FINANCING FOR SMART CITY MISSION[1]

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Background: The Government has launched number of urban missions including the one on Smart Cities. Mission will cover 100 cities over five years. In the first round twenty cities have been selected. This note briefly describes proposals, financial requirements and financing options proposed in the mission. The note focusses on need for improving revenue base of urban local bodies and innovative ways of financing the smart city proposals.

The Mission: Focus of Smart City mission is to develop model of sustainable and inclusive cities through creation of "smart solutions" that can be replicated. Smart solutions as given in the mission focus both on development and management approach to cities. Improved management through use of technology is proposed in e-Governance and citizens services, waste management, water management, energy management and urban mobility. Approach to development focuses on promoting high intensity development through mixed land use and transit oriented development, inclusive housing, walkable localities, developing open spaces, and giving an identity to the city.

Proposals: Cities to avail funds through smart city mission were required to provide proposals at a city level (pan city proposals) and area level. It is interesting to note that in the shortlisted twenty Smart City Plan proposals, the city level proposals have focused on city management through city level intelligent Centralized Command and Control Center, Platform for citizen engagement and citizen services, CCTV surveillance; traffic management through transit operations system (maintenance and tracking), Smart Parking system, Common card (payment and operations), Area based traffic control, Public transit and traffic operations, Non-motorized traffic; water management through Leak Identification System (SCADA), , Smart metering for water, etc. Most of these proposals make extensive use of technology.

Area level proposals could focus on retrofitting, redevelopment or green field areas. Most of the shortlisted cities have focused on retrofitting with a small percentage of area based projects on redevelopment and green field development. Area development proposals include improved open spaces, lake restoration, river front development, rain water harvesting, LED street lighting, renewable energy initiative, ITS traffic management, affordable housing, CCTV surveillance, smart waste management, cycle tracks, etc.

Financing Requirement: Each city was required to also provide financial plans for pan city as well as area based proposals. This section examines the financial requirements and options proposed by three selected cities, namely, Bhubaneswar, Pune and New Delhi Municipal Committee (NDMC).

Bhubaneswar city, capital of Orissa state is scoring highest under the Smart City mission has projected a total investment of Rs. 4537 crore. Out the total cost, Rs. 442 is for Pan city projects and remaining amount for area-based development. Pune city estimates total investment of Rs.

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2380 crore and out of this Rs. 530 Crore (22 percent) for pan city projects for transport and water supply and remaining amount on area-based development NDMC has been proposed by Delhi to become Smart City. Being an administrative capital it has aspired to become the Global benchmark for the capital city. It proposes to meet this aspiration through setting global standards and benchmarks for urban mobility, inclusiveness, city planning and design and social development. The total investments proposed to make it world class city has been proposed as Rs. 1,897 crore. Out of this Rs. 1228 crore will be for pan city projects and remaining Rs. 669 crore will be by area-based development (Table 1).

Table 1: Distribution of Proposed Investment in Pan City and Area-Based Schemes in Three Selected Smart Cities in India

Type	Bhubaneswar		Pune		NDMC	
	Rs. In Crore	%	Rs. In Crore	%	Rs. In Crore	%
Pan City	442	10	530	22	1228	65
Area-Based Development	4095	90	1850	78	669	35
Total	**4537**	**100**	**2380**	**100**	**1897**	**100**

Source: www.smartcities.gov.in (accessed on April 9, 2016)

Financing Sources: These selected cities plan to finance the proposed capital investment for Smart City program through a combination of four to six different sources (Table 2). In Bhubaneswar city, out of total investment, Smart city grant is 20 percent, another 12 per cent from convergence with state and national schemes, and almost 60 per cent of its funding is proposed through PPP. Pune city will meet its capital investment of 21 percent through Smart city grant and another 16 per cent from convergence from various other Government programs, 42 per cent through land monetization, and 21 per cent from ADB/World Bank/JICA loans and bonds. It has also proposed a contribution from CSR funds. In the NDMC plan, out of total requirement, 26 per cent will be through convergence with Government schemes, 15 per cent from public private partnership (PPP) , 26 per cent from Smart City mission, and 32 per cent through its internal revenues.

Bhubaneshwar envisages maximum funds to be generated through PPP, whereas Pune relies the most on land monetization funds. NDMC has an almost equal reliance on Mission and Central and State government funds. It is also the only city amongst three cities to have a maximum share (32 percent) from its own revenues.

Table 2: Sources of Investment for Three Selected Smart Cities in India

Type	Bhubaneswar		Pune		NDMC	
	Rs. In Crore	%	Rs. In Crore	%	Rs. In Crore	%
Smart City	950	20	500	21	500	26
Central/State Convergence	525	12	380	16	511	27
PPP	2725	60	-	-	281	15
Land Monetization	-		1000	42		
ADB/World Bank	210	5	500	21		
Own Revenue	-				605	32
Others	127	1				
Total	**4537**	**100**	**2380**	**100**	**1897**	**100**

Source: www.smartcities.gov.in (accessed on April 9, 2016)

Innovative Financing: It can be seen that there are huge fund requirements which are largely being met through government funding except in case of Bhuwaneswar which is depending mostly on PPP. Both Pune and Bhubaneshwar have no funding from their own resources and NDMC too has about one third of its funding met through its own resources. To better mangage government funds and decrease reliance on grants and government funding requires exploring innovative financing and resource mobilization. This could be through convergence of all Government programs, exploring the potential of land based resources and market-based mechanism like accessing capital markets and Public Private Partnerships. Since most of these mechanisms have advantages and disadvantages, a combination of them can be useful in a particular context.

The Government has launched five urban missions to transform urban India. Atal Mission for Rejuvenation and Urban Transformation (AMRUT), Smart Cities, Heritage City Development and Augmentation Yojana (HRIDAY), Housing for All (Urban) and Swachch Bharat Mission with clear focus on integrated urban development. Cities should converge finances available from all the urban missions and other Government programs as they are interlinked with each other.

Land-based sources could be marketable floor space index, betterment levy, impact fees, vacant land tax, etc. One component of such an approach is the integration of land use with public transport. This may require higher, variable and marketable floor space index wherever feasible along with requisite infrastructure provision. In revised Master Plan of Delhi 2021, as part of transit oriented development (TOD) policy higher floor space index of four is provided along the metro lines. Infrastructure requirements generated by this provision can be met through both market based as well as land based revenue generation mechanisms like marketable floor space.

Market-based financing is an important innovation for urban infrastructure in the country. Accessing capital markets has emerged as viable options to finance urban infrastructure. With government support ULBs can tap capital markets for provision of good quality infrastructure. Funds available under urban missions to the City can be leveraged through market based funding. Several urban local bodies and utility organizations in India have issued bonds amounting to Rs. 1,230 crore through taxable bonds, tax-free bonds and pooled financing. There have been successful examples of Ahmedabad, Hyderabad, Tamil Nadu and Karnatka which can provide the learning and models for replication.

There are several PPP projects in solid waste management. Various ULBs are now taking help from private sector to develop water supply projects in PPP mode. The initial focus of PPP in water supply projects was on provision of bulk supply. The focus is slowly shifting now to improved management of existing systems. There are many concerns in PPP projects that would need to be addressed before they can be taken as viable funding mechanism. For example in urban water supply and sanitation sector most of these PPP projects are not citywide, water supply tariff in India are low, base data of existing water supply systems are missing and capacity of private operators is also inadequate. However, there are successful examples of PPP in transportation of solid waste and bus systems.

Improving Revenue Base: To effectively make use of these funding mechanisms require a process of reforms in the functioning of the ULBs. The first step to start the process of revenue mobilization in many urban organizations is to improve the information base. This can include improved land records system like proper surveys, identification and verification of properties, and computerization of records which will strengthen billing and thereby revenue collection. Provision of simple guidelines to citizens on tax assessment ensured that tax assessments carried out in a transparent manner can further improve revenue collection. Area based property tax with self- assessment system and online collection introduced in Delhi and other cities have been major steps in this direction. Improved efficiency in revenue collection and other reforms in functioning of ULBs help improve financial health of the ULBs. This can further help them tap other market based financing mechanisms.

Conclusions: Smart city proposals require large funds. Currently ULBs are mostly relying on government funds which are unsustainable in long run. For increasing municipal revenues there are options available. These would but work only if ULBs bring about change in their functioning which can help them increase revenue collection as well as access capital markets. Such a change requires strong commitment and unwavering support of elected leaders as well as of officials. Urban leaders have to build the trust and convince citizens of the project benefits and this would help to generate additional municipal revenues and improve services.