



Kingdom of the Netherlands



Global Coastal Cities Summit 2023

Taj Mahal Palace, Mumbai
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Session wise Summary of the Summit Proceedings

Session 1

Inaugural/Setting the Context



The inaugural session of the Global Coastal Cities Summit 2023 provided a platform to discuss the pressing issue of climate change and its impact on Mumbai, with a particular focus on sea level rise. The session featured esteemed speakers from various sectors, emphasizing the need for collaboration and localized solutions. Key takeaways included the significance of Asian coastal cities, the alarming rise in global surface temperature, the importance of stakeholder engagement, and the urgency to address climate challenges in Mumbai. Notable quotes highlighted the existential threat of climate change, the responsibility of cities in reducing CO₂ emissions, the need for political will, and the opportunity to transform Mumbai into a more equitable and livable place.



Participants:

1. **Mr. Narinder Nayar** (Chairman – Mumbai First)
2. European Union Ambassador **H.E. Mr. Ugo Astuto** (Virtually)
3. **Mr. Bart de Jong** (Consul General of the kingdom of the Netherlands)
4. **Mr. Praveen Pardeshi** (Member - Administration, Capacity Building Commission)
5. **Dr. Roxy Mathew Koll** (Climate Scientist, Indian Institute of Tropical Meteorology)
6. **Mr. Nidish Nair** (Leader - Climate Resilience and Cities, PwC)
7. **Mr. Ashank Desai** (Editorial Board Member, Mumbai First)

1. Urgent Conversation Needed: It is crucial to engage in conversations about climate change and its solutions in Asian coastal cities due to several reasons:

- Asia encompasses 30% of the world's landmass and has the largest coastline, spanning 220,266 km.
- Asia contributes 45% to the global GDP, a figure likely to exceed 50% by 2050.
- With 60% of the world's population living in Asia, economic hotspots in the region are experiencing increasing flood footprints.
- Critical landmarks in Mumbai face severe climatic threats by 2050.

2. Impact of Global Surface Temperature Change: The global surface temperature has surpassed 1.1 degrees Celsius. This increase is responsible for the occurrence of extreme weather events such as cyclones, heavy rains, and heatwaves.

3. Collaboration Among Stakeholders: A successful approach to tackling climate change requires consultation, co-creation, and cooperation among various stakeholders, including governments, knowledge institutes, academia, civil engineering professionals, urban designers and planners, sociologists, and real estate developers. Additionally, involving and cooperating with local communities is essential.

4. Localized Solutions and Adaptation: To combat climate challenges in Mumbai and Maharashtra, the way forward involves:

- Addressing localized impacts through localized solutions.
- Identifying hotspots and bottlenecks that are particularly vulnerable to climate change.
- Implementing tailored adaptation measures to ensure resilience.



6. Link Between Climate Change and Viral Epidemics: Climate change is expected to bring about an increase in viral epidemics. There is a correlation between non-communicable diseases (NCDs), such as COVID-19, and their fatality rates. Lower NCD burdens are associated with lower case fatality rates.

Overall, the panel discussion highlighted the need for immediate action, collaboration, and tailored approaches to address climate change in Asian coastal cities, with a specific focus on the challenges faced by Mumbai and the broader implications for the region.

Notable Quotes:

- “We should understand the imperative and desperation of the climate crisis. Every breath we take is toxic. Floods in 2005 in Mumbai should have been a wakeup call.” - Mr. **Narinder Nayar**, Chairman, Mumbai First
- “Climate Change poses an existential threat for mankind as a whole, and we need to act now and act fast, unless we want to accept the risk of us shooting over 1.5 degree celsius.” - European Union Ambassador H.E. **Mr. Ugo Astuto**
- “To implement the commitments taken in Paris, the central, state and local governments have important roles to play. Specifically, cities are responsible for 70% of global CO2 emissions.” - European Union Ambassador H.E. **Mr. Ugo Astuto**
- “Technical solutions to climate change are very costly, and therefore, also require political will, which needs to be across the line between left and right.”-**Mr. Bart de Jong** (Consul General of the kingdom of the Netherlands)
- “Climate Change is not the only culprit. We need to bring back our rivers, floodplains, and mangroves. We need to disaster proof our coastal cities, climate proof our coastline, and involve the community.”-**Dr. Roxy Mathew Koll** (Climate Scientist, Indian Institute of Tropical Meteorology)
- “Climate is Changing— So must Mumbai. There is a need to redesign for sea level rise and floods, cyclonic winds, sustainable water management, extreme temperatures, ecosystem based adaptation.”-**Dr. Roxy Mathew Koll** (Climate Scientist, Indian Institute of Tropical Meteorology)
- “Climate Change is not a threat. In fact, it is the greatest opportunity for Mumbai to transform itself into a more equitable and livable place. Make homes for the communities living along the coastlines.” -**Mr. Praveen Pardeshi** (Member - Administration, Capacity Building Commission)
- “Today’s technologies are barely sufficient for today’s problems. Tomorrow’s problems need tomorrow’s technologies.” - Mr. Praveen Pardeshi (Member - Administration, Capacity Building Commission)



Parallel Session

Engineering Leadership Group Executive Roundtable (ELG) hosted by Resilience First (London), an Associate Member



Mumbai First and Resilience First (London), an Associate Member, hosted a parallel roundtable at the Global Coastal Cities Summit, namely ELG Roundtable where the engineers focused on calling G20 governments to work with private-sector and engineering-inclusive organizations to introduce policies to support the parallel development of multiple low-carbon technologies to improve the availability of financially feasible decarbonization pathways, with a view to driving sustainable economic growth. The transition to a net-zero economy requires a global transformation of the world's energy system from one based on molecules (from fossil fuels) to one powered by electrons (from renewable energies). Annual capital investment needs to triple to generate the infrastructure needed for decarbonization of key industries in line with the 2050 net zero target. That ambition brings with it a range of issues around the mobilization of that capital, including the human resources that will be required to put that capital to effect and the establishment of the necessary supply chains to enable that scale of development.

Participants:

1. **Ms. Sue Brown**, Executive Director, Worley
2. **Mr. Ashutosh Nene**, Associate Director Operations, Arup
3. **Mr. Mark Crouch**, Group Lead, Decarbonization, Mott MacDonald
4. **Ms. Sushma Chaudhary**, Cities Lead, India, Mott MacDonald
5. **Mr. Vishnu Saini**, Head of iCRC US, India, WSP
6. **Mr. Narinder Nayar**, Chairman, Mumbai First
7. **Mr. Tom Lewis**, Board Director, Resilience Rising
8. **Mr. Martyn Link**, Executive Director, Resilience First
9. **Mr. George M. Karagiannis**, ELG Director, Resilience First



Key Takeaways:

1. Energy, transport and building infrastructure amount to the majority of greenhouse gas emissions. Therefore, the transition to a net-zero economy will require a global transformation of the world's energy system from one based on molecules (from fossil fuels) to one powered by electrons (from renewable energies). In particular, switching to renewable and low-carbon energy sources and retrofitting existing installations with carbon capture, utilization, and storage (CCUS) capabilities will contribute to lowering overall anthropogenic carbon dioxide emissions faster.
2. However, the technologies that will make decarbonization possible are at various levels of development and scalability. Any feasible decarbonization pathway will invariably involve multiple technologies. Therefore, to drive sustainable economic growth, governments need to work with private-sector, engineering-inclusive organizations to introduce policies to support the parallel development of multiple low-carbon technologies to improve the availability of financially feasible decarbonization pathways, with a view to driving sustainable economic growth.
3. In addition, generating the infrastructure needed for decarbonization of key industries requires massive capital reallocation; more sustainable materials and production methods; and significantly expanded green technologies, including, crucially, renewables.
4. The required investment will likely exceed public funding capacity, and thus require leveraging public-private partnerships at an unprecedented scale. Despite the need for solutions with positive net present value, about half the investments needed to meet emission targets still do not have positive stand-alone investment cases, and the blockage seems to be at the pre-Final Investment Decision (FID) stage. Therefore, governments have a key role to play in providing policy certainty and policy incentives.
5. Engineering-inclusive organizations are best positioned to inform policy development and explore innovative business models for renewables and energy decarbonization. Engineers are the linchpin that connects policy to implementation; it is what they are trained to do.



Session-2

Rising Tide: Navigating the Future of Asian Coastal Cities



In this panel discussion, experts, policymakers, and practitioners convened to deepen our understanding of the future challenges confronting Asian coastal cities. By highlighting best practices and lessons learned, the panel aimed to inspire actionable solutions, foster collaboration, and cultivate a resilient and sustainable future for coastal communities. Key areas of focus included:

- **Scientific Understanding:** The panel delved into the scientific evidence behind rising sea levels and the increasing threats posed by extreme weather events. By examining the data and research, participants gained insights into the magnitude and urgency of the challenges at hand.
- **Impact on Infrastructure and Human Settlements:** The discussion centered around the direct consequences of climate change on infrastructure, ecosystems, and human settlements in coastal areas. By analyzing these impacts, panelists highlighted the need for innovative approaches to safeguard critical assets and ensure the well-being of coastal populations.
- **Mitigation and Adaptation Strategies:** Panelists shared valuable insights into the strategies employed by various Asian cities to mitigate and adapt to the changing climate. By examining successful case studies and initiatives, participants explored practical measures that can enhance resilience, reduce vulnerabilities, and promote sustainable development in coastal regions.



Through this collaborative exchange, the panel discussion aimed to foster a comprehensive understanding of the challenges facing Asian coastal cities. By promoting knowledge sharing and encouraging proactive measures, the panelists aimed to empower stakeholders to take action and build a more resilient future for our coastal communities.

Participants:

Chair: **Mr. P. Velrasu** (Addl. Municipal Commissioner (Projects), MCGM)

Moderator: **Dr. Ronita Bardhan** (Associate Professor of Sustainable Built Environment, University of Cambridge, UK)

Panelists -

1. **Dr. Krupali Uplekar Krusche** (Director, Development and Advancement of Resilient Cities Alliance (DVARCA), University of Notre Dame, USA)
2. **Ms. Harshita Narwekar** (Project Specialist & Municipal Councillor, MCGM)
3. **Dr. Yasukata Fukahori** (Consul-General, Consulate General of Japan)
4. **Ms. Hazel Khoo** (Director, Coastal Protection Department, Public Utilities Board (PUB), Singapore (VC))
5. **Mr. Dhiraj Mehra** (Director for Initiatives in India, University of Notre Dame, USA)
6. **Mr. Bart de Jong** (Consul General of the kingdom of the Netherlands)
7. **Dr. Jai Asundi** (Executive Director, Center for Study of Science, Technology and Policy, CSTEP)

Key Takeaways:

1. **Temperature Neutrality and Gender Disparities:** When considering temperature neutrality and comfort levels, there is a significant difference between male and female populations. Men typically feel comfortable and start experiencing discomfort at around 28.8 degrees, while women, especially in low-income communities, have a higher temperature neutrality range of 30 to 32.5 degrees. This means that a large portion of the vulnerable population, primarily women, may not take any action to address the rising average temperatures due to limited agency and access to cooling devices. This gender disparity needs to be addressed to ensure inclusivity in climate interventions.
2. **India's Long-Term Low Carbon Development Strategy:** India has developed its own agreement and understanding of a long-term low carbon development strategy. The strategy focuses on five critical aspects:
 - a. Waste management
 - b. Water management
 - c. Urban planning, green cover, and bio diversity
 - d. Energy and green building
 - e. Mobility and air quality



3. **Policy Problems from Three Perspectives:** Policy problems related to climate change can be viewed from three perspectives:
 - a. Availability and Agreement on Information: Do we have the necessary information, and is
 - b. Technological Implementation: Do we have the required technologies to implement climate policies effectively?
 - c. Equity and Well-being: How do we ensure equity and guarantee a good quality of life for all while addressing climate challenges?
4. **OECD Member Nations' CO2 Emissions:** Since the Kyoto Protocol in 1997, OECD member nations have successfully avoided increasing their CO2 emissions over the past 25 years, indicating some progress in mitigating carbon emissions.

These key takeaways shed light on the gender disparities in responding to rising temperatures, India's approach to low carbon development, challenges in policy-making, and the progress made by OECD member nations in reducing CO2 emissions. It emphasizes the importance of addressing gender inequalities, integrating multiple aspects of sustainability in development strategies, and ensuring equity in climate policies.

Notable Quotes:

- "The solutions created to solve the problem of sea level rise cannot be comprehensive until we talk about the natural environment in engagement with the built environment." - Dr. Krupali Uplekar Krusche (Director, Development and Advancement of Resilient Cities Alliance (DVARCA), University of Notre Dame, USA)
- "We need to have an ecosystem approach. We need to bring together academia to make sure that we have solid information, civil society since that will help address the issues of equity, governments who are representatives of people, and industry (which is often excluded) who will provide the livelihoods. We have to make industry a part of the solution rather than thinking of it as a part of the problem." - Dr. Jai Asundi (Executive Director, Center for Study of Science, Technology and Policy, CSTEP)
- "Climate change issues are a scientific matter, a scientific phenomenon. To deal with them, we need to have a common understanding of scientific figures." - Dr. Yasukata Fukahori (Consul-General, Consulate General of Japan)
- "Climate Change is real. It doesn't have walls or boundaries. We need to figure out how to work together as a global group in the fight against it?" - Mr. Dhiraj Mehra (Director for Initiatives in India, University of Notre Dame, USA)
- "We don't have to spend lots of money to equip ourselves for this climate. All that is needed is some policy tweaking to achieve the desired results."



Session 3

Strategies for Protecting City Infrastructure



In the session experts and panelists delved into the pressing challenges confronting critical infrastructure and ports in coastal cities, exacerbated by climate change and rising sea levels. The primary objective of the session was to emphasize the urgency of enhancing the resilience and capacity of existing infrastructure, drawing inspiration from successful initiatives undertaken in London and other regions worldwide. The event brought together esteemed panelists who engaged in insightful discussions, exploring innovative solutions aimed at safeguarding essential coastal infrastructure, including major ports. The discussions were enriched by the sharing of global success stories, offering valuable inspiration and lessons for developing resilient infrastructure to tackle the ongoing climate crisis.

Participants:

Chair: **Mr. Rajiv Jalota** (Chairman, Mumbai Port Trust (MbPT))

Moderator: **Mr. George Karagiannis**
(Director, Engineering Leadership Group, Resilience First)

Presentation on Cities Resilience Framework: **Ms. Mrinal Mathur**
(Associate, Leading on Sustainability, Arup India)

Video Presentation: **Dr. Abhas K. Jha**
(Practice Manager, Climate Change and Disaster Risk Management, South Asia Region, World Bank)



Panelists -

1. **Mr. Vinit Kumar** (Former Chairman of Kolkata Port Trust)
2. **Mr. Sarbodaman Mukherjee** (Asst. Director, Strategic Management, Mumbai Port Trust (MbPT))
3. **Mr. Willem van Deursen** (Integrated Water Resource Management, Carthago Consultancy, Rotterdam)
4. **Dr. Krishna Vats** (Member, National Disaster Management Authority (NDMA))

Key Takeaways:

1. Rotterdam:

- Rotterdam is a major port city with significant trade, logistics, and industrial activities.
- The city has a population of around 2 million and is located at or just below sea level.
- Rotterdam's vulnerability to climate change stems from its open access to the sea and the backcountry.
- Climate change poses a significant risk to Rotterdam due to its geographical characteristics.

2. Coastal Population in India:

- The 2011 census revealed that approximately 188 million people, or 15.5% of India's population, live in coastal districts.
- Additionally, there are around 440,000 people residing in various island territories in India.

3. Mumbai Port and Eastern Waterfront:

- The Eastern Waterfront of Mumbai Port covers a vast coastal area of nearly 850 hectares, supporting dense population and commercial activities.

4. Importance of Climate-Adapting Ports:

- Around 30% of global maritime trade flows through climate-adapting ports, facilitating connections between people and supply chains, particularly benefiting vulnerable regions.

5. Sea Level Rise and Military Installations:

- The US Military projects a sea level rise of 3.7 to 6.3 feet by 2100, which will impact the design and operation of military installations.

6. Mumbai's Vulnerability:

- Climate Central's coastal risk map illustrates the potential impact of a two-meter sea level rise on Mumbai, indicating that several parts of the city may be submerged by 2050.



7. **Extreme Heat and Humidity in India:**

India could become one of the first countries where certain areas become uninhabitable due to extreme heat and humidity, with wet bulb temperatures exceeding 35 degrees.

8. **Importance of Early Warning Systems:**

Effective early warning systems have been proven to save significant amounts, with every dollar invested potentially avoiding four to eight dollars in disaster losses.

9. **Stranded Assets and Creative Destruction:**

The concept of "stranded assets" refers to economic and business models that become obsolete or unviable due to innovation and new market forces.

10. **Rotterdam's Port Status:**

Rotterdam is one of the world's largest ports, although it has been surpassed by a Chinese port in recent years.

The greater Rotterdam area is home to around 2 million people.

11. **Vulnerability of Rotterdam:**

Being situated just above or below sea level, Rotterdam is prone to flooding and faces risks associated with climate change impacts.

12. **Urgency in Addressing Cyclone Threats:**

The seriousness of the threat posed by cyclones should be acknowledged, and immediate action should be taken to mitigate their impacts.

Notable Quotes:

- "In its vision of 2047, Mumbai Port has envisioned itself as a green Port that will be run on green fuels and adaptation to climate resilience."-**Mr. Rajiv Jalota** (Chairman, Mumbai Port Trust (MbPT))
- "We can talk about men versus nature, and that is we are dealing with casino games. We roll the dice and see what emerges from it, and we either win or lose."-**Mr. Willem van Deursen** (Integrated Water Resource Management, Carthago Consultancy, Rotterdam)
- "Geopolitical factors are creating barriers to trade and transport."-**Ms. Mrinal Mathur** (Associate, Leading on Sustainability, Arup India)
- "We have a new source of energy, solar, and that becomes an opportunity for us-a new product or service that we could roll out, some new markets we could enter, and taking these risks and opportunities, we marry it to the valuation process."-**Mr. Sarbodaman Mukherjee** (Asst. Director, Strategic Management, Mumbai Port Trust (MbPT))



- “Sea level rise is going to have a devastating effect on coastal cities like Mumbai.” -
Dr. Abhas K. Jha (Practice Manager, Climate Change and Disaster Risk Management, South Asia Region, World Bank)
- “The hydrological cycle will be intensified, resulting in more extreme weather events and overwhelming the city’s drainage system.”-**Dr. Abhas K. Jha** (Practice Manager, Climate Change and Disaster Risk Management, South Asia Region, World Bank)
- “Coastal erosion is an emergency along our coast, displacing thousands of people and destroying livelihoods.” -**Dr. Abhas K. Jha** (Practice Manager, Climate Change and Disaster Risk Management, South Asia Region, World Bank)
- “We are still not very sure that we acknowledge this as a very serious threat.” -
Mr. Vinit Kumar (Former Chairman of Kolkata Port Trust)
- “The best course of action will be prevention... unless we do something for the prevention part of it.” -**Mr. Vinit Kumar** (Former Chairman of Kolkata Port Trust)





Session 4

From Risk to Resilience



The session focused on developing climate-resilient infrastructure in cities like Mumbai to effectively address the impacts of climate change. Attendees explored successful strategies implemented in European cities and ongoing initiatives in river-water management, flooding, and waste disposal in Mumbai. The session aimed to collaborate with global partners to map out the process of planning and implementing climate-resilient infrastructure in Mumbai, considering its unique challenges as a coastal city. Valuable insights were shared on transitioning from planning to implementation, and discussions among experts facilitated meaningful conversations and the identification of actionable strategies to tackle climate change challenges in urban areas such as Mumbai.

Participants:

Chair: **Mr. R.A. Rajeev** (Former Metropolitan Commissioner, Mumbai)

Moderator: **Ms. Supriya Krishnan** (Urban Resilience Specialist, Ph.D. Researcher at TU Delft)

Panelists -

1. **Mr. Shankar Deshpande** (Chief, Mithi River Development and Protection Authority, MMRDA)
2. **Ms. Geeta Pillai** (Chief General Manager, CIDCO)
3. **Dr. Fredrik Huthoff** (Water Resource Management, Disaster Risk Reduction Expert)
4. **Mr. Harpal Dave** (Addl. Chief Town Planner, Government of Gujarat)
5. **Mr. Dilip Shekdar** (Advisor Planning, Mumbai Port Trust (MbPT))
6. **Mr. Daljit Singh Kohli** (Indian Representative, Port of Antwerp-Bruges, Belgium)



Key Takeaways:

1. Global sea level rise has increased from an average of 1-2 mm per year to 3.5-3.7 mm per year since 2018. The average annual rainfall in the last 50 years is 2400mm.
2. The Maeslant barrier, operational since 1997, serves as a flood protection system in Rotterdam. It consists of two doors triggered by sea level and river flow, and its construction and maintenance costs are significant.
3. The Mumbai region experiences high annual rainfall, ranging from 2500mm to 4000mm, with extreme events recorded in the past.
4. The use of Sustainable Aviation Fuel (SAF) is estimated to contribute significantly to reducing aviation emissions and achieving net-zero by 2050.
5. The design of the barrier prioritizes sustainability, utilizing minimal concretization, stone masonry, and vegetation growth to slow down water flow.
6. A large portion of the redevelopment area in Mumbai is proposed for open spaces, roads, amenities, and eco-tourism, promoting sustainable urban development.
7. Green buildings and infrastructure elements, such as vegetated and high albedo roofs, shaded parking spaces, and green bus stops, contribute to lower temperatures and reduced heat emissions.
8. Implementing strategies like shading and green infrastructure can help reduce peak summer temperatures and create more comfortable urban environments.

Notable Quotes:

- “Most of the PPP models in Waste Management have failed because the municipal Corporations have been thinking that the private player is making more money and the private player is not even able to earn money.”-**Mr. R.A. Rajeev** (Former Metropolitan Commissioner, Mumbai)
- “When we talk about coastal cities and City climate action, we talk about thoughts as well.”-**Ms. Kamilla Kristensen**, EU Delegation (VC)
- “We have to be alarmed that there is going to be some amount of sea rise, some amount of tidal action, some amount of extreme events, and some combination of what is going to happen.”-**Mr. Shankar Deshpande** (Chief, Mithi River Development and Protection Authority, MMRDA)
- “Moving from risk to resilience requires addressing uncertainty in urban planning and integrating flexibility into existing urban systems.”-**Ms. Supriya Krishnan** (Urban Resilience Specialist, Ph.D. Researcher at TU Delft)



- “We are striving for a balance on how to achieve this objective without actually degrading the environment or disturbing the environment and achieving a balance as well as building resilient infrastructure.” -**Ms. Geeta Pillai** (Chief General Manager, CIDCO)
- “The city planners of Navi Mumbai took a critical decision to create Navi Mumbai’s base of planning or the design of the entire city of Navi Mumbai was based on the Dutch reclamation method.” -**Ms. Geeta Pillai** (Chief General Manager, CIDCO)
- “So vulnerability assessment, periodic vulnerability assessment, risk assessment should be carried out. It has to become an integral part of all airports.” -**Ms. Geeta Pillai** (Chief General Manager, CIDCO)
- “In the Netherlands, flood risk management is centuries old, but at the same time, it’s not just a story of successes. We have learned the hard way.” -**Dr. Fredrik Huthoff** (Water Resource Management, Disaster Risk Reduction Expert)
- “It’s not only about recognizing the problems together but also working together on solutions.” -**Dr. Fredrik Huthoff** (Water Resource Management, Disaster Risk Reduction Expert)
- “Nature-based solutions are comparatively cheaper and help retain biodiversity and deliver ecosystem services.” -**Mr. Harpal Dave** (Addl. Chief Town Planner, Government of Gujarat)
- “We may need to relocate our investment to areas more suitable for the future as coastlines recede and water levels rise.” -**Mr. Harpal Dave** (Addl. Chief Town Planner, Government of Gujarat)
- “Ports are critical infrastructure, so we must be prepared for the next thing that’s coming up.” -**Mr. Daljit Singh Kohli** (Indian Representative, Port of Antwerp-Bruges, Belgium)
- “Collaboration between teams, both in and out, is important for handling the next crisis better.” - **Mr. Daljit Singh Kohli** (Indian Representative, Port of Antwerp-Bruges, Belgium)
- “There is a need to go into deep detail exactly what is going to happen in the future, whether there will be really an increase in seawater or not.” -**Mr. Dilip Shekdar** (Advisor Planning, Mumbai Port Trust (MbPT))



Session 5

Responding to Climate Change: Innovation & Collaboration



The panelists in this session brought valuable perspectives on proactive measures taken by businesses to address the challenges posed by climate change and adapt to its wide-ranging implications. Led by distinguished leaders in climate finance, philanthropy, sustainability, and risk management, the session explored resilience and climate adaptation plans implemented by various organizations. The discussions highlighted the importance of identifying sectors that are most vulnerable to climate change and creating opportunities for increased climate investment in those areas. By focusing on these sectors, businesses can effectively future-proof themselves against climate challenges. The session provided a comprehensive examination of strategies for addressing climate change in urban business centers, showcasing real-life examples of proactive measures and offering valuable insights for businesses seeking to adapt and protect themselves from the crisis.

Participants

Chair: Dr. Prasad Modak (Managing Director, Environmental Management Centre Pvt Ltd)

Panelists

1. **Mr. Swaroop Banerjee** (Vice President, Sustainability JSW Foundation)
2. **Mr. Chanakya Chakravarti** (Head of Indirect Strategies, Asia Pacific, Ivanhoe Cambridge)
3. **Mr. Akshay Shetty** (Manager, Dasra)
4. **Ms. Ambika Vishwanath** (Co-founder, Kubernein Initiative)

Key Takeaways:

1. In climate conversations, it is important to involve civil society organizations and acknowledge their efforts in building resilience.
2. Philanthropy can play a vital role in supporting long-term solutions and fostering collaborative action towards addressing climate change.



3. Storytelling and regional media platforms are effective tools for reaching a wider audience and engaging more people and communities in climate discussions.
4. Different communities experience the impacts of climate change differently, and it is crucial to prioritize justice and equity in climate action.
5. Research, collaboration, and policy integration are essential for implementing effective measures to combat climate change.
6. The UK has made significant progress in implementing Net Zero highways, showcasing a strategic approach towards sustainable transportation.
7. Maharashtra is actively working on a Climate Smart Agriculture project that focuses on promoting climate-resilient farming practices in 13 districts.
8. The Indian government has ongoing missions on green hydrogen, circular economy, and achieving Net Zero emissions by 2070.
9. Climate change and social housing are critical areas that require attention and action.
10. Technology advancements and sustainable financing mechanisms play a crucial role in driving positive change and addressing climate challenges.
11. Pension plans and other financial institutions are increasingly prioritizing sustainability and diversity in their investment strategies.
12. Engaging students and raising awareness about climate issues across generations is essential for building a sustainable future.
13. Regional initiatives and collaborative efforts are necessary for effectively addressing climate change and its impacts.

Notable Quotes:

- "When we talk about climate, we need to ensure that communities that are most impacted by its events, communities that are resilient in their ways, need to be a part of this conversation." -**Mr. Akshay Shetty** (Manager, Dasra)
- "The risk of not understanding the economic loss of [climate change] is much greater than not doing anything at this stage." Ms. AmbikaVishwanath (Co-founder, Kubernein Initiative) -**Ms. Ambika Vishwanath** (Co-founder, Kubernein Initiative)
- "The whole DEI agenda, the diversity, equity, inclusion... is at the front and center of everything we do." -**Mr. Chanakya Chakravarti** (Head of Indirect Strategies, Asia Pacific, Ivanhoe Cambridge)
- "We intend to influence change through our capital and be constructive capital to make that difference." - **Mr. Chanakya Chakravarti** (Head of Indirect Strategies, Asia Pacific, Ivanhoe Cambridge)



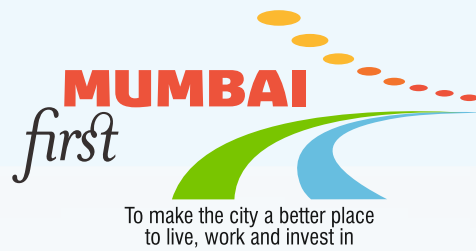
Special Address:

Hon. Shri. Deepak Kesarkar

Guardian Minister, Mumbai City



Hon'ble Minister shed a light on all the flagship programs government is undertaking in areas like sewage management, sustainable transport, water management etc. to enhance city's resilience. He also congratulated Mumbai First for their constant efforts in future-proofing the city and creating a common platform for the government as well as private entities. He emphasized on various activities that are being undertaken for city's sustainable beautification, enhancement of health sector and overall waste management while encouraging civic participation and community mobilisation.



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