POST PANDEMIC URBAN RECOVERY CLIMATE CHANGE CLIMATE FINANCE- TALE OF ASIAN CITIES

Thursday
9th September'21

Shloka Nath
Executive Director,
India Climate Collaborative,TATA Trusts

Ms. Nath's presentation highlighted Climate Collaborative's key role in directing climate finance in post pandemic urban recovery. India Climate Collaborative is an India led network with over 30 experts from across the country and overseas, 100 technical experts that represent the Indian and global climate ecosystem. As a convenor and Connector expanding dialogues for collaboration, India Climate Collaborative uses its platform to elevate climate actors and plays a key role in developing future leaders to tell the story of India through the lens of individual institutions and communities.
The Climate story in India is not just about livelihoods but lives. As we move into a post covid world, the case to develop a more sustainable development pathway is strong. The Indian Economy is teetering between business as usual as well as the transition/ need to transition to a green economy. Cities as we know are the global engines for growth, but they are also on the frontline of the Climate Crisis. With more than half the world's population they consume 2/3rds of global energy, they emit more than 70% of global greenhouse gases and are disproportionately exposed to a wider range of climate risks.

By 2050, we are looking at 3.3 billion who could be at the risk of severe climate impact. Covid-19 has brought about unprecedented challenges for cities globally. Cities have had to bear the brunt with high mortality infection rate, staggering economic losses and job losses especially among women and young people which has led to a devastating increase in poverty and hunger and that has threatened decades of development gains.

The pandemic recovery opened a once in a generation opportunity to build sustainable and inclusive clean and green cities that are fit for an unprecedented wave of urban growth. Power generation design and transport, mobility design and infrastructure design are going to be crucial in determining how we achieve sustainable development goals or targets set in the Paris agreement. Science tells us that in order to combat the effects of climate change, we have to limit warming to 1.5 degree celsius above pre-industrial areas. The most recent IPCC report has stated that the target has become almost difficult to achieve in the near term and necessitates rapid climate action in the next 10 years.Not all countries reflect a similar starting point- developed countries for instance, have poured trillions into their recovery packages and developing countries continue to battle the pandemic and its social and economic consequences.

With extraordinary challenges come extraordinary opportunities. The International Finance Corporation estimates a 29 trillion dollar opportunity in climate investment to 2030 in emerging market cities in six sectors alone- waste, climate smart water, renewable energy, electric vehicle, public transport and green buildings. Cities are motivated to act. To date, over 6,000 cities are participating in the Global Covenant of Mayors for Climate and Energy and representing 20% of urban residents globally. Cities have started to develop climate action plans. Our own city Mumbai is in the process of developing its climate action plan. National governments, cities, public and private financial institutions are also increasingly recognizing the importance of cities to climate action and launching initiatives to address barriers to accessing finance. Despite this momentum, cities continue to face significant headwinds in mobilizing finance for transformational climate action. Barriers to finance include the lack of technical and financial capacity, constraints over the control of resources, constraints in finding workable funding models- these barriers are specifically present in developing economies, specially Asian cities.

The Covid-19 pandemic added further financial strain to a city making planning for the future difficult. While cities are spending increasingly on social protection to address the health crisis, many cities have lost additional revenue sources due to the economic crisis. This decline further affects the ability of cities to provide central infrastructure services, sanitation, mobility and housing. The covid-19 recovery efforts run the risk of locking in greenhouse gas emissions and human vulnerability pathways. Due to the pandemic, cities are either relying more on intergovernmental transfers specially stimulus spending or they are at risk of making cuts and facing difficult trade offs including forestalling climate change action. This is especially the case in rapidly urbanizing cities in South Asia.
In these cities, there is an increased risk of greenhouse gas emissions and human vulnerability pathways becoming locked in if long term development and climate considerations are not incorporated into recovery efforts at this hour. The ability of cities to meet their climate action targets is at a critical juncture. It requires partnership with national and international governments, civil society organizations, etc.

What can be done in the Urban contexts? A quick look at Mumbai :
India Climate Collaborative is working on a climate risk atlas in India- This is a tool to help better understand climate risk and come up with a strategy to address said risks. For example- the eastern coast in India has been vulnerable to storms - which has helped with adaptation strategies such as building storm shelters and early warning systems. This has significantly reduced the loss of lives due to catastrophic storms. The right kind of data is crucial to building urban resilience. The district compendium, a section of the larger risk atlas being funded by India Climate Collaborative is going to be a sector wise vulnerability assessment for Indian districts and this will cover critical risks and vulnerabilities including weather events, coasts, heat stress, water stress, crop loss, vector borne diseases and biodiversity collapse.

Early data has shown that Mumbai is highly vulnerable to climate risks- meaning comprehensive risk assessment and preparatory plans will be indispensable to resilient, long term, sustainable planning. We are also deeply aware of the need to improve degraded ecosystems and engaging with the decade of ecosystem restoration through the lens of community driven, nature based solutions is very important. Nature based solutions are incredible because of their ability to manifest co-benefits. Since our knowledge about nature based solutions is still at a very nascent stage in India, this knowledge product for nature based solutions aims at closing knowledge and finance gaps in India. Investment in this knowledge product is crucial as this will inform and inspire funders to direct more investment towards nature based solutions in India. The knowledge product is going to target a range of funders from the domestic and international funders from the public and private sector and the idea is to explore a range of traditional funding and a host of blended finance solutions among a host of others.

Rakesh Kumar
Former Director CSIR NEERI
Mumbai

Dr. Kumar's presentation focused on the Mumbai Metropolitan region in the context of climate change. Key question often is- Are cities providing opportunities or creating crises because of the high density of population and fragile infrastructure? Some of the basic questions that his presentation covered included- Is there an urban environmental crisis? What is the nature and extent of urban environmental degradation? Existing options to improve urban environmental health? How to choose and implement these options and who is to decide?

India has the largest rural population 893 million. (Refer: World Urbanization Prospects: 2018 revision). Cities drive the economic activity of any nation.Cities are home to half of the world's seven billion people and contribute to about three-fourths of the global economic output. If we do not pay attention to the development of cities there may be a double whammy- with the rural population moving to cities in large numbers and may not be able to cater to this population adequately, creating a crisis at both ends. Climate linked disturbances and disasters are becoming the biggest risk for sustainable development of cities.

Some of the effects of climate change include- urban flooding, infrastructure damages, ecosystem damages, air-water- soil degradation, and increased health burden.

Increased changes in land use patterns over the last three decades have also resulted in increased temperature. Rise in temperature can be tackled by increased greencover and restoration of wetlands and also infrastructural design. The environment has a natural assimilation capacity- surpassing this capacity due to any activity can significantly impact this balance. Every department/ ministry's actions and goals have to be closely linked with climate change.

Efficient urban mobility and transport, improving assimilative and carrying capacity.

Poor sewage infrastructure remains one of the key challenges in the MMR. Adequate time needs to be paid to this problem.

Economic resilience of cities in the face of changing climate- Adaptation to climate risks is an emerging concern in Indian cities. The evidence generated so far suggests that Business as usual is not an option for urban economic resilience in the context of a changing climate.

Asian Cities Climate change resilience network is working on four cities in India- Surat, Pune, Kochi, Ludhiana. Key attributes being looked into include- resource constraints, economic robustness, conditions for economic development and climate change adaptation, role of locally and spatially diverse processes and health.

One of the key factors for resistance to investing in climate action in Indias is the wide variation in the results of climate models. (both mitigation and adaptation). A lot more needs to be done when it comes to downsizing global climate models to suit local requirements i.e. say a specific region of the Mumbai Metropolitan region

Cities can build more resilient neighbourhoods and benefit from applying the Urban Climate Resilience action by- Tailor early warning systems to meet the needs of vulnerable populations, map city services and access to amenities, build long term resilience into infrastructure and planning and promote an inclusive culture.

Key takeaways:

- It is important for city plans to include climate resilient planning
- There is an immediate need to develop urgent warning systems
- Modern tools and techniques such as CFD and WRF can be used to mitigate the impacts of climate change at micro and meso scale
- Nature based and nature derived tools and techniques can be used to formulate developmental and mitigation plans.
- Knowledge can be derived from ancient architecture to reduce carbon footprint
- Circular economy, green infrastructure development, smart city development can be applied to build inclusive and resilient cities.

Dr. Ari Mochamad,
Country Manager at the ICLEI-Local Government f
Sustainability Indonesia

Dr.Mochamad highlighted Indonesia's long-term Strategy for Low Carbon and climate resilience by 2050, as contributing to global goals, and achieving national development goals, taking into account the balance between emission reduction, economic growth, equity and climate resilient development. Jakarta Governor Anies Baswedan has put forth a proposal to reduce carbon emissions as concrete action of C40 cities to address climate change. On July 22,2021, Indonesia submitted an updated NDC to the UNFCCC. The Indonesian government has issued various financial instruments to assist regions in obtaining funding for the environment and climate change opportunities provided by International organizations and bilateral cooperation between countries. However, the basic problem is to realise effective and efficient financing in a program. He pointed out that local governments have a strategic position in combating climate change. Indonesia has designed pilot projects by including citizens to combat climate change. Dokumen Ikhtiar Jakarta is a document that contains concrete actions from the government, community, and private groups to reduce greenhouse gas emissions.

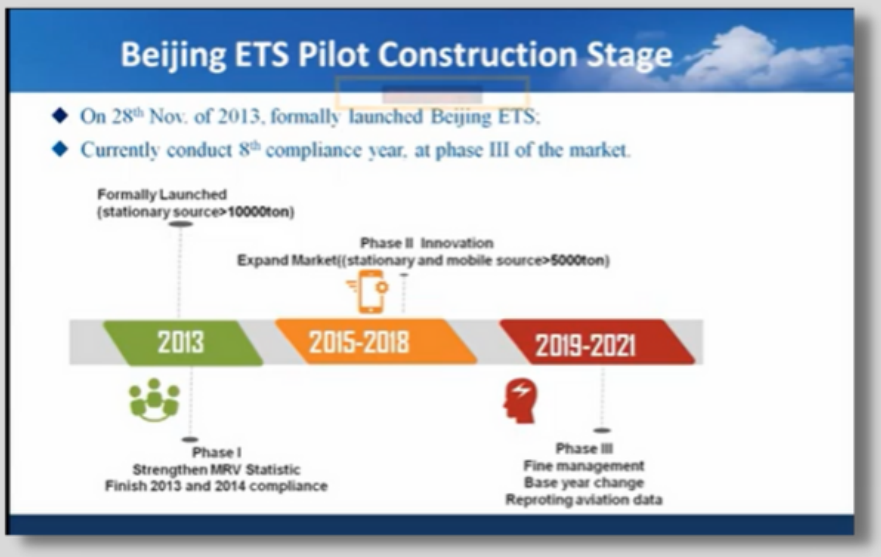
Financing strategy Climate action requires programs to increase institutional capacity and resources, develop and purchase technology, and hard structural development.This will have implications for funding needs. The need for funding as an important indicator in implementing climate action programs must be explicitly stated in the development planning or work program of regional apparatus organizations so that they have good optimum operational power.

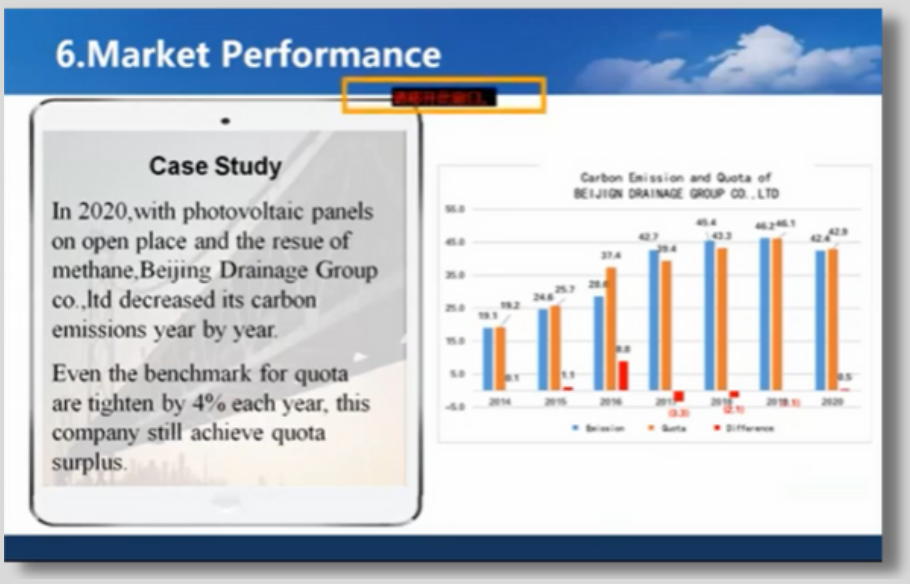
There is a need for an integrated finance strategy to ensure that climate change agendas do not come off as new agendas that add to the workload of development sectors or institutions. Improving funding governance is an approach for every key and technical sector to work based on an integrated and coordinated plan. This can correct existing unsustainable systemic issues, challenges, policies etc. Given the issue of limited resources, implementing domestic climate action plans will require integration of assessment of adaptation, mitigation, technology and funding needs.

Efforts to mitigate and adapt to climate change require strong cooperation between development sectors. Both of these efforts require substantial funding sources. For the current development funding to run optimally towards the achievement of low carbon and sustainable development, policies and programs must be based on priorities. Global commitment to funding climate issues marked by bilateral assistance and funding offers, either through a country's development funding assistance agency or direct cooperation with the government of a country concerned as well as funding from the private sector. Foreign assistance can also be done through NGOs which generally cooperate with national or regional governments or directly provide assistance to the community.

Deputy Chief, Climate Change Division, Beijing Municipal Ecology, and Environment Bureau

Greenhouse gas emission reduction is China's long-term policy. China will be carbon neutral by 2060. The two Beijing GHG targets are reduction of carbon intensity of 2020 by 20.5% relative to 2015 & carbon emission to a peak level by 2020. She highlighted the achievements of Beijing in reducing GHG. Dr. Li presented Beijing's experience with the Emission Trading Scheme.





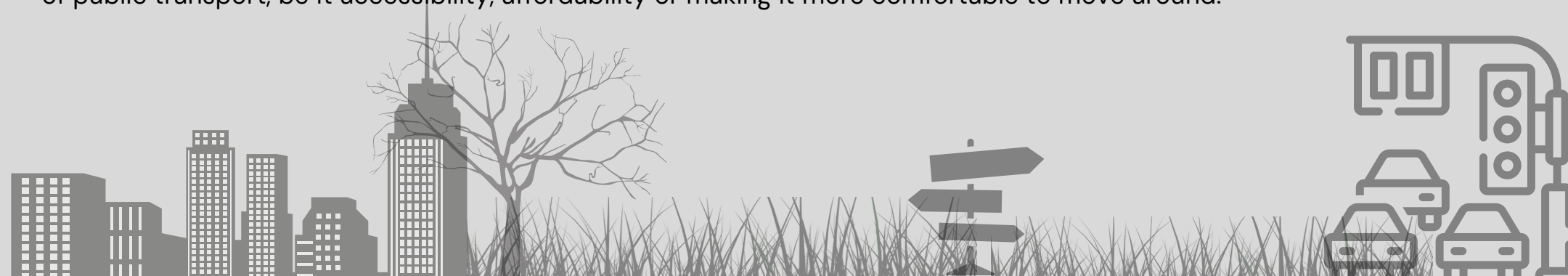
Q &A Session

With regards to Data based planning, what are the existing gaps in city plans currently with regards to climate finance?

The Indonesian government has put in place the National Registry system for all stakeholders- both community and government working on climate action. This is not a full proof system yet. However, this serves as a useful point of reference for all interested stakeholders and donors. Good data would imply easy access, cost effectiveness and accessibility to people. Therefore, simplification of existing data and making it accessible to people is crucial since they ought to be part of the decision making process. Thus, these remain some of the key challenges.

Mobilization of public private partnerships is crucial for climate finance. Are there policies in place?

Public private partnerships should also include people and citizens at large in the decision making process. This would make the approach more sustainable which currently focuses on the government and private sector. Projects such as rejuvenation of rivers should include people's participation in large numbers. Apart from individual projects, it is equally important to focus on certain broader issues such as that of transport and mobility. 25-30 % of the population in Mumbai uses public transport- which is significantly lower than earlier years. This causes issues for retrofitting. Incentivising the use of public transport, be it accessibility, affordability or making it more comfortable to move around.



Speakers profile

Ms. Shloka Nath

She is the Executive Director of the India Climate Collaborative. She also leads the Sustainability portfolio at the Tata Trusts, focused on the organization's climate, energy and environment work.

Prior to this, Shloka co-founded and was Managing Partner, Sankhya Women Impact Funds. Shloka is an angel investor in social enterprises and has mentored organisations across sectors. She was Managing Editor for the Harvard Kennedy School Review and has spent over a decade in journalism with the BBC in London, New Delhi Television, and Forbes.

Shloka has a Master's in Public Policy from Harvard's Kennedy School of Government and a BSc in Government from The London School of Economics and Political Science. She was a speechwriter at the House of Lords and during her tenure, successfully established an All Party Parliamentary Group for Entrepreneurs. Shloka has also worked on promoting press freedom worldwide for the Committee to Protect Journalists (CPJ) in New York.

Dr. Rakesh Kumar

He was Director of National Environmental Engineering Research Institute (NEERI), part of CSIR (Council and Scientific and Industrial Research) and now at CSIR Delhi. He completed his M.Tech in Environmental Science & Engineering from IIT Bombay in 1987 and later got Ph.D. in Environmental Engineering. His main area of expertise is in development of appropriate technology for environmental quality improvement encompassing the field of air pollution, particularly vehicle pollution, hazardous waste management, waste water treatment and disposal besides Climate Change and Health related subjects.

Some of the notable awards conferred on him are "Environmental Leadership Award" by US Asia Environmental Partnership and US-AID for the year 2005 for outstanding contribution in improving quality of life for the population of Asia. He has been given VASVIK award for 2012 for his exemplary work for urban environment improvement and sustainable technology "Phytorid" for sewage treatment for better environment.He has twelve patents on pollution control devices, of these two international patents, besides more than 105 papers in national and international Journals.

Ari Mochamad

He is an alumnus of Cohort 12 of Leadership Environment and Development (LEAD). He earned his Doctoral Degree in the Environmental Science Program at the University of Indonesia in 2015, with his Dissertation on Social Capital Models in Building Climate Change Policy; Realizing the Climate Change Adaptation Action Plan in Indonesia. He was awarded the climate adaptation leader from the Institute for Disaster Management and Climate Change – Nahdlatul Ulama (NU).

From 2010 to the end of 2014, he was appointed as Secretary of the Adaptation Working Group at the National Council on Climate Change (DNPI). In 2016 worked on the Climate Change Adaptation and Resilience (APIK) project - USAID. Deputy Chief Chunmei Li is responsible for the policy formulation and management of carbon trading pilot project, and planning and greenhouse gas emission control policy formulation of climate change in Beijing. She also managed international cooperation projects in the environmental protection field. She has a master degree of Science in major of Environmental Science, Peking University.

Ms. Chunmei Li

Deputy Chief Chunmei Li is responsible for the policy formulation and management of carbon trading pilot project, and planning and greenhouse gas emission control policy formulation of climate change in Beijing.

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