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## BRICS cities require smart policy solutions

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Urban governance in BRICS countries will require different policy solutions because of differing circumstances.



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Knowledge exchange on smart cities can help in developing a better understanding of the concept and arriving at smart solutions which are urgently needed to address the urbanisation challenge in BRICS countries.

Many countries, including all the BRICS countries, are experiencing growth in their city and urban populations, and are seeing a great ascendance of urban centers due to numerous economic benefits. Simultaneously, social and economic inequalities of various kinds, feelings of insecurity, and deteriorating environmental conditions are all commonly observed concerns in large number of cities, including Rio, Moscow, Cape Town, Shanghai, etc. Thus, the idea of transforming existing cities into smart cities is increasingly gaining momentum, which is observed from the initiatives taken in BRICS countries and others.

On August 17 to 19, 2016, during the BRICS Smart Cities Conference in Jaipur, co-organised by Observer Research Foundation the Ministry of External Affairs of India and the Sardar Patel University of Police, Security and Criminal Justice, an interdisciplinary group of professionals from the government, education and research institutions, think tanks, civil society and the private sector were brought together to exchange knowledge on smart cities, identify solutions for transforming existing cities into smart cities, explore topics of mutual interest, and promote institutional collaboration for achieving mutual goals.

The conference was inaugurated by Manoj Bhatt, Director General of Police, Rajasthan. In his keynote address, Bhatt stated that all the smart city initiatives should ultimately aim at one thing: increasing the happiness coefficient of the individual. The inaugural address was followed by the session on '*designing smart cities*', which included speakers such as Ashok Malik, Observer Research Foundation, India; Bernardo Alves Furtado, Institute for Applied Economic Research (IPEA), Brazil; Vladimir Korovkin, SKOLKOVO Institute for Emerging Markets Studies, Russia; Li Yang, Shanghai International Studies University, China; and Rumi Aijaz, Observer Research Foundation, India.

Discussing the topic of designing smart cities as innovative, inclusive, and sustainable urban centers, speakers deliberated the role of technology in assessing the urban demographic and using big data to craft policy solutions for urban governance. Smart city building requires the participation of smart citizens who actively participate in governance and reforms, so the increased use of information technology, especially mobile tools, must be treated as a core infrastructure need. Informatisation and intelligentisation of all aspects of the criminal justice system, such as management of police databases and communications between the various police departments, courts, and prisons should also be included on the smart city agenda as it will ensure greater efficiency, transparency, credibility, and reliability.

Smart cities can be governed more effectively through the use of innovative, agent-based modelling to foster urban analysis and evaluate policies prior to their implementation. Using this methodology, cities can test how the implementation of certain policies will affect their GINI coefficient, GDP per capita, etc., for a chosen period of time. Urban governance in BRICS countries will require different policy solutions because of differing circumstances. For example, unlike in India and China, digital development in Russia is concentrated in Moscow which results in loss of network opportunities in the rest of the country. India's cities have their own challenges originating from overpopulation in urban areas and failure of civic agencies to provide adequate urban governance. Thus, it is important that policy makers are mindful of the different circumstances between BRICS cities.

Conference proceedings on August 18 commenced with session two on 'smart governance', which included deliberations on public engagement in governance. The discussions centered

on designing an urban collective through technological platforms that allow digital communities to replace town hall meetings, and community gatherings, to offer governance recommendations more effectively. Speakers also discussed the role of sentient technologies and artificial intelligence platforms in enabling a customised, user-friendly approach to smart cities through the development of responsive feedback mechanisms for e-governance and public delivery channels.

Speakers included, Shaleen Singhal, TERI University, India; Bárbara Oliveira Marguti, Directorate of Studies — Regional, Urban and Environmental Policies, Brazil; Kedibone Phago, University of Limpopo, South Africa; Alexey Parnyakov, Far-Eastern Federal University, Russia; and Ning Jiajun, National Information Centre, China.

Discussing participatory approaches through community-led digital transformations, some speakers agreed that interlinked aspects, such as modelling public engagement for a specific local context, access to technological tools, the costs (setting, maintaining and using), and managing information are the necessary ingredients of maintaining a user-friendly approach to smart governance. Despite benefits of technological integration, digital communities need not replace the traditional methods of town halls and community gatherings, since they offer value in the necessary human interaction which needs to be maintained within this technological revolution. Subsequent presentations discussed initiatives in developing technology platforms that provide a channel for direct interaction and social participation. In the case of Brazil, the initiative has demonstrated the advantages of user-friendly, transparent publicity of government information and the potential of opening space, through virtual tools, for participation and interaction of civil society in building guidelines for urban development projects.

Session three on 'sharing urban planning learning and experience' included deliberations on urban planning experiences in BRICS countries and the means by which these can be adopted according to country needs. The session's speakers were Simphiwe Mini, College of Agriculture and Environmental Science, South Africa; Xu Zhengqiang, Ministry of Housing, Urban and Rural Development of China, China; Ana Paula Bruno, Federal Government of Brazil, Brazil; and Asmita Bhardwaj, Ansal University, India.

Discussing the experiences of smart city building in China, recommendations were developed for India and other BRICS countries to build smart cities more effectively, including focusing on cross-border multidisciplinary integration, ensuring smart cities are able to engage in self-perception and self-correction, and promoting constructive cooperation between China and India. Subsequently, speakers deliberated on the lessons learned from smart city building in Brazil, where emphasis was laid on the need to integrate urban policies under a clear, sustainable urban development territorial strategy, as well as integrate technology to support the overcoming of urban problems.

Deliberating similarities between BRICS countries, some speakers mentioned fluctuating political climates in terms of liberalisation, privatisation, and greater urbanisation, with problems like infrastructure and housing deficits, greater devolution of power to local governments and city governments, and a greater foray of multiple actors. Addressing these challenges will require the integration of land use and transportation/transit systems; mixing of public private partnership (PPP) in service provision; PPP legislations at the municipal level; designing intelligent transportation systems through measures like real-time data collection for public bus ridership; measuring performance of municipal officials and creating greater accountability systems; using IOT to build a network of monitoring devices and equipment which can, for example, monitor urban drainage systems and transfer all data back

to the central control panel for smart decision making; drive urban renewal through measures like transforming dumps and quarries into parks; create and maintain electronic medical records; and give greater consideration to city size and capacity of city governments, both technically and financially.

The last session on ‘old and new safety and security concerns’ focused on the diverse safety threats confronting BRICS cities and the mechanisms to be developed for ensuring peace, harmony, and security. The session’s speakers were: Rumi Aijaz, Observer Research Foundation, India; Rute Imanishi Rodrigues, Institute for Applied Economic Research (IPEA), Brazil; Kanchan Gandhi, School of Planning and Architecture, India; Rozena Maart, University of Kwa Zulu Natal, South Africa; and Jie Xu, Chinese Academy of Governance, China.

Discussing the role of digital media in police-community relations in Rio de Janeiro, speakers agreed that public security policies in low-income areas should consider the mappings on violence with a bottom-up approach as a first step to decrease the distance between police officers and the residents of these areas. Speakers also acknowledged that poor women are particularly vulnerable in underdeveloped urban areas, so emphasis should be laid on providing women, especially poor women, with safe transport; better video surveillance and lighting; dedicated police services, like a women helpline; and technology based interventions, such as Safetipin app, which provides users with safety information on different parts of urban areas.

Ecological security is also a major concern in BRICS cities. The experience of the resource (coal) exhausted city in China, Jiaozuo, demonstrated the importance of balancing ecological security and economic development, by investing in strategic industries, such as high tech, to promote the development of green technologies, as well as closing or improving polluting firms, and investing in green initiatives like urban forestry and water purification. Cooperation is a second important factor in achieving ecological security, as government needs to cooperate with the general public to ensure effective citizen participation, while local government needs to cooperate with central government to ensure adequate funding and ease of policy implementation. The day concluded with an interactive session with Rohit R. Brandon, Honorary Visiting Professor, IDS Jaipur, India, who stressed the need for participatory governance in all stages of smart city building, from conceptualisation to implementation.

On August 19, conference proceedings started with the fifth session ‘resource mobilisation and capacity building’, in which speakers discussed the challenges of mobilising revenue for implementation of urban development projects and city management, as well as bridging the knowledge-gap among stakeholders about preparing and implementing smart city plans. The session’s speakers included Vishwa Nath Alok, Indian Institute of Public Administration, India; Daniel Ferreira Pereira Gonçalves da Mata, Institute for Applied Economic Research (IPEA), Brazil; Cheri Green, Council for Scientific and Industrial Research, South Africa; Belozarov Andrey Sergeevich, Department of IT of the Moscow Government, Russia; and Chen Jijun, China Architecture Design Group, China.

Discussing the drivers of urban regeneration and human resources, speakers learned from the Brazilian case that funding innovations for urban development projects may not be as effective because human resource deficits in various local governments limits their ability to meet the complexity of non-traditional forms of funding. This creates a disparity between the intention to implement urban development policies that raise funds from the private sector, but require high financial expertise, and the actual implementation which suffers from lack of

qualification. As urban regeneration programs are less likely to occur based on the qualifications of subnational bureaucratic bodies, training of civil servants should be mandated in places where urban development projects are more likely to be implemented. This will help local governments prepare and implement smart city plans that rely on PPPs, bonds, bank loans and other sources of investment, more effectively.

GIS technology and facility provision standards for pro-active planning of social facilities can also be used for supporting smart growth. In South Africa, GIS-based methods have been used to assess and plan provision of social facilities, and to provide input to integrated social facility development plans which enable smart decision making that impacts meaningfully on investment priorities. This approach indicates how past imbalances in service provision to specific communities can be identified and redressed thus significantly supporting the planning and governance processes within cities.

Experiences in human resource mobilisation in Moscow highlight the importance of IT integration in urban governance. Through the use of online platforms, like «Our city» and «Active citizen», the Moscow government is able to mobilise citizens to solve urban problems by providing them with an online referendum system and complaint platform. These undercut the need for Moscow to invest in social surveys and city inspectors, as well as engender citizen loyalty through citizen participation in the city management process. Subsequently, experiences of financial resource mobilisation for urban development in China highlighted the need to establish a market-oriented operation mechanism, nurture full participation of enterprises and social capital, and establish smart city credit rating system.

The concluding thematic session of the conference on ‘technology and public services delivery’ discussed the experiences of BRICS countries in e-governance initiatives relating to financial inclusion and public utilities delivery, as well as fostering innovation by incubating urban governance start-ups focused on public services delivery. The session’s speakers included Arvind Gupta, Digital India Foundation/National Technology Head, BJP, India; Carlos Henrique Ribeiro de Carvalho, Institute for Applied Economic Research (IPEA), Brazil; Alessio Russo, Far Eastern Federal University, Russia; Yifan Yu, Tongji University, China; Akhilesh Mishra, MyGov, India; and Anita Brandon, State Institute of Rural Development, Rajasthan.

Discussing strategies for improving the provision of public services, speakers deliberated on the "Vale-Transporte" (VT) policy, which was implemented in Brazil and has proven to be an efficient way to subsidise urban public transport. The VT policy is easily managed through advanced ticketing technologies and is channelled through employers who subsidise the journey-to-work tickets of their workers. Speakers agreed that the scheme is inadequate as it tends to miss the informal sector, where many of the very poorest are employed. More inclusive forms of technology-enabled public service delivery includes the innovative use of green spaces in urban areas, such using water sensitive urban design, which has proven to offer universal health and well-being benefits, or "ecosystem services," to citizens through exposure to natural elements within a city.

The valedictory session was moderated by Samir Saran, Vice President, Observer Research Foundation. He summarised the important lessons learned during the three-day conference and reiterated the need to address issues related to women’s security, inclusion of deprived communities, and institutional capacity building.

Delivering the opening remarks on behalf of the Ministry of External Affairs, Alok Dimri, Joint Secretary (MER), Ministry of External Affairs, India, highlighted the Prime Minister’s

vision of taking the BRICS initiative to India's states and showcase India's cooperative federalism. He stressed the need for citizen engagement in the BRICS initiative and how this was being achieved by bringing states into the national agenda of BRICS countries.

During the valedictory address, Rajasthan Chief Minister Vasundhara Raje highlighted the need to engage in knowledge exchange and share smart solutions among urban development managers and scholars from the BRICS countries. This will enable us to learn from the innovative urban environmental management practices made in Saint Petersburg in Russia, Rio de Janeiro and Sao Paulo in Brazil, Cape Town and Johannesburg in South Africa, and Shanghai and Beijing in China, and use the lessons their experiences distill to make India's cities better, safer, and more resilient.

**This report is prepared by Ron Shnaidstein, Research Intern, Observer Research Foundation.**

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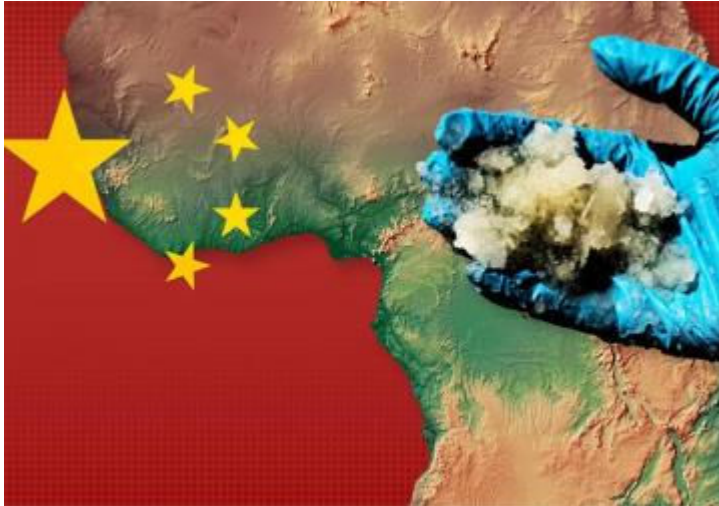
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