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**Date: 28th June 2021**

## Webinar Report: Consolidating Visions for Bengaluru's Climate Action Plan

### **Week 9 of “Bengaluru's Climate Action Plan: Making it Participatory and Inclusive”**

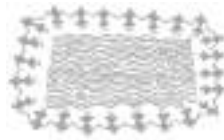
*An initiative of Environment Support Group, Bengaluru*

#### **Background**

Earlier this year, Bruhat Bengaluru Mahanagara Palike (BBMP) voluntarily committed that the metropolis of Bengaluru would take steps to achieve the targets of the Paris Climate Agreement: i.e., to take local action that would help the world contain global temperature rise to 1.5 degrees Celsius compared to pre-industrial levels.

On the occasion of the 2021 World Water Day, Environment Support Group (ESG) commenced a webinar series to discuss and debate what it takes for Bengaluru to become a climate friendly metropolis. The webinar series is a process of engaging with multiple thematic issues, concerns and imaginaries with leading officials of various State and civic agencies, subject matter experts, youth, representatives of various sectors and residents from diverse sections of the city. And it is also a process of collectivising diverse views and solutions with necessary nuance.

In coming together this way, the steps necessary for effective and just waste management, provisioning adequate water and safe housing for all, ensuring universal public health and public mobility, providing infrastructure that is inclusive, and building energy systems that are earth friendly, along with governance that is decentralised and deeply democratic will be interrogated and pragmatic solutions identified for action. In the process we hope to construct an assemblage of visions of *Namma Bengaluru* and how the metropolis can survive with its limited resources for the benefit of present and future generations and the good of the world.



## Week 9



**Ms. Vandita Sharma**

IAS, Additional Chief Secretary/ Development  
Commissioner, Government of Karnataka



**Mr. Prem Chandavarkar**

Managing Partner  
CnT Architects, Bengaluru



**Dr. Janaki Nair**

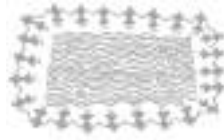
Retired Professor of History, JNU



**Ms. Bhargavi Rao, Trustee at ESG**, set the tone for the last session of the webinar series by reminding cities today have to face dual challenges of mitigating impacts arising from climate change while also taking actions to reduce emissions and build resilience. It is thus a matter of extraordinary significance that Bengaluru has taken the first step towards meeting such challenges by committing to the Paris Climate Change Accord.

**Ms. Malvika Kaushik, Research Associate, ESG**, presented ESG's draft climate action plan, which has emerged from the proposals made over the past 8 sessions. She shared that the overarching objective of the plan was to provide the way forward for integrated urban governance, where climate action was seen as an opportunity to redress social inequities. She highlighted prominent aspects of the plan, such as making climate action a component of the public health effort, decentralising the governance of commons and ensuring accessibility to them, securing food and water equity, and reforming education to make ecological wisdom integral to it. Other key proposals were the development of infrastructural plans through micro-level consultations with all sections of society to





understand their needs, designing legal and policy incentives for less resource-intensive built environment, promoting non-motorised and public mobility, and ensuring a just transition to renewable energy by focussing on decentralised energy production systems.



**Leo F. Saldanha, Trustee/Coordinator of ESG**, introduced the speakers of the session and said that the objective of the final session was to contextualise the diverse participation and the various views shared over the past 8 weeks of the webinar series. He pointed out that the process evolved as a networked effort of various citizens, including key members of the State and Local Governments and also regulatory agencies. He then invited<sup>1</sup> Ms. Vandita Sharma, and Mr. Prem Chandavarkar to the concluding session of the webinar series to reflect upon the criticality of participatory processes in resolving the complexities arising in our cities today due to climate change.

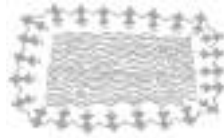
**Mr. Prem Chandavarkar, Managing Partner, CnT Architects**, commenced his intervention by noting that the suggestions put forth in ESG's Draft Climate Action Plan were all eminently sensible. However, what is necessary, he said, is an understanding of the nature of the beast - the prevailing system that governs the behaviour of both climate and cities. He felt that it is crucial we understand this, else we would be working at variance to a logic that is driving the system and our efforts would be doomed to be limited. Mr. Chandavarkar highlighted that both the climate and cities are very similar as systems, in the sense that they are both non-linear, complex and emergent.



In non-linear systems there is no direct relationship between input and output. A small input can produce a large output and vice-versa. In climate science, this recognition was pioneered by the work of mathematician and meteorologist Edward Lorenz who showed that small differences in initial conditions can set off a complex set of self-reinforcing loops resulting in massive changes in final conditions. The popular term given to Lorenz's work is the '**butterfly effect**' - a butterfly flapping its wings in one place can lead to a massive storm in another place.

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<sup>1</sup> Dr. Janaki Nair, Retired Professor of History, Jawaharlal Nehru University, New Delhi, the third speaker of the session, had to pull out due to ill health. Dr. Nair's intervention was supposed to situate the history of planning of Bangalore in the current context of climate change as well as the Covid 19 pandemic.



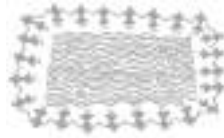
Another characteristic of cities Mr. Chandavarkar pointed to is its complexity. As with all living systems this complexity is **self-organising**. In living systems, the components evolve from the bottom-up by interacting with each other, bringing order out of chaos. They organise themselves. Our body too is a self-organising entity.

The final characteristic of self-organising systems Mr. Chandavarkar highlighted was **emergence**, which he defined as the capacity of a system to hold fundamental properties at its core, that which did not exist in an earlier state of the system. To illustrate this, he used the example of friendship. *“We don’t find friends because we first construct a theory or master plan of friendship. In fact, if you tried doing that, you probably would not have any friends. We have friends because we spend time with them, and in our resonances of likes and dislikes we find patterns and reinforce those patterns. We listen and we speak and we laugh and dance together. And then one day friendship becomes a core property of the system between the two of us - me and my friend. This is something which did not exist earlier when we first met. This is what emergence is wherein a core property emerges over time”*, Mr. Chandavarkar explained.

For emergence to arise, there has to be frequent, face-to-face interaction. Every interaction leaves a visible trace. There is an inherent impulse within a system to recognise patterns within those traces and then act according to the patterns one sees. There is high information symmetry because all information is in the public domain. Nothing is externalised. All participants, components and results remain within the system and are part of the system. There is low preoccupation with grand design. The focus is just on immediate experience. Our brain too functions through emergence. The system would collapse if some grand design was forced on it or each neuron sought to be individually sentient. Our brain works with all its wonder and beauty because of this principle of emergence - making connections, finding patterns and responding to those patterns.

**We have to understand that the nature of our cities and of the climate is complex and emergent, and we have to act accordingly.** There are limitations of forcing our simplistic so-called scientific knowledge onto a complex system. One limitation is that there is a challenge to incentivise any change in behaviour because you cannot offer any kind of assurance - that if one behaves in a certain way, a particular result is guaranteed. Climate doesn’t work that way. We have to realise that analysis cannot effectively predict the future. Relying on analysis leaves us being stuck in abstractions.

Abstractions have a tendency towards partial solutions which are bound to fail. We will distort the system either through externalising things, or removing feedback loops which are crucial to the system functioning, or not realising the extent to which we are fragmenting the system which simply creates a different form of



externalisation. All of this simply creates opportunities for self-interested actors to act outside the system and alternative agendas start fighting each other. We start looking from the top-down rather than bottom-up. Because of all these partial views, abstractions, inability to incentivise behaviour change and mobilise people to be part of the system, the inertia of dysfunctional systems will prevail. *“My fear is that unless we recognise this complexity a lot of the well-meaning goals defined in previous discussions will be doomed to be limited”*, Mr. Chandavarkar remarked.

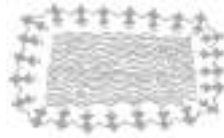
He then went on to share his thoughts for developing the climate action plan.

1. He started by laying the premise that everyone and everything is the system and must come together **cohesively**.
2. He stated the importance of recognising and embracing the **complexity** of the system.
3. He emphasised the mutual relationship between pattern formation and feedback loops. **Frequent feedback** is an effective method to reinforce patterns.

*“Feedback loops are the major way to incentivise changes in behaviour - what you need to create is the joy of individual agency, to believe that I can do something, I can make a difference.”*

Further, he emphasised on certain approaches to climate action.

4. **Hierarchy of scale**, wherein action taken at the local level allows participants to visibly see and feel the change mobilised by collective action. The approach allows capturing the nuances that are characteristic of the local context.
5. Principles of **subsidiarity**, wherein the lowest level is the fundamental block where maximum possible action is taken, and further action is delegated upwards. For example, energy, water harvesting and waste management can be tackled at the local level to the maximum extent.
6. Re-imagining the city, moving away from the notion of it being a bounded entity, but recognising the flow of food, water, energy etc., in and out of the city through the metaphor of the **city as a sponge**.
7. Promoting **holistic governance** and avoiding the problems arising due to fragmentation of responsibilities between different agencies within the city. He emphasised on the need for radical and overarching legislations to enable coherence.
8. **Radical transparency** is necessary for systemic change.
9. Approach to city planning and management should allow for **multiple strategies** to flower simultaneously and remove the potential conflicts between them so that they can align.



***“Articulate a vision, drive it and define how we measure progress to the vision, and share the measurement as a rapid frequency feedback, which can then empower local levels to develop their own adaptive strategy.”***

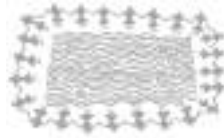
Mr. Chandavarkar concluded his talk with an interesting story of the Father of modern urban planning, the Scotsman, Patrick Geddes. In his decade-long work in India between 1914 and 1924, Geddes talks of three types of detailed surveys to initiate the planning process - survey of physical form, ecology, as well as culture and tradition.

Once, Geddes was given the powers to be the Maharaja for the day, at Indore. It was the season of Diwali and traditionally there used to be a procession along the route of the temple locations in the city. With his idea of minimal intervention, Geddes proposed a small change to the procession - for that year the procession would only pass through the cleanest streets in the city. This transformed a rather messy city into a surprisingly clean one as local communities rushed to clean up their streets of filth. In the process, Geddes had triggered voluntary action for common good. In the course of the procession, he also greeted and acknowledged sweepers of the city - thus addressing a key problem of our society - caste based discrimination and exploitation. This story speaks volumes of the potential of small initiatives, which is only possible by stepping forward, getting one's hands dirty, and most importantly planning without any prejudices, Prem suggested.



**Ms. Vandita Sharma, IAS, Additional Chief Secretary and Development Commissioner, Government of Karnataka,**

started by appreciating ESG's climate action plan as being very useful, timely and topical, and highlighting the need for social equity and micro-level governance in climate action planning. She stressed that going forward, two things were essential. Firstly, we need greater coordination between various governmental departments, from forest and ecology to urban development, transport, and education, so far working in silos. She also observed that in her interactions with the Chief Commissioner of the BBMP they had felt the need for a platform within government to ensure communication and coordination. Second, she stated that we need greater stakeholder consultation. She mentioned that the Karnataka State Action Plan on Climate Change, due for revision, would also be put through stakeholder consultation soon, and would take into account the climate action plan for Bengaluru that has emerged as an outcome of ESG's initiatives. She emphasised that community participation was a crucial component of the water policy being now being developed by authorities.



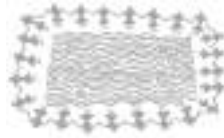
Ms. Sharma shared that after interacting with the BBMP, she had learnt that a government order on climate action seems to have been issued, but much work needs to be done, including mapping of greenhouse gas emissions in the city and creating models charting emission trajectories for Bengaluru. Ms. Sharma observed that the points shared by Mr. Chandavarkar were important and practical, and the foremost takeaway was to have a bottom-up approach to governance with a focus on the marginalised. She agreed that crucial communities that worked to keep environmental health of the, such as pourakarmikas, and those that ensure low carbon intensive markets functioned everywhere, street vendors, were ignored in development to master plans. And that's probably because they do not exist in the minds of master planners, she surmised.

Ms. Sharma expressed happiness that ESG's climate action proposals focussed on social aspects like health and education. Providing the public with platforms to talk, and undertaking extensive education and communication, were crucial to ensure that nobody is left behind. Ward-level plans, she felt, can become the foundation for planning for the whole city. Ms. Sharma also highlighted the need for legislative backing for encouraging progressive climate action.

***“We have to encourage and educate our Maharaja of Indore too, and ensure that he participates in this, gets more and more aware, and supports everyone.”***

She further observed that prior efforts in Karnataka for devolved governance, such as rural water user committees, had started out doing well but had become defunct with lack of encouragement. This culture needed to be revived. She concluded by stating that the city belongs to the people, and they must take ownership of it. The bureaucracy is there to support the people.

The webinar was then opened for questions by Ms. Bhargavi. A significant question was about the process of selection of ward committee members, as a critical basis for making ground up planning work for public welfare. In response, Mr. Leo Saldanha examined the idea of representativeness prevalent in local governance systems. ***“It is the public's government, but the government puts the public out of governance”***, stated Mr. Saldanha. That said, he acknowledged the role of the judiciary in ensuring the 73rd and 74th amendments of our Constitution is in some ways brought into effect to benefit the public. He also emphasized that the idea of decentralization must vest power in the public and not in officialdom. Mr. Saldanha pointed out that there is an increased interest in engagement that was perceptible through the participation levels in the webinar series, and that the executive and the legislature must recognize the need to decentralize through Ward Committees, which is one manifestation of local governance.



Mr. Chandavarkar also agreed that the need for decentralization is crucial. However, he said an overwhelming focus on that can also emerge as a problem. To him enough attention is not paid to the lateral connections that exist and he called for mobilization in understanding those connections to articulate possibilities and visions for the future of the city. Ms. Sharma too presented her views on the importance of decentralization and referred to the functioning of the SDMCs (School Development Monitoring Committees) as a successful intervention. She stated that it consists of the parents of the children headed by the Principal or the senior-most teacher and the forum is used to discuss the micro level plan of the school. She reiterated the need to involve the public into the process of developing or initiating a climate action plan for the city.

Many other significant questions were raised such as the dysfunctionality of the ward committees, the disparity of the notion of citizens of small and big cities through the Municipality Acts and the Karnataka Municipal Corporation Act respectively. Mr. Chandavarkar responded to it by calling for effective regional planning besides having effective urban planning. An interesting question was also raised about the implementation of behavioural changes to which Mr. Chandavarkar responded that when people experience the joy of agency and autonomy, and get a response through a feedback loop, there will be perceptible changes in behaviour. The session was concluded by Mr. Saldanha, who stated the need to hold such discussions in town hall settings rather than in digital format to expand the reach and engagement of this exercise.

***“It is that qualitative difference of conversations that makes the future better.”***

This was the concluding session of ESG’s webinar series “***Bengaluru’s Climate Action Plan: Making it Participatory and Inclusive***”. More details on this webinar series can be accessed on our [website](#). A recording of the webinar is accessible [here](#).

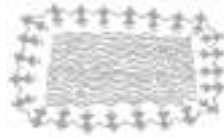
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## **Speaker Profiles**

### **Ms. Vandita Sharma, IAS, Additional Chief Secretary cum Development Commissioner, Government of Karnataka**

Smt. Vandita Sharma is a 1986 cadre IAS officer. She did her M.A. in English Literature at Punjab University, Chandigarh and Masters in Development Management in Development Administration at the Asian Institute of Management, Manila, Philippines. She is currently the Additional Chief Secretary-cum-Development Commissioner, Govt. of Karnataka. Some of her previously held positions include Chief Executive Officer, Mandya, Deputy





Commissioner, Hassan; Additional Chief Secretary, Infrastructure Development Department, Govt. of Karnataka; Additional Chief Secretary, Department of Forest, Ecology & Environment, Govt. of Karnataka; and Director, Ministry of Civil Aviation, Govt. of India. She has led schemes like Sarva Sikshana Abhiyana as a Project Director and has been the Mission Director of the National Rural Health Mission.

**Mr. Prem Chandavarkar, Managing Partner, CnT Architects, Bengaluru**

Prem Chandavarkar is the managing partner of CnT Architects: an award-winning and widely published architectural practice based in Bangalore, India. He received his training at School of Planning and Architecture Delhi (B.Arch, 1978) and University of Oregon USA (M.Arch, 1982). He is a former Executive Director of Srishti Institute of Art Design & Technology in Bangalore and is an academic advisor

and guest faculty at Indian and international colleges of architecture. In 2016, he was the Walton Critic at Catholic University of America in Washington DC. In the same year, he was appointed as a member of the board of The Architecture, Culture and Spirituality Forum, USA. Besides his design practice at CnT, he writes, lectures and blogs on architecture, urbanism, environment, art, cultural studies, philosophy, politics and education.

[This report has been prepared by Sana Huque, Senior Research Associate and Ashwin Lobo, Malvika Kaushik, Shrestha Chowdhury, Research Associates, with inputs from Sneha, Intern, ESG.]