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CENTRE for AEROSPACE & SECURITY STUDIES



**From Crisis to
Opportunity:
Harnessing Climate
Change for Pakistan's
Sustainable Future**

Report

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INTRODUCTION

Climate change is a pressing global issue with far-reaching impact on the environment and human societies. The Global Climate Risk Index 2021 ranked Pakistan as the 8th most vulnerable country despite its low carbon emissions of less than 1%.

Pakistan's vulnerability is driven by its geographic location, socioeconomic conditions and institutional capacity. The country is home to nearly 7000 glaciers which cover about 13% of its land. Melting glaciers, due to high temperatures, has caused a substantial reduction of ice mass by 36% since 1997 – leading to devastating consequences, including floods and landslides; reduced water availability; and loss of biodiversity and ecosystem services. Temperature rise also alters precipitation patterns, leading to irregular rainfall which impact agriculture, accessibility to water resources and intensify the possibility of flooding as well as drought events. Moreover, Pakistan's coastal regions are extremely susceptible to sea-level rise, storm surges, and erosion. The increased water levels threaten human settlements, fisheries, and ecosystems while worsening financial difficulties and food insecurity in these localities.

These pressing challenges pose significant threats to Pakistan's economy, energy supply, food security, water availability, and the well-being of millions of individuals, thereby impacting every facet of human and national security. The gravity of the situation necessitates urgent attention and the formulation of a comprehensive plan for adaptation and mitigation. Swift action is imperative to address these issues effectively and safeguard the nation's socioeconomic stability, environmental sustainability, and the overall welfare of its populace.

In this regard, CASS, Islamabad, organised a ***Distinguished Guest Lecture*** featuring Dr Adil Najam who possesses extensive expertise in the field of climate change. Dr Najam brought a wealth of experience gained through practical work, teaching, and scholarly contributions, making his insights invaluable in addressing the complexities of climate change and its associated challenges.

Air Marshal M. Ashfaq Arain (Retd) moderated the session and delivered opening remarks. Air Marshal Farhat Hussain Khan (Retd) delivered the concluding remarks. The lecture drew significant attention, with a healthy turnout (both in-person and online) as well as an engaging question and answer session.

EXECUTIVE SUMMARY

Air Marshal M. Ashfaque Arain (Retd) highlighted the extensive impact of climate change on Pakistan's environment and society, emphasising its vulnerability despite low carbon emissions. Highlighting the critical consequences of glacial melting, floods, landslides, water scarcity, and biodiversity loss, he emphasised the need for urgent action to counter these threats through a comprehensive plan for adaptation and mitigation, safeguarding socioeconomic stability and environmental sustainability.

They Distinguished Speaker, Dr Adil Najam, posed three crucial questions related to climate change, adaptation, and the changing concept of security. He highlighted the need to understand what the climate was communicating to humanity, citing instances of record-breaking temperatures and the challenge of distinguishing natural influences from human-induced effects. Dr Najam discussed the 'Age of Adaptation' and its implications, emphasising that vulnerable countries bore the brunt of climate impacts while emitting nations prioritised their own citizens' well-being. He proposed a fundamental shift in climate policy and politics and argued that security issues become existential when societies face threats to their survival, as evidenced by the COVID-19 Pandemic.

The key propositions presented were that climate change was no longer a distant future but a present reality, and the world had entered the Age of Adaptation. Several factors, including a lack of wisdom, negotiation failures, vulnerability disparities, moral dimensions, and political shortcomings, contributed to this era. Dr Najam highlighted frontline insecurities in the Age of Adaptation, focusing on water, energy, mobility, heat, and climate refugees as significant challenges.

For Pakistan, climate defined the nation, and urgent action was required to address the impacts of climate change. The recommendations put forth included adopting a preventive posture, minimising insecurity rather than maximising security, viewing development as a solution, and shifting focus from national costs to global benefits. Dr Najam emphasised the need for immediate action to navigate the 'Age of Adaptation' successfully and secure a sustainable future for humanity.

President CASS, Air Marshal Farhat Hussain Khan (Retd), appreciated Dr Adil Najam for his insightful lecture on climate change. He underscored the responsibility of Pakistan's younger generation in facing as well as fighting climate change and commended increasing student engagement in such subjects.

Air Marshal Khan raised concerns about newer threats, highlighting potential disasters from the sea. He pointed out governance and social justice issues in Pakistan, stressing the need for a people-centric approach to mitigate climate change impacts and adapt to adversities. Urging agile responses, he urged that climate change was already manifesting, and Pakistan must prioritise climate action despite its low carbon emissions. Thinking futuristically and promoting discourse on the subject were recommended to chart a sustainable future course for the nation.

KEY TAKEAWAYS

- Pakistan's susceptibility to climate change is influenced by factors such as its geographic location, socioeconomic conditions, and institutional capacity. Melting glaciers have led to adverse consequences like floods, landslides, reduced water availability, and biodiversity loss. Irregular rainfall patterns impact agriculture, while rising water levels in coastal regions threaten settlements, fisheries, financial well-being, and food security.
- Climate change poses significant threats to human and national security in Pakistan. Lack of awareness, public indifference, and poor governance exacerbate these challenges. A comprehensive plan is required to address climate change impacts effectively through adaptation and mitigation measures. Swift action is crucial to ensure socioeconomic stability, environmental sustainability, and the well-being of the population.
- The world has entered an era where adaptation to climate change is crucial. Mitigation efforts to reduce carbon emissions are essential, but the focus should also be on adapting to the changes already occurring.
- Several failures have led to the Age of Adaptation, including a lack of wisdom and clarity regarding climate change, ineffective climate negotiations, vulnerability disparities, moral dimensions (impacting the poor disproportionately), and political failures to address climate change seriously.
- In the Age of Adaptation, key insecurities include water scarcity and floods, energy-related challenges (cleaner energy and energy poverty), mobility issues, heatwaves, and climate-induced refugee crises.
- Water scarcity and floods are critical frontline issues in climate adaptation. Addressing water-related challenges is vital for sustainable adaptation strategies.
- Energy poverty affects 2.5 billion people globally. Alongside transitioning to cleaner energy sources, efforts must be made to address the energy needs of vulnerable populations.
- The movement of large numbers of people, driven by climate-induced factors, leads to social disruptions and insecurity. Considering mobility in climate adaptation planning is essential.
- Climate migration and refugee crises are linked to livelihood migration. Addressing the issues faced by climate refugees requires international cooperation and humanitarian efforts.
- Heatwaves pose a significant threat, particularly for countries like Pakistan. However, the loss of human lives is easily avoidable by implementing measures like green infrastructure and plantation to help reduce the impact of extreme heat events.
- The weight of combatting climate change falls heavily on the shoulders of Pakistan's younger generation. They bear a significant responsibility to tackle this pressing issue compared to the older generations. It is commendable to witness a growing number of students participating in climate-related events. To make a real impact, they are encouraged to listen to expert advice and actively engage in environmental activism and advocacy for securing a sustainable future for Pakistan and the world.
- The 2022 super floods, especially in Sindh province, caused significant losses. Potential disasters from the sea are an often-ignored area which is equally susceptible to climate change.
- Poor governance and social injustice in Pakistan contribute to inequalities, with the poor suffering more from climate change impacts. To mitigate the effects of climate change and adapt to its challenges, a people-centric approach focusing on equitable resource distribution should be prioritised.

PROPOSED WAY FORWARD

- Adopt a Preventive Stance: Shift from a reactive approach to a preventive one. Climate change is a war that must be avoided – not fought.
- Minimise Insecurity: Instead of solely focusing on maximising security, work towards minimising insecurities caused by climate change impacts.
- Development as a Solution: Consider development as part of the solution to climate challenges rather than a separate problem.
- Embrace Global Perspective: Think beyond national costs and consider the global benefits of climate action and cooperation.
- Climate-Resilient Infrastructure: Invest in climate-resilient infrastructure to withstand the increasing risks posed by climate change, such as building flood-resistant structures and sustainable urban planning.
- Green Technologies and Innovations: Invest in research and development of green technologies and innovations to accelerate the transition towards a low-carbon economy and reduce dependence on fossil fuels. Countries like Pakistan can leapfrog towards cleaner and more sustainable options rather than linearly following the Western development model.
- Mobilise Youth Engagement: Encourage the active involvement of Pakistan's youth in climate change initiatives, ensuring they play an active role in climate adaptation efforts.
- Focus on Coastal Vulnerability: As sea levels rise and extreme weather events intensify, coastal communities face heightened risks, including storm surges, coastal erosion, and increased frequency of cyclones. Practically, it is vital for governments, communities, and international organisations to prioritise comprehensive coastal resilience strategies. This includes investing in robust early warning systems, building and reinforcing coastal defences, promoting sustainable land use practices, and fostering community awareness and preparedness. Additionally, implementing nature-based solutions like mangrove restoration and coastal afforestation can act as natural buffers against sea-related disasters, providing an added layer of protection.
- Enhance Governance and Social Justice: Address governance and social justice issues in Pakistan to ensure equitable distribution of resources and effective infrastructure development for climate change resilience.
- Promote Human-Centric Security: Prioritise human security in national policies, focusing on the well-being of all citizens and protecting them from the adverse effects of climate change.
- Implement Futuristic Planning: Take a proactive and future-oriented approach to climate change, considering its imminent impact and introducing effective policies and discourse for long-term preparedness and resilience.
- Adopt Indigenous Solutions & Resources: Successive governments' reliance on foreign assistance for climate change projects should be replaced with a commitment to adopt domestic adaptation techniques and resources.

SUMMARY OF PROCEEDINGS

Opening Remarks

Air Marshal M. Ashfaqe Arain (Retd), Advisor to the Chief of Air Staff on CASS Affairs & Director (Emerging Technologies), Centre for Aerospace & Security Studies, Islamabad, Pakistan

Air Marshal M. Ashfaqe Arain (Retd) emphasised the far-reaching impact of climate change on the environment and human societies. He particularly identified the challenges faced by Pakistan and stressed upon the need for comprehensively addressing the challenges posed by climate change.

Pakistan's Vulnerability to Climate Change

Air Marshal Arain cited the Global Climate Risk Index 2021, which ranked Pakistan as the 8th most vulnerable country despite its low carbon emissions of less than 1%.

“Pakistan’s vulnerability to climate change is driven by its geographic location, socioeconomic conditions, and institutional capacity.”

Moreover, he stated that since 1997, the melting of glaciers due to high temperatures had caused reduction in ice mass by 36%. It had led to devastating consequences including floods, landslides, reduced availability of water and loss of biodiversity, etc. He lamented that the rise of the temperature had altered the precipitation patterns, leading to irregular rainfall which impacted agriculture, and intensified the possibility of flooding and droughts. He also highlighted that the increase of water levels in the coastal region of Pakistan threatened human settlements, fisheries, financial well-being, and food security in those localities.

Need for a Comprehensive Plan to Counter the Challenges of Climate Change

He opined that the pressing challenge of climate change posed significant threats to every facet of human and national security in Pakistan. These challenges were aggravated due to a lack of awareness, public indifference, and poor governance.

“Urgent attention to the issue and formulation of a comprehensive plan is required for adaptation and mitigation of threats emanating from climate change.”

He stressed that swift action in this regard was imperative for safeguarding socioeconomic stability, environmental sustainability, and the overall welfare of the populace.

Air Marshal Arain acknowledged the extensive expertise of Dr Adil Najam in climate change and related subjects. He was hopeful that Dr Najam would propose out-of-box ideas, applicable to Pakistan's situation.

Keynote: Harnessing Climate Change for Pakistan's Sustainable Future

Dr Adil Najam, President, WWF International

Critical Questions

Dr Adil Najam began his address by raising three questions:

- i. What was the Climate telling us?
- ii. What did it mean to live in the Age of Adaptation?
- iii. Was climate changing the meaning of 'secure' and 'insecure'?

In answering these questions, Dr Najam articulated the need to understand what the climate was communicating to the human species.

"The highest global temperature record has been broken four times in a week."

He further predicted that this record would be surpassed several times this summer. As part of climate science, El Niño cycles had elevated average global temperatures. These cycles, along with climate change, presented a challenge in distinguishing between the extent of natural influence versus human-induced effects.

Dr Najam defined two essential terms used in climate treaties, climate negotiations and climate policy, i.e., Mitigation and Adaptation.

"From the 1992 Rio Summit till now, the politics of Climate Change have essentially focused on Mitigation, i.e., cutting down carbon emissions. It is time to move into the Age of Adaptation."

He added that the world had a wonder drug called 'fossil fuel' that was used everywhere as a readily available energy source which was also very easy to transport. Hydrocarbons had been used for about 120 years and were a primary source of carbon emissions. But, in his view, this dependency could be changed since humans as a species had the superpower to adapt to new situations and changes.

"However, the problem with adaptation is that it has a cost."

He offered a contrast that a vulnerable country which had not contributed to carbon emissions had to face severe climate impacts while an emitting country was focused on making its own cities more liveable for its citizens. He suggested that countries like Pakistan ought to move away from mitigation and think about adaptation.

While addressing the third question, Dr Najam reflected on the concept of 'security' and stated that security concerns reflected how 'insecure' one was. The reason why issues were mostly linked to security was the assumption of financial gains associated with it. However, it

was essential to recognise that security issues became existential when societies felt threatened about their survival, as was seen during the COVID-19 Pandemic. He was of the view that the Age of Adaptation fundamentally changed the nature of climate policy as well as politics and prompted reconsideration of the conceptualisation of climate and security. To validate his proposition, Dr Najam mentioned that the Paris Agreement had no implementable legal requirement.

“The world is going through a time of fundamental change in terms of structures of decision-making and action. Secondly, it has changed both policy and politics.”

The speaker was of the view that since security issues were existential, the question of money becomes irrelevant as the question of survival prevails. For instance, since COVID was a security issue threatening the survival of people, the impossible became possible.

Alarmingly, he noted that there was no actual science that could show the path to repress the barrier of 1.5° and 2° degree Celsius for global temperature.

“The world needs to move from mitigation and started thinking about the Age of Adaptation.”

The Age of Adaptation

Dr Najam highlighted several reasons why the world needed to focus on the Age of Adaptation:

Failure of Wisdom

Global warming was a human-induced reality and lack of clarity as well as ignorance towards this issue was one of the reasons for the Age of Adaptation.

Negotiation Failure

The climate negotiation process had become repetitive, and elements of serious decision-making had been taken out of it.

Vulnerability Failure

The significant contrast between who caused climate change historically and who faced the consequences of it marked a vulnerability failure.

Moral Failure

The moral dimension entailed looking after the poor classes which were impacted the most by the actions of others who contributed to climate change.

A Political Failure

The failure of climate negotiations due to lack of seriousness towards the issue had brought the world to the Age of Adaptation.

Frontline Insecurities

Dr Najam, reflecting on insecurities in the Age of Adaptation, argued that the framework of security entailed two things, one was the source of insecurity and the second was the social deception that created insecurity. Putting that in perspective, he said that social disruption at the state level led to insecurity. According to him, war for climate was unlikely but civil strife for climate had already been seen. Dr Najam quoted Paul Collier that at least one reason of the Rwandan genocide movement was water and resources.

“Nature hits back. For example, shreds of evidence suggest that Dengue’s movement towards the Mediterranean and South Asia is simply a consequence of climate change.”

Water & Energy

Focusing on water as the most important issue for climate and adaptation, Dr Najam stated that ‘Water was to Adaptation what Carbon was to Mitigation.’ Water marked the frontline issue of climate. Parallel to this was the issue of floods, which was essentially nature’s way of transporting water. Keeping in view the situation of floods in countries such as Spain, France, Vermont, Nepal and India, he said that it seemed unlikely that any country would get any financial aid or help for natural disasters, since many developed countries themselves were struggling to fight these disasters. On the subject of energy, Dr Najam insisted on solving two energy-related problems, i.e., cleaner energy and energy poverty. While the transition towards cleaner energy had already begun, the issue of energy poverty of 2.5 billion people in the world, needed to be addressed through cleaner, sustainable, and cheaper renewable resources.

Mobility, Heat & Climate Refugees

President of WWF further shared that the mobility of about a billion and a half climate refugees in the world, moving large distances for dignity, was symbolic of insecurity in the Age of Adaptation. In this regard, he warned that Pakistan was at the frontline of heat waves and despite the fact that simple adaptation solutions to tackle this problem were easily available, yet Pakistanis were dying due to severe heat. This was causing climate migration leading to livelihood migration.

Recommendations

In conclusion, Dr Najam stressed urgent climate action and put forth the following recommendations:

- i. Need to move from a reactive posture to a preventive posture because this was not a war one could prepare to fight rather a war that ought to be avoided.
- ii. Need to move from maximising security to minimising insecurity.
- iii. Need to think of development as a solution and not a problem.
- iv. Need to move away from thinking of national costs to global benefits.

Concluding Remarks

**Air Marshal Farhat Hussain Khan (Retd), Centre for Aerospace & Security Studies,
Islamabad, Pakistan**

President CASS, Air Marshal Farhat Hussain Khan (Retd), started his concluding remarks by thanking the guest speaker Dr Adil Najam for his insightful lecture that allowed for an intellectually rewarding, and rich discourse on the critical subject of climate change.

Responsibility of the Younger Generation

Cautioning Pakistan's younger generation about the effects of climate change, Air Marshal Khan stated that the new generation had more responsibility on its shoulders to face and fight climate change as compared to the older generations. In this regard, he lauded the fact that an increasing number of students from local universities had started to attend the CASS events on such subjects. He hoped that the youth in attendance would heed the expert advice and carry the message forward on climate adaptation and mitigation.

Current Threat Avenues

Recalling the super floods of 2022, particularly in the Sindh province, Air Marshal Khan regretted that the disaster caused USD 32 billion in loss and damage to the country. He highlighted the potential risks of coastal disasters, an aspect often overlooked but equally vulnerable to the impacts of climate change.

"A disaster coming from the sea can be much bigger in scale than the ones that Pakistan has faced last year (2022 floods)."

Governance, Social Justice & Climate Change in Pakistan

Sharing his views on governance and social injustice in Pakistan, President CASS raised important questions about inequalities leading to poorer classes suffering more, and how successive governments had failed to efficiently utilise available resources to build infrastructure to lessen the impacts of climate change. He said that although various governments had been seeking foreign assistance for fighting the climate crisis and for other projects, this approach needed to change as it was the government's own responsibility to adopt mitigation and adaptation measures.

Moreover, Air Marshal Khan said that the elite class in Pakistan did not realise the gravity of the impacts of climate change-induced disasters on the poorer segments of the country because the former mostly remained unscathed in such events. However, expanding on the consequences of rich and poor divide in the age of climate change, he warned that a large part of the masses suffering throughout the year from a variety of disasters would not augur well for national security.

“If the general population does not feel secure, the elite cannot be secure either.”

People-centric Approach

Building on these remarks, he advised that a people-centric approach to ensure masses' general well-being ought to be an important part of the government's policy to mitigate the effects of climate change and to adapt to its adversities. He said that good governance, social justice, and equitable distribution of resources among all classes needed to be prioritised in the country.

“The policy shift from state-centric to human-centric security approach is required with focus re-directed from hard core security to human security.”

Agile Responses

Stressing the need for agile response mechanisms, Air Marshal Farhat Hussain Khan said that climate change was not a future phenomenon – rather it was already manifesting itself. Although, Pakistan was mostly bearing the brunt of developed world's carbon emissions, bracing itself to fight the impact of these emissions was not a matter of choice but a compulsion. He warned that failing to realise this fact could bring huge negative consequences for the country.

“Pakistan, as a nation, has to think futuristically, and focus on policy discourse on the subject to chart out the best future course of action.”

Annexure I: Profile of Speakers**Dr Adil Najam, President, WWF International**

Professor Dr Adil Najam was the inaugural Dean (now Emeritus) of the Frederick S. Pardee School of Global Studies at Boston University and a Professor of International Relations and of Earth and Environment. Earlier, he served as Vice Chancellor of the Lahore University of Management Sciences (LUMS) in Lahore, Pakistan and as the Director of the Boston University Pardee Center for the Study of the Longer-Range Future. In addition to Boston University, Prof. Najam

has taught at MIT and at the Fletcher School of Law and Diplomacy, Tufts University. Professor Najam is a widely recognized scholar of global climate change policy. He served as a lead author of the Third and Fourth Assessments of the Intergovernmental Panel on Climate Change, work for which the scientific panel was awarded the 2007 Nobel Prize. A prolific author; Doctor Najam has written over 100 scholarly papers and book chapters. He is a public intellectual who contributes to contemporary global policy debates especially those related to global climate change, South Asia, Muslim countries, environment, and human development. In 2011, he was elected a Trustee on the International Board of WWF; and in 2013 elected a Trustee of The Asia Foundation (TAF). He also served as the Chair of the Scientific Advisory Board of the Switzerland-based Luc Hoffmann Institute. He has been a Council Member of the International Institute for Applied Systems Analysis (IIASA) in Vienna, Austria; and was the Board Chair of the South Asia Network of Development and Environmental Economics (SANDEE). He is also a past Board Chair of Leadership for Environment and Development (LEAD), Pakistan. He was also the lead author for the 2017 Pakistan National Human Development Report on Youth. In 2010 he was awarded the Sitara-i-Imtiaz by the government of Pakistan.

**Air Marshal Farhat Hussain Khan (Retd)
President, Centre for Aerospace & Security Studies (CASS), Islamabad, Pakistan**

Air Marshal Farhat Hussain Khan has rich experience in aviation and industrial management, diplomacy, and negotiations. During his service, he remained on various important command and staff appointments, including Vice Chief of the Air Staff and Chairman Pakistan Aeronautical Complex Board. He has also served as Pakistan's Air Attaché in New Delhi, India. He is the co-author of 'The Aviation City' and 'Milestones' about the growth of military aviation industry in Pakistan and its way forward.



Air Marshal M. Ashfaque Arain (Retd), Advisor to the Chief of Air Staff on CASS Affairs & Director (Emerging Technologies), Centre for Aerospace & Security Studies (CASS), Islamabad, Pakistan

Air Marshal M. Ashfaque Arain is Advisor to the Chief of Air Staff, PAF on CASS Affairs at CASS, Islamabad, Pakistan. He is a graduate of Combat Commanders' School, PAF Air War College and National Defence University. He holds a Master's Degree in Defence & Strategic Studies from Air War College (AWC) and a Master's Degree in War Studies from National Defence University (NDU), Islamabad. In his 41 years of illustrious career as a fighter pilot with Pakistan Air force, the Air Marshal flew various top of the line fighter aircraft with a singular honour of being first PAF pilot to achieve 2000 hours on the F-16 aircraft. During his career, he has served in senior command and staff assignments including command of a fighter squadron, an operational base, Air Adviser Pakistan's High Commission in New Delhi, Chief Project director Horizon, Assistant Chief of the Air Staff (Operations), Assistant Chief of the Air Staff (Plans), Director General Air force Strategic Command (AFSC), Director General Projects, and Deputy Chief of the Air Staff (Administration). His specialist areas of research include Emerging Technologies, Global Conferences. The Air Marshal has been decorated with the distinguished awards of, Tamgha-i-Imtiaz (Military), Sitara-i-Imtiaz (Military), Hilal-i-Imtiaz (Military) and Sitara-i-Basalat.

Annexure II: Press Release

“Urgent Call for Adaptation: Climate Change Threats Highlighted in Distinguished Guest Lecture”

13 July 2023



The Centre for Aerospace & Security Studies (CASS), based in Islamabad, successfully concluded a Distinguished Guest Lecture titled **‘From Crisis to Opportunity: Harnessing Climate Change for Pakistan’s Sustainable Future’** by Dr Adil Najam, President WWF International and Dean Emeritus and Professor of International Relations and Earth and Environment at Boston University’s Frederick S. Pardee School of Global Studies. The lecture shed light on the pressing global issue of climate change and its far-reaching impacts on the environment and overall human society, especially for developing countries like Pakistan.



Air Marshal Ashfaq Arain (Retd), Advisor & Director Emerging Technologies at CASS, highlighted the pressing global issue of climate change and Pakistan’s vulnerability, despite its low carbon emissions. He warned that the melting of glaciers since 1997 had caused devastating consequences, including floods and reduced water availability, and stressed that a comprehensive plan for adaptation and mitigation was needed to safeguard Pakistan’s socioeconomic conditions and the well-being of its population.

Distinguished Guest Speaker, **Dr Adil Najam**, President of WWF International, provided invaluable insights during the lecture, shedding light on the urgency of addressing climate change. Dr Najam highlighted that we were now living in what he called the 'Age of Adaptation', where the world, particularly poorer and more vulnerable countries, were compelled to confront the impacts of climate change and adapt to them. He explained the distinction between mitigation and adaptation, adding that the politics of climate change had predominantly focused on mitigation since 1992 but countries like Pakistan needed to focus on adaptation. He highlighted that advanced countries needed to decouple economic growth from carbon production, enabling future global strategies to be conscious of environmental impacts and the persistent presence of climate change in the world. Dr Najam articulated that climate change should be viewed not just as a 'carbon management' challenge but as a development challenge and even a sustainable development opportunity.



The concept of security was another key aspect discussed by Dr Najam, who emphasised that security issues become existential when societies feel threatened about their survival, rendering cost considerations irrelevant. As evidence, he pointed to the swift allocation and spending of trillions of dollars by the US Congress in response to the existential threat of the COVID pandemic. Highlighting the climate crisis as an existential threat, he drew attention to the alarming increase in global temperatures, including recent record-breaking highs occurring multiple times within a week in the month of July.

The distinguished guest speaker identified water as a frontline issue for climate change adaptation, drawing a parallel between its significance and carbon in mitigation efforts. Additionally, he discussed the two primary aspects of energy in the context of climate change: clean energy and energy growth. For Pakistan, achieving energy security also required addressing energy poverty faced by the common citizen, he said. Addressing the failures in wisdom, climate negotiations, politics, and morality, Dr Najam noted the long-standing demand of the world's most vulnerable countries for a Loss and Damage Fund (L&D), and its eventual acceptance at COP27, as a crucial step forward. However, he acknowledged that at present, such a fund did not exist and lacked funding.

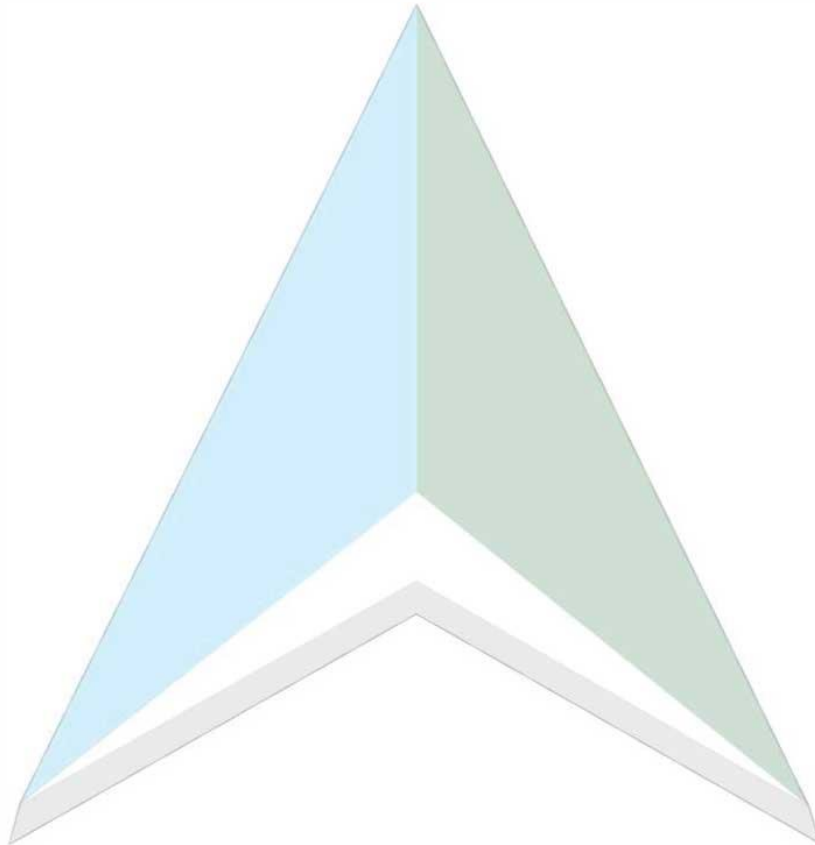
Expressing concerns that climate change would exacerbate existing injustices and broken governance systems, disproportionately burdening the poor and vulnerable in Pakistan, Dr Najam called for a shift from a reactive to a preventive posture and advocated focusing on minimising 'insecurity' efforts rather than maximising security.

In his Concluding Remarks, **Air Marshal Farhat Hussain Khan (Retd)**, President of CASS, Islamabad, hailed Dr Najam's talk as a powerful wake-up call, urging Pakistan's younger generation to take on the responsibility of confronting climate change head-on. Emphasising that climate change was already a reality, not a future phenomenon, he drew attention to the often-overlooked threat of sea-induced disasters, warning that their scale could surpass the



devastating floods experienced by Pakistan in 2022. President CASS lamented the disproportionate impact of climate-induced disasters on marginalised communities, highlighting the need for equitable resource distribution. He advocated for a people-centric approach, decisive forward-thinking, and meaningful discourse to chart the most promising future course for Pakistan to effectively tackle the impacts of climate change and address governance shortcomings in this critical area.

The Distinguished Guest Lecture drew significant attention, with a healthy turnout (both in-person and online) as well as an engaging question and answer session. Attendees actively participated, reflecting their keen interest in understanding the complexities surrounding climate change and its implications for Pakistan. The event served as a platform for informed discussion and a call to action, emphasising the need for comprehensive solutions and institutional collaborations to ensure a climate-safe future for Pakistan.



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