Sindh	Water Aid Pakistan
Muhammad Rafi	Project Director	Water And Sanitation Agency (WASA) Faisalabad
Muhammad Suleman Chandio	Former MD	KWSB
Muhammad Toheed	Associate Director	Karachi Urban Lab (KUL), IBA
Prof. Dr. Muhammad Tufail	Pro Vice Chancellor	NED University
Muhammad Umer Karim	Senior Agriculture and Water Resource Specialist	FAO
Nadir Gul Barech	CEO	Pakistan Poverty Alleviation Fund (PPAF)
Nadira Panjwani	Founder and Managing Trustee	Panjwani Charitable Foundation (PCF)
Naila Jabeen	M.Phil Scholar	Karachi University
Nayab Raza	CEO	BHAAN
Nazeer Ahmed Memon	Director General/PC Directorate	SWS&BI GOS
Nazish Shekha	Head of Initiative	CERB - Pakistan Business Council (PBC)
Dr. Noman Ahmed	Dean	AMS, NED University
Dr. Nusrat Nasab	CEO	Aga Khan Agency for Habitat Pakistan
Dr. Nuzhat Khan	CEO	BlueNet+
Dr. Pervaiz Amir	Council Member	Hisaar Foundation
Rabel Akhund	Founder & Managing Partner	Akhund Forbes
Rabiya Javeri Agha	Chairperson	National Commission for Human Rights (NCHR)
Rachel Grant	Deputy Director	USAID Pakistan

Name	Designation	Organization
Rafay Alam	Environmental Lawyer, Member Think Tank	Hisaar Foundation
Dr. Robina Wahaj	Senior Land and Water Officer	FAO Pakistan
Rui Owase	General Manager	Daiki Axis Co
Salima Hemani	General Manager Sustainability	Engro Corporation
Sanaa Baxamoosa	Director External Relations	Hisaar Foundation
Sarfraz Cheema	COO	Soorty Enterprises
Seema Taher Khan	CEO	Airwaves Media
Shah Muhammad Tanweer	CE	Sitech International
Shahab Usto	Advocate	Shahab Usto and Associates
Dr. Shaikh Tanveer Ahmed	Chief Executive	HANDS
Shakil Qureshi	Project Director	KWSB
Sheikh Ali Hussain	Deputy Country Director	Pathfinder
Shoukat Alvi	Senior Civil and Transport Engineer	KNIP
Simi Kamal	Founder & Chairperson	Hisaar Foundation
Siraj Uddin Khan	Filed Manager	Hisaar Foundation
Sohail Naqvi	Director Fershwater Programme	WWF Pakisatn
Sun Yan Evans	Technical Director	Mott Macdonald
Tariq Alexander Qaiser	Principal Architect	TAQ Associates
Tauseef Lateef	Chief of Party	USAID Water Governance for Sindh Activity
Wasik Ali Syed	Head of Manufacturing	BU-Consumer Products
Yasir Husain	Founder	Darya Lab & Green Pakistan Coalition
Dr. Youssef Filali-Meknassi	Regional Director	UNESCO
Zahra Ali	Founder	Crops in Pots
Zohair Ashir	Governor	Hisaar Foundation
Dr. Zulfiqar Umrani	Director of Research, Innovation & Commercialization (ORIC)	Ziauddin University

List of Presentations and Distribution Materials

Session 1

Opening Plenary: Water Matters in Climate Change

Presentation on 20 years of HF and 10 years of KIWC by Ms Simi Kamal

Presentation on “Framing of Water & Climate Change Discourse” by Dr. Adil Najam

Session 2

Why Water Matters for Finance: Investing in the Water Economy

Presentation on “Water for Pakistan’s Agriculture” by Mr Kazim Saeed

Presentation on ‘Water Economy: Investing in a Sustainable & Resilient Future’ by Ms. Sun Yan Evans

Session 3A

For Whom Does Water Matter: Justice Denied

Presentation on ‘Integrity, Justice & Corruption in Water Sector’ by Dr. Barbara Schreiner

Paper on ‘Water Justice in Pakistan – Combating Systemic Inequalities’ by Ms. Simi Kamal

Paper on ‘Politicising Water Governance and Canal Allocations: Realizing Sustainable Development and Water Justice’ by Mr. Muhammad Arfan

Session 3B

Water Matters in Health & Nutrition: Links that are not Obvious

Presentation on Hidden Links between Water and Health by Dr Kulsum Ahmed

Presentation on Child Stunting: A National Health Emergency by Dr Ghazala Mansuri

Session 3C

Watershed Management Matters: Nature Based Solutions from Source to Sea

Presentations:

Presentation on Comprehensive Overview on the Living Indus Project by Dr. Adil Najam

Distribution Materials:

Living Indus Initiative Document

Session 4A

Women Matter in Water: Examples of Action

Feature Film:

Milaap, a documentary by Ms Marvi Mazhar

Excerpts from Film on Rohi by Ms Seema Taher Khan

Session 4B**Water Quality Matters: Circular Economy**

Presentations:

Keynote Presentation on 'Framing of circular economy of water and global examples of success' by Mr. Rui Owase

Presentation on 'Drinking Water Quality Analysis in Karimabad, Hunza-Gilgit Baltistan' by Ms. Naila Jabeen

Presentation on 'Is RO suitable for Karachi' by Mr. Shah Muhammad Tanweer

Presentation on 'Water Quality of Pakistan and the Potential of Water Circular Economy' by Dr. Syed Imran Ahmed

Presentation on "Water Quality and Circular Economy: Sustainable Solutions for Human Wellbeing and Healthier Future" by Mr Muhammad Khaliq

Distribution Materials:

Paper on 'Drinking water quality analysis in Karimabad, Hunza-Gilgit Baltistan' by Ms. Naila Jabeen

Session 4C**Water Disasters Matter**

Presentation on 'Water and Emergency in Calamities and Disasters' by Mr. Dick van Dyjk

Presentation on "Contribution of NGOs in Disaster Mitigation" by Mr Jamal Ansari

Presentation on '2D flood risk assessment of Kunhar River within GIS Environment and Remote Sensing' by Ms. Barkha Soomro

Presentation on "Water Disasters and Impacts" by Ms Nusrat Nasab

Presentation on 'An overview of Relief and Rescue Operations by PDMA Sindh' by Mr. Imdad Hussain Siddiqui

Presentation on 'How Hisaar Foundation Responded to Floods 2022' by Mr. Mashooq Birkmani and Mr. Sirajuddin Khan

Session 5B**Blue Economy Matters: Oceans, Wetlands and Biodiversity**

Presentations:

Presentation on 'Ocean Matters: Blue Economy can Support National Inclusive and Equitable Sustainable Development' by Dr. Nuzhat Khan

Presentation on 'Biodiversity in Blue Economy' by Mr. Sohail Ali Naqvi

Films:

Short Film on 'Mangroves' by Mr. Tariq Alexander Qaiser'

Session 5C**SDGs Matter: National Stocktaking**

Presentation on 'The Link between SDGs and Water' by Ms. Nazish Shekha

Session 7A**Does Water Matter to anyone in Karachi**

Presentation on 'Assessment of drinking water crises in Karachi, Pakistan' by Dr. Lubna Ghazal

Session 7B**Transformative Water Matters in Food Security: Wake up Pakistan!**

Presentations:

Presentation on “Food Security to Food Sovereignty” by Dr. Akissa Bahri

Presentation on “Transformative Future for Water Security” by Dr. Mohsin Hafeez

Distribution Materials:

Transformative Future Water Security (TFWS)
Brochures

Session 8**Closing Plenary: Water Matters for the Future**

Presentation on “PHWI Progress” by Ms Simi Kamal

Presentation on “IHP’s Water Information Network Systems” by Dr Youssef Filali-Meknassi

About Hisaar Foundation

Hisaar Foundation (a foundation for water, food and livelihood security) is a not-for-profit, voluntary citizens' body (under section 42 of the Companies Act 2017) and has completed 20 years in 2023. Hisaar Foundation is led by a visionary and dedicated Board of Governors that hail from many disciplines and diverse professional backgrounds. This board steers the Foundation's strategic initiatives and anchors its projects and programs on the ground. Hisaar Foundation is widely recognized as a thought leader and innovator in the water sector of Pakistan. It has built partnerships, provides emergency support when needed and has a sustained program of solutions to intractable water problems.

Hisaar Foundation's vision is to balance environment with development through innovation. Its mission is to promote appropriate policies and creative, low-cost solutions for water resources development and conservation in Pakistan, and for addressing the broader climate change issues. We believe that water is everyone's business and everyone's responsibility and if we are to tackle the negative impacts of climate change that are already upon us, we must change the way we use, manage and conserve water. Hisaar Foundation is known for walking the talk, as we develop not only the intellectual and academic research base, but focus on actions that have impact.

Committed to the global Sustainable Development Goals (SDGs) and especially Goal 6 on water, the Foundation works with a set of linked approaches as under:

Policy and Strategic Initiatives

Hisaar Foundation works on policy and strategy through the Think Tank on the Rational Use of Water, interacting with national and provincial governments, a range of stakeholder groups, as well as industrial and financial sectors across Pakistan. It builds consensus and brings out papers, articles and guidelines, the most important being the Recommendations for Pakistan's Water Policy Framework, 2016 (popularly known as Citizen's Water Policy). Its members sit on numerous national and international boards, committees and networks. It has founded and fostered networks such as the Karachi Water Partnership and the Women and Water networks and the Saving Thar initiative with the women of Karachi helping the women of Thar through water projects. Hisaar Foundation has also held hundreds of briefings and orientation sessions with industry, commercial enterprise, business community, agriculturists and farmers, municipalities, all tiers of government, academic institutions, young people and students.

Demonstrating Solutions and Actions on the Ground

This is done through an integrated program of learning, developing models and using technologies relevant to the water-food-livelihood nexus. These include water projects in Thar and other water-starved areas of Sindh and Pakistan, providing safe water and sanitation solutions to poor urban and rural areas, to marginalized and remote people and to disadvantaged groups across the country.

and to disadvantaged groups across the country. Hisaar Foundation has pioneered novel concepts such as Area Water Partnerships, Women and Water Networks, Cost Synergy, Mutual Accountability and Total Water Solution. Its projects have included Project Aab that was focused on rehabilitation of flood affected communities through installation of water systems all across Pakistan. Other examples include Project Aab o Daana that focused on domestic water and training for growing food in urban spaces and rural areas. Project Aab e Thar continues down the years and focuses on providing both water systems and food security in desert areas, which includes rainwater harvesting, storage ponds, new and rehabilitated deep dug wells, hand pumps and solar powered bore wells. The Adopt a Village program in Thar develops holistic and comprehensive disaster mitigation capabilities and builds resilience through provision of water solutions, kitchen gardening trainings, livestock distribution, fodder tree plantations and solar household solutions.

Hisaar Foundation's water solutions have included indigenously developed water filter plants, ponds and underground tanks, solar-aided irrigation and drinking water systems, mechanical systems in areas of high aquifers, school water and sanitation systems, bio-sand filters and other solutions from hard rock to sandy areas, in their hundreds, under different initiatives.

Emergency Campaigns in Natural Disasters

Since one of the major impacts of disasters is on water, Hisaar Foundation has carried out over 45 fundraising and delivery campaigns that have included housing, tents and shelters, food and water supplies, survival kits, health and hygiene kits and supplies, clothing and household items, in the most difficult areas of Pakistan, sometimes where others have not been able to reach.

Sharing of Knowledge and Practice

This is done through the Karachi International Water Conference (held every two years) with global participation and linking research through the Universities for Water Network, which has 14 universities as its members.

Building a Base for Excellence in Water Studies and Water Solutions for the 21st Century

Since Hisaar Foundation is a premier organization on water, its expertise and experience are being encapsulated in the Panjwani-Hisaar Water Institute (PHWI) at NED University. PHWI has inter and multidisciplinary approaches, five crucial labs and an innovative teaching and training program that will produce young men and women who can take on jobs and build businesses related to water. This water institute is Hisaar Foundation's most recent, most critical and most ambitious project to date.

Abbreviations and Acronyms

AI	Artificial Intelligence
AKDN	Aga Khan Development Network
AKU-IED	The Aga Khan University-Institute for Educational Development
CCGAP	Climate Change Gender Action Plan
CERB	Center for Excellence in Responsible Business
COP	Conference of the Parties
EPS	Electronic Payment System
FAO	Food and Agriculture Organization of the United Nations
FTW	Floating Treatment Wetlands
GDP	Gross Domestic Product
HEC	Higher Education Commission
ICIMOD	International Centre for Integrated Mountain Development
IPCC	Intergovernmental Panel on Climate Change
IUCN	International Union for Conservation of Nature
IWA YWP	International Water Alliance Young Water Professionals
IWMI	International Water Management Institute
KIWC	Karachi International Water Conference
KNIP	Karachi Neighbourhood Improvement Program
KWSB	Karachi Water & Sewerage Board
KWSSIP	Karachi Water and Sewerage Services Improvement Project
NCHR	National Commission for Human Rights
PDMA	Provincial Disaster Management Authority

Abbreviations and Acronyms

PHWI	Panjwani-Hisaar Water Institute
PIDG	Private Infrastructure Development Group
PPAF	Pakistan Poverty Alleviation Fund
PPP	Public-Private Partnerships
RCT	Randomized Control Trials
RO	Reverse Osmosis
SDGs	Sustainable Development Goals
SECMC	Sindh Engro Coal Mining Company
SME	Small and Medium-Sized Enterprises
SPHF	Sindh Peoples Housing for Flood Affectees
TFWS	Transformative Future for Water Security
TRDP	Thardeep Rural Development Programme
UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nations International Children's Emergency Fund
USAID	United States Agency for International Development
UWN	Universities for Water Network
WASA	Water and Sanitation Agency
WHO	World Health Organization
WIN	Water Integrity Network
WWF	The World Wide Fund for Nature

QR Code for Reports

Scan the QR codes below to access videos and electronic report of the 6th Karachi International Water Conference



6th KIWC Video Presentation by Tv One
Day 1



6th KIWC Video Presentation by Tv One
Day 2



6th KIWC Highlights Video



Download a Copy of 6th KIWC Report



Set up under Section 42 of the Companies Ordinance 1984
(Now under Companies Act 2017)
Approved Non-Profit Organization under Section 2(36)(c) of the Income
Tax Ordinance 2001
Pakistan Centre of Philanthropy Certification No. PCP-R2/2022/231
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The Asia Foundation

