IIITD | INDRAPRASTHA INSTITUTE *of* INFORMATION TECHNOLOGY DELHI

DIGITAL DELHI CONCLAVE 2021

CLIMATE ACTION FOR A SUSTAINABLE URBAN FUTURE

11TH DECEMBER 2021

The Sessions:

In the third edition of the conclave, we asked the following two specific questions as we brainstorm climate action as a concrete policy framework for negotiating climate change:

- How to integrate climate change and social sustainability in urban planning and policymaking?
- Can digital interventions be integrated into planning the sustainable urban future?

09:30 AM	Young Researchers' Round Table
11:00 AM	Inaugural Session • Dr. Jasmine Shah • Dr. Hita Unnikrishnan
12:30 PM	Panel I : Community and Climate Action: How to make Climate Action Socially Equitable? • Chitra Venkatramani, Assistant Professor, NUS Singapore • Rohan D'souza, Associate Professor, Graduate School of Asian and African Area Studies, Kyoto University • Rohit Azad, Assistant Professor, JNU
2:30 PM	Panel II: Climate Action and IIITD: Building Technology for a Sustainable Future • Pankaj Jalote, Professor, IIITD • Sanat K Biswas, Assistant Professor, IIITD • Tavpritesh Sethi, Associate Professor, IIITD • Aasim Khan, Assistant Professor, IIITD (Social-AQI)
4:00 PM	• Student Competition Poster • Documentary Presentation A conversation with Sohail Hashmi & the artists
5:00PM	Keynote Address : Ambassador Shyam Saran
6:00 PM	Plenary Session: Climate Action: Global Discourse, Local Policy • Prakash Kashvan, Professor, University of Connecticut, USA • Kasia Paprocki, Professor, London School of Economics
ALL DAY EVENT	Climate Chabootra: Grounding the Green HashtagGlobal, Acting Local

Introduction:

The third annual Digital Delhi Conclave (DDC'21) was held on 11th December 2021, at IIIT Delhi on the theme of "Climate Action for a Sustainable Urban Future". It was a part of the initiative taken by the institute to achieve the Sustainable Development Goals (SDGs). The primary objective of the conclave is to provide a public platform to experts, researchers, policy makers, students and activists to discuss and ponder over the question of a sustainable future in the urban city of Delhi-NCR, which is undergoing effects of global warming due to climate change.

The latest report by the Intergovernmental Panel on Climate Change (IPCC) predicts that the effects of human-induced climate change are irrevocable and urgent global collective action is required. Those experiencing multiple vulnerabilities and otherness will be the most affected in the era of Anthropocene, while having contributed the least to the increase of the greenhouse gases in the atmosphere. Climate action has been adopted as one of the SDGs. There is a need to mitigate and adapt to the effects of climate change, with the help of new technologies and changes in policy making.

Digital Delhi Conclave 2021 (DDC'21):

The theme for this conclave was to discuss various aspects of climate action in the context of living sustainably in the city of Delhi-NCR. The questions addressed in the conclave were two-fold. Firstly, we wanted to place the question on how to integrate climate change and social sustainability in urban planning and policy making. Secondly, we wanted to understand whether digital interventions can be integrated in planning for a sustainable urban future.

To meet this end, we had panel discussions and a roundtable conference on various topics related to climate change, urban sustainability, social equity and technological interventions. In the next section of the report, we will try to provide a brief summary of the various discussions that occurred during the conclave and the possible solutions which were recommended by each speaker.

Brief of the conclave:

The conclave started with a roundtable conference of young researchers, who debated on the questions of the role of technology in arresting climate change and how to locate the phenomenon associated with extreme weather patterns in the social, economic and political context of both the local and the global. One of the major suggestions which came through from the discussions was to have locally derived, context specific solutions for cities such as Delhi, while we place these solutions in the workable nuances of the larger economic structure of capitalistic neo-liberalism. Another parallel thought that emerged from the conversation was the need to have technology to mitigate the effects of climate change, but to ensure that the said technology was accessible and equally distributed amongst the masses of the local population.

The need for locally derived solution as a part of climate action was reiterated in the inaugural session of the conclave, wherein, the director of IIIT Delhi Dr Ranjan Bose, proposed that since climate change doesn't respect national or international boundaries, all the countries and specifically their cities need to move to a no-carbon generating economy. While mentioning about the need to shift to renewable forms of energy sources, he pointed out that we needed to have affordable and scalable local solutions, wherein we need to bring in technology to help us contain, if not arrest, carbon emissions.

Continuing the conversation on what local policy makers can do, the vice-president of Dialogue and Development Commission of Delhi, highlighted two challenges which emerge in cities such as Delhi. One is that of the issue of air pollution and the other is that of climate change as a whole and partly a consequence of the said pollution of the air. Focusing on the issue of air pollution in Delhi, Mr Shah highlighted that plenty of action was required on the part of communities, industries and government, in order to understand the problem. To meet the same end, there is a need to have credible and reliable data on the different components that contribute to air pollution. Such data could help us create a sectoral road map to solve the issue of air pollution. Mr Jasmine Shah went ahead to propose that while the concept of Air Quality Index (AQI) only came out in the last few years, we need to understand the contribution of the sources of pollution and the location of these sources. He also stressed on the fact that the starting point has to be between the

researchers and the policy makers, so that the government could devise policies that can make an impact.

Mr Jasmine Shah remarked that we do not have a state-of-the-art carbon inventory, to understand which are the sectors that are generating carbon emissions, what are the components of these carbon emissions and where are they located. For a better carbon action plan, the availability of such data was an absolute necessity.

Focusing on some of the local solutions for air pollution as provided by the Delhi government, Mr Jasmine Shah highlighted that Delhi has shut down all the thermal power plants. Furthermore, in the concern related to crop stubble burning, the government has provided farmers with Musa Bio Decomposer Solution, which can be sprayed on the crop stubble, wherein it decomposes within 15 days and disintegrates into the soil. In the matter to revamp the transportation system, the government has introduced the zero-emission vehicle policy or electric vehicle (EV) policy around one and half years back. This is proposed as a long-term solution for the transport related issue, unlike the odd-even transport scheme, which is a short-term solution. Other initiatives by the government include that of setting up solar panels on the roof-tops of the houses and the widespread plantation drives across the city of Delhi.

While we see the need for targeted policy level changes for an issue as massive as climate change, how do we make the technological interventions and climate action more just and equitable is a question, a few speakers chose to address. Dr Hita Unnikrishnan, Newton International Fellow (British Academy), Sheffield Urban Institute, put forth that we are seeing iniquitous conditions of access of resources and distributions of wealth; and iniquitous experiences of climate change. She remarked that people living in the marginalised neighbourhoods are probably going to face the extremes of the climate, simply because people living with existing vulnerabilities would be more distressed. Different people will experience different impacts of climate change and different parts of India have different geographies. Hence, Dr Hita stressed on the fact that solutions have to be tailored to specific geographies, as a pan-Indian climate policy might not work.

Focusing on her work in the urban city of Bangalore, she said that in landscapes such as that of Bangalore's, the way we look at resources is use dependent, which increases or decreases their

value. If we look at these landscapes however, there is a marginalisation of the livelihood dependencies. Different uses became marginalised over the period of time in Bangalore, and Dr Hita focused on the devaluation of the lakes in the city at one hand, with the rapid appropriation of the landscape for private and luxurious use to inject "aesthetic value". On the other hand, she said that the local community members of the city were only allowed to enter and withdraw from the lake but not manage the lake. The state managed to destroy collective action completely over a period of time. There was loss of connectivity to the lake by the people, which led to famine, which in turn led to loss of lives, livelihoods and the spread of the diseases.

While providing a few suggestions on improving the facets of urban climate planning and policy, Dr Hita recommended that the solutions needed to be context specific, focusing mainly on the particular problems that a city faces. Coming to the nature-based solutions, she suggested that we move beyond plantation drives and listen to the knowledge of conservation as shared by the local communities of that area. She also stressed on the fact that we needed to move beyond technological dominance, with an increased focus on different marginalisations related to health, caste, ecology and livelihoods; what are the tradeoffs involved and how to mitigate them. Lastly, she recommended that we take a historical approach to address climate action and we need to look at how these inequities have been produced over a period of time.

Continuing the stream of thought on the question of equity in climate action, Dr Chitra Venkatramani, who is an assistant professor at NUS in Singapore, said that we need to have a participatory dialogue with the local communities involved, to not only formulate climate action policies, but also while we use technologies such as satellite imagery to draw coastlines. Focusing on Mumbai and the knowledge of the Koli community in fishing and accessing the coast, Dr Chitra highlighted that the community engaged in small-scale near shore fishing saw the coast as a fluid entity, where as the new ecological regimes as imposed by the Coastal Regulation Zone (CRZ), saw the coast as something which is fixed and can be drawn based on satellite imagery. Dr Chitra went ahead to stress on the growing reliance by the CRZ on satellite imagery, considering it to be more crediable and accurate while drawing the limits of the coast, while completely disregarding the knowledge of those who live and give back to the coast.

Much like Dr Hita and Dr Chitra, who focused on cities like Bangalore and Mumbai, we can try to understand how to look at the situation in Delhi, more equitably. Dr Rohit Azad, who is an assistant professor at JNU, provided a class analysis in understanding the crisis of emissions and situated the question of inequality in the context of emissions and who bears the most brunt of it. Following from the thoughts of air pollution in Delhi by Mr Jasmine Shah, Dr Rohit helped us to broaden our view on how to look at the effects of air pollution. While pointing out that transport and households were largely responsible for the poor AQI in Delhi, Dr Rohit stressed on the fact that while the richest in the city contribute to 2/3rd of the emissions in the city, those who are the poorest face the extreme consequences of it, having contributed least to the pollution in the first place. Dr Rohit proposed that there needs to be a change in the source of the pollution, along with implementations such as carbon-taxing the rich, and discouraging their overall consumption, which is directly proportional to the capital appropriated by them. Dr Rohit also suggested that the tax hence collected could be used to finance the universal food entitlement. Taxing the rich on their carbon consumption might discourage them from over-consumption and regulate their luxurious spending and behaviour, while redistributive policies such as that of provision of food security and affordable public transport can be seen as more just ways of approaching the matter such as air pollution in Delhi.

Continuing our discussion on the matter of emissions in Delhi and how to strengthen local governance in monitoring AQI, Dr Aasim Khan spoke about how measurements such as AQI can enable local governance and the hyperlocal management of pollution. Six sensors have been placed at mobile shops and cyber cafes in the Okhla and Najafgarh areas. The sites at Okhla are Shaheen Bagh, Sanjay Colony and Tekhand. The sites at Najafgarh are Jharoda Kalan, Nangli Sakrawati and Najafgarh. Dr Aasim stressed on the importance of the hyperlocal governance of AQI in specific local geographics. Centralised models of pollution management tend to overlook the hyperlocal "institutional preparedness". There is a necessity hence for the introduction of dashboards and AI systems at the hyperlocal level, and there needs to be a consideration on how to make them more inclusive. There could also be "AQI literacy" provided at the level of the NGOs, school and local municipal organisations, and local capacity building workshops could be conducted, where the local citizens can know about the trends in the variations of AQI and this knowledge could help them in 'formulating better local mechanisms' to address the challenges

posed by pollution at large. Dr Aasim added that this hyperlocal mechanism can help local community members take care of their own health in a better way.

Through these discussions and suggestions, we begin to realise that the notion of environmental and social justice is situated at the heart of climate action. In the context of India, caste as a social institution lies at the core of environmental and social justice. Highlighting the relief work provided post-disasters such as floods at Madras, Dr Prakash Kashwan, who is a professor at University of Connecticut in USA, said that it is the Dalit community members, whose positionality in the Indian caste system, coerces them to clean up the city as a part of sanitation work after every flood. He stressed that the climate action plan needs to debate, frame, develop and implement a Climate Justice Framework. Dr Kashwan reiterated that the decisions to be made on climate action justice must be left to the common public, and not in the hands of the perpetrators. He added that the responsibility and the role of the state is to also stop subsidising chemical agriculture gradually as we continue to pump millions of rupees into it even after knowing about the destruction caused by it, to both the environment and the social. We need to shift to low-intensity, small-scale organic farming, along with promotion of local pasturing. While the shift to renewable energy is mandated by Dr Kashwan, he however also highlighted the reality in India that renewable energy and the responsibility for its facilitation is again left to the private investments, which needs to be reversed.

Another important suggestion provided by Dr Rohan D Souza, who is an associate professor at Graduate School of Asian and African Area Studies in Kyoto University is the need to change the language in itself with which we see climate action policies. He said that there are limitations when we see climate change as a problem that needs to be "fixed", rather we need to see climate change as a predicament. He stressed on the fact that by viewing climate change as a problem, we continue to focus on the set of responses as engineered by the middle-class. He stressed on the fact that when we see climate change as a problem that needs to be "fixed", we associate the said "problem" with the provision of certain technocratic solutions, while viewing the social realities of the people being affected by the climate change as secondary. Herein, the technocratic solutions take primacy, whereas the social is pushed to the backseat. In concerns related to transportation, Dr Rohan said that we don't necessarily see them as being socio-political concerns, but rather as a problem, with

solutions ranging from improved parking spaces to the construction of efficient roads. Dr Rohan reiterated that the ignorance with which one views the climate change crisis, while brushing the role of politics and power at the center of it, we fail to recognise and respond more effectively to the crisis.

Conveners

Dr. Aasim Khan

Dr. Ganesh Bagler

Dr. Gayatri Nair

Dr. Praveen Priyadarshi

Dr. Raghava Mutharaju

Dr. Smriti Singh