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A VERY SHORT POLICY BRIEF

Operationalising Liveability in Indian Cities

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The Australia India Institute's A VERY SHORT POLICY BRIEF series examines key questions facing contemporary India and the Australia-India relationship. It combines in-depth academic analysis with clarity and policy relevance.



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Summary

The Government of India has embarked on an ambitious development program for improving liveability in its rapidly growing cities. Building on urban initiatives of the past two decades, the new emphasis is on establishing partnerships between the national, state, and urban local governments to apply 'smart', or ICT enabled solutions, for driving economic growth, building infrastructure, delivering services, and enhancing the quality of life of residents.

The Victorian Government's *India Strategy* outlines a committed engagement with India at both national and state levels for sharing knowledge and expanding collaborations in the urban liveability sector. The state of Victoria is regarded around the world as one of the most attractive places to live. The city of Melbourne has maintained the first or second place in the rankings of the most liveable cities in world consecutively for more than a decade. The Victorian government has developed unique expertise in promoting and facilitating the liveability sector to deliver high quality projects and beneficial outcomes for city residents.

This policy brief identifies four areas where Victorian expertise can contribute to operationalising liveability in India's expanding cities:

- Functional integration for implementing liveability solutions
- Coordination and support of stakeholders across metropolitan jurisdictions for pan-city projects
- Facilitation and governance of citywide liveability outcomes
- Knowledge sharing for building capacity in urban local bodies and industry to establish PPPs for delivering liveability projects at the metropolitan region scale.

India's Urban Development

India's cities and towns are growing rapidly. The urban population is currently estimated at around 34 percent of the total population, and is expected to exceed 50 percent within the next two decades.¹ While major cities like Mumbai, Delhi, Kolkata, Chennai and Bengaluru have become mega-metropolitan regions over the past two decades, a large number of second- and third-tier cities are growing rapidly. The frenetic pace of urban growth has intensified pressure on states and city governments to effectively provide and manage infrastructure expansion, service delivery, and amenity for their urban populations.

It is a widely understood fact that urbanisation is both a consequence of economic growth and a driver of economic development for cities and regions. Most governments of countries that embarked on modernisation and development of their economies in the post-WW II decades targeted their industrial policies towards well-established cities and urban clusters or agglomerations of manufacturing and services. City governments were allocated resources and empowered to mobilise revenue through a range of taxes for planning, investing and expanding the necessary urban infrastructure and services for their resident populations. In most instances, urban growth was driven by a combination of public and private investments in developing new residential suburbs, transport, water, and energy infrastructure, services and amenities.

India's urbanisation has been largely shaped by the path dependencies of British colonial systems of town planning constituted by Town and Country Planning Act of 1947. This system focused mainly on preparation of master plans detailing growth boundaries, land use zoning and density. State town planning departments prepared these master plans and sought to implement them using a command and control approach that reflected little awareness of market forces in determining scale and location of economic activity, transport connectivity, financing of urban infrastructure, and needs of low income households.²

Urban development in India is principally the responsibility of state governments. Until recently, national level planning agencies largely provided overviews of urban infrastructure and housing needs for cities and offered policy recommendations. The central ministry of housing and urban development allocated funding to states for specific schemes targeted towards housing, mainly for urban low income households living in informal settlements. Given that most Indian states have a larger proportion of population living in rural areas, state governments have tended to prioritise expenditure towards these areas rather than infrastructure and urban development for towns and cities.

1. Ministry of Housing and Urban Affairs (2018) National Urban Policy Framework.

2. IJ Ahluwalia. Planning for urban development in India. ICRIER.

In 1992, the 74th Constitutional Amendment formally recognised urban local bodies as the third tier of government, and mandated that state governments transfer responsibility to them for functions such as town planning, regulating land use, construction, public health, water, sanitation and solid waste management. State governments were also required to carry out legislative and institutional reforms, transfer funds, build capacity for planning and management, and create an enabling environment for local urban bodies to perform their role. Although many state governments devolved several functions to their local urban bodies, this was not always accompanied by sufficient transfer of funds or support to enable them to plan and manage urban development. Urban planning and transport functions continue to be held and controlled by state governments because these are powerful instruments for mobilising finances for business investment and economic growth.³

The Jawaharlal Nehru National Urban Renewal Mission (JNNURM) was the first large-scale concerted effort launched by the Government of India in 2005 to tackle urban institutional reform and urban development through a partnership approach with state and local governments. It provided funding to 65 cities for upgrading urban infrastructure and services, housing for the poor, and improving urban governance through a competitive process. Each of the 65 cities participating in the mission were expected to prepare a City Development Plan (CDP) identify an infrastructure project for funding, and seek private investment for the project. Following approval of the CDP and project by respective state governments, these were evaluated at the national level and selected for funding. The national government funds were matched by co-contributions by state and city governments. Project financing by the central government were provided in instalments and conditional on achieving a set of institutional reforms by state and local governments.

The JNNURM ran from 2005 to 2014, and served as a catalyst for urban local bodies that were severely under-resourced and generated significant activity in preparing plans and infrastructure improvement projects. The mission could not, however, enforce the conditionality of releasing project funding contingent to institutional reforms by state and local governments. The anticipated leveraging of private finance for urban infrastructure investments did not materialise due to unclear governance and revenue models between local governments and private investors.

3. A Panagariya (2014). Space, services and the state. in R Burdett, P Rode, P Shankar, and S Vahidy (eds.) *Governing Urban Futures*. LSEcities.net

New Urban Initiatives and the Liveability Agenda

Following the installation of the Modi government in 2014, the Government of India's Ministry of Urban Development launched six urban initiatives with the overarching goal of making cities more liveable for their residents. These included a new version of the JNNURM, named Atal Mission for Rejuvenation and Urban Transformation (AMRUT), urban housing (PMAY) and livelihoods programs for economically disadvantaged groups (DAY-NULM), a sanitation program (SBM), a program for redevelopment of culturally significant heritage cities (HRIDAY), and the Smart Cities Mission (SCM).

Of all these initiatives, the Smart Cities Mission is the flagship urban development program of the national government. The Smart Cities Mission promotes technology-based or 'smart' solutions in 100 cities for sustainable and inclusive development of their urban ecosystem, with core infrastructure and services that improve the quality of life of residents and drive economic growth.

The Smart City Mission statement notes that while there is no universally accepted definition of a smart city, the aspiration, in the Indian context, is to create an urban ecosystem that encompasses the four pillars of comprehensive development, namely, the physical, institutional, social and economic infrastructure of these cities.⁴ It identifies ten core infrastructure elements relating to each of these pillars, which include: i) adequate water supply; ii) assured electricity supply; iii) sanitation and solid waste management; iv) efficient urban mobility and public transport; v) affordable housing for the poor; vi) robust IT connectivity and digitalization; vii) good governance involving e-Governance and citizen participation, viii) sustainable environment; ix) safety and security of citizens; and x) health and education. Smart solutions and applications can target one or more of these core infrastructure elements. (See Figure 1 in Appendix)

The Ministry of Urban Development also outlines a set of 'Liveability Standards in Cities'⁵ that align with the comprehensive development pillars and core infrastructure elements identified in the Smart City guidelines. These are used to develop liveability indices that can be used for measuring and evaluating smart city proposals and outcomes. (See Figure 2 in Appendix).

4. Government of India (2015) *Smart Cities: Mission Statement and Guidelines*. Ministry of Urban Development.

5. Government of India (2015) *Liveability Standards in Cities*. Ministry of Urban Development.

Smart City Mission: Strategic components and models

The Smart City Mission identifies two strategic components for smart city proposals: Area based development and Pan-city development.

Area based development comprises three models – retrofitting, redevelopment, and greenfield – which may be used exclusively or in combined form for developing smart city proposals.

Retrofitting – is targeted at existing urban built-up areas greater than 202 hectares (500 acres) with informal settlements. It involves consultations between urban local bodies (municipalities) and residents for assessment of infrastructure and service needs, input in the planning process, installation, and introduction of smart applications.

Redevelopment – focuses on existing urban neighbourhoods with more than 20.2 hectares (50 acres) of dilapidated housing stock. It requires urban local bodies to consult residents for redeveloping the area with new residential layouts, land use mix, improved infrastructure and services, and rehousing them during the redevelopment process.

Greenfield development – targets urban fringe areas where growth is taking place. Vacant or unoccupied public lands or privately-owned agricultural land greater than 101 hectares (250 acres) can be acquired by municipalities or state-level urban development authorities via land transfer and compensation processes. The greenfield development is expected to use innovative planning tools, smart solutions and applications for infrastructure services, financing, and include affordable housing for low income households.

Pan-city development involves development of digital technology applications that will use large data, and automated information systems to improve the functioning of city-wide infrastructure and services. These may include intelligent traffic management systems, smart metering, wastewater recycling, e-governance and municipal services that can improve productivity and quality of life of citizens. All smart city proposals are required to incorporate a pan-city development component along with an area based development component to ensure benefit for all residents of the city.

Some of the liveability features highlighted in the Smart City Mission guidelines for area based developments include mixed land use; socially inclusive housing; walkable localities; reducing vulnerability to disasters; and frugal solutions for construction and access to social services. Liveability features for pan-city development refer to open space for recreation and reducing urban heat island effect, transit oriented development, and citizen friendly and cost-effective governance via online and mobile-based services.

Cities are required to seek help from a preselected list of private Project Management Consultants (PCM) for developing their Smart City Proposals. Once their proposals are selected, the cities are required to set up a Special Purpose Vehicle (SPV) to implement the project. The SPV is a limited company with the State government and urban municipality as promoters holding equal shares. Central government funding is directed to the SPV and maintained in a separate grant fund for project implementation according to the Mission conditions. The SPV is headed by a CEO and has a board with nominees from the central, state, and urban local governments. The SPVs are required to plan, appraise, approve, release funds, implement, manage, operate, monitor and evaluate the Smart City development projects. The SPV may enter into a Public-Private Partnership with the PCM or other private investors to implement, manage, and operate the area-based development and pan-city projects.⁶

6. Smart City Mission, Special Purpose Vehicle.

Challenges for operationalising liveability in Smart City projects

Although the Smart City projects are in their early stages of implementation, they face several challenges in achieving liveability outcomes. The Standing Committee on Urban Development (2017-2018) notes the lack of coordination between implementing agencies for Smart City projects.⁷ Some researchers have pointed to the SPV's lack of widespread stakeholder engagement for both area-based and pan-city development projects.⁸ Others have highlighted the lack of capacity for facilitating integrated liveability outcomes at a metropolitan scale.⁹ Two critical factors underlying these challenges are, first, the resistance of state governments to empower elected urban local bodies with adequate financial and technical capacity to plan and deliver services for their residents; and second, the lack of a functional metropolitan institutional framework that can implement projects requiring regional and metropolitan level connectivity across several urban local bodies.¹⁰

7. Lok Sabha Secretariat (2018). Standing Committee on Urban Development. Sixteenth Lok Sabha. Ministry of Housing and Urban Affairs. Demands for Grants (2018-2019). 22nd Report.

8. B Parthasarathy and B Sastry (2019). Intelligence for place making and social inclusion: Critiques and alternatives to India's Smart Cities Mission, in T Banerjee and A Loukaitou-Sideris (eds). *The New Companion to Urban Design*. pp. 571-581. London: Routledge; A Datta (2019) Postcolonial urban futures: Imagining and governing India's smart urban age. *EPD Society and Space*. 37 (3): 393-410.

9. Interview with V Ravichandar, Chairman Feedback Consulting, Bengaluru, May 2019.

10. IJ Ahluwalia (2019) Urban governance in India. *Journal of Urban Affairs*. 41, 1: 83-102.

Victoria's Liveability Expertise

The state of Victoria in Australia is regarded around the world as one of the most attractive places to live. For more than a decade, the city of Melbourne has consecutively maintained first or second place in annual rankings of the most liveable cities in world.

In 2016, the Victorian Government's Department of Land, Water and Planning partnered with Global Victoria (the international trade and investment department) to establish Liveability Victoria International (LVI). LVI's mission is threefold: to promote Victoria's liveability credentials and expertise internationally; to improve international access to the expertise and services of leading liveability sector industries; and to assist Victorian liveability industries in engaging with cities in Southeast Asia, China, India, and Latin America.

The Victorian Government's *India Strategy* outlines several areas for collaboration with Indian states and cities in the liveability sector.¹¹ It aims to build on experience from existing collaborations to promote Victoria's strength through a suite of liveability services including transport, architecture, clean technologies, urban design, water and waste management. The Strategy identifies three areas of opportunity for collaboration between Victoria and India:

- Build knowledge partnerships for liveable cities and places with the Indian Government and industry to share expertise, support industry collaboration and jointly contribute to liveability solutions
- Establish Victoria-India liveable cities and places export cohorts by bringing together Victorian companies in areas of Victoria's liveability services excellence
- Build trilateral partnerships between Victoria, India and third-party investors in India's smart cities and sustainability initiatives to provide more opportunities for Victoria to contribute its liveability skills and expertise.

The Victorian Government has played a key role in promoting liveability as both an economic and urban development strategy. It has enabled Victorian companies in this sector to become high performing and nationally competitive. The liveability sector in Victoria includes industries related to water, cleantech and environmental services, planning and urban design. Together, they generate around six percent of jobs in Victoria and contribute more than AUD 24 billion to the state's economy.¹²

The Victorian government has developed unique expertise in planning and ensuring functional coordination between different agencies to ensure effective liveability outcomes at different scales across the Melbourne metropolitan area. It has built robust systems of stakeholder engagement with local city governments, industry, communities and special needs groups for projects that have large-scale impacts across local city jurisdictions. Victoria is also a leader in working with the private sector to build high quality infrastructure and services. It has evolved the public private partnership (PPP) model to encourage industry collaboration and innovation in delivering large-scale urban liveability infrastructure for metropolitan and regional Victoria. All these capabilities are extremely germane for addressing the challenges of operationalising liveability in India's smart city projects.

11. Government of Victoria (2018) *Victoria's India Strategy Our Shared Future*, pp. 30-31.

12. Liveability Victoria International (2019).

LVI can play a key role in establishing partnerships with Indian states and their urban local bodies to share expertise, develop and operationalise liveability solutions at the metropolitan region scale. It can bring together Victorian companies to work with Indian industry counterparts to implement integrated regional scale projects in water, cleantech and environmental services and urban design. It can share Victorian skills and expertise with Indian state and local governments to develop PPP models for pan-city liveability projects.

Suggestions for Victorian government engagement in India on liveability

The Victorian Government's India Strategy has prioritized seven states for focused engagement – Andhra Pradesh, Karnataka, Kerala, Maharashtra, Tamil Nadu, Telangana and Delhi. All these states have made significant investments and efforts to pursue large-scale infrastructure and urban liveability solutions for their metropolitan regions.

There is significant opportunity for the Victorian Government to establish partnerships with these priority states and collaboratively design and deliver specific projects that tackle four key challenges associated with smart city development. Each of these collaborative projects could focus on one of the 8 liveability features identified by the Smart City Mission guidelines for pan-city developments.

1. Functional integration for implementing liveability solutions

Given the high levels of water stress experienced by most Indian cities, the Victorian Government could establish a partnership with one state government and work with different departments, urban authorities and urban local governments to develop an integrated metropolitan strategy for securing water supply and quality through rainwater harvesting, groundwater recharge, remediation of lakes and reservoirs, wastewater recycling, and protection of wetlands. For example, the Victorian Government could invite the CRC for Water Sensitive Cities to lead a team of Victorian experts and companies in the water sector to design and develop the functionally integrated metropolitan water strategy. The Tamil Nadu state government may be potentially interested in implementing such a project, given that its capital city, Chennai, has experienced its severest water shortage crisis in decades.

2. *Coordination and support of stakeholders across metropolitan jurisdictions for pan-city projects*

The Victorian Government could establish a partnership with the Karnataka state government and local governments in the Bangalore-Tumkur metropolitan region to develop a community, informal sector, and IT industry stakeholder engagement strategy for an e-waste collection and materials recovery project. The stakeholder engagement strategy could provide the basis for developing an innovative PPP project involving Victorian cleantech and environmental companies. Such a project could serve as a model for e-waste processing and management for other Indian cities, and also offer lessons that could be applied in Victoria.

3. *Facilitation and governance of citywide liveability outcomes*

The Victorian Government could propose a partnership with the Telangana government to develop a metropolitan level bicycling street networks that link major public transit nodes, gardens, heritage sites and popular market centres. The project could be a collaboration between state level transport agencies, the urban local bodies within the metropolitan region, and a Victorian team led by VicRoads, which has a strong track record for transport safety projects in India, and Victorian companies such as Acusense that have developed innovative transport safety solutions for India.

4. *Knowledge sharing for building capacity in urban local bodies and industry to establish PPPs for delivering liveability projects at the metropolitan region scale*

LVI could establish a Liveability Exchange Fellowship Program that annually funds a two-week visit to Victoria for one senior official, one elected representative of a large urban local government or state ministry of urban development, and one industry leaders from the key liveability sectors of water, cleantech and environmental services, and urban design and planning. The Indian visitors could meet with Victorian departments and liveability sector companies to learn about PPPs in delivering liveability projects. LVI could establish an agreement with key Indian state governments to host senior Victorian government, city government, and industry leaders for learning from the experience of their Indian counterparts. The exchange fellows would be required to submit a short report on their analysis of the sector, key lessons, and opportunities for bilateral collaboration.

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APPENDICES

Figure 1



Figure 2

Table 1: Categories of Indicators		
FEATURE CONTAINED IN SCPs	CATEGORY	PILLAR OF COMPREHENSIVE DEVELOPMENT
Citizen Participation IT Connectivity ICT-enabled Government Services	1. Governance	Institutional
Identity and Culture	2. Identity and Culture	Social
Education	3. Education	
Health	4. Health	
Safety and Security	5. Safety and Security	
Economy and Employment	6. Economy and Employment	Economic
Housing and Inclusiveness	7. Housing and Inclusiveness	Physical
Open Spaces	8. Public Open Spaces	
Mixed Land use Compactness	9. Mixed Land Use and Compactness	
Energy Supply Underground Electric Wiring Energy Source Energy Efficiency	10. Power Supply	
Transportation and Mobility Walkability	11. Transportation and Mobility	
Water Supply Water Management	12. Assured Water Supply	
Sanitation Waste Water Management	13. Waste Water Management	
Waste Management	14. Solid Waste Management	
Air Quality	15. Reduced Pollution (‘Noise Pollution’ and ‘Pollution of Surface Water Bodies’ have also been included)	

Source: Government of India, n.d.

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