Plan OK Please

Political Economy Perspectives

in

City-Making

INTERNATIONAL SYMPOSIUM
4–5 NOVEMBER 2019
BHUBANESWAR, ODISHA, INDIA

PROCEEDINGS

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INCEPTION OF 'PLAN-OK-PLEASE'

Under the Agreement signed between the Government of the Federal Republic of Germany and the Government of India for Technical Cooperation, the Department of Land Resources, Ministry of Rural Development, Government of India, and the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH India implemented the "Land Use Planning and Management" (LUPM) project (May 2015 to May 2019).

One of the core learnings of this project was to critically assess the practice of land-use planning in India and the role of urban planners in it. It was well acknowledged that a spatial planner is not just a technical advisor but also a mediator between different government departments and stakeholders. The need for a platform to discuss these reflections within the wider professional network was the impetus behind organising the first symposium, titled 'Plan-OK-Please'.

The title is inspired by the signage 'Horn-OK-Please' used commonly at the back of goods vehicles in India. The appearance of the signage is rustic and vernacular, rooted into the design sensibilities of the local culture. 'Plan-OK-Please' aspires to develop local semantics of the spatial planning discourse in India.

In October 2018, 'Plan-OK-Please 1.0: Incubating Ideas for Regional Land Use Planning in India'– a 3-day symposium was organised in Mahabalipuram, Tamil Nadu. In this symposium, the other partner state (i.e. Odisha) and representatives from Kerala, Goa, and national organisations, such as Town and Country Planning Organisation, participated. The deliberations in the symposium focussed on the thematic area of peri-urban growth.

Figure 1: Plan-Ok-Please 1.0, Mahabalipuram, Tamil Nadu, 2018

OBJECTIVE OF 'PLAN-OK-PLEASE 2.0'

'Plan-OK-Please 2.0: Political Economy Perspectives in City-Making' was organised in Bhubaneswar, Odisha during 04-05 November 2019. In this 2-day international symposium, the State Government of Odisha and GIZ intended to bring out experiences of city regions from across the globe in creating, advocating, implementing, monitoring and evaluating urban development outcomes. The objective was to deepen the technical understanding of the stakeholders within the urban development ecosystem and appreciate the political economy context within which these activities pan out. This helped situate development interventions presented at the event within their respective political and economic processes. Specifically, it built knowledge on the incentives, relationships, distribution, and contestation of power between different groups and individuals, and its influence on legislations,

institutional processes, and urban development paradigms.

Through their case presentations, speakers were anticipated to address a set of questions, like: What citizenry was prioritised? How was political buy-in gained? How was consensus built across varied stakeholders? What made the timing right? To what extent did winning public perceptions and gaining political mileage influence priorities? While planning for development, were state protections and regulatory measures seen as market distorting? How was private sector confidence gained and how were financial markets stimulated? What kinds of institutional innovations were helpful? Planning instruments calibrated to protect socio-environmental goals and wealth redistribution? Through what mechanisms were outcomes ensured and accountability sustained?

Figure 2: Plan-Ok-Please 2.0, Bhubaneswar, Odisha, 2019

CONTEXT OF URBANISATION IN INDIA

Development is widely understood as the creation of an enabling environment for all people to enlarge their choices, individually and collectively, in pursuit of long, healthy, and creative lives.

Mahbub ul Haq, who led the creation of the Human Development Index at the United Nations Development Programme (UNDP), advocated that "income or growth figures do not adequately capture achievements that people value much more, such as: greater access to knowledge, better nutrition and health services, more secure livelihoods, security against crime and physical violence, satisfying leisure hours, political and cultural freedoms and sense of participation in community activities". Further, Nobel laureate Amartya Sen, in his book 'Development as Freedom', proposed that development ought to be seen as a process that removes various kinds of 'unfreedoms' (or social and economic constraints) that leave people with little choice or opportunity to exercise their 'reasoned agency'. Today, the modern environmental and climate justice movement brings some of these questions of politics and ethics front and centre, as we rationalise responses to the extremely rapid pace and scale of urbanisation.

Since the liberalisation of the Indian economy in the 1990s, economic growth has been accompanied by a sharp rise in inequality - the top 1% in India holds 51.5% of the national wealth, whereas the bottom 60% holds only 4.8% of the wealth[1].

In 1992, transitioning from a heavily protected and highly regulated policy regime, the Government of India launched wide-ranging economic reforms to provide larger room to market forces and to open the economy to foreign trade and investments. A decade after, India saw the highest economic growth rate (2002-2012), but also saw the sharpest rise in inequality. Factors such as income, caste, religion, gender, capital and political representation have shaped the ability of populations to reach their fullest potential. These have determined people's right to retain property and ability to create assets, access jobs or own enterprises, the quality of air they breathe, time taken to reach work, their resilience in the face of shock events, and so on. Data shows that asset ownership among disadvantaged caste groups (Scheduled Castes, Scheduled Tribes, Other Backward Castes) has decreased since the 90s, while religious groups of Muslims and Buddhists are seen to have lowest asset shares by population[2]. As per the United Nations, globally, women are 1/2 of the world's population, do 2/3rd of the world's work (paid and unpaid), receive 1/10th of world's income and own 1/100th of the world's wealth/property. These proportions are expected to be even more alarming while viewing the case of Indian women alone.

[1] https://www.oxfamindia.org/sites/default/files/Davos-India-Supplement.pdf
[2] https://www.oxfamindia.org/sites/default/files/himanshu_inequality_Inequality_report_2018.pdf

Although there are regional spatial inequalities across India, gaps are wider in urban areas of India as compared to rural, with 17% of national urban population living in slums, as of Census 2011, and 47.5% of all urban employed in the informal sector, as per an ILO 2018 report[3].

As per 2011 census, 65.5 million people in India live in slums. This is about 17% of the urban population, 22% of the total population, and is equal to the entire population of France in 2019. With unclear or no land titles, inability to access finance, and limited availability of basic services, slum dwellers are trapped in intergenerational cycles of poverty. 47.5% of the urban working population is employed in the informal sector. The Street Vending Act (2014) protects 'hawkers' from harassment, but more needs to be done on delivery of social protection, improvement of regulations and workers' entitlements. Travellers in Delhi, Mumbai, Bengaluru, and Kolkata spend 1.5 hours or more on their daily commutes than their counterparts in other Asian cities during peak traffic times and together incur a loss of USD 22 billion per year due to congestion[4]. This congestion is attributed to sub-standard public transportation, easily available loans for private vehicles, and poor land use planning. 14 out of the 20 worst polluted cities in the world are in India as per World Health Organization (WHO). Degradation of ecology because of unrestrained polluting of water bodies with inadequate solid and liquid waste management; development over wetlands and floodplains causing depleting ground

water tables, reduced carrying capacities of drainage infrastructure (both natural and man-made) have all led to far greater losses from extreme weather events. For example, in 2015, Chennai lost over 250 human lives and over USD 2 billion in financial loss due to floods. But it is important to note that 50% of the 19 lakes in the city are encroached and 10,000 acres of tree cover (equal to 12 Central Parks) was lost just between 2010-15.

250 million more Indians are expected to live in urban areas between 2018 and 2030[5], demanding built-up area equivalent of one Chicago per year until 2030[6]. This requires a closer spatial understanding of urban-rural linkages, peripheral transformation around bigger cities, as well as congestion in inner city areas.

As per UN World Urbanization Prospects 2018, 34% of India's population is urban, compared to 55% in Indonesia, 59% in China, 80% in Mexico, 81% in Korea, and 87% in Brazil. There is reason to believe that the urban population share is underestimated in India, the absolute numbers are staggering nevertheless. In public perception, rapid urbanisation is associated with large-scale migration of the rural masses to the cities. But in India, migration accounted for just about 20% of urban growth between 1991-2011[7]. Much of the growth is happening in the shadows, through in-situ processes (villages becoming urbanised), and without any significant movement of people. This makes it imperative to recognise spatial structures and

settlement hierarchies, which link rural and urban areas through flows of people, goods, money and knowledge. Strengthening supply-chain linkages between cities, market towns, their rural hinterlands is a potential way to stimulate growth at the grassroots, and make part of regional economic strategies. In bigger cities, the outer peripheries are growing faster than inner cores that are already congested. Once considered distant suburbs, Whitefield and Electronic City of Bangalore, and Gurgaon and Noida in the National Capital Region have become significant hubs within the globalised economy. In these outer edges of cities, lives of the globally-mobile tech professionals, locally rooted farmers, and the uprooted construction labourers intersect daily. Business parks, residential condominiums, and luxury hotels are sprouting up on agricultural fields, engulfing peri-urban lands and lakes with little restraint.

Planning paradigms and institutional frameworks responsible for delivering and managing urban development need to be investigated given that most cities use a static land-use plan, prepared every twenty years, as the only statutory instrument to guide and manage growth.

To facilitate regional planning, the constitution of India requires District Planning Committees to coordinate urban and rural plans. Many states had constituted such committees, but barring Kerala and West Bengal, integrated planning has remained a non-starter. The same can be said for Metropolitan Planning Committees, which if constituted, have failed to synchronise with the urban local bodies (ULBs) - municipal corporations / municipalities / town panchayats.

The disincentive for state politics to grant powers at grassroots is one of the primary reasons why these agencies have not been formed. The process of planning for urban development in India largely follows the respective state's Town and Country Planning Acts. Although piece-meal modifications have been made over time to the national Town and Country Planning Legislation as well as the state acts, a comprehensive revision has not been undertaken in over half a century. As per these acts, every twenty years, cities are required to prepare a city development plan or a master plan, which unfortunately gets formulated as a land use plan. These plans do not include considerations like disaster risks, ecology, economy (formal & informal), transport and other infrastructure. As a result, these plans have not been a useful instrument to drive and manage urban growth.

In addition, Indian cities are not empowered within the Indian federal framework to take on the challenges of urbanisation with rapid growth, and depend on state governments to fully devolve funds, functions and functionaries.

The Constitution of India originally placed the responsibility for urban development on state governments. In 1992, the 74th Constitutional Amendment formally recognised ULBs as the third-tier of government and mandated that state governments transfer to local governments a set of specified functions such as urban planning, including town planning; regulation of land use and construction of buildings, roads, and bridges; the provision of water; public health; and sanitation and solid waste management.

3 https://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/documents/publication/wcms_626831.pdf
4 http://image-src.bcg.com/Images/BCG-Unlocking-Cities-Ridesharing-India_tcm9-185213.pdf
5 https://population.un.org/wup/Publications/Files/WUP2018-Highlights.pdf
6 https://www.mckinsey.com/~/media/McKinsey/Featured%20Insights/Urbanization/Urban%20awakening%20in%20India/MGI_Indias_urban_awakening_full_report.ashx
7 http://censusindia.gov.in/Data_Products/Data_Highlights/Data_Highlights_link/data_highlights_D1D2D3.pdf

As a result, accountability now rests with the ULBs, but they are not backed by either adequate finances or the capacity for planning and management[8]. Most states continue to hold town planning, which is an important instrument to mobilise finances and help meet the growing investment needs for infrastructure. In addition to the lack of financial devolution, which faces significant political resistance, there is a lack of financial autonomy both in mobilising resources and in setting user charges to cover costs. Property tax rates and exemptions are typically set by the state government, even though it is a major source of revenue for the local authorities. There have been instances of exemption limits raised and/or tax rates lowered before state elections. In terms of functionaries, local governments are not mandated by state legislatures to hire expertise in urban planning and management. As a result, city development plans are created by external consultants and overseen by municipal staff mainly comprising of engineers. While institutional demand to absorb urban planners needs to be created first, a 2019 UNESCO Global Education Monitoring report states that India has about 4,500 urban planners, i.e. one per 400,000 people, but needs to supply 300,000 planners by 2031. This lack of capacity at the ULB level is a major constraint in planning and implementing projects for urban development.

The political economy of urban development in India is such that the urban population is under-represented in national and state legislatures; while political empowerment at the city level needs strengthening.

The existing distribution of power in the Indian political system is such that urban population is under-represented in both national and state legislatures (constituencies defined by 2011 population). This is to continue until 2031, despite the fact that 230 million more people will be added to urban India by then. The political economy of development has remained dominantly concerned with the development of rural areas, implicitly assuming that urban areas can take care of themselves. Current national spending on urban development constitutes 1.7% of the total budget, a 0.2-percentage-point decline since 2017-18 when it was 1.9% -- the highest in a decade, as per an IndiaSpend analysis of budget data over 10 years since 2009[9]. This bias is also visible when villages that qualify as 'urban' and are in dire need of urban infrastructure and services are unmotivated to give up the rural status due to funds available to them via rural programs. The 2011 census recorded 2,700 such settlements, of which only 242 were notified as urban. At the city level, political empowerment remains limited. Mayors, in most cases indirectly elected, are nominal heads. These positions have tenures as short as 2-3 years, leading to issues of discontinuity in leadership and city agendas.

Given the scale, pace, and nature of the urbanisation process, India's urban agenda will be one of the defining projects of the 21st century that will impact the nation itself and also the globe. India will play a defining role in making the global commitment to the Sustainable Development Goals (SDGs) a reality.

[8] https://www.tandfonline.com/doi/pdf/10.1080/07352166.2016.1271614
[9] https://www.indiaspend.com/funds-not-used-work-not-cleared-in-key-schemes-for-indias-burgeoning-cities/

PARTICIPATION AT THE SYMPOSIUM

The symposium saw participation from **100+ delegates and speakers** representing **14 countries from across 5 continents**, as indicated in the map below.

Figure 3: World map showing country representation at Plan-OK-Please 2.0 symposium

Figure 4: Glimpses of the sympoisum

PROGRAMME AT A GLANCE

DAY 1

09:30-11:00 | Inaugural Session: Dialogues in Planning Paradigms and Institutions

Welcome Remarks
GEORG JAHNSEN
Project Manager
SUD-SC project, GIZ India

Keynote Address
G. MATHI VATHANAN, IAS
Principal Secretary
Housing & Urban Development Deptt.
Government of Odisha, India

Fire-side Chat
ERIC HUYBRECHTS
Mission in-charge, International Action
l'Institut Paris Region, France

DR. HIMANSHU PARIKH
Professor
Cambridge University & University
College London, UK

Thank You Note
APARNA DAS
Senior Advisor
SUD-SC project, GIZ India

Lighting of Lamp

11:30-13:00 | Situating Integrated Spatial Planning

GEORG JAHNSEN (Moderator)
Project Manager
SUD-SC project, GIZ India

PROF. AHSANUL KABIR
Professor
Khulna University, Bangladesh

DAVID JÁCOME-PÓLIT
Metropolitan Director of Resilience &
General Secretary of Planning
Municipality of Quito, Ecuador

ERIC HUYBRECHTS
Mission in-charge, International Action,
l'Institut Paris Region, France

HRYDHAL DAMANI
Director – Urban
CRISIL Infrastructure and Advisory,
India

PEDRO B. ORTIZ
Senior Fellow
NYU Marron Institute of Urban
Management, USA

14:00-15:30 | Making Governance and Institutional Frameworks Effective

SRIKANT VISWANATHAN (Moderator)
Chief Executive Officer
Janaagraha, India

DR. BARSHA PORICHA
Deputy Technical Cell Head
Centre for Urban and Regional
Excellence, India

PROF. CHETAN VAIDYA
Senior National Urban Advisor,
Kochi Sustainable & Smart City
Project, India

MATHIAS NOHN
Independent Urban Economist &
Development Planner, Germany

MICHAEL OCHIENG
Chief Engineer
Ministry of Transport, Infrastructure,
Housing and Urban Development and
Public Works, Government of Kenya

PROF. RETO STEINER, PhD
Dean, ZHAW School of Management
and Law, Switzerland

DR. T. K. SREEDEVI, IAS
Commissioner & Director of Municipal
Administration
Government of Telangana, India

UMA ADUSUMULLI
Chief Planner
Mumbai Metropolitan Region
Development Authority, India

16:00-17:30 | Spatial Analytics and e-Governance (Parallel Session)

DR. ANTARIN CHAKRABORTY (Moderator)
Technical Expert
SUD-SC, GIZ India

ABHIJIT MORE
Lead Urban Planner
Jacobs, India

ASHWANI RAWAT
Co-Founder
Transerve, India

PROF. BUGYA ISTVÁN TITUSZ
Assistant Professor
University of Pecs, Hungary

KRISHNAKUMAR THIAGARAJAN
Vice PresidentPartnerships and
Delivery, e-Governments Foundation,
India

REJEET MATHEWS
Head - Urban Development
World Resources Institute, India

16:00-17:30 | Place-based Evaluation of Integrated Spatial Planning (Parallel Workshop)

PROF. ERNEST ALEXANDER
Professor Emeritus of Urban Planning
University of Wisconsin, USA/Israel

JEENAL SAWLA
Independent Cities and Urbanization
Specialist, India

DAY 2

09:00-11:00 | Climate Action: Taking Bold Spatial Leaps

SANJAY SRIDHAR (Moderator)
Regional Director - South and West
Asia
C40 Cities, India

ANIL GUPTA
Principal Investigator
DST-GOI Project Climate Adaptive
Planning for Resilience & Sustainability,
India

JANNICK SCHWENDER
Urban Practitioner in Green Energy
Urbanism, Germany

KATRIN BRUEBACH
Director, Urban Water and Sanitation
Solution 100 Resilient Cities, UK

PROF. MALANI HERATH
Professor
University of Moratuwa, Sri Lanka

DR. NINIK SUHARTINI
Head of Research on Infrastructure
and Urban Utilities Jayapora Planning
Board, Indonesia

OLGA CHEPELIANSKAIA
Founder & Principal Consultant
UNICITI, India/Europe

SARFARAZ MOMIN
Co-Founder
Studio POD-People Oriented Design,
India

SUKE YAO
Secondary Landscape Designer
Turenscape, China

HEXING CHANG
Landscape Designer
Turenscape, China

11:30-13:00 | Land: Rights & Leverage

APARNA DAS (Moderator)
Senior Advisor
SUD-SC project, GIZ India

DR. ANGELIQUE CHETTIPARAMBIL RAJAN
Professor, Henley Business School
University of Reading, UK

DR. HIMANSHU PARIKH
Professor
Cambridge University & University
College, London, UK

DR. REINHARD SKINNER
Team Leader
GIZ SUD-SC Technical Cooperation,
India

SHISHIR DASH
Lead – Habitat
Government of Odisha-Tata Trusts
India

SHUBHAGATO DASGUPTA
Senior Fellow
Centre for Policy Research (CPR), India

14:30-16:00 | Inclusive Localism: Building Strong, Informed and Engaged Communities

SANSKRITI MENON (Moderator)
Regional Director
Centre for Environment & Education,
India

BHARATH VISWESWARIAH
Director of Investments
Omidyar Network, India

JACOB EASOW
Secretary, Society for Our Space
Trivandrum, India

ROHIT KUMAR
Co-Founder, Young Leaders for Active
Citizenship, India

SOMESH TIWARI
Chief Operating Officer
SEWA Grih Rin Ltd., India

VIRAJ TYAGI
Chief Executive Officer
eGovernments Foundation, India

16:00-16:30 | Closing Session

Session Summaries
Moderators

Way Forward
GEORG JAHNSEN
Project Manager
SUD-SC project, GIZ India

Vote of Thanks
APARNA DAS
Senior Advisor
SUD-SC project, GIZ India

PARTICIPANTS FEEDBACK

Post-symposium, a survey was conducted which received 30 responses from participants. The questionnaire was designed to get feedback on individual sessions on three criteria – content, session moderation, and session format including engagement with the audience. Respondents were asked to evaluate each session on the above criteria on a scale of 1-5, and to also share comments by session. Participants were also asked to evaluate the overall experience of the symposium, and scope for improvement.
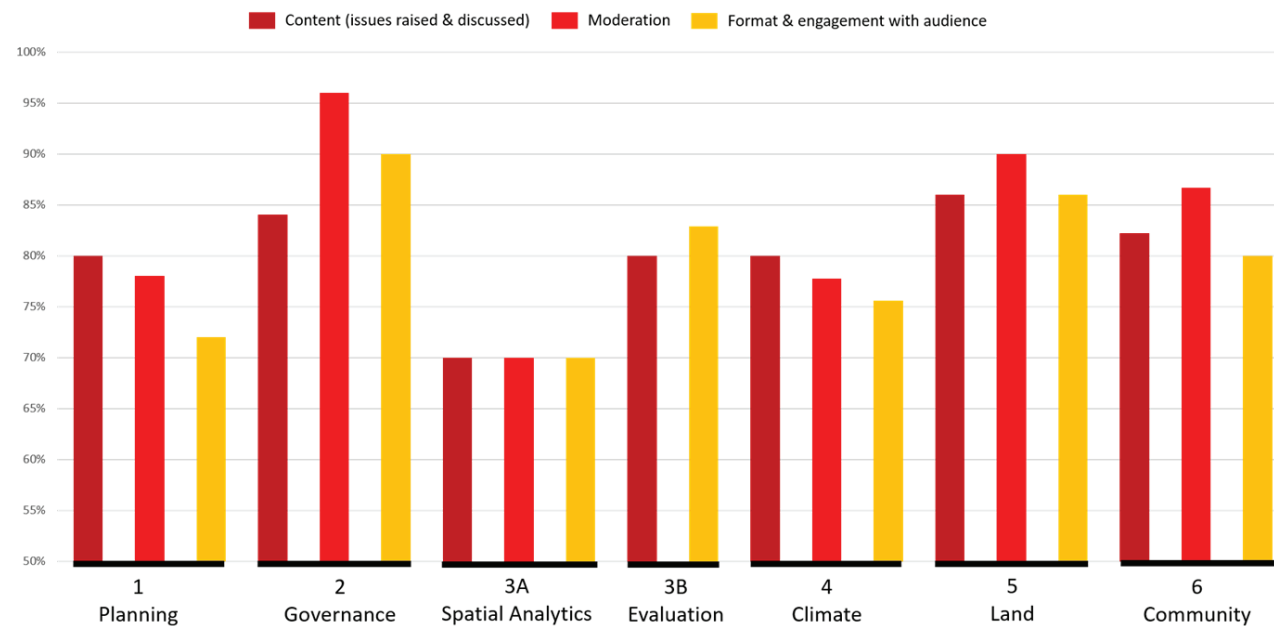

Figure 5: Participant feedback, session-wise

As per the graph, the session on 'Land: Rights and Leverage' was best received for the issues that were raised and discussed. The session on 'Making Governance and Institutional Frameworks Effective' was rated best in terms of moderation, format and engagement with the audience.

What did the participants like most about the symposium?

- Participation from various countries, diversity of disciplines and of Indian institutions presented a great opportunity to learn from global as well as local experiences.

- Insightful briefing shared with participants through the concept note and session articulations gave the context of Indian urban challenges and suggested direction for each session.

- Quality of questions prepared by the moderators, the presentations, and the discussions had the desired breadth and depth of issues.

- Attempt to identify issues for follow-up action by GIZ – i.e. potential commissioning of research papers/ other formats of investigations are highly welcome.

- Great networking opportunity, especially since people spent time together beyond symposium hours in informal gatherings.

- A long-list of potential collaborators, both national and international, for GIZ India's ongoing engagement in the country.

- Calm and non-hectic scheduling of the event, and well-coordinated logistics at the venue.

What could have been better?

- Participation of more senior state government officials and some politicians would have brought the discussion closer to political economy inquiries.

- Less reliance on audience questions from Mentimeter and more thorough questions from moderators in certain sessions.

- Fewer speakers to better manage time and leverage each speaker's experience- for example, the session on climate action.

- Diverse formats for sessions such as debates.

- Formal invites could have been sent earlier so that official contracting and booking could begin much earlier. The concept note could have been sent later. This would reduce the stress for participants who could come better prepared with advance notice.

Figure 6: Glimpses of the sympoisum

Session Summaries

INAUGURAL SESSION / INCLUSIVE URBAN GOVERNNACE MODEL OF ODISHA

In the Inaugural Session, Mr. Mathi Vathanan, IAS, Principal Secretary, Housing and Urban Development Department, Government of Odisha, welcomed all the international delegates, government officials, and participants to the event. He gave an overview of three pro-poor initiatives taken by the Government of Odisha.

Odisha Land Rights to Slum Dwellers Act, 2017
Key features:
* Provides in-situ land rights in tenable slums & development of new habitats for untenable slums
* Land right are inheritable but not transferable, only for residential & residential cum livelihood purpose, and properties can be mortgaged for housing loans
* For urban poor living in up to 30 sq. m, land is free of cost. In excess of 30 sq. m, 25 % of notional value of land is charged.
* For non-poor, 50% cost is linked to notional value
* Creation of Urban Poor Welfare Fund (statutory in nature) exclusively for slum infrastructure creation

Highlights of the Act implementation process:
* Statutory rights-based entitlement
* Decision making by a Committee of officials- broad based- with NGO and slum representatives in the Committee
* Adoption of high technology coupled with traditional participatory approach- hybrid model
* Decentralised decision making- kept at ULB level- all actions lie at ULB level only
* Community centric- NGO as facilitator- service at door step- designed to avoid visit to Govt office
* Resulted in ZERO dispute & ZERO litigation program

Odisha Liveable Habitat Mission 'JAGA', 2018
Key features:
* Legal/Regulatory: Land rights to slum dwellers
* Infrastructure/services: Housing under PMAY, Toilets (individual/ community), piped water, LED street lights, paved roads, covered drains, and parks/playgrounds
* Human capital: Skill upgradation and livelihood support

Implementation of the Jaga Mission is based on the principles of voluntary consent of the community, community participation, and by building partnerships. Of the total slums, 861 slums that are tenable will have in-situ land settlement & in-situ upgradation of infrastructure & services. The 824 untenable slums will be relocated, but the principles and components of the mission would be applicable.

Universal Coverage of Piped Water Supply: Piped water for all in the urban areas of Odisha
* Quality piped water at each household
* 24x7 quality drinking water supply
* 100% metered connections
* Community-based water supply management

SESSION 1 / SITUATING INTEGRATED SPATIAL PLANNING

Figure 7: (left to right) Prof Ahsanul Kabir, David Jacome-Polit, Georg Jahnsen, Eric Huybrechts, Hrydhal Damani, and Pedro B. Ortiz

Concept

Today, the issues that cities like Shenzen, Accra, Johannesburg, Quito, Dhaka, Delhi, Bhubaneswar, Jakarta, Berlin, Beirut, Mexico City, and Los Angeles face are more similar than different. Increasing housing unaffordability, growing unemployment and underemployment, depleting ground water, traffic congestion, air and water pollution, risks of sea level rise, flooding, and so on, are some of the challenges that most cities are grappling with. But what will set them apart is how resilient they are. The ability of these cities, their institutions, and their political economy, as to how these survive, adapt, and thrive in face of these towering challenges and how these leverage their assets, will define their competitive advantages.

For firms and businesses, mega-urban regions offer agglomeration advantages in terms of economies of scale, supply-chain logistics, market access, skilled labour supply, and knowledge transfer. But to leverage the competitive advantages, the issues of seamless mobility, forward planning and coordinated decision-making are crucial at a regional scale. These are important not just for functional economic development, but also from quality of life perspectives.

Static comprehensive plans, like the land use plans made in India along with building codes, are insufficient to respond to the growing complexities of urban life. A suggested path forward may be a strategic vision that lays out goals and long-medium-and-short-term actions. These actions may be linked to funding streams, including government budgets, and also to specific outcomes that are monitored and evaluated periodically. This vision may inform a spatial plan (city development plan / master plan) that maybe implemented at micro-scales through various instruments like the Town Planning Scheme, Local Area Plans, etc.

Geo-spatial data and analytics has increasingly allowed for several factors such as disaster risks, ecological systems of ground water, surface water, plantations, habitats, economic networks as flows of goods, services and people; transportation and service infrastructure; development regulations and building codes - all to be evaluated in relation to one another and plan for them in integration. Technology has made it easier to incorporate these across scales, and to update frequently. Certain processes may also benefit from automation and thereby have cost and time-savings. Technology has also enabled real-time monitoring of plans and their implementation, both by public and government authorities, enhancing greater transparency and accountability in city-making processes.

In making the presentations on spatially integrated planning, the speakers reflected on some of the questions below:

- **How was consensus built across varied stakeholders? What made the timing right?**

- **How was political buy-in gained? To what extent did winning public perceptions and gaining political mileage influence priorities?**

- **How was private sector (including the informal private sector) confidence gained and how were financial markets stimulated?**

- **What kinds of institutional innovations were helpful?**

- **Are the planning instruments calibrated to protect socio-environmental goals and wealth redistribution?**

- **Through what mechanisms were outcomes ensured and accountability sustained?**

Key takeaways from the presentations

Prof. Ahsanul Kabir emphasised on the opportunity for Bangladesh to use spatial planning to plan for the country's urban and rural areas more comprehensively and equitably.

- Development in Bangladesh is guided by a long-term perspective plan, national policy plan and international commitment plan. Five-year plans across 14 sectors are divided between 53 line ministries and implemented through numerous implementation agencies. There are also attempts to link the plans and projects to SDGs.

- A spatial planning approach at the national level is amiss (only 6% of Bangladesh's territory is planned). However, to link economic planning spatially, the Implementation Division of the Bangladesh Planning Commission now requires any project worth more than INR 25 crores to adhere to a master plan.

- The focus of Master plans of cities is on land use and are made with the support of international consultants without building local municipal capacities. Therefore, they witness implementation rate of around 10-15%.

- Because of systemic biases, funds are distributed unevenly, often directed to political constituencies of elected representatives.

David Jacome-Polit focused on building a resilient food system in Quito to improve nutrition levels, so that citizens can be productive members of the society.

- Quito's food system is characterised by specific vulnerabilities, including a high (over 85%) dependence on food imports, weak food distribution systems and isolated vulnerable communities. Further, 60% of Quito

suffers from obesity and about 5-10% children are undernourished.

- In the metropolitan area, the food situation differs significantly (north, centre, south, or west) in relation to availability, accessibility and consumption (inequality). Factors such as climate change amplify vulnerabilities.

- Promoting health through sustainable and nutritious diets is an important pillar of the strategy.

- The Agri-Food Pact of Quito (PAQ), a multi-actor platform, was assembled consisting of members from the private and public sectors, academia, civic society organisations, and cooperation agencies. This group worked on a sustainability plan for the Eco-Agrifood system of Quito as an input to the city's food policy.

- Recognising the gaps in its consumption and production, the city has attempted to institutionalise urban agricultural initiatives through local ordinances with funding from municipal budgets.

- Sustainable and lower-emission production practices in peri-urban and rural areas are also being promoted along with decent labour conditions

Eric Huybrechts painted a broad picture of challenges in global urban planning.

- The main phenomenon is not just urbanisation of the world, but metropolisation of the world.

- Countries like France, Italy, etc. are looking for ways to reduce urban expansion. New urban expansion is to be compensated with new agriculture or natural areas inside cities.

- Projects need to be better assessed for their bankability to avoid long

delays in implementation and marketing of projects.

- Foreign investments in city centres, often in luxury housing has distorted local real estate by reducing affordability and increasing vacant housing.

Hrydhal Damani brought out the deficiencies of the master planning process, and offered reform ideas.

- An economic strategy is missing in the state town planning provisions. There are no environmental, transportation or housing strategies as well. These strategies are externally derived from different departments to prepare plans. There is complete absence of urban design, place making and liveability indicators in the city planning processes.

- The biggest challenge is the absence of an integrated database or spatial database for cities, which different departments can feed out of. At present, all department make their own plans.

- Once a plan is made, there is no monitoring or review. Data is not collected for indicators to be mapped and reviewed. During surveys for land use, data on demographics, income, economy, transport, utilities, housing is collected. This should be used as Key Performance Indicators (KPIs) against which city's development plan can be tracked.

- City planning process requires a radical reformation. Each city must be looked upon as an economic unit and be empowered. There must be a shift from the municipal administration mindset to a city government mindset. They need to prepare a strategic plan or business plan, which includes transportation, housing, economy, and environment in the planning process.

Pedro B. Ortiz emphasised on the need for city and regional planning to be rooted in their unique city visions, and respond to the local political economy demands to achieve plan implementation.

- Although inherently contradictory, informality can be prepared for if certain frameworks are in place. If public spaces and basic infrastructure are defined, plots with development standards can drive future development incrementally. Accounting for the infrastructure at the outset is helpful to reduce cost.

- Cities must be driven by visions for themselves. A vision is something that can be encapsulated in a sentence. For example, Madrid's vision was to be the 'Intercontinental platform between Europe and Latin America'. Similarly, Mumbai's may be conceptualised as the 'Capital of the Indian Ocean from Cape Town to Hoi Chi Minh City'. Visions need actionable strategies. If Pune wants to be the 'Boston of India', it would have to invest in high-tech credible research connecting academia to industry and skilled human capital.

- Plans and planning processes need to adapt to the political economy and governance context in which they are made, especially given that the scales of cities are unprecedented. Mere regulatory planning is no longer adequate to realise urban visions. This calls for a matrix of dialogues between ministries, and through formal, institutionalised participation of people.

Key takeaways from Q&A with the audience

- Urbanisation in India has been driven by in-situ transformation of rural settlements to urban, and not by creation of new cities; planning can lay the foundation for infrastructure development. When Spaniards invaded Latin America, they built around 6,000 cities in 15 years. To do this, they only set up the public spaces, i.e. planned the streets and the squares. They did not have the resources to do more. It was the setting up of offsets, and other codes, which formed the building blocks for the city. The people came in and built their houses. When the principles are set right, the city evolves in a natural way. Every society and culture have had a framework of pattern language which sends a consistent message.

- In India, the states need to update their Town and Country Planning Acts to align with the decentralisation mission of the 74th Constitutional Amendment Act.

- India has a base of talented professionals in the engineering, city governance and urban management sectors. A city should be in the role of preparing its economic vision, deciding its physical requirements in terms of transportation, city mobility, housing, etc. and not depend on agencies. The state town and country planning acts should clearly mandate cities to do so.

- Bottom-up planning can be facilitated at the ward levels which have directly elected representatives. These plans can then feed into the city-wide plans which can lay out the broader infrastructures.

- Municipal Commissioners have more power than the Mayors in bigger cities. Recognising this political economy, strengthening

accountability at the ward level and ensuring participation at ward levels through structured mechanisms (ward sabhas - ward level Town Halls) may be effective solutions. To do these, capacities of ward offices will need to be built, and more devolution of funds to them needs to be ensured (both are potential impediments).

• Too much time is spent on land use planning and not enough time on the multi-disciplinary co-production and collaboration.

• Just information and participation are not enough – cross disciplinary collaboration is essential.

Organisational hiring as well as planning curriculums in universities in India can benefit from academic learning and professional applications in fields of economics, sociology, behavioural sciences, and ethics.

• Collective intelligence is the capacity of a group to make the right decision within a reasonable span of time.

• A city or a metropolis is like a computer. It has a hardware and a software. The hardware is the physical component, like the roads, buildings, etc. The software is the people, which are composed of human resources and social resources.

Figure 8: Glimpses of Session 1

SESSION 2 / GOVERNANCE AND INSTITUTIONAL FRAMEWORKS

Figure 9: (left to right) Srikanth Viswanathan, Barsha Poricha, Prof. Chetan Vaidya, Mathias Nohn, Michael Ochieng, Prof. Reto Steiner, Dr. T. K. Sreedevi, and Uma Adusumulli

Concept

As outlined in the context of urbanisation in India, institutional reforms to improve governance is essential to leverage the private sector, close the infrastructure deficit, improve delivery of services, and strengthen democratic representation in policy making. There are four overwhelming roadblocks to better urban governance in India: a federal framework that has not empowered its third tier despite amending the constitution in 1992 for doing so, a missing link in the institutional framework for metropolitan planning and governance, response to Rurban areas (Census Towns) i.e. urban in nature but rural in administration, and a political system that is heavily biased toward the rural sector.

Habitat III Policy Paper on Governance and Capacity makes similar conclusions that in many countries, existing institutional frameworks prevent urban governments from fully delivering on their responsibilities: inadequate decentralisation, lack of resources, insufficient capacity and poor frameworks

for engagement with civil society and key stakeholders weaken urban governance. 'Many countries suffer from ill-defined distributions of responsibilities between different levels of governments, leading to the duplication of roles and blind spots. Such ineffective multi-level governance systems compromise planning processes, risk backlogs in budget spending, incur higher transaction costs and create wider economic inefficiencies, as well as compromise transparency and accountability'. Urban governance systems in most countries need critical reforms which will have to go beyond sectoral policies and consider cooperation between different spheres of government and non-state actors, fostering a balanced distribution of powers, capacities and resources including the revision of legislative, regulatory and fiscal frameworks.

However, it may be argued that integration and holistic governance may have centralising tendencies with adverse effects on devolved units of governments. The risk of integration being pursued as a

'totalising strategy' deprives it of the advantages of open systems and potentially leads to significant problems. Integrated policy agenda can lead to a focus of governments on organisational arrangements and reorganisation. Several specific costs may be associated with greater integration. These include lines of accountability that are less clear, difficulty in measuring effectiveness and impact, opportunity costs of management and staff time, and organisational and transitional costs of introducing cross-cutting approaches and structures.

Speakers were invited to address some of the provocations outlined below while elaborating on institutional design and guiding mandates that made integrated spatial planning and its implementation effective in cases they chose to speak to.

- **What kind of paradigm shifts are needed, if any, for governance in an ecological age and for creating more people-friendly cities?**

- **Do these paradigms require greater centralisation or instead advance greater autonomy for city-level, local governments?**

- **Are these reinforcing existing powers or facilitating transformative change with progressive outcomes?**

- **Is integration hopelessly overambitious and unrealistic in an increasingly complex world or is it in fact the most solid response to a new set of interdependencies? What kind of inter-disciplinary borrowings are then needed to this end?**

- **What are some tools that allow for systems integration?**

- **Why is it that regardless of the universal emphasis on integration, it ultimately remains more the exception rather than the norm?**

Key takeaways from the panel discussion and Q&A with the audience

- Cities must be recognised as units of governance and economy, and it is significant to get the institutional design right. There is requirement for a governance vehicle at the city level that is accountable and powerful enough to deliver urban habitat including housing, serviced land, mobility networks, etc. in an integrated way. This will allow cross-subsidisation between different uses, differentiate infrastructure standards and thereby create market-based mechanisms which can be leveraged with government resources. To achieve this, a multi-stakeholder decision-making body is needed at the local government.

- Decentralised and empowered local governance need to have territorial structures with accountability, i.e. clear boundaries, clear jurisdictions with functions, funds, and functionaries. To achieve this, clear urban jurisdictions, elected politicians representing them, and transparency to the citizens are required. Another requirement is greater freedom of press and a transparent way to disclose the performance of governments.

- Without financial self-sufficiency, strong and independent municipal councils are unachievable. Thus, ULBs need to improve financial management systems and talent. The 74th amendment has not been successful because funds and functionaries were not devolved with the functions. ULBs are unable to raise their financial resources to plan and implement. Once they improve financial management and talent, they can explore innovative financing mechanisms like PPP, municipal bonds, venture capital financing,

crowd source financing, etc. to improve their own revenues.

- State governments need to create frameworks, use technology, leverage systems, etc. so that the service is delivered by the ULBs as effectively as possible. Smaller municipalities have to depend on the state governments for providing even the basic administrative costs, as they cannot gather their own resources. Only the central and state governments can create the environment to help nurture the local bodies.

- Decentralisation is also a political issue, where states are hesitant to give away their powers to empowered people's representatives. The legal framework of the 74th CAA provides higher powers to the state-appointed Municipal Commissioners of bigger cities than their elected Mayors. In smaller municipalities, they are almost at par.

- Mumbai's experience in attempting to create metropolitan level governance highlights two barriers. The Constitution recommends only a spatial planning arrangement at the metropolitan level – i.e. the Metropolitan Planning Committees (MPCs). But spatial planning cannot function efficiently in the absence of a metropolitan governance structure. The first major constitutional barrier in creating one is that the metropolitan

level would get recognised as the third tier of government, and all subsequent levels of governments below it (ULBs) would have to be dissolved. Secondly, metropolitan regions are seen as spatial planning entities, whose boundaries are defined by technical parameters, whereas the administrative boundaries are delineated on the basis of caste, community, religion, etc.

- There is lack of institutional structures for formal citizen participation at the municipal level. Decisions are made in state assemblies rather than town halls. In a representative democracy, unless people's voices are included in decision-making from the very beginning, implementation will not be sustainable in the larger socio-ecological and environmental context. Kerala has had good experience with 'ward sabhas' (town halls) and should be looked at closely. In the city of Kochi, all projects over INR 1 lakh need approval of the council.

- In the absence of the formal integrating and coordinating authorities, civil society organisations can play a larger role than merely facilitating people's participation. Civil society organisations can provide a platform for citizens to get their voice at higher aggregations of government, play a coordinating role between different agencies, and monitor and evaluate plan implementation.

Figure 10: Glimpses of Session 2

SESSION 3A / SPATIAL ANALYTICS AND E-GOVERNANCE (PARALLEL SESSION)

Figure 11: (left to right) Dr. Antarin Chakrabarty, Abhijit More, Ashwani Rawat, Prof. Bugya Istvan Titusz, Krishnakumar Thiagarajan, and Rejeet Mathews

Concept

In today's world, data is unstandardised, with projection systems, scales, etc. not in compliance with national standards. Data is also incompatible across agencies. The same satellite imagery is used to produce varying data sets by different parties raising issues of data duplication. Such reproductions are inefficient use of public money and resources.

However, increasing data availability in combination with computational approaches can provide new insights about cities and the flows of goods, services, information, and people within them. This process of converting spatial data into information, i.e spatial analytics, and data visualisation are useful in city-wide monitoring of networks and assets; and thereby help decision-making. For example, local governments can use urban data to prioritise emergency response to natural disasters based on the most-at-risk populations, or study traffic patterns to monitor accessibility for residents to

healthcare providers. These also allow to predict and determine the best course of action for policymakers. Open source data also creates a marketplace for location-based service enterprises.

The objective of this session was to share technology platforms that help understand, predict, and manage urbanisation. These tools make government processes more efficient with significant time and cost-savings; improve interface between citizens and governments, and help planners predict and manage growth. In order to leverage these platforms and tools, the need to build human and infrastructure capacity within public administration receives much attention, but several legal and regulatory barriers to adoption at scale also need to be addressed. In addition, technological advances also call for re-imagination of roles of public sector institutions in city-making processes.

Key takeaways from the presentations

Mr. Krishnakumar talked about developing a digital spine for state-wide governance.

- e-Gov leveraged an open-source platform that allowed innovations by multiple players to be brought to the state and get scaled with speed.
- Applications built on top of the platform include (i) revenue (property tax, water charges, advertisement charges, trade licenses, land & estate), (ii) expenditure (assets, inventory, payroll & pensions, public works management), (iii) administration (council mgmt., legal case mgmt., file mgmt. employee mgmt.), and (iv) citizen services (grievance redressal, building plan approval, birth & death, marriage registration, citizen portal).
- The platform has had the following impact- (i) employee impact: time saving per week for municipal staff and improved service delivery; (ii) ULB gains: increased property tax collections, reduction in cycle tile for service requests, and increase in cashless transactions; and (iii) citizen gains: improved quality of life, perception of government and actual services received.
- The organisation developed an Urban GIS Strategy, which has 110 cities and various state departments on the platform with their base maps, survey data from public, operations data and drone imagery data along with machine learning and artificial intelligence. A property registry is established as a result. With each new transaction updated, ULBs can be compared by performance across infrastructure and services.
- In the future, the organisation hopes to leverage the platform and its offerings to plan, implement, monitor and evaluate cities digitally.

Mr. Abhijit More spoke about developing an Automated Building Plan Approval System.

- Online Building Plan Approval Systems (BPAS) are intended to bring transparency and efficiency to the approval of the building plans. But most systems do not map all the Development Control Regulations (simpler components like FSI only), since these are often ambiguous, and thus remain discretionary to the governing authority.
- Aurangabad Industrial City (AURIC), planned as a finite greenfield city of 40 sq.km, has an online portal (eLMS) aligned with web GIS. It allows for dissipation of property-related information and a complete spectrum of services from identification of the suitable piece of land to getting necessary construction permits, and paying bills once established. It also maintains the ledger of land bank and available development potential in check. The ABPS is part of the eLMS portal.
- To implement the Smart DCR for AURIC, the first step is to create a DCR matrix and map all relevant DCRs. Jacobs found around 103 different mis-regulations across eight different DCRs. The second step is to insert the BPAS process into the larger eLMS framework. When a plot is bought, all documents of the plot, all proof of payments, all DPRs submitted, etc. are stored on the AURIC server. The idea is to create a seamless workflow, such that BPAS and eLMS are truly acting as one system. The BPAS has two checks. A Pre-Check looks for geometry related errors and assesses if the file is in the correct format for the Scrutiny Engine. Next, the Scrutiny assesses the pre-checked drawings for compliance with regulations. Once a plan has no errors, it is forwarded

to the Planning Authority. Since the Scrutiny Engine has already approved it, there is no back-tracking involved.

- The advantage of BPAS system is that it is a single window process with auto-filled proformas that reduces the redundancy of the documents being created. All data that is supposed to be submitted to authorities is already with them.

- The way the system was perceived was for the use of ICT professionals undertaking the task to develop master plans. While ICT is a key facilitator of the exercise, the multidisciplinary expertise that a city needs to function remains the key requirement.

- The key outcome is transparency in governance and administration which in turn empowers communities. It demonstrates that the law is equally applicable to everyone regardless of societal or economic stature.

Mr. Ashwani Rawat talked about creating a digital platform for urban planners that collects data, analyses data, project needs and masterplans.

- A typical urban planning Request for Proposal (RFP) is designed in four stages: inception, analysis, projected requirements, and master planning. The inception report and base map report takes 115 days of time and data analysis takes 120 days. This is 60% of the total time spent on data creation and analysis. Transerve has overcome the challenges by providing not just the technology, but also the workflow.

- To overcome the challenge of creating a base map, Transerve developed a platform where a drone not only produces ortho-mosaic data, but also produces secondary data sets, such as precise 3D data. This can be useful during the design of roads, utilities, monitoring, change detection

in the horizontal and vertical directions, etc.

- To incorporate parameters like demographic data, traffic data, physical infrastructure, socio-economic data, etc., decadal census data is not enough. Ashwani shared the case of hyperlocal area-based planning in Delhi for which they supported in creating a comprehensive socio-economic profiling on GIS to design policies and develop infrastructure for the diversity in Delhi. 8,000 enumerators used mobile applications to collect socio-economic data on a geo-spatial platform. Secondary data sets were used to check the quality of the data which was produced by the team.

- Putting all the data together in an integrated manner for analysis on a universal urban platform can help planners in a big way. Transerve has made some inroads and started developing such a platform – City Operating System. This can be transformative in the field of urban planning.

Prof. Bugya Istvan Titusz shared applications of the CityScope tool and reflections on digital decision-making.

- GIS allows to consider a large set of parameters and interactions. It is exactly what decision-makers need in a modern city. However, most decision-makers do not know how to use GIS tools. The trick of hiding the complex background processes is in the user interface. This way, the user may focus on the actual task of analysing the datasets.

- CityScope device provides such an interface, targeting the decision-makers. CityScope is a physical device that allows one to use GIS methods to solve complex problems, without prior training in the complex GIS application.

- It is in the form of a large table and allows concerned stakeholders to gather around the table to discuss the project. It is still a prototype and will be released in early 2020.

Ms. Rejeet Mathews shared how geo-spatial data and machine learning can help predict growth patterns.

- Creating a common spatial database today is indispensable for better planning and management. It is also helpful for private enterprises that rely on location based services. There is a push from the central government as well, with geo-spatial database being one of the six e-governance reforms that need to be taken up. Delhi is a front runner that has already enacted its geospatial database policies.

- To set up an architecture for common spatial database, there is requirement for establishing an agency that will do inter-departmental coordination and make a common database across agencies. The software and hardware, the systems that will be used should have inter-operability. That will help in moving towards open source software. Protocols for data ownership, sharing and updating responsibilities should be set up for concerned authorities. The setup of line departments dealing with data, collecting unavailable data like 2D, 3D visuals also need to be taken up. This helps in reducing institutional redundancy and moving towards a culture of data-driven decision-making.

- She also showed an application for GIS with remote sensing and machine-learning facilities that can predict growth patterns. This will help direct future investments, plan new transport and transit routes, equitably allocate resources, prioritise ecosystems for conservation, etc.

(The demand for better predictability comes from the fact that Indian cities are growing faster than their infrastructure can catch-up. Bangalore's latest master plan registered 18% integration with the previous plan while Mumbai's showed 4% to 40% depending on the ward. This shows that cities are unable to predict growth, and thus plan accordingly or manage it.)

- Based on analysis of growth patterns across India, WRI has identified five factors that trigger growth in cities: (i) Inner city densification and extension into the immediate peripheries occurring largely in a radial pattern, accounting for 34% of the growth. (ii) Small and large neighbouring towns due to proximity to the primate city also witness spurts in growth, as in the case of Gurgaon or Noida. This is contributing to 28% of growth. (iii) Strategic projects like airports, SEZs etc. contributing to 24% of the growth. (iv) Transport and transit accesses contributing to 9% of the growth and (v) Smaller isolated developments with 5% growth contribution.

Key takeaways from Q&A with the audience

- **Privacy concern as it relates to drone mapping:** In India, the Director General of Civil Aviation (DGCA) is the competent authority that grants permissions for flying drones. The purpose for flying needs to be clearly stated. In addition, the activity should not breach the privacy of any individual, and the agency is not allowed to keep a copy of the data themselves by law. In the case of Odisha drone mapping, the private firms involved have not been allowed to retain copies of the collected data.

- **Legal and regulatory barriers:** It is wrongly assumed that modern technologies can solve all problems. Almost all the land records modernisation projects and/or titling projects have stumbled because the spatial survey data does not match the legal government records.

- **City-science and complexities in predicting growth**: On unpredictability of cities, there is a whole branch of city science which deals with complexity theory. The notion precisely starts from the premise that cities are complex systems and they can never be predicted. In this scenario, the way data and science is used to determine future course of actions must change. Geo-spatial data maps can be one of the tools that contributes to the complexity of the application.

- **Poor human capacity in surveying and data-driven planning in India:** The science associated with surveying is quite complex. There is no university issuing a bachelor's degree/master's degree in surveying.

Figure 12: Glimpses of Session 3A (Parallel Session)

SESSION 3B / PLACE-BASED EVALUATION OF INTEGRATED SPATIAL PLANNING (PARALLEL WORKSHOP)

Figure 13: (left to right) Prof. Ernest Alexander and Jeenal Sawla

Concept

Evaluation efforts are useful in gauging the impacts of plans, projects, policies, and programs. It is a systematic investigation into how, why, and to what extent objectives or goals are achieved. Evaluation, however, must be part of a broader monitoring, evaluation and learning strategy that creates feedback loops for future work. But within spatial planning, these are seldom undertaken. The aim of this session is to introduce spatially-oriented integrated evaluation.

A spatially-oriented or place-based approach implies the incorporation of distinctive spatial circumstances into broader policymaking and evaluation practice. Evaluation tools used are thus area-oriented, and seek to express qualities at specific places. An assessment of infrastructure and spatial projects requires less focus on generic indicators and relies more on specific markers for evaluation like local capacities, levels of innovation, co-benefits and co-costs, individual value, long-term effects, community engagement, or political support. The workshop introduced concepts and methods in placed-based evaluation following which participants engaged in a case to deepen their understanding of the subject.

Key takeaways from the presentation

- The session discussed evaluation of three things: **Planning agents**: who is doing planning; **Planning process:** what/how planning is done; and **Plans**: product of agents/participants/planning process.

- There are three dimensions of evaluation: (i) **Time**, (ii) **Object**, and (iii) **Subject**

  (i) Time of evaluation can be before implementation = A PRIORI evaluation; during implementation = IN PROGRESS evaluation; or after implementation = EX POST evaluation.

(ii) Objects include **Policies** (e.g. Housing policy – for functional/political goals/values, address problems like shortage/high prices/poor distribution; Energy policy – for sustainability, reduce fossil fuels; Transportation policy – maximise access, reduce auto. Travel); **Plans** (e.g. Kolkata metro transportation plan, Delhi Masterplan, Bhubaneshwar city (statutory) outline plan); **Projects** (e.g. Jakarta metro electrification project; Puri seafront renewal); **Programs** (e.g: National Smart Cities Mission India, Slum Redevelopment in Mumbai), and **Processes** (e.g. Public participation/consultation process (element of Delhi Masterplan), Building plan approval/permitting)

(iii) Subjects include **Institutions/Organisations** (e.g. Jaipur City Planning Dept, Jakarta metro sewerage administration, Odisha state department of Development)

- Evaluations can be an Inside Evaluation (done by the implementer) or an Outside Evaluation (third party). This has tremendous effects on the purpose of the evaluation, the format and the methods applied.

	Internal Evaluation	External Evaluation
Purpose	It is less objective and done to demonstrate positive value created by the organization and its plan/policy/program or process.	Generate information to facilitate resource allocation between subjects; enhance subject's performance/efficiency.
Methods	Soft qualitative methods, narrative style, impact analysis, client satisfaction surveys, success stories.	Rigorous evidence-based quantitative analysis, performance scorecard, benefit-cost analysis, multi-objective decision analysis.

- Types of evaluation methods can be organized as 'Investment Analysis' and 'Impact Analysis'.

Investment Analysis

- Benefit Cost Analysis, where the unit of analysis (Benefit/Cost) is for a socio-economic unit.
  e.g. Mass transit project for Tel-Aviv: unit is T"A metro area
- Fiscal Impact Analysis where the unit of analysis (revenue/cost) is for a decision unit/funding agency.
  e.g. Strategic transportation project: revenues/costs to national government'
- Cost-effectiveness Analysis to measure goal-related effectiveness indicators.
  e.g. transportation projects/programs – access goal: travel time saved, safety: reduction in accidents
- Multi Objective Decision Methods to Identify goals/objectives, under each impact measures/criteria score. (s) Give objectives/criteria weight (w) for value; o/a evaluation = $\sum$ w (s)
  e.g. Sustainability as o/a goal > objectives under economic, social, environmental headings

Impact Analysis

- Strategic Impact Analysis
- Environmental Impact Statement
- Community Impact Analysis
- Social Impact Analysis

Common challenges are getting information or data. The setting of weights to criteria is also an important factor in results.

Key takeways form Q&A with the audience

- Monitoring, evaluation and learning (MEL) is the missing link between plan-making and ensuring implementation. Civil society can play a more active role in monitoring and evaluation. To do this, data-sharing protocols will have to be put in place. The contents of the plan, the method by which it should be made, and how it should be modified, whether it should be put through public participation – all these are very clearly defined. However, once the plan is made, what happens to the plan is not defined in statutory guidelines or by any other guidance documents. There are no mechanisms to evaluate the implementation of the plan. Thus, clear indicators and MEL frameworks need to be put during the plan-making process, and civil society can plan a more active role in monitoring and evaluation.

Figure 14: Glimpses of Session 3B (Parallel Workshop)

Place-based Evaluation of Integrated Spatial Planning – SAMPLE WORKSHEET

1. Object: What is to be evaluated?

☐ Policy ☐ Plan ☒ Project ☐ Program ☐ Process

Title of Object:

THE DELHI METRO PROJECT

2. Timing: When is evaluation to be done?

☐ Before Implementation *(A Priori)* ☒ After Implementation *(Ex Post)*

3. Initiator/sponsor: Who wants to do this evaluation? Identify the actor/s or agency/ies initiating the proposed evaluation.

Name of Initiator/Sponsor:

GIZ SUD-SC wants to initiate the evaluation

☐ Sponsor is responsible agency for everything related to object of evaluation [= inside/self evaluation]

☐ Sponsor is responsible for initiation/funding/schematic-strategic planning, i.e. sponsor is regulatory, higher govt. or superior organizational level agency in relation to actors involved in detailed planning and execution of evaluation object [= outside/? inside/self evaluation].

☒ Sponsor is not responsible for object of evaluation [= outside evaluation] – may be representing affected interests: community/civic association, business/labor/green NGO, political or academic.

(OPTIONAL) *Detail out 1-2 methods you selected for your evaluation (example, detail out possible project benefits/costs or detail desired impacts and indicators to measure impacts)*

1. BENEFIT-COST ANALYSIS

Identify, Analyze and Monetize

- Direct Benefits (Travel time saved/ Land values increased)
- Indirect Benefits (Improved access to jobs)
- Direct Costs (Infrastructure costs)
- Indirect Costs (Relocation costs for project affected people)

2. COMMUNITY IMPACT ANALYSIS

Suggest Impact Indicators for a sub-group

Community = Population of Delhi Metro
Sub-groups= Riders/land owners/ businesses/govt agencies

e.g. Sub-group: Business:

- Negative impact: Relocation cost
- Positive Impact: Increase footfall/increase business

4. Purpose: What is the proposed evaluation for/ Why do the sponsors want this evaluation/What do they expect the evaluation to do for them/ what is the evaluation expected to achieve/produce?

Purpose of the evaluation:

By evaluating the Delhi Metro, GIZ wants to learn from its experience and apply to mass transit projects in Kochi, Coimbatore and Bhubaneshwar.

5. Methods: What systematic evaluation method/s will be developed/applied for evaluation? With which data/information sources? To produce what information/findings?

☐ **Conformance Analysis** (Spatial analysis comparing plans to reality – Ex Post)

☐ **Performance Analysis** (Case study/analysis of how plan was used/consulted and why divergence)

☒ **Benefit Cost Analysis** (Direct-Indirect/ Co-Benefits-Co-Costs) (provides absolute values for go/no-go decision-making)

☐ **Fiscal Impact Analysis** (Revenues/Costs)

☐ **Cost Effectiveness Analysis** (Cost per goal achievement indicator) (for comparison across programs/policies/plans)

☐ **Multi Objective Decision Methods** (Evaluation = Sum of Weighted Scores) (Scores are of indicators of identified goals)

☐ **Community Impact Analysis** (Suggest Impact Indicators)

☐ **Social Impact Analysis** (Suggest Impact Indicators)

☐ **Environmental Impact Analysis** (Suggest Impact Indicators)

☐ **Case Study Analysis**

6. Institutional Design of Evaluation

☐ Inside Evaluation (e.g Smart Cities Mission evaluates itself) ☒ Outside Evaluation (GIZ evaluated the Smart Cities Mission)

- Which organization/unit is responsible for/ managing the evaluation?

GIZ SUD-SC Project team

- Who designs the evaluation and selects the evaluation methods? (e.g. in-house unit (which?) OR outsourced (to who?)

GIZ hires Prof. E. Alex designs and selects the evaluation

- Who carries out the evaluation (in-house or outsourced)? (Collects data/ information, applies evaluation methods and analysis data, reports findings and conclusions)

Delhi University's Institute for Transportation Research

- Who gets/ reviews reports/ uses the evaluation findings or conclusions?

GIZ SUD-SC

- How will the evaluation be used (reflect back on your purpose of the evaluation)?

Provides recommendations for planning, design, implementation and operation of mass transit projects to respective municipal corporations in Kochi, Coimbatore and Bhubaneshwar.

Figure 15: Sample worksheet shared with participants for workshop

SESSION 4 / CLIMATE ACTION: TAKING BOLD SPATIAL LEAPS

Figure 16: (left to right) Sanjay Sridhar, Sarfaraz Momin, Anil Gupta, Olga Chepelianskaia, Prof. Malani Herath, Katrin Bruebach, Dr. Ninik Suhartini, Jannick Schwender, Suke Yao, and Hexing Chang

Concept

Cities emit around 70% of the global carbon emissions and consume over 2/3rd of global energy while occupying only 2% of the global landmass. 90% of the world's urban areas are situated on coastlines, putting cities at high risk from some of the devastating impacts of climate change, such as rising sea levels and powerful coastal storms. Thus, focussing on cities is essential to making climate action effective and efficient Land use, zoning, building codes, green transport, hard and soft infrastructure design, and material innovation are some of the tools that cities have for spatial adaptation and mitigation measures.

Chinese cities have adopted the 'Sponge City Manifesto' to promote ecological infrastructure and make cities more porous. The Netherlands sets aside roughly 1 billion euros yearly for the Delta Programme, a key plank of its water management efforts, and has developed new ways to manage water, such as designing lakes, garages and

parks to act as reservoirs when waters rise. Cities are attempting to reverse sprawl and promote density. For example, Minneapolis in USA, recently passed a law against single family zoning in the city. Within the transport sector, cities are working to improve mass transit, prioritize pedestrians, promote biking and electric vehicles. Barcelona has created large zones that are car free, with the intent of expanding the areas to cover the entire city.

But spatial urban actions like the ones mentioned above, get complex when put into political economy contexts. The distribution of climate action burdens is often spoken of in the contexts of developed versus developing countries. But these binaries are not absolute since the carbon footprint of a high-income individual in Bhubaneshwar maybe closer to someone in Berlin as compared to a slum dweller living in the same neighbourhood. At the same time the slum dweller may be much more vulnerable to extreme events. Thus,

questions of equity in the carbon space are important not just between countries but also within countries and cities where the poor need to be lifted out of poverty, the aspirations of the middle class need to mirror away from those of the rich, and the rich have to learn to live with less.

Climate change is amplifying extreme-weather displacements, and blurring the distinctions between an economic migrant, a political refugee and an environmental migrant. The sheer millions to be displaced in the coming decades and the limits of receiving territories to absorb climate migrants mean it may be more feasible to climate-proof societies in situ. Governments and businesses need to do more to actively push for a carbon neutral, circular economy. In South Africa, Just Transitions is working with workers and their unions, employers, government and communities for better jobs, training and social protection for all workers affected by global warming and climate change policies.

To attract private sector investments, traditional government departments may not be efficient and thus innovation in institutions is essential. In South Africa, a quasi-government institution was set up to procure private sector bids for the Renewable Energy Independent Power Procurement program. However, governments are key in stimulating markets as seen by the USD 800 billion climate change stimulus package by the Obama Administration in the USA. It helped bring down the costs of solar and charging. However, these actions require consensus between political parties and other stakeholders and need a certain level of resilience from change in political commitments.

Institutions are grappling with these questions as countries like the USA and Brazil are faced with their political leadership rolling back on climate forward policies. In times like these bottom up mobilization like that of 'We are still in' – a loose federation of 2000 cities and universities committed to climate action after the US withdrawal from Paris Agreement, and the global 'Climate Strike' organised by the youth, give much reason for hope.

- **How are national governments negotiating with subnational entities (states/ cities) to achieve their climate goals?**

- **How are cities taking action on their own within or outside the national framework of NDC's that have been committed to in Paris?**

- **How are the political leaders being engaged in order for them to champion climate action on the ground?**

- **How are climate forward programs, policies and commitments being safeguarded against change in political leadership or other external shocks?**

- **How are business and civil society playing a role in accelerating climate action on the ground?**

- **Are technological innovations helping the cause to elevate the climate change urgency?**

- **How is mis-information about climate change countered, and how is education about it made accessible?**

Mr. Jannick Schwender shared how communities, planners, and politics pave the way for zero emission urban districts in Germany.

- In Germany, 40% of total energy production comes from renewables, and it aims to reach 95% renewables share by 2050. This national policy has led to decentralisation of energy production, but with significant regional disparities.

- The region of Schleswig-Holstein, seen as a leader in Germany's green energy production, focussed on the supply side of the renewable energy sector, but lagged in developing networks and storage facilities for whom the surplus energy it produced. As a result, the renewable energy infrastructure was not utilized to its maximum potential. For example, the wind turbines needed to be turned off even when winds were blowing. Thus, the public began to perceive this as a drain on tax spending and investors were not able to reap the full benefits of their investments. This slowed the momentum gained in the renewable energy sector across Germany.

- While extensions of the network from Schleswig-Holstein in the north to industrial areas in the south are underway, the government has begun to explore ways in which surplus renewable energy can be used in other sectors such as transport or industry, how it could be buffered, stored, and transformed.

- One of the responses has been to create an urban laboratory in an existing part of the city of Heide in the Schleswig-Holstein region. The project is called QUARREE100 – 'Urban Quarter Development with 100% Renewable Energy' - with the goal to implement technologies that help establish new energy supply, distribution and storage systems in the quarter. The chosen historic district is 20 hectares, has 600 inhabitants in a mix of residential and commercial properties. An assessment of Heide's city-wide carbon emissions showed that heating caused three times more emissions than electricity. Thus the focus for the district has been to substitute fossil fuels for heating and mobility sectors with renewables. This has involved installing rooftop solars in the district and leveraging regional wind and solar farms to cater to the district. Participatory process has been important to bring residents and business on board.

- In India- the national and state governments drive the energy sectors with little to no defined role for cities in transitioning to renewables and negotiating for their desired energy mix. Although this was not explored in depth at the panel, learnings from Germany can be used for an urban laboratory approach to test renewable substitutes brought in from peri-urban production hubs. This would entail great city and regional cooperation. A cautionary learning from Germany is to ensure equal focus on production, distribution, and storage.

Mr. Sarfaraz Momin made a case for people-oriented urban design and need for a multi-pronged approach to tackle climate change.

- **Leveraging natural ecology and terrain instead of engineered infrastructure to collect, store, recycle, and release water in master planning:** Sarfaraz showed the application of using ecology-based infrastructure instead of concrete check dams, channelling of streams, storm water pipes, etc. at the scale of the city of Naya Raipur and a smaller private development. These efforts made the sites resilient against floods, made them water surplus in dry seasons, and provided the opportunity to create urban forests and public spaces.

- **Reclaiming streets from underutilised functions and cars for public use:** As street designs get increasingly guided by prioritisation of cars and parking, Sarfaraz shared efforts of Studio POD in improving

walking and non-motorised transit (NMT) experience around one of the busiest transit stations in Asia – the Thane Metro Station. So far, their efforts have resulted in 11.62 acres of public realm, a contiguous acre of urban park along the lake, and plantation of 1,200 trees.

- **Advocacy to communicate, educate, and inform:** Studio POD established an NGO called Aapli Mumbai to create awareness about 800 acres of port lands in Mumbai that are up for speculation. They set up exhibitions to create awareness and were successful in curtailing the illegal dumping of coal on site. They also started an initiative called Bridge, where they use interactive games to educate school children about climate change, public transport, etc. One such game involved laying out a Barcelona Grid in the school and having the children and their parents chose a route from school to home on a fixed budget. Most participants concluded that walking and para-transit were the best options, thus coming out with learnings about mobility and civic design.

Dr. Ninik Suhartini shared efforts taken by the city of Jayapura in building urban resilience.

- Jayapura is located in the ring of fire and thus prone to volcanoes, earthquakes and tsunamis. It has a higher growth rate compared to other urban areas of Indonesia, but also a high poverty rate (10% below poverty line).
- The city is highly dependent on imported food products and is strengthening its food system. It has created (i) a strong policy framework to ensure agricultural expansion and urban farming are integrated with city spatial plans and development plans, (ii) urban farming program with women's associations,

(iii) price control regulations and quality control, (iv) festivals on local food and incentives for hotels that introduce local food in their menus, and (v) empowering local food industry- especially the small and medium enterprises.

- It is developing environmental resilience in informal settlements by undertaking slum upgrading and preventing the formation of future slums.
- Jayapura's post-disaster recovery scheme has introduced fast response on stabilisation of local security and amenities, identification and rehabilitation of affected areas and communities, community reconciliation and trauma healing, reconstruction of local economy, multi-tier governments and multi-stakeholders' involvement.

Mr. Hexing Chang and Ms. Suke Yao talked about ecology-based spatial planning through sponge cities in China.

- Conventional engineering solutions such as dams, channelling of rivers, etc. are fragmented and do not provide sustainable solutions that can be achieved through landscape planning and ecological infrastructure-based approach. This urbanization mode is nicknamed "Building Green Sponge Cities" in China. It is a part of the "Ecological and Beautiful China" campaign launched in 2013 by the central government as a new way to develop the country.
- Hexing showed results from this approach pursued by Turenscape over 20 years, in 200 cities, and at different scales. At the macro scale, the firm analysed natural processes such as flooding, soil, biodiversity, and cultural heritage to identify protected landscapes and development zones.

- Suke illustrated six cases:

  (i) Retention at source: Cut-and-fill technique was used to create ponds and berms on the periphery of the Qunli Storm Water Park. This peripheral infrastructure collected, stored, and treated storm water. The central area is open to collect extra water and to grow vegetation. The creation of this sponge park catalysed residential development around it.

  (ii) Deceleration on the way: Cut-and-fill technique was used to create terraces and slow down the flow of water at the Liupanshui Minghu Wetland Park. This low cost and low-tech process of farming and field-making helped overcome many problems such as pollution, channelising of river, and disappearing wetlands.

  (iii) Adaptation at the sink - making friends with floods: The terrain in Yanweizhou Park was modelled such that most of the park remained submerged during monsoons, with certain areas accessible through elevated walkways. After the water retreats, the landscape flourishes with vegetation. In dry seasons, the whole park is accessible to public.

  (iv) Intensified constructed wetland - treating water pollution: The Houtan Park, a 1.7 km long and 5 to 30 m wide constructed wetland, was built on a brownfield of a former industrial site along the river in Shanghai. Every day, it treats 2,450 cu.m. of water that passes through it, thus keeing the river free of pollutants from the brownfield.

  (v) Soil Remediation – bionic repaid technology: At the Tianjing Qiaoyuan Wetland Park, bubble wetland technology was used as a catalyst to transform a former alkaline shooting range into a

self-evolving, self-cleansing, and welcoming space.

  (vi) Agricultural productivity: The Shenyang Architectural University Campus demonstrates how top productive landscape can become part of the urbanised environment.

Prof. Malani Herath shared the need for spatial planning to tackle climate change in the capital city of Colombo.

- The economy of Sri Lanka transformed from agrarian, to plantation-based, to import-export oriented. Colombo became the centre of this trade, making the rest of the country its hinterland. As the city became the economic driver for the country, it became the most urbanised region. Colombo urban region accommodates nearly one third of the total population and contributes more than 50% of the national GDP.
- Colombo was characterised by a vast interconnected wetland system and paddy fields. But the water retention capacity of the Colombo sub-basin has been reduced considerably in the last two decades due to legal and illegal reclamation and encroachments of its flood plains. Pollution and choking of water bodies due to dumping of municipal solid waste is another major factor that makes the city vulnerable in case of extreme weather events.
- The region floods annually causing significant loss of lives, damage to property and loss to the economy at the national level. Water shortage during dry months is another critical water issue in Colombo. However, most of the government efforts are focused on post-disaster recovery and relief; and very little thought is given to preventative measures, like preventing flood plain occupancy and protecting and restoring natural assets.

Key takeaways from the panel discussion and Q&A with the audience

- Climate risks and vulnerabilities need to be understood at regional, city and even parcel levels so that all infrastructure and service delivery projects can build in the necessary adaptation and mitigation measures. Multilateral organizations like the Asian Development Bank require projects to have climate risk and vulnerability assessments to predict temperature and precipitation variations on their investment project sites. This kind of downsizing of global and national climate risks is necessary to understand local impact of climate change, develop unique contextual solutions, and impact indicators.

- Leveraging local businesses is going to become key in finding localised solutions. In the recent Cape Town draught, afraid that the local businesses which were also the biggest water consumers would leave town, the city installed water-saving devices for both domestic and commercial users. They also retrofitted the waste-water plant in a way that some of the treated water could be used for commercial purposes. A water fund was also initiated with investments from local businesses to restore regional catchment areas.

- Integrated urban design solutions will need to be converted to contextual guidelines that are mandated by city departments and their contractors/service providers to adopt. While designing solutions for one problem we may be able to a create co-benefits that tackle adjacent issues. For example, an improved street design may tackle road safety as well reduction in emissions in transport sector. Similarly, designing porous open spaces may increase open spaces as well as recharge ground water (if designed in recharge zones). Thus, on the one hand, a stronger case needs to be made for urban and landscape design using co-benefits. On the other hand, these need to be codified so that the city may be able to use them given the limited design and planning capacity of city engineers.

- Plan longer (more than 20 year horizons), larger (more cities together), wider (beyond physical planning to governance and economic planning), and plan again (need to reiterate in the face of rapidly evolving climatic conditions).

Figure 17: Glimpses of Session 4

SESSION 5 / LAND: RIGHTS AND LEVERAGE

Figure 18: (left to right) Aparna Das, Dr. Angelique Chettiparambil Rajan, Dr. Himanshu Parikh, Dr. Reinhard Skinner, Shishir Das, and Shubhagato Dasgupta

Concept

Historically, ownership of land has been key in defining an individual's class, influence in society, and political representation. It is no surprise therefore that the struggle for the women's right to property and housing is central to gender equity and global development. Land and natural resources are also intrinsically linked to identity, culture and livelihoods, especially for indigenous populations, demanding greater values-based judgement in development planning. Security of land tenure is important for people to invest their scarce resources in improving their homes. The way a society allocates rights to land is indicative of how it allocates other rights in public life as well.

This makes the need for clear land and property titles along with the transparent maintenance of their records essential for societal progress and effective governance. Hassle-free land transactions are also essential for ease of doing business. Drone mapping and geospatial tools have made the process of mapping properties cheaper and faster, especially in complex urban slum environments in India. Further, maintenance of geo-spatially linked land records help improve property valuation and collection of property taxes.

The Government of Odisha ordained "The Odisha Land Rights to Slum Dwellers Act, 2017", which aims to grant in situ land rights to 1.2 million people in 250,000 households living in about 2,500 slums in the state. Due to the scale of the beneficiary coverage, the legislation has been described as the largest slum titling intervention in the world. A year later, the government also launched the "Mission Jaga" with the aim to transform all the slums in the state into liveable habitats. The upgrading package includes access to state and national level affordable housing schemes, water supply, street lighting, social amenities, emergency facilities, etc. However, land titles are presumptive and don't guarantee ownership. These titles have to be registered with the concerned departments to become a permanent public record.

As populations grow and urbanise, the need for serviced lands also increase. Urban growth converts land into an asset, into a financing instrument or into a tradable commodity within development regulations. Across the world, instruments like eminent domain are being used with restraint or being transformed with laws demanding greater participatory processes, legally mandated social and environmental impact assessments, and legitimate public purpose use during land acquisition. In India the Land Acquisition Act of 1800s was changed in 2013 reflecting some of the aforementioned regulatory changes.

This has made land acquisition in India both expensive and time consuming with urban agencies increasing looking for alternative mechanisms to develop land for urban expansion as well as for transformation of inner city areas. Mechanisms like land pooling and town planning schemes, although over a century old in India, are regaining traction. Cluster development approach of Bhindi Bazaar in Mumbai and Joint Development Model in Gurgaon have increased private sector participation and investments while also sharing risks between public and private sectors in city-making. Other instruments like Tax Increment Financing and Business Improvement Districts as in the USA have been used to promote local economic development. In addition to supply side instruments of land value capture like the ones described above, demand at household level needs to be braced, especially in low-income households, with micro financing both for housing as well as infrastructure upgradation.

- **Urban land ownership lies with very few and to close the equity gap, should land be redistributed like in rural areas?**
- **What kinds of political economy barriers exist in registration of land titles with respective government departments (example revenue departments in case of India)?**
- **How is land reserved and secured for water, sanitation and other infrastructures in-case of informal settlements?**
- **How are grass roots organizations mobilized and how are coalitions built during? How is equity and representation ensured while constituting them?**
- **What roles do international networks and federations of poor play in negotiating with local political economies?**
- **Who owns, who administers, and who benefits from air-rights over the land and resources like groundwater/minerals below the subsoil?**

Key takeaways from the panel discussion and Q&A with the audience
- Security of tenure is extremely essential for households to invest in their assets towards improved quality of life and wealth creation. However, security of title is difficult to ensure with little to no success, potentially resulting in displacement of the poor and gentrification of the property. A bundle of rights come with property rights – i.e. right to occupy, improve, inherit, sublet, sell, access services, and access formal credit. Depending on how many of these rights are ensured to a household defines the degree of tenure security. It is seen that when access to basic services is provided, households make investments in their properties and their communities. The community ties that develop, as well the networks to jobs, schools and other in infrastructure, keep people from selling their houses and relocating. This is despite the fact that the purchase value of properties increases with access to basic services. In a first in India, Odisha developed nine quality of life parameters, which if met, could lead to a slum getting de-notified. Meeting these parameters is possible with just tenure security, without title security.

- Providing individual land titles on the other hand has seen little success. Deciding who gets how much, who own the commons and so on, gets very complicated to regularize. Under the Madhya Pradesh Patta Act, only 20% of pattas were processed because of legal obstacles and bureaucracy. In another example in Raipur, households were given pattas, but it did not protect them from being bull-dozed because these titles were not reflected in the official land records maintained by the revenue departments. On the other hand, with secure tenure, if households show tax vouchers for two years, they cannot be evicted under the constitution of India. Where property titles are given, it is seen that households sell their properties in the real estate market, but cannot then afford another house from the selling price. This forces them to move into another slum and causes subsequent gentrification of their previous properties.

- It is the exchange value of land that is privileged and not its use value. Therefore, tenure without titles has less privilege in real estate market and cannot be speculated over. However, more empirical evidence is required to support these perspectives

- Collective ownership of land, as in the case of community land trusts, provides pathways for maintaining affordability. Community Land Trust (CLT) is a model for collective ownership of housing and civic / commercial assets. It ensures an individual's need to security of tenure, allows leveraging land for institutional credit, while maintaining affordability for perpetuity. CLTs have been successful across the United States, Canada, and United Kingdom over the past four decades. In Bandung, Thailand, to avoid gentrification, 55,000 households were given collective leases/holdings.

- Other ways to securing affordable housing have been fees from developers contributing to affordable housing funds in case they fail to provide the required affordable units/infrastructure/services. Increased FSI or development bonuses are mechanisms that work, but are difficult to institutionalize since they only work in a vibrant real estate market.

- Alternate sanitation services that are decentralised maybe the negotiated solution for tier-two and tier-three towns in India, since providing 100% sewer network had been difficult even in the metros. Though operation and maintenance successes in India are yet to be seen, evidence from Uganda has shown failure in household adoption. Provision of water and sewerage networks has been historically important for reducing mortality in the developed world during periods of rapid urbanisation. While provision of public sanitation networks is undeniably tied to basic rights for all, full sewerage coverage has still not been achieved in tier-one cities of India, and will not be achieved in medium and small towns over the next two decades as well. Thus, with the increasing systemic challenges in infrastructure and service delivery, availability of new technologies and WASH innovations, and private sector interests, decentralised waste management

systems are being tested. In Odisha, a program separate from the national Swachh Mission is driving faecal sewage and septic management across the 114 ULBs. This has required tremendous community acceptance and creation of guidelines by the courts in dealing with legal conflicts. Across eight states in India, 450 cities are also piloting Faecal Sludge Management (FSM) systems. These will need to be integrated within planning and implementation frameworks of cities. However, learnings from failure to adoption in Uganda will be critical in designing the programs and facilities.

• Master plans and development regulations in India need to reflect the largely informal nature of the urban economy, while also allowing for greater incrementalism to be built into the plans – i.e. guiding frameworks with lesser parcel specific use prescriptions: Indian cities have

anything between 75%-90% of their economies in the informal sector, while developed countries have less than 10%. Yet statuary plans mirror the ones made for a majority formal economy. There are successes in project specific incremental planning. Site and Services Schemes in India is a good example. Lima, Peru, has also successfully shown incremental housing for urban poor over a 40-year time span. However, at the citywide scale, there are no plans reflecting ground realities of unrecognised slums, vending zones, etc. In failing to recognise them, they are also left out of the normative planning processes. Kerala has had experience in providing general urban planning frameworks that are centrally created which allows informality and incrementality to be created. Planning guidelines need to be more reflective of the city contexts.

Figure 19: Glimpses of Session 5

SESSION 6 / INCLUSIVE URBANISM: BUILDING STRONG, INFORMED, AND ENGAGED COMMUNITIES

Figure 20: (left to right) Sanskriti Menon, Bharat Visweswariah, Jacob Easow, Rohit Kumar, Viraj Tyagi, and Somesh Tiwari

Concept

Dr. Raghuram Rajan, in his book 'The Third Pillar', reflects that out of the three pillars that support society- the state, the markets, and the community; community has been left behind. Community - defined either by living in close proximity or by common interests such as political ideologies, social movements, gender identification, ethno-religious bonds - gives individuals a deep sense of identity by anchoring in human networks. As it voices its concerns through democracy, the community is critical in maintaining the balance between the state and markets. When the community is appropriately motivated and engaged, it enables liberal market societies to flourish. But as markets have integrated, governance and decision making has migrated up from the community to the state, to national, to the international level. Globalisation, rising inequality and technological evolution is forging deep social fissures within communities. Xenophobia and growing nationalism are just some symptoms of these fissures.

Rajan contends that the process of healing may begin with empowering local communities. He offers 'inclusive localism' whereby the community is given far greater say in economic matters within the national framework of a liberal democracy. Strong communities have been successful in enforcing efficient and accountable behaviour of public bodies. For example, sanctuary communities in the United States and Europe have resisted cooperating with national immigration authorities in identifying and deporting undocumented immigrants. In case of Kudumbashree and SEWA in India, women's networks have been nurtured by the state or civil society, through savings practices, vocational skills training, and access to livelihoods. Time and again, these networks have been mobilised for societal benefits like emergency management during disasters.

In India, the 74th amendment to the Constitution in 1992, created a third tier of governance at the local level of the municipal corporation, in addition to the centre and the state. This was supposed to

foster self-governance and was intended to institute "democracy at the grassroots level as it is at the state level or national level". But the inability of the ULBs in India to raise resources, or levy taxes, has made the third tier resource-dependent on the centre and the state. In addition, ULBs have little autonomy over subjects like urban planning (as per state legislations) and also lack capacity both in terms of staff numbers and expertise to respond to infrastructure and service needs. State appointed bureaucrats and mostly indirectly elected short term mayors lead local governance, thereby weakening people's representation. In light of this, when two reforms were made mandatory for state governments in India in 2004 - the Community Participation Law (CPL) and the Public Disclosure Law (PDL), less than 20% of states enacted it leaving self-determination and self-governance unrealized and deferential to larger state and national agendas.

- **If representative democracy is more than elections, what needs to be done so that citizens view themselves as active agents of change rather than passive recipients of dispensed benefits?**

- **With weak local government institutions, to what end can formal community participation in public decision-making and urban planning serve?**

- **How are grass roots organisations mobilised and how are coalitions built? How is equity and representation ensured while constituting them?**

Key takeaways from the panel discussion and Q&A with the audience

- Citizen participation in decision-making does not only have the instrumental value of providing

inputs for solution, but also has normative human-rights based value. Democracy is more than elections, and thus citizens cannot be looked at as mere recipients or consumers of government services, but as co-contributors in constructing the collective future. In the developing world, with majority of the new infrastructure and urban policies remaining to be locked in, there is opportunity in re-imagining civic processes.

- When people are disempowered and governments do not respond to their needs, then people collectivise, make common cause, and through their greater negotiating power make rights-based demands. An example of this is the Self Employed Women's Association (SEWA) which started as a grassroots organisation by mobilising around the rights of self-employed women in textile work. Today, it is a collective of over 1,000,000 women in India, which offers two learnings – a movement can be created from a shared purpose and pious leadership, and 'anubandh' (anu-follow, bandh-bonding) i.e. following what bonds people. SWaCH, the waste pickers association in Pune and the National Street Vendor's Act are other examples of people's mobilisation efforts.

- The privileged and therefore dis-engaged sections of society can be made passionate advocates for the poor and for the city overall - if they are guided by empathy, clarity in governance, and through institutionalised mechanisms for participation. Organisations like Young Leaders for Active Citizenship (YLAC) are working towards demystifying the governance framework, reducing cynicism, and cultivating empathy. They work with high schoolers to deepen their

understanding of civics, and with young professionals by training them in public policy and advocacy building. Such trust-based and values-guided civic capacity building is essential, since change is unlikely to come from within the system.

- CivicTech can be leveraged to aggregate citizen demands. Analytics of this data can help spatialise problems, understand them through various demographic lenses, and help targeted responses. At the same time, capacity has to be built within governments to respond to these aggregated citizen demands. The business of grievance redressal is being made efficient with tech platforms alongside capacity building work of relevant authorities. This has helped build trust between citizens and governments, both of who now have more time to engage each other productively for broader problem-solving and envisioning. But building a platform does not ensure usage, and proof of value is necessary in stimulating demand. Platforms also need to ensure transparency, indicate status of operations/complaints and outline accountability. In addition, a robust ecosystem of local organizations that demand local needs are essential for leveraging an overarching platform.

- Institutionalised forms of participation is a longer and tougher battle, but needs to be fought. Kerala is a good model for formal pathways in citizen engagement for development planning and budgeting. The 73rd and 74th CAA highlighted: (i) First time use of the term 'spatial planning' in the Constitution (ii) Draft Development Plans need to be prepared by District Planning Committees and Metropolitan Planning Committees (iii) Urban Planning including Town Planning and Land Use Planning need to be

incorporated in the schedules of local governments (iv) Direction in CAA for changes in relevant laws.

- Urban and Regional Development Plans and Formulation and Implementation (URDPFI) Guidelines and Model Law for Planning was created and issued by the Govt. of India in line with the CAA. Manual on Integrated District Planning further recommended this Model T&C Planning Law. But no concrete steps were taken by any state government. In 2016, Kerala updated its Town and Country Planning Act to adhere to the 73rd and 74th CAAs, and created the levels of plans as indicated in the figure below.
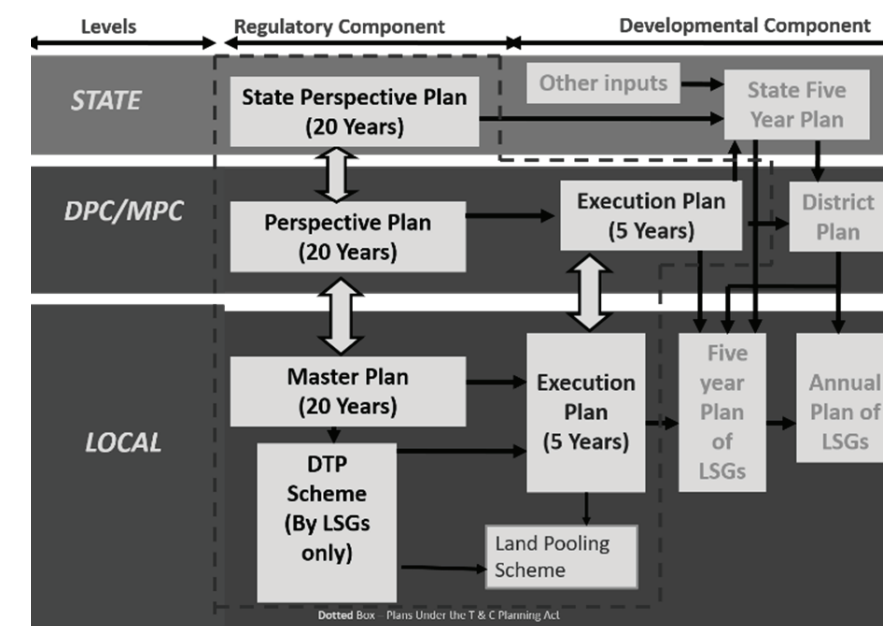

Figure 21: Kerala's Planning System as per KTCPA 2016

Engagement with experts and citizen groups happen at about six touch points during the process-data collection, data analysis, visioning, detailed suggestions of proposals, and legal notification for suggestions and objections. Formal, institutionalised structures are used for this engagement- ward sabhas (town halls), gram sabhas (village councils, sectoral working groups, and public seminars). In addition, Kerala

also conducts special ward sabhas for women, SC, STs, etc; builds capacities of trainers to train for facilitating meetings – thereby strengthening both top down and grassroots.

• Participation is a means to inclusive localism. There is a need to use public engagement as a way to build community. These methods have to be tried (with ethical facilitation for inclusion), critiqued and iterated upon. Systems of participation can be assessed on dimensions of inclusiveness, deliberativeness, effectiveness in decision-making. Participation cannot be in unstructured and marginal - has to be squared in planning and budgeting.

Figure 22: Glimpses of Session 6

OUTCOMES FROM THE SYMPOSIUM

Figure 23: Glimpses of the Concluding Session

Based on the learnings from the symposium, the needs of the symposium partner – Housing and Urban Development Department, Government of Odisha, and the strategic priorities for the GIZ Sustainable Urban Development - Smart Cities (SUD-SC) project, a list of topics were identified for possible commissioning of further investigation. The topics and format of deliverables are being reviewed currently by the team. These may be research papers, films, pilot projects, etc.

Project list:

1. **Integrating economy (formal and informal) into city development processes and spatial plans**
2. **Strengthened municipal governance in Odisha – the aspirational scenario**
3. **Slum upgrading experience in India and advocacy for slum upgrading under the Housing for All Scheme**
4. **Global experiences in urban land titling**
5. **Pilots of 'ward sabhas' in select towns (for ward level planning/ planning for a specific sector or program)**

09:30-11:00 | Inaugural Session: Dialogues in Planning Paradigms and Institutions

Georg Jahnsen

Project Manager - Sustainable Urban Development Smart Cities (SUD-SC), GIZ India

Mr. Georg Jahnsen is the Project Manager of the GIZ-supported urban project SUD-SC. Previously, he was heading the "Land Use Planning and Management" (LUPM) project. Georg's professional experience is shaped by the practical works as a city and land use planner and architect in live projects worldwide. He has worked as a German state official (Head of the Department for Planning and Construction) of the city of Heide in northern Germany. He has also worked on several theoretical and scientific projects as a research assistant and teacher at the University of Brunswick at the Institute for Urban and Land Use Planning, and as a Lecturer and Program Manager for the Interior Design Department of Raffles Design International University, Mumbai, India.

G. Mathi Vathanan, IAS

Principal Secretary, Housing and Urban Development Department, Government of Odisha, India

Mr. Mathi Vathanan is the Principal Secretary, Housing and Urban Development Department, Government of Odisha. Since last year, he has been at the helm of the implementation of the Odisha Liveable Habitat Mission – JAAGA, which aims to grant in-situ land rights to 2.5 lakh (0.25 million) households living in over 2,500 slums in the 109 Municipalities and Notified Area Councils of Odisha. With a population coverage of 1.2 million, this could well be the largest slum titling program in the world. The Odisha slum land rights initiative is the first program of its kind to employ quadcopter drones to create high-resolution maps of 2,500 slums, which contributed to the overall effectiveness and transparency of the beneficiary identification process. Previously, he led and supervised the planning and implementation of AAHAR – an urban feeding program aimed at providing cooked food at highly subsidised rates to the poor and needy in 75 cities and towns across Odisha. Currently, 117 AAHAR centres provide food to 70,000 persons daily.

Annexure: Speaker profiles

Aparna Das
Senior Advisor, SUD-SC, GIZ India

Ms. Aparna Das got trained as an architect and later received a Master of Science degree in Urban Development Planning from Development Planning Unit, University College London. She was also a Special Program for Urban and Regional Studies (SPURS) Fellow at the Massachusetts Institute of Technology (MIT), USA, during 2018-19. At present, she is working as a Senior Advisor as part of the Sustainable Urban Development- Smart Cities (SUD-SC) project at GIZ. She is working with the line ministries of Government of India at the central, state and local level to implement various housing and urban development programmes. Spanning almost twenty years of her career, she has worked with different sector partners; national and international NGOs and other multi and bilateral agencies such as The World Bank, UNICEF, UNDP, DFID India. Internationally she has worked in Cairo, Egypt and Bangladesh. In recent years, she has been focusing on the contestations over land in urban areas and equity concerns in cities.

Stefan Gebert
Independent Trainer & Facilitator (Master-of-Ceremony)

Mr. Gebert is a certified Trainer for Non-violent Communication (CNVC/USA), Certified Professional Coach (Leadership That Works/New York, ICF-accredited), Certifications in Adult Learning/Group Facilitation (University of Bielefeld/Germany) and Appreciative Inquiry (OD Praxis, New Delhi), practitioner of Neuro-Linguistic Programming (Bandler/Grinder), multiple graduate of Landmark Education Programmes, Master's Degree in Organisational Sociology and Psychology (University of Bielefeld/Germany; Grade: 1.2, with distinction). He is based in India since 2009 and works internationally as a trainer, facilitator and leadership coach in organisational change and personnel development. His approach to training and coaching is strongly driven by his firm conviction towards the empowerment of individuals through authenticity and constructive feedback.

11:30-13:00 | Situating Integrated Spatial Planning

Georg Jahnsen
Project Manager - Sustainable Urban Development Smart Cities (SUD-SC), GIZ India (Moderator)

Prof. Ahsanul Kabir
Professor, Khulna University, Bangladesh

Prof. Kabir has been teaching and researching on physical planning and its associated fields for the last 20 years and has worked with various local and international organisations on transportation and spatial planning issues. He has training in Urban and Rural Planning from Khulna University, Bangladesh (1995) and in GIS for Development from Durham University, UK (1997) at the undergraduate and master's level respectively. He also holds an M.Sc. in Urban Planning and Land Administration (Urban Infrastructure Management) from ITC, The Netherlands (2004) and a PhD in Urban Planning from the University of New South Wales, Australia (2013). His research interests include urban planning, master planning, transportation, spatial pattern and equity in urban infrastructure planning.

David Jácome-Pólit
Metropolitan Director of Resilience & General Secretary of Planning, Municipality of Quito, Ecuador

Mr. David holds the position of the Metropolitan Director of Resilience and Chief Resilience Officer as part of the 100 Resilient Cities initiative. He was the former Resilience Advisor for the United Nations Development Program in Quito. David was a member of the Esteemed Program Committee for the ICLEI's Resilient Cities 2018 / 2019 Congress, organised by ICLEI - Local Governments for Sustainability, and a member of the Advisory Group for the Communities and Affordable Homes Summit (US Green Building Council). He has a Master of Science with double specialisation in architectural engineering and technology in sustainable development from TU Delft.

Eric Huybrechts

Mission in-charge, International Action, l'Institut Paris Region, France

Mr. Eric is a senior Architect and Urban/Regional Planner, member of Isocarp (Scientific Council, France representative), Icomos (working group on Climate and Heritage, representative to Habitat Professional Forum), and Officer of the Royal Order of Sahametrey (Kingdom of Cambodia). He is the Manager of the International Affairs at the Directorate General of Paris Regional Planning Agency with a keen interest in the field of Urban and Regional Planning. He has prepared projects at local level, sub-metropolitan, metropolitan, regional and national scales. Huybrechts was also the team leader of the National Urban Development Scheme of Ethiopia, and the National Spatial Strategy of Saudi Arabia and represents IAU-IdF to the World Urban Campaign of UN-Habitat, Climate Change (in charge of Territorial planning alliance) and the global network of Metropolitan and Territorial Planning Agencies (MTPA).

Hrydhal Damani

Director – Urban, CRISIL Infrastructure and Advisory, India

Ms. Hrydhal Damani is currently a Director with CRISIL Infrastructure Advisory (a subsidiary of CRISIL Ltd., an S&P Global Company). She is leading the urban planning and city mobility practice. Hrydhal has more than 16 years of experience in the domains of urban planning, city strategy and urban design. She has a diverse mix of Indian and international work experience and has successfully led and coordinated city planning projects in India, Middle East, Africa, and South-East Asia. Some of her marquee assignments include the implementation of several Smart City projects under the national Smart City Mission; Concept Plan for the Mumbai Metropolitan Region; Master Plan for Kigali City, Rwanda; Development Plan for Panvel City; and Land Pooling schemes for towns along the Nagpur expressway. She has a degree in Urban Planning (Urban Regeneration) from the University of Westminster (London) and a degree in Architecture from Mumbai University. She has recently completed an Advanced Management Program in Infrastructure from the Indian School of Business.

Pedro B. Ortiz

Senior Fellow, NYU Marron Institute of Urban Management, United States of America

Mr. Pedro B. Ortiz is an international consultant for Metropolitan Management and Planning. He primarily consults for International Government Organisations such as the United Nations, the World Bank, the Inter-American Development Bank, Confederación Andina de Fomento and others. He advises national and local governments in many countries as well consulting firms. Ortiz was the General Director for Metropolitan Planning and Management of the Madrid Region (with the Madrid Government) and Deputy Mayor of Madrid, where he was in-charge of Strategic and Regional Planning. As Deputy Mayor and Director General, he produced the Strategic Plan 1994 for Madrid, and the Metropolitan Plan 2016 for the Madrid Region. Pedro has also been a staff member of the World Bank's Urban Department in its Washington DC Headquarters. Under its auspices, he was involved in projects in Romania, Kenya, Ethiopia, Nigeria, Rwanda, Liberia and Mauritius.

14:00-15:30 | Making Governance and Institutional Frameworks Effective

Srikant Viswanathan

CEO, Janaagraha, India (Moderator)

Mr. Srikant is one of India's leading practitioners of city governance reforms and municipal finance, particularly on the application of systems thinking to reform agendas in cities. In his current role, he is responsible for all aspects of strategy and execution of Janaagraha's programs across civic learning, civic participation and city-systems reforms. He works closely with the senior leadership in central and state governments (Minister / Secretary to Government) to shape and implement long-term reforms to city governance. He has been a member of the NITI Aayog's (Government of India's think-tank) expert group on urban governance, and a member of the Committee on Accounting Standards for Local Bodies of the Institute of Chartered Accountants of India for over four years. He has been an Associate member of the Institute of Chartered Accountants of India for over fifteen years and prior to joining Janaagraha worked in banking (Standard Chartered Bank) and audit (KPMG).

Dr. Barsha Poricha

Deputy Technical Cell Head, Centre for Urban and Regional Excellence, India

Dr. Barsha Poricha is an Urban and Regional Planner from CEPT University, Ahmedabad, with a PhD in Human Ecology from Ambedkar University, Delhi. Over the last two decades, she has been working on issues of civil society engagement and human development and her work particularly has been around engaging, developing and designing inclusive and participatory planning and development mechanisms within governance processes. She also works on issues of gender, youth development and capacity building to influence and deepen policy discourse and strengthen people engagement in the urban sector.

Prof. Chetan Vaidya

Senior National Urban Advisor, Kochi Sustainable & Smart City Project, India

Prof. Chetan Vaidya is an Architect-Planner with over 30-year experience. He was Director of the School of Planning and Architecture (SPA) New Delhi during 2012-17 and was also Director of National Institute of Urban Affairs (NIUA) during 2008-12. He was part-time Independent Director of Housing and Urban Development Corporation (HUDCO) (2016-19) and is Chairman of Planning Education Board of All India Council of Technical Education (AICTE). Presently, he is Senior National Urban Advisor Kochi Smart City supported by GIZ. Prof. Vaidya has wide academic, research and consultancy experience in architecture and planning sector.

Matthias Nohn

Independent Urban Economist & Development Planner, Germany

Mr. Mattias Nohn is an urban economist and development planner with 17 years of progressively responsible work experience across over 30 countries, including projects funded by the World Bank, UN, Cities Alliance, GIZ/KfW, DFID, SIDA, Norway, European Commission, Gates Foundation, private sector, academia and think tanks. His work focuses on housing, land, infrastructure, transportation and employment conundrum during rapid urbanisation.

Michael Ochieng

Chief Engineer, Ministry of Transport, Infrastructure, Housing and Urban Development and Public works, Government of Kenya

Mr. Michael Ochieng is currently the Chief Engineer in the Ministry of Transport, Infrastructure, Housing and Urban Development and Public works working under State Department of Housing and Urban Development. He holds a B.Sc in Civil Engineering from the University of Nairobi and Masters in Business Administration from Matriarch School of Management & ESAMI. He also has a Post Graduate Diploma and Certificates in Construction Management, Finance Management. He had served as the Managing Director (CEO) of National Water Conservation and Pipeline corporation, Chief Executive officer of Lake Victoria Services Board, Director/Chief Engineer in the Ministry of Water and Sanitation.

Prof. Reto Steiner, PhD

Dean, ZHAW School of Management and Law, Switzerland

Dr. Reto Steiner is an academic, who has held important leadership and strategic leadership positions in the world of higher education. Currently, he is the Managing Director and Professor at the ZHAW School of Management and Law in Zurich. Besides being an academic, he holds a keen interest in research and advice related to organisational structures of public institutions (e.g. Public Corporate Governance, Regional Governance, Public Management, and Education Management). He has also been intricately involved in strategic roles of higher education including President of the Board of Directors at the NMS Bern, Vice President of the Board of Directors of Bern University of Applied Sciences and various academic teaching positions across universities spanning Europe and Asia.

Dr. T.K. Sreedevi, IAS

Commissioner & Director of Municipal Administration, Govt. of Telangana, India

Dr. T.K. Sreedevi is serving as the Director, Municipal Administration, in Telangana. She has rich experience in Public Administration including Land Administration, Weaker Section Finance Development Corporation, Environment and Watershed Programme, Participatory Research and Development, Disaster Mitigation, Rehabilitation and Resettlement, Taxation and Municipal Administration. She has worked with the Department for International Development (DFID), UK as Additional Programme Coordinator, Andhra Pradesh Rural Livelihoods Programme (APRLP) and as Senior Scientist at International Crops Research Institute for the Semi-Arid Tropics (ICRISAT). She has a wide range of exposure to work with various UN Organizations and International NGOs. Presently, asCommissioner and Director and Mission Director for Mission for Eradication of Poverty in Municipal Areas (MEPMA), she has a mandate to bring efficiency in Governance and nurture the Urban Local Bodies to become Growth Engines for development and realisationof the Vision of "BANGARU TELANGANA".

Uma Adusumulli

Chief Planner, Mumbai Metropolitan Region Development Authority, India

Since 2004, Ms. Uma Adusumilli has headed the regional planning division of Mumbai Metropolitan Region Development Authority (MMRDA), with a remit of regional planning & development, financing and coordination. She worked from 1989 to 2004 as an urban planner with the City and Industrial Development Corporation of Maharashtra Ltd. (CIDCO), a new town planning and development agency of the Govt. of Maharashtra. Ms Adusumilli represented India in the International Comparative Research projects supported by DFID and the Inter-American Development Bank between 1995 and 2004 on housing for the low income groups with emphasis on land supply, regulatory framework and partnerships. She has also published and presented papers at many urban development and management forums. Ms. Adusumilli gained an M.Sc.in Urban Housing Management from the Institute for Housing and Urban Development Studies, Rotterdam, The Netherlands and the Lund University of Sweden, 2003, a Master of Planning with specialisation in Housing from the School of Planning and Architecture, New Delhi, 1987 and a Bachelor of Architecture (B.Arch) from the College of Fine Arts & Architecture, Jawaharlal Nehru Technological University, Hyderabad, India, 1985.

16:00-17:30 | Spatial Analytics and eGovernance (Parallel Session)

Dr. Antarin Chakraborty

Technical Expert, SUD-SC, GIZ India (Moderator)

Dr. Chakrabarty is a city planner, researcher and open-source GIS enthusiast. He received his PhD from the Norwegian University of Science and Technology and has focused on issues of participatory planning, urban poverty, neoliberal urbanisation and decentralisation of planning processes. He believes in the spatial empowerment of communities and structures of urban local governance using open source software and database. He has extensive experience of working with government agencies, private sector companies, non-governmental organisations and academia in diverse countries and cultural contexts. He was responsible for shaping and coordinating graduate programs in architecture and urban planning at the Ethiopian Institute of Technology in Mekelle, Ethiopia. As a technical expert for the Department of Housing and Urban Development, Government of Odisha, he was involved in the shaping and monitoring of the technical aspects of the Odisha Land Rights to Slum Dwellers initiative. He has published in academic journals on the themes of neoliberal urbanisation, slum upgrading, and the contradictions of the Smart Cities mission in India. Antarin currently works as Technical Expert, GIZ in Bhubaneswar.

Abhijit More

Lead Urban Planner, Jacobs, India

Mr. Abhijit More is an Urban Planner and an Architect with more than 15 years of experience in planning, urban design and architecture. Abhijit has worked on large scale master plans and regional and development plans for public and private clients apart from architecture and urban design work. Abhijit has master's degree in Urban Design from Oxford Brookes University following which he started working for CH2M's Mumbai office. Abhijit has worked on development and regional planning projects, such as Nagpur Metropolitan Development Plan spread over an area of about 3,500 sq.km and IT investment Region in Punjab, India spread over 40 sq.km. He has led projects like Samruddhi Sarovar as part of GIFT City in Gandhinagar as a project manager. He has also led several mid-scale tourism and industrial master plans. Currently he is part of the PMNC team that is manifesting DMICDC's first node in Maharashtra – Auric Shendra Bidkin Industrial Area. Abhijit is a Subject Matter Expert for the master planning of Auric, spread over 40 sq.km. At Auric, Abhijit has led efforts of landscape design, architecture for the award winning Auric City Hall building and some of the best in class e-governance efforts.

Ashwani Rawat

Co-founder, Transerve, India

Mr. Ashwani co-founded Transerve with a vision to leverage spatial technology in urban sector in India. He studied civil engineering at IIT Kanpur and had a brief stint at Trimble Navigation, a global American geospatial solutions company. His specialisation lies in building spatially-enabled solutions for cities, geospatial analytics and machine learning. Ashwani has been championing building technology solutions around property tax, urban planning and smart cities. At Transerve, Ashwani continues to engage with state governments on data-driven policy making powered by location intelligence.

Prof. Bugya István Titusz

Assistant Professor, Institute of Geography and Earth Sciences, University of Pecs, Hungary

Prof. Titusz Bugya's expertise encompasses subjects such as geography, urban planning, spatial informatics, Linux operating system, open source GIS, and python programming. As an educator, he has taught courses on digital cartography, UNIX/LINUX, statistics and urban and regional planning. He has also edited academic journals, written books and published extensively on geographic information systems and spatial informatics in international peer-reviewed journals. A believer in the goal of empowering communities by spreading awareness of open source digital tools, GIS platforms and free software, he has taught graduate courses in urban planning and geo-informatics in Ethiopia. Prof. Bugya is currently associated with the City Science Lab at HafenCity University, Hamburg.

Krishnakumar Thiagarajan

Vice President, Partnerships and Delivery eGovernments Foundation, India

Mr. Krishnakumar is focused on creating and deploying solutions seeking profound outcomes in urban governance, effectiveness of citizen services and governance. He has 22 years of experience spanning leadership roles in Tech Mahindra where he spearheaded new practises in the company. He began his career as a strategy consultant. He is a Six Sigma Black Belt and holds an MBA from SP Jain University.

Rejeet Mathews

Head – Urban Development
World Resources Institute, India

Ms. Rejeet Mathews is the Head of Urban Development at WRI India Ross Center for Sustainable Cities. Her current work revolves around the integration of land use and transport, sector design, alternative mechanisms to acquire, plan and service land, city master plans, strategic spatial plans, capacity building trainings, revision of town and country planning acts, and understanding the trend, nature and impact of urbanisation in India. She has provided technical assistance to agencies in Bangalore, Mumbai, Naya Raipur, Hubli Dharwad and Ahmedabad and is currently assisting the Ministry of Housing and Urban Affairs. She has provided technical inputs to various reports, guidelines and policies anchored by city, state and national governments in India. Rejeet has, prior to WRI, held key responsibilities on projects that range in scale from metropolitan region plans, city master plans, detailed project reports, feasibility studies, urban design, micro level plans and architecture. She has worked largely in the Indian sub-continent (including Sri Lanka and Pakistan) with further project related experience in countries such as France and Libya. Rejeet has a Bachelor's degree in Architecture from the M S Ramaiah Institute of Technology, Bangalore and a Master's degree in Urban Design from CEPT University, Ahmedabad.

16:00-17:30 | Place-based Evaluation of Integrated Spatial Planning (Parallel Workshop)

09:00-11:00 | Climate Action: Taking Bold Spatial Leaps

Prof. Ernest Alexander

Professor Emeritus of Urban Planning

University of Wisconsin, USA

Prof. Ernest Alexander, a PhD, AICP has had important contributions on projects including Milwaukee Metropolitan Sewerage District Organizational Study (1977) with the State of Wisconsin as the client, Development of an Entitlement Formula for Capital Budget Allocations to Local Governments in Israel (1978), Tel-Aviv District Development Policy: Evaluation of alternative schematic development plans (2001), Israel National Outline Plan (NOP 35) Evaluation of alternative schematic development plans (2003). He holds several degrees including a MCP, AICP, a PhD and a bachelor's in architecture.

Jeenal Sawla

Independent cities and urbanisation specialist, USA/ India

Jeenal works at the intersection of strategy with urban planning-design, community-economic development, and ecology through the lens of resilience. Most recently she worked in consulting at Dalberg, advising clients like 100 Resilient Cities, pioneered by the Rockefeller Foundation, The Bernard Van Leer Foundation, and State Governments in India. Here, she led the City Resilience Strategy for Pune. Previously, Jeenal worked in urban planning in the United States, set up a 'Social Capital Credits' program in low-income communities in the capital region of Costa Rica, worked on master-planning and design projects in Switzerland and India, including 'Re-imagining Dharavi'. She was on the engagement advisory board of Envision Cambridge Plan (USA) and was a design critic at Kamla Raheja Institute of Architecture in Mumbai. Jeenal holds a Bachelor of Architecture from Mumbai University with a national award for graduating thesis and a Master of Urban Planning from Harvard University.

Sanjay Sridhar

Regional Director, South and West Asia, C40 Cities, India (Moderator)

Mr. Sanjay Sridhar is the C40 Regional Director for South and West Asia. He is responsible for facilitating cities in the region to participate in the exchange of best practices to reduce the sources and their impact of climate change. Sanjay has more than 16 years of work experience in 3 continents (North America, Europe and Asia) in areas of architecture, urban development and planning, sustainable design and public policy. Prior to joining C40, Sanjay was with the World Resources Institute (WRI) as the Director of Urban Development for India. He also established WRI's regional office in Bangalore from where, as the Country Lead for the Sustainable and Livable Cities Project, he laid the foundation for WRI's flagship programme, the Steve Ross Center for Sustainable Cities. Prior to joining WRI, he held several roles as a member of the Core Group at the National Disaster Management Authority, Govt of India and as Adjunct Faculty at the Centre for Environmental Planning and Technology (CEPT University, Ahmedabad) where he continues to teach Urban Development Planning and Public Policy. He also led a group at CEPT University's Center for Conservation Cities (CCS) looking at urban development in historical cities in India. Sanjay has a bachelor's degree in Architecture from Bangalore University in India; a LEED Accredited Professional (AP) from the US Green Building Council; a master's degree in Urban Development Planning and Policy from Erasmus University in the Netherlands and has also studied Urban Affairs and Public Policy at the University of Delaware, US.

Anil Gupta

Principal Investigator, DST-GOI Project Climate Adaptive Planning for Resilience & Sustainability, India

Mr. Anil Gupta is a resilience and sustainable development professional with 27 years of experience in institution building, networking, programme management in climate change work. In the past, he headed Environment and

Climate Risk Division, International Cooperation, IUCN CEM Core Group Member for South Asia, was the Nodal Officer for DRM Central Scheme for Gujarat & Arunachal Pradesh, Director - ekDRM GIZ, Director - Drought Research Programme, Coordinator - Urban Flood Studies, Theme Leader - Climate Resilient & Adaptation for Coastal DRM, Co-PI - Integrating CCA DRR in Planning, Coordinator - Mainstreaming DRR into Sectors, Recovery Framework, and Nodal Officer for Ministries - Environment Forest & Climate Change, S&T, Agriculture & Farmers Welfare

Jannick Schwender

Urban Practitioner in Green Energy Urbanism, Germany

Mr. Jannick Schwender works as a Project Manager at the Department for Planning and Construction of the City of Heide (Northern Germany). Since 2018, he is responsible for coordinating and implementing the national landmark project QUARREE100 within the scope of the municipal administration, focusing on urban land use planning, public participation and business development. QUARREE100 is a research project that analyses and develops integrated and climate-neutral energy supply systems for urban districts, funded by the German Federal Ministry for Economic Affairs and Energy and the Federal Ministry of Education and Research. Holding a BA in European Studies (Maastricht University, The Netherlands) and an MA in Journalism and Communication Studies (University of Hamburg, Germany), Jannick Schwender worked as a journalist for various years and specialised in the field of public service communication, civic participation and citizen-centred urban and regional planning. As part of his Masters' of Public Administration (University of Kassel, Germany), Mr. Schwender conducted extensive field research in cooperation with GIZ India, analysing e-governance policies and online planning tools for national, state and municipal levels.

Katrin Bruebach

Director, Urban Water and Sanitation Solution, 100 Resilient Cities, United Kingdom

Ms. Katrin holds the position of Director for Water and Sanitation Solutions at the Resilient Cities Network pioneered by the Rockefeller Foundation. As a Global Lead for Urban Water and Sanitation, she provides guidance and thought leadership on all things related to urban water and waste systems, including scanning and identifying relevant solutions, tools, funding sources, service providers and other potential partners who can bring value to the resilient cities network. In this position, she has provided technical support and subject matter expertise to a selected number of cities incl. Cape Town, Addis Ababa, Lagos, Paynesville, Jakarta, Chennai and Surat. She was also part of an expert team that supported the establishment of the Resilient Puerto Rico Advisory Commission, a collaborative effort led by Puerto Rico's philanthropic, business, government, and NGO sectors to rebuild an island that is physically, socially and economically resilient for the future. She has spent 15 years developing capacities of organisations and building partnerships to produce lasting and meaningful results in improving water supply and sanitation service provision in developing countries across Africa and the Middle East. Katrin is fluent in German and English and holds an advanced degree in Civil Engineering from the University of Hannover, Germany.

Prof. Malani Herath

Professor, University of Moratuwa, Sri Lanka

Ms. Malani Herath is a professor at the Department of Town and Country Planning, University of Moratua, Sri Lanka. Her areas of expertise include environment planning and disaster management among other things. She has held various research positions in the Department of Civil Engineering and Department of Town and Country Planning at the national level. She holds a PhD in Civil Engineering from the University of Moratua. Further she has training in technology in planning and botany at the master's and undergraduate level respectively.

Dr. Ninik Suhartini

Head of Research on Infrastructure and Urban Utilities,

Jayapora Planning Board, Indonesia

Dr. Ninik Suhartini is a qualified urban and regional planner, lecturer and researcher. Ninik has acquired 15 years of professional experience while pursuing academic interests. Ninik has been actively involved in teaching activities at the School of Architecture, Design and Planning, University of Sydney, Australia. Through her academic work (teaching and research), Ninik is now an internationally-acclaimed academic and her studio teaching work with ITB and Sydney University was globally recognised by UN-Habitat in 2016 being ranked among 150 world urban solutions by the World Urban Campaign. As a researcher, Ninik is increasingly recognized globally by her involvement in the preparation of UCLG GOLD-ASPAC V Report 2019 and reviewing papers for the CLGF Journal and Journal of Regional and City Planning. Ninik's recent international publications, including Urban Governance and Informal Settlements: Lessons from the City of Jayapura, Indonesia published by Springer in early 2019, The Form of the Informal published by ITB Press 2018, and Ninik' s contribution in Paul Jones's publications published by the ADB and ITB Press in 2016-2019.

Olga Chepelianskaia

Founder & Principal Consultant

UNICITI, India/Europe

Ms. Olga Chepelianskaia is an international sustainability expert and Founder of UNICITI. She specialises in sustainable and climate resilient urban development in Asian cities, natural ecosystems and heritage revival, climate finance and clean energy. In over 15 years of her professional engagement, she managed 5 major international programs, covered over 20 cities and 40 countries, and worked with 7 leading international institutions: ADB, CDIA, Rockefeller Foundation, UNDP, UNECE, UNEP and UNESCAP. Her technical expertise covers climate resilience and DRR, integrated urban planning and urban design, heritage revival and valorisation of cultural and natural assets, sustainable tourism and placemaking, urban infrastructure services and climate finance.

Sarfaraz Momin

Co-founder, Studio POD-People Oriented Design, India

Mr. Sarfaraz Momin is the co-founder of Studio-POD. Sarfaraz specialises in balancing landscape design with detailed land use programme development in community master plans. Sarfaraz has been part of several urban design and master planning projects like Open Space Master Plan for Gurgaon, Industrial Master Plans, Development plans for Smart Villages in Rajasthan, Public outreach program for development of Port Lands in Mumbai, and award-winning master plan for Masdar City Phase 2 in Abu Dhabi, UAE. Sarfaraz graduated from University of Michigan (Master of Urban Design degree) and Sir JJ College of Architecture, Mumbai (B.Arch.). Sarfaraz has been a member of the Technical Expert team to United States Trade and Development Authority (USTDA), as one component of a multi-part effort to support the development of three smart cities in Andhra Pradesh, Uttar Pradesh and Rajasthan.

Suke Yao

Secondary Landscape Designer, Turenscape, China

Ms. Suke Yao is a secondary landscape designer at Turenscape, where she is currently working on the landscape planning and design of Fengjie Caotang Lake, Chongqing Province and several other projects. She believes in the power of landscape design in creating balance between humans and nature, in a way bringing natural resiliency into urban space and celebrating the cultural and artistic characteristics of a site as well. Prior to joining Turenscape, she gained her professional experiences from internships in Professor Xianfeng Li Studio in CAU, THUPDI, and Turenscape. She received her BLA from China Agricultural University and MLA from University of Illinois at Urbana-Champaign.

Hexing Chang

Landscape Designer, Turenscape, China

As a landscape designer working at Turenscape, Mr. Hexing Chang is committed to exploring multi-scale ecological infrastructure planning and design as a form and structure for urban areas. He is responsible for constructing the ecological security patterns of the region or city and its ecological infrastructure planning. In addition, his research area includes landscape urbanism, designed ecology, urban-scale sponge-city planning, and micro-scale stormwater calculation and management.

Aparna Das
Senior Advisor, SUD-SC, GIZ India (Moderator)

Ms. Aparna Das got trained as an architect and later received a Master of Science degree in Urban Development Planning from Development Planning Unit, University College London. She was also a Special Program for Urban and Regional Studies (SPURS) Fellow at the Massachusetts Institute of Technology (MIT), USA, during 2018-19. At present, she is working as a Senior Advisor as part of the Sustainable Urban Development- Smart Cities (SUD-SC) project at GIZ. She is working with the line ministries of Government of India at the central, state and local level to implement various housing and urban development programmes. Spanning almost twenty years of her career, she has worked with different sector partners; national and international NGOs and other multi and bilateral agencies such as The World Bank, UNICEF, UNDP, DFID India. Internationally she has worked in Cairo, Egypt and Bangladesh. In recent years, she has been focusing on the contestations over land in urban areas and equity concerns in cities.

Dr. Angelique Chettiparambil Rajan
Professor, Henley Business School
University of Reading, United Kingdom

Dr. Angelique Chettiparambil Rajan, an academic for 24 years now, currently works as the professor of Urban Planning and Governance. She holds several other important posts, including Secretary General (2019-23): Association of European Planning Schools, External Examiner: MA International Planning and Sustainable Development, University of Westminster, UK (April 2018-22), Managing Editor, Planning Theory, (since January 2015); Editor (December 2014 onwards); Editorial Board member (January 2010 onwards), and Co-book Series Editor, Elgar Research Agendas in Spatial Interventions; Edward Elgar Publications (since April, 2016). She holds a PhD from the School of Planning and Geography, Cardiff University, UK and is trained in urban design, environmental management and architecture at the master's and undergraduate level, respectively.

Dr. Himanshu Parikh
Professor, Cambridge University & University College London, United Kingdom

Dr. Himanshu Parikh studied Engineering Sciences at the Cambridge University and practised in the UK for ten years before moving to India in 1982. In India, he has done innovative work in structural engineering as well as in urban planning, environmental upgradation and infrastructure design. He has also been actively involved in academics, in India as an Adjunct Professor at the School of Planning, CEPT University and currently teaching intermittently at Cambridge University and University College London in development studies. Dr. Parikh has also held various positions outside his practice, including member of Planning Commission group on poverty alleviation and member of the Governing Council of Department of Science and Technology, India. He has received several awards including the SOM Fazlur Khan Fellowship for excellence in structural design, the United Nations World Habitat Award for Urban Development, Aga Khan Award for Architecture and a Citation by Government of India.

Shubhagato Dasgupta
Senior Fellow, Centre for Policy Research (CPR), India

Mr. Shubhagato Dasgupta is a Senior Fellow at CPR and Director of the Scaling City Institutions for India (Sci-Fi) Sanitation initiative. His current research focuses on drinking water and sanitation in India and the world, with reference to flagship government programs and service delivery challenges in smaller cities. Prior to this, he has led the Support to National Policies for Urban Poverty Reduction project, a collaboration between the UK's Department for International Development and India's Ministry of Housing and Urban Poverty Alleviation to develop pro-poor urban policies in 20 cities across 15 states. He has also worked with a wide range of public, private, multi-lateral, and NGOs, including the World Bank, Infrastructure Development Finance Company (IDFC), the Housing and Urban Development Corporation (HUDCO) and the Action Research Unit. Shubhagato Dasgupta was trained as an architect at CEPT, Ahmedabad, and holds an MSc in housing and development planning from the Development Planning Unit of the University College London. He is also currently undertaking a PhD at the Centre for Urban Studies at the University of Amsterdam.

Dr. Reinhard Skinner

Team Leader, GIZ SUD–SC Technical Cooperation, India

Dr. Reinhard Skinner is an international expert in urban infrastructure and governance. He has a PhD in Sociology from Cambridge University and over 40 years of professional experience including more than 10 years in managing complex projects and programs with intercultural and multi-disciplinary teams including Asia. Dr. Skinner has significant professional experience with relevant state institutions and municipalities in India and other parts of Asia. In India, for example, he carried out slum upgrading appraisals in the cities of Hyderabad, Visakhapatnam and Vijayawada as part of central government policy. This included housing improvement and the provision or upgrading of basic urban services. He also led a two-year mission in Myanmar to strengthen institutional and operational capacities in six cities in eight key areas of municipal management including strategic urban planning, financing for urban development, environmental safeguards, planning of urban infrastructure investments, procurement and operation and maintenance. He was commissioned by UN-Habitat to write a manual on citywide slum upgrading as well as by the World Bank to produce e-training materials on the planning and sustainability of slum upgrading.

Shishir Dash

Lead – Habitat, Government of Odisha–Tata Trusts, India

Mr. Shishir Dash is leading the Urban Habitat Programmes of Tata Trusts in different states. He and his team provide technical support for strategic planning, quality implementation, and progress tracking of the projects on sustainable habitat issues. Mr. Dash graduated in Economics and Business Administration, has more than 20 years of experience in the field of social development. He has experience of leading multi-thematic teams in the field of livelihood development, water and sanitation, disaster management and policy & advocacy. As a part of his present assignment of Urban Habitat Improvement, he is leading the Odisha Land Rights and Liveable Habitat Project of Tata Trusts. He is closely working with urban poor and local groups for improving basic services in the informal settlements. Through his work in urban space, he has demonstrated innovative ideas to bring changes in the life and livelihoods of the people living in the slum communities.

14:00-15:30 | Inclusive Localism: Building Strong, Informed and Engaged Communities

Sanskriti Menon

Senior Programme Director, Centre for Environment Education (CEE), India (Moderator)

Ms. Sanskriti Menon is Senior Programme Director, CEE, leading the CEE Urban Programme, and the CEE Coasts & Marine Programme. CEE is a national institute set up in 1984 as a centre of excellence of the Ministry of Environment Forest and Climate Change. Sanskriti leads a team of about 30 at the CEE offices in Goa, Chhattisgarh, MP and Maharashtra for school-based environmental education, education for biodiversity conservation, urban issues like transportation and waste, and participatory governance. She has been the Convenor of the Board of Studies of Environment Education of the Maharashtra HSC Board. Projects she has led include public engagement for a bus rapid transit system, for preparation of a bicycle plan, initiating and anchoring a network of NGOs on sustainable mobility, setting up a citizenship and environment education centre as a public facility, a nature education centre, arranging public consultations for a master plan and for policy formulation, etc. Sanskriti has an MSc in Museum Studies and an MA in Sustainable Development. She is currently a doctoral candidate in the area of participatory democracy with Curtin University, Perth.

Bharath Visweswariah

Director of Investments, Omidyar Network, India

Bharath leads strategy and investments in Governance & Citizen Engagement at Omidyar Network India. He began his career as a management consultant with Booz & Company and McKinsey & Company. He then worked at the Corporate Executive Board (CEB) in their Washington DC and New Delhi offices. In this role, he was responsible for setting up and leading CEB's Indian business and for leading CEB's research across Asia. Bharath then served as the inaugural Executive Director of the University of Chicago's research center in India and identified avenues for the university to expand its presence in the country, including creating a fellowship program in partnership with Indian State and Central Governments. Bharath earned an MBA from IIM Calcutta and a B. Tech from IIT Madras.

Somesh Tiwari
Chief Operating Officer, SEWA Grih Rin Ltd., India

Mr. Somesh has an experience of 18 years in both products and services, in different sectors of durables, automobiles, banking and finance. He has an extensive experience in mortgages in the affordable housing sector, the HNI segment of customers, micro-housing loans, and rural housing finance. Somesh has gathered an expertise in managing key business activities of sales and marketing as well as credit and operations. He has also been instrumental in liaising with a large number of external stakeholders on behalf of his respective organization to boost business. Throughout his career, he has assimilated a rich body of experience by working with organizations like LML ltd., LG electronics Inc., ICICI Bank Ltd. and India Shelter Finance Corporation Ltd. Somesh has an LLB and an MBA.

Viraj Tyagi
CEO, eGovernments Foundation, India

Mr. Viraj Tyagi is the CEO of eGovernments Foundation. He is passionate about solving hard-to-crack problems in India by using technology and analytics at a massive scale. Viraj is an entrepreneur and seasoned payments executive with wide ranging experience in building large businesses in Europe and India. This includes stints as Head of Payment Card business for American Express in UK and for Standard Chartered Bank in India. Viraj was the CEO and co-founder of 'NettPositive' – one of the first Big Data and Analytics companies in India. He is an active investor in start-ups and a mentor to entrepreneurs. He is an alumnus of Indian Institute of Management – Bangalore (IIM-B) and Indian Institute of Technology (IIT-BHU).

Jacob Easow
Secretary, Society for Our Space, Trivandrum, India

Mr. Easow is the Secretary of the Society for 'Our Space'. Formerly, he was the Additional Chief Town Planner, Department of Town and Country Planning, Government of Kerala. He is a graduate in Civil Engineering from Government Engineering College, Thrissur, Kerala and obtained Master of Urban and Regional Planning from the School of Planning and Architecture, New Delhi. He served Government of Kerala for 29 years in various capacities like District Town Planner (13 years), Secretary Development Authorities, Secretary District Tourism Promotion Council, Senior Town Planner, Additional Chief Town Planner, etc. He took the initiative to design an innovative methodology for local and district planning (Local Development Plan and Integrated District Development Plan) in line with the 73rd and 74the Constitution Amendment of India and piloted the Kollam District Plan, a model that was later replicated in 4 more districts in Kerala. He formulated a scheme for preparation of Development Plan for all towns in Kerala. Nearly 25 developments plans were completed under the scheme in a short span of two and half years.

Rohit Kumar
Co-founder, Young Leaders for Active Citizenship, India

Mr. Rohit is the co-founder of Young Leaders for Active Citizenship (YLAC), an organisation that works to increase the participation of young people in the democratic process and build their capacity to lead change. YLAC currently runs programs in different cities in India and Nepal, in addition to undertaking projects in civic engagement and public policy. He is also the founding partner at TQH Consulting, a public policy consulting firm that works with civil society, governments and businesses to further evidence based research and policy advocacy. Before shifting to policy, he was a strategy consultant with the Boston Consulting Group (BCG) at their Mumbai office. Rohit is a 2013 IPRYLI (India-Pakistan Regional Young Leaders Initiative) fellow with the Asia Society and a graduate of the Harvard Kennedy School and IIT Bombay.