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Contents

About the Volume.....	3	<i>Legislation for Urban Heritage Conservation: West Bengal</i> S P Shorey.....	105
JNNURM: Overview and appraisal From the Editorial Team.....	4	Case Studies: Participatory Approach for Slums and Historic Settlements	
Critical Analysis of JNNURM Approach		<i>Market Intervention based Slum Rehabilitation Scheme: Mumbai</i> Adolf Tragler.....	113
<i>Planning Strategy for Urban Development: Institutionalisation of compromises</i> Amitabh Kundu.....	9	<i>Community based Approach for Historic Settlements: Kachhpura, Agra</i> Jyotsna Bapat, Renu Khosla, Manish Kumar.....	119
<i>Heritage Conservation in JNNURM: An analysis</i> Rajender Singh	15	<i>Slum Free Silicon City: Bengaluru</i> Kathyayini Chamaraj.....	127
Sustainability: Beyond JNNURM and Master Plans		<i>Housing Design through Community Consultation: Pune</i> Prasanna Desai.....	133
<i>Building Clean and Efficient Cities: Initiatives under the Urban Climate Project</i> Ashish Rao Ghorpade, Laasya Bhagavatula.....	23	<i>Community Participation for Liveable Neighbourhoods</i> Ashwini Pethe, Kavita Murugkar.....	143
<i>Developing a Heritage Resource based Approach</i> Nicole Bolomey.....	31	Case Studies: Infrastructure, Heritage and Housing	
<i>The Sustainable Indian Cities: An oxymoron</i> Kavas Kapadia.....	41	<i>Commonwealth Games and JNNURM: Lost potentials for transforming Delhi</i> AK Jain.....	151
Way Forward with other Urban Renewal Schemes		<i>Urban Infrastructure and Mobility Enhancement: Kolkata</i> Monideep Chattopadhyay, Dipankar Paul.....	157
<i>Implementation of the National Urban Transport Policy: An assessment</i> Noor Mohammad.....	49	<i>Heritage Development Plan: Varanasi</i> Divay Gupta.....	163
<i>Transitions in JNNURM: Rajiv Awas Yojna</i> Usha Prasad Mahavir.....	57	<i>Godavari Riverfront Development: Nanded</i> Deepak Mhaisekar, Sanjeev Patil.....	173
Government Initiatives: Capacity Building and Reframing Toolkits		<i>Impact of JNNURM: Laxmiguda, Hyderabad</i> Natraj Kranthi.....	177
<i>Building Local Capacity for Urban Development: Rapid Training Programme under JNNURM</i> Saswat Bandopadhyay, Shrawan Kumar Acharya.....	67	Book Reviews	
<i>Knowledge Sharing Programme under JNNURM</i> Chetan Vaidya, Vijay K Dhar, Nilanjana Dasgupta Sur.....	75	<i>Corporate Social Responsibility and Urban Development by Edmundo Werna, David Murphy, Ramin Keivani</i> Reviewed by Sudhanshu Bhushan.....	182
<i>Reframing Toolkits: Heritage as a cross cutting theme</i> Indian Heritage Cities Network.....	83	<i>Building from the Bottom: Infrastructure and Poverty Alleviation edited by Sameer Kochhar and M Ramachandran</i> Reviewed by P S N Rao.....	183
Case Studies: Reforms and Institutional Framework		Events and Conferences.....	185
<i>Urban Reforms under JNNURM: Rajasthan</i> R Venkateshwaran.....	91	List of Acronyms.....	186
<i>Institutional Development: A Chennai Blueprint</i> M G Devasahayam.....	97		

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Layout & Design

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Tel: 0124-4082081, 2381067, Fax: 0124-4269081

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Special Issue on JNNURM

About the Volume

This special issue reviews the impact of Jawaharlal Nehru National Urban Renewal Mission (JNNURM) on Indian cities. It presents multiple facets of the Mission and its implementation across India in the last five years, since its launch.

The issue begins with a critical review of the JNNURM approach, specifically in two sectors; Urban Poverty and Heritage that have been identified as cross cutting themes for all sectors in city planning, as per the recently revised City Development Plan (CDP) Toolkit (2009) of the Ministry of Urban Development (MoUD). Amitabh Kundu and Rajender Singh provide a thorough analysis on the current inclusion of 'Urban Poverty Alleviation' and 'Heritage' in JNNURM.

In terms of scale, JNNURM is one of the largest urban level missions in the world. Yet, the Mission clearly is not an end in itself, but one of the means to achieve inclusive urban development in Indian cities. The planning exercise in Indian cities definitely needs to go much beyond the Mission to achieve sustainability. This aspect is addressed by articles on climate change, heritage resource-based development and sustainability by Ashish Rao Ghorpade, Laasya Bhagavatula, Nicole Bolomey and Kavas Kapadia.

Besides JNNURM, there are various other policies and centrally sponsored schemes for creation of infrastructure, slum development and provision of basic amenities in the urban sector. Two of the most important urban renewal schemes that can be aligned with JNNURM goals are presented by Noor Mohammad and Usha Prasad Mahavir in their articles on National Urban Transport Policy and Rajiv Awas Yojana.

Government initiatives to strengthen JNNURM deliverables include capacity building programmes, knowledge sharing and reframing CDP and Detailed Project Report (DPR) Toolkits, as elaborated in articles from Centre for Environmental Planning and Technology (CEPT), National Institute of Urban Affairs (NIUA) and Indian Heritage Cities Network (IHCN).

Along with these overviews on various aspects of JNNURM, this special issue includes several case studies from various States and Mission cities under JNNURM, covering aspects of community consultation and participatory approach for slum improvement and historic settlements, urban reforms, heritage legislation, institutional frameworks, along with examples of project implementation in infrastructure, heritage and housing sector.

- Shikha Jain

JNNURM: OVERVIEW AND APPRAISAL

One of the largest government funded attempts at urban renewal in the world, the Jawaharlal Nehru National Urban Renewal Mission (JNNURM) took on the near impossible task of transforming the dynamic Indian cities in a limited period of seven years (2005-2012). Five years past the Mission's launch on December 3, 2005 is a suitable time gap to review its impact on the Indian cities and channelise it in the appropriate direction.

WHY DID SUCH A MISSION COME INTO BEING?

The gamut of Indian cities forms the second largest urban system in the world, which is said to be plagued with lack of urban infrastructure, increasing urban poverty, as well as weak institutional and financial frameworks. In the face of increasing urbanisation and growing focus on cities, the municipalities that are already short of resources, are struggling to provide the most basic of services and infrastructure.

Considering that the 11th Five Year Plan midterm assessment clearly identifies 'Indian cities to be the locus and engine of economic growth over the next two decades', the flagship Mission of JNNURM comes as a clear response to such a call for making the 'cities more liveable, inclusive, bankable and competitive' (Planning Commission 2010, p. 394).

WHAT IS THE MISSION?

JNNURM is the first reforms driven, fast-track programme oriented towards service delivery to stress on accountability, community participation and quality of life in equal measure. Broadly, it set in motion reforms in governance, land and property, financial sustainability and process-oriented or citizen-responsive mechanisms, for the first time in India. This in itself sets the Mission apart from any other previous initiative and makes its implementation even more challenging. The Mission with its 23 points Reform Agenda, envisages an investment of ₹ 1,000 billion (over US\$

22 billion) on urban sector development in 65 Mission cities within a seven year period where the Central Government contributes ₹ 610 billion (US\$ 13 billion), while the remaining is pitched in by the state and cities. Three of the seven stated Mission objectives focus on urban poor while the rest target an improvement of services and infrastructure in the cities.

The Mission is divided into two sub-missions, for Urban Infrastructure and Governance (UIG) and to provide Basic Services to the Urban Poor (BSUP). Two other parallel programmes, the Urban Infrastructure Development Scheme for Small and Medium Towns (UIDSSMT) and Integrated Housing and Slum Development Programme (IHSDP) were also started to address the problems of smaller urban areas beyond the 65 Mission cities.

STATUS OF THE MISSION

A review of the Mission status was undertaken in July 2010 by the Ministry of Urban Development (MoUD). It shows that a total of 525 projects have been approved in the 65 Mission cities till date. However, only 76 of these projects have been completed on ground, while others are ongoing or delayed due to lack of technical or financial capacity of the local body. Possibly, the delay in projects can be justifiably attributed to the chain of prerequisites to be fulfilled for funding assistance, such as the approval of City Development Plans (CDP) and (Detailed Project Reports) DPRs and signing of Memorandum of Agreement for essential urban reforms.

MIDTERM APPRAISALS OF THE MISSION

The midterm appraisals of the Mission undertaken by MoUD, Planning Commission, international financing agencies and individual researchers clearly indicate that after five years of the flagship urban renewal scheme, Mission cities under the programme still fall short in many aspects. There is lack of a clear vision, expertise, skills and capacity of personnel from Urban Local Bodies (ULBs) and sufficient finances to meet targeted projects. Most of all, the cities and states have failed to adopt the outlined reform agenda in totality.

Considering the fact that the Mission's primary objective is reforms and policy oriented, it is probably a boon in disguise that a number of sanctioned projects in various Mission cities have not taken shape on ground. In fact, a number of Mission cities are now realising that the sanctioned DPRs require modifications as per the ground situation. MoUD clearly needs to accommodate a more dynamic process for the implementation of DPRs.

For this purpose MoUD has involved several specialised agencies and institutions for appraisal of various aspects of JNNURM to inform future funding and capacity building for the success of the Mission. These organisations include National Institute of Public Finance and Policy (NIPFP), National Institute of Urban Affairs (NIUA), Administrative Staff College of India (ASCI), Credit Rating Information Services of India Limited (CRISIL), Deloitte Touche Tohmatsu (DTT), ICRA Management Consulting Services Limited (IMaCS) and Society for Participatory Research in Asia (PRIA). Each organisation is appraising a specific aspect of JNNURM for specific Mission cities. For example, CRISIL undertakes appraisal and monitoring of the reforms signed under JNNURM in nine states and ensures that the implementation of the agreed mandatory and optional reforms is according to the agreed timelines. Several agencies that aim to provide multilateral and bilateral support aligned to JNNURM such as the Asian Development Bank (ADB), World Bank, Kreditanstalt für Wiederaufbau (KfW) banking group, Public-Private Infrastructure Advisory Facility (PIIAF), Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ), Cities Development Initiative for Asia (CDIA), Global Environment Facility (GEF) and International Finance Corporation (IFC) are also in the process of appraising aspects of JNNURM such as capacity building to support and channelise funds in the right direction for the next phase of JNNURM.

Current review of reforms shows that only 56% of state level reforms committed till the fourth year (2008-09) have been achieved, along with 50% of ULB level reforms and 57% of optional reforms. While states such as Andhra Pradesh, Gujarat, Maharashtra and Tamil Nadu have shown good progress in urban sector reforms, states such as Haryana, Punjab and Rajasthan have withdrawn property taxes in contradiction to the JNNURM proposed reforms. The midterm appraisals also mention that the real impact of completed reforms on ground is unclear at times.

The Mission inadvertently seems to have diverted its funds to implementation of infrastructure projects with all Mission cities presenting an array of projects on their CDP platter. As per an appraisal by K C Sivaramakrishnan, Chairman, Centre for Policy Research (2010, p. 7):

Given city development planning as a starting point, it was expected an integrated view would be taken about the scope of the projects to be covered. However, since two separate ministries were in existence, the Mission had to be artificially split. In the result two sub-missions emerged; one for Urban Infrastructure and Governance (UIG) and another for Basic Services to the Urban Poor (BSUP). Water supply, sanitation, sewerage and drainage are featured both in the UIG and BSUP lists. Urban renewal is vaguely defined as redevelopment of inner city areas, shifting of industrial and commercial establishments, replacement of old water supply, sewerage and drainage pipes etc. as a UIG component. Convergence of health, education and social security schemes for the urban poor is specifically listed as an item in the BSUP but health and education projects are also declared inadmissible for JNNURM funding. Inevitably, the JNNURM funds have flowed to those activities more commonly understood as urban facilities such as water supply, drainage, sanitation and roads.

On the other hand (Sivaramakrishnan 2010, p. 11),

Urban renewal projects as commonly understood, requiring redevelopment of buildings, partly or wholly, including structures of historical and cultural value are very few though the Mission itself has been labelled as National Urban Renewal Mission.

It is quite difficult to say whether successful implementation of projects in Mission cities is limited because of the top down approach of the Centre or actual lack of capacity at the local level. According to Sivaramakrishnan (2010, p. 20), 'State governments have known for long, how to extract the funds provided in centrally sponsored or assisted schemes and how to bypass or defer the requirements of performance or reforms.' Besides, the perception of capacity building and training programmes as an external or aligned process may not work to achieve the desired results. A review of assigned implementing agencies in various projects clearly shows that there is a preconceived notion that ULBs cannot implement projects. Rather than enhancing the capacity of ULBs, the states are handing projects to various other agencies in complete contrast to the tenements of the 74th amendment in the constitutional rights promoted by JNNURM.

Despite all efforts of ULB credit ratings, even best rated ULBs (given credit ratings of BBB+ or AA by CRISIL) are unable to implement all projects in their city jurisdiction. Further, there is no tangible evidence that the ULB ratings have helped in leveraging finances for the local bodies.

WHAT HAS THE JNNURM MISSION FINALLY ACHIEVED?

It has definitely established the importance of urban sector development and created a focus for urban sector reforms across various states and cities in the country. The midterm appraisal of JNNURM for the 11th Five Year Plan (Planning Commission 2010, p. 396) clearly states that,

...the need to manage the process of urbanization and to improve the conditions in their towns and cities is now on the agenda of all states, ranging from Bihar, which had been 'deurbanising' so far, to Maharashtra and Gujarat which have been grappling with urbanization.

Also, odd examples of 'Best Practice' are found across the Mission cities that seem like a drop in the ocean of urban India but do give hope for more exemplary works.

WAY TO MOVE FORWARD?

Three main lacunae that clearly need to be covered in the next phase of JNNURM or any future urban renewal programme are:

- More emphasis on holistic urban renewal
- Increased pace in implementation of reforms
- Capacity building at all levels for on ground implementation of works

Though the appraisal by Planning Commission (2010) provides a comprehensive set of short term and medium term activities to be taken forward under JNNURM, the most important ones amongst them include short term strategies such as realisation of approved projects by creating effective teams on ground at state and ULB level and quicker approval of DPRs in two stages permitting a more detailed presentation in second phase. A relevant medium term strategy has been suggested to unify the Ministries of Urban Development and Housing with Urban Poverty and Alleviation along with creating a parallel unified approach at the state level.

As the next phase of JNNURM is framed with the aim to get funding to add another 28 cities, along with plans to launch a sustainable habitat mission, there is a need for reaching out to a wider group of thinkers, professionals and citizens to find a new direction for urban management and growth. Of course, while charting the next course for JNNURM or any such scheme, one of the key questions that needs to be addressed is, whether it is accepted that urban development in India needs to be a 'bottom-up and hands on' activity? If so, besides framing and reframing more refined toolkits or creating magnanimous capacity building schemes to cater to the international financing institutions, it may be worthwhile to look back at the pool of projects presented by each city; ask the States and ULBs to review, realign and inject training within the implementation structure of these projects itself. Finally, it is the holistic process of implementing the works that will bring realisation of the vision at all levels.

- From the Editorial Team

Bibliographic References

- Planning Commission 2010, *Mid Term Appraisal for Eleventh Five Year Plan 2007-2012*, Government of India, New Delhi, viewed November 2010, <http://www.planningcommission.gov.in/plans/mta/11th_mta/MTA.html>, pp. 394-409.
 - Sivaramakrishnan, K C 2010, *The JNNURM Story*, unpublished version from February 25.
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Critical Reviews

Planning Strategy for Urban Development: Institutionalisation of compromises
Amitabh Kundu9

Heritage Conservation in JNNURM: An analysis
Rajender Singh15

Planning Strategy for Urban Development Institutionalisation of compromises

AMITABH KUNDU

ABSTRACT

An elaborate chain of checks and balances has been institutionalised in the public sphere over time. These institutionalised compromises have resulted in a system of subsidies and patronage distribution within a divided coalition and brought about elite capture in governance. The public therefore has an attitude of institutionalised suspicion towards the state apparatus.

Significant reforms have been put into place through JNNURM, with varying levels of achievement on ground. Despite these, the Government of India has not been successful in breaking the chain of compromises to avoid conflicting situations at different levels of governance, in order to share the benefits of schemes and programmes amongst stakeholders. The government needs to make a clear statement to take forward the JNNURM and other programmes to meet its goals of affordable housing and slum free cities by encouraging public discussion and increasing transparency to effectively reach out to the poor.

Amitabh Kundu teaches at the Jawaharlal Nehru University, New Delhi and is Chairperson of the Technical Advisory Committee on the Housing start up index at the Reserve Bank of India and Committee to Estimate Shortage of Affordable Housing, Government of India. He is also former Director, National Institute of Urban Affairs, Indian Council of Social Science Research and Gujarat Institute of Development Research.

BACKGROUND AND PERSPECTIVE

The 11th Plan posits planned urbanisation in the country and the creation of new growth centres in the form of small and medium towns as its major challenge. It expresses concern regarding concentration of demographic and economic growth in and around a few cities and underscores the need to bring about spatially balanced urbanisation by promoting small towns and new townships. Paradoxically, the Plan (Planning Commission 2008) also highlights the problem of deteriorating infrastructure in large cities that 'provide large economies of agglomeration' and holds that their rapid growth is 'a key' and 'positive factor for overall development'. It stipulates that 'the realisation of an ambitious goal of 9-10% growth in Gross Domestic Product depends fundamentally on making Indian cities much more liveable, inclusive, bankable and competitive'. Although the Plan considered low urban growth and the weakening economic base of small towns as serious problems, it placed the thrust of the growth strategy onto 'increasing the efficiency and productivity of cities by deregulation and development of land' and 'dismantling public sector monopoly over urban infrastructure and creating conducive atmosphere for the private sector to invest'. Launch of JNNURM in the fourth year of the 10th Plan in a mission mode, clearly reflects this mandate.

SPATIAL AND SECTORAL THRUST IN THE MISSION

Large cities have never received per capita allocation on such a scale for infrastructural investment through additional central assistance, as under JNNURM. More importantly, the Central Government is making a serious effort to get the state and city governments to commit themselves to structural reforms, which had never been achieved despite adopting several carrot and stick measures and issuance of guidelines (MoUD 2006). Sanctioning of the funds under the Mission has been made contingent on the preparation of City Development Plans (CDPs) and Detailed project Reports (DPRs), putting forward a 'vision' for the city's development and their approval by the Central Government. By stipulating that a large part of the resources for the implementation of CDP is to be mobilised from non governmental channels and other reform measures that open up the land and capital market, JNNURM envisages creation of ground conditions for market based macro economic growth. The select infrastructural investment in 65 Mission cities through central assistance is meant to strengthen

their infrastructure and economic base, enhance creditworthiness of the municipal bodies and create an appropriate enabling framework for future growth. The Mission has an Infrastructure Development (ID) component and a component of Basic Services for Urban Poor (BSUP), the former accounting for over 60% of the total stipulated funds. Interestingly, there is division of responsibility within the Mission, as the ID component is being looked after by the Ministry of Urban Development (MoUD) while BSUP is administered by the Ministry of Housing and Urban Poverty Alleviation. An overview of the projects and schemes launched under ID in different cities reveals that water supply, sewerage, sanitation and storm water drainage are the priority areas, besides roads and flyovers. Most of these have been designed to increase the total capacity of services at the city level. There is no explicit provision to improve delivery of the facilities in deficient areas within the cities or improve access of the poor to these. Given the emphasis on reform, financial efficiency and cost recovery for each of the facilities and promotion of public private partnership, it is understandable that the projects are being launched to serve largely the areas and people that have the affordability.

The thrust of projects under BSUP was expected to be on making the city level infrastructure and basic services accessible to the poor or enabling them to upgrade their quality of services within a participatory framework. Unfortunately, this has not happened so far. Instead of proposing investment to improve the micro environment in slums and low income colonies, it envisages rehabilitating their residents in multi-storeyed buildings. The main activity under this component has thus been building large housing complexes, integrated with basic services, in the public, private and joint sectors.

The criticism that this 11th Plan initiative has largely limited itself to a few large cities is not entirely correct. The Urban Infrastructure Development Scheme for Small and Medium Towns (UIDSSMT) and the Integrated Housing and Slum Development Programme (IHSDP) have been envisaged as a part of JNNURM for small and medium towns (MoUD 2005). The spatial disparity under the UIDSSMT, covering 321 towns, can be inferred from the fact that 65% of the resources under the scheme have been utilised by four states; Andhra Pradesh, Maharashtra, Tamil Nadu and Uttar Pradesh. A disaggregative analysis of the disbursement of project funds clearly reveals that much of these are going to relatively larger towns and cities (Kundu &

Samantha 2010). IHSDP, a counterpart of BSUP for the non-mission cities, is replacing the National Slum Development Programme and Valmiki Ambedkar Awas Yojana. However, the resources available for all these towns work out to less than one fourth of that for the 65 cities. In per capita terms, this figure is 18% of what is assigned to select Mission cities, too meagre to stall the polarisation of urban growth in a few cities and the alarming trend of urban deceleration, particularly in less developed regions.

JNNURM: URBAN REFORMS AND PARTICIPATORY GOVERNANCE

The basic objective of the Mission is to bring about reform in urban governance so that cities with growth potential can get linked with global markets and attract infrastructural and business investment. The concerned Ministries, through their inbuilt procedural requirements (Municipal Corporation of Nasik 2006), have succeeded in making the selected cities and their states accept the conditionality of the Mission to a certain extent. However, the compliance has been less than what would have made the government and international banking agencies happy. The milestones for implementation of the reform agenda are unambiguous and easy to monitor, as these are to be ascertained based on legislative changes and administrative orders.

The other objective of promoting pro poor growth has also figured loudly in policy documents. Unfortunately, indicators reflecting the pro-poor character of CDPs and DPRs or the poor having access to land and basic amenities, have not been specified. It is true that these would be somewhat complicated and it may not be possible to construct them immediately based on official information. Yet, it is a matter of concern that there has been no attempt to propose such indicators or mechanisms and work out an institutional structure for fulfilment of this goal, in the CDPs. The sanctioning and monitoring authorities at the highest level have not taken note of this lacuna, which has come in the way of translating the pro poor urban strategy into a set of concrete projects.

The objective of JNNURM is to promote decentralisation, local democracy and citizens' participation by pushing the reforms pertaining to Community Participation Law and Public Disclosure Law (Ramamoorthy 2009). The Mission does not envisage passing over the responsibility of slum up gradation or housing projects to slum dwellers

totally, in terms of designing, technological choice, implementation and resource mobilisation. Instead, it proposes partnership between the community, public agencies and NGOs and provides a platform for the professionals and private agencies to join in and enhance the effectiveness and sustainability of the Mission. This partnership would be necessary and even desirable due to the complexities involved in land and finance management in urban development projects, particularly in large cities. However, JNNURM stipulates that funds are to be provided to Community Based Organisations (CBO) for upgrading and building civic amenities, cutting down the bureaucracy and red-tapism. The CBOs can then use the funds partially for educating and empowering the community as also spreading awareness about civic or social issues. Selection of the project and identification of the implementing agency are stipulated to be carried out through voters in the Area Sabha. Private builders are to be engaged in integrated housing projects that can bring in low cost modern technology but this should be done under the monitoring and supervision of CBOs.

It is unfortunate that in the actual scheme of operation, engagement of Area Sabhas, local NGOs and CBOs, as stipulated based on the successful experiments of water sanitation and slum rehabilitation projects in cities such as Ahmedabad, Indore, Mumbai and Pune during the Ninth and early years of the 10th Plan, has at best been marginal (Indo-US Financial Institutions Reform and Expansion Project 1998; 2000). The local bodies mostly got the CDP and DPRs prepared by employing external consultants or agencies who identified the slums, NGOs and private partners for projects. These were sometimes discussed in stakeholder meetings, where a few slum representatives and local NGOs were invited to be present or speak. There has been limited community interaction in the preparation of these documents and consequently on the distributional aspects in service delivery. Particularly, access to the poor received little attention. Given the uneven status and inequality in economic and social strength among the stakeholders, the local authorities simply could not institutionalise a mechanism where the needs and priorities of the poor could be carried forward beyond nationalistic phrases and be reflected concretely in the DPR. Hence, the DPRs were based on macro concerns regarding efficient functioning of the city and its capability to attract domestic and international capital. While resource allocations were made at national and state levels, the selection of projects was left to powerful stakeholders who could provide land or capital for the projects proposed in the DPR.

It has been asserted time and again that ‘the major challenge in slum up gradation is not of building dwelling units or toilets but communities’. For this, micro finance and saving schemes have proved to be excellent entry points. Socio-economic surveys conducted by the community groups or NGOs working with the slum dwellers have been noted as extremely useful in identifying the genuine beneficiaries and their rehabilitation. Local bodies or other agencies implementing the projects have used this survey data as the basis for giving formal or informal land tenure. This increases the reliability of the information and reduces the possibility of undesirable exclusion and inclusion. Unfortunately, no such community based data generation system has so far been envisaged under the Mission. The eligible beneficiaries are likely to be identified either through the National Population Register being prepared along with Population Census of 2011 or the ‘process of legalising the poor’ as suggested by Hernando de Soto, who is now advising the Government of India. Project authorities have not taken into consideration the high risk of exclusion of the poor through this process, as has been noted in several developing countries (Payne 2002). The principle of community participation thus has been given a good bye not only in taking decisions regarding financial allocation but also in identification of slum dwellers eligible under the Mission. This implies a total turn around in the perspective of urban governance. As opposed to the vision of state withdrawal and placing the responsibility of service delivery with the community, a shift is evident wherein the initiative is driven by the Central Government and beneficiary participation is perceived as desirable, at best. It is therefore extremely important to re examine the operationalisation of the Mission not only in the context of its avowed objectives but also against the backdrop of India’s Constitution, leading eventually to economic and social democracy through a participatory political process as envisaged by B R Ambedkar.

VISIONS AND WATCHWORDS IN POLITICAL ECONOMY

It has been argued that the capacity of the Indian State to resolve the problem of collective action by chalking out a firm development perspective is extremely limited (Bardhan 2003). Instead of putting forward a long term vision, planners in India attempt to muddle through simply by managing conflicts of interests through negotiated settlements at various levels, as and when these surface. This limits the political choices available to the government as it is always stuck with assessing

the support base within the Parliament and state assemblies. This has forced it to shift away from its long cherished and loudly pronounced commitments, even after announcing them at the highest level. A definite perspective for collective action at the macro level is imperative for formulating cohesive developmental targets and implementing programmes for achieving these, without creating conflicting situations at different levels of governance. Indian society, which is extremely heterogeneous in terms of social and economic characteristics and conflict ridden, unfortunately, has seen no individual party or social group powerful enough to put forward a definitive development perspective, except in the initial years after Independence. The democratic process has instead installed an elaborate system of checks and balances in the public sphere and rules of the game for sharing the benefits among the ‘stakeholders’. A carefully structured system of subsidies and patronage distribution within a divided coalition has successfully been institutionalised.

All these have effectively meant elite capture in governance, which in turn has been responsible for bringing in an element of ‘institutionalised suspicion’ towards the state apparatus in the public mind. The path of development has been interspersed with a number of speed breakers (often described as milestones) of short run ‘particularistic compromises’ among the vested interests. This has put a brake on the long run growth dynamics and more often than not, forced departures from the long term perspective, which is sought to be built through enormous effort and considerable level of ambiguity. The heterogeneity and pluralism in the society has created political exigencies of bargaining and the need to absorb dissent and co-opt dissident groups at regular intervals. Most importantly, it has led to coinage of watchwords that are purposely vague so that these can be used with different meanings depending on the urgency of the situation and the stakeholder groups being addressed.

The enormity and tenacity of vested interests is often reflected in moving two steps forward and one backward in the chartered development path. This was evidenced in the post Independence period while progressing towards a ‘socialistic pattern of society’ and now is happening again in adopting the new paradigm of globalisation. There has been an erosion of the powers of the institutional mechanisms including the Planning Commission and Finance Commission, resulting in the dilution of credibility in commitment of development policies in the long term. Launching of

programmes with conflicting goals, judicial decisions coming in conflict with either earlier decision or existing programmes are clear manifestations of this. For example, the government seems concerned about the economic decline of small and medium towns and rural areas and has launched flagship programmes for restoring regional balance. However, at the same time, it has invested massively in the infrastructure and economic base of large cities (Planning Commission 2008), as noted above. Despite assertions being made regarding right to free mobility and livelihood anywhere within the federal structure, there has been no political will strong enough to confront micro level policies, administrative orders and instances of organised violence by regional parties, resulting in deceleration in migration.

Bardhan (2003) believes that the contending groups have come to value the procedural usefulness of democracy as an impersonal 'rule of negotiation and demand articulation inside the ruling coalition'. He argues that the Chinese were better socialists than India before reform but now they have become better capitalists. It is indeed true that China has allowed private enterprises of all sizes to grow in urban areas by absorbing migrant workers at low wages, gradually eclipsing the importance of the State sector. The State too has purposely relaxed the *hukou* system and allowed rural residents to migrate and be employed by these enterprises for reasons of economic efficiency, without being too bothered about its impact on the living environment of the elites in the cities. It is therefore no surprise that the current rate of urbanisation in China is much higher than that of India and there has not been any deceleration in this rate in recent decades, unlike India.

There are two key watchwords around which politics is being and would be played in the urban sector during

the 11th and 12th Plans, given the framework of elite capture. The first is 'affordable housing' and the second is 'slum free cities' and both the terms reflect intelligent institutionalisation of conflict resolution within the neo-liberal framework of urban governance. These have raised expectations sky high among different groups of the population and vested interests and each is interpreting the goals and their operationalisation differently. Urban poor and slum dwellers have started harbouring a vision and a new hope that their dreams of living in decent shelter would be realised. The real estate and housing lobby that was living under the mortal fear of a 'burst of the bubble' in the housing sector, see a clear escape route as they anticipate major concessions and massive public money flowing into real estate. They perceive an increased profitability in housing sector and its phenomenal growth in the future. A section among the elite, who assiduously project themselves as the 'middle class', are also excited as they expect the prices of two and three bed room houses to come down due to various governmental incentives and relaxation of controls on the private market. They also know that the strategy would automatically exclude those who do not have the affordability. This would result in sanitisation of large cities through eviction of the slums.

The government, with one eye on the precarious logic of ensuring adequate number in the Parliament with a volatile coalition and the other on the forthcoming elections, does not want to antagonise any section and consequently takes no clear position. It is important that a clear statement is made on the perspective of the Mission, in order that the Plan objective of inclusive growth retains its credibility. The operationalisation of the goals of providing affordable housing and creating slum free cities must be brought within the public domain of discussion and made transparent in the context of reaching out to the poor.

Bibliographic References

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| <ul style="list-style-type: none"> • Bardhan, Pranab 2003, <i>Crouching Tiger, Lumbering Elephant: A China-India Comparison</i>, Working Paper, University of California, Berkeley. • Dutta, Shyam S 2000, 'Partnerships in Urban Development: A Review of Ahmedabad's Experience', <i>Environment and Urbanisation</i>, vol. 12, no. 1, pp. 13-26. • Indo-US Financial Institutions Reform and Expansion Project 1998, <i>The Pune Water Supply and Sewerage Project: Focus on Private Sector Participation</i>, Project Notes, no. 9, United States Agency for International Development (USAID), New Delhi. • Indo-US Financial Institutions Reform and Expansion Project 2000, <i>Lessons Learned:</i> | <p><i>Ahmedabad Municipal Bond and Water Supply and Sewerage Project</i>, USAID, New Delhi.</p> <ul style="list-style-type: none"> • Jockin, A, Patel, Sheela & Burra, Sundar 2005, <i>Dharavi: A view from Below</i>, Society for Promotion of Area Resource Centres (SPARC), Mumbai. • Kundu, D & Samantha, D 2010, <i>Redefining the Inclusive Urban Agenda in India: A Critical Appraisal, Economic and Political Weekly</i>, forthcoming. • MoUD 2005, <i>Guidelines for Urban Infrastructure Development Scheme for Small and Medium Towns</i>, Government of India, New Delhi. • MoUD 2006, <i>Community Participation Law: State Level Reforms, JNNURM Primers</i>, | <p>MoUD, New Delhi.</p> <ul style="list-style-type: none"> • Municipal Corporation of Nasik 2006, <i>Checklist for Urban Reform Agenda under JNNURM</i>, Municipal Corporation, Nasik. • Payne, Geoffrey 2002, <i>Land, Rights and Innovations: Improving Tenure Security for the Urban Poor</i>, ITDG Publishers, London. • Planning Commission 2008, <i>Eleventh Five Year Plan 2007-2012, vol.III</i>, Government of India, New Delhi. • Ramamoorthy, Sarita 2009, <i>Citizens Review, Jawaharlal Nehru National Urban Renewal Mission, Focus on the Global South – India</i>, Hazards Centre, New Delhi. • SPARC 2005, <i>Producing Knowledge and Information</i>, SPARC Annual Report, SPARC, Mumbai. |
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Heritage Conservation in JNNURM

An analysis

RAJENDER SINGH

ABSTRACT

Under JNNURM, heritage protection is reflected in low priority, as observed in capital investments sought by the Mission cities through the City Development Plans. This trend continues in funds sanctioned for the projects as well. Such a response on heritage protection can be attributed to inability of Urban Local Bodies (ULBs) to understand the importance of heritage as an economic, social and environmental asset and lack of skills to formulate projects for heritage protection and conservation. This scenario needs to be changed through provision of incentives and enabling of ULBs with expertise towards heritage protection and conservation, under the Mission specially since majority of Mission cities have a wealth of urban heritage.

ASSESSING CITY DEVELOPMENT PLANS

Of the 65 cities under JNNURM, Ajmer, Amritsar, Hardiwar, Madurai, Mathura, Mysore, Nanded, Puri, Ujjain and Varanasi were included primarily on the basis of their heritage significance and related economy. The inclusion of these cities was a way forward towards achieving

Rajender Singh is an urban designer and conservation architect practicing in New Delhi. He is associated with JNNURM as an Urban Renewal and Heritage Expert with the Ministry of Urban Development, Government of India. Rajender was earlier teaching at Department of Urban Design, School of Planning and Architecture, New Delhi.



Urban heritage in Panjim, that is not included as a heritage city under the Mission

the overall objective of the Mission in response to the views of Prime Minister Manmohan Singh on protection of heritage cities of national importance, as expressed on launch of the programme in December 2005. Heritage protection was seen as one of the objectives of the Mission.

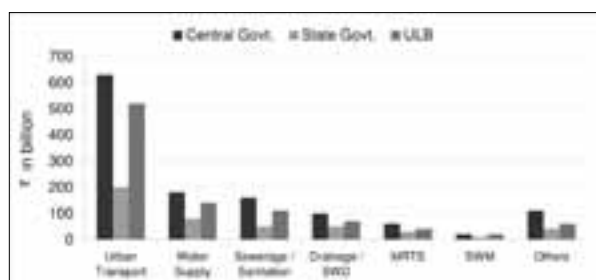
Study of the City Development Plans (CDPs) projects that besides the heritage cities of national importance included in the Mission, most of the cities possess significant heritage resources in the form of natural heritage, historic city cores, monuments and living heritage such as crafts. Old cities and heritage precincts of Ahmedabad, Chennai, New Delhi, Panjim, Shimla and Srinagar are some such examples. This emphasises the need for addressing the heritage significance. Most of the Mission cities reflect low priority for heritage protection in the CDPs. Majority of CDPs

prepared by consultants or the ULBs give negligible focus to heritage protection and conservation in their Capital Investment Plans (CIPs). Only ₹ 63.42 billion were proposed for urban renewal projects which is 2.3% of the total Capital Investment of ₹ 2664.98 billion proposed in all CDPs and heritage projects totalled to ₹ 46.37 billion, representing only 1.7% of total investment proposed in all CDPs. The CIPs reflected no or little investment proposed for heritage projects as compared to the wish list for improvement of basic and transport infrastructure.

A clear focus has been seen on seeking Additional Central Assistance (ACA) from JNNURM for basic and urban transport infrastructure in the CDPs. The capital investment of all the CDPs put together amounted to ₹ 1373.91 billion for urban transport and related infrastructure, while ₹ 1051.04 billion

were proposed for basic infrastructure including water supply and source augmentation, urban waste management and drainage. The urban transport and basic infrastructure accounted for 56% and 39% respectively of the total capital investment of all CDPs. (Technical Cell, JNNURM 2007). Hence, the CIPs clearly reflect focus on projects for improving water supply and source augmentation, sewerage system, solid waste management, road improvement and public transport with maximum capital investment proposed for transport related infrastructure.

In this respect, CDPs of heritage cities included in the Mission due to their heritage significance were no different. The idea of heritage and history of the city in most of the CDPs was reduced to introductory notes for the CDP to claim the heritage value of the city but their intent did not reflect in matching capital investment or project conceptualisation in the proposal on heritage protection.



Sector wise distribution of funds reflecting agreed share between Centre, State and ULB
Source: Technical Cell, JNNURM 2007

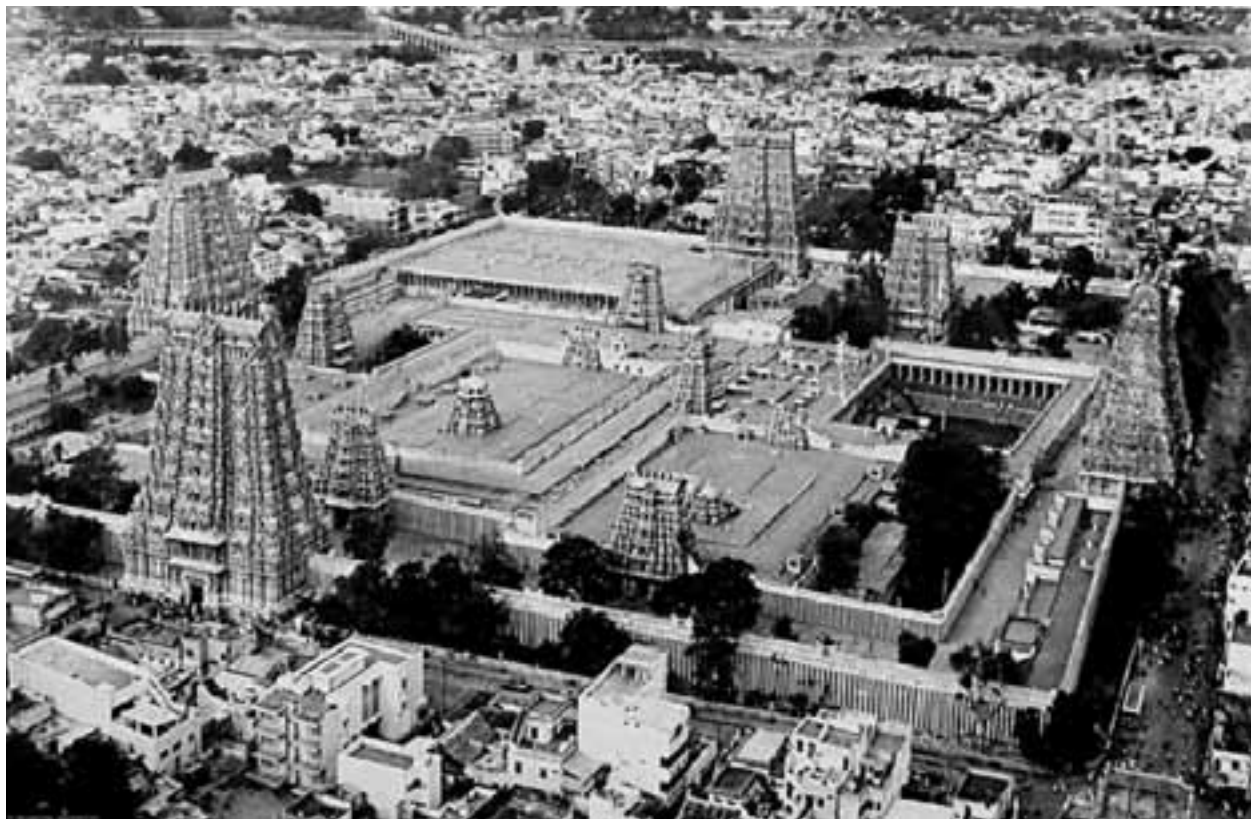
ROLE OF ULBs

There is no doubt that majority of Indian cities need very high attention for augmenting basic and public transport infrastructure to improve urban quality of life. Yet, the lack of response for heritage conservation cannot be alone vested with need or high priority for improving basic infrastructure but upon the fact that most local bodies did not know how to go about proposing projects and investment for heritage protection and conservation.

Madurai is one of the most popular pilgrim and tourism destinations in India and significant part of its economy is centred on tourism and cultural and living heritage of the place. It is also one of the cities selected under JNNURM due to their heritage significance. Despite this, only one project that may be considered related to heritage was proposed in the CDP of Madurai. The ₹ 30 million proposal was for beautification of the area surrounding the Meenakshi Amman Temple. In comparison, the total CIP proposed by the Corporation of Madurai was ₹ 23.6 billion. The example of Madurai's CDP clearly demonstrated that not enough emphasis or importance was given to heritage conservation in the original documents and guidelines by the Mission, dissolving the primary purpose of including the city on heritage grounds. In the absence of a comprehensive approach to heritage protection and conservation in the CDP of Madurai, the Mission recommended that the Madurai Corporation prepare a Comprehensive Heritage Development Plan (CHDP) as an addendum to the CDP in order to do justice to

Total Investment in Urban Infrastructure and Governance (₹ in billion)					
Sector	A	B	C	D	Total
Urban Transport	814.18	356.26	106.60	96.87	1373.91
Water Supply	193.31	135.37	41.93	30.01	400.62
Sewerage / Sanitation	129.35	133.23	31.12	39.54	333.24
Drainage / SWD	75.18	91.67	13.51	20.64	201.00
MRTS	22.50	98.00	0	0	120.50
SWM	39.52	18.96	4.68	4.93	68.09
Urban Renewal	13.73	32.19	6.27	11.23	63.42
Preservation of Water Bodies	17.81	20.39	3.35	6.54	48.09
Development of Heritage Areas	12.65	11.93	14.50	7.29	46.37
Prevention of Soil Erosion / Landslides	0	3.59	.25	2.68	6.52
Parking	.44	2.78	0	0	3.22
Total	1318.67	904.37	222.21	219.73	2664.98

Sector wise distribution of funds for Category A, B, C and D Mission cities
Source: Technical Cell, JNNURM 2007



The Meenakshi Amman Temple of Madurai that is included in the Mission as a heritage city
 Source: Madurai Corporation, Madurai

heritage importance of the city and to access ACA for heritage projects.

On the other hand, a serious note of heritage protection and identified projects was taken by some Mission cities such as Jaipur, Hyderabad, Mysore, Panjim and Ujjain, in the CDPs. The response probably was a result of the fact that the CDPs were prepared by ULBs already engaged in heritage conservation with involvement of heritage experts. This is illustrated by the case of Ujjain for which the CDP was prepared by a team of consultants with conservation experts on board. 43% of the CIP of Ujjain was proposed for heritage protection and related projects out of the total Capital Investment of ₹ 7.59 billion. Unfortunately, examples like Ujjain are rare amongst the Mission cities.

HERITAGE PROJECTS UNDER JNNURM

The Mission encouraged many of the cities to come up with CHDP and proposed Detail Project Reports (DPRs) on heritage protection and urban renewal of old city areas. Some of the successful DPRs that have been sent for funding under JNNURM are:

- Pedestrianisation of Charminar Area, Hyderabad.
- Urban renewal of parks, gardens and open space near heritage precincts, Panjim.
- Revitalisation of Bhadra Fort Precinct, Ahmedabad.
- Rejuvenation of Dalhousie Square, Kolkata.
- Broadway and Urban Renewal Project, Kochi.
- Mahakal Kshetra Improvement, Ujjain.
- Conservation and propagation of Panna Meena Baori and its environs Amber, Jaipur.

These projects primarily came from ULBs that are well resourced and already have heritage cells or advisory bodies and are conscious of potential of heritage resources in their cities. However, the response of the mentioned projects is like a drop in the ocean with respect to potential of heritage conservation and urban renewal in the Mission cities.

Of the total sanctioned amount, ₹ 600 billion was for the DPRs for all sectors under ACA, projects worth only rupees seven billion have been sanctioned under heritage and urban renewal sectors (MoUD 2010). This reflects that heritage and urban renewal projects got approximately one percent share of the total

sanctioned cost under JNNURM so far. This is an area of potential where the Mission can bring more attention to overcome such a strong disparity with respect to heritage significance of the Mission cities.

ISSUES AND CHALLENGES

In recent decades urban development and local bodies have focused only on green field development of cities and left out old cities and heritage areas to their own fate. These old cities and heritage areas are greatly ignored by most urban development and municipal bodies due to lack of vision and plans. Urban development bodies are more comfortable with development of new areas and infrastructure than trying to improve and maintain existing or old city areas. This is a serious issue that needs attention. The heritage conservation and urban renewal of old cities require understanding and high quality documentation of urban heritage resources followed by sensitive interventions.

Some of the key issues concerning heritage and urban renewal in the Mission cities, due to which heritage protection and its valuation as an important economic,

social and environmental resource continue to suffer:

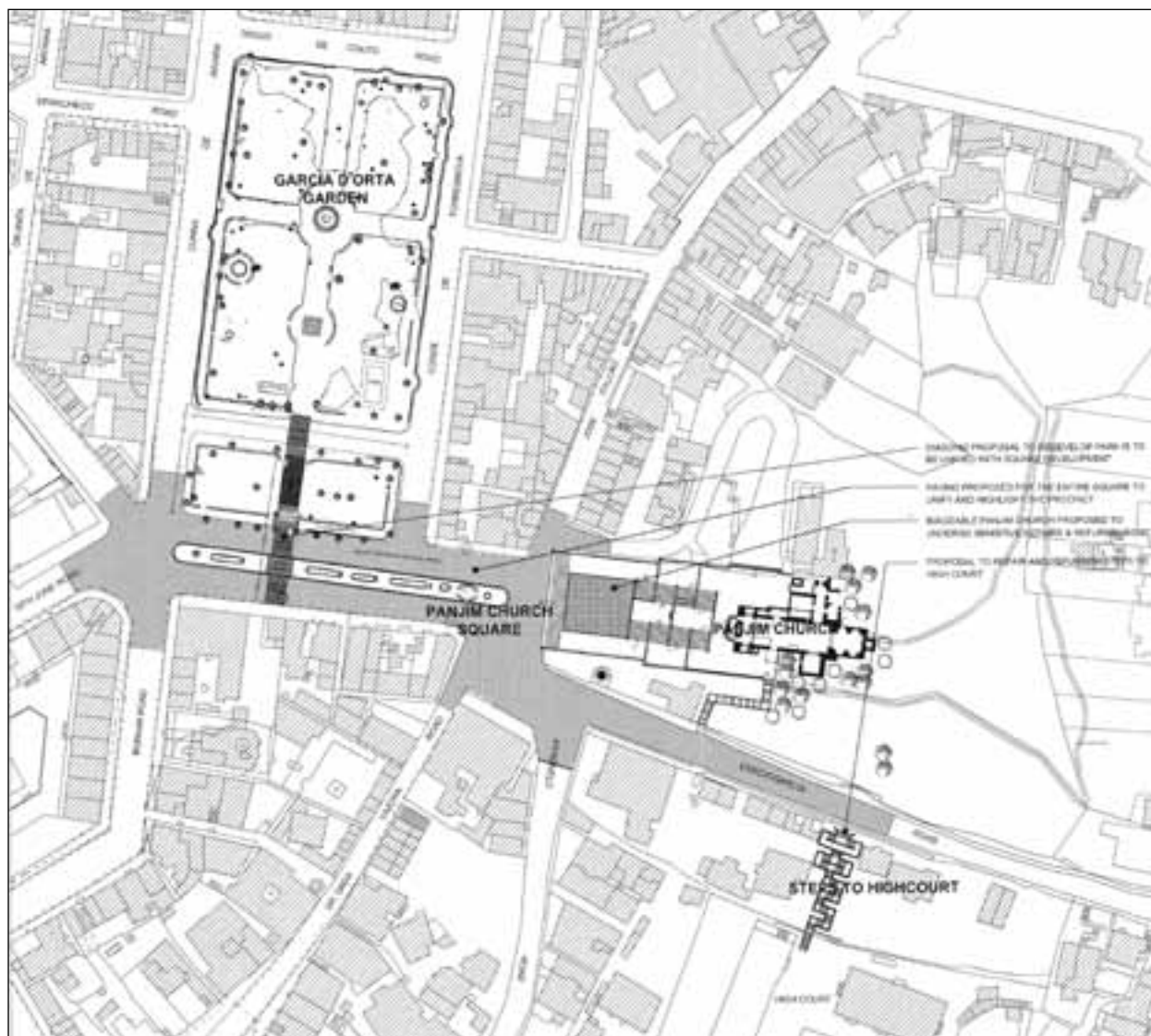
- Insufficient qualitative support material and development documents on planning and intervention for heritage conservation and urban renewal to define economic, social and environmental potential of heritage resources.
- Lack of awareness, knowledge and skills in most ULBs to understand the significance of heritage resources and perceive them as assets in order to sensitively intervene in heritage and old city areas.
- Inadequate documentation and information on heritage resources and old cities.
- Lack of synergy between public and private sector to deal with heritage conservation and urban renewal to improve urban quality of life.
- Little allocation and sanction of funds for heritage conservation and renewing old cities by the Centre, states and ULBs is an area to be assessed.

LEVERAGING THE OPPORTUNITY

A number of organisations sensitive to heritage protection and conservation responded to issues related to lack of attention paid to heritage in the CDPs on



Panjim Church, Panjim, for which a project report has been submitted
Source: City Corporation of Panaji



Project proposal submitted to the Mission for Panjim Church and area surrounding it shows sensitivity on heritage area conservation by promoting enhancement and conservation of valuable heritage precincts of the city
 Source: City Corporation of Panaji

the advice of the Ministry of Urban Development. This resulted in preparation of toolkits and support materials on heritage protection and conservation and urban renewal to improve focus on these. The proposed process of revising the plans and detailed project reports to make them living documents is yet to start. However with a proactive initiation, the response to heritage conservation and urban renewal can be updated by preparing addendums to existing CDPs, as an essential way forward under the Mission.

The JNNURM is an unparalleled opportunity that can facilitate a historic process of sensitive evolution of historic cities and act as an anchor to bring about

change in perception of heritage conservation in urban local bodies. The Mission and the urban local bodies need to consider heritage protection and urban renewal of old cities as an urgent need and not a luxury to improve public space and their functioning.

It is imperative to facilitate allocation of dedicated funds and adequate resources through advisory and skilled support on heritage, to pursue and coordinate the cause of heritage protection and conservation with the urban local bodies. Opportunities can be created through pilot projects on heritage conservation and urban renewal and initiation to set up heritage cells in urban local bodies of the Mission cities, involving

STEPS TOWARDS SUCCESSFUL HERITAGE CONSERVATION AND URBAN RENEWAL UNDER THE MISSION

- Make it mandatory for Urban Local Bodies to follow guidelines and toolkits on heritage and urban renewal.
- Make it mandatory to set up a city level heritage conservation advisory body chaired by Municipal Commissioner and Heritage Cell.
- Make it mandatory to prepare comprehensive heritage development and management plan with action oriented agenda that establishes economic, social, and environmental benefits.
- Clearly define areas and projects for which Additional Central Assistance can be accessed, especially on heritage and urban renewal.
- Create an advisory cell in the Mission with adequate human resources and relevant experts for the remaining period of the Mission to help achieve well defined agenda on heritage conservation and urban renewal.
- Share funds on 90:10 basis where 90% of the funds come in the form of Additional Central Assistance funding by the Mission for projects relating to heritage conservation and improvement of public space in old cities.

experts from heritage sensitive institutions or organisations.

The guidelines and documents prepared under the Mission need to be leveraged to promote projects that are likely to bring greater public benefits from urban heritage conservation and urban renewal. The focus of the assistance can be on heritage and old city areas for creation and improvement of public space, renewing of traditional and tourism economy with adaptive reuse of heritage buildings for greater public purpose. It could include improving basic, social, and public

transport infrastructure, improvement and protection of natural heritage and new projects that can help revive crafts and other traditional living heritage. Funds for documentation of heritage resources can be encouraged as it is primary need for initiating process of heritage protection and promotion of related projects.

Hence, by pursuing a well structured agenda on heritage conservation and urban renewal, the Mission can enable the Indian cities to move forward in the right direction, with sensitivity towards their irreplaceable heritage resources.

Bibliographic References

- MoUD 2010, MoUD, Government of India, New Delhi, viewed August 2010, <<http://jnnurm.nic.in/nurmudweb/Project/sector.pdf>>.
- Technical Cell, JNNURM 2007, *JNNURM: Summary and Analysis of Capital Investment Plans presented by Mission Cities in their CDPs*, Government of India, New Delhi.

Sustainability

Beyond JNNURM and Master Plans

Building Clean and Efficient Cities: Initiatives under the Urban Climate Project
Ashish Rao Ghorpade, Laasya Bhagavatula23

Developing a Heritage Resource based Approach
Nicole Bolomey31

The Sustainable Indian Cities: An oxymoron
Kavas Kapadia41

Building Clean and Efficient Cities

Initiatives under the Urban Climate Project

ASHISH RAO GHORPADE AND LAASYA BHAGAVATULA

ABSTRACT

A number of sub-missions and programmes have been initiated by the Central and State governments that aim to assist improving urban conditions in the cities, parallel to the JNNURM. The Urban Climate Project is a three year Asia Pacific Partnership programme, through which schemes for provision of clean and efficient energy and developing green guidelines and building norms have been undertaken for Coimbatore and Rajkot.

Examples from the two cities demonstrate that it is possible to include thoughtful and simple measures at the city level in conjunction with individual infrastructure projects to help the overall improvement of the urban environment in the long term. It is important to use the opportunities that the Mission and other development initiatives have brought in for infrastructure augmentation through a wave of awareness and transparency towards developing clean, green, efficient and sustainable cities.

Ashish Rao Ghorpade is the Manager (Urban) at International Council for Local Environmental Initiatives (ICLEI)-Local Governments for Sustainability-South Asia, New Delhi. An architect planner by profession, Ashish is heading the Urban Climate Project. He is the organisation's key team member for urban and planning issues.

Laasya Bhagavatula is a Project Officer at ICLEI in the Energy and Climate Sector. She has Bachelors in Architecture from Jawaharlal Nehru Technological University, Hyderabad and Masters in Sustainable Design from University of Sydney, Australia. Laasya has been involved in developing the green building norms.

BACKGROUND

In the developed world, the aim is to transform cities into green metropolises over the next 10 or 20 years. Even by conservative estimates, half of India's population is likely to be living in cities by 2050 (Department of Economic and Social Affairs, Population Division, United Nations 2008). This creates a need for similar ideas to be adopted by Indian cities. Much needs to be done urgently, so that the cities do not crumble under pressure of the unfulfilled needs of millions. The subject of clean and efficient energy has gained relevance lately as a tool for better and holistic development, especially in countries such as India that are still putting in place basic amenities and infrastructure for their citizens.

JNNURM AND ENVIRONMENTAL SUSTAINABILITY

At the end of 2005, after considerable discussion and review of the country's emerging urban situation, the Indian federal government, through the Ministry of Urban Development (MoUD), launched the much awaited and needed programme, JNNURM, mainly to 'encourage reforms and fast track planned development of identified cities with focus on efficiency in urban infrastructure and service delivery mechanisms, community participation and accountability of urban local bodies or parastatal agencies towards citizens' needs (Ministry of Urban Employment and Poverty Alleviation & MoUD). Five years have passed since this Mission was initiated and a lot of discussion and debate has taken place about the distance covered and path taken from intent to execution. Meanwhile, the national and state governments have also initiated a number of sub-missions and programmes that aim to assist improving urban conditions in the cities. As a result, the JNNURM cannot any more be looked at in isolation but needs to be considered within the larger national framework.

It is notable that the Mission has been intended not only as a fast track gap funding mechanism for infrastructure development, but essentially as a programme to encourage and facilitate reforms and development for improved urban environment in Indian cities. As per review of the City Development Plans (CDPs) of the 65 Mission cities it is seen that a majority of the cities commit to becoming 'Green', 'Sustainable', 'Eco', 'Efficient' and 'Clean' cities, while describing the vision. To achieve this vision, the CDPs list the cities' existing infrastructure status, the

overall situation of the city and the need of improving the same by listing out a range of large scale projects. A large number of these proposed projects were approved after submitting a detailed report and at present a majority of cities are in various stages of implementing these projects with an overall assumption that improved infrastructure investments would lead to better urban environment. The infrastructure investments, mainly grants, are opportunities that if utilised well through proper long term planning, phased execution and developing a composite roadmap for priority based steps can help in attaining the vision. Carried out in this manner, any project funded under the Mission for a city will not be an end in itself but one of the ways to achieve its vision. This means additional inputs will be required in most cities to reach the overall vision.

International Council for Local Environmental Initiatives-South Asia's (ICLEI-SA) recent energy status and emissions review of 41 Indian cities shows that their carbon emission levels are extremely low in comparison to cities in the developed world (ICLEI-SA & BHC 2010).¹

However, improved urban environments would mean better living conditions within a city for humans as well as for urban biodiversity and access to clean air, water and land. These would also translate to better management of environmental resources. Some of the key hurdles that come in the way of achieving this situation are lack of transparency and capacity. Transparency here would not mean just knowing the state of affairs, be it service levels or staffing situations, but also stating and acknowledging information publicly, that is, accepting or agreeing to a situation that may be far from perfect.

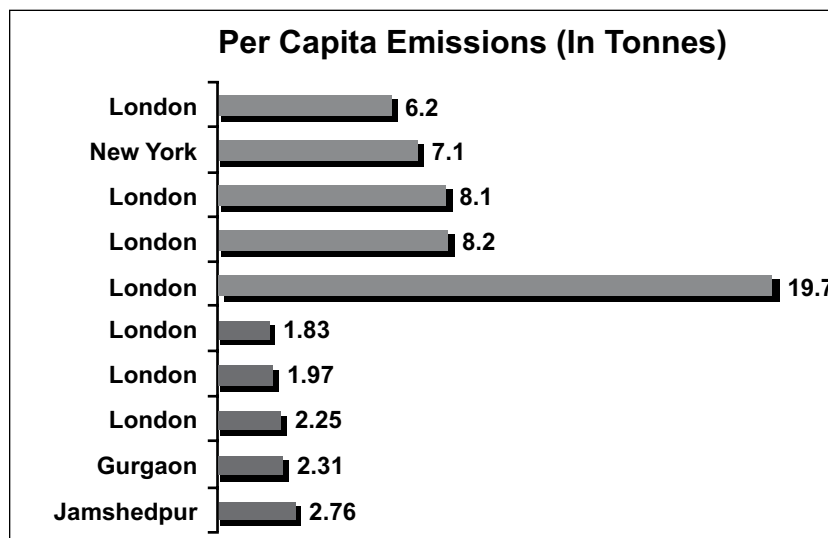
CURRENT GREEN URBAN INITIATIVES

The MoUD very recently embarked on a journey of defining and operationalising Service Level Benchmarks (SLBs) for urban services across all Indian cities. This is a very welcome action wherein cities collect and share information on service levels for water supply, sewerage, drainage and solid waste management. Sharing information on levels of services enables city teams to set targets for improvement and ensure timely action for better urban environment (MoUD 2010). The SLB is a national level initiative that will not only help city governments set and achieve targets but also promote transparency and accountability. There have existed similar systems that

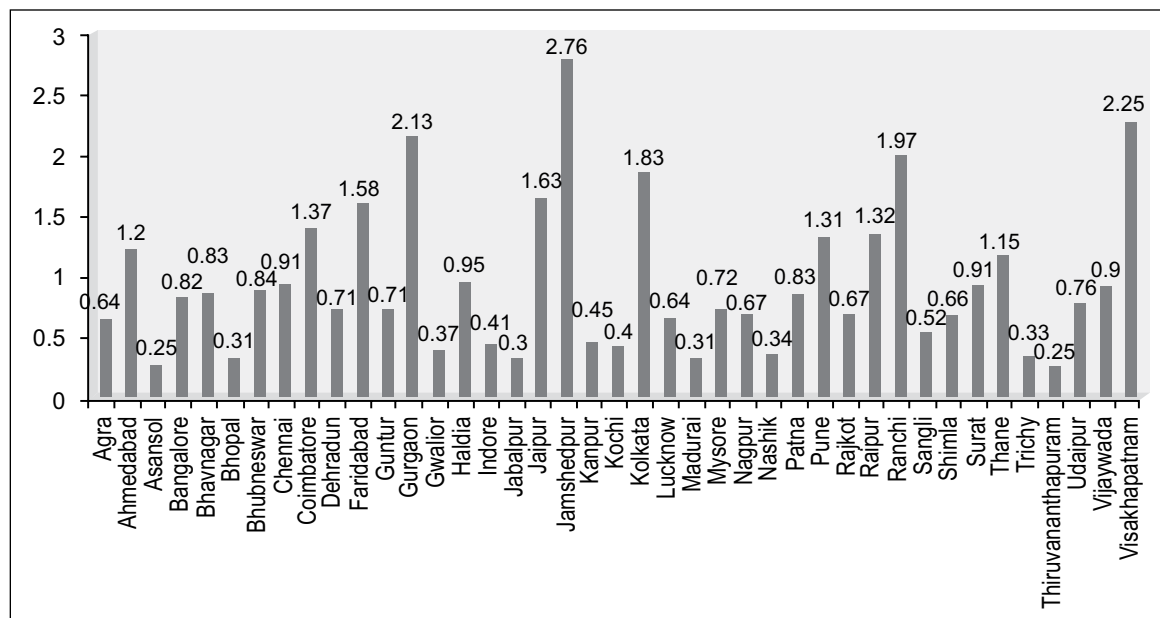
can facilitate transparency in the use of resources at the city level such as 'ecoBUDGET' (ICLEI 2007), 'City Report Cards' and 'Public Record of Operations and Finance' (PROOF).²

There are other recent schemes and missions at the national level that cannot be overlooked, such as the National Habitat Mission and the National Solar Mission instituted under the overarching National Action Plan for Climate Change (Prime Minister's Council on Climate Change, Government of India) that proposes a total of eight thematic missions for

addressing climate change. There are others such as the Green Mission, Water Mission and Energy Efficiency Mission that are still being finalised and will certainly have a bearing on cities' activities in the coming years. A green building design evaluation system 'Green Rating for Integrated Habitat Assessment' (GRIHA)³ has been conceived by The Energy and Resources Institute (TERI), New Delhi and developed jointly with the Ministry of New and Renewable Energy (MNRE), Government of India (GRIHA 2010). GRIHA is a national rating system for various types of buildings. Local governments can find it advantageous as it



Per capita emissions in Indian profiled cities (ICLEI-SA & BHC 2010) compared to the per capita emissions in leading world cities (Dodman 2009), 2007-08 (in tonnes)



Per capita emissions in 41 Indian cities: 2007-08 (in tonnes)
Source: ICLEI-SA & BHC 2010

provides an opportunity for rating newly constructed buildings such as large scale government buildings, corporation offices and JNNURM cells at little additional cost. Also, energy efficiency performance of water supply pumping applications and existing bore wells can be audited and improvements implemented. It is well understood that better infrastructure at the city level will attract higher population, continuing the cycle of increasing stress on available resources. There is a need for provision to support environmentally friendly, energy efficient or 'green' construction, both for new developments and for retrofits of existing building stock. The high population densities of most Indian cities emphasise the fact that improving or adding infrastructure in densely inhabited areas is not an easy task, as witnessed by road widening exercises and digging newer drains or pipelines that often require removal of roadside plantation.

The relevance of Energy Efficiency (EE) in new infrastructure is gradually being realised in context of Indian cities. In locations where there is potential for Renewable Energy (RE) such as wind and solar based power generation, city governments can make use of available national and state⁴ schemes for their power supply systems (MNRE, Government of India 2010). The participating cities understand the increasing

power stresses in the future and have already started taking independent initiatives to implement RE and EE measures at the city level.

Greater number of city administrators are learning from each other and are slowly waking up to non-wasteful ways, reducing losses, conserving excesses and reusing valuable resources. As a concept, this is not new to Indian cities and is inherent to the way of 'going on' in India but it has not been organised typically and calculated in a manner that could be useful in a planned and holistic way. As the government and city administrators try to develop infrastructure projects and facilitate access to services for urban population, these simple and well known actions can save resources, make projects viable, provide a better way of life and in the long run make a greener and better world.

INTRODUCTION TO THE URBAN CLIMATE PROJECT

The Urban Climate Project is a three year Asia Pacific Partnership under the United States Department of State between ICLEI-SA and the National Institute of Urban Affairs that began in February 2008. The objective of the project is to assist cities in implementing infrastructure projects by including



Coimbatore has committed to low carbon and clean development through its participation in ICLEI's 'Urban Climate project' since 2009

cleaner and efficient technologies and also model Greenhouse Gas deflections to showcase benefits. The project is aimed towards a comprehensive and multi sector clean development strategy backed by real investment capital, mainly targeting the JNNURM scheme (ICLEI-SA 2010). Fast growing Indian cities have potentially numerous opportunities to showcase clean development through JNNURM activities.

Rajkot and Coimbatore were finalised as project implementation cities under the Urban Climate Project, for which 15 clean development measures would be implemented through 10 interventions including technical and implementation support. ICLEI-SA has been involved with the Coimbatore and Rajkot city corporations since late 2008, advising and supporting them towards becoming clean and efficient. Coimbatore and Rajkot are both cities of a medium size with populations between 0.1-1 million. These have seen and are still undergoing high growth within the last decade and are projected to soon become the third or fourth largest cities of regional importance within their respective states.

INITIATIVES IN COIMBATORE

The Coimbatore Municipal Corporation (CMC) has set up an Energy Efficiency and Renewable Energy cell within the corporation premises for awareness generation and promoting RE and EE to the citizens with support from ICLEI-SA. In January 2010, the CMC carried out a pilot audit of the energy consumption for 19 CMC owned tube wells in two wards of the city. The CMC was concerned about expenditure under electricity bills and operation and maintenance for the city's tube wells and thus commissioned this audit, considering that there are a total of 764 tube wells under the CMC Area. The pilot audit conducted by ICLEI-SA revealed that a potential reduction of one to five tonnes of carbon emissions per tube well, per year was possible through improvements, besides savings of approximately 30% of electricity usage per bore well. The CMC is now preparing to go ahead with the comprehensive citywide audit and is in the process of identifying funding sources.

Also, as a pilot demonstration project to display the benefits of using solar energy, two 560 watt solar photovoltaic systems were installed in the CMC office. The Special Purpose Vehicle (SPV) system currently powers the city's Renewable Energy and Energy Efficiency Resource Centre (REEERC)⁵ and will be extended later to the Assistant Engineer's office and the



Coimbatore hosts an international workshop on improved urban environment, for local, state and national governments representatives in March 2009



The CMC, on the recommendation of ICLEI-SA, undertook an energy saving proposal for the lighting systems in the new corporation bus stand. The project saved over 100,000 kilowatt hour of electricity per year



Models on display at the Coimbatore Renewable Energy and Energy Efficiency Resource Centre

Births and Deaths Department. Installed in December 2009, the average savings expected per month are in the tune of 1000 kilowatt hour of electricity. In 2009, the CMC undertook projects to increase the efficiency of lighting in two corporation owned buildings, the main corporation office and the newly constructed Mettupalayam Bus Stand. The City undertook the projects with their own funding, advised in the process by the ICLEI-SA team.



A pilot audit of tube wells in two wards of Coimbatore enabled the city to identify the potential savings through improvements at the 700 odd city owned tube wells. A presentation outlining the main findings of the pilot audit was held for the CMC in April 2010

In June 2010, a wind-solar hybrid system has been installed in the newly inaugurated Mettupalayam Bus Stand. A pilot demonstration phase of 3.5 kilowatt peak capacity was undertaken with funding from two projects, the Urban Climate Project and the Local Renewables Project. The system serves as the primary power back up during daily load shedding hours for the police station at the bus stand, five closed circuit televisions covering the entire bus stand and some lights. The installation is expected to generate substantial energy to power the main areas of the bus stand during power shortage hours and also serve as a high visibility RE demonstration project in the city, located at the intercity bus stand where thousands of visitors will view the tall wind tower flanked by solar panels. A plan for extending the system to power the entire bus stand during load shedding hours has been prepared by ICLEI-SA, to be undertaken by the CMC when funds are available.

INITIATIVES IN RAJKOT

The Rajkot Municipal Corporation (RMC) has installed a 10 kilowatt peak photovoltaic power system in one of its municipal office buildings in the city's west zone. The system is a demonstration project in the city for grid connected solar systems and feeds surplus energy back into Rajkot's power grid. Three solar trees, that is, multiple street lighting systems in the shape of a tree including 200 solar Light Emitting Diode (LED) and Compact Fluorescent Lighting (CFL) based streetlights have been installed.

In addition, the Rajkot Municipal Corporation is coordinating with ICLEI -SA to develop a greening action plan and operationalising green building codes for Rajkot. The RMC also developed its own waste water recycling byelaws along with ICLEI-SA for all



To further improve the energy performance of the new bus stand, a 3.5 kilowatt power wind-solar PV hybrid system was installed to act as the primary power back up of the bus stand. The system was inaugurated during the World Classical Tamil Conference in June 2010

new residential complexes having over 10 houses or individual residences with a built up area exceeding 750 square metres.

City Level Greening Guidelines for Rajkot

The City Level Greening Guidelines for Rajkot is an initiative that emphasises the significance of green cover in quality of life in the city and outlines the environmental and physical stresses faced by plants in the urban landscape. It recognises that tree planting needs to address issues of relating trees to other development requirements such as storm water drainage, power lines, sewers, water supply lines, foundations of buildings, distances from traffic signs, curbs, streetlights, access gates and bus stops, along with factors to maximise long term plant survival like ways of proper handling, careful planting and immediate and continued aftercare. The main tasks of this intervention are to:

- Develop a 'Green Plan' for Rajkot.
- Maximise green canopy cover.
- Evolve a menu of planting species.
- Formulate planting schedules and detailed design guidelines or manual.

The guidelines have been developed to provide a comprehensive manual for RMC to increase green cover in their city, ranging from inception to execution. The main aspects covered were divided into three sections; organisation, planning and implementation. The main objectives of the different sections are to:

- Establish a body with members drawn from all stakeholder organisations and institutions at all levels.
- Prepare a 'Green Cover Development Plan' for the City to be an integral part of the General Development Plan that includes land use, infrastructure and transportation proposals.
- Increase public participation.



Rajkot has committed to low carbon and clean development through its participation in ICLEI's 'Urban Climate project' since 2009



Greening guidelines were developed for Rajkot to help the city keep the importance of green cover in mind while planning for overall development

Various measures and strategies are suggested to enable RMC to achieve each of these objectives. Adopting the greening guidelines by the Corporation will enable a substantial reduction in carbon emissions across the city and enable a holistic development of the city with sustainability and greening as a key focus area.

Rajkot Draft Green Building Norms 2010

In 2004-05, building sector energy consumption (including construction of buildings) accounted for nearly 33% of India's total energy consumption. Buildings also have a large environmental impact over their life cycle. Recognising the need for building sector energy consumption to be addressed at the local level across the entire city, in 2010, Rajkot Municipal Corporation (RMC) decided to undertake an exercise in the development of green building norms applicable for all building structures in order to set local benchmarks for minimum acceptable performance in water and energy usage in residential structures.

Rajkot Municipal Corporation has been a leader in many environmental issues and the development of green building regulations was initiated by the city in keeping with their Vision 2020. Main objectives of Green Building norms for Rajkot are:

- Maximum benefits to be obtained by building owners at minimum extra costs.
- Specific regulations developed keeping in mind Rajkot's local conditions and priorities.
- Norms should be enforceable without RMC needing to build extra human resource capacity.
- Greater savings citywide in energy and water consumption.
- Maintain harmony with the General Development Control Regulations 2004 and RMC's existing byelaws including the water recycling byelaws.
- Ensure that all aspects of building design and functions are attempted to at least a minimum level by each household or building.

Main areas covered are water and energy management and conservation, site planning and climate responsive



Understanding the importance of reducing building level energy consumption in order to reduce emissions in the city, Rajkot developed green building norms to be adopted by new buildings along with the regular building byelaws

building design. These norms or Rajkot have been developed at two levels; a set of comprehensive norms for new construction and a concise set of criteria for existing construction, to achieve minimum compliance.

CONCLUSION

The examples of Coimbatore and Rajkot demonstrate that it is possible to include thoughtful and simple measures at the city level in conjunction to the individual infrastructure projects. Such measures not only add value to the projects in themselves but help the overall improvement of the urban environment in the long term. Projects funded under JNNURM and some additional state supported projects are helping the cities cope with the growing population and its

infrastructure needs. The new projects aim to provide better access to services for the citizens, but the cities also need to augment consumption at user level through better awareness. Policy interventions, normative measures and pilot demonstrations are also aspects necessary to be addressed to bring about behavioural changes in a way necessary for the sustainability of these projects. Hence, while the JNNURM and other development programmes have brought in a large number of opportunities for infrastructure augmentation, a wave of awareness and transparency is required for the success of these programmes. This can only be brought about by reforms and simple but thoughtful policy measures including pilot implementation projects for demonstration and capacity building that address the long term vision of the city.

Bibliographic References

- David Dodman 2009, 'Blaming cities for climate change? An analysis of urban greenhouse gas emissions inventories', *Environment and Urbanisation*, vol. 21, no. 1, pp. 185-201.
- Department of Economic and Social Affairs, Population Division, United Nations (UN) 2008, *World Urbanisation Prospects: The 2007 Revision*, New York.
- GRIHA 2010, MNRE & TERI, New Delhi, viewed August 2010, <www.grihaindia.org>.
- ICLEI 2007, ICLEI, viewed August 2010, <<http://www.ecobudget.org/>>.
- ICLEI-SA 2010, ICLEI-SA, New Delhi, viewed August 2010, <<http://www.iclei.org/index.php?id=11653>>.
- ICLEI-SA & British High Commission (BHC) 2010, *Roadmap of South Asian Cities and Local Governments for the Post 2012 Global Climate Agreement and Actions*, ICLEI-SA & BHC.
- India Together, Civil Society Information Exchange Pvt. Ltd 2010, Civil Society Information Exchange Pvt. Ltd, Bangalore, viewed August 2010, <<http://indiatogether.org/campaigns/proofblr/>>.
- Ministry of Urban Employment and Poverty Alleviation & MoUD, Government of India, *Jawaharlal Nehru National Urban Renewal Mission: Overview*, Ministry of Urban Employment and Poverty Alleviation & MoUD, Government of India, New Delhi

- viewed August 2010, <<http://www.jnnurm.nic.in/nurmudweb/toolkit/Overview.pdf>>.
- MNRE, Government of India 2010, MNRE, Government of India, New Delhi, viewed August 2010, <www.mnre.gov.in>.
 - MoUD, Government of India 2010, MoUD, Government of India, New Delhi, viewed August 2010, <<http://urbanindia.nic.in/programme/uwss/slb/slb.htm>>.
 - Prime Minister's Council on Climate Change, Government of India, *National Action Plan on Climate Change*, Government of India, New Delhi, viewed August 2010, <http://pmindia.nic.in/climate_change.htm>.

Notes

- ¹ ICLEI-SA along with the British High Commission (BHC) carried out the energy profiling of 41 Indian cities under a recent initiative 'Roadmap of South Asian Cities and Local Governments for the Post 2012 Global Climate Agreement and Actions'. The report compiled the energy and emissions profiles of 42 Indian cities and 12 cities from other countries in the South Asian region. Refer <<http://www.iclei.org/index.php?id=11684>>.
- ² The PROOF campaign was a collaborative effort of four non profit, independent, non governmental organisations for carrying out budget analysis and fiscal audit of Bangalore Mahanagar Palike. This initiative was started in 2002 with a focus on 'Disclosure, Debate, Dialogue and Discussion' on use of public

funds. Efforts were made to involve citizens in the performance audit. Refer <<http://indiatogether.org/campaigns/proofblr/>>.

- ³ The GRIHA system is a rating tool that helps people assess the performance of their building against certain nationally acceptable benchmarks. It will evaluate the environmental performance of a building holistically over its entire life cycle, thereby providing a definitive standard for what constitutes a 'green building'. The rating system, based on accepted energy and environmental principles, will seek to strike a balance between the established practices and emerging concepts, both national and international.
- ⁴ MNRE has several schemes in place to provide financial assistance in the form of loans and rebates to encourage adoption of renewable energy and energy efficiency.
- ⁵ The Coimbatore REEERC is a capacity centre within the CMC to provide information, literature and technical capacity on RE and EE within the corporation and the community. The centre provides technical assistance, awareness generation and exhibition space to local business on RE and EE related matters. The Coimbatore REEERC was set up by the CMC with ICLEI-SA under another ICLEI programme, the Local Renewables Model Communities' Network project.

Developing a Heritage Resource based Approach

NICOLE BOLOMEY

ABSTRACT

JNNURM is based on a fundamentally negative view of the Indian cities. It tries to improve infrastructure and governance without realising and preserving the positive qualities that these cities may have. It is therefore important to make some small adaptations to the programme and revisit the general approach to urban development in India. In future, the programme must be based on the knowledge and recognition of the age-old qualities and the character of these cities. In order for India's urban development to become sustainable, it is argued that the introduction of a positive, heritage and resource-based approach to urban development and urban governance is imperative.

INTRODUCTION

Heritage has not been a key element of JNNURM, although it has gained more and more recognition in the course of the Mission. In the last two years, two groups of experts under the umbrella of UNESCO have contributed to the revision of the JNNURM City Development Plan (CDP) Toolkit (MoUD 2009) and the development of a Cultural Heritage Detailed Project Report (DPR) Toolkit. The process also yielded a brief

Nicole Bolomey is Programme Specialist for Culture, UNESCO New Delhi office. She is a trained landscape architect with a postgraduate degree in the conservation of historic landscapes and gardens from University of York, UK.



Traditional roovescape of single storey buildings broken by insensitive modern construction towering over the old constructions in Srirangapatnam, Karnataka. Planning and Urban Design Guidelines could prevent such disruption while guiding the development and growth

analysis of the CDPs of all Mission cities and the draft version of a new tool named as 'Heritage Resource Management Plan' (HRMP). This sectoral plan for heritage related aspects in a city should become a key tool not only for the JNNURM but also for the development of Master Plans, Development Plans and Regional Plans. The main changes introduced by the expert group in to the base documents of JNNURM can be summarised as follows:

- Introducing a definition of urban heritage.
- Moving from 10 'Heritage Cities' to the notion that 'all' Mission cities have historic areas and should thus reflect this heritage in the CDP and may, in extension, submit heritage projects.
- Mainstreaming heritage into the sectoral plans for all sectors from water to transport
- Outlining heritage as a separate sector in the HRMP.
- Adding the heritage angle to institutional reforms, financial structuring and other key aspects of CDPs.
- Introducing, in the DPR toolkit, a wide range of potential projects that are related to heritage, going far beyond the good old lighting of monuments or purchase of old looking street furniture.

The above changes are however far from impacting the development and sanctioning of projects in a substantial way, let alone the processes of institutional reforms and capacity building. A more thorough revision of the Mission's approach and guidelines is needed to ensure that the cultural and natural resources of the Indian cities are not damaged or destroyed by the programme that aims at enhancing the urban environment.

The currently ongoing mid-term review, commissioned by the Ministry of Urban Development (MoUD) is a very positive attempt to look into the challenges of JNNURM. It is projected that the review shall not only help to improve the current Mission, but inform the development of 'JNNURM plus'. This follow up

programme is expected to be closer to the ‘perfect’ programme that could lead to the much needed sustainable development of urban India. So, what are the key changes required to make the JNNURM or any other urban programme culturally sustainable?

GUIDING PRINCIPLE: PROBLEMS OR QUALITIES?

Taking one step back and looking at the administrative setup and focus areas of MoUD and the various state town planning departments, it is found that the cities are reflected as ‘conglomerates of problems’; in the structure, ways of working and focus areas of the key Indian institutions guiding urban development. The same is true for the JNNURM.

The cities are characterised by a number of challenges such as fast growing population, high numbers of slums, lack of infrastructure facilities, failing provision of basic services, congested road systems, absence of adequate public transportation, lack of availability or implementation of planning tools, lack of financial viability and inability to cope with contemporary living requirements.

But, are the Indian cities really so bad? Why this one sided, negative approach? What about the qualities of Indian cities? What about their strength to deal with multifarious challenges over centuries, sometimes even millennia? How have these survived? What quality of life did these offer in the past? Why did the travellers through centuries mention these in awe? Could it be some important aspects of these cities and towns are being overlooked by the government?

India has one of the longest histories of urbanisation spanning over the past 5000 years. The cities have been able to cope with extreme conditions such as high temperatures, heavy monsoon rains, long spells of drought, earthquakes and storms. These were built to suit the needs of a great variety of local and migrant people, traditional family structures of various kinds and their requirements for private, community and public life. Further, the cities served to create and display wealth; host economic processes, production, trade and commerce and through all of this, evolved and transformed over time.

The surviving, living cities of today have displayed the greatest capacity to react, withstand, adopt,



Devraj market and the surrounding market square and buildings in Mysore, Karnataka that are more central to the urban heritage than many public monuments



The skyline of Jodhpur reflects the unmistakable character of the city. Urban design guidelines and a heritage sensitive Master Plan can guide the development in a way that maintains the great character while allowing for improved living conditions

accommodate, include, use and benefit from the challenges. These cities have learned to be sustainable. Is this not enough to think of these as sources of great inspiration, sources of traditional wisdom in urban living, sources of profound knowledge in sustainable development? This is what should be understood as the legacy, the heritage resource of the Indian cities.

For example, the heritage resources of a city like Ahmedabad, are its *pois* (neighbourhood unit) as social and economic units, its timber framed houses that have withstood many earthquakes and its courtyard systems that create a natural cooling airflow, making it possible to survive the heat of the region, without electricity. Besides, it has heritage resources such as the underground rainwater storage systems that cater for many years of water use in the city, the step wells and ponds at its outskirts that manage a safe and sustainable use of groundwater. In the Chettinad region, to mention one other example, the heritage resources do not just lie in the famous mansions, Burma teak pillars, Italian marble floors and the great craftsmanship still alive today that resulted in creation of these houses. The less obvious, but equally important elements of the Chettinad heritage lie in the urban and rural planning,

water collection and irrigation system, rainwater harvesting, street pattern, drainage system, cooling courtyards and plantations.

These brief examples are only scratching the surface. The heritage resources of Indian cities go much beyond and offer solutions not only for earthquakes and climate change, but for quality of life in general.

RESOURCE BASED URBAN DEVELOPMENT

It must be argued that along with programmes like JNNURM, the MoUD and state planning departments proper should adapt their way of working to a more heritage and resource-based approach. The development of Indian cities could become more sustainable, not only in a social, economic and ecological sense but also in a cultural sense, if such a new approach to their development would transcend in the ways urban planning and development are managed in India.

Anyone who wishes to change the cities of India must first understand how these function and what



Matta Oorani, Kanadukathan in Chettinad, is just one element of the sophisticated regional system for the collection, storage and use of water in this dry region

constitutes their inherent character. It is important to acknowledge the wealth and qualities of the cities and translate this understanding into processes of governance, legislation, planning and project development. Sustainable development, as carried out in the past, can only be achieved when the learning, understanding and appreciation of a city's resources becomes a precondition for developmental programmes, of course joined with cutting edge, contemporary knowledge, technology and design.

Research and knowledge on age old qualities of Indian cities is available. A great number of scholars, Indian and foreign, have spent a good part of the last century at understanding and learning from traditional India. Some of it is published, while much information remains stored in the drawers and computers of universities and researchers. Missing is the link between research and institutional action. The ministries, departments of town planning and Urban Local Bodies (ULBs) are hardly aware of the information. Besides, most universities, research institutions and scholars are not likely to be associated with the government setup, while the big consultancy firms who get most urban development contracts are

often staffed with professionals from fields not related to this information. A general disconnect can be detected at all levels.

National institutions such as National Institute of Urban Affairs and non governmental organisations such as Indian National Trust for Art and Cultural Heritage, both based in New Delhi, are making great progress in bridging the gap. International organisations like Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ), the Germany based International Council for Local Environmental Initiatives (ICLEI) and International City/County Management Association (ICMA) in Washington DC, are contributing to the same goal. The Indian Heritage Cities Network (IHCN), founded in 2006 by its Indian and international member cities and institutions under UNESCO with the endorsement of MoUD, has put heritage-based development at the core of its mandate and activities. It serves as a platform for exchange and capacity building, developing policy advice and guidance for cities, states and the Centre.

Further to the existing initiatives, the United Nations country team in India, in particular the New Delhi



Tradition timber framed construction in Dhajji Dewari. This is one of the safest construction methods for buildings to withstand earthquakes in Srinagar, Kashmir



River Jhelum and Dal Lake once were the main resources of Srinagar for transport, agriculture and other sources of life. Today, many canals are neglected, filled up or full of garbage



A wedding in Chettinad, Tamil Nadu, reflecting use of courtyards as social spaces

UNESCO office, has been discussing the setting up of an Urban Solution Exchange. The platform that has already been quite successful, operating 13 communities relating to the implementation of the Millennium Development Goals (United Nations) ranging from Education to Microfinance brings together actors from all walks of life and links academia, government and civil society to find and promote new solutions. An Urban Solution Exchange community would be a timely effort bringing together everyone with a stake in improving urban development in India, while jointly finding solutions that are based in India's cultures and traditions.

SUGGESTED REVISIONS IN MISSION APPROACH AND IMPLEMENTATION

Trends in Urban Regeneration

In the JNNURM Overview document (MoUD & Ministry of Urban Employment and Poverty Alleviation 2006, p. 10), while outlining the sectors and projects eligible for assistance under the JNNURM the first point mentions, 'Urban renewal, that is, redevelopment of inner (old) city areas, including widening of narrow streets, shifting of industrial and commercial establishments (...)', while point seven and nine list 'Development of heritage areas' and 'Preservation of water bodies' respectively. Although it is positive that the Mission focuses on heritage in several of its eligible sectors, it does so without acknowledging the research and experience that has gone into urban renewal in the past 30 years across the globe. The widening of roads in historic areas, to mention just one example, has long been shelved as an ineffective and contra-productive tool. Shifting of commercial activities has left many a European town with a derelict inner city leading to poverty and crime. There is a need to consult contemporary findings and include only those tools in the Mission that have a proven track record in improving the condition of cities, be it in India or in other countries.



The world famous red sandstone used in traditional construction at Shekhawati, Rajasthan; as opposed to its use for the modern drainage system in Delhi



Historic craftsmanship of Ahmedabad, Gujarat, disappearing behind new constructions

As argued in the CDP revision (MoUD 2009), heritage cannot be treated separately, without acknowledging its interdependence with other sectors. When planning infrastructure, water, sewerage, energy and most of all roads and transport, it is important to also look at the heritage of such systems. The traditional systems should first be analysed and acknowledged, before disregarding and destroying these. How did things function before the planned intervention? Why did they function or fail? In many instances, the traditional systems may still carry value, may be linked to the new, conserved, reused or used for new purposes. The *nala* (drain) system in Delhi, as displayed in the 'South Delhi Greenway' project¹ (Oasis Designs Incorporated) is just one example where a traditional storm water system that also plays an important role in the ground water recharge, could be used not only for the discharge of storm water but as a green system, a

connector between public transport systems and a new asset for walking and cycling through a city.

Further to this, all programmes and projects in the historic environment (which is not only the listed monuments, but all areas of a city with any heritage value) should be analysed with view to their impact on the heritage resources. What does a city win, when building a flyover above an area of historic tombs? What does it lose, when inserting monorails in narrow lanes of historic city centres? What effect do modern bridges and ring roads have on traditional *ghats* and *yatras*? JNNURM could lead the way in introducing new ways of sensitive planning, while using tools such as 'Cultural Impact Assessment' to assure that projects do not harm the historic environment.

Governance and heritage

Governance, decentralisation and the institutional reforms are key pillars on which JNNURM rests. If a city does not comply with certain parts of the reforms agenda, it shall not receive any funds for projects. But, protection and management of heritage and resource-based approach to development does not figure in these reforms currently.

Urban conservation, the link between heritage and development must become part of the reform agenda. Suggested changes in the ULB (MoUD 2009) are the following:

- A Heritage Cell must be instituted at state and ULB level.
- A qualified Heritage Committee needs to provide the Cell with the necessary expert input and advice.
- A Heritage House, advisory service to the local



Planning is not a new concept. It is as much part of the heritage value of a city as its buildings, open spaces, trees and water bodies, as seen in Jaipur, Rajasthan

population, should become the third pillar in integrating conservation in the processes of planning, building and development.

- Interdepartmental collaboration in the area of heritage must be regulated.
- Legal tools must be adapted and planning guidance developed.
- A suggestion for the JNNURM to fund the Heritage Cells for an initial phase of three to five years has been put forward in order to ascertain success of this important reform.

However, all of this can only be effective, if besides the changes at ULB level, there will also be similar changes at the State and Central level. These higher authorities equally lack the capacity to deal with the country's existing urban resources, making it hard to assure the overall quality of the changes proposed for a city. Only if capacities are built and reforms conducted at all levels will urban development become sustainable.

Financial aspects of conservation

Heritage is a resource that adds to the value of a city and is able to create and sustain wealth. This must be reflected in the financial ambitions of the Mission.



Mansions in Fatehpur, Shekhawati, Rajasthan are getting submerged with every new layer added on top of the road

As an example, traditional water systems and the protection of catchment areas could considerably lower the cost of water in a city. The restoration of a traditional courtyard house, as opposed to tearing it down and building a new house, not only cuts the cost of investment, but also lowers the use of energy for future cooling and heating. In most cases, it also assures the prevention of certain types of natural disasters that have occurred in the respective location over centuries.

Heritage areas, the world over, have moved from being dirty, derelict, slum like areas to fetching highest real estate prices in only 30 years. This may not be a desirable outcome, as it is often linked to a gentrification of the area. A view to maintaining the social fabric may be more important than having a gentrified location with over-the-roof rental prices. But improving historic areas through gentle conservation of private and public buildings and spaces with provision of up-to-date infrastructure services for private and public facilities can improve the lives of the people, thus becoming a vital factor for poverty alleviation and economic growth. The real benefit would be the improved livelihood of people owning and residing in these areas, while tourism may just be side effect. So,

looking at the JNNURM, there is a real need to re-visit the policy, not to fund the conservation of privately owned heritage. After all, an approximate 90% of heritage structures in India are in private hands!

Poverty and heritage

A large percentage of notified slums in India are actually urban villages and historic city centres. At these places, the built heritage is still rich, social linkages are age old and traditional crafts are alive. This must become an important consideration in all aspects of the Mission, under MoUD and Ministry of Urban Employment and Poverty Alleviation, in order to protect and use the most valuable resources of the cities, without uprooting their social fabric.

Running the Mission

Over the past years, one conservation professional had been contracted to provide for the aspects of heritage under JNNURM, and assist in the sanctioning process for the CDPs and DPRs of the Mission cities. Heritage can however not be seriously integrated in the process of the Mission, if the National Steering Group, the Central Sanctioning and Monitoring Committee, the Mission Directorate and its Technical Cell, as well as the Technical Advisory Group do not have any serious representation of heritage professionals and specialists or competent agencies in a resource-based approach to urban development. At state level, the problem is

similar with the State Level Steering Committee and the State Level Nodal Agencies having no compulsory representation of any professionals with knowledge or experience in urban conservation. This must be changed if the quality of India's cities is to be seen as a serious concern under the Mission. Heritage professionals of various backgrounds must be included at all levels and in all functions of JNNURM, to assure that initiatives under the Mission not only help to conserve the urban heritage of India, but are stopped from (unconsciously) destroying it.

CONCLUSION

It must be emphasised that heritage is not a business apart but is integral part of all spheres of the living environment. If development shall be sustainable, there is a need to focus on the qualities of Indian cities and include a heritage and resource-based approach into all aspects of planning and building. The JNNURM can lead the way for this new approach, if it integrates its principles at all levels and in all areas of its functioning including training and capacity building, reforms, governance, economics, housing and poverty alleviation. For urban development to become sustainable in India, the changes must go further and find ways into the setup and working of the relevant ministries, departments and agencies.

Bibliographic References

- MoUD & Ministry of Urban Employment and Poverty Alleviation 2006, *JNNURM: Overview*, Government of India, New Delhi, viewed September 2010, <<http://jnnurm.nic.in/nurmudweb/toolkit/Overview.pdf>>.
- MoUD 2009, *JNNURM: Revised Toolkit for Preparation of City Development Plan*, Government of India, New Delhi,

viewed September 2010, <http://jnnurm.nic.in/nurmudweb/Brochures_Published/Revised%20CDP%20Tool%20kit-Complete.pdf>.

- Oasis Designs Incorporated, *South Delhi Greenway*, Oasis Designs Incorporated, New Delhi, viewed September 2010, <<http://oasisdesigns.org/sd1.asp>>.
- United Nations, *Solution Exchange*, United

Nations, New Delhi, viewed September 2010, <<http://www.solutionexchange-un.net.in/se.html>>.

Notes

- ¹ The project by Oasis Design Incorporated, New Delhi was developed for Delhi Tourism and Transport Department, Delhi Development Authority and Municipal Corporation of Delhi.

The Sustainable Indian Cities

An oxymoron

KAVAS KAPADIA

ABSTRACT

An intricate link can be probed between globalisation, city growth and sustainability. In most Indian metropolitan cities, no sustainability parameters are built into planning norms. Automobile numbers and use has gone out of control, air and water is polluted. As a result, Indian cities are mere agglomeration of massive population, with a majority of residents surviving with a highly compromised quality of life. The city is sustainable neither with respect to physical resources nor in terms of safeguarding its cultural and social vulnerability, with the highly westernised, new rich lifestyle enhancing the problem. The scenario of an urbanising India is grim unless some steps are taken to remedy the situation. An attempt has been made to evaluate the success of Indian cities against the indicators of sustainability in a comprehensive manner.

INTRODUCTION

The universally accepted definition of sustainable development as provided by the Brundtland Commission Report (World Commission on Environment and Development 1987) is '...development that meets the needs of the present without compromising the ability of the future generations to meet their own needs'. The spirit of the declaration of 'sustainability' lies in the use of available resources with consideration

Kavas Kapadia is the Dean of Studies and Professor at the Department of Urban Planning, School of Planning and Architecture (SPA), New Delhi. Besides regular teaching, lecturing and presenting papers in a number of international forums, he also handles consultancy on behalf of the SPA



A street in Kyoto, reflecting induced order at low residential density

to others, that is, our generations to follow. One of the key words in the definition of sustainability which has gone unnoticed is 'needs'. The insatiable appetite for the possession of earthly goods and the spectre of consumerism that has swept the world to keep the idea of globalisation afloat, have together completely redefined the concept of 'needs' for people in general and specially the growing Indian middle class, with their disposable income. This has far reaching consequences on the life style, quality of life (QOL) and development of cities.

The above definition pre supposes that citizens around the world regard such proclamations that would bestow wisdom upon them, with utmost sincerity. In the gap of 23 years that have followed, however, very little has been seen in terms of conviction from Governments around the world implying sincere resolve to do anything about the said Brundtland proclamation.

GLOBALISATION AND SUSTAINABILITY

The Indian city illustrates the concept of sustainability running headlong into confrontation with the emergence of the concept of globalisation. Globalisation has ensured that all major cities, including metropolitan cities where the question of sustainability is most vitally challenged, are an integral part of a global 'network'. The ill effects of failure of sustainability brings home the realisation that the city is a 'system'. On the face of it, urban sustainability is all about the use of resources such as land, water and air, but with the global forces at work, it spills into the realm of the other vital functions of the city like provision of jobs, fostering a clean and productive environment, providing equitable and a just society for social classes and genders and provision of amenities

and services such as shelter, water, sanitation, health and security to all its citizens. These are all qualities that would enable the city to fit into a category of global network of cities of similar importance. Besides physical parameters, sustainability involves socio cultural dimensions of the society, rendered vulnerable due to the intrusion of alien cultures via the conduit of telecommunications. There is also an inherent cultural conflict between the prevailing norms of the societies in question with those that 'globalisation' sometimes demands.

The 'resource use' part of sustainability argument progressively adds up to the end result of global warming. The rapid pace of urbanisation, accelerated rate of consumerism and indiscriminate abuse of natural resources have awakened in the world citizens the concern of global warming and climate change. Scientific studies have established beyond doubt that one of the most critical factors in the climate change being witnessed by man is due to the collective 'Carbon footprint' that is, the total greenhouse gas emissions caused directly and indirectly by a person, organisation, event or product and a large portion of this is due to human activity. The Carbon footprint considers the six Kyoto Protocol greenhouse gases namely, Carbon dioxide, Methane, Nitrous oxide, Hydrofluorocarbons, Perfluorocarbons and Sulphur hexafluoride (Carbon Trust 2010).

Since sustainability has so many dimensions, it becomes imperative to chart the path as to how the limited resources would be used within the regenerative capacity constraints of the city, all the more, since the city is one of the major manifestations of the outcome of the collective actions of a society.

The idea of sustainability is closely linked to the concept of 'needs' as stated earlier. The consumer culture on the other hand has inflated the sense of 'needs'. The 'shopping mall', is a symbol of conspicuous consumption that has heralded the movement towards converting the citizen to a 'consumer' and selling him the product that he does not need. The traditional town has lost out to the mall. In fact the large malls have successfully replicated the essential elements of the traditional towns; the street, the meeting places and the places of entertainment and trade, aided by technological gizmos.

Globalisation induces standardisation, culture of unification, not only amongst the societies but also in the physical features of the settlements. It takes

very little effort today to blend into an amorphous city culture and end up with a physical environment that is 'global' rather than be driven by regional or local concerns and be rational and different. Similar buildings, building materials, technology, work and life styles yield cities quite the same in basic character with the same ill effects. Paradoxically, for this reason alone, globalisation accentuates the search for the uniqueness offered by local character, in order to place the city more advantageously in the global network.

URBANISATION AND SUSTAINABILITY

India's urban scene is set to move to the next level in decades to come. Urbanisation is no more an option, it is critical to India's development. Over the next 20 years, there will be an increase of over 250 million (over the existing) in the urban population and there is likely to be a net increase of 270 million in the working age group. Nearly 70% of these would seek their employment in cities. This is a situation where urban economy will provide 85% of the Gross National Product and yet this scenario is not too encouraging as 75% of urban citizens, today live in the bottom segment of approx US\$ 1.5 per day (McKinsey Global Institute 2010).

Metropolitan cities are the engines of economic growth, job providers that promise the hope of a job. As per the Census of India (2001), Delhi added 2.2 million migrants to its population in 1991-2001 alone. It is estimated that in the next 25 years, there would be 240 million job aspirants migrating from rural to urban areas (McKinsey Global Institute 2010). This does not contribute in any positive way to any of our metropolitan cities as illustrated by the fact that about 50% or more of the population in Delhi, Kolkata, Mumbai and other metropolitan cities reside in slums or slum like conditions (Ministry of Housing and Urban Poverty Alleviation 2007). Sustainability does not come with a degraded quality of life. The issue of sustainability is at stake when the city and indeed the entire hinterland, becomes an object to plunder for personal gains. Vested interests play havoc with established norms of development and the resulting environment fails to respond to the parameters of sustainability, because 'need' is replaced with 'greed'. Skyrocketing property prices and shortage of housing units puts urban housing out of reach of most urban poor who are forced to squat on or grab the nearest available open spot. There is a proliferation of slums in the urban landscape. The resultant scenario of a few luxury towers standing amidst a sea of slum

like settlements has become a norm rather than the exception in the Indian metropolitan cities. The slum dwelling population of India had gone up to 42.6 million in 2001 (Census of India 2001). The huge economic disparity, one would think, may discourage further inflow into the city, but cities have a universal magnetism and some inherent advantages that have abated their growth all over the world.

United Nations Centre for Human Settlements (HABITAT) estimates that cities occupy 1.2% of the earth's surface (1996). Cities have an advantage of high density, potential for a range of employment, proximity of work and stay location, sharing of resources and optional utilisation of transportation and land and a generally higher level of community interaction. Cities propagate the economy of scale and churn up a completely new culture epitomised by the glitz and glamour of London, New York and Tokyo. Cities embody the history and culture of the people, become the setting for unforgettable literature¹ and inspire creative endeavours².

Besides being the arena for the vested interests to exercise their power play, cities are the setting for the tertiary sector growth to ideas of modern communications, banking, research in science, technology and the base of the billion dollar entertainment industry. 'In many cases the birth rates are well below replenishment levels in global terms, population growth is actually slowed in the growth of cities. Cities could indeed be helping to save the planet' (Newman 2006).



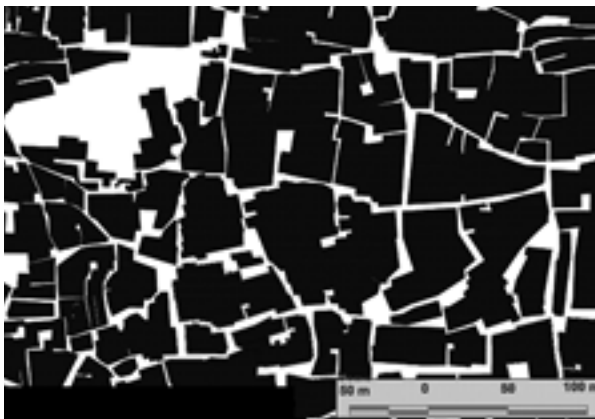
Informal bazaar, a major economic activity in Indian cities



A street in downtown Tokyo, reflecting induced order at high density

LESSONS FROM HISTORY

The search for indigenous character to establish a unique identity for the city makes study of the traditional Indian city most relevant today. The traditional Indian city, like its counterpart elsewhere in the world was by nature a compact city, largely designed for pedestrian use and cycle rickshaws



A typical neighbourhood in Old Delhi. The dark areas are built up mass (65-70%) while the white ones are open areas (30-35%)

supported by horse driven *tongas*³ on certain marked routes. This was possible mainly due to the limited spread of these settlements. The population of these towns too was limited. Shahjahanabad or old Delhi was spread over nine square kilometres, Jaipur seven square kilometres, Indore six square kilometres and Surat eight square kilometres. In the post Independence era of India, most of these towns developed unplanned outside confines of the medieval boundaries at a massive rate and scale.

In traditional towns, domestic life revolved around an organically grown settlement pattern, closely knit to a physical density that would permit the essential public open spaces in the form of streets and *chowpals* (public squares) and larger courtyards. It is estimated that in a traditional medieval city of India, courtyards and pedestrian streets occupied nearly 30% of area and remaining was built up volume. Ground plus two or at only a few places three stories high, the compact ground coverage, as high as 70% ensured that the buildings shielded each other from the heat of the sun. Narrow pedestrian streets remained cool during hot summers and much cooling was obtained by natural wind currents, as observed in Jaisalmer, Shajahanabad (Delhi) and other cities located in the hot dry climatic belt in India. It is pertinent to note that courtyards and atriums were open to sky and not glass covered to trap the air inside. The indiscriminate use of glass in cladding buildings in the country is a mindless act of defying nature. This is globalisation's gift to India.

Being predominantly pedestrian entities, the towns ensured an interactive social community. In other words, the entire built up mass of the city was a compact monolithic volume with small punctures for the purpose of light, ventilation and movement. Choice of building technology and building materials and social customs had a huge role to play in it too and that got expressed in special architectural details and in use of space at the neighbourhood, residential levels. The biggest binding force was the citizen, the pedestrian of the city. This is an extremely vital aspect to understand.

Since most (rather all) Indian cities have their origin in the time of pre motorcar era, the area of roads available for cars is highly insufficient. With a high vehicle ownership, the vehicular traffic overflows on the roads taking a toll on the sidewalks. In most Indian metro cities today the simple ability and pleasure of walking is fast getting lost. The only redemption, as has been seen in cities across the globe, lies in a proper system of mass transportation.



High density mixed land use bazaar in Hong Kong

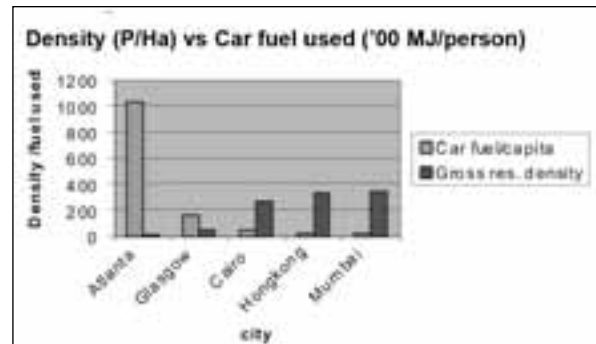


Residential street in old Delhi

URBAN DENSITY AND TRANSPORT TODAY

The concept of density involves land and people. Judicious use of land ensuring maximum returns is of prime concern in an urban context. It manifests itself in many ways, the most prominent one being high rise structures in the high land value zone. 'People' are of even greater significance in this relationship but are often left out of the equation. Human life has several dimensions. The one that fosters community development, increases contacts and hence quality of life, depends on density and use of land. Like any other variables, these too have an optimal limit, beyond which the quality of life begins to suffer.

It is observed that most Indian cities support a gross density distinctly higher than their counterparts in the west. Yet the quality of life in these cities is nowhere comparable to life in industrialised world. A study of Chinese cities has established a figure of 168 persons per hectare as the optimum beyond which the environmental efficiency begins to decline (Chen, Jia



Relation of density and fuel efficiency highlighted in five select cities.⁴ Transport energy is measured in Mega Joules (MJ); one litre of gasoline equals 30 MJ, gross density is measured in persons per hectare

& Lau 2008). There is a tremendous scope and need to evolve the corresponding figures for different Indian and other global cities.

Numerous global studies have established that communities with high density built up areas with overlapping activity zones and mixed land use are far more walkable than suburban neighbourhoods that are low density and totally personal motorised vehicle oriented. Hong Kong with a spot density of 1036 persons per hectare, compared to Shahjahanabad with 950 persons per hectare, amply proves this point.

The studies of gross residential densities in relation to the car fuel used per person in select towns clearly indicates an inverse relation, higher the density more fuel efficient is the city. This relation is highlighted in five select cities across the globe.

High densities, as seen in Mumbai and parts of Delhi cannot operate efficiently when each family has one or more cars. Such high density presupposes that most intra-city travel is done by means of mass transportation. An independent survey by the Associated Chambers of Commerce and Industry of India revealed that nearly 420 million man hours are lost every month by about seven million working population of Delhi and National Capital Region (NCR), using public transport for commuting between their homes and offices due to traffic congestion and increasing jams during peak morning and evening hours (2008, '42 cr man hours lost by 70 lakh wage earners of Delhi & NCR in a month', *Express India*, January 7, viewed June 2010, <<http://www.expressindia.com/latest-news/42-cr-man-hours-lost-by-70-lakh-wage-earners-of-delhi-&-ncr-in-a-month/258995/>>). Unfortunately the democratic liberty and the open market economy would never



Choked stream, a common site in many Indian cities



Stretching services to a breaking point. Crowds board a train at New Delhi Railway Station



Slums in Mumbai, where less is more

permit the strict car ownership and purchase norms as are followed in Singapore.⁵ The indiscriminate car ownership not only pollutes the environment, it chokes up roads, gives rise to road rage, prevents people from walking and legitimises an inequitable society. In order to induce people to reject their cars, a system of mass transit is required that circumvents the residence and work areas that may depend on light modes of transport

run on renewable energy sources or complemented by cycle rickshaws, if not entirely within walking distance. Strangely our government thinks of cycle rickshaws as being 'anti global' in nature. Of the nearly 400,000 cycle rickshaws plying the streets in Delhi only about one fourth are registered (Ravi 2006). In western countries these modes are seriously considered as short distance alternatives.

In order to introduce the cycle rickshaw and the car in a planned manner, the city must be so structured in advance. Also, to encourage and make walking a pleasurable experience, a lot of effort needs to go into detailed circulation and landscape planning. The change in mindset will also need to percolate down to the building level. The traditional open to sky courtyard planning has been replaced with the glass and steel box that permits excessive heat and light and is subsequently altered through air conditioning and screens. The built form must be suitably modified to the local climatic conditions, incorporating lessons from traditional architecture.

INCLUSIVE PLANNING AS THE WAY FORWARD

Cities today symbolise human progress in all walks of life. Ever since the industrial revolution this progress has been achieved by paying the tremendous price of environmental degradation, concerning all of us at some level or the other. The 'ecological footprints' of modern day mega cities are enormously spread out, several hundred times the size of the city. The open market economy and the newly emerging middle class with its spending power, confronted with the consumerist choice offered by the process of globalisation, have made the challenge of sustainability much more difficult. City planning must accept the 'people' as a resource. Sustainability in true sense requires a change in mindset.

As witnessed in the past, cities are bound to grow, whether planned for or not. The impact of not planning for urban growth would be catastrophic. Ignoring the parameters of sustainability will hit the urban poor the hardest and undermine the very idea of inclusive planning, forcing a majority of urban population to exist on the fringe of sustainability. Sustainability must become an indicator of the quality of life of the citizens and the driving force behind the planning and development policies of the state. In order to achieve this objective, the state needs to re-examine policies with a 'common good' approach. Currently

the whole planning process seems to be heavily tilted in favour of the highest economic strata. People's involvement in policy making is little and transparency and accountability in the governance is missing. A few suggestions towards achieving sustainable settlements:

- Let planning be driven by environmental and social and not economic and political concerns alone.
- Pay more attention to 'inclusive' planning rather than exclusive classes.
- Optimise the use of land equitably for all society.
- Explore the best density option with respect to services, energy use, mixed land use and social heterogeneity. This is a very important but tricky

issue since it involves tangible factors, that is, provision of services such as water, sewage, garbage and health education under the preview of state departments with their own limitations on the one hand and intangible variables such community interaction, sense of crowding, sense of security on the other.⁶

- Minimise the use of building material with high embedded energy.
- Minimise the need for private vehicles.
- Optimise social interaction.
- Simplify lifestyle by reducing unnecessary consumption.

Bibliographic References

- Carbon Trust 2010, *Carbon footprinting*, Carbon Trust, United Kingdom, viewed June 2010, <<http://www.carbontrust.co.uk/cut-carbon-reduce-costs/calculate/carbon-footprinting/pages/carbon-footprinting.aspx>>.
- Census of India 2001, Director of Census Operations, New Delhi.
- Chen, H, Jia, B & Lau, S 2008, 'Sustainable urban form for Chinese compact cities: Challenge of a rapidly urbanising economy', *Habitat International*, vol.32, no.1, pp. 28-40.
- McKinsey Global Institute 2010, *India's Urban Awakening: Building inclusive cities, sustaining economic growth*, McKinsey & Company.
- Ministry of Housing and Urban Poverty Alleviation 2007, 'Background Papers', *National consortium on JNNURM, Developing Inclusive Cities*, Government of India, New Delhi.
- Newman, Peter 2006, 'The Environmental Impact of Cities', *Environment and Urbanisation*, vol. 18, no. 2, pp. 275-295.
- Newman, P & Jennings, I 2006, *Cities as*

Sustainable Ecosystems, United Nations Environment Programme- International Environmental Technology Centre, Kobe, Japan.

- Pope, J, Annadale, D & Morrison-Saunders, A 2004, 'Conceptualising Sustainability Assessment', *Environment Assessment Review*, no. 24, SAGE Publications.
- Portney, K 2003, *Taking Sustainable Cities Seriously: Economic Development, the Environment and the Quality of Life in American Cities*, MIT Press, Cambridge, Massachusetts.
- Ravi, Rajendra (ed.) 2006, *The Saga of Rickshaw: Identity, Struggle and Claims*, A study by Lokayan, SAGE.
- United Nations Centre for Human Settlements (HABITAT) 1996, *An Urbanising World: Global Report on Human Settlements*, Oxford University Press, Oxford.
- World Commission on Environment and Development 1987, *Our Common Future*, Oxford University Press, Oxford.

Notes

- ¹ 'A Tale of Two Cities', 'The Merchant of

Venice', 'Oh Calcutta', to name a few.

- ² Such as Charlie Chaplin's classic 'City Lights'

- ³ Tongas have now become redundant or legally phased out in most cities.

- ⁴ Based on the chart *Private passenger transport energy per person in 84 cities, 1995* (Newman, P 2006, p. 282).

- ⁵ To purchase a new automobile in Singapore, a Certificate of Entitlement (COE) needs to be procured that may cost as much as the car. The number of vehicles released to be distributed every year is also restricted, hence even after getting a COE, one has to wait for their turn to be able to get the vehicle.

- ⁶ The tools available in the present scenario, such as building controls, regulations (Floor Area Ratio, setbacks, ground coverage and mix of Low Income Group, High Income Group and Middle Income Group building types) are rather rigid, sometimes outdated and usually controlled by the laws of the states. So any exercise trying to determine the perfect, functional density balance can only be approximately correct at best.

Way Forward with other Urban Renewal Schemes

*Implementation of the National Urban Transport Policy of India
through JNNURM: An assessment*
Noor Mohammad49

Transitions in JNNURM: Rajiv Awas Yojna
Usha Prasad Mahavir57

Implementation of the National Urban Transport Policy¹

An assessment

NOOR MOHAMMAD

ABSTRACT

An assessment of the impact of JNNURM initiatives in implementation of the National Urban Transport Policy of India reveals that the transport sector has claimed nearly a quarter of the resources of the Mission committed till now. However, the resource needs of the sector are immense and Mission funding forms a very small part of that requirement. While efforts have to be made for innovative financing including public private partnerships, cities should be enabled to use land as a resource to create and maintain urban infrastructure. The states and cities need to come forward whole heartedly in implementing the reforms and non government organisations, civil society, experts and the city dwellers need to be taken on board in a bottom up framework to make a meaningful change in the cities. It is also proposed that the Mission be made a continuing programme at least for a decade or two.

URBANISATION AND TRANSPORT

The Indian sub continent has a long history of urbanisation. Cities have flourished, declined or stagnated and even faced extinction at various

Noor Mohammad is the Member Secretary of the National Capital Region Planning Board and Chairman of Association of Municipalities and Urban Authorities, New Delhi. He has Masters in Physics, Economics and Administrative Sciences and a Doctorate in Economics. Noor joined the Indian Administrative Service in 1977 and served in various capacities first in Uttar Pradesh and later in India and abroad.



The extension of the Delhi Metro to NOIDA and Gurgaon has been implemented with funds outside the Mission

times in history. A number of cities have acted as seats of administration through history, predominantly serving as abode of the ruling classes. Hill capitals and district or *tehsil* headquarters are more recent examples. Hence, urbanisation has inextricably been related to the rise and fall of empires, kingdoms and dynasties. Cities have been the hub of political activity having the attention of rural and urban population.

In ancient times, there was flow of wealth to the cities functioning as centres of governance. These depended on the surrounding rural areas for primary produce that was relatively cheaper than the goods the cities produced. A huge number of people provided various services to the ruling classes and found place in cities. There was not much mobility for goods and services. The men folk of the ruling class depended on horses and elephants for mobility, while their women used *palkis* (palanquins) and other such modes. Some others used bullock carts, horse chariots and carts pulled by other animals, while the majority walked. There is evidence of roads and lanes in the ancient cities but the modes of transport were limited. These cities adopted mixed land uses and people had their work places near their homes. Hence walking, non motorised transport and mixed land uses that reduced demand for transport

were the hallmark of the ancient urban system. The first effort to link the entire sub-continent was the construction of Grand Trunk Road in the medieval period followed by the creation of the railway network in the Colonial times, centuries later. The main objectives behind these efforts were commercial and administrative.

Today India boasts of a large network of rail and road transport that facilitates movement of goods and people over long distances. This enables migration of people from long distances making cities bigger and bigger. The migrant labourers prefer to stay near their work places and often resort to living in temporary roofs covered with plastic sheets or tarpaulins. These tend to take the shape of slums over time with an ever increasing population. On the other hand, another class of migrants equipped with higher education and technical skills also move to cities thereby raising demand for affordable housing that is already in short supply. They travel long distances to work. Thus increase in size of the towns creates a travel demand, further complicated due to exclusive land uses and lack of adequate, affordable and reliable public transport. This in turn leads to a steep rise in private motorised transport resulting in congestion on the roads.

The fast moving motorised vehicles operating on fossil fuel add dimensions of pollution and emission of greenhouse gases. Promoting public transport, introducing fuel efficient vehicles, promoting Non Motorised Transport (NMT), bringing workplace near homes by mixed land use planning and adopting transport oriented high density development along the transport corridors are some of the steps that need to be taken to address the problem in an integrated manner.

NATIONAL URBAN TRANSPORT POLICY

Unprecedented urbanisation has resulted in an increasing travel demand. The number of private vehicles has gone up considerably with a reduced share of public transport. This has resulted in congested traffic conditions causing travel delays, loss of productivity, air quality deterioration, noise pollution and road accidents. In 1997 the Institute of Urban Transport of India was set up in New Delhi, as a society with the objective to promote and coordinate urban transport in the country. This was followed by announcement of the National Urban Transport Policy (NUTP) in 2006² to focus on providing efficient, reliable and affordable access and mobility to the people. However, urban transport being a State subject, the States are expected to take action to implement the policy. Cities have to come forward with NUTP compliant City Development Plans³ to implement transport projects.

The policy focuses on the need to ‘move’ people and not vehicles. It asserts that mobility needs to be safe, affordable, quick, comfortable, reliable and sustainable and should cater to all sections of the society for jobs, education and recreation. The policy seeks to adopt a multi pronged approach by integrating land use and transport planning, giving higher priority to public transport, encouraging NMT and walking. It encourages adoption of appropriate clean technologies, provision of parking, capacity building and transport demand management. The policy prescriptions can be summarised as:

- *Reduce:* The demand for motorised transport can be reduced by building compact cities, by developing housing near work places and by promoting non motorised transport, cycling and walking. Such a reduction in transport demand is sustainable and the ecological footprint of compact cities is considerably lower (Sanyal, Nagrath & Singla, pp.17-18). Compact cities like Barcelona⁴, Berlin and London that have population density of 5,100, 3,750 and 4,850 people per square kilometre have per capita

ecological footprints of 6.6, 4.7 and 3.2 respectively while it is as high as 13 in case of Atlanta and 11.8 in Dubai where densities are low. A reduction in private motorised transport can also be achieved by an extensive and efficient public transport system. An inadequate and unreliable public transport causes modal shift to motorised private transport that claims longer road space leaving much less for NMT modes and makes cycling and walking highly unsafe. A study conducted by Wilbur Smith Associates (2008), at the instance of Ministry of Urban Development, Government of India revealed that 28% trips comprised of walking and 11% by cycling in urban India. The proportion was higher in smaller cities where distances were small and roads were less congested.

- *Reform:* The vision of the policy is ‘to make Indian cities the most liveable in the world and enable these to become the engines of economic growth that power India’s march towards becoming a developed country’. To realise this vision, a number of reforms⁵ need to be introduced in the existing system that is unsafe, unreliable and often inadequate in both quantity and quality. These reforms are preconditions to JNNURM funding and are categorised as mandatory⁶ and optional⁷ reforms. Toolkits have been developed with the help of technical assistance of Asian Development Bank and World Bank for preparation of Comprehensive Mobility Plans (CMPs), guidelines have been issued for parking facilities, bus service improvements, feasibility for Bus Rapid Transit System (BRTS) projects and NMT, alternative analysis, Public Private Partnership (PPP) in the urban transport and setting up of Unified Metropolitan Transport Authority (UMTA). In addition, Service Level Benchmarks have also been adopted on December 3, 2009 to improve quality of service.
- *Renewal:* Improvements in the existing city transport infrastructure and its expansion are the major tasks Indian cities face. Inducing equitable allocation of road space to public transport, enhancing use of cycling and walking, creating parking places and using them to effect modal shift in favour of public transport, making para transit more effective, safe and affordable, use of Intelligent Transport System (ITS) and cleaner fuel, innovative financing of the city transport projects, creating an institutional mechanism, capacity building and public education are some of the components of the NUTP.

A number of initiatives have been taken to implement the policy. Though urban transport is a State subject,



Low floor buses were added as part of the Delhi Transport Corporation bus fleet under JNNURM

the Central Government has been guiding the states by issuing guidelines through toolkits and benchmarks and providing financial incentives under its flagship programme, JNNURM. Several key Central Government agencies play crucial role in the urban transport sector. An initiative by the Central Government has set a framework for the state level policies and strategies and innovations through pilot⁸ projects undertaken at the Central level could benefit a number of states.

The basic elements of the policy can be summarised as:

- Coordinated planning for urban transport.
- Integrated land use and transport planning.
- Equitable allocation of road space.
- Investments in public transport, cycling and walking.
- Parking policy.
- Regulatory mechanism for level playing fields.
- Policy for advertisements on transport and public utilities.
- Innovative financing.
- ITS, cleaner fuel and efficient technologies.
- Pilot project to develop strategies suited to local conditions.
- Capacity Building.

URBAN TRANSPORT INFRASTRUCTURE DEVELOPMENT UNDER JNNURM

JNNURM was initially limited to 63 Indian cities, while later Port Blair and Thirupati were added to the list making the total number 65. Together these cities account for 121 million (32.5% of India's total urban population). The 11th Five Year Plan Working Group on urban transport estimated the investment needs of the bigger cities significantly much higher than that for the smaller cities (Wilbur Smith Associates 2008, p. 86). Thus JNNURM covers all cities where urban transport investments are needed urgently. Going by this argument, the urban transport sector may claim a sizeable part of investment under JNNURM.

Planning and capacity building

Though the responsibility of urban transport planning, project preparation and implementation lies with the states, GOI has reforms like preparation of NUTP compliant CMPs⁹ by states or cities as a pre condition for JNNURM funding of transport projects in the mission cities. The CMPs are to integrate land use and transport planning and focus on mobility of the people rather than vehicles by giving priority to walking, NMT, all modes of public transport and intermediate public transport. In addition, there are advisories for densification of land use along major transport axes, and ban development on 500 metres on either side of the new bypasses. A new scheme of urban transport planning was launched to support the states in preparation of CMPs, Integrated Land use Plans, DPRs for transport projects and ITS feasibility reports. 80% Central Grant is given for studies and 50% for preparation of DPRs. To encourage integrated planning, capacity building has been taken up through centres of excellence in urban transport at Indian Institute of Technology (IIT), Delhi; IIT, Chennai; National Institute of Technology, Warangal and Centre for Environmental Planning and Technology University, Ahmedabad.

Public transport

The major component of NUTP is equitable allocation of road space to various modes by giving higher priority to the public transport, walking, cycling and NMT and discouraging private motorised vehicles. To promote public transport, Government of India provides funds for feasibility studies, surveys and awareness campaigns upto 80%. In addition, the Government provides financial support for capital investment through equity participation or viability gap funding to the extent of 20% of the project cost, subject to certain conditions being fulfilled. To this end the following major steps were taken:

- Metro rail projects were taken up in Bangalore, Chennai, Delhi, Jaipur, Kolkata and Mumbai and the

Delhi Metro was extended to NOIDA and Gurgaon. Faridabad is likely to be another addition to Delhi Metro Rail network. These projects are being implemented with funds outside JNNURM.

- All the state governments were advised to introduce modern city bus service on PPP based on Indore or some other improved model.
- The excise duty on buses was reduced from 16% to 10% with the aim to introduce modern buses in public transport with increased viability.
- Specifications of buses to be introduced were finalised and 15,260 modern low floor buses were sanctioned for 61 mission cities as part of the second economic stimulus package of which 7,600 are already on road.
- BRTS for nine cities¹⁰ for a total length of 422 kilometres at a cost of ₹ 47.7 billion was sanctioned under JNNURM.

The funding of buses was linked to a number of reforms:

- Setting up a Special Purpose Vehicle (SPV) to manage bus service and UMTA¹¹ to coordinate urban transport.
- Using PPP for operations and a mechanism for periodic revision of fares.
- Formulating policies on parking and advertisement and their implementation plans and a policy on Transit Oriented Development.
- Setting up an Urban Transport Fund and also a Traffic Information and Management Centre.
- Using ITS and modal integration.
- Designating a nodal department for urban transport and waiver of state and local taxes on public transport.
- Priority to public transport buses on roads.

Non-motorised transport

NMT systems (cycling and walking) are environmentally cleaner modes of travel that have remained neglected till date. In fact the space for

Estimates of required annual investments in JNNURM cities with population of JNNURM cities taken as 120.6 million

Study carried out by	Estimated rate of required expenditure per capita per annum (in ₹)	Estimated Amount (in ₹)
McKinsey Global Institute (2010)	3,082 (capital expenditure)	371.6 billion
McKinsey Global Institute (2010)	2,392 (operational expenditure)	288.4 billion
Wilbur Smith Associate (2008)	1,227	147.9 billion
Planning Commission Working Group	1,528	184.2 billion
Consulting Engineering Services	1,585 (for NCR outside Delhi)	191.1 billion



The cycle rickshaw, a sustainable but inefficient mode of non-motorised transport

cyclists and pedestrians has been decreasing as roads are being widened for providing more space for car users. JNNURM envisages construction of segregated right of way for NMT by providing assistance for construction of cycle tracks and pedestrian paths. The NMT needs to be connected to mass transit systems through feeder services or otherwise to make it a complete solution. To this end the states have been advised to provide dedicated paths for pedestrians and cyclists while constructing new roads, during widening of existing roads and to take care of NMT users while designing flyovers.

Parking

The policy recognises the need for allocation of urban land for parking, public transport stations and interchanges. As per the policy, the parking fee should reflect the true cost of the urban space occupied. The states have been advised to have a suitable policy for regulation of parking fee, to amend laws to provide mandatory parking space for all commercial and residential properties, to ban parking of motorised vehicles on arterial roads and to encourage paid parking on PPP basis. JNNURM also provides funds for construction of parking complexes. Three projects¹²

have been sanctioned for parking complexes worth ₹ 5.76 billion under the programme.

Integrated Transport System

NUTP envisages use of ITS and cleaner technologies in urban transport. The states have been advised to prepare projects for setting up Traffic Information Management Control Centres using ITS to manage city traffic in real time. To improve operation of para transit, pilot projects for Chandigarh and Delhi have been launched for scientific management of auto rickshaws and Delhi is implementing traffic management through a common control centre by making taxis and auto rickshaws Global Positioning System based. In addition, a common mobility card is being planned across all operators, all modes and all cities in the country including parking.

Project financing under JNNURM

A report prepared by McKinsey Global Institute (2010, p. 62) states that India's spending on its cities per capita, per annum is dismally low, being only 14% and 3% of what China and the United Kingdom spend respectively.¹³ The report has estimated India's investments required in the next 20 years as US\$ 1.182

trillion as capital expenditure and US\$ 1.04 trillion as operational expenditure. It is estimated that the capital investments required for urban transport account for 50% of the total capital expenditure¹⁴ and 45% of the total operational expenditure¹⁵. This means per capita, per annum expenditure of US\$ 134 for capital works and US\$ 116 for operational expenditure for the urban sector of which the urban transport works out to US\$ 67 (₹ 3,082) and US\$ 52 (₹ 2,392) per capita, per annum respectively.¹⁶

Another study (Wilbur Smith Associates 2008, p. 91) estimated urban transport requirement for the identified 87 cities as ₹ 4,353.8 billion between 2008 and 2027. The total population of the selected cities in 2001 census was 150.2 million and the estimated figure in 2008 is 177.4 million. Thus the average per capita per annum in 2008 works out to ₹ 1,227.

The 11th Five Year Plan Working Group (2006) estimated the total financial requirement of ₹ 574 billion of which 320 billion is only on Mass Rapid Transit System (MRTS). Later the working group revised the estimates to ₹ 1,325.90 billion in view of further anticipated economic growth and the projected requirements of BRTS (Ministry of Urban Development 2009). This works out to ₹ 1,528¹⁷ per capita, per annum.

Consulting Engineering Services (2009) has conducted another study for National Capital Region (NCR) Planning Board estimating a requirement of ₹ 1,763.5 billion at 2008 prices for transport development in NCR (a highly urbanised region) outside Delhi. NCR had a population of 44.5 million in 2007 that is expected to grow to 86.67 million in 2032. The NCR has a population of 44.5 million during the period 2008 to 2032. This works out to ₹ 1,585 per capita, per annum. These estimates will go much higher when Delhi figures are included. Thus the estimates made by different studies for the investment requirements for

urban transport infrastructure have varied from 1,227 to ₹ 3,082 per capita per annum.

As many as 524 projects of ₹ 582.8 billion (JNNURM 2010) have been sanctioned in the initial four years of which 94 belong to roads and flyovers, 19 for MRTS, 15 for other urban transport and three for parking which together account for ₹ 137.2 billion at an average annual investment of ₹ 34.3 billion. Thus 131 of the total 524 JNNURM funded projects, that is 25%, belong to the transport sector and claim 23.33% of the projects sanctioned under the programme. Besides, ₹ 1.5 billion have been released to Delhi for a number of projects which makes it 23.81%. JNNURM is the most significant intervention ever made in India and nearly a quarter of funds have been committed to this sector. However, these investments are far below the investment levels recommended by various studies.

THE WAY FORWARD

The funds required to fully realise the growth potential of Indian cities are huge and the budgetary resources would never be able to meet such a demand for resources. This opens a great scope for public private partnership (PPP) and private sector participation that needs to be streamlined. The cities may also be allowed to create land banks like development authorities and utilise it to finance creation of urban infrastructure and maintain it. A suitable mechanism needs to be developed to engage the civil society, the states, experts and cities to periodically interact and help evolve and implement suitable strategies and programmes for urban transport infrastructure. Private sector, non governmental organisations, civil society and city dwellers need to be taken on board in a framework based on the bottom up approach. The present incentive and reform package under JNNURM needs to be augmented and continued at least for a decade or two to make a meaningful impact in Indian cities.

Bibliographic References

- Booz and Company Inc. April 2010, *A Report on Intelligent Urbanisation: Roadmap for India*, Confederation of Indian Industry, New Delhi. Consulting Engineering Services 2009, *Report of Study on Integrated Transport Plan for NCR*, NCR Planning Board, New Delhi.
- JNNURM, Ministry of Urban Development, last updated on April 28, 2010, Ministry of Urban Development, viewed June 2010, <<http://jnnurm.nic.in/nurmudweb/Project/jnnurm-at-glance.pdf>>.
- McKinsey Global Institute 2010, *India's urban awakening: Building inclusive cities, sustaining economic growth*, McKinsey Global Institute, viewed June 2010, <http://www.mckinsey.com/mgi/publications/india_urbanization/>.
- Ministry of Urban Development 2009, *Annual Report 2009-2010*, Ministry of Urban Development, viewed June 2010, <http://www.urbanindia.nic.in/quickaccess/ann_report/2008_2009/English/chapter1.pdf>.
- Mirabilis Advisory Pvt. Ltd. 2009, *The Alternative Urban Future Report, Urbanisation and Sustainability in India: An Independent Agenda*, Thomas Press, New Delhi.
- Nilekani, Nandan 2009, *Imagining India: Idea for the New Century*, Penguin Books, New Delhi.
- Ramachandran, R 2010, *Urbanisation and Urban Systems in India*, Oxford University Press, New Delhi.
- Wilbur Smith Associates 2008, *Traffic and Transportation Policies and Strategies in Urban Areas in India*, Ministry of Urban Development, New Delhi.
- Working Group on Urban Transport including Mass Rapid Transport System for Eleventh Five Year Plan 2006, *Report of the Working Group for the 11th Five Year Plan on Urban Transport including*

MRTS (2007-2010), Ministry of Urban Development, viewed June 2010, <http://planningcommission.nic.in/aboutus/committee/wrkgrp11/wg11_MRTS.pdf>.

Notes

- ¹ Views in this article are the author's personal views and in no way it should be taken as the views of NCR Planning Board.
- ² A Committee headed by S S Chattopadhyay the then Secretary Urban Employment and Poverty Alleviation (now HUPA) went into various aspects of urban transport and drafted the National Urban Transport Policy in 2003 and after deliberations of the Consultative Committee of Parliament on Urban Development, Committee of Secretaries and wide consultation in regional workshop held in Delhi, Mumbai, Kolkata, Guwahati and Hyderabad and a national conference of Chief Ministers, the final policy document was prepared incorporating suggestions from all the stake holders. After approval of the Cabinet, it was circulated to state governments and union territories for appropriate action.
- ³ Bangalore, Vadodara, Surat, Indore, Ajmer-Pushkar, Coimbatore, Madurai, Ranchi, Jaipur, Agartala, Chandigarh, Gowahati and Gangtok have developed NTUP compliant CDPs.
- ⁴ Barcelona had traditionally been a compact and well planned city; with most important locations falling within a small radius, 50% of trips in the city are done on foot. The city has encouraged development of strong pedestrian culture.
- ⁵ Refer <<http://JNNURM.nic.in/nurmudweb/Reforms/Primer.htm>>.
- ⁶ E-governance, municipal accounting, property tax reforms, rationalisation of stamp duty, community participation law, public disclosure law, repeal of urban ceiling and regulation act, implementation of 74th amendment, rent control reform, provision of basic services to urban poor and user charges.
- ⁷ Computerisation of registration of properties, administrative reforms, public private partnerships, bye laws for rain water harvesting, reuse of waste water, structural reform, simplification of building approval process, land for poor, land title certification system and simplification of conversion of land use from agriculture for urbanisation projects.
- ⁸ Ministry of Urban Development is implementing Sustainable Urban Transport Project with grant from Global Environment Facility and loan from World Bank and pooling resources under JNNURM and Urban Transport Planning and Capacity Building on pilot basis in Pune, Pimpri-Chindwad, Indore, New Raipur and Mysore. The pilot can be replicated by all states.
- ⁹ CMPs for 24 cities have been prepared.
- ¹⁰ Ahmedabad, Bhopal, Rajkot, Indore, Jaipur, Pune-Pimpri Chinchwad, Surat, Vijayawada and Vishakhapatnam.
- ¹¹ Jaipur, Hyderabad, Mumbai, Chennai and Bangalore have already set up UMTA and steps have been initiated in a number of others.
- ¹² Delhi, Indore and Kohima.
- ¹³ According to this report, India spends nearly US\$ 50 (US\$ 17 on capital and US\$ 33 on operational expenses) per capita per annum, on its cities. The capital expenditure is only US\$ 17 as against US\$ 116 in China and US\$ 391 in UK.
- ¹⁴ US\$ 199 billion on roads and US\$ 392 billion on mass transit.
- ¹⁵ US\$ 10 billion on urban roads and US\$ 459 billion on mass transit.
- ¹⁶ Calculated at the rate US\$ 1 = ₹ 46.
- ¹⁷ Calculated using projected population in 2007.

Transition in JNNURM

Rajiv Awas Yojana

USHA PRASAD MAHAVIR

ABSTRACT

The Basic Services to Urban Poor sub-mission of JNNURM and the Integrated Housing and Slum Redevelopment Programme have put the upliftment of the urban poor firmly on the agenda of state governments and urban local bodies. However, the Mission has failed to promote the concept of security of tenure for slum dwellers. The Rajiv Awas Yojana has been initiated with focus on building a slum free India. The aim is to promote inclusive cities by requiring state and city level action plans to assign property rights and continue other reforms put in place by the JNNURM. It is an opportunity to implement an integrated and balanced approach to urban planning by paying attention to capacity building, generating systematic data base, mapping, fiscal and legislative frameworks and governance of cities in India.

INTRODUCTION

The Ministry of Housing and Urban Poverty Alleviation (MoHUPA) is administering the Basic Services for Urban Poor (BSUP) sub-mission for Mission cities under JNNURM and the simultaneously launched Integrated Housing and Slum Development Programme (IHSDP) for other cities and towns. The ultimate objective of BSUP and IHSDP is to

Usha Prasad Mahavir is an architect and urban planner and has worked with the Housing and Urban Development Corporation Ltd. (HUDCO) for over 20 years. She is the Deputy Chief (Projects), JNNURM Cell and is involved in disseminating information on JNNURM and Rajiv Awas Yojana.

cover the most disadvantaged sections needing shelter. This assumes importance considering the estimated housing shortage of about 24.7 million in the country at the beginning of 11th Five Year Plan, with 98% under Economically Weaker Section (EWS) and Low Income Group (LIG) categories.

MoHUPA has appointed Housing and Urban Development Corporation Ltd. (HUDCO) as one of the appraisal agencies for BSUP projects, while all projects under IHSDP are being appraised by the Corporation. HUDCO has played an integral role in the implementation of the Mission by disseminating information through capacity building workshops, offering technical and design consultancy services to the state governments and implementing agencies and helping formulate and appraise Detailed Project Reports (DPRs) as per the guidelines.

PARAMETERS FOR PROJECT FORMULATION AND IMPLEMENTATION

City Development and Slum Development Plans

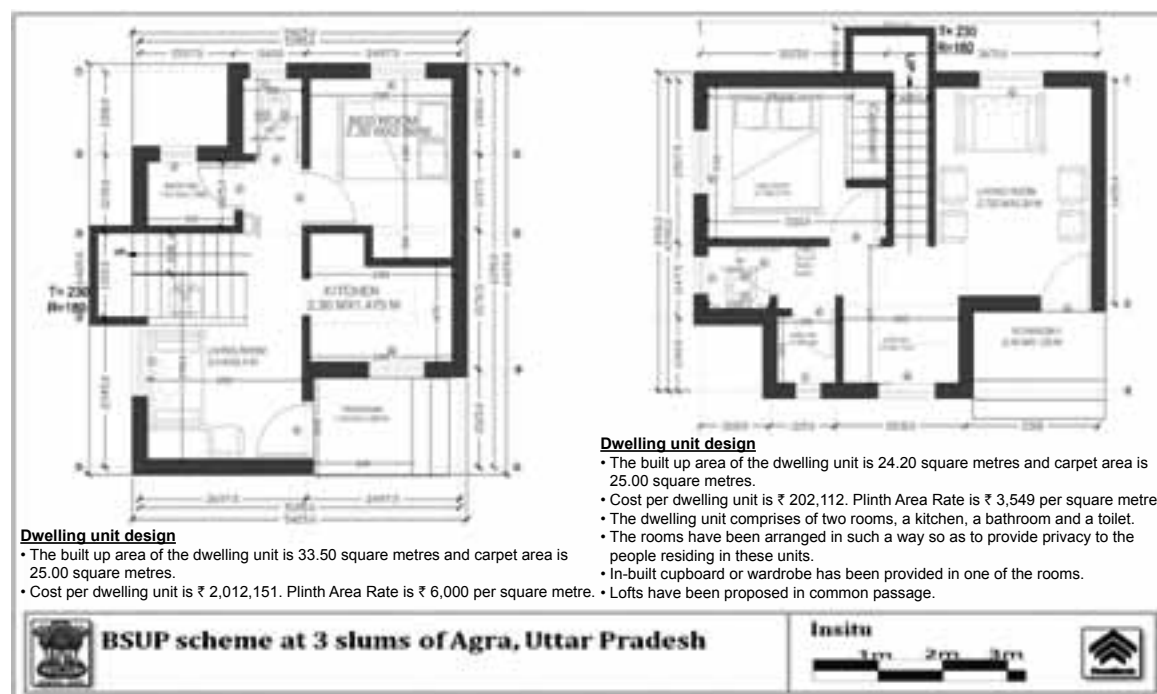
The initial City Development Plans (CDPs) did not address housing and infrastructure requirements in the low income settlements adequately. Hence, state and Union Territory (UT) governments are required to revisit the CDPs to identify all the slums (notified and non-notified) in the cities and towns and develop

a strong database for assessment of developmental needs, both for in-situ and relocation projects. The Slum Development Plan involves the preparation of an 'urban poverty profile' and 'slum profile', including security of tenure at affordable prices, improved housing, water supply, sanitation and delivery of other universal services for education, health and social security. For instance, the city of Rajkot (Gujarat) has brought out a City Poverty Reduction Strategy Report to pursue the goal of a slum free city.

Settlements of the urban poor are prioritised based on physical, economic and social indicators and the use of a 'whole slum' approach. The slums proposed for in-situ upgradation (development) and relocation are to be de-notified after the implementation of BSUP or IHSDP projects. Stakeholder involvement is also an essential element and Urban Local Bodies (ULBs) must identify the list of beneficiaries and put it up on their official and Ministry's JNNURM websites as well as issue biometric identification cards to beneficiaries based on the socio economic survey.

Inclusive planning and architecture

Informed by the socio-economic survey, the planning and design of the schemes for the urban poor should aim to create social cohesion and close interaction between the inhabitants. Cluster design with common community spaces, common walls and veranda areas,



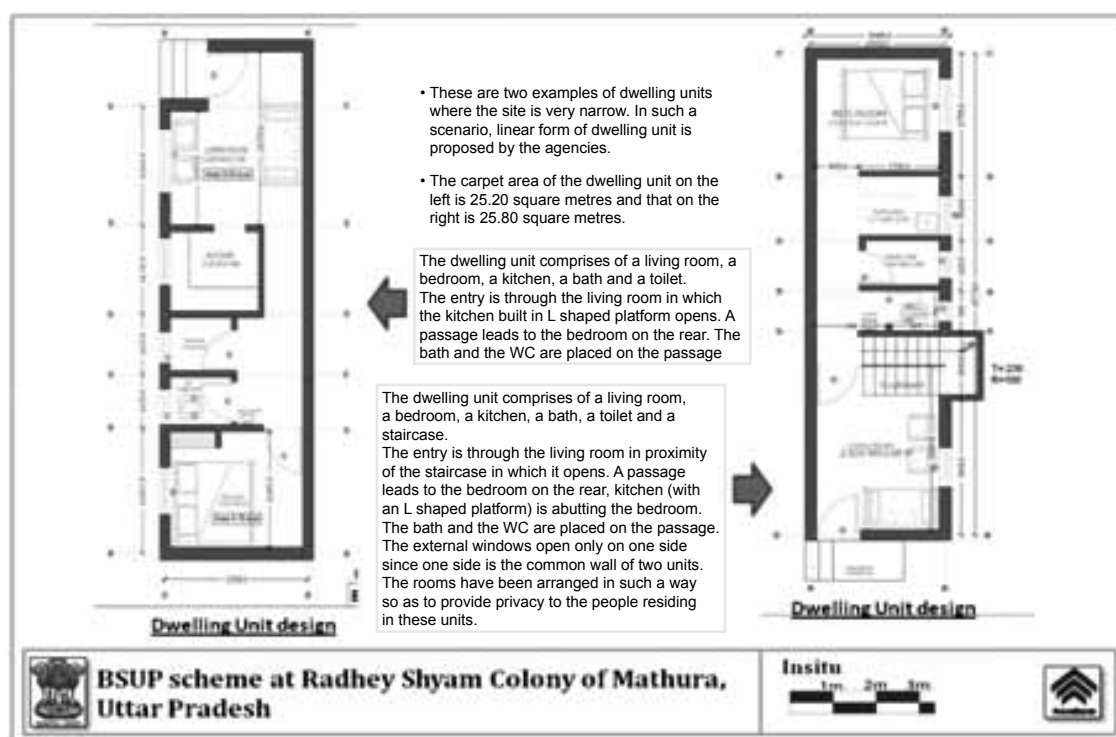
Design of dwelling units with carpet area of 25 square metres for three slums of Agra, Uttar Pradesh, under BSUP Scheme



Process of group meetings or consultations with slum dwellers



Issue of biometric cards to the slum dwellers



Design of dwelling units with carpet area of 25 square metres in Mathura, Uttar Pradesh, under BSUP Scheme

low rise and high density development, incremental cluster planning, over 15% area earmarked for parks, common greens and organised open spaces and the provision of *pucca* (permanent) houses with individual toilet facilities are some of the recommended elements of design. The programme lays emphasis on the design and quality of houses, recommending a minimum 25 square metre carpet area for houses under BSUP and 25 square metres built up area for houses under IHSDP. Two rooms with privacy for both and individual access to toilet, separate bathroom and water closet with individual water and sewer connections, kitchen with proper design and storage and sun-shields outside windows are some of the elements to be considered.

Inclusive social infrastructure

Cohesive social infrastructure facilities like informal sector markets and livelihood centres have been recommended in BSUP and IHSDP projects where residents can produce and sell products on a time sharing basis. Besides, multi-functional community spaces, health centres and management offices have also been planned.

PROGRESS OF BSUP AND IHSDP

JNNURM has entered its sixth year of implementation. Despite cost and time overruns caused by delays in land acquisition, tendering and contracting, state

governments and UTs are making all efforts to complete the infrastructure works in the projects alongside housing. As on March 31, 2010, 63 Mission cities and 804 other cities or towns have been covered under BSUP and IHSDP respectively for construction of more than 1.52 million dwelling units. Most states have availed 50-60% of the committed funds.

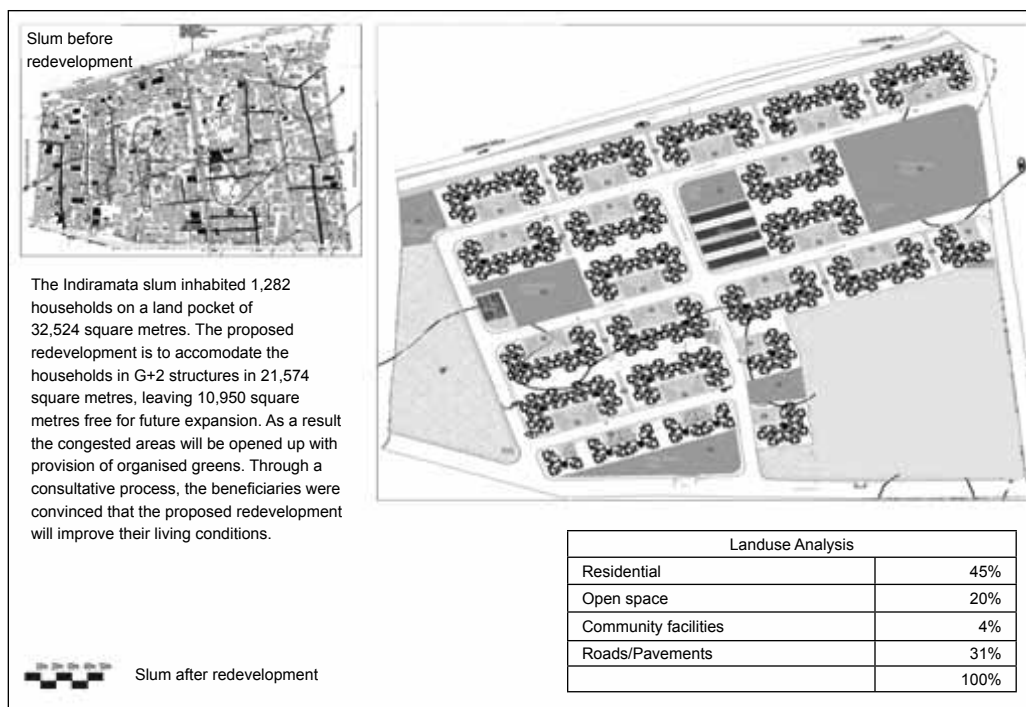
Connectivity to city infrastructure, convergence of delivery of social services, tenure rights, creation of sustainable assets and social audits have been prioritised during implementation. Quality assurance and strengthening of implementation have been taken care of through creation of Project Implementation Units (PIUs) at ULB level to engage additional specialists to meet special requirements of designing and implementing BSUP and IHSDP projects. Similarly, Programme Management Units (PMU) have been created at state level to strengthen the

capacity of the State Level Nodal Agencies (SLNAs) by offering technical and managerial support. State Level Third Party Inspection and Monitoring Agencies (TPIMAs) have been appointed to keep track of physical and financial progress of projects throughout their life cycle to ensure standardisation and consistency. The SLNAs are required to appoint TPIMAs for review and monitoring of all JNNURM projects implemented by ULBs, parastatals and other state agencies.

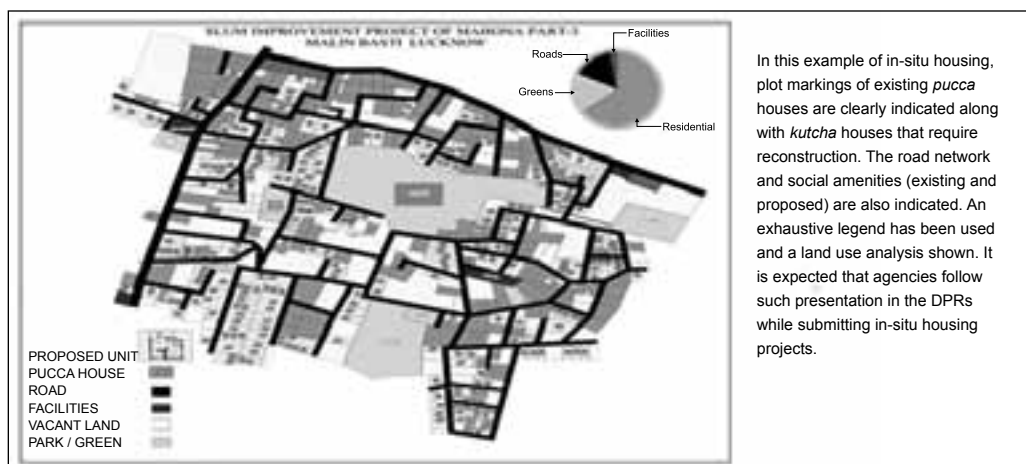
TPIMAs at Central Government level have already been identified and monitoring of implementation is in progress at the Mission Directorate, MoHUPA on the basis of their reports. The Building Materials and Technology Promotion Council has been identified as the Central Monitoring Agency by MoHUPA along with experts from HUDCO and technical institutions. Community Development Network (CDN) to give

Urban reforms being undertaken across four states

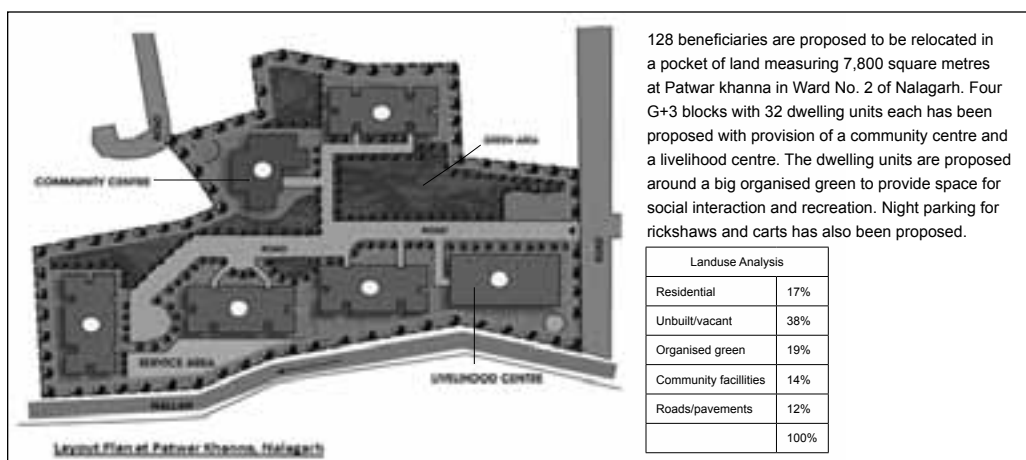
State	Initiative
Madhya Pradesh	<ul style="list-style-type: none"> Madhya Pradesh Municipality (Registration of Colonizers, Terms and Conditions) Rules, 1998 mandates colonizers to earmark 15% plots for EWS and 10% for LIG since March 2010. Shelter fee has been dispensed with and earmarking land for EWS is mandatory. MP State Housing and Habitation Policy, 2007 regulates earmarking 30% plots in all housing colonies developed by Government agencies for encouraging inclusive growth. Leasehold rights to be allotted to landless poor in urban areas.
Rajasthan	<ul style="list-style-type: none"> Newly announced policy for Affordable Housing in Urban Areas 2009 has special focus on EWS or LIG housing. Housing Board to offer at least 50% and ULBs or municipal bodies, at least 25% to EWS or LIG categories from constructed schemes. Private developers to reserve 15% units in schemes. Private developers can construct EWS and LIG houses on minimum 40% of owned land or purchase land under acquisition by ULBs. Government land can be offered free if developer provides free housing and gets to use 10% land commercially. Incentives like additional Floor Area Ratio (FAR), waiver of external development charges and fast track approval of projects offered for private sector involvement.
Maharashtra	<ul style="list-style-type: none"> Developers can hand over 40% of the permissible built up area and sell the rest, as per the Rehabilitation Scheme by Slum Redevelopment Authority under the <i>Maharashtra Slum Areas Act 1971</i>. Up to 4.0 special Floor Space Index (FSI) is permitted to enable developers to contribute rental housing units free of cost. Some examples are: <ul style="list-style-type: none"> A cooperative land ownership model in Magarpatta City, Pune wherein land was pooled in for development of an innovative and integrated township. The land owners formed a limited company wherein all land owners are shareholders in proportion to the land holding. A Public Private Partnership (PPP) model allowing developers to offer their land for slum projects in return for development rights on another piece of land in Nagpur and a rehabilitation scheme by the Pimpri-Chinchwad New Township Development Authority on about 53 hectares of their land. The premium from the land owner or developer shall be considered in the form of extra EWS dwelling units for slum rehabilitation or slum prevention scheme like rental housing or affordable housing.
Chhattisgarh	<ul style="list-style-type: none"> Allocation of government land to ULBs at a negligible price (₹ 10 per square metre) for social housing projects.



In-situ slum redevelopment of Indiramata Nagar slum in Nagpur, Maharashtra, under BSUP Scheme



In-situ upgradation of housing project in Mahona, Uttar Pradesh, under IHSDP Scheme



Relocation Project in Nalagarh, Himachal Pradesh under IHSDP Scheme



Completed IHSDP Houses in Kerala

the urban poor a collective voice and a web enabled Management Information System to track progress of implementation of BSUP and IHSDP projects are other tools being used in implementation.

KEY REFORMS CRITICAL TO URBAN POOR

State governments have taken up specific initiatives to fulfill the requirement under reform agenda to be implemented under Memorandum of Association.

Urban Reform 1

This involved earmarking at least 20-25% of developed land in all the housing projects (both public and private agencies) for EWS or LIG category with a system of cross subsidy.

Urban Reform 2

Internal earmarking in ULB budget for basic services to the urban poor. Though most state governments have issued orders to have an internal earmarking for BSUP Fund in all the budgetary provision (both capital and revenue) of ULBs, these are being urged to issue appropriate legislation to enforce this. The funds earmarked are not to be lapsed at the end of the year and should be carried forward in the subsequent years. Chhattisgarh, Gujarat, Madhya Pradesh and Maharashtra are some states that are actively implementing this reform.

Urban Reform 3: The Garland of Seven Basic Services

The state governments have either assessed or are in a process of assessing the requirement of seven entitlements in the cities covered under BSUP and IHSDP and are required to ensure implementation of this reform during the Mission period.

RAJIV AWAS YOJANA

Though the BSUP and IHSDP components of JNNURM have achieved modest success, these have not been able to break the deep bias against conferment of legal property rights. Some states are willing to assign the legal property title to the slum households while others suspect that slum dwellers will sell the property and create a fresh encroachment. There is a move to align the national policy to the global practice that sees ownership of property as the best investment in democracy as it enables the household to access formal channels of credit.

The Rajiv Awas Yojana (RAY) is intended to give incentives to the states to move towards a slum free status within the next five years with an overarching aim of promoting inclusive cities. RAY envisages a slum free India by:

- Encouraging state governments to bring existing slums within the formal system and enable them to avail of the same amenities as the rest of the town.
- Redressing the failures of the formal system that lie behind the creation of slums.
- Tackling the shortages of urban land and housing that keep shelter and housing out of reach of the poor and force them to resort to extralegal solutions in a bid to retain their sources of livelihood and employment.

Under RAY, security of tenure through entitlement will be critical and states or UTs would have to assign legal title to slum dwellers over their dwelling space. The other reforms include:

- Continuation of the three pro-poor reforms of JNNURM till they are legislated and internalised as part of the system.
- Legislation for property rights to all slum dwellers.



Construction of bio-gas digester in progress



Completed BSUP Projects in Surat, Gujarat

- Reform to the rental and rent control laws regarding urban housing.
- Review and amendment to the legislations, rules and regulations governing urban planning and development structures and systems towards an adequate response to the demands, process and pace of urbanisation.

State Plan of Action

The State Slum Free Plan of Action (POA) requires the states to prepare legislation for assignment of property rights as the first step. It also requires states to identify the cities intended to be covered in five years and commit to a whole city approach, so that an integrated and holistic plan is prepared for upgradation, redevelopment or rehabilitation of all existing slums (notified or non-notified), in each identified city. The State POA would need to address both the upgradation of existing slums and outline action to prevent new slums. The plan would need to assess the rate of growth of the city and based on these numbers, specify the action proposed to acquire land and promote the construction of affordable EWS houses to stay abreast of the demand. Necessary legislative and administrative changes would be required to enable urban land expansion and reservations for EWS and LIG housing in all new developments in town planning regulations.

City Plan of Action

The State POA will include City Plan of Action (City POA), in which each city would be divided into zones and each zone be taken up as a whole to ensure the universal provision of basic infrastructure and services and decent housing in all slums in the zone. This would enable shifting untenable slums to the nearest possible available vacant land or notified slum that has the space to receive them.

VISION FOR AN INCLUSIVE AND SLUM FREE INDIA

Some additional areas that need attention in the quest for a slum free India are outlined below.

Pro-poor policy

The National Urban Housing and Habitat Policy 2007 as well as the JNNURM reforms such as earmarking land for the urban poor and legislating policies for the development of affordable housing are already under way in some states. Others need to follow suit to ensure that the urban poor are not squeezed out of the urban land and housing market due to exorbitant prices. Low rental housing in urban areas must be enabled through improved rent control legislation that strikes a balance between the rights and obligations of landlords and tenants. Due to the massive needs of affordable housing and capacity constraints of the public agencies, it is essential to involve the private sector in creation of affordable housing for ownership and rental with an option to own.

Balanced growth

Ideas for balanced urban and regional planning through equitable distribution of resources will reduce poverty in the long term and migration to urban areas. For instance, 'Provision of Urban amenities in Rural Areas' envisaged creating multiple node connectivity between urban-rural settlements and transforming rural areas into vibrant growth centres. New models of town planning that earmark dwelling and working space for the urban poor need to be included in all city plans. In Brazil, for example, 'Zones of Special Social Interest' are reserved in municipal master plans for slum upgrading, tenure regularisation and low income housing developments.



Taking possession of the house

Infrastructure development

Investment in infrastructure plays a critical role in balanced inter-urban and rural-urban development. For eliminating poverty and productive employment, the aim is to accelerate the pace of growth to about 10% and double the investment in infrastructure to US \$ one trillion during the 12th Five Year Plan, with over half coming in from the private sector. The government needs to provide a framework for viability gap funding for creation of physical, health and education infrastructure through public private partnership.

Fiscal framework

Internal earmarking within local body budgets for basic services to the urban poor under JNNURM needs to be pursued through RAY. The government should look at permitting housing finance companies to access external commercial borrowings, promoting housing micro credit and household savings and more liquidity in the system by reduction in the credit reserve ratio, Repo and Reverse Repo that will facilitate increased lending by the banking sector.

Capacity building and inclusion

Capacity building of the urban poor will support the networks of national, regional, state and municipal resource centres, training centres, ULBs and civil society organisations that focus on pro-poor governance. Community Development Networks (CDNs) involving neighbourhood groups and committees and community development societies should be promoted to encourage fraternity and eliminate the issue of alienation.

Mapping and data base

To address the development needs of the urban poor, it is essential to prepare Geographical Information

System based spatial plans for low income neighbourhoods and undertake mapping of slums. Spatial resolution of 0.8 metre of the Cartosat-2B, recently launched by the Government of India, holds high promise in this regard. The Urban Poverty Profile of states, cities and slums should address shelter, tenure, water supply, sanitation, health, education and social security.

Improved governance

The process of slum free planning should be professionally managed and participatory, duly involving the slum communities, non government organisations, community organisations, municipal elected representatives including Mayors and Municipal Chairpersons and experts. Cities with good governance should be role models of inclusive governance. Intercity networking of E-governance and the databases like National Urban Information System (NUIS) and National Urban Databank and Indicators (NUDBI) should be exploited towards achieving this. The same network can be instrumental in sharing experiences, along with replicating and up scaling of knowledge and best practices.

CONCLUSION

Rajiv Awas Yojana is a much needed initiative taken by the Government of India, addressing slum upgradation, redevelopment, rehabilitation and creation of new housing stock thereby preventing proliferation of slums. This has an impact on economy and central to inclusive growth. The City Plan of Action needs to focus on slum improvement and upgradation and its integration with rest of the city system.

UPA-II's ambitious programme to make the nation slum-free within five years is all set to take off as the Housing and Urban Poverty Alleviation Ministry has finalised the scheme, and now sent it to finance ministry for approval. The ministry has re-drafted the RAY scheme to focus on upgrading slums, redevelopment, rehabilitation and constructing new houses after factoring in the views of concerned stakeholders, states and the expert committee, ... "There is a need for credit enhancement through appropriate fiscal, legal and institutional mechanism to ensure the flow of capital to realize the vision of slum free India," Housing and Urban Poverty Alleviation Minister Kumari Selja said (*The Times of India* October 18, 2010, p. 10).

Focus of the Rajiv Awas Yojana is on living communities wherein community level participation is an essential element incorporating people's needs and aspirations. Assignment of property rights should be preceded by regularisation and then security of tenure. Economically weaker sections initially find it difficult to obtain or service loan, hence it is suggested that rental tenure of slum redeveloped units be encouraged. Since public resources are limited, financing Rajiv Awas Yojana through public-private partnership models, with provision of additional Floor Area Ratio and land use concessions is recommended. Private developers can be incentivised through fast track single window clearance for slum redevelopment projects.

For creating new rental housing stock the current legislative framework needs to be made more conducive. Slums are a result of weak land and housing policies. The legislations pertaining to Town and Country Planning Acts, Municipal Byelaws, Development Control Regulations, Transfer of Development Rights and Property Titling need to be amended and made more compatible with the Rajiv Awas Yojana. By incorporating these measures, a step ahead can be taken towards evolving an urban environment that is conducive for the urban poor. implementation level, a step ahead can be taken towards evolving an urban environment that is conducive for the urban poor.

Bibliographic References

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| <ul style="list-style-type: none"> • Department of Urban Development, Housing and Local Self Government 2009, <i>Affordable Housing Policy 2009</i>, Government of Rajasthan, Jaipur. • Government of Madhya Pradesh 2010, <i>Madhya Pradesh Nagarpalik Vidhi (Sanshodhan) Adhiniyam</i>, Government of Madhya Pradesh, Mumbai. • Housing Department 2009, <i>Implementation of BSUP in Pimpri-Chinchwad on the basis of Public Private Partnership (PPP)</i>, Resolution No. Grunidha-2009/CR 49/GND-2, Government of Maharashtra, Mumbai. • HUDCO 2008, <i>Toolkit for Preparation of Detailed Project Report – Basic Services to the Urban Poor (BSUP) and Integrated Housing and Slum Development Programme (IHSDP)</i>, HUDCO, New Delhi. • Mahavir, Usha 2009, 'Planning for Inclusive and Harmonious Cities', <i>Spatio-economic</i> | <ul style="list-style-type: none"> <i>Development Record</i>, vol. 16, no. 6. • MoHUPA 2007, <i>National Urban Housing Habitat Policy 2007</i>, Government of India, New Delhi. • MoHUPA 2009, <i>Proceedings of National Conference of Ministers dealing with Housing, Urban Development and Municipal Administration</i>, January 20, Government of India, New Delhi. • MoHUPA 2010, <i>Government of India, Annual Report 2009-2010</i>, Government of India, New Delhi. • MoHUPA, <i>Concept Note on Rajiv Awas Yojana (RAY)</i>, Government of India, New Delhi. • MoHUPA, <i>JNNURM: Mid-Point and Onwards.....</i>, Government of India, New Delhi. • MoHUPA, <i>Rajiv Awas Yojana, Guidelines for Slum-free City Planning</i>, Government of India, New Delhi. | <ul style="list-style-type: none"> • MoHUPA, <i>Toolkit for Appointment of Third Party and Inspection and Monitoring Agencies for Projects (TPIMA), Basic Services for the Urban Poor and Integrated Housing and Slum Development Programme</i>, Government of India, New Delhi. • MoHUPA, <i>Toolkit for Programme Manage Unit (PMU) for BSUP/ IHSDP, JNNURM</i>, Government of India, New Delhi. • MoHUPA, <i>Toolkit for Project Implementation Unit (PIU) for BSUP/ IHSDP, JNNURM</i>, Government of India, New Delhi. • 2010, 'Private fund flow picks up', <i>Economic Times</i>, New Delhi, March 10. • Singh, Mahendra Kumar 2010, 'UPA-II set to unveil scheme to fulfil 'slum-free India' dream', <i>The Times of India</i>, New Delhi, October 18, p. 10. |
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Government Initiatives

Capacity Building and Reframing Toolkits

<i>Building Local Capacity for Urban Development: Rapid Training Programme under JNNURM</i>	
Saswat Bandopadhyay, Shrawan Kumar Acharya	67
<i>PEARL: Knowledge Sharing Programme under JNNURM</i>	
Chetan Vaidya, Vijay K Dhar, Nilanjana Dasgupta Sur	75
<i>Revising Toolkits: Heritage as a cross cutting theme</i>	
Indian Heritage Cities Network	83

Building Local Capacity for Urban Development

An assessment of the Rapid Training Programme under JNNURM

SASWAT BANDOPADHYAY AND SHRAWAN KUMAR ACHARYA

ABSTRACT

The 74th Constitutional Amendment envisions decentralisation of governance by empowering the Urban Local Bodies (ULBs). In the current context, ULBs lack the capacity to address urban governance issues, resolve the problems or function as effective institutions of self government. Under JNNURM, this lacuna has been identified and 5% of the total Mission funds are expected to be invested on training, capacity building, community participation, information, education and communication. The Rapid Training Programme (RTP) is the first consolidated effort under the National Mission to strengthen the capacities of ULBs in helping them prepare and implement projects and initiate the mandated reforms in an effective manner. Based on the learnings from the RTP, the capacity building exercise can be continued and improved further. The Ministry of Urban Development along with the state and ULB can play a pro active role and take the lead, supported by the resource centres established during the training programme.

Saswat Bandyopadhyay was the team leader of Centre for Environmental Planning and Technology (CEPT)-Rapid Training Programme (RTP) Mobile training delivery. He is a civil engineer, planner with an advanced specialisation in Infrastructure Management. Saswat is currently Professor and Head of Department, Environmental Planning and Infrastructure Management programme, CEPT University, Ahmedabad.

Shrawan Kumar Acharya was a key member of the CEPT training delivery team under the RTP. He has a doctorate in Regional Development and is a Professor in the Faculty of Planning and Public Policy, CEPT University, Ahmedabad.

URBAN CHALLENGES

The global aspiration of India lies in its urban future and urban growth is important for economic development, provided the growth is managed well. In the post liberalisation era, rapid urban growth has brought in associated problems needing urgent attention to address lopsided urbanisation with faulty urban planning and poor economic base. Urbanisation is also characterised by continuous concentration of population and activities in large cities. The process termed as over or pseudo urbanisation is leading to a virtual collapse in the provision of urban services and aggravates problems in housing, land, water, infrastructure and quality of life, especially in big cities like Chennai, Delhi, Kolkata and Mumbai. The situation is not very different in intermediate and small cities that are also growing rapidly.

Local self government is a state subject under the Indian Constitution. The states control local government through administrative, fiscal and planning policies. However, *The Constitution (Seventy-fourth Amendment) Act 1992* attempted to decentralise by empowering the ULBs to function as effective institutions of self government. It aims to empower ULBs by the devolution of functions, planning responsibilities, fiscal transfers and the empowerment of women and weaker sections of society. It is envisaged as a decentralised and participatory approach to address urban governance issues and resolve the problems. Despite being a constitutional mandate, the Act has not been implemented in letter and spirit by many states. To some extent political devolution has taken place in some states but fiscal and administrative devolution has not been fully achieved.

As a result, ULBs that are statutorily responsible for provision and maintenance of basic infrastructure and services in cities and towns have weak governance and inadequate financial resources to ameliorate the deteriorating local environment. They are experiencing an inability to cope with the unprecedented demands. Inadequate staff with limited skills, as well as their inability and unwillingness to adapt to changing needs has further aggravated the problem. Even maintenance and operation of existing infrastructure is difficult for the local bodies. There has been little or no increase in the revenue base and user charges continue to be low or non existent. Many ULBs have accumulated 'large' debts and face serious problems in servicing these. Faced with such a situation the ULBs barring a few exceptions, are becoming increasingly dependent

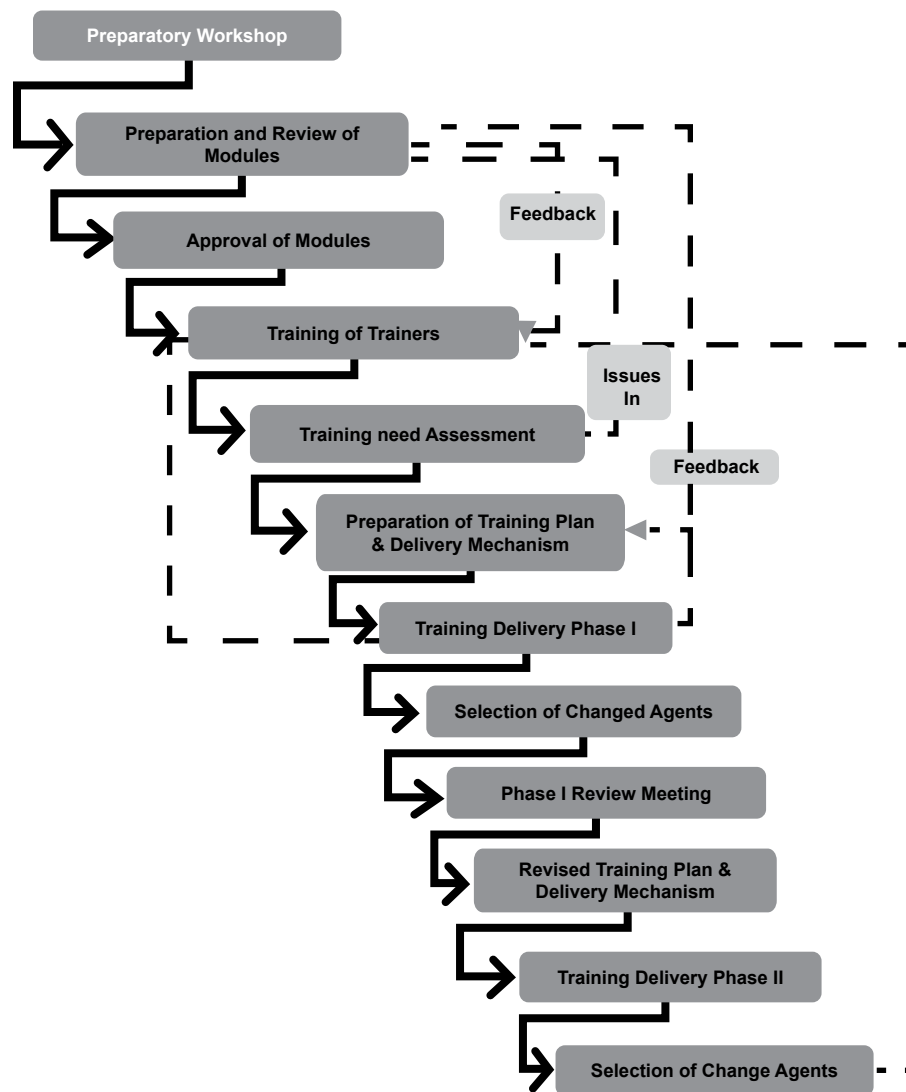
on higher levels of government for their operation and maintenance requirements. The local bodies are also starved of appropriate human resource base. Besides the inadequate numbers, many of the employees lack planning and basic governance skills. In the absence of effective and regular skill building strategies, the management of urban bodies is becoming a major challenge for rapidly urbanising India.

BUILDING LOCAL CAPACITY

Capacity Building often refers to assistance provided to entities such as societies that have a need to develop a certain skill or competence or for general upgrading of performance ability. It is a process of acquiring new ideas and knowledge to strengthen an organisation's vision, structure, direction and talent and enable it to contribute towards a common goal. Most capacity is built by societies themselves, in public, non governmental or private domains. In recent decades capacity building is being used by government to strengthen institutional capacities to address social, economic, infrastructural and environmental problems (Ministry of Housing and Urban Poverty Alleviation 2007). In the case of ULBs, capacity building is expected to make the administrative machinery more efficient, accountable, people friendly, responsive and transparent with a view to improve the delivery of services and enhance public welfare. In most cases these are actively supported by international donor agencies such as the World Bank and Asian Development Bank.

The most important component of capacity building is human resource development through training. Human resource development involves progressive enhancement of latent capabilities and talents of the staff. It also involves establishment of optimal staffing incentives, structures and appropriate monitoring and development of skills to ensure the organisation's growth. Major components of capacity building are managerial, financial, technical and institutional.

Capacity building also includes improving institutional and legal framework; making legal and regulatory changes to enable organisations, institutions and agencies at all levels to enhance their capacities. Local government, communities and Non Government Organisations (NGOs) are very often the target groups for capacity building initiatives. Departments of local government play an increasingly important role in enabling community groups to enhance their capacities and effectiveness. Capacity building is required at each



Training Methodology and Implementation Strategy

and every level where governance is involved. Various tasks for this process include, assessment, gap analysis, institutional capacity building plan, identification and analysis of training needs, developing a training plan and outsourcing of manpower.

CAPACITY BUILDING IN THE CONTEXT OF JNNURM

The Central Government launched the JNNURM in 2005-06 to encourage cities to bring improvement in the existing conditions through service provision and reforms in governance and management of the local bodies. A certain pattern for funding has been formalised by the Central Government where the share

of Centre, State and ULB is clearly defined based on the city's population. JNNURM also specifies that in order to avail funding from ₹ 500 billion allocated under the scheme, the State Government and the ULBs have to execute a range of reforms. The proposed reforms fall into two categories, mandatory and optional. JNNURM has further specified that to access these funds from State and Central Government, preparation of a City Development Plan (CDP) and City Investment plan (CIP) is mandatory.

In order to facilitate the process, the Ministry of Urban Development (MoUD) has prepared JNNURM training manual as a handy reference for the city professionals like executive officers, site engineers and project

managers. This manual helps the city authorities to prepare a vision document i.e. CDP, followed by Detailed Project Reports (DPRs) for their cities.

Despite these manuals being available, almost all DPRs for most of the cities except large ones like Ahmedabad, Delhi and Mumbai are being prepared by consultants. In most cases, the ULBs or parastatal agencies have little capacity even to supervise and manage the process of DPR preparation by the consultants. Effective urban governance implies that the executing agencies need to develop competencies to locate a project, conceptualise and scope the project and manage the process of selection of consultants and supervise the outputs and implementation. Therefore capacity building of ULB technical staff for preparation and supervision of DPR is a very important step for better and efficient execution of urban infrastructure projects under JNNURM mission.

The Mission has up to five percent of the total JNNURM funds dedicated to Information, Education and Communication (IEC), training, capacity building and community participation. In order to execute the scheme and facilitate capacity building MoUD set up 13 'Centres of Excellence' (nine on Urban Development and four on Urban Transport) in March 2009 at reputed academic and research organisations like Centre for Environmental Planning and Technology (CEPT), Ahmedabad with the aim to strengthen capacity building measures, for promoting awareness, research and training in priority areas.

RTP: METHODOLOGY AND IMPLEMENTATION

The Rapid Training Programme (RTP) was started under JNNURM to enhance the human resource base of the local bodies. The objective of the RTP was to address core competencies in the areas of governance including reforms, DPR preparation, project management and implementation. RTP was the first consolidated effort to address these issues.

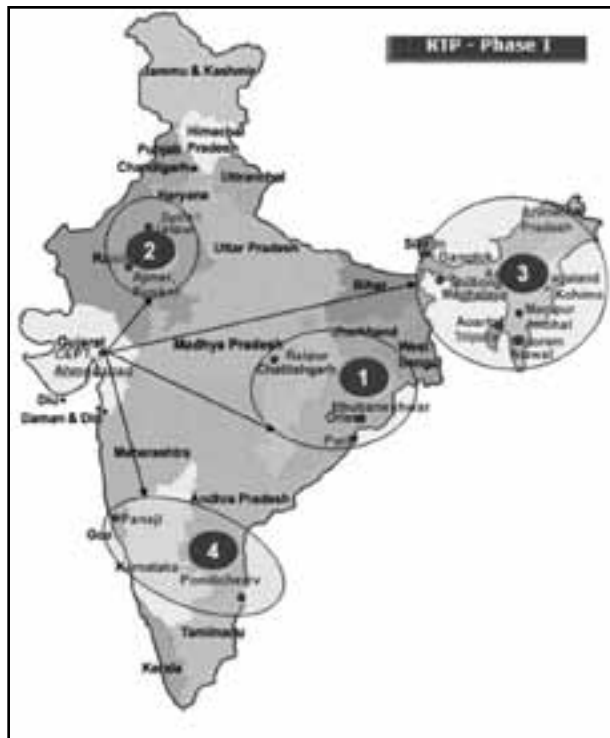
CEPT University undertook the responsibility of building local capacity in DPR preparation and partnered with Uttarakhand Academy of Administration (UAA), Nainital for imparting the training programme. It was based on the idea that the two agencies with core competencies in urban planning and training would mutually reinforce each other and ensure effective training strategy. Based on the discussions held between the two designated agencies, the curriculum

was designed by CEPT and training was jointly delivered by CEPT and UAA (CEPT 2008). CEPT and UAA individually set up a dedicated unit to coordinate the programme. RTP did not target the entire staff of ULBs. It focussed on intensive training to a critical group of personnel identified by ULBs depending on their skills and the requirement of the ULB.

The RTP was conceptualised and sub divided in five major tasks:

- *Module preparation:* including module and workshops preparation, team formation, appraisal and approval of module. CEPT prepared eight peer reviewed modules to cover the entire process of DPR preparation, namely; JNNURM Overview, Environmental and Social Safeguard, Demand Assessment, Project Design, Project Management, Survey and Investigation, Engineering Economics, and Project Report.
- *Pre training preparation:* for organisation of training programme, training plan and training team. This involved consultations with the target ULBs and state level parastatal agencies for a better understanding of the problems and issues. For this the CEPT team visited different cities in advance to discuss in detail with the state and ULB officials. 'Training of Trainers' workshop was organised to sensitise and facilitate interactions amongst various stakeholders.
- *Training delivery:* including sector wise identification of module and delivery details.
- *Training evaluation:* including feedback analysis from the participants and review of meetings.
- *Future action:* with suggestions and plan of action for future training programmes.
- Every task was further divided into number of subtasks. The course content of all the modules was peer reviewed for accuracy and quality. The ownership of course curriculum of Rapid Training was with MoUD. Depending on the number and status of JNNURM projects, the training programme targeted groups of states in three phases.

A specific training plan was prepared on the basis of geographical location of the target cities. For operational reasons the cities were divided into two phases. Phase I covered 13 cities in the north eastern areas and phase II covered 15 cities in coastal areas. Participants from these cities were divided into three target groups based on criteria like qualification, seniority, skill and responsibility in the ULB, helping in formulating appropriate training content and delivery method suited to requirements of the target group.



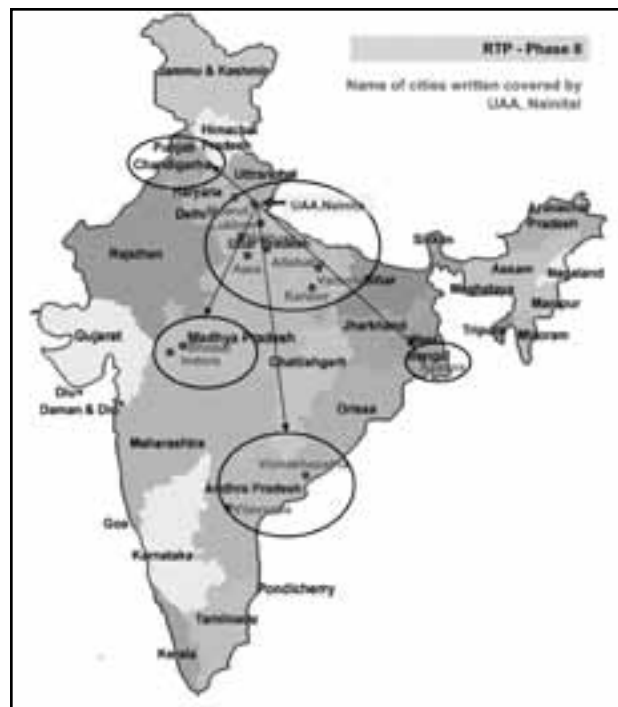
Cities covered by CEPT, Ahmedabad under Phase I



Cities covered by CEPT, Ahmedabad under Phase II



Cities covered by UAA, Nainital under Phase I



Cities covered by UAA, Nainital under Phase II

Cities covered under two phases for implementation



State and city wise participation in RTP Module-II

Division of participants into Target Groups (TGs)

S. No.	Level	Designation	Approx. number
1	TG-I	City Engineer/Additional City Engineer/ Superintendent Engineer	1-2
2	TG-II	Deputy City Engineer/ Executive Engineer/ Asst. City Engineer	2-3
3	TG-III	Asst. Engineer /Jr. Engineer	6-7

The training programme was oriented on three levels based on the education and skills of the target group. For higher level staff, the training focused on awareness, for intermediate the focus was on knowledge and for the third level hands on training was imparted for skill enhancement.

Level of training as per Target Group

S. No.	Level	Proposed Level of Training
1	TG-I	Awareness
2	TG-II	Knowledge
3	TG-III	Skills

The implementation of the training programme involved a mix of on site and off site activity schedules. Innovative techniques including screening of audio

visual documentation of good practices and group exercises were introduced to ensure involvement of the participants. Curriculum and trainings material, hand outs including important JNNURM Guidelines, reform details (for both staff and elected representatives) were jointly prepared and operationalised by CEPT and UAA. Besides these, many useful products such as various toolkits including on DPR preparation produced by the Mission Directorate were supplied to the participants for future reference. CEPT and UAA have prepared a database of all the participants from different ULBs so that their professional development and skill levels can be monitored. Many of them could be involved as resource persons for future training programmes.

The overall coordinating role of the MoUD was very important in successful completion of the training programme. Officials of the MoUD were key in establishing links with the state and local officials. Their participation provided legitimacy to the whole training activity and considerably facilitated the work.

RAPID TRAINING ACHIEVEMENTS AND OBSERVATIONS

363 participants from 31 Mission cities and 10 non-mission cities and towns attended the RTP in seven clusters, of which 188 participants represented the ULBs and 174 the parastatals like Jal Board and Public Health Engineering. The participation was highest in Puducherry and Madurai clusters, followed by Pune. The participation of women candidates was less in all the seven clusters of RTP, only 7% as compared 93% in case of men. The feedback survey indicated that there was substantial improvement in the levels of awareness, knowledge and skill, especially amongst the lower staff like the Assistant and Junior Engineers. There was a considerable increase in their ability to understand and analyse the DPRs prepared by the consultants and capacity to implement projects. The RTP also helped them in understanding the importance of reforms in governance process.

Some of the common issues highlighted by the participants include:

- Absence of pro active involvement and lack of interest of the state governments.
- Conflict between the Central, State and Local agencies.
- Total dependence on the consultants and non involvement of technical cell of the government in the preparation of DPR.

- Absence of central resource pool, especially sectoral experts and qualified consultants.
- Cost escalations between DPR preparation and implementation.
- Improper guidelines especially pertaining to small towns.
- Need to build capacity for preparing CDP and DPR in small cities, region specific, especially for the North East.
- Inadequacy of norms and guidelines for resource allocation, construction and building bye laws.

Few observations and issues raised by the participants varied across the regions. This is understandable, given the environmental, economic and cultural diversity of the country. If the observations can be internalised in the planning process, the strategies will become more contextual and relevant.

- Eastern states indicated requirement of long term programmes, more attention to be paid to the small and medium towns and addressing the issues regarding the information flow to the junior staff for training opportunities.
- Western cluster participants highlighted the need to disseminate best practices from other JNNURM cities, need to appoint financial experts, political support and stakeholder involvement.
- The north east states indicated the need for long term capacity building initiatives for the north east towns. They also highlighted that the resource persons including consultants should be acquainted with the specific infrastructure problems of the north eastern terrain and environment.
- Southern participants indicated the need for proper and better training programmes for all ULBs across the states.

FUTURE CAPACITY BUILDING STRATEGY

MoUD has prepared a two year 'Framework For Action', based on a rapid training needs assessment of ULBs and a quick inventory of institutions involved in training in the urban sector. The long term strategy aims to systematise and energise both demand and supply to achieve sustained access to quality capacity building services, based on individual city needs. Much more should be done for the success of the initiative. From the experience gained through the RTP, following are some suggestions that could be taken up in developing the training strategy:

- Establishment of a National Performance Review Committee to streamline and monitor the activities.

Level of participation

S. No.	Clusters	No. of Participants		
		ULBs	Parastatals	Total
Phase I				
1	Bhubaneswar	15 (46.9%)	17 (53.1%)	32 (100%)
2	Jaipur	20 (51.3%)	19 (48.7%)	39 (100%)
3	Shillong	9 (23.7%)	29 (76.3%)	38 (100%)
4	Puducherry	18 (22.2%)	63 (77.8%)	81 (100%)
Phase II				
1	Rajkot	22 (78.6%)	6 (21.4%)	28 (100%)
2	Madurai	50 (61.0%)	32 (39.0%)	82 (100%)
3	Pune	54 (87.1%)	8 (12.9%)	62 (100%)
	Grand Total	188 (52%)	174 (48%)	362 (100%)

- Enhance interaction between training hubs for sharing their learning experience.
- Develop a comprehensive training strategy for all urban areas in India, not just limited to the 63 target cities under JNNURM.
- Strategise training needs depending on the size, class, economic base and character of the city. For this a long term Professional Certification system is required.
- Prepare a simplified data base and system for encouraging officials, especially at the lower level, to facilitate their participation.
- Enable participation of women through adequate financial assistance and incentives.
- Provide a stronger focus on middle and lower officials instead of senior officers, as they are the ones who are in touch with field realities and are involved in implementing the projects.
- Address and enhance motivation amongst the staff and officials of the ULB to tackle the lack of professionalism, participate and learn from the training programme. This could be done by provision of legitimacy and recognition of the work of ULB officials and linking training with career advancement.
- Work out institutional involvement and timing in consonance with work pressure and availability of the staff for training with incentives, so that training is not perceived as an extra burden.

- Resolve conflict between legislative wing and executives so that they work together as a team to make capacity building initiatives successful.
- Address knowledge gaps regarding technical matters like norms, standards, technologies, contract management and project execution, between the trainers and the participants, especially when local trainers are not available and language becomes a limitation at regional level.
- Address the problem of quality and availability of trainers.
- Replace the current reactive approach, often addressing non core issues with a coordinated capacity building programme.
- Supplement the present short term training capsules with longer professional support.
- Identify 'change agents', that is, enthusiastic, knowledgeable and motivated participants from amongst the trainees who can be imparted sector specific training so that they can train other technical staff in the ULBs.
- Facilitate on line interaction amongst the cities and the change agents.¹
- Establish theme specific 'Centres of Excellence' and national and international knowledge transfer arrangements through exposure visits and knowledge networks between private and non governmental institutions.

- Enable initiatives like National Capacity Building Plan, Professional Certification framework for the trainees and development of Urban Manuals or Codes of Practice.

CONCLUSION

Post-training assessment revealed that the programme has considerably enhanced its own understanding of the urban issues that need to be internalised in its planning pedagogy and for the advancement of future training programmes. The Rapid Training Programme capacity building exercise has been a fairly successful initiative which needs to be continued and strengthened based on the learnings from this first initiative. The Ministry of Urban Development should make it a part of the 'Obligatory Reform Agenda' for all the Mission cities and State Level Nodal Agency to:

- Prepare an Annual Capacity Development Plan for all Mission cities (by the State Level Nodal Agency).
- Participate in the Capacity Development Programmes (for the Mission cities).
- Performance indicators such as 'Number of Technical Personnel' sent for capacity development workshop per year, may be used for monitoring of city or state participation.

Bibliographic References

- CEPT 2008, *JNNURM Rapid Training Programme*, CEPT, Ahmedabad.
- Gujarat Urban Development Corporation (GUCD) 2007, *Inclusive Development through Partnership and Reforms*, GUCD, Gandhinagar.
- Ministry of housing and Urban Poverty Alleviation (MoHUPA) 2007, *National*

Programme on Capacity Building for Urban Poverty Alleviation, Government of India, New Delhi.

- MoUD, 2006, Government of India, New Delhi, viewed June 2010, <<http://jnnurm.nic.in>>. MoUD, 2010, Government of India, New Delhi, viewed June 2010, <www.urbanindia.nic.in>.

Notes

- ¹ CEPT has created an online help line system to interact with the cities and MoUD. The online system can be used for interaction amongst cities and change agents. The use of this system is limited due to various reasons including infrastructural issues at the local level.

Knowledge Sharing Programme under JNNURM

CHETAN VAIDYA, VIJAY K DHAR AND NILANJANA DASGUPTA SUR

ABSTRACT

JNNURM aims at transforming urban policies and city management practices for creating dynamic and sustainable cities with an improved quality of life. Peer Experience and Reflective Learning (PEARL) is an initiative under JNNURM to support cities in pursuing activities for implementation of projects and reforms. Its main objective is to create an effective network of Mission cities for cross learning and sharing knowledge on urban reforms, city governance and urban infrastructure projects so that objectives of the Mission can be successfully achieved to make cities more liveable, economically vibrant and environmentally sustainable. A documentation of the activities under PEARL has been carried out along with envisioning its relevance in the long term, both under and beyond JNNURM

BACKGROUND

The JNNURM, launched by Government of India in 2005, is aimed at facilitating selected cities to take financially sustainable initiatives to improve service levels. The objective is to create economically productive, efficient, equitable and responsive cities. The Mission focuses on integrated development of infrastructure services, securing

Chetan Vaidya is the Director of National Institute of Urban Affairs (NIUA), New Delhi. He is an urban planner from IIT, Kharagpur. Currently, he is working with the Ministry of Urban Development to implement reforms under the Jawaharlal Nehru National Urban Renewal Mission.

Vijay K Dhar is Professor at NIUA and has expertise in the fields of housing and urban land development. He is coordinating the Peer Experience and Reflective Learning (PEARL) Programme.

Nilanjana Dasgupta Sur is a Research Fellow at NIUA. Her expertise is in the field of urban/regional development, urban and environmental management. She is presently assisting in the coordination of PEARL.

linkages between asset creation and maintenance for long term project sustainability, accelerating the flow of urban sector investments, planned development of cities, renewal and redevelopment of inner city areas and universalisation of urban services. Under the Mission, an investment close to ₹1000 billion is planned for the period 2005-2012, to be pooled by the national government, state governments and Urban Local Bodies (ULBs). The JNNURM has two sub missions, Urban Infrastructure and Governance and Basic Services to the Urban Poor and these are being implemented by Ministries of Urban Development and Housing and Urban Poverty Alleviation, Government of India, respectively.

JNNURM links investments with policy reform to make cities work more efficiently and effectively. The expected outcomes from the reforms are:

- Universal access to a minimum level of services.
- Establishment of city wide framework for planning and governance.
- Modern and transparent budgeting, accounting and financial management systems at the municipal level.
- Financial sustainability for municipalities and other service delivery institutions.
- Introduction of e-governance in the core areas of municipal governance.
- Transparency and accountability in urban service delivery and management.

The state governments and the cities have given their commitment to implementing these reforms in order to receive JNNURM funds for urban investments.

FRAMEWORK

The JNNURM aims at transforming urban policies and city management practices for creating dynamic and sustainable cities that would result in improving the quality of life in cities. There are a number of challenges in achieving the objectives of the Mission such as; an extensive coverage in terms of cities and population, a wide scope in terms of programme components and urban reforms being implemented and a limited capacity of the state and ULBs to implement the programme.

Knowledge support and knowledge sharing amongst JNNURM cities for project implementation, urban reforms and city governance have emerged as key areas for capacity building of ULBs to achieve objectives of

the JNNURM. It was felt that cities identified under JNNURM can network amongst themselves for cross learning and sharing knowledge, hence effectively manage their cities. In response, the PEARL network was launched under JNNURM on January 31, 2007 at Hyderabad in presence of over 100 delegates spreading across the 63 JNNURM cities and 20 Indian states.

Objectives

The main aim of PEARL is to create an effective network among JNNURM cities for cross learning and sharing knowledge on urban reforms, city governance and urban infrastructure projects so that objectives of the Mission can be successfully achieved to make cities more liveable, economically vibrant and environmentally sustainable. Focus of PEARL activities is on installing various processes and achieving outcomes from projects and reforms. It would provide a forum for sharing knowledge and experiences and to sustain the network beyond the Mission period.

Grouping of Mission Cities

JNNURM cities with similar character and concerns and natural affinity have been organised into five groups or networks. The factors of commonality considered for 'peer pairing' for cities are:

- Socio-economic profile and key economic drivers.
- Size of the city.
- Urban growth pattern.
- Urban character.
- Complexities of urban problems and issues.

The five groups so formed are Mega Cities, Industrial Cities, Mixed Economy Cities, Heritage Cities and Cities of Environmental Importance. The role of the Mission cities is to use the networks for cross learning and sharing knowledge on successful urban projects, best practices, reforms and city governance; key challenges, key processes and strategies for removing roadblocks and impact so that objectives of the Mission can be successfully achieved.

Role of National Coordinator

The National Institute of Urban Affairs (NIUA) has been designated as National Network Coordinator by the Ministry of Urban Development (MoUD) to coordinate various PEARL activities and develop effective linkages between the JNNURM cities. The key task assigned to NIUA is to ensure smooth functioning of the PEARL networks and assist the Mission Directorate in supporting and monitoring the programme.

Peer pairing to form network for PEARL

Group A - Mega Cities, with Global Character in Socio-economic profile	Group B - Industrial Mega Cities	Group C - Mixed Economy Cities Service/Trade/ Institutional functions	Group D - Cities of Heritage Significance	Group E-Cities of Environmental Importance
Delhi	Faridabad	Patna	Madurai	Itanagar
Greater Mumbai	Ludhiana	Bhopal	Varanasi	Imphal
Ahmedabad	Cochin	Jaipur	Agra	Shillong
Bangalore	Vishakapatnam	Lucknow	Amritsar	Aizawal
Chennai	Kanpur	Meerut	Allahabad	Srinagar
Kolkata	Coimbatore	Jabalpur	Panaji	Kohima
Hyderabad	Jamshedpur	Vijayawada	Bodhgaya	Gangtok
Pune	Asansol	Guwahati	Ujjain	Agartala
Surat	Dhanbad	Jammu	Puri	Dehradun
	Indore	Raipur	Ajmer-Pushkar	Nainital
	Nashik	Ranchi	Mysore	Shimla
	Vadodara	Thiruvanthapuram	Pondicherry	
	Nagpur	Bhuvaneshwar	Mathura	
	Rajkot	Chandigarh	Haridwar	
			Nanded	
			Porbander	
			Tirupati	

Selection of Knowledge Managers and Network Conveners

Group	Knowledge Manager (KM)	Network Convener
Group A - Mega cities	Mega Cities Association, Kolkata	Mega City Forum
Group B - Industrial Mega cities	All India Institute of Local Self Government, Mumbai	Nagpur
Group C - Mixed Economy cities	City Managers Association of Madhya Pradesh, Bhopal	Bhopal
Group D - Cultural/religious cities	Centre for Environmental Planning and Technology, Ahmedabad	Agra
Group E - Hill cities	Uttarakhand Academy of Administration, Nainital	Dehradun

The specific responsibilities assigned to the National Network Coordinator are as follows:

- Development of knowledge products that is, facilitating PEARL Knowledge Managers (KMs) or partners to identify, document and share best practices in project development, financing and implementation and urban reforms under JNNURM.
- Knowledge dissemination by hosting a website and publishing periodic newsletters for exchange of information, innovation and initiatives and facilitating KMs or partners to organise workshops for participating ULBs and KMs to exchange experiences and lessons learnt.
- Organise national workshop for exchange of experiences and lessons learnt.

Role of KMs

The role, functions and responsibilities assigned to KMs include the following:

- Facilitating cross learning among cities.
- Create platforms for reflective learning.
- Providing professional support.
- Exchange expertise, experience and information.
- Network management.
- Creating knowledge bank and technical pool.

PROGRESS: KEY MILESTONES

Following the launch of PEARL, the identification of the National Coordinator and Knowledge Manager and the grouping of cities, a Review Meeting of PEARL Network was held on March 3, 2008 to identify key activities of the five groups of Mission cities.

Issues like sustaining PEARL beyond JNNURM, opportunities to fill the knowledge gaps and mid course correction for cities that are lagging behind were raised and discussed. This was followed by another review in July 2008 that highlighted the need to focus on outputs and outcomes of reforms and investments under JNNURM. After that, a number of workshops and conferences have been held under PEARL. The PEARL website has been operationalised and linked with the JNNURM website; progress has been made on documentation and dissemination of best practices in planning and implementation of urban infrastructure projects, reforms and innovations and the first issue of the Newsletter 'PEARL Update' has been circulated.

Creating dialogue

A number of conferences and workshops have since been held under PEARL to create a dialogue amongst the various stakeholders.

Building partnerships

- NIUA and the internet business solutions group, Cisco Systems signed a Statement of Work on February 9, 2009 for capacity building initiatives for making PEARL an effective network among JNNURM cities.
- Cities Alliance (CA) and NIUA together are providing knowledge support to PEARL through Knowledge Network Support Unit.
- NIUA has initiated the creation of a knowledge management resource centre in the area of strategic communications in partnership with the Water and Sanitation Programme and in agreement with MoUD. The proposed resource centre will be a warehouse of communication strategies and



Round table of Knowledge Managers and Mission cities

materials developed by ULBs or water utilities and other associated organisations.

- United States Agency for International Development and Department for International Development of the Government of the United Kingdom, have extended support to the sponsorship between CA and NIUA.
- Asian Development Bank agreed to provide knowledge products to the network.
- The World Bank Institute has also shown interest to provide support on capacity building for urban officials and KMs.

Website and newsletter

NIUA has set up a website <www.indiaurbanportal.in> for exchange of information, innovation and initiatives.

Conferences and workshops held under PEARL

Conference/ Workshop held	Date and Location	Achievements
Round table of KMs and Mission cities	December 4, 2008 at NIUA, New Delhi	<ul style="list-style-type: none"> • Discussion on contents of the proposed PEARL website India Urban Portal. • Discussion on identification of knowledge gaps and information sharing, best practices and crosscutting issues.
Regional Workshop on Heritage, Culture and Religion	February 2, 2009 at Madurai	<ul style="list-style-type: none"> • Sharing and discussing various initiatives being taken under the 15 identified JNNURM Cities falling under the 'D' Group under PEARL. • Key issues at the ULBs level that included lack of linkage between urban planning and heritage development; lack of comprehensive guidelines and clear road map for action to protect the heritage cities were discussed.
Second Group Workshop on Mega Cities	July 4, 2009 at New Delhi	<ul style="list-style-type: none"> • Discussion on the JNNURM Urban Reforms, Public Private Partnership and innovative initiatives taken in this regard in the respective cities of the Mega Cities Group.
National Workshop on PEARL	November 6, 2009 at Hyderabad	<ul style="list-style-type: none"> • Identification of success stories; issues and way forward for the PEARL programme.



National Workshop held at Hyderabad

This website documents best practices, projects, reforms, news, events, data, resources, publications, newsletters; gives information about JNNURM, has a photo and film gallery. It acts as a platform to share knowledge among governments at national, state and local levels as well as community groups and citizens in JNNURM cities. The website focuses on linking ULBs and community groups in the JNNURM cities and provides information on organisations, techniques, technologies, resources, innovations and best practices for the projects and reforms. It supports output of JNNURM in terms of planning and implementation of projects and reforms and helps to set up discussion forums, news and guidance among JNNURM cities. An average monthly hit of more than 1,00,000 has been reached in the month of April 2010.

A Help Desk for JNNURM cities is being set up under the PEARL programme, where urban managers and associated sector professionals would forward their enquiries and also access this online data base as an Urban Forum in the PEARL website.

The quarterly newsletter 'PEARL Update' disseminates information on best practices, successful process of planning and implementing projects and reforms, techniques, technologies, innovations and news. The website and newsletter provide a link between the Technical Advisory Group (TAG) and PEARL activities.



PEARL website

Documentation of best practices

ULBs have initiated reform processes to improve the level of urban governance. While numerous ULBs are introducing change initiatives, some of which are extremely progressive and impressive, these are being taken in isolation and without sharing the benefits of their experiences with others. These urban initiatives are being documented for horizontal learning among cities under PEARL. The best practices are documented and disseminated through website, newsletter, regional and national workshops and TAG meetings at city and state levels. Apart from this, as part of its activities, PEARL is also documenting five best practices reports that are under preparation.



PEARL newsletter

The framework for analysing case studies is:

- Sectors and Services:
 - Public Transport System.
 - Roads and Flyovers.
 - Sewerage and Drainage.
 - Solid Waste Management.
 - Water Supply.
- Urban Reforms.
- Public Private Partnership (PPP).
- Urban Poverty.
- Developments of Heritage Areas.
- Disaster Management.
- Urban Renewal.
- Environment.
- Information and Communication Technology Infrastructure.

Around 64 best practices have already been documented from select cities like Ahmedabad, Bangalore, Bhopal, Bhubaneshwar, Kolkata, Mumbai, Nagpur, Pune, Surat and Vijayawada under PEARL. Three case studies of documented best practices that cover the areas of water quality monitoring systems, municipal reform initiatives and PPP model for underground car parking system respectively are discussed briefly as examples.

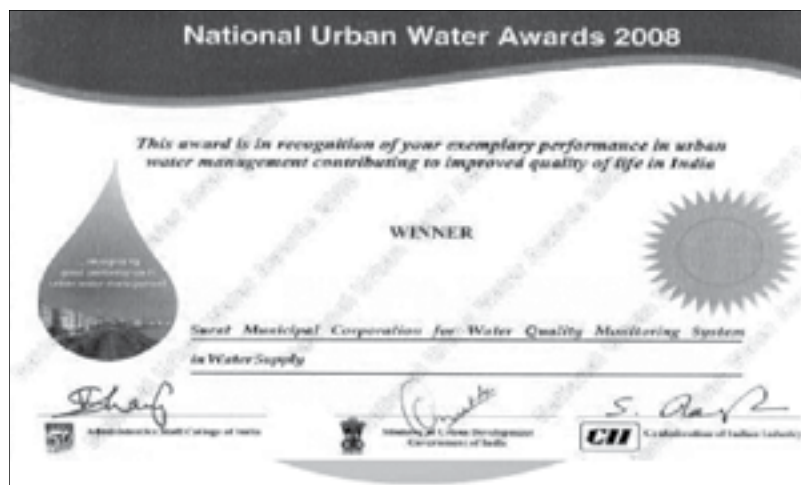
- *Water Quality Monitoring System in Surat City:*
Piped water supply system for the Surat City was started first time in year 1894, with River Tapti as the main source of water supply. On the basis of PPP, a weir cum causeway was constructed in the year 1995 that helped Surat Municipal Corporation (SMC) to cope with the challenge of growing water demand in the city. Till 1995, there was no planning to sustain water supply and as a result

scarcity of water was realised against tremendous rise in water demand. SMC is presently catering to various services like river water quality (source) and online water quality monitoring system for raw water and treated water along with monitoring for threat perception (terrorist attack) in raw water and distribution network. SMC has won the 'National Urban Water Awards 2008' for this Best Practice.

- *Municipal Reform Cell, Government of Karnataka:*
The main objective of the reforms under JNNURM is to provide an enabling environment for the growth of cities by improving urban governance, enhancing effective urban service delivery and augmenting civic infrastructure. The Municipal Reforms Cell created under the Directorate of Municipal Administration, Government of Karnataka (GoK) is one of the initiatives to bring about better governance in ULBs through the use of technology and business process reengineering. GoK has launched reforms in service delivery and accounting along with computerisation in all 213 ULBs of Karnataka to bring transparency and accountability in administration and to improve better municipal citizen interface. The reforms initiative proposes to upgrade all ULBs from the existing manual system to computer based systems like website, public grievance and redressal, geographical information system based property tax system, double entry accrual based accounting system, birth and death registration and certification, water tax, trade license, ward works and assets management, building plan approval and e-procurement.
- *PPP Model for Underground Car Parking System, Kolkata:* Central Kolkata, particularly New Market area near the Kolkata Municipal Corporation



Best practice documents



Certificate for exemplary performance



Water Quality Monitoring Systems



E-governance website, Government of Karnataka



Public Grievances and Redressal Cell, Government of Karnataka



Underground car parking system, Lindsay Street, Kolkata



(KMC), is a very busy commercial zone with narrow streets and roads. Lindsay Street is one of the most congested roads in terms of traffic. The problem was further aggravated by haphazard and unruly parking that led to serious traffic jams. To find a solution to these problems, KMC decided in 2001 to construct the city's first underground parking system at Lindsay Street. The multi level underground car parking system was inaugurated in April 2007. The project implemented on Build-Own-Operate-Transfer basis benefited KMC, private partners and most of all, car owners and pedestrians. The uniqueness of the project lies in the five direct car lifts for drivers to take their cars to and fro from the parking lot. It has received an award for introducing the best car parking solution in India.

THE WAY FORWARD

In year 2010-11, PEARL is continuing its activities by updating the website, organising workshops, documenting best practices and publishing quarterly newsletters. In addition, some new activities will also be undertaken. One such activity is 'Twinning of Cities', which is a concept in which a better performing city is paired with an average performing one with an objective to share and transfer capabilities from the former to the latter. This is initially being introduced to a selected five city pairs. Another major activity is the revamping of the PEARL website. As part of networking component, it is proposed to set up an e-Group to provide a

platform for sharing of knowledge and ideas among urban sector professionals especially urban local bodies in key areas. The goal is to build a proper network between all urban local bodies through an E-governance system.

National Institute of Urban Affairs will build on the Ministry of Urban Development initiative and contribute in making PEARL an effective learning network. The basic structure of the network has been installed with the appointment of the Knowledge Managers and the cities have been initiated into consultative discussions. A new group on North East Cities is being considered to develop mechanisms for assessment of knowledge needs of those cities, access and development of new knowledge products and their sharing within these cities.

PEARL is acting like a horizontal learning platform for knowledge sharing and cross learning activities among JNNURM cities of India. This initiative is not just a project to be completed in a certain period of time but is a national initiative being taken up for the first time in India. It is meant to serve as an umbrella that coordinates and brings together ongoing and future activities, with the intention of improving practice and results. There is a proposal to make it an 'Urban Knowledge Hub for India' providing information on urban policy, programmes, projects, reforms and capacity building thus enabling a systematic change in the urban situation.

Notes

The article is based upon the primary involvement of the authors in PEARL as NIUA is the National Coordinator for the initiative.

Reframing Toolkits

Heritage as a cross cutting theme

INDIAN HERITAGE CITIES NETWORK

ABSTRACT

The Indian Heritage Cities Network has advised the Ministry of Urban Development, Government of India to introduce a resource-based approach in urban development through the JNNURM programme. It has tried to ensure that the preparation of City Development Plans (CDPs) and Detailed Project Reports (DPRs) by the Mission cities shall in no way compromise the valuable historic areas of the Indian cities and would in fact integrate the natural, cultural, social and historic resources of the heritage cities in all planning and development processes. The preparation of Revised CDP Toolkit and Cultural Heritage DPR Toolkit comprise of the first phase initiatives of this resource-based approach.

BACKGROUND

The Ministry of Urban Development (MoUD), Government of India and UNESCO, New Delhi Office have developed a partnership to help safeguard and promote the sustainable use of India's unique and diverse urban heritage, through a joint project, 'Moving towards Heritage-based Urban Development'. The project primarily aims to mainstream the concern for heritage protection and conservation and the sustainable use of cultural and natural resources in JNNURM. The objective of the project

Indian Heritage Cities Network (IHCN), founded by UNESCO New Delhi in 2006, provides a platform for sharing expertise and experience for the sustainable socio-economic and cultural development of India's historic cities. Based upon a consultative process with national experts in the fields of heritage conservation, urban design, urban planning, environment and landscape, IHCN has revised existing toolkits and prepared new ones for JNNURM. Shalini Mahajan, Project Manager, UNESCO-IHCN New Delhi has collated this article.

is the creation of economically vibrant and productive Indian heritage cities.

The joint UNESCO-MoUD project is a continuation of the interventions and inputs of the Indian conservation community since 2006, to convince the JNNURM Directorate and MoUD in general that heritage is an important part of the urban environment and that it needs to be included in urban development initiatives in India that augment the economic and social infrastructure of the cities. Under the joint project, a body of Indian experts of various relevant fields under the umbrella of UNESCO led Indian Heritage Cities Network (IHCN)¹ came together and helped revise the 'JNNURM Draft Toolkit for the Preparation of a City Development Plan' with special view to heritage concerns, reviewed the CDPs of four Mission cities (Madurai, Mysore, Srinagar and Varanasi) and helped prepare a Toolkit for DPRs on Cultural Heritage for the Mission cities.

URBAN HERITAGE AND JNNURM

Approximately 30% of India's one billion population lives in urban areas and the cities of India are growing at an unprecedented scale and speed in order to meet the rising aspirations of its urban population. Urbanisation is widespread with new infrastructure, residential areas, industrial sites and large scale commercial establishments being constructed at an unparalleled speed. This is often done with little or no regard for the constraints of the existing urban landscape; the quality, character, limitations or sustainability of the existing cultural and natural resources. The historic urban landscapes today stand at the threshold of being devoured by the short sighted focus on economic growth and the strong desire in developing assets to cover the needs of the 21st century urban India.

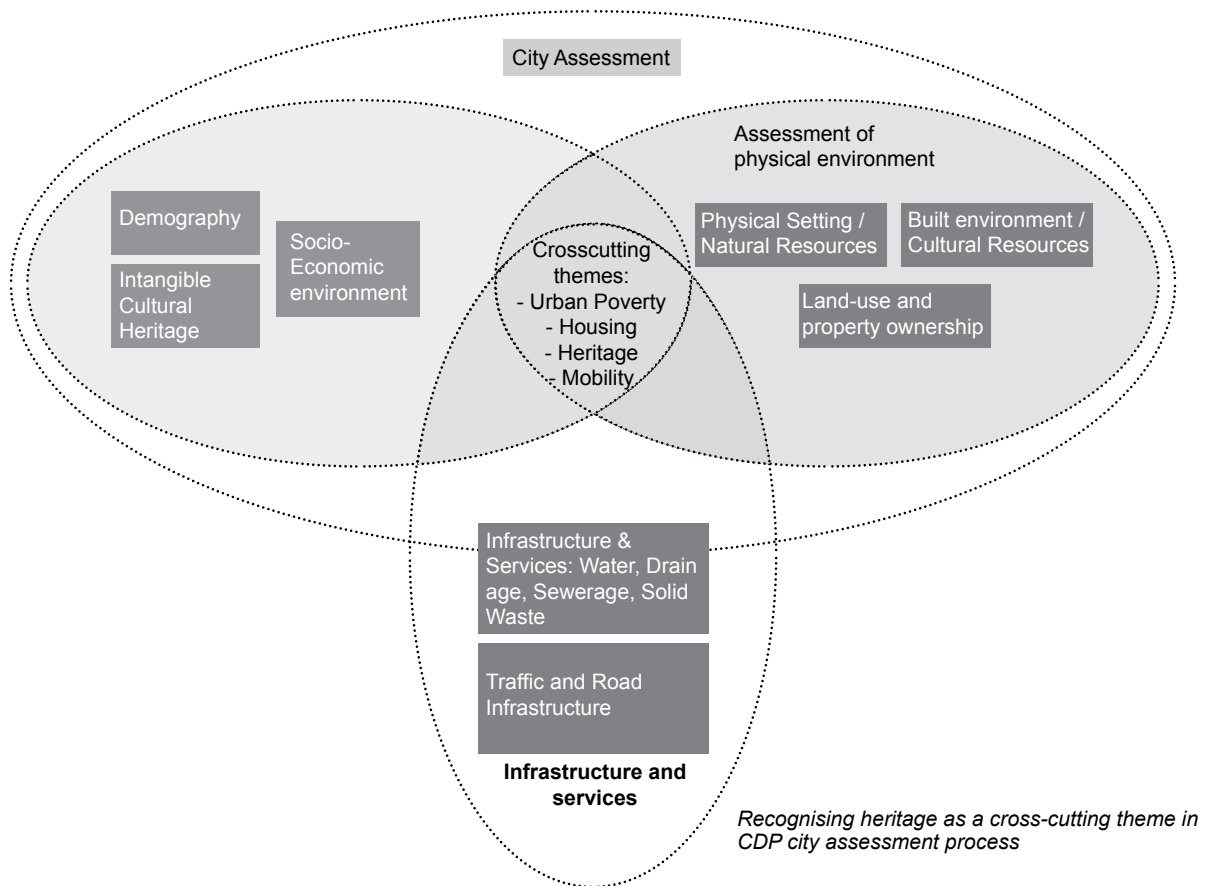
The historic Indian urban landscapes, born out of the deep rooted cultural and spiritual traditions, have evolved into spaces of timeless appeal over the centuries. These historic areas have undergone numerous physical, social and cultural transformations, yet they manage to conjure up the inherent historic values of the place through the unmatched beauty of their traditional architecture and urban morphology, coupled with the vibrancy of the markets, *ghats* (stepped river fronts) and other open spaces abounding with the activities of the people. It is these areas with their multilayered history that have become the symbols of the city's image over time and where

the 'culture' of a city resides. Today this culture stands threatened by the rapid pace and insensitive urbanisation.

In order to access the Central Assistance under JNNURM, the Mission cities are obliged to prepare a CDP, defined as a comprehensive document that outlines a strategic view for the development of the city and one that helps identify its priority areas aimed at improving the quality of life of its people. As part of the CDP, it further calls for the drafting of plans and policies for critical urban sectors like transportation, water supply, solid waste management and environment out of which DPRs for each sector are expected to be established.

Toolkits to facilitate the preparation of CDPs and DPRs for the Urban Local Bodies (ULBs) have been developed. A toolkit was also provided to aid in formation of the sectoral plan on heritage in CDPs. But the lack of any heritage based CDPs and city level heritage DPRs, highlighted the inability of the cities to identify the potential of heritage resources as an integral component of the urban planning process or as a means of urban renewal for Indian cities. Through an overview of the initial 63 CDPs of the JNNURM², it was observed that the focus of urban renewal projects was primarily on basic infrastructure and urban transport development such as roads, flyovers and Bus Rapid Transit Systems, with little or no attention accorded to heritage, not even in the 11 Mission cities that were initially designated as heritage cities³.

The overview further revealed that the heritage resources were often not adequately identified, recorded and characterised while preparing the development plans or in developing project proposals. Interestingly, the review established that even though approximately 50% of the Mission cities recognised urban heritage as part of their vision, the heritage projects that were consequently identified were often listed in isolation and not anchored in the city vision or sectoral planning. This reflected that heritage was not being dealt with holistically in the urban development process. The meaning of heritage was also narrow vision, without appropriately addressing the broad spectrum it encompasses including aspects like the natural, intangible and the artistic. The unique identity and qualities of Indian historic cities, as the ecological, historic, aesthetic, social, cultural, religious and traditional economic qualities of the cities were often ignored in the urban renewal process and were thus losing significance. The immediate need to raise



awareness about this aspect was emphasised through the overview of the CDPs.

UNESCO-IHCN collaborated with MoUD to ensure that the element of heritage is treated as a cross cutting theme and is respected in all urban planning efforts. IHCN has revised the existing toolkits and prepared new ones for heritage to raise awareness and to help improve the effective implementation of the JNNURM programme by means of developing the necessary tools and highlighting planning and management processes for the conservation of urban heritage in India. Two main stages of the joint project have been accomplished, the Revision of the Toolkit for the Preparation of the CDP and the Preparation of the Toolkit on Cultural Heritage DPRs.

REVISING THE DRAFT TOOLKIT FOR PREPARATION OF CDP

Building on the earlier 'Toolkit 2: Formulation of a City Development Plan' and in order to integrate the lessons learnt from the initial years of the JNNURM, the Technical Cell of JNNURM was in the process of revising the CDP Toolkit in early 2009. The document

that emerged was comprehensive in nature and made a serious attempt to integrate the various themes of the CDP into one Toolkit. This effort also included the integration of heritage components.

UNESCO with its team of experts suggested significant revisions to the document in order to mainstream heritage into all aspects of the CDP Toolkit highlighting the beneficial relationship between urban development and the conservation of urban heritage of the cities. The key aspects of the revisions include defining urban heritage, conservation and regeneration along with the need to expand the CDP area and mainstream heritage with urban development.

Defining urban heritage and urban conservation

In India, heritage is a term that has often been used to represent monuments and antiquities only. In recent years, awareness has grown to understand that heritage includes many more aspects. Moreover, heritage in the context of living historic cities of India needs to be defined in a very encompassing way.

The revised CDP Toolkit defines urban heritage as consisting of the natural and cultural resources

including physical (tangible) and intangible elements of a city. In the Indian context it includes the place where the city is built, the sacred geography underlying its physical fabric, natural and manmade water systems, *ghats*, ponds, tanks and water harvesting systems; street patterns, pathways, bazaars and *chowks*; private and public buildings, gates and walls, birdfeeders and statues, parks, gardens, trees, temples, mosques and churches.

The urban historic fabric with associated *yatras* (pilgrimage ways), congregation places, views to and from the city and the way people live, work and own the city as their space for life and death, all form part of urban heritage. It also includes traditional crafts and festivals, oral history, indigenous knowledge systems, social practices and the performing arts. Urban heritage is however not simply the addition of all these elements. It signifies the interplay between all the above elements, the way they interact, grow and form each other. It is only upon understanding how the different elements interlink and depend on each other that the heritage of a city can be comprehended.

The revised Toolkit highlights that cultural heritage cannot be defined by age or typology alone. It considers the city of Chandigarh as much part of the urban heritage of India as the mills of Bombay or the *ghats* of Varanasi. It further emphasised that urban heritage includes not only public property and spaces, but mainly consists of privately owned ones. This is a key challenge while considering urban development and conservation efforts. With this definition, conservation of urban heritage deals with the living environment, multiple ownership and a variety of legal and planning provisions; different layers of governance, administration and management. It must be focused on socio-economic development, regeneration of the historic city and linkages between the core and the periphery.

Conservation of urban heritage is closely intertwined with urban regeneration. Its tools are much more varied than the tools for monumental conservation and the number of stakeholders is also much larger. The Toolkit highlights that this adds to the complexity but also increases the opportunities for urban development.

Mainstreaming heritage with urban development

UNESCO and its team of experts acknowledged the efforts made by MoUD towards making the CDP Toolkit more comprehensive and integrative, even including a chapter on heritage. It did however emphasise that an even more integrative approach is

needed to assure that the projects sanctioned under the JNNURM would not be harmful to the historic resources of the Indian cities. The revised CDP Toolkit emphasises that heritage is a cross cutting theme and needs to be addressed in all sectors of city planning. It can easily be compared to ecology or poverty alleviation, two other subjects that are inherent to all planning aspects in a city.

The UNESCO revision of the Toolkit aimed to mainstream heritage concerns and introduce the concept of a resource-based approach to urban development, respecting the existing natural, cultural, social and historic resources of a city throughout all planning and development processes. The Toolkit emphasises that the existing resources must be recognised, assessed, valued, integrated in the planning efforts and conserved and maintained for future generations. This applies to all sectors, including water, drainage, sewerage, transport and others. In many cities, the historic water system, for example, is the very reason for the city's existence and not just an aged and irrelevant part of the infrastructure that can be disposed of.

Natural and cultural resources are often the basis of the very existence of a city. They determine why the city was built at a particular place, how it survived over the centuries and gives valuable clues on how to develop it for the future. These resources also play an important economic role as they are closely linked to the most needed services such as water supply and to the livelihood of the people. Many of these resources are non renewable and must be recognised, assessed, preserved and used in a sustainable manner for the future of the city. The natural resources such as hills and water bodies are essential for survival of the cities and need to be conserved.

Similarly, while assessing the socio-cultural and economic environment, it is essential to cover social infrastructure, cultural traditions and lifestyle and economic base in the context of the development environment. The cultural environment of the city in terms of data on the traditional communities living in specific areas and their history, traditional crafts villages and areas that are part of the city must be assessed. Cultural heritage aspects like festivals, performing arts, cultural and religious practices, rites and rituals and the use of public spaces during festivals are all important to understand the urban development context. Only the application of such an approach thoroughly, can lead to sustainable urban development.

Defining the CDP area

The revised Toolkit emphasises that the CDP should be prepared for an area that goes beyond the municipal boundaries or the boundaries of the local planning authority. The area should be selected while keeping in mind the extent of the local natural and cultural resources such as water systems, ground water recharge areas, river beds, topography, views and *yatras*.

Existing legal and institutional frameworks as well as ‘Heritage Impact Assessment’ and ‘Environmental Assessment’ in areas beyond the jurisdiction of ULBs, is to be given due importance in CDPs since cultural and natural resources may lie beyond the CDP area. The CDP also needs to be aligned with other legal planning documents such as the Master Plan.

Urban regeneration

The concept of urban renewal has often guided efforts to rebuild or redesign the cities to accommodate contemporary demands, wherein renewal invariably implies removal of the old to make way for the new. The effort should be towards adaptation of the existing resources and heritage in cities, to meet changes in economic, social and environmental requirements, rather than their demolition or abandonment. These should be viewed as elements of urban regeneration which ought to be brought together to help improve the socio-economic conditions and the infrastructure of the urban landscape in which they exist, in turn aiming to improve the quality of urban living.

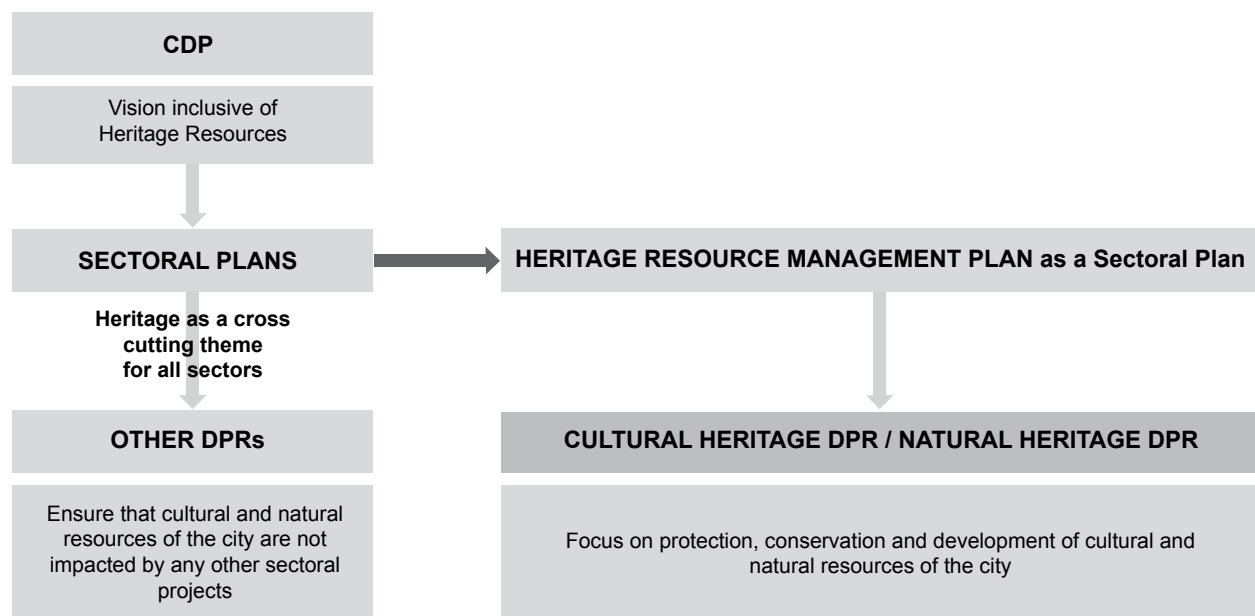
Urban regeneration as advocated by the revised Toolkit aims to retrieve the intrinsic values of the place and attempts to synthesise cultural values with economic opportunities and social benefits. The underlying objective is to develop the dynamic inner city historic areas as liveable and humane environments, fulfilling the contemporary demands of their residents whilst respecting their cultural traditions.

Heritage as integral to all sectoral plans

The revised Toolkit enforces the cities to look at their historical values and to treasure these, with the belief that preserving cultural continuity is perhaps the only way to achieve socially sustainable development. Any planning process must be based on the mapping, documentation as well as condition and value assessment of the natural and cultural environment and its many aspects. A documentation of living traditions and intangible heritage is essential. All these aspects must form the basis for any sectoral planning, be it housing, road infrastructure, water, sanitation, drainage or economic planning. It was suggested that every sectoral plan should have a heritage component.

Sectoral plan for heritage

The revised CDP Toolkit highlights the importance of outlining a clear link from establishing a vision for the city in the CDP to creating sectoral plans and developing DPRs. There needs to be a stronger emphasis on the intermediate planning level that is, the sector level between the CDP and DPR.



Flowchart showing relationship of the DPRs with the CDP and HRMP

This level shall help to prepare the required detailing to develop the DPRs, on the basis of the CDP. For the heritage sector such a sectoral plan, termed as the Heritage Management Plan⁴ (HMP) was elaborated upon. The Toolkit also emphasised the need to clearly establish inter-sectoral and intra-sectoral linkages before developing the sectoral plans so that similar associations may be used in developing more comprehensive DPRs.

The purpose of the HMP, later referred to as Heritage Resource Management Plan (HRMP) is to assess the natural and cultural resources of the city and to assist in developing a roadmap with appropriate strategies for management of the diverse urban heritage. It will help identify, outline and prioritise the heritage DPRs, heritage projects and associated heritage activities for the city. The HMP (HRMP) as a sectoral plan was considered to form an integral part of the main CDP. Detailed actions for its preparation are elaborated upon, including a possible list of urban heritage based projects like conservation plans, physical restoration, maintenance, adaptive reuse, public spaces and awareness programmes.⁵

The Revised Toolkit for Preparation of CDP with the appropriate changes and suggestions by UNESCO as outlined above was submitted to the MoUD in April 2009 and was subsequently published by the Ministry in December 2009. There is a growing realisation today that all cities in India have significant heritage components and it was therefore suggested that the revised CDP Toolkit shall be inclusive of 'heritage resource-based development' for all Mission cities. The JNNURM Mission Directorate proposes to ask all Mission cities, including the designated heritage cities, to realign their CDPs as per the Revised Toolkit since all earlier CDPs were found lacking in several aspects, heritage being one of them.⁶

CULTURAL HERITAGE DPR PREPARATION TOOLKIT

An overview of the initial 63 CDPs revealed that very few amongst them had prepared city level heritage DPRs, raising the need for a Heritage DPR Toolkit. A major reason for it was the absence of proper guidelines for the ULBs to help them identify the potential of heritage resources or to select heritage projects. Moreover the identified heritage projects in existing CDPs were often not streamlined according to the city or the sectoral vision. The proposed Heritage DPR Toolkit is generic in nature and

relevant to all Mission cities. It aims to ensure that no project within or in the vicinity of heritage areas in any city would be damaging to the heritage resources.

A working group of experts was set up under the umbrella of UNESCO-IHCN and through a series of consultations and periodic reviews with them from November 2009 to March 2010, a draft for the Toolkit for Cultural Heritage DPRs was prepared. This Toolkit limits itself to cultural heritage projects only while a separate Toolkit for Preparation of Natural Heritage DPRs is proposed by IHCN. Some of the salient features of the Cultural Heritage DPR Toolkit are that it:

- Defines a Cultural Heritage DPR.
- Establishes the relationship of the DPR with the CDP and the HRMP.
- Identifies permissible components of a Cultural Heritage DPR
- Emphasises on including assessment of existing statutory, institutional and managerial frameworks, the capacity of the ULB and the various funding potentials available to undertake heritage projects.
- Outlines that the DPR must include a statement of significance, authenticity and integrity and map relative significance for large complexes.

STEPS AHEAD

A capacity building workshop will be organised at the final stages of the joint project between UNESCO and MoUD. Subsequently, a training manual will be prepared for the ULBs to introduce them to the concept of resource-based approach to urban development. UNESCO-IHCN also intends to develop a Toolkit for the Preparation of Natural Heritage DPRs. It aims to help the ULBs to identify the potential of natural heritage resources and help in the preparation of projects for urban natural resources like rivers, drains, ponds, lakes, step wells, forests, wetlands and biodiversity zones in historic cities. Protecting and conserving natural urban assets is a relatively under acknowledged aspect of heritage of cities and this Toolkit shall aim to bridge the gap. The Toolkit shall also help outline a framework for the ecological restoration, management and enhancement of urban natural resources. IHCN also intends to develop a 'Toolkit for the Preparation of Heritage Resource Management Plan' that shall act as a guiding document for the ULBs and assist the cities in developing appropriate strategies for management of the identified heritage resources and of integrating these with the development goals of the city.

BEYOND THE TOOLKITS

The City Development Plans and Detailed Project Reports of the Mission provide a first great opportunity to integrate heritage into the aspects of urban development and planning. The integrated plans and reports should serve as a good basis for revising the existing Master Plans or for the preparation of new Development Plans. All the sound research and analysis that goes into the making of the City Development Plans and Detailed Project Reports should be utilised as a strong basis for the preparation of legally recognised planning documents.

Bibliographic References

- MoUD 2009, *JNNURM Annual Update, April 2008-March 2009*, MoUD, New Delhi, p. 1.

Notes

¹ In order to help retain the sense of balance between nature and society and in an attempt to reconcile the conflict between tradition and modern in historic Indian urban landscapes, the Indian Heritage Cities Network (IHCN) programme was established by the UNESCO New Delhi office in 2006. The Network over the past few years has been instrumental in promoting heritage-based sustainable urban development in the country. Its mission is to highlight the Indian

city as a Living Cultural Resource; foster the safeguard and sustainable use of the unique and diverse urban cultural heritage of India; promote the physical natural and cultural heritage, traditions, crafts and creativity as driving forces for urban development and the generation of employment for a balanced socio-economic and cultural development. For further information visit <www.ihcn.in>.

² Carried out by IHCN.

³ These include the cities of Agra, Ajmer-Pushkar, Allahabad, Amritsar, Bodhgaya, Haridwar, Madurai, Mathura, Mysore, Nanded, Panaji, Pondicherry, Puri, Ujjain, and Varanasi. Two more were recently added, this includes the cities of Tirupati and

Porbandar. For further information, visit <www.indiaurbanportal.in>.

⁴ The Heritage Management Plan was referred to as Heritage Resource Management Plan or the HRMP in the newly developed JNNURM Toolkit for Detailed Project Reports on Cultural Heritage by UNESCO-IHCN.

⁵ A brief outline for preparing the HMP has been provided in the Annex of the CDP Toolkit.

⁶ The published document is also available online at <www.jnnurm.nic.in>.

Case Studies

Reforms and Institutional Framework

<i>Urban Reforms under JNNURM: Rajasthan</i> R Venkateshwaran	91
<i>Institutional Development: A Chennai Blueprint</i> M G Devasahayam	97
<i>Legislation for Urban Heritage Conservation: West Bengal</i> S P Shorey	105

Urban Reforms under JNNURM Rajasthan

R VENKATESWARAN

ABSTRACT

At the time of conceptualising JNNURM for enhancement of urban infrastructure in cities, the Government of India linked it with a set of 23 mandatory and optional reforms to be implemented by the State and the Urban Local Bodies (ULBs). At the time of sanction of projects, states and ULBs have to sign a Memorandum of Agreement with the Government of India for implementation of reforms as per agreed time lines. The release of central assistance is also linked with the implementation of reforms. The experience of reforms implementation varies from one state to another. Uniform application of the same yardstick to all the municipalities has certainly provoked the ULBs to think seriously about the implementation of the same. But the historical background and other factors such as ignorance in the masses have not helped states like Rajasthan to fully comply with the reforms agenda in a time bound manner. An analysis of various aspects of the reforms agenda under the JNNURM and its implementation in the state of Rajasthan has been presented in this context.

INTRODUCTION

India witnessed a massive growth in urban population over the last few decades. However, the growth of urban India cannot be claimed to be a success story for many reasons such as lack of civic amenities,

R Venkateswaran is currently in-charge of the Local Self Government department, Government of Rajasthan, Jaipur and the Mission Director of JNNURM in the State. An Indian Administrative Service officer, with more than 20 years of varied experience, he is an engineer and has specialised in Law, Economics, Commerce, Management and Public Policy.



62.5 million litres per day sewage treatment plant at Delawas under JNNURM sewerage project
Source: Jaipur Municipal Corporation

infrastructure and urban governance, to name a few. To grapple with the situation and bring some kind of uniformity in growth in terms of amenities and infrastructure, the Government of India launched the JNNURM in December 2005.

The main thrust of the urban renewal strategy envisaged in the Mission document is to ensure improvement in urban governance, along with making municipalities or Urban Local Bodies (ULBs) and parastatals financially viable, enabling them to shoulder their responsibilities. The Government of India under the Mission has required all the state governments, ULBs and parastatals to accept urban reforms aimed at improving the service delivery. The main objective of the reforms under JNNURM is to provide an enabling environment for the growth of cities through improved urban governance, effective urban service delivery and augmented civic infrastructure. The reforms agenda comprises a set of 'mandatory' and 'optional' reforms to be implemented at state and ULB level. The following section lists the reforms and desired objectives mandated under JNNURM.

MANDATORY REFORMS

State level reforms

- *Implementation of The Constitution (Seventy-fourth Amendment) Act 1992:* Mandates states or cities to implement the Act in its letter and spirit. The states are called upon to ensure meaningful association and engagement of ULBs to improve urban governance. All states are expected to ensure that special agencies delivering civic services in urban areas are either transferred to ULBs and platforms are created for accountability among ULBs in the programme timeframe of seven years.
- *Integration of city planning and delivery functions:* Mandates states or cities to initiate action of institutional convergence of 'city planning and delivery functions during Mission period' by assigning or associating municipalities.
- *Rent control reform:* Aims at balancing the interests of landlords and tenants. It further hopes to facilitate increase in housing stock and also promote efficient rental or tenancy market for improved housing availability across all income categories and especially for urban poor.
- *Rationalisation of stamp duty:* Mandates states to initiate action to bring down stamp duty down to no more than five percent within Mission period so as to have an efficient real estate market and minimum barriers on property transfer.
- *Repeal of Urban Land Ceiling and Regulation Act 1976:* Aims to repeal the Act to increase the availability of land and establishment of an efficient land market.
- *Enactment of Community Participation Law:* Mandates states or cities to enact Community Participation Law to institutionalise citizen

participation and introduction of 'Area Sabha' concept for involvement of citizens in municipal functioning.

- *Enactment of Public Disclosure Law*: Mandates states or cities to enact Public Disclosure Law to ensure preparation of fiscal plan of ULBs or parastatals; publish information about ULBs or parastatals and their functioning, including service level benchmarks of municipal services.

City or parastatal level reforms

- *Introduction of E-governance using Information Technology (IT) application*: Aims at initiating action for introduction of E-governance modules using IT applications like Geographic Information System (GIS) and Management Information System to have transparent and efficient administration, quick service delivery and overall improvement in delivering the services.
- *Adoption of modern, accrual based double entry accounting system*: Mandates states or cities to adopt double entry accounting system to ensure the benefits reach the municipalities by way of better financial management and accountability.
- *Reform of property tax with GIS*: Aims to compel states or cities to impose and improve the methods of levy and collection of property tax through a simple transparent system that encourages

voluntary compliance by citizens. This will ensure a dependable revenue source for the ULBs.

- *Levy of reasonable user charges by ULBs or parastatals*: Mandates states or cities to levy reasonable user charges, so that at least full cost of 'operations and maintenance' or recurring cost is collected to improve the financial position of ULBs or parastatals. It further aims to ensure effective linkage between asset creation and its maintenance leading to self sustained delivery of civic services.
- *Internal earmarking of budget for basic services*: Aims to initiate action by ULBs to earmark funds and set targets for expenditure in annual budget for services rendered to the urban poor.
- *Provision of basic services to urban poor*: Mandates states or cities to provide basic services to the urban poor including security of tenure and improved housing at affordable price and deliver municipal services such as water supply, sanitation, education, health and social security.

OPTIONAL REFORMS

States and ULBs or parastatals

- *Introduction of Property Title Certification*: Mandates states to introduce an effective Property Title Certification System to ensure proper management and record of properties in the cities



Elevated road for Bus Rapid Transit System under construction, Jaipur

- and also evolve a system to reflect authentic ownership at all points of time.
- *Revision of byelaws to streamline the approval process for construction of buildings and development of sites:* Aims at byelaws which facilitate the establishment of transparent, less time consuming processes to streamline the approval process for building construction.
 - *Revision of byelaws to make rain water harvesting mandatory and adoption of water conservation measures:* Mandates states or cities to take effective steps to make it mandatory to install rain water harvesting systems in all buildings to promote water conservation and improve the sustainability of existing water sources.
 - *Earmarking of developed land in housing:* Aims at promulgation of regulations by the states or cities for earmarking 20-25% of developed land for economically weaker section or low income groups both in public and private housing projects, with a system of cross subsidisation.
 - *Simplification of legal and procedural frame works for conversion of agricultural land for non agricultural purposes:* Expects the states or cities to introduce simplified processes to enable citizens to avail a simple and less time consuming process for changing the land use for a better urban development.
 - *Introduction of computerised process of registration of land and property:* Aims at computerisation of registration of land and properties to provide an efficient and transparent service delivery system to citizens.
 - *Byelaws for use of recycled water:* Aims to ensure that the states or cities frame byelaws to stipulate provisions to use recycled water.
 - *Administrative reforms:* Aims at institutionalising better human resource management system,



Construction of Kayad Vishramsthal at Ajmer under JNNURM Project. Source: Central Public Works Department, Ajmer

reduction in establishment expenditure, extensive use of out sourcing and performance review and management mechanism.

- *Structural reforms:* Aims to review and revamp organisational structure of the ULBs to meet the current challenges, decentralise functions, enhance capacity through training and enable effective coordination between city level agencies.
- *Encouraging Public Private Partnership (PPP):* Encourages states or cities to implement projects under PPP models to improve delivery of civic services through an array of options for such partnerships to meet the requirements of citizens.

REFORMS IN RAJASTHAN

Since the launch of JNNURM, Rajasthan has been constantly striving to implement the urban reforms as agreed at the time of signing of the Memorandum of Agreement with Government of India. Most of the reforms have been accomplished, some even ahead of time, though there are few exceptions. It is important to understand that each state has its own strengths and weaknesses in their administrative system. Some states have had the advantage of having proper urban governance systems installed even before independence, which has placed them ahead of many states, especially northern states, in terms of some of the critical reforms like property tax and water supply. The support and acceptance of the citizenry is very critical for any reform to succeed and such support can not be enlisted over night through any instrument or mechanism. The problems faced by the state in accomplishing these reforms are elaborated through the experiences in transfer of water supply and property title certification system.

Transfer of water supply

The function of 'Water Supply to Domestic, Industrial and Commercial Usage' as illustrated in the 12th Schedule of the Constitution of India is to be assigned to the ULBs as per the reform mandated under JNNURM. Rajasthan faces acute shortage of drinking water in most areas and there is hardly any dependable source of surface water, not to talk about the ground water potential. The water supply function is managed by the Public Health Engineering Department in the State. Transfer of water supply to the municipalities is a very sensitive issue in a state like Rajasthan, where the availability and management of drinking water is no less than a crisis management situation at any given point of time. ULBs do not have adequate trained and qualified technical manpower and institutional capacity



*Procurement of buses at Jaipur under economic stimulus package of JNNURM
Source: Jaipur City Transport Services Limited, Jaipur*

to take up this function across the State. The level of confidence to shoulder this huge responsibility is abysmally low amongst the municipalities. There is a need to take a series of steps to first instil the much needed confidence in them.

As a step towards total transfer of water supply function to the municipalities, the states where the function is presently out of the purview of the municipalities may be encouraged to constitute city level committees with adequate representation from municipalities. This committee, once constituted, should have adequate say in suggesting suitable tariff for water, water distribution network and overall monitoring of water supply distribution system. Once it is successfully implemented, further steps like preparation of assets and liabilities, stock taking, inventory listing and a proper road map for transferring the water supply function to the municipalities may be drawn. Financial assistance and engagement of suitable consultants for the same may be arranged by the state government. The municipalities need to be made aware that assistance and resources available at present to the parastatal would be continued by the government till municipalities attain full threshold limit of managing

the system themselves. Unless the municipalities are taken on board, not only at the consultative level but actual involvement in drawing and implementing the road map for total transfer, the states will never be able to achieve this particular reform.

Property title certification system

Rajasthan is the only state that introduced the system of Property Title Certification in 2008, though it had to be withdrawn due to practical difficulties in implementing the same. Every state in its own way has systems of conferring property title. In fact there is no single solution to this issue. Urban and rural properties are governed by separate laws and in many cases by more than two laws. Land issues being a state subject make it all the more complicated for this reform to succeed. The Government of India has constituted a committee to suggest ways and means to accomplish this task. The view that emerges from many states suggests that a time has come to review the whole issue of reforms and the relevance of their uniform applicability across the states. Based on experiences obtained during the Mission period so far, a pragmatic view on the entire issue needs to be taken. A uniform bench mark of reforms for all the states seem to be unsuccessful



Conservation work at Bihariji Temple, Amber, Jaipur under the JNNURM Heritage DPR is supported by World Monuments Fund, exemplifying a PPP model

because of the inherent strengths and weaknesses of each. A thorough review of reforms bench mark needs to be under taken by Government of India to address the problems faced by the states.

BENEFITS ACCRUED TO ULBS DUE TO REFORMS IN RAJASTHAN

The JNNURM driven reforms have brought many benefits to the states and ULBs. But for the reform agenda, this would have taken decades to accomplish. Some of the important benefits accrued to the ULBs in the state of Rajasthan are listed below:

- The Double Entry Accounting System as part of city level reform has been adopted not only in the Mission cities but in all the ULBs in the State. This has facilitated integrated financial management and transparency in municipal accounts.
- The stamp duty in the State was 11% that has been now reduced to five percent to promote registration of properties, investment in real estates, revenue generation and boosting industrial and infrastructure development. The reduction in stamp duty to five percent has encouraged fair play in land and property transactions and will certainly help stabilise the real estate sector in the State apart from

generation of better revenue for the exchequer.

- A massive programme for computerisation of all the 184 ULBs in the State has been taken up. In the first phase, 25 major ULBs with population of more than 0.1 million have been taken up. The E-governance modules in these ULBs shall improve the overall system of governance and will also result in administrative efficiency in delivering municipal services through simplification of procedures.
- The computerisation of land and property registration has helped in simplifying processes and has brought in speed and efficiency in the system. It has also resulted in transparency in valuation of stamp duty thus improving the revenue collection.
- Construction of rain water harvesting structures has been made compulsory in residential, commercial and industrial sectors. The strict enforcement of the same at ULB level has helped in promoting conservation of water and ensuring sustainability of water resources.
- Rajasthan is one of the few states where many projects are being executed under PPP, details of which are as follows :
 - 'Mission Anupam' aims at development and beautification of roads, traffic islands, junctions, rotaries and gardens with the help of private sponsors.
 - 'Shehari Jan Sebhagi Yojana' aims at construction of public buildings, development of urban infrastructure facilities, and purchase of equipment for schools, colleges and completion of incomplete works with the help of public contribution.
 - 'Solid Waste Management': To strengthen the existing public sanitation system of ULBs and at places where sufficient employees are not available, a system of door to door collection of garbage with private participation has been started. For effective monitoring and management of vehicles used for collection of solid waste, a vehicle tracking system has also been introduced.

CONCLUSION

To sum up, one can say that JNNURM has benefited the states and the urban local bodies. The reforms agenda needs a re-look and based on the experiences till now, a differential bench marking could be fixed for different states depending upon their level of achievement. It may also be useful to extend the financial support offered by the Government of India to another phase. This would facilitate some of these critical reforms to meet their ultimate objectives.

Institutional Development

A Chennai Blueprint

M G DEVASAHAYAM

ABSTRACT

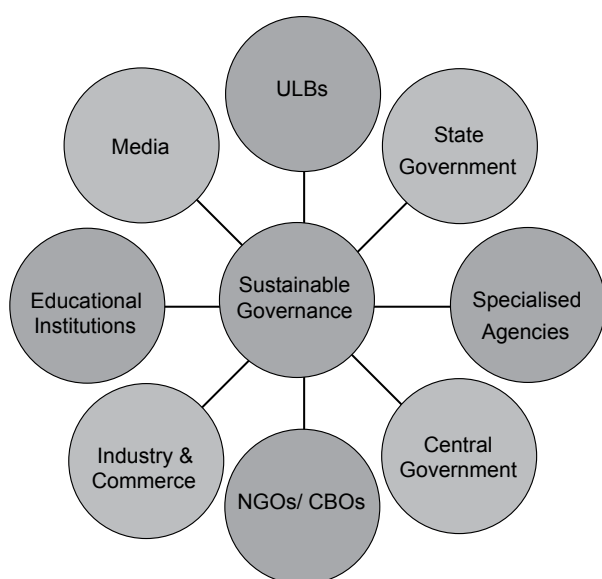
The state of the institutional framework and the system of governance in which these institutions function are key to effective urban planning, social development and investment as well as urban sustainability.

The Chennai Blueprint is an attempt at developing a framework to address issues related to urban governance and a means for evolving an institutional model for good governance that could be suitably adapted in other urban areas.

THE BACKDROP

India is in the midst of an urban explosion, poised to have nearly 50% of the population living in cities by 2050. This would perhaps exceed the combined population of United States and European Union, indicating the magnitude of tasks facing India's urban habitats. Responding to these challenges, the Government of India (GoI) established JNNURM. At the launch of the Mission, Prime Minister Manmohan Singh stated: 'Urban local bodies, unfortunately with some exceptions, have not been enabled to look inward and build on their inherent capacities, both financial and technical and instead are still being seen in many states as 'wards' of the state governments. This should and this must change.'

M G Devasahayam is the Managing Trustee of Citizens' Alliance for Sustainable Living and a member of Monitoring Committee of Chennai Metropolitan Development Authority. He was the organisational and institutional expert on the City Development Plan Investment Programme Review and Institutional Development Support, Chennai that developed the revised Chennai City Development Plan.



State and non state players in CMA Governance
Source: Chennai City Development Plan 2009, Volume 1, Main Report

A significant contention of JNNURM is that governance reform should be seen as a massive catalyst for change. *The Constitution (Seventy-fourth Amendment) Act 1992* was conceived with great foresight for decentralisation of power to the Urban Local Bodies (ULBs). Efficiency in urban governance and delivery of services depends on the efficacy of institutions of governance. In democratic countries all over the world, ULBs with strong Mayoral systems have been acknowledged as the appropriate governing institutions and have been vested with all powers and responsibilities to run urban governments. In India, these institutions have been downgraded consistently

and made ineffective due to state dominance over the years. It is imperative to restore these institutions.

GOVERNANCE AND INSTITUTIONAL CONTEXT IN CHENNAI

Metropolitan governance in Chennai Metropolitan Area (CMA) comprises of three Revenue Districts (Chennai District in full and major parts of other two, Kancheepuram and Thiruvallur), two police commissionerates and two police districts, one Municipal Corporation, 16 Municipalities, 20 Town Panchayats and 214 Village Panchayats formed in 10 Panchayat Unions and several parastatal agencies catering various infrastructure and services. CMA Governance encompasses the following state and non state players:

- Local Government that includes ULBs such as Chennai Corporation, Municipalities, Town and Village Panchayats.
- Specialised Agencies at the Metropolitan level, namely Chennai Metropolitan Development Authority (CMDA), Chennai Metropolitan Water Supply and Sewerage Board, Metro Water and Metropolitan Transport Corporation (MTC).
- State Government departments such as Environment and Forests, Municipal Administration and Water Supply, Public Works, Housing and Urban Development.
- Central Government departments including Environment and Forests, Urban Development, Urban Employment and Poverty Alleviation, Railways and Industries.
- Non government and civil society organisations, institutions and entities.

Specialised agencies in CMA that deliver civic services in urban areas and create accountability platforms for all urban civic service providers

State Government Agencies	Responsibility
1. Tamil Nadu Housing Board	Land development and housing for all income groups
2. Tamil Nadu Slum Clearance Board	Rehabilitation and upgrading of slums
3. Chennai Metropolitan Water Supply and Drainage Board (Metro Water)	Provision of Water Supply and sewerage in CMA
4. Chennai Metropolitan Development Authority	Preparing Master Plan, Detailed Development Plan or New Town development Plan as the case may be. Land use planning, development control, development of new towns and undertaking of special projects such as Tamil Nadu Urban Development Project
5. Tamil Nadu Electricity Board	Generation and distribution of electricity in the whole state including CMA
6. Small Industries Development Corporation	Industrial infrastructure including development of plots and construction of sheds for small and medium industries
7. Pallavan Transport Corporation	Planning and operating mass transport bus system
8. Tamil Nadu Pollution Control Board	Enforcement of pollution control laws

List of urban governance tasks and agencies presently performing them

S. No.	Tasks	Presently performed by
1	Urban planning including town planning	CMDA
2	Regulation of land use and construction of buildings	CMDA, ULBs
3	Planning for economic and social development	Commissioner, Municipal Administration and ULBs
4	Roads and bridges	ULBs, Tamil Nadu Highways Department
5	Water supply for domestic, industrial and commercial purposes	Chennai Metropolitan Water Supply and Sewerage Board
6	Public health, sanitation conservancy and solid waste management	ULBs
7	Fire services	Director of Fire Services
8	Urban forestry, protection of the environment and promotion of ecological aspects	Department of Environment and Forests, Tamil Nadu Pollution Control Board
9	Safeguarding interests of weaker sections of society, including the handi-capped and mentally retarded	Department of Social Welfare, ULBs
10	Slum improvement and up gradation	Tamil Nadu Slum Clearance Board
11	Urban poverty alleviation	ULBs
12	Provision of urban amenities and facilities such as parks, gardens, play-grounds	ULBs
13	Promotion of cultural, educational and aesthetic aspects	Department of Tourism
14	Burials and burial grounds, cremations, cremation grounds and electric crematoriums	ULBs
15	Cattle pounds, prevention of cruelty to animals	ULBs
16	Public amenities including street lighting, parking lots, bus stops and public conveniences	ULBs
17	Regulation of slaughter houses and tanneries	ULBs

While CMA has institutions of representative governance in its ULBs there is near absence of institutions that facilitate participatory governance. This is among the main causes for the gaps one sees in the governance of CMA. Developing a conducive environment to enable agencies to perform in a participatory governance model is at the core of urban reforms envisaged under JNNURM. It is also the *sine qua non* for successful implementation of CDP and for 'managing public services effectively'.

Every planning or development act or a procedure requires the involvement of various administrative organisations that must decide in each case on the future of the urban space, infrastructure and services. It also requires the consent of society. There is need for a new governance structure that will essentially take charge of effective spatial, infrastructure and environmental management and help map out and implement a development policy for the area.

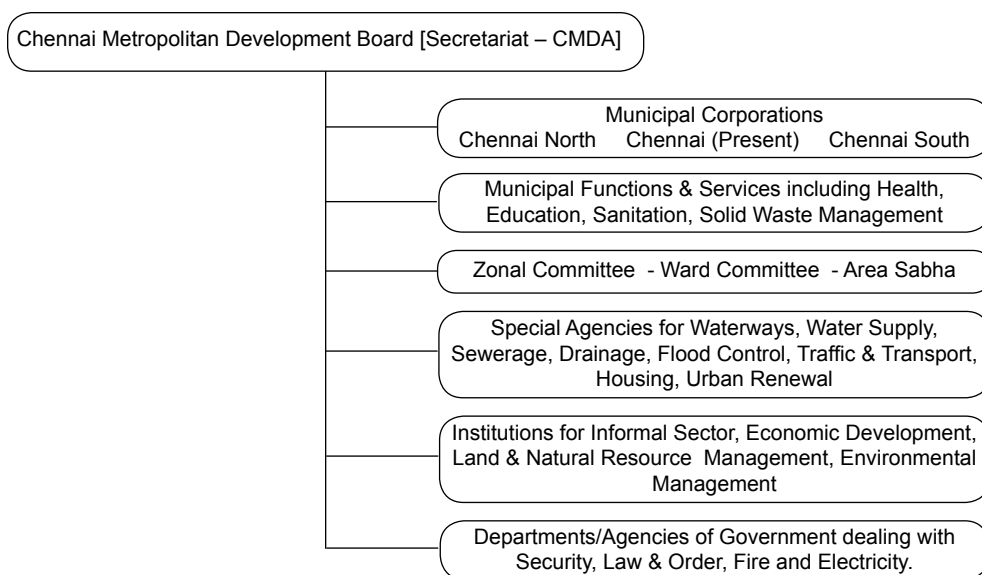
While considering a new governance structure it must be kept in view that the multi agency model has been

followed for long in CMA. By trying to integrate the functions of several agencies, there would be dilution of existing professionalism. It could lead to problems in prioritisation of works and fundraising.

THE CHENNAI BLUEPRINT

A multi-disciplinary International Expert Team was put together for reviewing and rewriting the City Development Plan for the Chennai Metropolitan Area. The team identified the questions and critical concerns that JNNURM faces in the context of urban governance and sustainable solutions for urban development:

- Has JNNURM facilitated the translation of decentralisation of power to the ULB as per 74th Constitution Amendment?
- To what extent have City Development Plans (CDPs), the 'investment cum implementation documents' of JNNURM effectively addressed the critical issues of downside of rapid urbanisation such as proliferating slums, increasing homelessness, growing urban poverty and crime, relentless march of pollution and ecological damage?



Structure of the Chennai Metropolitan Development Board
Source: Chennai City Development Plan 2009, Volume 1, Main Report

- Is JNNURM addressing the needs of the poor, their access to basic services by advocating decentralised alternatives?
- Is JNNURM facilitating ULBs in strengthening the urban economy by tapping the latent creativity and vitality of the selected cities and the people who live in these?
- How is the peripheral urban chaos (with myriads of local bodies) to be resolved? How are governance issues going to be addressed in these ‘erupting volcanoes’ full of conflicts?
- How are environmental and sustainability aspects addressed? How sustainable are the solutions offered through CDPs? Can JNNURM adopt Sustainable Resource Management Plan as part of CDP?
- Are the CDPs being prepared after conducting a wide stakeholder consultation process, preceded by the identification of a planned urban perspective framework for a period of 20-25 years? Is there a system or mechanism in place for the process of stakeholder consultation?
- Are civil society organisations and institutions taking part in governance activities on a sustained basis? Are there adequate institutional arrangements, rules and procedures to facilitate this?

The assignment originated from Corporation of Chennai at the behest of Ministry of Urban Development (MoUD), GoI with the Secretary evincing keen interest. Cities Development Initiative for Asia and Deutsche Gesellschaft für Technische

Zusammenarbeit (GTZ) came out with the City Development Plan Investment Programme Review and Institutional Development Support, Chennai. The task assigned to Citizen’s Alliance for Sustainable Living (SUSTAIN), as part of the team was to ‘strengthen institutional development within government and non government agencies and civil society to identify, prioritise and plan infrastructure projects in Chennai thereby building capacity through targeted training’.

Commencing the task, it was realised that though the broad agenda of the JNNURM is to strengthen democratic governance structures and decentralisation in urban local government, it has still not been clearly articulated by the MoUD or the Ministry of Urban Employment and Poverty Alleviation in their mission documents. The earlier Chennai CDP, submitted in July 2006, was of no help. There was no precedence from other cities either and Chennai was the first among 63 JNNURM cities writing a revised CDP.

Based on detailed studies, analyses and a series of public and stakeholder consultations that commenced in November 2008 and concluded in October 2009, a comprehensive fresh Chennai CDP was written and submitted to Corporation of Chennai, Government of Tamil Nadu and MoUD, GoI. The CDP suggested a ‘Blueprint’ outlining the structure of governance cum institutional framework for CMA, by and large in conformity with the provisions of 74th Amendment and JNNURM guidelines.

The Chennai Blueprint asserts that the state of the institutional framework and the system of governance in which these institutions function are the key to effective, efficient urban planning, development and investment as well as urban sustainability.

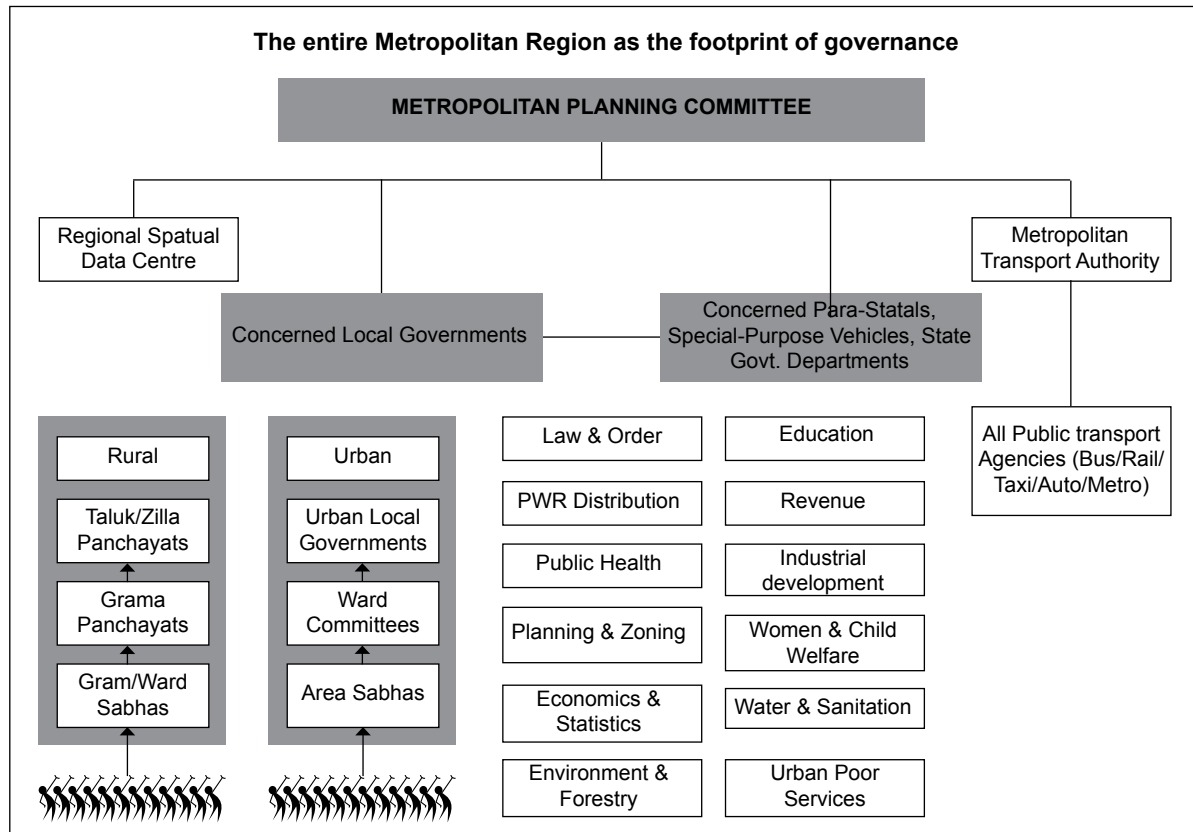
SUGGESTED INSTITUTIONAL STRUCTURING OPTIONS FOR CMA

The Blueprint suggests two model options for the institutional restructuring for CMA. Option I is that of Chennai Metropolitan Development Board with 'Special Agencies', a model that takes in to account the formation of CMA into three Municipal Corporations that is under the active consideration of Government of Tamil Nadu. CMDA is in the process of submitting a report to the Government in this matter based on public views and sentiments expressed toward the proposed formation of two new corporations, Chennai South and Chennai North with headquarters at Tambaram and Ambattur respectively.

The suggested Metropolitan Development Board is Metropolitan Planning Committee Plus. The Board will carry out the functions of the Metropolitan Planning Committee and exercise supervisory control over the special agencies and institutions of CMA performing various tasks. This will bring about the desired coordination and cohesion that is woefully lacking. This institutional arrangement would take care of the mandatory reforms agenda set forth by the JNNURM.

Option II is a Region based Metropolitan Governance Framework with a Union made up of an enlarged Chennai Municipal Corporation and several municipalities, town and village panchayats within the boundaries of CMA with technically trained personnel. The administrative structure and functional responsibilities of the Union can be worked out through consultations based on the principles and criteria for a Metropolitan Government. This option derives from the principle that democratic, decentralised spirit of urban governance should also be sustained by retaining

A FRAMEWORK FOR URBAN GOVERNANCE



Framework for urban governance

Source: Chennai City Development Plan 2009, Volume 1, Main Report

the character and entity of small municipalities, towns and village panchayats.

CMA comprises of urban and rural local bodies of varying sizes and compositions in the areas surrounding Chennai. The structural Option II will help coordination among them, facilitate planning in the metropolitan area and help ensure good governance in each local body while maintaining the unique characteristics of each decentralised entity. Key elements of the Framework are:

- Entire CMA comes under a uniform governance system.
- Metropolitan Planning Committee (MPC) is constituted as per Article 243 ZE of the Constitution of India (*The Constitution (Seventy-fourth Amendment) Act 1992*).
- Jurisdiction of MPC spans urban and rural areas of CMA.
- District Planning Committees could supplement MPC in rural areas.
- Substantial decentralisation to local governments is achieved.
- Supported by appropriate accountability mechanisms.
- Rural/urban structures are synchronised.
- Establishes coordination mechanisms between ULBs and parastatals.
- A realistic alternative for substantial absorption of special agencies.
- Technical groups are established in MPC for Spatial Data Centre and Integrated Transportation Management.

The Expert Group was for adoption of Option II that is to be strengthened after a wider discussion and a consensus.

RECOMMENDED PLANNING AND DEVELOPMENT PROCESS

Phasing

In the spirit of 74th Amendment and keeping in mind the proposed institutional structure, a bottom up planning process in two phases could be considered for the CMA.

Enforcement mechanism

Enforcement relates to urban planning including town planning and regulation of land use and construction of buildings that have been allocated to ULBs as per the 12th Schedule. These functions need to be turned over to the ULBs and their capacities should be

adequately built up to perform these tasks effectively and efficiently. Provision for this should be made in the proposed Urban Local Bodies Act. Till then ULBs should carry out this function including demolition of unauthorised constructions as per the delegated powers of CMDA under the *Tamil Nadu Town and Country Planning Act 1971* and under their respective Local Bodies Acts.

Legal framework

The *Tamil Nadu Urban Local Bodies Act* was enacted in 1998 and the Rules were framed in 2000. Town panchayats, industrial townships and municipalities and CMC were brought under a single classification of ULBs. This Act provided more functional autonomy with higher accountability to the ULBs. This law was suspended within a week of enactment. In 2003, GoI circulated a Draft Model Municipal Law with principles of participation, decentralisation, autonomy and accountability, urban self government, reforms in financial management and accounting systems, internal resource generation capacity, organisational design of Municipalities, professionalisation of the municipal personnel and matters connected therewith. GoI has also circulated a Model Nagara Raj Bill to amend the laws relating to ULBs, institutionalise citizens' participation in ULB functions and set up Area Sabha. Government of Tamil Nadu (GoTN) is reportedly examining the reports of working groups for enacting a fresh Law taking into account the Model Municipal Law and Nagara Raj Bill. The objective was to simplify procedures and improve urban governance. Institutional recommendations as specified in the CDPs should be incorporated into the new Law. Instead of enacting separate 'public disclosure law' and 'community participation law' as envisaged in the Reforms agenda, provisions for these should be built into the 'Common Urban Local Bodies Act' to make it comprehensive and compact.

Financial backbone

Tamil Nadu Urban Finance and Infrastructure Development Corporation (TUFIDCO) is a Nodal agency for the centrally sponsored urban infrastructure Development scheme of JNNURM, UIDMMT, IDSMT and MCP in the state of Tamil Nadu. As a part of its activity TUFIDCO is extending financial assistance by way of loans for urban infrastructure projects from its own sources under 'TUFIDCO Infrastructure Funding Scheme' to municipal corporations, municipalities, town panchayats, panchayats having urban character and government boards, authorities and undertakings.

Tamil Nadu Urban Development Fund (TNUDF) is the first Public Private Partnership (PPP) providing long term debt for civic infrastructure on a non-guarantee mode. Tamil Nadu Urban Infrastructure Financial Services Limited (TNUIFSL) is a PPP in the urban sector, between GoTN and three all India Financial Institutions namely, ICICI Bank Limited, Housing Development Finance Corporation Limited and Infrastructure Leasing and Financial Services Limited.

Drawing on the core competencies of TUFIDCO, TNUDF and TNUIFSL, an institutional arrangement in the form of a financial intermediary should be evolved for CMA to carry out projects and investments. These should be in accordance with the structure, technologies and methodologies suggested in the CDP and attract national and international financing institutions for funding and implementation of the investment programmes.

Participatory governance

Civil Society Organisations (CSO) in CMA would include large, medium and small industries; apex organisations like the Confederation of Indian Industry (CII), Southern India Chamber of Commerce; voluntary and specialised non governmental

organisations; public and private educational institutions engaged in research and training; professional bodies like Builders' Association, Town Planners' Association, Architects' Association and Chartered Valuers; print and electronic media, film, theatre and other visual communication media.

The participatory process should facilitate drafting and passage of the 'public disclosure law' and the 'community participation law' as envisaged under the reforms agenda. This would involve defining the rights of citizens, drafting disclosure or participation norms and contents of performance evaluation reports that could be used with modifications in other programmes and projects with inbuilt social audit.

'Sustainability' is primarily about creating partnerships, building capacities and promoting inter-organisational and inter-institutional relationship and cooperation on a long term basis. Such relationships and partnerships are best built through a participatory process. CDP implementation process should envisage a sustaining mechanism for participatory governance. Considering all factors it is felt that adopting the Public, Private, Popular, Participative Process (4P) seems to be the best way to achieve this. A typical 4P would envisage:

Bottom up planning process in two phases, as per proposed institutional structure

Phase I	<ul style="list-style-type: none"> GoTN should expeditiously constitute the Metropolitan Planning Committee with CMDA functioning as its Secretariat. CMDA develops draft goals and policies for each of the subject areas in the plan listed in Section 17(2) of <i>Tamil Nadu Town and Country Planning Act 1971</i>. Focus group meetings involving Members of the community or civil society to review and to comment on the goals. Receive inputs from the municipalities and panchayats in the CMA as envisaged in <i>The Constitution (Seventy-fourth Amendment) Act 1992</i>. Conduct open house to receive further comments on the proposed goals and policies. Receive inputs from parastatal or special agencies and institutions Develop broad financial analysis of projects in consultation with the financial intermediary. MPC and CMDA review the comments that were received and make changes to the goals and policies accordingly.
Phase 2	<ul style="list-style-type: none"> CMDA staff writes draft chapters and develop draft recommendations to implement the identified goals and policies. CMDA review the drafts at work sessions which will include personnel of parastatals, funding agencies and potential entrepreneurs. Formal CMDA public hearings providing an additional opportunity for the public to comment on the plan (summary of the issues). Work sessions to discuss the issues raised. CMDA approves the draft Plan and forward to the MPC. MPC holds public hearing and work sessions and closes the public record. Additional work sessions to refine the draft. MPC adopts the Plan and forward to State Government for approval.

- Government departments and agencies performing the role of policy makers, infrastructure builders, service providers, facilitators and regulators.
- Individuals and citizen groups acting as innovators, advisers and think tank.
- Business and Industry functioning as catalysts, risk takers, entrepreneurs and partners in the provision of infrastructure and services.
- Non Government Organisations (NGOs), Community Based Organisations (CBOs) and other voluntary organisations contributing as enablers, educators and mediators.

This would facilitate open communication between the government, NGOs and the community as a whole. Indicators need to be developed for the purpose to ensure presence and extent of cooperative efforts among Local Governments and NGOs, existence of mechanisms that allow consultation between the local government and its constituents on various local concerns and implementation of projects as a result of collaboration amongst the government, civil society and non governmental organisations.

In order to work with the Government nodal agency in the 4P, an umbrella organisation in the form of an alliance or coalition needs to be evolved that would bring together citizen groups, business and industry as well as NGOs, CBOs and work with a common agenda and plan of action. Such an alliance or coalition should have a high level of administrative, managerial and technical experience and expertise in order to interact effectively with the political and administrative leadership of the state or LG for the successful implementation of CDP. One of the challenges of implementing the CDP is to formulate such a mechanism. A suitable 4P institution needs to be evolved through discussions and interactions with civil society and the given legal sanctity in the proposed 'Common Urban Local Bodies Act'.

CONCLUSION

The Chennai Blueprint identifies institutional imperatives for urban governance that can be used as a standard for other urban centres. As per these imperatives, the institutional framework for urban governance should be capable of:

- Performing the tasks assigned in the 12th Schedule (Article 243W) of the Constitution accompanying 74th Amendment that decentralises urban governance.
- Carrying forward the core JNNURM

decentralisation reforms aimed at transforming Urban Local Bodies into Urban Local Governments.

- Undertaking most of the tasks and responsibilities presently performed by parastatals and special agencies that deliver civic services in urban areas and creating accountability platforms for all urban civic service providers.
- Achieving decentralisation and democratisation of governance in a sustainable manner.
- Fulfilling the planning and development requirements under *The Constitution (Seventy-fourth Amendment) Act 1992*.
- Promoting a vibrant 'Informal Economy Sector'.
- Ensuring that urban governance should be based on the principle of urban citizenship, affirming that no man, woman or child can be denied access to the necessities of urban life, including adequate shelter, security of tenure, safe water, sanitation, a clean environment, health, education and nutrition, employment and public safety and mobility.
- Integrating, coordinating and encouraging public actions in the Chennai Metropolitan Area to diminish environmental, social and economic risks stemming from climate change and to promote the welfare of the population through the reduction and capture of greenhouse gas emissions.
- Managing public services effectively, including outcome based services, working with other stakeholders, working through public private partnerships and quality based services.
- Grafting participatory process as part of Chennai Metropolitan Area Governance. Democratic governance is a judicious combination of representative and participatory process.
- Planning the projects and investments as suggested in the City Development Plan and attract funding and investments to implement them. Citizen's participation at every stage of project formulation, budgeting and implementation should be built in as part of methodologies suggested.

In the absence of any institutional framework and system of governance, there is lack of management in urban planning, development and investment. Through the Chennai Blueprint, an attempt has been made to address the issue of urban governance in a holistic manner. The institutional structure suggested in the Blueprint would cater to the identified institutional imperatives and trigger a process of evolution. It calls for nationwide debate and discussion for arriving at a consensus and evolving an urban governance institutional model.

Legislation for Urban Heritage Conservation

West Bengal

S P SHOREY

ABSTRACT

West Bengal is a State rich in cultural heritage with the maximum number of laws for urban heritage conservation, while most states of India have no such legal provision at all. Though the presence of heritage regulations in Andhra Pradesh and Maharashtra has saved several historic buildings and encouraged re-use of historic structures, it is only in West Bengal that an offender can be imprisoned for damaging a notified heritage building. JNNURM can serve to promote urban conservation substantially by including enactment of heritage regulations as a mandatory reform and supporting capacity building of municipal staff in conservation and re-use of historic buildings. West Bengal with India's most democratic municipal and urban governance system can serve as a pilot in this exercise.

URBAN HERITAGE OF WEST BENGAL

West Bengal State of India, part of pre-independence Bengal has had a long urban history. Settlements like Tamluk (Archaeological Survey of India 2009), Sonargaon (now in Bangladesh) and Gaur-Pandua flourished along trade routes and ports. Some of these have been there for more

S P Shorey, an architect and town planner has specialised in Architectural Conservation from International Centre for the Study of the Preservation and Restoration of Cultural Property, Rome. He was Special Officer (planning) of Hyderabad Urban Development Authority and Member Secretary of Heritage Conservation Committee (1996-2008) of Government of Andhra Pradesh and is currently Director, Urban Management at the Centre for Good Governance, Hyderabad, in charge of capacity building programmes for urban local bodies and Urban Strategy for West Bengal.



The Writers Building, Kolkata

than two thousand years. Dacca (Bangladesh), Hugli-Chinsura, Kasimbazar, Nabadwip and Murshidabad were major cities in medieval India, the last one being the capital of a large Mughal Suba (province). In 1750 AD, Hyderabad (Deccan), Murshidabad and Patna were the only three Indian cities with population more than 200,000 (Chandler & Fox 1974). Murshidabad was the second largest Indian city population wise.

When Kolkata came into being, it grew into the second capital of the British Empire. The period of 19th century Bengal Renaissance also saw the emergence and prosperity of many urban centres across the State. Kolkata itself was a city with wide roads, imposing mansions and an urban design of iconic proportions in the form of grand squares, avenues, parks, *maidans* (open grounds) and water bodies. The recession of the 1930s, major political upheavals and finally the huge

influx of population after partition of India in 1947 and later in the 1970s, during the creation of Bangladesh, triggered the decay of this great city.¹

West Bengal is a great repository of literature and performing arts besides a fountainhead of creativity and radical ideas. Religion in West Bengal is more a social tradition. Reverence for Nobel Laureate Poet Rabindranath Tagore is no less than a cult.

The architectural heritage of the State broadly comprises of the colonial mansions of Kolkata and other cities like Burdwan and Baharampur as well as temples, mosques and palaces from ancient to medieval period. With such lofty cultural background, one would expect a very high degree of appreciation for conserving architectural heritage.

DEVELOPING PUBLIC ATTITUDE TOWARDS HERITAGE CONSERVATION

It goes without saying that most of the population in Indian cities and towns is totally indifferent to all civic issues starting from traffic discipline, social hygiene, aesthetics, land use planning and building norms. West Bengal is not an exception. People are not against heritage conservation, but heritage is merely one aspect of broader civic issues and they could not care less. Poverty and poor education may only be partly responsible because indifference cuts across varying levels of education, income, caste and creed. In fact this is one common trait of an average Indian besides scant respect for the rule of law.

Passing of regulations, notification of buildings and precincts and Heritage Committees functioning under the regulations for more than a decade, have eventually built some public opinion. Usually government departments are the largest single owners of historic buildings. No law is needed to prevent a government department from pulling down its own building. An administrative sanction, specialised training in the care

of old buildings, sensitisation of government engineers and adequate financial allocation are required for taking care of government owned heritage buildings.

In respect of privately owned buildings, a combination of legislation, incentives and awareness building succeeded in most cases in cities such as Hyderabad and Mumbai. An effective Heritage Committee can convince most heritage property owners to take up the option of adaptive reuse with permitted upgradation and modernisation of the structures without sacrificing their intrinsic heritage values.

Despite the examples of Andhra Pradesh, Maharashtra and West Bengal, most states in India are yet to put in place heritage regulations. Sceptics in the administration cite the following problems in this respect:

- Market forces and urban economics.
- Multiple ownerships.
- Inadequate funds to acquire privately owned heritage buildings.
- Possible legal hurdles in declaring private buildings.



Elite Cinema, Art Nouveau of Kolkata

On the contrary, historic buildings in Indian cities survive precisely because of the above reasons. More often than not, historic buildings such as the New Market² of Kolkata occupy almost the whole site and many are three to four storeys high. The consumed Floor Area Ratio is not less than two or even four at times. Redevelopment proposals would usually allow less floor area than already existing ones because of the building rules of the present day. From this point of view, market forces are tilted in favour of retaining the historic buildings.

Litigation amongst owners is a deterrent to redevelopment. Contrary to popular notion, heritage regulations do not affect ownership. The regulations only imply that for notified buildings, redevelopment requires a special permission that may go into the proposal from heritage considerations. There is no case for acquiring a building. In Mumbai and Hyderabad no buildings were acquired in 14 years of the regulations. The last notion is the most crucial. In Hyderabad there were nearly 20 court cases relating to some of the 150 notified Heritage Buildings. In 19 cases the plea was demanding government action to save buildings that were in danger of being pulled down. The presence of an Act or Regulations makes Public Interest Litigation easy in respect of notified buildings and precincts.

THE ROLE OF PRESS

Another significant element has been the role of print and electronic media. There is not enough criticism and coverage of historic buildings being demolished in thousands of towns and cities across the country.



The Head Quarters of the Kolkata Municipal Corporation and Hogg Market area. Some of the new additions in the New Market enclave have been sensitively designed by simply borrowing the red and white facades

There were 5,161 towns as per the 2001 Census. This includes historic cities like Allahabad, Amritsar, Bengaluru, Chennai, Cochin, Jodhpur and Lucknow. These towns among hundreds of others are yet to have functioning heritage regulations of any sort.

While the media is usually lukewarm, if not indifferent in reporting cases in those places, it is full of alarming reports of destruction of heritage buildings in Mumbai every second day. The press once called the Mumbai Heritage Committee a 'Toothless Tiger'. The damage to heritage properties makes news only when a city passes regulations and notifies these as heritage buildings, as in such cases, it is the failure of the government or the municipality. Nevertheless, press does help.

What is brought out here is a paradox, 'if you pass laws: you will get flak'. But more and more readers of the newspapers will start considering urban heritage a mainstream issue. That itself is a big gain in building public awareness. While the majority of bureaucrats may find this discouraging, a heritage loving administrator would welcome such an approach.

CATALYSTS FOR LEGISLATION

Conservation of national archaeological sites such as the Taj Mahal or the Caves at Ajanta and Ellora is the responsibility of the Government of India by law, through the Archaeological Survey of India (ASI). The hundreds or thousands of privately owned historic buildings of Kolkata have been repaired and maintained by the respective owners over the ages, a trend that needs to continue. Government departments that own heritage properties must protect these in their capacity as owners.

While in Mumbai heritage regulations prevented the demolition of nearly 600 buildings, it must be understood that just because of notification of a building as of heritage value the owner's responsibility does not end. It is purely the initiatives taken by a few concerned citizens in cities like Hyderabad Kolkata and Mumbai that resulted in steps to safeguard historic buildings and areas in these cities. They were supported by likeminded bureaucrats; some retired, some still in service. That is how Hyderabad and Mumbai passed amendments to the already existing development control and building regulations without going to the respective state legislatures. But this was after urban heritage conservation had already gained some degree of acceptance.

West Bengal went a step further, being a pioneer state in many ways. It has had the only functioning Metropolitan Planning Committee (MPC)³ in India for quite a few years. According to *The Constitution (Seventy-fourth Amendment) Act 1992*, formation of an MPC is mandated for cities having population more than one million. Unlike urban development authorities such as the Delhi Development Authority, an MPC consists of at least two third of its members elected by and from themselves by elected municipal councilors, corporators and *sarpanches* (head of village government) of villages in the area. This is intended as a measure for greater democracy and participation in metropolitan governance.

West Bengal is the only model in India where the elected Chairperson or Mayor is the Chief Executive of the Municipality. In other states, an official appointed by the state government is the executive head. With such credentials it is no wonder that the West Bengal Government went whole hog in passing legislation in favour of heritage conservation.

CURRENT LEGISLATIVE FRAMEWORKS IN WEST BENGAL

The West Bengal Town and Country (Planning and Development) Act 1979 under section 31 (4) a (ii) provided that a 'Land Use and Development Control Plan' may also indicate areas or buildings requiring preservation and conservation for historical, architectural, environmental, ecological and religious purposes....'. The West Bengal Government has constituted several Planning and Development Authorities in the state under this Act. Even the Kolkata Metropolitan Development Authority originally constituted under a standalone Central Act is now reconstituted under this Act. On their part the Kolkata Metropolitan Development Authority has listed 73 heritage buildings in 14 Urban Local Bodies in its jurisdiction. KMDA has also taken up work for preservation of some of the buildings. The Vision 2025 of KMDA includes 'Development plans for environment, wetland, urban amenities and heritage' as significant components.

The West Bengal Municipal Act 1993 under section 23 C has a provision for setting up a Heritage Conservation Committee for every municipality in the state. The Chairperson of the Municipality is the ex-officio Chairperson. The Committee is appointed by the Board of Councillors and has experts from several fields as members and it is basically an advisory body. Initially,



Kolkata's built heritage also includes historic quarters like the Kumartuli, the potters' town famous for its clay idols of Durga and other gods and goddesses. Unfortunately, the JNNURM funding for this is a slum improvement project, it is important to have specific norms for such crafts settlements

the Act had Sections 225A to 225Q with very detailed operational provisions, but these sections inserted in 2000 were omitted from the document in 2002.

The Section 23 C is still operational and the municipalities have the overall support of *The West Bengal Heritage Commission Act 2001*. Under the Act the West Bengal Government has constituted a Heritage Commission which is a 21 member body headed by an eminent person appointed by the government. The Commission is primarily an advisory body but seeking advice of the Commission is mandatory for all urban local bodies in the state in matters concerning heritage conservation. The Commission comes under the Department of Information and Cultural affairs of the State Government. It has issued notification for 121 heritage buildings and precincts all over the State.

HERITAGE CONSERVATION EFFORTS: KOLKATA MUNICIPAL CORPORATION

The Kolkata Municipal Corporation (KMC) does not function under *The West Bengal Municipal Act 1993* but under *The Kolkata Municipal Corporation Act 1980*. Sections 425A to 425P contain detailed provisions for conservation of heritage buildings. The Act provides for a Heritage Conservation Committee chaired by the Municipal Commissioner but the Committee is appointed by the 'Mayor in Council' and not by the government unlike in the case of Hyderabad and Mumbai.



The yellow Ambassador taxis, man pulled rickshaws, electric trams and Metro rail, the first underground Metro Rail of India together symbolise the diversity of Kolkata

Damage to Heritage Buildings attracts a stiff penalty which may extend to three years rigorous imprisonment and fine. It is significant to note that no other state in India has a provision for imprisonment. Even for the violation of building rules only a few states have provided for imprisonment and none on account of heritage buildings. The Kolkata Act contains incentives to owners in the form of Transfer of Development Rights (TDR) and exemption from rates and taxes.

The KMC needs to be commended for creating an integrated data base for all properties including notified Heritage Buildings in such a way that no redevelopment permission can be granted even inadvertently for a notified Heritage Building unless clearance is granted for it. For every property there is a unique identification number. The reference to heritage and other sections are done on-line and unless all sections clear the application, permission is 'locked'. Buildings in Kolkata, as in other cities too, are graded in four categories I, II A, IIB and III with the buildings

requiring the highest degree of care beginning as Grade I. In buildings of lower grade, relatively greater degree of modernisation, additions and alterations are allowed. The entire concept of heritage regulations is that the owners of notified buildings are persuaded to choose the option of conservation and re-used of the properties rather than demolition.

The KMC has also prepared a detailed and illustrated user friendly booklet as Guide to Owners of Heritage Buildings. An expert Committee constituted by the government earlier prepared a list of 1,348 buildings in Kolkata to be declared as Heritage Buildings. The Kolkata Municipal Corporation has so far notified only 163 buildings under its Act. In addition documentation has been done for around 200 buildings. The Municipal Corporation has also taken steps for restoration or renovation of many Heritage Buildings like the Town Hall, Prinsep Ghat, Metropolitan Building, Metcalfe Hall, Star Theatre, Vidyasagar House, Queens Mansion and Minerva Theatre. The Vivekananda House has already been restored by Ramakrishna Mission.

JNNURM: REFORMS AND CAPACITY BUILDING FOR CONSERVATION

The emphasis of JNNURM is on upgrading basic infrastructure in selected cities accompanied by measures to ensure that the process of upgradation continues even after the project ends. This was to be done by demanding reforms at both state and city level, so that a legislative and institutional framework is in place to carry on the show.

Unlike the Repeal of Urban Land Ceiling Act and amendments to Rent Control and other laws, JNNURM does not specifically require any legislation for conservation of historic buildings and areas.

Sample database of Heritage Buildings with unique code numbers in Kolkata, Ward: 047 (KMC 2009, p. 49).

Street Name	Assessee no.	Grade	Criteria	Location	Description
Buddhist Temple Lane	110470800021	I	Religious/Buddhist Temple		Dharmankur Vihar
Buddhist Temple Lane	110470800010				
Nirmal Chunder Street	110473600304	IIA	Building Associated with Eminent Personality		Nirmal Chunder Chandra
Nirmal Chunder Street	110473600500	IIA	Building Associated with Eminent Personality		Dr. Bidhan Chandra Roy
Kapalitola Lane	110472700066	IIB	Architectural Style		Sen Bhavan
Kapalitola Lane	110472700078				
Kapalitola Lane	110472700080				
Kapalitola Lane	110472700091				
Chittaranjanavenue	110471000152				

The regulations and laws related to urban heritage conservation wherever these were enacted in India precede the launch of the Mission. For instance, a draft Bill was made in Hyderabad in December 1984 and Regulations were passed in Hyderabad and Mumbai in 1995. All heritage provisions in West Bengal were also made at the initiative of the state and the cities independently.

A few cities and states may have been prompted to formulate projects for historic area renewal and heritage conservation under the Mission, but there is no evidence to say that it actually made the generally reluctant cities and states to pass heritage laws. In fact, figures (Ministry of Urban Development 2008) show that JNNURM did not even result in implementation of enough conservation projects.

One of the significant components under JNNURM is capacity building of urban local bodies (ULB). The Government of India has identified a set of institutions and over the years, a large number of elected members and officials of ULBs have been given training in reforms. Organisations like INTACH are reported to have moved the Government of India to include rapid training and capacity building of elected municipal councillors and staff of ULBs in the specific area of

urban heritage conservation and regulations. This could go a long way because urban heritage can be conserved only from the grass root level and not by national or state level laws. In fact as the pioneers, West Bengal need not wait for JNNURM and may launch a capacity building exercise at ULB level for urban heritage conservation right away.

CONCLUSION

While the West Bengal model is worth studying, the presence of too many laws have in the past caused some confusion and hampered the cause of conservation. There is a need to re-look at the laws at all levels to make these work well together. Generally, the basic principle is that the local authority or the municipality that has the power to grant planning and building permission for redevelopment of properties is best equipped to protect heritage. State level bodies like the state Heritage Commissions may only act as advisors to the state government in hearing appeal cases. If JNNURM succeeds in coaxing all the Mission cities to pass heritage conservation regulations across India, accompanied by capacity building of staff, it would achieve much more than actually repairing and conserving a million buildings.

Bibliographic References

- Archaeological Survey of India (ASI) 2009, *Archaeological Museum, Tamluk (West Bengal)*, ASI, Government of India, New Delhi, viewed October 2010, <http://asi.nic.in/asi_museums_tamiluk.asp>.
- Chandler, Tertius & Fox, Gerald 1974, *3000 Years of Urban Growth*, Academic Press, New York.
- KMC 2009, *Graded List of Heritage Buildings*, KMC, Kolkata.
- Ministry of Urban Development 2006,

Sector-wise release of funds under Sub-Mission for Urban Infrastructure and Governance, Government of India, New Delhi, viewed October 2010, <http://jnnurm.nic.in/nurmudweb/Project/sector.pdf>.

Notes

- ¹ Kolkata served as headquarter of the East India Company in India till 1857 and later as capital of British India till 1911. Beside colonial buildings like the General Post Office built around 1860, the S S Hogg

Market and the Writers Building, Kolkata also has Art Nouveau buildings such as the Elite Cinema Hall.

- ² The Head Quarters of the Kolkata Municipal Corporation and the famous S S Hogg Market more popularly known as the New Market presents one of the few surviving colonial market squares and streetscape paralleled only by the Fort area of Mumbai.

- ³ As per Article 243 ZE of Constitution of India.

Case Studies

Participatory Approach for Slums and Historic Settlements

Market Intervention based Slum Rehabilitation

Scheme: Mumbai

Adolf Tragler113

Community based Approach for Historic

Settlements: Kachhpura, Agra

Jyotsna Bapat, Renu Khosla, Manish Kumar119

Slum Free Silicon City: Bengaluru

Kathyayini Chamaraj127

Housing Design through Community Consultation: Pune

Prasanna Desai133

Community Participation for Liveable Neighbourhoods

Ashwini Pethe, Kavita Murugkar143

Market Intervention based Slum Rehabilitation Scheme Mumbai

ADOLF TRAGLER

ABSTRACT

Over a period of time, Mumbai's Slum Rehabilitation Schemes have helped house thousands of families in decent apartments and altered life for slum dwellers. Some attributes of these schemes run by the Slum Rehabilitation Authority (SRA) have been found to be replicable. Slum Rehabilitation Society is a non governmental organisation that has been in existence since 1972 and can claim credit for some of the features of the schemes. An outline of the SRA model has been discussed, along with its positive and negative aspects, best practices in the model and precautionary measures that need to be adopted by other cities. The challenges of post rehabilitation need to be analysed to ensure that the schemes are made more robust so that the Government of India can fulfil its mission of providing decent homes for all.

INTRODUCTION

A German reporter of international repute, on a visit to one of the slum rehabilitated colonies, once enquired, 'Why is the crime rate in Mumbai slums not as high as in slums in other parts of the world?'

Adolf Tragler is the co founder and Director of the Slum Rehabilitation Society, Mumbai. He is a pioneer of slum rehabilitation in India. Adolf and his team have been working in the field to provide liveable homes to slum dwellers, since 1972. An alumnus of the Tata Institute of Social Science, Mumbai, he left his own country Austria and strived for the betterment of his adopted country.

On pondering over this factual observation, one realises that the answer lies in the fact that most of the families who migrated to Mumbai had a cultured middle class rural base and would not have opted for living in slums if they had access to affordable homes.

Conclusively, living in slums has always been an economic and administrative issue. Slums, therefore, were the fallout of the need for accommodation in the absence of affordable homes. They had a lot to do with the rate of industrialisation and the influx of working youth coming into cities from an agrarian base with no flowing cash. Governments failed to see homes as microcosms of welfarism.

Mumbai is a proud forerunner in providing free housing for slum dwellers. While the Slum Rehabilitation Authority (SRA) did not yield the expected results, it was a suitable instrument for the rehabilitation of many slum dwellers that occupied the right of way for various infrastructure projects. The lessons in resettlement and rehabilitation will work as a sound template for future initiatives. Some other cities with high land prices are planning to follow the Mumbai model. It has also been found that some cities earmarked for JNNURM funding have begun to feel the need to adopt the SRA model with clauses that in some cases are more stringent and in other cases more pliable. It therefore appears advisable to take a closer look at the pros and cons of the scheme.



Jogeshwari Colony with open ground and play facilities

FREE HOUSING FOR SLUM DWELLERS

The origin

The idea of free housing arose due to the synergy of three paths; the welfarism approach that governments adopted with regard to slums, scarcity of land and the growing need for residential and commercial spaces and the possibilities of using planning and architectural expertise to address the issue. An important factor was political opportunism at the time of an election and free housing was the catch phrase that led to electoral victory. Since then, every government feels obliged to continue the scheme, fearing electoral defeat.

Free housing as best practice

At the international United Nations conference on Human Habitat in Istanbul in 1996, the Government of Maharashtra's free housing policy was projected and acclaimed as an example of Best Practices. However, Non Governmental Organisations (NGOs) have always upheld the view that unasked for large gifts can degrade the recipient and do not lead to development of the people.

Economic viability

The economic viability of free housing is based on the high cost of land in Mumbai. Building on slum occupied land enable designation of a higher Floor Space Index (FSI). Part of the land is used for accommodating the slum dwellers in multi-storeyed buildings and the rest for constructing and selling commercial or residential units. This forms an economic solution leveraged through the slum rehabilitation schemes. The higher FSI offered was originally two and a half times more than on vacant land. At that time the slum tenements were to be 21 square metres carpet area, not more and not less. Later, the tenement size was increased to 25 square metres and the FSI increased to three. For it to make economic sense, the returns from the sale area should cover more than the cost of land, construction cost for rehabilitation, construction cost for the units for sale, stamp duty, approval costs and deposits. The list of expenses seems to be long, yet the builders and investors in slum rehabilitation projects have done well and some have made very high profits. Construction cost in Mumbai can range between ₹ 74 and ₹ 140 per square metre. Sale prices, on the other hand, may be between ₹ 465 and ₹ 2,785 per square metre. Hence, there is sufficient margin available for profit.

Apart from money calculations, one must also keep in mind that there is a defined relationship between

size of rehabilitation area and size of sale area. It must not be presumed that by building less for the slum dwellers more FSI can be used for sale. The contrary is true. If the area for rehabilitation increases, proportionately the sale area also increases. There are some limiting factors. For instance, the high density in the existing slum area may not allow construction of the full approved sale area on the same plot and some compensation may be made available in the form of Transferable Development Rights (TDR) that enables utilisation of the remaining approved sale area in the suburbs. If the project is located in the suburbs, the TDR can be used elsewhere in the same municipal ward or north of the ward of origin.

The implementation mechanism was established with some well thought out features such as planning of regulatory and approving powers, one window clearance and synergy between the existing development control regulation and its expanded scope of work. The SRA has framed and issued guidelines within which the rehabilitation projects can be approved. However, some later General Regulations seem to have watered down the guidelines in favour of builders and developers. Lack of an overall vision and time bound action plan are some critical shortcomings of the authority.

THE BRIGHT SIDE OF FREE HOUSING

Free housing is an excellent idea in economic terms. Neither the state nor the corporation have to accept any financial responsibility. The uniform entitlement for every slum dweller is a desirable feature so that even the poorest are ensured a good measure of comfort compared to some very tiny hutments of only five to ten square metres with very little ventilation and light. 'In situ' rehabilitation, which takes place in the same place where the slum used to exist, is an excellent provision. It allows the poor to retain the advantage of proximity to their job opportunities, which makes it easier for them to survive in the multi-storeyed buildings even though this involves higher costs per month, compared to their existence in hutments.

The provision of some essential common amenity spaces is quite farsighted. The rule is that for every 100 rehabilitation units, the developer must provide one *balwadi* (pre-school), one welfare centre and one society office. Practically, three residential flats must be allotted for this purpose. It also applies to cases where the number of units is less than 100. These amenities can be very beneficial to the rehabilitated families

if they are well used for educational, health and developmental activities of women and children.

The guidelines govern that the full FSI must be utilised in each project. If the density of occupation is low in the slum so that the full FSI is not required for their rehabilitation, the developer must include other Project Affected Persons (PAPs) till the full FSI is consumed in the project. Under this provision, it is possible to absorb more and more PAPs who are presently living on footpaths or on reserved land meant for gardens and other public spaces. This could be very beneficial for the city. Unfortunately, there seems to be a gap in the implementation in this regard.

There is a laudable provision for self development of slums by Cooperative Housing Societies of the slum dwellers together with a recognised and experienced NGO. Both could reap the benefit of five percent incentive commercial area in the rehabilitation component provided that no builder is involved.

A Compulsory deposit of ₹ 20,000 per rehabilitation unit (residential and commercial) with the SRA is also a provision made to assist the rehabilitated families in their new homes. In this, the interest is available to their cooperative housing societies once their societies are registered and they have actually moved into their respective flats. Even though bank interest rates fluctuate and could drastically drop, the rule does provide some relief to the poor.

Rehabilitation, even if it comes free of cost, leads to valuable improvements in the self perception of the rehabilitated families. Their self esteem is heightened, their ambitions increase, they strive to advance their children's education and plan for a better future to some extent. Over time, their incomes begin to increase. Even those who seem to go in for self destruction by subletting or selling the only legal residence they ever had, are not all going back to slums 'to grab another free house' and many are acting with wisdom and for the benefit of their families. Some do sublet their dwellings on rental basis, returning to hutments to live at lower monthly costs but plan to reclaim their homes once their fortunes improve. Some sell their flats but buy cheaper flats in the extended suburbs and keep some money to support their weak financial capacities. However, the people who take these flats on lease or purchase also come from similar economic backgrounds with only a marginally higher payment capacity. In larger rehabilitation colonies with no sale areas in between, gentrification does not



Library and reading room

happen, since more affluent families might still not feel comfortable here, even if they could afford to buy more than one flat for their own requirements. Investment in housing the poor is well worth it, benefiting the first recipients and even subsequent occupants who also come from the poorer sections of society.

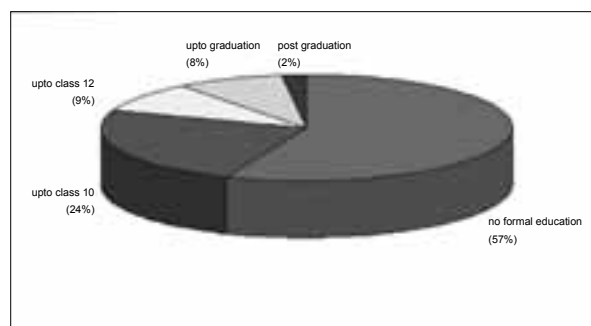
There is also a provision for compulsory contribution toward infrastructure improvement which helps the Corporation to fulfil its obligations for water supply, sewage arrangement and motor able access. There are some general benefits for the surrounding areas. For instance, poorly maintained public toilets near the roadside disappear, more cleanliness and discipline gets established. Public festivals still spill over on public roads but noise levels and durations usually decrease. Rowdy elements either reform themselves or move out. Life is still a bit louder than in a middle class residential area but otherwise very normal.

NEGATIVE ASPECTS OF THE SCHEME

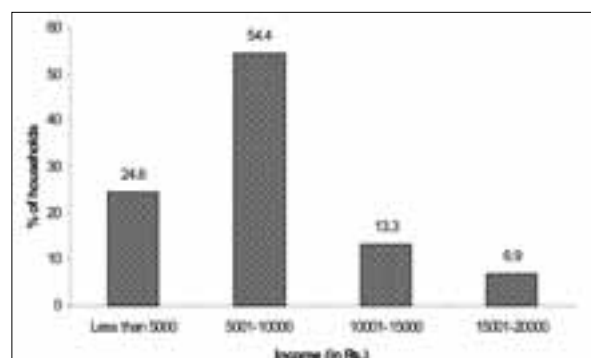
The negative features in free housing seem to be less than the positive ones. Theoretically, the model seems very robust, but in the absence of a holistic action plan, has not been able to make headway in the interior pockets. In low valued large slum areas, market intervention is emerging as a key propeller. As a result, social dimensions such as local talent and capacities, grass root leadership and negotiation capacities for better community assets are getting politicised and impossible to address. Community initiatives dither due to absence of micro finance institutions that can expedite flow of funds to the urban poor. There had earlier been plans to grant legal titles to the slum dwellers so that they could mortgage the occupied land and thereby qualify for bank loans. Giving land titles has been shelved in Mumbai while there have been

other inducements from the Central Government under the Rajiv Gandhi Awas Yojana.

To earn even more benefits than provided, the laws and guidelines are misused in many ways. For example, slum dwellers are 'persuaded' to accept money instead of free houses and builders give undue benefits in terms of green areas and open spaces to the sale component to the detriment of the rehabilitation area. Quality of construction in the rehabilitation area is often very poor compared to the sale area. Distances between buildings are reduced to very undesirable limits (even as low as three metres), but builders have on occasion reduced it even further and managed to get approval for it from the SRA. One of the most troublesome point in the guidelines is the provision of the cut off date, which is the date prior to which the slum dweller should have and produce documentary evidence of his existence on that land in order to be considered eligible for free housing. At present, for normal rehabilitation schemes, the cut off date is January 1, 1995. In some special cases the date is January 1, 2000. This is looked upon as an opportunistic tool open to change. For example, governments could extend the date by another five years before an election hoping slum dwellers may vote for the 'generous' party.



Education status
Source: AILSG 2009



Analysis of average monthly income
Source: AILSG 2009

Findings of a study by All India Institute of Local Self Government (AIILSG), 2009:

- The socio-economic status of the families is reflected in their education, ownership of appliances and vehicles and the family income. The average monthly income is ` 8,600.
- More than 82% households are reportedly happy with their financial situation.
- Higher costs for water supply, electricity, cooking fuel and transport are matters of concern. Electricity for water pumping, use of lifts, for common passages and streetlights are the main causes for higher costs.
- People enjoy living in dignity with running water and their own toilets, even if costs are higher.
- In situ rehabilitation has benefited the families since the social linkages to schools, shops and transport remain intact.
- People, however, are dissatisfied with the inadequate provisions of open and green areas.
- The additional spaces for pre-school classes and welfare centres are well appreciated.

It is usually observed that the poorest of the slum dwellers reside as sub-tenants in part of someone else's hut, paying him rent. Though they may be living in the city for decades, they are always excluded from any planning. Newcomers are also excluded since they have arrived after the deadline. These poor people get pushed from slum to slum with no safety in site. Where will the poorest people live? Their survival in Mumbai is assured for more time due to the very slow process of slum rehabilitation.

No solution has been put forward in the SRA Guidelines (1997) for the rehabilitation of slum dwellers who reside on land for public use such as footpaths and areas reserved for gardens, parks and playgrounds. Though there is some provision in the demand for full use of FSI, in practice nothing seems to be implemented accordingly. Self development is the best option, but does not receive any concrete support, required for it to play a role in slum rehabilitation.

REPLICATION AND CAUTIONARY MEASURES

The SRA must take time to get a complete record of existing slums in the city and develop a rehabilitation plan with priorities and deadlines, instead of rushing into approval of projects. Giving land titles to the

Ownership of household appliances and vehicles

Item	Total no. of respondents	% of the total
Fans	242	97.6
LPG	227	91.5
Television	233	94.0
Steel cupboard	165	66.5
Refrigerator	118	47.6
Air conditioner	5	2.0
Washing machine	27	10.9
Cell phone	230	92.7
Enterprise related tools / machinery	4	1.6
Bicycle	54	21.8
Two wheeler	38	15.3
Auto rickshaw	7	2.8
Taxi	7	2.8
car	4	1.6

Source: AIILSG 2009

cooperative housing societies of slum dwellers would provide additional opportunities for them, along with loading them with responsibilities. As a result, the slum dwellers would be able to get subsidies and bank loans and will not need to depend entirely on income from the sale area. Further, instead of the builders taking on the entire responsibility, they could involve good architects and contractors in the projects. In the people's hands and with appropriate guidance, slum rehabilitation schemes could spring up in many places simultaneously, leading to a large volume of output and a quicker transformation of the city.

Rather than providing free housing, the goal should be to provide homes of various types and sizes for all residents in a city, with allowance of enough flexibility in order to make it financially viable. In fact, till this scheme was put forward in Maharashtra by builders and politicians, nobody had asked for free housing. When and where flats can be constructed for the poor, the SRA can adopt useful features from the Mumbai model but otherwise there is a need to develop simpler solutions that can be offered on a temporary basis till the capacity of the person increases towards owning a home of his own.

It may be necessary to start a Housing Fund into which every salary earner and every business establishment



A kitchen, pride of the housewife



Medical clinic in Dharavi

must contribute. The government could provide a matching amount. This fund should be in the joint administration of the government, private enterprises and civil society for better administration and more trust. Such a fund is necessary because the poor will need subsidies for securing their shelters or their homes. It must also be kept in mind that not all who live in slums are poor. They therefore must be excluded from subsidies or entitled to lower subsidies only.

The cut off date or year should become less important, while other criteria such as income and employment need to be evolved. For example, a young married couple from a city slum area looking for a place of their own will not have documents showing them existing independently for 10 or 15 years in the city. Criteria need to be evolved under which this couple and people in similar situation can get access to a home.

Despite all shortcomings, the happiest people in rehabilitation schemes are women in their new homes. Seeing so many positive changes like separate kitchen, running water and a toilet in their own house. Post rehabilitation studies also have indicated that people approve of living in apartments. Issues have emerged

with regard to quality of life.¹ The learning has been tremendous and there has been an administrative will to address them. The homing pigeons provide ample lessons for the harbingers of shelter provided they don't get trapped by too many controversies, too many postponements and too much of political interference, as has happened in the case of Dharavi.

CONCLUSION

Mumbai faces a tremendous scarcity of land and technology to ensure strong sturdy vertical structures is now available. Through the schemes for slum rehabilitation, high rise development on earlier encroached land has accorded protection against demolitions. Floor Space Index and Transferable Development Rights instruments have made the Slum Rehabilitation Society a good business model.

The mandatory City Development Plans under the JNNURM should co-opt the positive aspects of the Slum Rehabilitation Scheme. If urban renewal is the intention, programmes must be strategised to effectively capitalise on existing realities as in the case of Slum Rehabilitation Authority.

Bibliographic References

- AILSG 2009, *Resettlement and Rehabilitation: Summary and Conclusions*, AILSG, Mumbai.
- Mumbai Transformation Support Unit (MTSU) 2006, *Strategy for land and housing development*, MTSU, Government of Maharashtra, Mumbai.
- MTSU 2007, *A case study of Korba Mithagar*, MTSU, Government of Maharashtra, Mumbai.
- Regional Centre for Urban and Environmental Studies (RCUES) 2009, *Challenges of Post rehabilitation in the city of Mumbai*, RCUES, Mumbai.
- Risbud, Neelima 2008, *Housing, Urban Planning*, All India Institute of Local Self Government, Mumbai.
- SRA 1997, *Guidelines for the Implementation of Slum Rehabilitation Schemes in Greater Mumbai*, SRA, Government of Maharashtra, Mumbai.

Notes

- ¹ Quality of life (QOL) is different from the standard of life (SOL). QOL = production/population. QOL = production/population + services/population + experiences. It is believed that any measure or action that results in augmentation of per capita incomes, improvement in services or increasing positive experiences can be considered as a step towards improving QOL.

Community based Approach for Historic Settlements Kachhpura, Agra

JYOTSNA BAPAT, RENU KHOSLA AND MANISH KUMAR

ABSTRACT

Historically, slum redevelopment in India has meant the imposition of a new typology of developments onto slum residents, rarely taking into account the history of a place and the local knowledge of its residents. This knowledge can be used effectively by experts and non government organisations working closely with the community to offer solutions that are sustainable over time. The case study of Kachhpura, a historic settlement in Agra opposite the Taj Mahal demonstrates that this is possible. The experience also highlights the need for planning initiatives like JNNURM to take a special approach for inner city areas, where residents also live in slum like conditions and the presence of heritage structures and traditional crafts adds a new dimension to the scheme of things. Therefore, urban renewal needs to be seen in a special context, to which the key is stakeholder participation.

INTRODUCTION

Cities grow from villages. In India, villages follow a certain structural pattern of growth where there is a central settlement and caste based

Jyotsna Bapat is an anthropologist with a doctoral degree from IIT Mumbai. She specialises in studying the environmental impacts of infrastructure projects on people and communities in both urban and rural contexts.

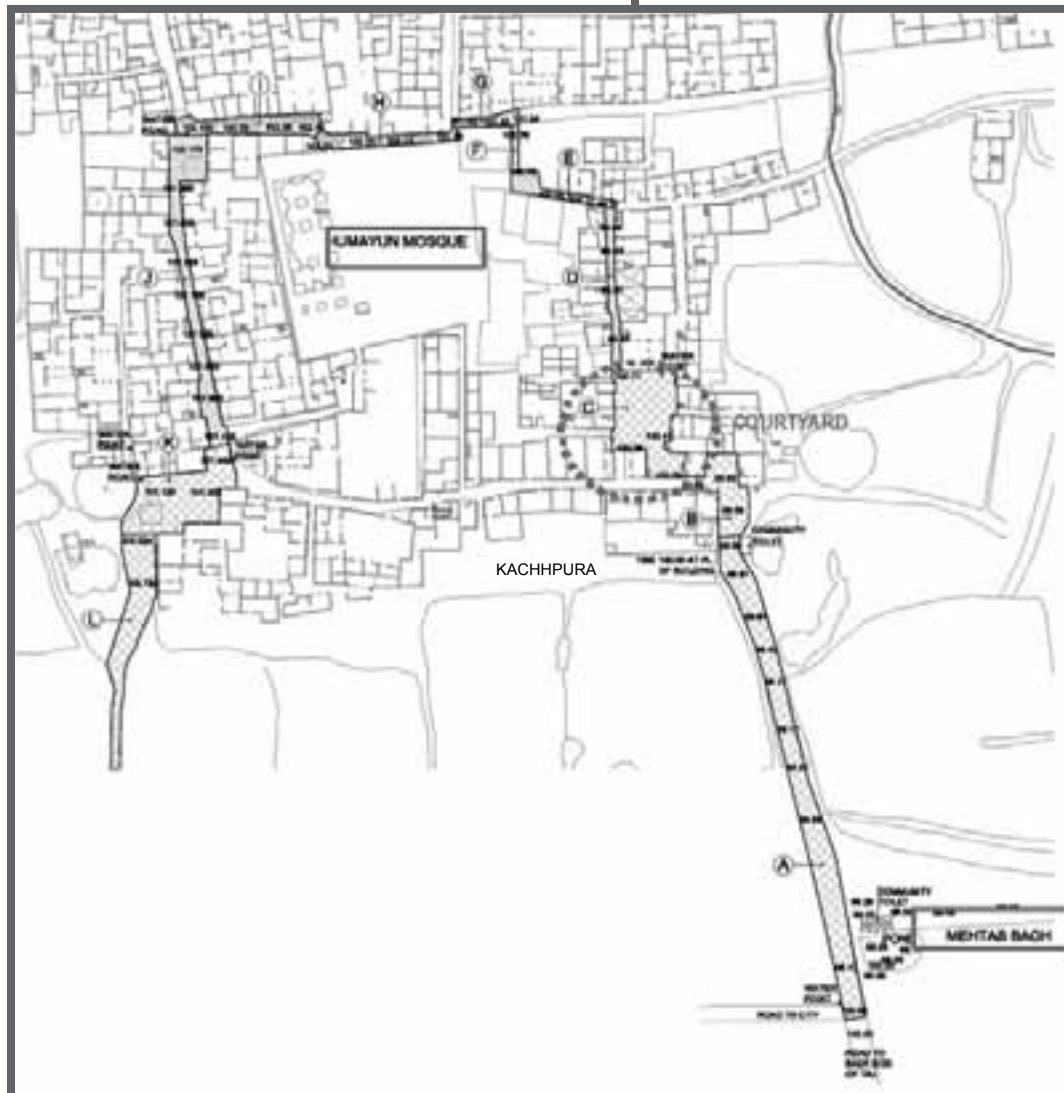
Renu Khosla, Director, Centre for Urban and Regional Excellence (CURE), New Delhi, works on inclusive slum development, supporting end to end critical mass solutions. She has received best practice awards from UN HABITAT, Metropolis, Bhagidari and Government of India.

Manish Kumar, Programme Manager at CURE, Agra, works on strengthening urban local self governance, inclusive slum development, creating sustainable partnerships, providing capacity building inputs and services' effectiveness.



Top: The Mughal Heritage Walk that passes through Kachhpura, with the Humayun Mosque in its midst. Source: CURE, New Delhi

Bottom: Base map of Kachhpura, with the Mughal Heritage Walk highlighted. Source: CURE, New Delhi



satellite settlements. The land owning elites usually live on high ground near good drinking water supply of wells or rivers. Main markets and shops are also located in the elite settlement along with a weekly market and visiting merchants. The main market is segmented based on products they sell such as groceries, cloth, domestic goods, crafts, construction goods, vehicle spare parts and others. Perishables like vegetables and fruits are sold both in segmented markets and in weekly markets. Each market segment represents a craft, produced or marketed by a particular community. The physical structure of these segmented markets could be similar shops in streets parallel to each other, radial to a central temple or random geometric structures. This kind of agglomeration makes perfect economic sense for a settlement. It allows for competition among sellers and choice for the buyers.

As the village grows into a town and then into a city, the physical infrastructure of the inner area deteriorates and elites from the central village settlement move outwards, leaving behind poor traditional craftspeople who continue to cater to the demands of the inner city markets and cannot afford to move out. These areas get branded as inner city slums, loosely defined as settlements without adequate physical infrastructure. When cities form, the original rural structure is often preserved. This historical context is rarely taken into account in the Indian system of urban planning that classifies urban areas by population size alone¹.

JNNURM AND URBAN POOR

The thrust of JNNURM is to ensure improvement in physical infrastructure, urban governance and service delivery, an area that gets completely neglected due to the rapid and often unplanned growth patterns of Indian cities. It is commendable that three of the Mission's seven objectives lay emphasis on the inclusion of the urban poor, namely:

- Scale-up delivery of civic amenities and provision of utilities with emphasis on universal access to the urban poor.
- Special focus on urban renewal programme for the old city areas to reduce congestion.
- Provide basic services to the urban poor including security of tenure at affordable prices, improved housing, water supply and sanitation and ensure delivery of other existing universal services of the government for education, health and social security.

Specifically, one sub-mission of the JNNURM focuses on the integrated development of slums through



Sanjhi art is a traditional form of painting in Braj (Mathura) area. These paintings were made by gopis for Lord Krishna during festivities. The CAP project mobilised young girls and trained them in this art form. Sanjhi paintings are seen throughout the Mughal Heritage Walk route

projects for providing shelter, basic services and other related civic amenities with a view to providing utilities to the urban poor.

SLUM REDEVELOPMENT IN HISTORIC SETTLEMENTS

Under JNNURM and other government schemes, slum growth is assumed to be uniform. People living in slums are taken to be squatters and no historical patterns are accounted for. The specific context of each slum in a city is not given priority.

The JNNURM strategy of planning, development, implementation, monitoring and review at three different levels of governance is appropriate for the addition of physical infrastructure such as new pipelines for water sewage and storm water drainage, new flyovers and buses for city transport that benefits 60-70% of the population in a city. Such projects are easily implemented by the Urban Local Bodies.

The slum population that is usually 30-40% of the city is served by slum development projects that pay attention to new housing, widening of narrow streets, provision of sewage and sanitation facilities and shifting of industrial and commercial establishments from non-conforming areas to conforming areas to reduce risk of pollution. However, renewal and development of areas classified as slums in heritage areas require a very different approach for slum development. Populations living in the slums are also poor, with little access to financial resources from the formal markets. While replacement of physical infrastructure is necessary, maintaining the historical



Shoe making is one of the economic activities in Kachhpura

context for these settlements that may have existed for centuries, poses a bigger challenge.

THEORETICAL FRAMEWORK

Development projects for the poor, especially in inner city contexts, benefit from a micro approach and methodology rather than a macro perspective. While the scientific macro approach is most suited to the agenda of the modernist state and its bureaucracy, in which the agenda is to have the urban landscapes resembling one another so that they become easy to manipulate and control (Scott 1998) by a single 'stroke of pen' allowing standardisation, the process usually does not involve the people for whom the services are being created. Sustainability of such projects is very low. Nobody is ready to take ownership for operation and maintenance after the project is complete.

The personal or interpretative theory and methodology for creation of development projects takes into account past experiences, thoughts, feelings, sensual information from touch, view, smell, sound and sight and the culture of the community that has lived there over time. This allows for a different knowledge based learning, leading to trust and cooperation between members of the community living in inner city slums and heritage settlements and eventually results in process driven projects that cost less and are sustainable over time. The approach that starts with no assumptions closely involves community leaders and pays attention to details of inter-linkages and synergies within and among communities. The procedures used for community participation are case specific and not replicable; hence, these projects are rarely time bound

in implementation. Further, this approach has an additional advantage in the context of historic areas as it provides the opportunity to conserve traditional arts and crafts.

The Kachhpura case study is an example that showcases this interpretative community based approach in the Cross Cutting Agra Programme for slum development where the community decided what they wanted and when they would be ready for it. It is a 'right here-right now' solution to an infrastructure issue for a specific community where a Non Governmental Organisation (NGO) with established credibility within the community was able to mediate and create a safe space of communication between various claimants to the land and have people feel at home.

KACHHPURA: THE CONTEXT²

Agra is India's brand ambassador to the world, boasting of the Taj Mahal and centuries of Mughal history. Despite its historical significance, Agra's sanitation conditions have been poor, limiting its potential for growth as an international tourist attraction. The tourist potential for monuments besides the Taj is poorly developed. As per Census 2001, over half of Agra (some 1.2 million people) lives in its 378 slums or low income communities and are unconnected to any sanitation services.

On the other bank of the river Yamuna right across the Taj Mahal is a settlement known as Kachhpura. It has 448 households with a total population of 2,352. Most households in Kachhpura are permanent residents with only a small percentage (approximately 10-15%), being tenants. Despite an ancient Humayun Mosque in its midst, the population is predominantly Hindu and nearly 90% people belong to the scheduled castes. The settlement has some skilled labour, largely shoemakers³ and a majority of unskilled daily wage labourers. The women are primarily housewives.

The 1978 flash floods in the Yamuna engulfed many houses in Kachhpura near the River bank. As a result, an ancient wall was revealed, further excavated in 1990. The wall was identified to be part of a Mughal garden, Mehtab Bagh that was probably planned to view Taj in the moonlight when its beauty is mirrored in the Yamuna by night. Besides, Kachhpura is surrounded by other Mughal Gardens excavated over the last three decades, leading up to the river front. The first of these is Ram Bagh, built in the classical *charbagh* (four quadrants) style by Babar. Remnants of



Leaflet designed for the Mughal Heritage Walk. Source: CURE, New Delhi

a series of wells that were part of an aqueduct system created to water the lawns of these gardens still exist.

Till the year 2005, conditions in Kachhpura were dismal, with open drains blocked by unconfined excreta, uncollected solid waste and overflowing public spouts draining water into stagnant pools. Residents were defecating openly and disposing waste indiscriminately, unaware that they had better choices. In addition, commercial waste disposal and self dumping in the open had caused waste build up points in the area. These waste dumps comprised of animal waste from local dairy farms and waste from other economic activities like tailoring, shoe making, foundry works and auto repair.

THE PROJECT: INITIATION AND IMPLEMENTATION

An NGO, Centre for Urban and Regional Excellence (CURE) got associated with Kachhpura in 2005. In view of the historical context of the settlement, CURE and funding agencies working with them initiated the idea of creating a 'Mughal Heritage Walk' and a

resting place for the tourists coming to that part of the city. Tourist visits meant more revenue and livelihood opportunities through handicrafts and tourist guides. Due to the poor sanitary conditions, there was no tourist movement in the area and vice-versa. Breaking this vicious cycle by cleaning up the place was the first priority. Residents were initially resigned and cynical about the initiative and showed lack of commitment.

CURE made the commitment of transforming sanitation in Agra (2008a) through the Crosscutting Agra Program (CAP), a partnership between the Agra Nagar Nigam, Cities Alliance, USAID and private sector aimed at a comprehensive, inclusive and citywide slum upgradation through community participation. The project is based on aspirations of the community, with the aim of integrating the settlement with its people. CAP has been implemented by CURE since April 2005.

Using participatory processes, CURE found that lack of space for toilets, drainage, paved pathways, stand posts for drinking water and poor design of toilets and waste disposal systems were the major sanitation issues. They



CAP Information Centre in Kachhpura is a field office used for self help group meetings and training of field volunteers

soon realised that livelihood was the primary concern for the community. Self help livelihood groups became the first step to involve the community.

The biggest challenge was to have the first family to agree and getting the first toilet right. Developing low cost, incrementally constructed toilets with personal involvement in the design took a lot of time and effort. The first toilet was a test of the customised technology and credit mechanisms used by CURE. Successful installation of the first septic tank, pan, pipes and manholes signalled the start of Swachh Galli, the street where all houses have personal toilets, extending to more such streets. Drainage, paved pathways, stand posts and waste disposal were relatively easy issues to deal with once the toilets were accepted.

Community sanitation plans have been developed through a participatory process involving different gender and age based groups. The plans identified community sanitation priorities within each location and addressed a broad range of sanitation issues like toilets, bath and wash rooms, wastewater, drainage, solid waste management and hygiene practices. By 2008, 15% of households were willing to invest their own money in having toilets in their households and everyone in the settlement contributed to the sanitation priorities and cleaned up the internal roads. This helped create space for children to play and elders to sit in the evening, making the internal roads safe to walk around for women and tourists with their hosts. Physical interventions were planned respecting the existing heritage of the settlement. The infrastructure facilities added to Kachhpura, like improvement of streets,



Constructing drains

drains, courtyard and façades of the houses followed traditional designs and materials. The streets and courtyards have been laid with brick *kharanja* (on edge) along with a Mughal stone motif to mark the route of the Mughal Heritage Walk. Facades of the houses are adorned with Sanjhi paintings in the traditional style of Braj Region in natural colours.

Each toilet needed a sewerage plan and each drain was improved to carry the effluent, its gradient corrected and linked to the city drain. Even when households got toilets, the settlement, the city and the River remained dirty. To treat the gray water from toilets, the large city drain has been linked to a Decentralised Waste Water Treatment System to treat septic tank outflows, both from Kachhpura and upstream flows, through anaerobic processes and bringing the Biological Oxygen Demand levels to acceptable standards.

Through implementation of the project, a sense of community was re-established in the settlement. It saw decorated walls, courtyards with rope swings and the celebration of community festivals once again. The now clean Kachhpura invites visitors to enjoy an alternate view of the Taj from a terrace within the settlement.

CONCLUSION

Kachhpura's experience has demonstrated that every community can find solutions to their basic water, waste water, solid waste management and energy issues using local knowledge. It is possible to build on what the community has created and what they



CURE is constructing individual toilets in slums. A street is named as Swachh Galli (clean street), every house in it has toilets



Site before being linked with decentralised waste water treatment system



The new decentralised waste water treatment system

can afford to pay for, rather than imposing a standard solution recommended by engineers and planners. Without disrupting the settlement, it is possible to lay underground drains with proper slopes for drainage so that public land is used by children and elders.

Working with marginalised groups in historic areas is certainly a challenge that can be met using such a participatory approach. The challenge lies in implementing such processes across all cities covered by JNNURM so that each Indian city, with typically

300 to 700 slums housing 40% of its residents, is benefited with a sustainable solution towards slum upgradation.

Of particular interest is the use of generations of knowledge to preserve crafts and traditions in addition to achieving improvement in physical infrastructure. Integration of intangible heritage components, that is traditional knowledge systems, in urban renewal projects will keep tourists engaged with the community and support livelihoods.

Bibliographic References

- CURE 2008a, *Cross Cutting Agra Program: Cross Sectoral Youth Program Final Report*, CURE, New Delhi.
- CURE 2008b, *Toilet by Toilet and Drain-by-Drain: Transforming Sanitation in Agra*, CURE, New Delhi.
- Gokarn, Nitin 2008, 'Expanded coverage through deep reforms: Jawaharlal Nehru National Urban Renewal Mission (JNNURM) for Indian cities', *Presentation at Asia Day*, Stockholm World Water Week, Stockholm, Sweden.
- Kuhn, T S 1962, *The Structure of Scientific Revolutions*, University of Chicago Press, Chicago.
- Scott, James C 1998, *Seeing like a state: How certain schemes to improve the human condition have failed*, Yale University Press, New Haven, USA.

Notes

- ¹ In India, under most state laws, no village or settlement can be classified as a town unless its population crosses 20,000 inhabitants. On the basis of population and other issues, the state government notifies a larger community (over 10,000) as a 'notified area' and its administration is under the locally elected notified area committee. With a charter from the state government, a settlement with population over 20,000 would be classified as a 'town', with a town area committee. Some laws distinguish only towns and villages from each other, but by usage, settlement with larger populations, such as those having a municipal committee or municipal corporation would be called cities.
- In the Census of India 2001, the definition of urban area adopted is as follows:

- (a) All statutory places with a municipality, corporation, cantonment board or notified town area committee, etc.
- (b) A place satisfying the following three criteria simultaneously:
- i) A minimum population of 5,000.
 - ii) At least 75% of male working population engaged in non-agricultural pursuits.
 - iii) A density of population of at least 400 per square kilometre.
- ² Based on slum mapping conducted by CURE in 2007, for 378 slums in Agra.
- ³ Craft is defined as a skilled practice of a practical occupation. Given this definition, shoe making is a traditional skilled craft that is confined to a particular caste group. This makes Kachhpura a traditional craft community.

Slum Free Silicon City Bengaluru

KATHYAYINI CHAMARAJ

ABSTRACT

An analysis of the City Development Plans and Detailed Project Reports (DPRs) prepared under the JNNURM with respect to their conformity with the guidelines of the Government of India revealed that the consultative process required has been symbolic at best. Most of the DPRs do not follow the toolkits of the Centre and are not accompanied by socio-economic survey results and beneficiary lists. The process of implementation of 20 housing projects in Bengaluru or Bangalore has also been assessed and reflects that the 'whole slum' approach is missing. The lack of forethought is highlighted by the absence of transit housing for some of the projects. The community has not been involved in the planning and hence some of them reject the top down project designs. No awareness programmes have been conducted for the community; hence it is either ignorant or confused about aspects such as operations and maintenance, beneficiary contribution, labour and security of tenure.

INTRODUCTION

Bengaluru is one of the 65 mission cities selected for the implementation of JNNURM. Citizens' Voluntary Initiative for the City (CIVIC) of Bangalore undertook a study of the Basic Services for Urban Poor

Kathyayini Chamaraj is a freelance journalist and the Executive Trustee of Citizen's Voluntary Initiative for the City of Bangalore, an organisation that works on the implementation of the 74th Constitutional Amendment and right to information, food, water, health, education and livelihood. She received the 'Journalism for Human Rights' award for 1997, given by the People's Union for Civil Liberties, New Delhi.

(BSUP) projects under JNNURM being implemented in Bengaluru. The study had the objective of:

- Analysing policy and institutional frameworks at state level and checking their conformity with those suggested by the Government of India.
- Analysing the key procedures adopted in the implementation of JNNURM in Bengaluru city.
- Assessing the extent of implementation of the JNNURM scheme on the ground with special reference to BSUP.

For this, 20 slums were selected of which 10 were from projects administered by the Bruhat Bengaluru Mahanagar Palike (BBMP) and the remaining from Karnataka Slum Clearance Board (KSCB) projects. Discussions were held with key officials of the Ministry of Housing and Urban Poverty Alleviation, the State Level Nodal Agency, Karnataka Urban Infrastructure Development and Finance Corporation (KUIDFC) and implementing agencies like BBMP and KSCB, Non Governmental Organisations (NGOs), community based organisations and researchers.

AREAS OF CONCERN IN THE CDP

Varied data on slum population

The study noted that there is lack of consistency in the data given on the urban poor and slum population in the CDP. The details on economic and employment base of these slums, like age disaggregated data, sex ratio, migrant population, occupational status, income levels and number of below poverty level families are absent in the CDP or the BSUP volumes. The CDP states that 'infrastructure is reasonably good' while also indicating that only 17% of the slum dwellers have access to safe drinking water, drainage system and waste collection services and more than 50% of them do not have access to proper sanitation.



New housing constructed at Bhakshi Garden

Earmarking of land

Adoption of a State legislation by which at least 20% of the developed land in all housing projects (both public and private agencies) would be earmarked for the economically weaker section and low income group categories is recommended in the CDP. This has not been implemented in private housing projects so far.

Slum free city not the goal

Even though the total slum population of Bengaluru is estimated to be about 1.5 million or half a million households, the CDP recommends that only 2,17,257 households should be covered by the BSUP. Further, the total number of dwelling units to be constructed by both BBMP and KSCB is less than 16,500, which is hardly sufficient to make the city slum free.

Lack of adequate consultation

It is claimed that the CDP has evolved out of a consultative process undertaken at different stages. No doubt, during March-May 2006, a series of consultations were held with various stakeholders separately. However, none of these consultations had multi stakeholder participation. The stakeholders were presented a CDP already put together by consultants. A situational profile of 'where the city is' currently was not placed before the stakeholders so that they could arrive at a vision of 'where they would like to take their city'. Strategies available for reaching a particular vision and financial alternatives were not discussed with them as required under the JNNURM Toolkit 2 (Ministry of Urban Employment and Poverty Alleviation & Ministry of Urban Development 2005) for preparation of the CDP. A pre planned budget amounting to ₹ 140 billion under various heads, such as roads, water supply and slum upgradation, was placed before the stakeholders for their approval.

BSUP PROJECT REPORTS AND THEIR IMPLEMENTATION: ISSUES IDENTIFIED

Absence of details

The DPR is supposed to have detailed chapters containing the project's abstract, background, linkage with CDP and Memorandum of Agreement; description, costing and details of sub-components, convergence with other schemes, project management, documents required to be attached and checklists for BSUP. The DPRs provided under the *Right to Information Act 2005* (India) only had the abstract, technical specifications and some drawings. Most of the DPRs do not provide details apart from the number of dwellings to be constructed and cost estimates.



Focus group discussion at Bheemshakti Nagar

Whole slum approach missing

As per the guidelines a 'whole slum' approach needs to be adopted covering provision of land tenure, affordable housing and basic services. Adequate provision should be made for water supply, sewerage, drainage, and solid and liquid waste disposal in the colonies proposed for development under BSUP. Community centres for primary health care and education, facilities and livelihood; along with community work places or informal sector markets based on livelihood surveys, need to be included in the DPR. In most of the cases it is observed that the 'whole slum' approach has not been implemented and most projects are limited to providing housing facilities. As per the guidelines, the implementing agency should ensure proper convergence of schemes related to education, health, insurance, employment and social security. There is no such process mentioned in the DPRs provided.

Security of tenure and ownership issues

As per the guidelines, security of tenure at affordable prices has to be given to the beneficiary family, preferably in the name of the wife. However, there is no explanation for whether security of tenure means ownership of property, lease or sale deed and therefore this has been interpreted in various ways, creating confusion. The DPR fails to provide clarity on what are the 'suitable protection clauses' to ensure that the dwelling units are not transferred or sold. The beneficiaries have either been misinformed or not informed on this issue and are under the impression that they will receive the *hakku patra* (ownership rights) on the new houses. However, the authorities claim that only permission to stay life long in the house is 'security of tenure' and that the ownership of land will remain with the government agency.

Socio-economic surveys and biometric cards

As per the guidelines of the Ministry, the DPRs should include details of the survey, biometric cards and beneficiaries. In some DPRs even a basic demographic and socio-economic profile is missing, no list of beneficiaries is attached. Important components like Information, Education and Communication (IEC), transit accommodation, social infrastructure, Operations and Maintenance (O&M) of the project, convergence of BSUP with the other social sector schemes and infrastructure are missing. About 40% of residents did not have biometric cards at the time of the fieldwork for this study.

IEC material and awareness programmes

As per the guidelines, in a people centric programme like BSUP, there is a need to create IEC material to generate awareness amongst the targeted, so that they are able to receive what is intended for them by the government, with roughly 10% and 5% of the total budget allocated to social infrastructure and IEC activities, respectively. But IEC strategies and components are not mentioned in any of the DPRs. It is not clear how BBMP is going to implement the IEC activities. Currently, with no IEC materials available and no awareness programmes held, beneficiaries are living in the fear that they may never be allotted a house once they vacate the land and that they may even lose the land they have been living on. No effort to reassure them and allay their fears has been made.

Beneficiary contribution to the project

Beneficiary contribution to the extent of 12% of housing unit cost is permissible under BSUP, with some relaxations made for scheduled castes, scheduled tribes and other weaker sections of the society. On an average, per dwelling cost estimated by various DPRs ranges from ₹ 180,000 to ₹ 200,000. DPRs recommend channelisation of loans for fulfilling beneficiary contribution of 12% through Self Help Groups (SHGs), who would collectively obtain the loans and distribute among the beneficiaries. 83% beneficiaries mentioned that there was no discussion on their contributions and the number of instalments to be paid. Lack of transparency has forced people to pay whatever amount they have been asked to. Except for the Kalyani slum, where the local NGO formed the SHGs and attempted to secure bank loans, in all other slums people are dependent on their own arrangements.

Labour contribution

Labour contribution from the beneficiaries in lieu of their beneficiary contribution under the supervision



Individual housing at Nellurupura

of qualified technical personnel could have been encouraged. However, no discussion on labour contribution from the beneficiaries has taken place.

Charges for O&M not discussed

As per the guidelines, the agency should ensure that at least 10% of the funds released are recovered and ploughed into a revolving fund. This fund is to be utilised to meet O&M expenses of the assets created that are estimated to be 20% of the cost of assets for a period of five years after construction. There is no such mechanism mentioned in the DPR provided. After five years, it is recommended that the ULB charges the inmates for the provision of services to recover the O&M costs. While the DPRs of BBMP have factored these expenses in their cost details, this component is missing in all DPRs by KSCB. O&M is supposed to be jointly handled by the ULB or implementing agency and the beneficiaries' committees. People are not aware that they would need to pay this expense eventually and assume the facilities provided to them are free. There has been no discussion with the people on this.

Beneficiaries' committees

As per the guidelines, beneficiaries must be closely involved in the planning, identification, implementation, monitoring, review and social audit of JNNURM projects. Beneficiaries' committees must be constituted to supervise construction of houses. No beneficiaries' committees had been formed.

Transit camps

In the BBMP DPR, there is a proposal to provide transit camps to all the beneficiaries in BBMP vacant

land nearby. Necessary water, sewerage and electricity connections are also to be provided in the transit camps and it is the responsibility of BBMP to liaise with the concerned agencies. However, no arrangement has been made for transit camps in the KSCB DPRs while the slum is being rehabilitated in situ.

Rejection of multi-storeyed housing

In many localities, people have rejected the BSUP proposals offered under the Mission. These are largely multi-storeyed housing and slum dwellers feared that they would be left with nothing in case the building fell due to poor construction since no land share was being provided. Another worry was that water may not reach the upper floors and they would have to haul it up several floors. They demanded individual plots on which houses could be constructed as per their own plans, with the possibility of future expansion for growing families. The advantages and disadvantages of multi-storeyed housing versus individual housing had not been discussed with the beneficiaries.

Timeline for project completion

One of the key concerns is meeting the time line of the project. Most of the projects are behind schedule. On the other hand, beneficiaries have not been communicated the expected time of project completion of 12 to 15 months. They are living under the fear that the project may take at least three years to complete, during which they will remain displaced.

Open and green area

As per the guidelines, the agency should take action to develop green habitats including green belts, parks, avenue plantations and roadside plantations. There is no mention of this in the DPR. Though the break up of land use in one DPR shows 21% open and green area, this is not shown on the map.

Monitoring and implementation units and social audit

As per the guidelines, high quality construction, functional units, vector-free atmosphere and healthy living environment should be ensured in the housing projects under BSUP. The agency should establish both internal and external quality assurance mechanisms. The agency should also take steps for conducting and enabling social audit of projects under BSUP, similar to the reporting format of *The Mahatma Gandhi National Rural Employment Guarantee Act 2005* (India). The constitution of Project Monitoring Units and Project Implementation Units and the name of the Third Party Inspection and Monitoring are not mentioned in the DPR. No mechanism for social audit is also mentioned.

Process flow and institutional mechanisms

The implementing agencies feel that JNNURM was launched without any preparation from their side. Proper training and guidelines were not given to them. As a result, they had to take help from various NGOs and consultants.

WAY FORWARD

Based on the inputs given by various stakeholders during the course of this research, some recommendations towards improving the implementation of the Mission and similar future projects are:

- Bring all agencies responsible for the Mission under the State Level Sanctioning Committee immediately.
- Form the City Technical Advisory Group in a transparent manner, as per the central guidelines.
- Put all details of the projects, City Development Plans and Detailed Project Reports, beneficiary lists, budgets, project progress and expenditures, periodically in the public domain.
- Take stock of the present situation collectively and draw 'action plans' with involvement of all stakeholders.
- Make sure proper transit stay arrangements are provided with water and toilet facilities in all project sites.
- Create beneficiary committees at each project site, educate and empower them with entire project details.
- Appoint the Third Party Inspection and Monitoring team immediately with clarity of role and responsibility.
- Monthly Programme Implementation Calendar as mandated under any Central scheme must be put up online.
- Quarterly review under State Level Sanctioning Committee or the City Technical Advisory Group at the city level and under Project Management Unit or Project Implementation Unit or Third Party Inspection and Monitoring team at the site involving all stakeholders.
- Draw up a process for social audit and conduct social audits as per the guidelines in all project sites.
- State Level Sanctioning Committee to bring out a

THE CASE OF DESHYANAGAR

Deshyanagar is a small slum of about 115 families located near the Bangalore East Railway Station that illustrates the issues relating to provision of transit camps during rehabilitation. In a preliminary meeting held by KSCB in April 2009, residents of Deshyanagar were asked to vacate the site and go wherever they wished to and come back after two years when the houses would be built. The community was not sure they would get the houses when they returned as the biometric cards they had been given did not state so. There was no beneficiary committee in place to take decisions.

A beneficiary committee formed later with CIVIC's intervention went to the KSCB on May 21, 2009 with many requests, of which transit stay arrangement was a prominent one. The KSCB orally asked the community to vacate the land that they had inhabited for over 30 years, assuring transit stay arrangements in a week's time. Based on the assurance, the community cleared a portion of the site on May 22, 2009 and lived in tents on an adjacent pavement. However, they were left to fend for themselves and the promised transit stay arrangement did not materialise.

Pressured by a complaint to the Chief Information Commissioner under Section 18(1) of the *Right to Information Act 2005* and other actions, KSCB orally instructed the families to put up their huts on BBMP land nearby on June 22, 2009, assuring them that KSCB would get BBMP approval for the same. The very next day however, they were vacated by BBMP. KSCB did offer temporary accommodation at Sadaramangala, which the slum dwellers refused to accept as it was outside the city and far from their workplaces and their children's schools. Meanwhile, a local Residents' Welfare Association (RWA) objected to their presence on the pavement. After a struggle of over six months with the RWA, the police and railway officials and both KSCB and BBMP failing to find a suitable place, the slum dwellers were accommodated in the half finished newly constructed building itself. This demonstrates lack of coordination. Later, KSCB also admitted in the hearing at the Information Commission that it had not budgeted for transit stay arrangement for Phase-2 projects but would make allocations for the same in the Phase-3 projects.

Other shortcomings like lack of transparency, whole slum approach and clarity on beneficiary contribution, conflicting projects costs and lack of tenure are apparent in the Deshyanagar slum redevelopment project.



Transit houses at Bhaksi Garden



Transit stay at Pantarapalya

procedure paper with clarity on security of tenure and beneficiary contribution.

- A 'whole slum' approach needs to be adopted and convergence of livelihood, primary education, primary health and social security schemes ensured.
- Efforts should be made for providing at least 30% open areas along with 15% organised green area in the layouts.
- An opportunity should be provided to the beneficiaries to work on the site to enable them to earn a livelihood at the time of project implementation. Alternatively, the wages earned could be counted as beneficiary contribution towards the project.

Though the JNNURM is a comprehensive urban poverty alleviation programme that envisages

convergence and dovetailing of other programmes, this is not happening in reality. All agencies involved in urban poverty alleviation programmes and schemes in the city need to be brought under a single window delivery mechanism, that is the Urban Poverty Alleviation Cell, situated in the Urban Local Body, in this case the Bruhat Bengaluru Mahanagar Palike. This cell has to be guided by an Urban Pro-poor Policy, developed by inclusive consultations, to cover the aspects of land and housing, education, health, food, public distribution system, water and sanitation, livelihood and social security. The Urban Poverty Alleviation Cell should define classification of the urban poor along with creating baseline data on them and recording their needs. This should become the basis of the Urban Pro-poor Policy.

Acknowledgements

The study was researched by Kavita Kanan and coordinated by Harish Poovaiah, Chief Coordinator of CIVIC Bangalore.

Bibliographic references

- Ministry of Urban Employment and Poverty Alleviation & Ministry of Urban Development 2005, *JNNURM: Formulation of a City Development Plan*, Government of India, New Delhi, viewed August 2010, <https://jnnurmmis.nic.in/jnnurm_hupa/jnnurm/Toolkit-2-english.pdf>.

Housing Design through Community Consultation Pune

PRASANNA DESAI

ABSTRACT

JNNURM has offered a unique opportunity to identify appropriate housing alternatives for the urban poor. In Yerawada, Pune, the Municipal Corporation, along with non government organisations, worked with seven existing slums to provide in situ up gradation of their housing and urban services. The design and execution process evolved into an intensely consultative one and allowed the architectural team to deliver individually designed houses for every family on the original footprint of their kutcha (impermanent) home. True needs of slum dwellers were assessed at every step and changes incorporated accordingly. The process has allowed the urban poor to maintain and nurture their emotional bonds with the land they live on while raising the standards of amenities, housing and the overall quality of life.

INTRODUCTION

The Pune Municipal Corporation (PMC) that is working towards a vision of achieving a 'sustainable slum less city' has received funds from JNNURM for undertaking in-situ slum up gradation for 4,000 housing

Prasanna Desai has Bachelors of Architecture and Masters in Urban Design both from SPA, New Delhi. His firm based in Pune, specialises in housing, commercial, institutional and hotel projects, with focus on the betterment of the quality of built environment in the cities. Prasanna is the Director at the Padmabhushan Dr. Vasantdada Patil College of Architecture and founder of the Forum for Exchange and Excellence in Design (FEED), Pune.



Location of slum at Yerawada in Pune



Configuration of all slum sites

units in Pune. A housing subsidy of ₹ 300,000, with 90% funding from the government and 10% from the beneficiary as a contribution, has been granted per house to help upgrade seven high density slum areas in Yerawada, Pune. These slum rehabilitation works will be implemented in separate packages of slum clusters with 200 to 500 temporary hutment structures in each cluster. This is a unique opportunity evolved through the efforts of the PMC and interest of the Central and State Government, to identify appropriate housing alternatives for the urban poor.

COMMUNITY PARTICIPATION

A sustained process of housing improvement is only possible with the beneficiary community's contribution, participation and consent. This has been proven time and again around the world. While providing houses is the aim, the goal is to involve the people in the process in an effort to work towards the betterment of the overall lives of that segment of society. Their participation from the inception to the completion of the houses is essential to ensure that the assets created are maintained and nurtured over time. Community participation is a social process that requires time and consistent efforts of a supportive organisation. With this perspective, it was proposed that the unique opportunity in slum rehabilitation be implemented with due thought to the community aspects and not in the manner of a contract for infrastructure construction projects. Through the projects, an attempt has been

made to preserve the patterns that have evolved over time and respect the existing social networks. The motto 'neighbours remain neighbours, local remains local' is followed.

PROJECT BACKGROUND

A total of 30 slums were identified for rehabilitation but the upgradation project covered the following seven slums in Yerawada:

- Site A : Mother Teresa Nagar
- Site B : Sheela Salve Nagar
- Site C : Wadar Wasti
- Site D : Bhatt Nagar
- Site E : Netaji Nagar
- Site F : Yashwant Nagar
- Site G : Chandrama Nagar

All these slums consist of multicultural families from varied income groups, resulting in varied house types in the slum. Some houses have been built into permanent structures over the period of time, but there are also many houses that are in a very dilapidated condition with poor light, ventilation and sanitation. In this scheme, all the temporary houses have been identified as the beneficiaries.

ROLES AND RESPONSIBILITIES

Central, State and local government agencies, Non Government Organisations (NGOs), consultants,



Meeting with Jockin Arputham of National Slum Dwellers Federation of India



Meeting with Sheela Patel from SPARC



Meeting with Local Corporator

beneficiaries and local representatives were all involved in the project. The main roles of involved parties are as follows:

NGOs

Society for the Promotion of Area Resource Centres (SPARC), Cooperative Housing Foundation (CHF) International and Mahila Milan are the NGOs involved in this project. Together, they took responsibility for appointing architects, consultants, quality control team, project management team and a surveyor for

plain table survey in all the *wastis* (settlements). They helped in identifying temporary and permanent houses in the initial stage and preparing list of beneficiaries and their files with all their documents like biometric survey, bank account proof and residential proof. The NGOs got the designs approved from the beneficiaries and PMC's approval to start the construction. They had a significant role in formulating financial strategy, estimating the cost of construction, helping the beneficiaries for transit accommodation nearby, resolving conflict situations amongst the stakeholders

Summary for all <i>Wastis</i> , Yerawada, Pune											
Nomenclature	Name of Wasti / Nagar	Total Number of Structure	Total Number of Residence	Total Number of Commercial	Total Number of Institutional	Total Number of Mixed Structure	Total Number of Houses		Total Number of G-Pucca & 1st Fl.-Kutcha	Total Number of G + 1-Pucca & 2nd Fl.-Kutcha	Total Number of MHADA Structure
		Nos.	Nos.	Nos.	Nos.	Nos.	Pucca	Kutcha	Nos.	Nos.	Nos.
Site A	Mother Teresa Nagar	494	423	41	9	21	164	330	58	1	12
Site B	Sheela Salve Nagar	147	134	8	2	3	60	87	15	1	14
Site C	Wadar Wasti	375	316	49	1	7	241	134	5	0	0
Site D	Bhatt Nagar	338	306	14	3	13	196	142	28	1	0
Site E	Netaji Nagar	225	207	5	8	0	131	94	3	0	2
Site F	Yeshwant Nagar	514	469	25	8	12	376	138	57	2	96
Site G	Chandrama Nagar	174	174	0	0	0	0	174	0	0	0
Total		2267	2029	142	31	56	1168	1099	166	5	124

The order of the steps followed in the entire process in each slum area was:

1. Plain table, socio economic and biometric surveys of the slum.
2. Classification of houses into temporary and permanent structures.
3. Identifying the beneficiaries for the scheme.
4. Introducing scheme to the beneficiaries in community mass meetings held in the slums.
5. Approval of beneficiaries for the scheme.
6. Resolving the design for each cluster of houses in the slum, as per the initial consent from the beneficiary.
7. Opening a joint bank account by the beneficiary and the PMC.
8. On site discussion about individual design with each individual beneficiary.
9. Revision in design as per the discussions and suggestions by the beneficiary.
10. Cost estimation with various permutations of specifications.
11. Final approval by beneficiary for individual tenement design.
12. Legal Agreement between NGO and beneficiary.
13. Compilation of final design drawings, agreement and consent form to submit to the PMC.
14. Commencement certificate from the PMC to start work on site.
15. Transit arrangements for the period of construction.
16. Demolition of houses and construction of approved house design.
17. Release of funds by the PMC and beneficiary as per the stage wise completion of work.
18. Possession of the house by the beneficiary upon the completion of the work.
19. Final payment by beneficiary.
20. Completion certificate from the government.

and negotiating terms of design or money issues, with help from the local Corporator. Supervision of construction on site and documentation of the entire process in detail were also undertaken by these NGOs.

Architectural team

Prasanna Desai Architects, Pune, were responsible for verifying and finalising temporary and permanent structures on sites. They designed feasible building typologies for the scheme that merge with the existing fabric of the slums and explained the design typologies to the community by conducting large community meetings. Specific designs of each and every individual house were described to the beneficiaries and suggestions and needs of beneficiaries were incorporated in the final design, followed by preparation of the required set of drawings.

Government bodies

The Central and State Government provided 50% and 20% of the funding for the project, respectively. Besides putting in 20% of the funds, PMC took



Mock houses in bamboo and cloth at the scale of 1:1

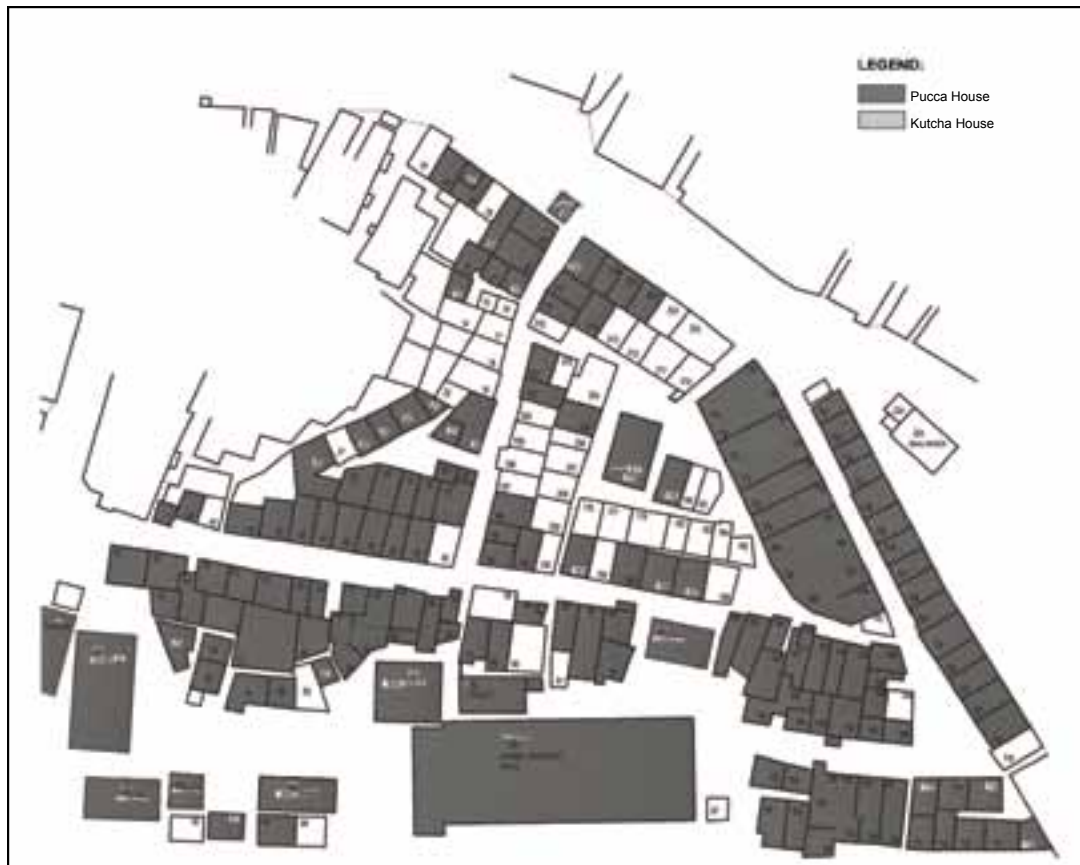
responsibility for identifying NGOs to carry out the work, releasing funds as per stage wise development, sanctioning the project at individual and slum level and supervising work during construction and infrastructure development. Significantly, the PMC will also denotify these slums after the implementation of project.

Beneficiaries

The slum dwellers on the list of beneficiaries also contributed 10% of the cost of each house, amounting to ₹ 3,00,000.

OVERALL PROCESS

The process started with the plain table survey of the slums carried out by surveyors, involving mapping of all the slums. Based on these maps, the Mahila Milan team numbered each structure of the slums. These structures were then classified as per their use as commercial, institutional and residential structures, following which, the socio-economic and biometric survey of all the residents living in the slums was



Plan depicting distribution of kutcha pucca structures. The existing fabric is generated by arbitrary placement of permanent structures



Proposed plan maintaining the permanent structures

Site E - Netaji Nagar, Study and Proposal



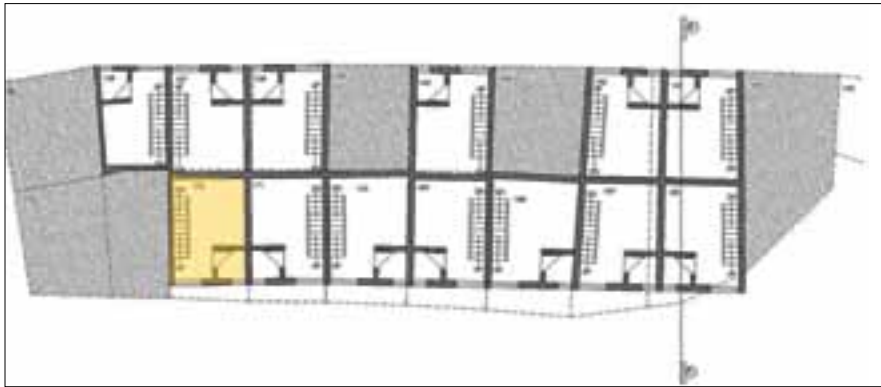
Community meetings

Steps for integrating efficiency, economy, energy and environment in design at site plan and dwelling unit level:

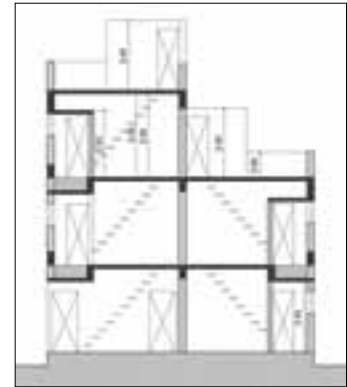
Design Considerations in terms of	Site Plan Level	Dwelling Unit Level
Efficiency	<ul style="list-style-type: none"> • Easy accessibility. • Orientation of unit. • Location of amenities 	<ul style="list-style-type: none"> • Flexibility of living spaces and interior area. • Positioning of door and windows. • Sequencing and hierarchy of public, semi private and private spaces within.
Economy	<ul style="list-style-type: none"> • Consolidation of negative open spaces. • Effective utilisation of street network and services. 	<ul style="list-style-type: none"> • Consolidation and stacking of services • Optimised proportion of room sizes • Standardisation of construction elements • Appropriate spanning for structural efficiency/stability • Energy saving with natural light and ventilation • By using cost effective appropriate technology • Effective use of pre-fabrication where possible • Efficient standardisation of doors and windows
Energy	<ul style="list-style-type: none"> • Creation of terracing, thus casting shadows for reduction of radiated heat. • Low rise developments with walk up height, reducing excessive dependence on artificial cooling or heating. 	<ul style="list-style-type: none"> • By providing appropriately sized openings for light and ventilation
Environment	<ul style="list-style-type: none"> • Hierarchy of open spaces for toddlers, elderly people, teenagers and housewives and family interaction spaces. • Accessibility to amenities considering the ease of effort and safety in reaching the common commercial and cultural amenities in the immediate neighbourhood without crossing a vehicular road. 	<ul style="list-style-type: none"> • Extension of unit in open space at ground level, as an extended garden space. • Extension of unit in open space at upper level, as an attached open-to-sky terrace. • Properly detailed fenestration system for openings for protection from weather. • Built mass modulation in building form and profiles for visual relief and profile of skyline. • Double height volume for quality of internal spaces.

carried out to construct a database that could be useful during the construction period. For example, a carpenter or mason living in the slum could be employed by the contractor for this project, creating a source of income for the residents and further increasing their involvement in the project. The *kutcha* structures were then identified by SPARC and the architectural teams, generating a list of beneficiaries for the scheme. The actual involvement of the people started with the community meetings in which the Corporator Avinash Salve introduced the project to

the people residing in the slum. The Architectural team explained the design typologies to them with the help of architectural models and the beneficiaries signed consent forms once they were satisfied with the explanation and their queries regarding the scheme or the architectural designs were solved. The Architectural team prepared the cluster wise design for individual houses. These designs were then explained to individuals, in each individual house, by the Architectural and Mahila Milan team. To enable the beneficiaries in understanding the design in a visual



Typical floor plan



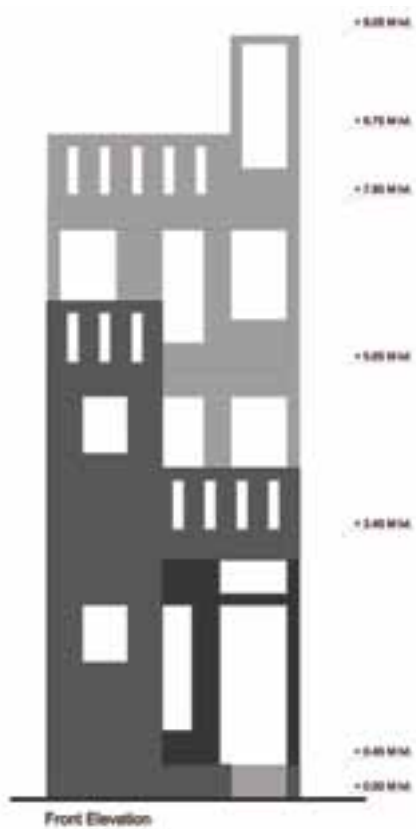
Section



Model



Modified view



Modified elevation



Modified section

Type A individual house design



Ground floor plan



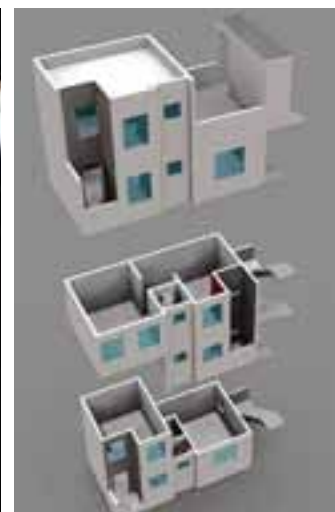
Typical floor plan for upper level



The typical plan accommodates common stairs to four tenements



Openings on sides for adequate light and ventilation to each unit



Modified design with additional terraces and individual water tanks



Modified section of B type cluster house



Design of B type cluster house

Construction commenced on site

manner, temporary model houses of bamboo and cloth were built on the site at a scale of 1:1. The suggestions of the individual house owners were discussed and incorporated to finalise the design. On finalisation of the basic design of each house, the design and layout of the overall scheme was submitted to PMC. In cases where walls were shared, an additional panchayat (rural court) was organised to discuss and seek approval from beneficiaries for the group designs before demolition of existing structures.

DESIGN DEVELOPMENT

The design development process comprised of considerations towards efficiency in planning at site plan and dwelling unit level and economy in terms of material specification, design and use of cost effective technology. The attempt was to integrate energy efficiency in the design, with focus on quality of spaces and their relationship with the built environment.

The attempt was to retain the overall fabric of the slum in terms of existing street patterns and existing footprints. As far as possible, the design was contained within the existing footprint of the *kutchas* houses. In case of larger plots, the owners were urged to surrender a part of the plot in the larger interest of the community, making it possible to widen the existing streets for better accessibility and create community interaction spaces.

A variety of housing designs were created for the project, chosen and arranged by the beneficiaries. The design idea was to construct the rehabilitation units in-situ, as individual or multiple houses, single or multiple storied, on the existing footprint coverage or by rearranging the hutment structures in the same cluster, with the consent of slum families. A flexible design allowed flexible adaptation to most cluster arrangements. Two different housing topologies were developed for the 25 square metres area:

- *Individual house (A type)*: In this option, the footprint of each individual house is retained and a new Ground (G) +1 house is designed on the existing footprint with 12.5 square metre carpet area on each level. After detail discussions with the people, balconies and an underground water tank were included. The veranda thus created added a semi-private entrance porch in front of each house.
- *Cluster house (B Type)*: These were proposed wherever the existing footprint was too small and individual houses could not be accommodated. The entire area of 25 square metres per house is provided

on a single level. For example, the footprint area of three houses of nine square metres each was designed as a G+2 building type with common overhead and underground water tanks and staircase for the three houses.

The salient features of the designs include creating better sanitation, lighting and ventilation conditions at individual dwelling unit and overall settlement level resulting in better living conditions. Further discussions led to suggestions that provision of additional height would allow residents to add a mezzanine floor later and thus create an opportunity for incremental growth in the future. However, on preparing detailed estimates it was realised that the cost of provision of additional height did not fit within the budget. Hence, the structures were built with each floor of three metre height, as originally planned.

The area acquired in the larger interest of the community, after reducing the footprint area of the beneficiaries' houses was returned to the community through widening the streets and alleys and creating *chowks* (small public squares) and community interactive spaces. The community would use these spaces for their social and religious activities. Like in traditional Indian villages and towns, public isolation and inclusion levels are maintained in the spatial sense. Common streets, *chowks* and other such outdoor areas are instrumental in promoting person to person contact.

LEARNING FROM THE PROJECT

The project was visualised in a part to whole manner; from each individual house to a cluster of adjoining *kutchas* houses, to the entire slum. The task was intertwined with various layers of public participation and negotiations, as a result of which, no two houses had the same design. Hence, the task involved designing of 750 houses. The process involved understanding the needs, problems and psyche of the beneficiaries and discussing the design of the individual house and cluster of houses with them.

This process took the architectural team beyond the office workspace and into the narrow lanes of the slum, where a beneficiary would desperately try and explain his attachment to that square inch of his plot that was probably missed out in the architectural drawing. To understand such concerns as attachment and possessiveness of land at the grass root level has been a rich experience. The process taught the importance of organisation and keeping records to the team. Working

with multiple stakeholders like the NGOs, government bodies, the Corporator and others highlighted the importance of teamwork and coordination necessary for such a large scale urban project.

CONCLUSION

Under various government schemes, slum rehabilitation projects till date have mostly involved asking the slum community to leave their existing place of residence and giving them new houses on a new piece of land. These schemes had little public participation as part of the process.

The in-situ slum rehabilitation in Yerawada, Pune reflects a completely different approach in which the slum dwellers and their community were the clients.

They were the decision makers in the entire process, demonstrating a complete ‘reversal of roles’. With concerns towards efficiency, energy, economy and environment, design development was a result of discussions and approval by the beneficiaries before the actual construction. Rather than imposing a foreign living environment, the beneficiaries were given new houses on the existing own footprint, with a ‘tailor made design’.

The consultative process of design development involved participation of beneficiaries, consultants, non governmental and government organisations. This is a model that can be replicated to generate suitable living environments, fulfilling the social needs of the residents along with providing them an upgraded quality of life.

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- Savita Sonavane, Mahila Milan.
- Jon Rainbow, SPARC.

- Filipo Balestra and Sara, architects from Switzerland, on behalf of SPARC.

Notes

All maps, plans and views have been developed by the design team at Prasanna Desai Architects, Pune. The team comprised of Associate Architect, Mahesh Thakor; Architects,

Neeraja Dharwadkar, Neha Ghugari, Vedang Bagwe, Tejas Joshi, Trupti Barkale, Anuja Chawda, Reshma Netke, Nitin Markad and Suraj Telang; Trainees, Sneha Thakur, Sneha Sharma, Akhil Gupta, Ashna Patel, Aravind Gopi, B K Swastik, Sagnika Chakraborty and Deepak Srivastava.

Community Participation for Liveable Neighbourhoods

ASHWINI PETHE AND KAVITA MURUGKAR

ABSTRACT

Slums constitute the most persistent problem of urbanisation. In India, the government has made different policies for slum redevelopment and improvement, including the Basic Services for Urban Poor scheme under JNNURM and the Slum Rehabilitation Authority, but many times these efforts prove to be futile. If the development process is based on the assumption that 'basically people know what they want' and promotes the participatory approach, the masses will be more empowered and involved. This participatory approach would bring in involvement with their environment and create commitment, leading to a stronger identity and better communities. An attempt has been made to prove the above phenomenon by conducting a post occupancy analysis of projects completed under the JNNURM schemes.

INTRODUCTION

The following statement by Laurie Baker (1997) urges all responsible human beings to pay attention to the problems of the urban poor:

Slums are a shame and a disgrace not to those who have to live in one but to us – planners, architects, builders and contractors, our government departments,

Ashwini Pethe is an Assistant Professor at Bharati Vidyapeeth's College of Architecture at Pune. Her special areas of interest are affordable housing, urban design, history and art. Ashwini is active in many architecture related activities in several institutions.

Kavita Murugkar is an Assistant Professor at the Dr. Bhanuben Nanavati College of Architecture, Pune. She has completed her Masters in Archaeology and Ancient Indian History. Kavita is practising architecture and interior design for the last 10 years.

Both have presented papers in international conferences and are active in the working of various Institutions and Foundations.

and those in the authority and all of us who pass by on the other side of the road and pretend that slums is none of our business.

Slums constitute the most important and persistent problem of urbanisation. Poor people in the cities across the world live in slums and squatter settlements where basic amenities such as water, sanitation and electricity are inadequate. The definition of the term slum varies, depending upon the housing situation. Normally it is applied to those parts of the city that may be unfit for human habitation. This may be because the structures are old, dilapidated, grossly congested and out of repair, unhealthy or lacking infrastructure facilities. According to Jane Jacobs (1993),

The first sign of the slum is the stagnation and dullness. At the time a slum first forms, its population may rise rapidly, but it is not due to popularity. It shows over congestion. It happens because people with least choice, forced by poverty, come into an unpopular area. Overcrowding is one of the symptoms of the population instability. People who overcome the economic necessity to get overcrowded get out, instead of improving the lot within the neighbourhood. They are quickly replaced by the others who currently have little economic choice.

The general pattern of the development of slums is almost always the same. The overcrowding is made worse by the addition of tenants to tenements built on limited land by conscienceless speculators. These extend to a considerable height without reference to light, air, sanitation and other standards of decent living and safety. This process of subsequent generations occupying slums continues, with increased rate of migration from rural areas to the urban areas. The major reasons behind the formation of the slums are rapid urbanisation, migration of the under privileged from the rural areas to the urban centres, acute shortage of housing, especially for the low income groups and expensive urban land and infrastructure. In addition to the above factors, excessive housing density, lack of open spaces and amenities, poor economical conditions, unawareness of health and hygiene factors and the attitude of the people towards life and unemployment are among reasons that contribute to poor living conditions.

ADDRESSING THE PROBLEM

The government has made different policies for slum redevelopment or their improvement. The JNNURM, Basic Services to the Urban Poor (BSUP) and Slum Rehabilitation Authority (SRA) are the two major

programmes that are being used, in combination with certain other incentives, to develop a comprehensive housing strategy.

Basically the objectives of providing housing (by private or government authorities) are:

- To provide sufficient living space within the houses to meet the basic needs of families of different sizes and compositions.
- To control the space between them in such a way so as to secure:
 - Optimum conditions in relation to the climate, human comfort and health.
 - Adequate space for private and commercial enjoyment.
 - Secure healthy sanitary conditions.
- To provide safe and adequate access.
- To ensure connectivity with the surrounding urban development.
- To ensure adequate community services, infrastructure and amenity provisions.

The comprehensive housing strategy for Pune's urban poor has to address two issues. Firstly, to provide legal tenure and housing units to the urban poor already residing in the slums of Pune and secondly, to generate housing stock or resources to provide for the future housing needs of the urban poor. What it should also address is how to prevent the formation of new slums.

Sustainable urban development is expected to be achieved through the JNNURM, as a contributing factor to national success. BSUP funds under JNNURM have the potential to boost the provision of housing and basic services for the urban poor. As land costs are not provided, these funds are best suited for redevelopment of slums located on public lands that are within the control of the Pune Municipal Corporation. However, most of the times improvement projects have proved successful while the redevelopment projects have been criticised. The reasons for the criticism are manifold and need to be addressed. These include:

- A standardised modernist approach to design.
- A long term maintenance problem that results in vertical slums that do not instil a sense of belonging in the residents.
- Relocation on new virgin lands that do not offer livelihood. Residents therefore desert the slum to create a new one.
- Poor allotment systems and categorisation.
- Long time period required for the redevelopment, specifically in JNNURM.
- Increase in the built mass density, specially in

SRA projects that pressurises the existing urban infrastructure.

STUDY METHODOLOGY

The aim of the study was to carry out post occupancy analysis of the projects implemented under JNNURM schemes. For this study, two cases were selected. Ajantanagar is a four year old project under which public participation was not encouraged for various reasons. Rajendranagar is a 14 year old project that involved public participation with the help of Shelter Associates and Mahila Milan. Both these projects do not pose any relocation problems and have fair tenement density. Major policy level factors are constants in these two projects, hence it became easier to focus the study only on the design approach and social conditions. The two methods used for analysis were observation and interview. The interviews have been documented in the form of questionnaires.

AJANTANAGAR CASE STUDY

Introduction and background

The Pimpri Chinchwad Municipal Corporation developed Ajantanagar for the people in the slums situated at Akurdi, serial number 88, along the old Pune Mumbai National Highway. The land belonged to the Maharashtra Industrial Development Corporation and was developed after procuring a no objection certificate. Shelter Associates designed the scheme and Mata Amritanandamai Math participated in this project by bearing the labour expenses that were 18% of the total cost. As this project was to be executed on the same site (no relocation), it had to be worked out in three phases. Transit camp accommodation for 600 tenements was initially provided. Once the first phase of 590 tenements was completed, about a third of the slum residents moved in. However, the second and third phases were not completed and some other builder is now involved in the project. The area covered under this study is the first phase of the project.

Design aspects

Analysis of the master layout shows a clear and simple grid iron pattern of design, with open spaces in between. But since only one phase has been constructed, there are no open spaces and the pattern of buildings is linear. The height of the buildings is restricted to two floors and in some cases, four floors. Enough distance is maintained between two buildings



Where is our place?



Overcrowding of vehicles in the central pedestrian spine



Vegetable selling in the central spine

Images from Ajantanagar

for light and ventilation. Double height spaces between the internal common spines have been provided to act as interactive spaces where children can play, whereas water taps have been provided to encourage community activities.

However, a layout is successful only if the users use it the way it was designed. Ironically, the interactive spine that was designed to encourage a pedestrian thoroughfare and a vibrant and interactive community space is being used for parking of vehicles like bicycles, motorcycles, tempo rickshaws and even small trucks. The *ottas* (front verandas) are being used by the senior citizens from the families housed on the upper floors. They cannot live in their upper floor homes since the homes are overcrowded and they find it difficult to climb. They are served with food and clothing in the same veranda. They sleep here and are made to run vegetable stalls to earn money and pass their time due to lack of space in the houses. Since there is no usable open space, the youth is forced to go out of their territory for interactive activities. The



Poor maintenance in Ajantanagar due to lack of sense of belonging

foreground of the building has no design elements like sit-outs or *par* (raised platform around a tree), nor does it have any trees in it.

The individual tenement size and layout of the tenement and the floor give an understanding of the internal functional aspects. Each floor has a 1.8 metre wide doubly loaded corridor with staircase block at the end. There is inadequate light in the corridors. In the individual tenements, light comes in from only one side and there is a lack of cross ventilation. Though there are small windows on the wall adjacent to the corridor, these do not contribute to any light and ventilation as the corridors themselves are dark and dingy. The inhabitants specifically noted this point and expressed a need for cross ventilation. Dark, airless spaces create dull and unhygienic conditions. The analysis of the interviews also shows a high rate of illness and epidemic growth.

Individual toilets, both water closet and bath are separately provided in the unit of 20.9 square metres area. Every person interviewed expressed a strong reaction against the size of tenement. The tenement layout is such that the toilet block opens into the kitchen, which is traditionally not acceptable to an Indian household. Nearly 70% of the houses have converted the individual toilet into a store and use the public toilets. In middle income group housing, the maintenance and cleanliness of toilets is easier due to the relatively small family size of four to five people and better economic conditions. However, in this settlement, the family size is quite high, on an average 9 to 10 member per tenement. Concepts of health, hygiene and cleanliness are not well developed. Maintenance of toilets is a problem and is not affordable. In many tenements, choked toilets spill over into the kitchen, further contributing to the unhealthy conditions.

Social aspects

The residents in Ajantanagar have a large family size of up to 10 people per tenement and a low overall literacy rate with 90% of the women illiterate. The average monthly income per household is less than ₹ 5,000. They are mostly engaged in ironing clothes or in construction as labourers. Dissatisfaction was observed amongst the residents, with lack of neighbourliness and little community bonding leading to frequent fights and quarrels. The senior citizens in the family stay outside in the ground floor verandas and families are averse to entertaining guests.

RAJENDRANAGAR CASE STUDY

Introduction and background

Rajendranagar is a project executed under JNNURM by Shelter Associates and Pune Mahila Milan. It is located at Dattawadi, on Sinhagad Road, near Bhandari hotel, Pune. In this project, Shelter Associates started training the inhabitants from the moment the slum was demolished. The Mumbai Mahila Milan (MMM) group came to Pune to teach the residents and the Pune Mahila Milan to deal with demolition, search for land and design the housing. A life size model house was built to reflect the precise housing needs. The MMM also guided residents on how to increase savings. His entire process of building the scheme involved the residents and they worked as labourers for the construction as well.

Design aspects

This particular design is featured with common toilets and a central courtyard. The design is unique in that it has provided for incremental additions. Each tenement has been provided with a double height (4.2 metres high) space. The residents have freedom to extend the mezzanine floor as per their needs and the availability of funds. These are built by the residents as they have been trained in construction and they have already contributed physically to the construction of the entire scheme. Today, all the houses have built the mezzanine and are enjoying the benefit of double the space that was actually provided. The mezzanine is being used in a number of ways, including as a kitchen and dining space while the ground floor acts as living and sleeping area. In some houses, it acts as a study room for children during the daytime and bedroom in the night. The ways in which the residents have explored the areas shows the flexibility of the design unit. Ceiling fans cannot be used as the ceiling heights are low, so residents generally use wall mounted fans. The extra incremental space that they have got is very important to the residents. The passages are also double height and spacious with good light and ventilation. During summers and when there are lots of guests, people prefer to sleep in the passages. Common toilets are built separately, one between four families and are well maintained. The small *mori* (washing place) provided near the toilet block proves to be very useful for activities such as washing utensils and clothes.

Social aspects

In this project, the residents happen to be related to each other. They have been living there for the last 13 years. They celebrate their festivals together in



Well lit double height corridors in Rajendranagar

the common courtyards. In the interviews, residents regretted that there was lack of open space and detachment from the ground. They also wished they could have got a larger courtyard. The level of education is higher as compared to the Ajantanagar project. The women, though working as house maids in surrounding areas, are 100% literate and have at least passed seventh class. The younger generation is being educated. The males in the houses work in the nearby areas. Overall health and hygiene is good. The residents seemed enthusiastic and full of aspiration. They also felt a sense of belonging to the community. As people have participated in the building process themselves, they are able to maintain and renovate their houses on their own, paint and plaster these and extend lofts from rooms where needed, saving money in the process. A few of them have also taken up construction as an occupation.

COMPARATIVE ANALYSIS

The difference between both the communities was felt notably during the interviews. The Rajendranagar community had a sense of belonging and they wanted to talk about their participation in the entire designing and construction process. Due to their involvement at every level, none of them was complaining about the project, as the decisions were taken with their consent and they knew the reasons behind every decision. On



Common washing place overlooking the courtyard



Investment by inhabitants in their houses shows a sense of belonging



Well maintained tenements creating healthy environments



Multipurpose use of mezzanine

Images from Rajendranagar

the contrary, there was tremendous dissatisfaction in the residents of Ajantanagar. Every aspect of the building was being criticised by them and there was a complete lack of belonging.

INFERENCES

Through analysis of these two cases, certain priorities can be identified with respect to the design for such housing. Architects and planners must give due consideration to the following aspects:

- *Discard the standardised modernist approach:* Every community is different, with different aspirations, lifestyle and ideas of health and hygiene. The design should respond and cater to the needs of the inhabitants of that particular site.

- *Incremental housing:* Design for the poor must leave options for future. There should be space for expansion to allow for densification. Accommodation of the next generation should be possible, creating stronger links within the community. It is evident from a few projects, like 'Khuda ki basti', an incremental scheme in Hyderabad, Pakistan that it is possible to reach the homeless and to give them the opportunity to create a community of their own. The actual housing was built incrementally as permitted by the incomes of the resident and the social transformation was profound and inspiring. In this project, only one wall with plinth and land tenure was offered to the residents. It has turned out to be a vibrant and sustainable community.

- *Linkage with the ground for public activity:* Everyone needs a piece of ground, especially when it comes to lower income group or economically weaker section housing. The streets act as their extended activity areas in day and night. The spill over activity on the streets is important to their lifestyle.
- *Location of toilets:* The decision to provide attached or public toilets needs to be taken after analysing the habits and lifestyle. Independent toilets may work better if they are accessed from outside and not from within the house.
- *Cross ventilation:* A lighted and airy layout should be the first priority of the designer. The layout should ensure a healthy environment.
- *Flexibility:* Ela Bhatt¹ explains in her discussion of women's role in the third world countries, ...the home... is a productive asset, functioning at various times as a warehouse, a storehouse, a source of inputs such as water and electricity. Access to shelter enables women to work the year round, protected from monsoons, floods, and other interruptions. The house provides greater security, allows accumulation of material, products and inventories, facilitates linkages to services necessary for profitable activities. This flexibility of the tenements is one of the most important aspects as it offers lot of opportunities for business and growth.

- *Public participation:* In case of housing for the urban poor, due to various reasons, the user group is absent from the entire process and is designated as beneficiaries, represented instead by government agencies. Due to this, the resulting schemes lack any sense of humanity and fail to provide more than basic shelter and amenities.

CONCLUSION

The masses would be satisfied if the development process promotes the participatory approach basing itself on the assumption that 'basically people know what they want'. It has been observed that the present disorders are being faced because the traditional planning principles have been discarded. The physical problems of a city cannot be dealt with in a short period of time but through a continuous process involving and promoting cultural and social development and vice versa. This can make it possible to have a coherent, user friendly living environment (Jacobs 1993). Empowering the people would lead to their participation in the development process. This participatory approach would bring in involvement with their environment. The involvement will create commitment, leading to an identity and resulting in better communities that can become habitable by choice and not by force.

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Bibliographic References

- Baker, Laurie 1997, *Are slums Inevitable?*, Centre of Science And Technology for Rural Development with support from the Department of Science and Technology,

GOI, New Delhi.

- Jacobs, Jane 1993, *The Death and Life of Great American Cities*, Modern Library Editions, New York.
- Joglekar, M N 2009, 'Key Note Address', *Proceedings of the Seminar on Affordable Housing*, Builders Association India, Pune.
- Rangwala, S C 1996, *Town Planning*, Charotar Publishing House, Anand.

- Serageldin, Ismail 1997, *The Architecture of Empowerment: People, Shelter and Livable Cities*, Academy Editions, London.

Notes

- ¹ Founder of the Self Employed Women's Association of India.

Case Studies

Infrastructure, Heritage and Housing

<i>Commonwealth Games and JNNURM: Lost potentials for transforming Delhi</i> AK Jain	151
<i>Urban Infrastructure and Mobility Enhancement: Kolkata</i> Monideep Chattopadhyay, Dipankar Paul	157
<i>Heritage Development Plan: Varanasi</i> Divay Gupta	163
<i>Godavari Riverfront Development: Nanded</i> Deepak Mhaisekar, Sanjeev Patil	173
<i>Impact of JNNURM: Laxmiguda, Hyderabad</i> Natraj Kranthi	177

Commonwealth Games and JNNURM

Lost potentials for transforming Delhi

A K JAIN

ABSTRACT

Delhi has seen major events through its history that have left a mark on its morphology and infrastructure. Hosting the XIX Commonwealth Games 2010 was one such event that had a significant impact on urban development in the city, as it entailed development of state of the art, world class sports and other infrastructure. Delhi is also one of the Mission cities under JNNURM, providing a unique opportunity for urban renewal in the city from the twin mandates.

While a number of projects have been undertaken to meet the requirements for the Games, the potential anticipated effect has not been seen under JNNURM. The focus on long term interventions through missions such as the JNNURM should not be neglected in order to meet the requirements of occasional events such as the Commonwealth Games. Learning from this experience, a number of strategic interventions are required to ensure that such opportunities are used as a catalyst for sustainable and integrated urban renewal in future.

A K Jain is an architect and town planner, who worked on the Master Plan for Delhi-2021, National Urban Housing Policy (2007), National Urban Transport Policy (2006) and Delhi Urban Heritage Foundation, as Commissioner, Planning, Delhi Development Authority. Currently, is a member of the UN Habitat Research Advisory Committee and the UNESCO Heritage Panel for JNNURM Toolkit. He is a fellow of INTACH.

URBAN GROWTH OF DELHI

Delhi is a unique city that lives by ambition, power and opportunism. Through two thousand years of history, it has been built, abandoned, razed and rebuilt by successive waves of time. Its historiography reveals that Delhi has grown more due to pulse and impulses and by unexpected and sporadic events. Political events, national and international sports, cultural and religious festivals have often changed the course of its development. The impacts of such decisions and events have often overtaken its natural growth. These have caused unexpected fluctuations in demands for transport, housing and other infrastructure. Wherever such infrastructure was provided for a particular event, it posed a problem of surplus capacity for a while, but soon got absorbed in the overall system.

Delhi is amongst the fastest growing cities of India, adding about half a million population per year. Of this, about 2,00,000 are added due to natural growth, while about 3,00,000 are immigrants. In 2001, the population of Delhi was 13.8 million that is six times its population in 1961, the year when the Delhi Master Plan came into existence. The current urban scene presents a picture of stressed physical and social infrastructure, congestion, dilapidation, pollution, stressed out river, drainage and ecological system and a worsening transport system. Out of the total area of Delhi (1,483 square kilometres), about 50% has already been urbanised and the rest which is already under heavy pressure will be urbanised by 2021 when its population reaches 23 million. In order to divert the growth in a wider region, National Capital Region, covering about 33,500 square kilometres was delineated. However, the runaway growth of Delhi continues unrestricted. It is no more just a national capital, but an international centre of politics, business, sports, culture and education. The City has emerged as one of the prime nerve centres of national and international events. Major events that triggered the uncontrolled growth of Delhi after Independence in August 1947 are the following:

- 1947 About half a million refugees sought shelter in Delhi due to partition of the country.
- 1950 India was declared a republic, marked by impressive extravagant parade at the Central Vista and other ceremonies that have become an annual ritual.
- 1951 Delhi became a State.
- 1951 First Asian Games were held.
- 1956 Ninth General Conference of UNESCO was

- held at the newly built Vigyan Bhawan.
- 1957 First International Trade Fair was held.
- 1968 United Nations Conference on Trade and Development UNCTAD II was held in New Delhi.
- 1972 Asian Trade Fair was held, for which a trade fair ground in the centre of the city (Pragati Maidan) covering about 80 hectares was developed.¹
- 1975 Jawaharlal Nehru University was established (400 hectares).
- 1982 Ninth Asian Games were held with investment of about 100 billion rupees.²
- 1985 Indira Gandhi Open University was established.
- 1990-91 Adoption of policies of Economic Liberalisation.
- 1994 Delhi State and assembly were constituted.
- 1998 G G S Indraprastha University was established.
- 2010 XIX Commonwealth Games were held.

Delhi is now preparing to bid for 2014 Asian Games and 2020 Olympics.

The mega events that usually take place over a short period of time, attract massive visitors and have high demand for land, human resource, building materials and infrastructure. Whilst mega events are beneficial in a financial sense, these also bring severe pressures and impacts on the city, its citizens and infrastructure. On one hand the big projects and events add prestige to the city and help in replacing old facilities with new, on the other hand, they pose serious problems of shelter, traffic and municipal services. A major challenge is to utilise the massive infrastructure and to provide jobs to those who become unemployed after the event is over.

THE COMMONWEALTH GAMES 2010

The selection of Delhi as the venue of XIX Commonwealth Games, brought 71 countries, over 7,500 athletes, officials and delegates and over 1,00,000 visitors to the city. The Ministry of Youth and Sports, Government of India; Delhi Development Authority (DDA), Central Public Works Department (CPWD), Public Works Department (PWD) Delhi, Sport Authority of India, Commonwealth Games Federation and other organisations took up various projects for the Commonwealth Games held in Delhi in October 2010. These included 13 sports complexes, a Commonwealth Games (CWG) Village, training venues, transport and other infrastructure. The mandate

for the development of Commonwealth Games sports infrastructure was to design state of the art world class and green buildings.

The development of the CWG Village on the bank of River Yamuna was undertaken by DDA. The site located off National Highway 24, covers an area of 63.5 hectares. The Village was planned to provide accommodation for 7,500 competitors and officials, complete with dining areas, polyclinics, recreational centres and an international zone comprising the logistics centre, accreditation centre, ceremonial plaza, retail, leisure and entertainment facilities, media centre, cultural centre, transport centre and information centre. The CWG Village Operation and Support Area (VOSA) provided for support and service functions, such as waste collection and removal; delivery and storage facilities for food, linen and fuel. A Transport Mall provided transport services and linkages from competition and training venues. The CWG Village also had practice areas such as athletics' tracks, swimming pool and fitness centre. The training facilities for aquatics, badminton, lawn bowls and squash were developed at Siri Fort Sports Complex and for aquatics, gymnastics, rugby, table tennis at Yamuna Sports Complex.

LEVERAGING CWG FOR CITY TRANSFORMATION

Apropos of Commonwealth Games 2010, the Ministry of Urban Development, Government of Delhi and the Planning Commission (2006) identified a number of projects relating to transport, power, water supply and beautification of the city (including Central Vista, Yamuna River Front, Connaught Place and Chandni Chowk) to present Delhi in 2010 as a world class city:

- *Development of Yamuna river front:* The Planning Commission and Government of India proposed to set up the Yamuna Front Development Authority with the mandate to prepare a Master Plan for development of Yamuna Front, manage and develop the river front land, construct three dams in Himalayas (Renuka, Lakhvar Vyasi and Kishau), develop Hindon river bye pass for Yamuna to deal with heavy flooding and build an integrated sports complex to hold national and international events.
- *Development of Central Vista (Rajpath):* Create six museums around C Hexagon, relocate National Stadium on Yamuna River Front, construct under passes for roads crossing Rajpath, pedestrianisation and construction of sunken parking and beautification of water bodies and replacement of old fountains.
- *Connaught Place:* Restoration of structures, pedestrianisation and construction of subways and provision of common service ducts.
- *Power supply:* Proposals to meet the requirements for 2010 (5633 megawatts) included capacity addition of 2500 megawatts by Damodar Valley Corporation through Mejia, Koderma and Bokaro Plants; capacity addition of 1500 megawatts by National Thermal Power Corporation Power Plant at Jhajjar of which 750 megawatts is dedicated to Delhi and 980 megawatts at coal based Plant at Badarpur. Production of 1000 megawatts through gas linkage for Bawana and 350 megawatts at Pragati Power Station II, addition of 700 megawatts by converting IP Thermal Plant to Gas Based Plant, removing hanging cables, streamlining 24x7 supply and street lighting.
- *Development of integrated passenger terminals and modernisation of railway stations:* New Delhi, Old Delhi, Hazrat Nizamuddin, Sarai Rohilla, Cantonment, Dwarka and Anand Vihar.
- *Signature projects and relocation of Pragati Maidan:* Cable Signature Bridge over river Yamuna, development of new Convention Centre at Dwarka and decentralisation and relocation of Pragati Maidan Exhibition Complex.
- *Hotel accommodation:* 30,000 rooms required by 2010 against the present availability of around 10,000 hotel rooms, 35 hotel sites identified, bed and breakfast and paying guest schemes launched.
- *Conservation of heritage buildings and areas:* Conservation initiatives at heritage sites such as Nizamuddin, Humayun Tomb Complex, Chandni Chowk, Jama Masjid, Mehrauli, Tughlakabad and Hauz Khas and promotion of tourist circuits.
- *Airport modernisation and connectivity:* Metro express connectivity, roads, flyovers and tunnel roads connecting the Airport and development of helipads and heliports.
- *City transportation:* Mass rapid transit system connectivity to Gurgaon, Noida and Ghaziabad, construction of Faridabad-NOIDA-Gurgaon Expressway and Kundali-Ghaziabad-Palwal Expressway, bus rapid transit (eight corridors), monorail (three corridors), light rail transit (two corridors), 21 new roads, 61 flyovers, tunnel elevated road from National Highway 24 to Lodhi Road, Barapulla Nalla elevated road and elevated Ring Road; dedicated cycle tracks, pedestrian facilities, bridges and subways, low floor buses,



Façade restoration was carried out in Connaught Place for the Games, but the entire project could not be completed in time

parking, streetscaping, signages, intelligent traffic signals and radio taxi service.

- *Sewerage and drainage:* Beautification, greening and cleaning of drain corridors, rehabilitation of trunk sewers, interceptor sewers and installation of sewage treatment plants.
- *Water supply:* Underground reservoir, lined concrete channels for canals, augmentation of supply and distribution network, conservation of lakes, aquifers and water bodies and construction of water treatment plants.
- *In-situ slum rehabilitation, EWS housing and beautification of city entry points.*
- *Bio diversity parks:* Yamuna, Aravali, Chhawla and Kanganheri.
- *Digital Delhi:* E-governance, Wi-Fi systems, digital and static signages, information kiosks and digital broadcasting.

These projects were envisaged to be taken up by the respective government departments, DDA, Government of National Capital Territory of Delhi (GNCTD) and the concerned local bodies. The funding of these was largely to come from Central grant, GNCTD Plan funds and urban local bodies, besides private investments through Public Private Partnership (PPP). However, the Government of Delhi, Municipal Corporation of Delhi and New Delhi Municipal Council (NDMC) largely

banked upon the Central Government funds, including funds under JNNURM.

JNNURM IN DELHI

The Government of India is providing substantial financial assistance through the JNNURM to the 65 mission cities, of which Delhi is one. The cities are expected to formulate a CDP that should conform to the following JNNURM objectives:

- Improving and augmenting the economic and social infrastructure.
- Ensuring basic services to the urban poor including security of tenure at affordable prices.
- Initiating wide ranging urban sector reforms with the aim to eliminate legal, institutional and financial constraints that impede management of urban infrastructure and services, including investment in these.
- Strengthening municipal governments and their functioning.

Accordingly, Government of Delhi prepared a CDP for Delhi, which covered a range of projects for accessing JNNURM funds to the tune of 241.4 billion rupees. The JNNURM proposals for Delhi covered the redevelopment of old city areas, conservation of heritage areas or structures, widening of streets, shifting of non-conforming wholesale markets, replacement of old and worn out services (water, sewerage, drainage and solid waste disposal).

There have been serious backlogs, both in planning and funding of the projects. Delhi government received Central assistance of 8.41 billion rupees in 2008-09 and 24.96 billion rupees in 2009-10. Of this 11.3 billion rupees pertained to JNNURM projects. The only projects under the JNNURM that were cleared had been redevelopment of Connaught Place, 9,000 houses for slum dwellers or urban poor and low floor buses. Against the required 50 billion rupees for Commonwealth Games projects, 4 billion rupees had been sanctioned during 2008-09 and 10 billion rupees during 2009-10. The Delhi Metro Rail Corporation was sanctioned 25.68 billion rupees and 17.7 billion rupees during 2008-09 and 2009-10 respectively for the Metro project. As the funds earmarked had been woefully inadequate, many projects could not be initiated. The investments and focus had been mainly towards the completion of sport complexes, related facilities and infrastructure, together with transport, security and other arrangements related directly with the Commonwealth Games. As a result, many of the

projects identified to spruce up Delhi suffered and could not take off.

ISSUES AND POTENTIALS

It will be naive to blame the inadequacy of funds for severe backlogs in the urban projects implementation. The larger issue is lack of innovative and strategic planning and management. There is neither the clarity of purpose nor processes involved in urban development and governance. There is lack of coordination of physical plans with financial planning. Five Year and Annual Plans of various sectors do not integrate into a comprehensive plan. There are too many domains with insulated, protected territories. The governance framework of Delhi is characterised by financial, institutional, administrative and technical sectorisation. There is a lack of coordination in converging various sectors and programmes. A number of agencies in Delhi are involved in urban development. The multiplicity of organisations, lack of effective coordinated action and absence of unified management plans integrating physical, environmental and financial plans have been the main reasons for the backlogs. The JNNURM could be a major resource for urban turnaround, which necessitates building PPPs and developing a participatory process.

POSSIBLE STRATEGIC INTERVENTIONS

Special purpose vehicle

The process of multi-departmental approvals had been a major barrier that needs to be simplified to create a common platform. For certain dedicated projects, it will be worthwhile to create a special purpose vehicle. This involves identifying the key result areas and priority projects and to focus upon the processes, institutional reforms, capacity building and coordination. Such projects should be simple to design and execute, with lesser complexities or legal hassles and be eligible for JNNURM funding.

Strengthening of local bodies

To strengthen the local bodies and improve their performance the following key initiatives are critical:

- Introduction of short and medium term, integrated action planning to complement comprehensive long term objectives.
- Simplification of plans, procedures and approvals.
- Exploring new options and PPPs for development and financing of infrastructure, land development, housing, conservation, environmental improvement and slum rehabilitation.



*Lighting was designed for heritage structure such as Bara lao ka Gumbad at Vasant Vihar.
Source: Mandala, New Delhi*

- Adoption of multi year investment planning to match priorities of state budget and Five Year Plans with urban projects.
- Mandatory performance management system and management information system.
- Networking with non governmental and community based organisations and the private sector for planning, management and maintenance.

New system of management

An integrated system of management is required for planning, constituted by a multi-sector investment programme, closely linked with the physical, environmental and infrastructure development plans having a package of mutually supporting projects. A series of such projects can be worked out that facilitate involvement of local community and private sector

Break up of funds required for projects under various heads outlined in the CDP

Sub Mission 1: Urban Infrastructure and Governance	Rupees in billions
Water Supply	16.32
Sewerage	27.55
Road Network and Transportation System	134.87
Storm Water Drainage	2.31
Solid Waste Management	5.93
Heritage and Conservation	5.82
City Environment	4.31
Urban Governance	0.09
Other Projects	0.20
Sub Total	197.40
Sub Mission 2: Basic Services for the Urban Poor	
Urban Poor, Slums and Housing	44.00
Sub Total	44.00
Total	241.40

and harness national and international resources. A leveraging strategy would encourage private sector to participate in infrastructure and city development by bringing together state government, public and private sector in a framework of inter sectoral cooperation. The participation of the private, community and government sectors should be synergised within a planned framework. An efficient working relationship among the people, entrepreneurs and urban local body requires considerable managerial, technical and financial skills. Various options and mechanisms of private sector participation have been developed in the country. Special care needs to be taken to ensure access of public services to the poor sections of the society while taking up PPP and privatisation. For this, indirect and direct incentives and regulatory controls should be carefully devised. Through an appropriate regulatory framework and by ensuring fair competition among private sector, the local government can reap efficiency gains.

Formation of a matrix based organisation

The establishment of a new matrix based organisation that integrates the planning and implementation of strategic projects could be a significant step in order to accomplish projects with quality and efficiency. Such a structure would enable a clear and cooperative network, providing easy interactions among projects and contribution to local development by attracting new business and investments in the city. As a centre of excellence, with leading edge technology and creating school of talents, the new matrix organisation would envisage adoption of new ways of governance, new partnerships, resource optimisation and capacity building of both, the public and private sectors. This would help in modernisation of institutional structures and systems for integrated planning and development together with unified approach towards National Capital Region Plan, Delhi Master Plan and various

central, state and local programmes such as JNNURM, Commonwealth Games, Five Year Plans and Annual Plans. The organisation would enable collaboration between the Central Government, state governments and local bodies and introduce a new dimension of partnership between public and private sectors for cooperation and competition in pursuit of larger goals. The collaborative initiative would dovetail urban planning and development, revenue generation, action planning, institutional capacity building, multiyear programmes and technology upgradation.

CONCLUSION

The Delhi Commonwealth Games 2010 and JNNURM, the mega urban renewal programme of the Government of India provided a unique opportunity for urban turnaround. These offered immense leveraging potential to upscale the city heritage, infrastructure, transportation and environment. While the Commonwealth Games necessitated the completion of a number of infrastructure improvement projects to directly cater to the Games in a time bound fashion, they also indirectly instigated failure to tap the potential provided by JNNURM for long term, sustainable urban renewal and development. Mega events like the Commonwealth Games create a fluctuating wave of growth, leading to the pulse effect with wide social and economic implications. Although they are typically ephemeral, it is possible to minimise their adverse impact on the city and to capture their positive contributions by strategic interventions. It is crucial to integrate mega events with the overall city structure through a unified approach. A new matrix structure towards planning, governance and urban management would ensure that these events do not take away from the larger schemes benefiting the city by not only addressing critical issues it faces, but also adding value to the entire process.

Bibliographic References

- Government of India 2005, *Guidelines for Jawaharlal Nehru National Urban Renewal Mission*, New Delhi.
- Government of Delhi 2006, *City Development Plan for Delhi*, Ecosmart, New Delhi.
- Indian National Trust for Art and Cultural Heritage (INTACH) & DDA 1997, *Listing of Heritage Buildings in Delhi*, INTACH, New Delhi.
- Jain, A K 1994, *The Cities of Delhi*, Management Publishing Co., New Delhi.

- Jain A K 2010, *Lutyens' Delhi*, Bookwell, New Delhi.
- Ministry of Urban Development (MoUD) 1974-76, *New Delhi Redevelopment Advisory Committee Reports*, MoUD, New Delhi.
- New Delhi Municipal Committee 2008, *Draft Zonal Plan for Zone 'D'*, (NDMC Area), unpublished, NDMC, New Delhi.

Notes

- ¹ Thereafter it became a regular event, with round the year national and international

- trade fairs. In 2009, three million visitors were attracted by it, causing frequent choking of roads and huge parking shortage.
- ² Entailed construction of two major stadia (Indoor Stadium of 20,000 capacity, Jawaharlal Nehru Stadium of 75,000 capacity, Talkatora Swimming Pool), 11 Five Star Hotels, development of Ring Railway system, Asian Games Village (54 hectares), media centres, exhibition, conference halls, theatres and flyovers. Estimated labour engaged, 2,50,000.

Urban Infrastructure and Mobility Enhancement Kolkata

MONIDEEP CHATTOPADHYAY AND DIPANKAR PAUL

ABSTRACT

JNNURM is the single largest Central Government initiative in the urban sector that is intended to trigger off further investment from different stake holders. The Comprehensive Mobility Plan for Kolkata Metropolitan Area was prepared in 2008 to offer basic rationale and context of various and often disjointed projects for acceptance by JNNURM. A few flyover projects have been undertaken for implementation as per the recommendations of the Plan, but there is potential to build a unique and viable mobility infrastructure by integrating the primary projects suggested in the Mobility Plan with a three tier transit corridor that can function on a public private partnership model.

INTRODUCTION

JNNURM was launched in 2005 with a massive and overwhelming mandate of revitalising of about 60 major cities in the country including seven mega cities with four million plus population each and 28 cities with million plus population, along with state capitals and about 20 other cities of religious and tourist importance. The estimated provision of

Monideep Chattopadhyay is an Architect and Planner with specialisation in Architectural Conservation and was former Head of Department, Architecture, Jadavpur University, Kolkata. He is currently Architect to Kolkata Metro East West Line and Chief Executive, Centre for Habitat, Environment and Disaster Management, Kolkata.

Dipankar Paul is the Executive Director of Consulting Engineering Services (I) Private Limited, New Delhi and Senior Structural Engineer to several JNNURM infrastructure projects in Kolkata. Currently, he is the Project Coordinator of Kolkata Metro East West Line.

Investment requirement for JNNURM (in ₹ billion)

Category	Number of Cities	Investment Requirement for seven years (2005-2006 to 2012-2013)	Annual Fund Requirement
Cities with over 4 million population	7	571.43	81.63
Cities with 1 to 4 million population	28	571.43	81.63
Cities with less than 1 million population	28	62.50	8.93
Total	63	1205.36	172.19

Source: Guidelines for the sub-mission for UIG, Government of India

Funding pattern for UIG sub-mission

Category	Grant		ULB/Parastatal Share
	Central	State	
Cities with over 4 million population	35%	15%	50%
Cities with 1 to 4 million population	50%	20%	30%
Cities/Towns/UAs in NE States and in J and K	90%	10%	0%
Cities/UAs other than those mentioned above	80%	10%	10%

Source: Guidelines for the sub-mission for UIG, Government of India

₹ 500 billion is anticipated to considerably increase the overall investment, using the public private partnership model. As per a report by the Ministry of Finance (1996), '...the annual level of investment rising from the current ₹ 600 billion to about ₹ 1,100 billion by 2000-01 and ₹ 1,800 billion by 2005-06.' Considering the significance of the dynamics of urban growth in the country, adequate investment was initiated in infrastructure through the Mission. Also, necessary reform measures were undertaken to address the burning issues arising from the massive urban explosion.

The funding pattern for Urban Infrastructure and Governance (UIG) sub-mission, under which all infrastructural development projects are clubbed together, indicates that the Central Government grant share varies between 35% and 90% depending on the size and location of the cities.

JNNURM: WEST BENGAL CONTEXT

Till December 2009, 43 projects costing ₹ 39.69 billion were sanctioned for West Bengal under JNNURM, placing the State at the sixth position out of the 31 states. But it has recently been indicated (Roy 2010) that the total investment under sanctioned projects for UIG and Basic Services to Urban Poor (BSUP) has been booked for higher allocation of resources.

Kolkata and Asansol are two cities of West Bengal that are part of the 65 selected cities under JNNURM. Both cover their extended surrounding urban growth

Sanctioned projects for UIG and BSUP in West Bengal (2010)

JNNURM Projects Sanctioned	Number	Project Cost (₹ in billion)
UIG	44	42.68
BSUP	90	32.94
Total		75.62

Source: KMDA

areas where lots of rural areas under panchayats are also included. The Kolkata Metropolitan Area (KMA) includes 41 Urban Local Bodies (ULBs). Another vitally important conglomeration for North-East Region of the country is Siliguri-Jalpaiguri Development Authority command area which is indeed poised as emerging metropolis of the North-East. This too could have been included in the Mission cities, though the selected cities were brought under the purview of JNNURM and provided with Mission's support on the basis of their respective preparedness and submission of project worthy development proposals.

There is one planning act in West Bengal, namely *The West Bengal Town and Country (Planning and Development) Act 1979*, but there are quite a few gaps and lack of effective planning machinery to carry out the letter and spirit of the planning provisions contained therein. In absence of any state level town and country planning authority or department, individual urban bodies are left with their ingenuity and limited resources and initiative to address planning issues and problems.

Preparation of the unique comprehensive planning document, 'Basic Development Plan for Calcutta Metropolitan District: 1966-86' (CMPO 1966) was a pioneering planning exercise carried out for KMA. Yet, there is no statutory development plan available till now. The failure of Calcutta Metropolitan Development Authority, now known as Kolkata Metropolitan Development Authority (KMDA), in propagating established planning norms and practices resulted in tangible planning voids in the overall settlement pattern of the metropolis (Chattopadhyay 2001). As a response, KMDA prepared the 'Vision Plan 2025' in 2005, but the plan could hardly qualify to fulfil the requirements of statutory Development Plan. It has been projected as the City Development Plan (CDP) for JNNURM purpose, but with limited success.

MOBILITY IN KOLKATA

Kolkata offers a unique combination of transport facilities, nowhere found in the country, provided by suburban rail, circular rail, metro rail, tram (only city still maintaining it) and also ferry services over River Hooghly, besides buses of various types. The only limitation of Kolkata mobility facilities appears to be that they are often stand alone, without appropriate 'interface' which fails to optimise the ease and convenience to the daily commuters usually offered by the combination of such varieties of mobility options.

The average passenger density per kilometre of Metro Rail in Kolkata, the first Metro in the country that inaugurated its first commercial run on a four kilometre stretch on October 24, 1984, is much higher than that of Delhi. While, at present, with a 22.3 kilometre route length, Kolkata Metro carries an average of 600,000 passengers per day, Delhi Metro with no less than 125 kilometre route length in different lines carries on average 1100,000 passengers per day. This indicates significant variations in average passenger density per kilometre of almost 27,000 and 9,000 between Kolkata and Delhi, respectively.

COMPREHENSIVE MOBILITY PLAN FOR KMA

Kolkata and Asansol do not have any legally approved master plans or development plans available. In absence of requisite development plans, it was difficult to evaluate and assess the potential benefit to the overall city system by the proposed different and isolated infrastructure development projects submitted for JNNURM funding.

Although the Vision statement for KMA as presented in the CDP states that 'the vision is to provide sustained and improved quality of life through basic urban services in an inclusive manner and create enabling environment for attracting domestic and international investors to live, work and invest in the KMA', it failed to fulfil the Mission's requirements.

In due recognition of this difficulty and also on persistent demand by the Mission authority, a Comprehensive Mobility Plan (CMP) for KMA was quickly formulated under direct patronage of Transport Department, Government of West Bengal in 2008. The Plan tried to offer basic rationale and context of various and often disjointed projects for acceptance by JNNURM. It provided somewhat essential tools to assess individual infrastructure development project rationale in the overall context. The basic objective of the Mobility Plan was to develop an integrated transportation network in KMA considering all the modes to cater for the movement of passengers and goods within the area and in the hinterland for the likely future scenarios up to 2025.

In order to ascertain the travel desire and eventual travel pattern it undertook particular passenger surveys by different modes. It is indeed revealing that the second highest transit trips are made by walking (27.83 %), next only to Transit Passenger trips of 48.90 % of total trips by all modes and means. But unfortunately, there is no particular project proposal for facilitating and serving the needs of 'walking' in the metropolis. Rather it is being reduced all the time.

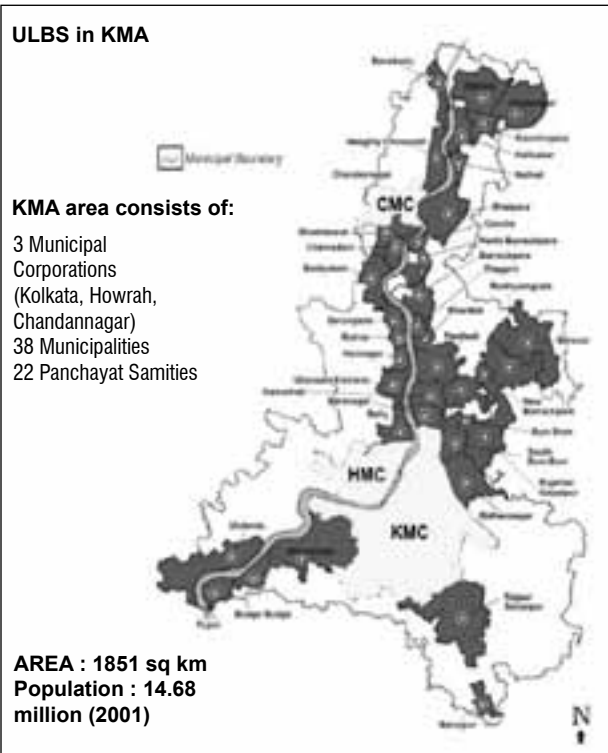
Major considerations of the Mobility Plan are:

- Planning for an integrated transportation network considering roads, rail and waterways.

Break-up of total trips in KMA, Average weekday: 1998

Category of Trips	Total (in million)	Percent share of trips
Transit Passengers trips	11.1	48.90
Private Car trips	0.17	0.76
Two Wheeler Trips	0.26	1.16
Slow Vehicle Trips	1.42	6.26
Para Transit Trips		
- Taxi	0.36	1.60
- Auto Rickshaw	0.99	4.37
- Cycle Rickshaw	0.72	3.20
Others	0.05	0.23
Walking Trips	6.30	27.83
Total	22.61	100.00

Source: Transport Department, Government of West Bengal



Map of Kolkata Metropolitan Area (KMA)
Source: Comprehensive Mobility Plan (2001-2025) for KMA

- Balancing of urban development within the metropolis.
- Implementation of safer, cheaper and faster transport system.
- Optimum utilisation of existing infrastructures.
- Conservation of energy and protection of environment.

A major limitation of the Mobility Plan appears to be that it does not follow any well conceived settlement planning process, whereas the transportation network must be viewed as a powerful and potent tool to set the future settlement pattern into motion. The Plan denied any particular consideration of land use planning for the metropolitan area and beyond. It failed to address one of the most significant trip generators, namely, walking and did not show any particular concern for modes of paratransit like cycle rickshaws that are pollution free or other eco-friendly means that can reduce the pollution load of the city. Based on the Mobility Plan, a series of urban infrastructure projects including Mass Rapid Transit System (MRTS) were identified for necessary funding. One such MRTS proposal was detailed out in nine elevated sections covering a combined route length of 95 kilometres extending from Joka in south to Panihati on the north.

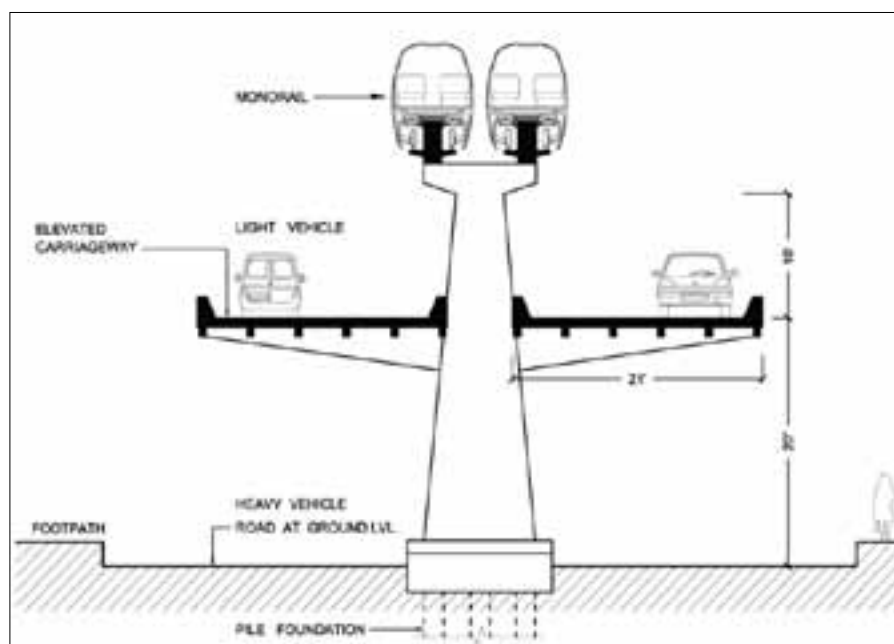
However, the project could not be initiated in absence of the requisite response from other, particularly private stakeholders at that stage. Recently, the Ministry of Railways that has the proud distinction of building and running the first Metro Rail in the country at Kolkata, proposed extension of the Metro Rail network in and around metropolitan Kolkata, totalling to more than 90 kilometres route length stretched in different directions. A number of



Proposed Metropolitan Highways Network in KMA
Source: Comprehensive Mobility Plan, Transport Department of West Bengal

Flyover projects under implementation

Name of Flyover	Location	Estimated Cost (₹ in millions)
Ultadanga Flyover	E M Bypass to Kazi Nazrul Islam Sarani leading to Netaji Subhas Chandra Bose International Airport.	685
Park Circus to Parama Island Flyover	Parama Island on E M Bypass to Park Circus Rotary. Also connects the 2.4 kilometre long AJC Bose Road Flyover	3310
Vivekananda Road Flyover	Originating from Kolkata side approach of Rabindra Setu (Howrah Bridge) towards Kali Krishna Tagore Street along Strand Road, terminating at the western edge of Chitta Ranjan Avenue, formerly called Central Avenue.	2212



*Cross-section of proposed composite three tier structure
Source: Chattopadhyay 2009*

mobility infrastructure projects were identified in the CMP including Elevated Ring Road, Elevated Mass Rapid Transit System (EMRTS) and quite a few flyover projects. Based on the Mobility Plan, the first major infrastructure project under JNNURM in Kolkata is Ultadanga Flyover that is still under implementation and nearing completion. A 4.34 kilometre long elevated road way connecting Park Circus to EM Bypass at Parama Island is the second grandiose project, while Vivekananda Road Flyover is another project currently under implementation.

While the Mobility Plan did not address the rich heritage of the city or its built environment in general, it did not threaten any particular heritage site. On the contrary, the Old Mint on Strand Road near Rabindra Setu (Howrah Bridge) approach was given due consideration during the formulation of the Vivekananda Road Flyover project proposal.

FUTURE MOBILITY INFRASTRUCTURE OPTION

It appears that there are still many possibilities of building mass transit corridors to ensure safe, smooth and convenient movement of passengers and vehicles in and around the metropolis, yet to be addressed by any CMP. One such innovative possibility, Monorail on top of Elevated Expressway has been proposed as part of Integrated Mass Transit Options, which would interface with various modes of transportation. It is conceptualised as an additional tier of monorail over

the extended piers, required to support the elevated expressway, which could be built with relative ease of construction and economy because of using same central pylon used for elevated expressway structure for extension to Monorail super structure (Chattopadhyay 2009).

CONCLUSION

Two major infrastructure development projects to improve mobility were originally conceived as part of the Comprehensive Mobility Plan for Kolkata Metropolitan Area; the first was a 42 kilometre long Elevated Ring Road, while the second was Elevated Light Rail or Monorail structure from Panihati on the north to Joka on the south, a total route length of 31.4 kilometres. If these two projects could now be integrated with suitable adjustments and modifications in route configurations so that Monorail could come over Elevated Expressway as a three tier transit corridor, it could result into substantial gain in project cost, compared to two different projects, thereby making it a distinct possibility in the near future with public private partnership model of investment pattern. It has been estimated that the cost of composite structure would be marginally more than the elevated expressway and would be well within ₹ 1.5 billion per kilometre of route length, excluding the cost of operating system. This could indeed usher a new possibility of mobility infrastructure building in our mega cities which are often severely road space constrained at the ground level.



Conceptual view of three tier transit corridor
Source: Chattopadhyay 2009

The Mobility Plan for Kolkata Metropolitan Area was prepared to provide a certain rationale for disjointed traffic project proposals, to access funding under JNNURM. The Plan did not show any particular considerations towards land use planning, urban heritage or eco friendly modes of transportation, though urban heritage was briefly addressed during

formulation of the proposal for the Vivekanand Road Flyover. It is imperative to ensure that all plans prepared for specific sectors look at impact on other areas such as environment and urban heritage holistically, to enable comprehensive urban development of our cities, with minimum negative impact on its resources.

Bibliographic References

- Calcutta Metropolitan Planning Organisation (CMPO) 1966, *Basic Development Plan for Calcutta Metropolitan District: 1966-86*, CMPO, Calcutta.
- Chattopadhyay, M 1977, 'The Challenge of Urban Infrastructure and Megacity Mass Transit Options', *Proceedings of the International Conference on Planning for 21st Century: Concepts and System*, Roorkee, vol. III, pp. 689-696.
- Chattopadhyay, M 1998, 'Calcutta: The Planning Agonies', in Misra R P & Misra, Kamlesh (eds.), *Million Cities of India: Growth Dynamics, Internal Structure, Quality of Life and Planning Perspectives*, Sustainable Development Foundation, New Delhi, vol. 1, pp. 148-167.
- Chattopadhyay, M 2009, 'Monorail over Elevated Expressway: New Concept of Three Tier Transit Corridor for Mega cities in India', *All India Seminar on Up gradation of Infrastructure in Mega cities: Role of Civil Engineers*, The Institution of Engineers, Kolkata.
- Expert Group on the Commercialisation of Infrastructure Projects 1996, *The India Infrastructure Report: Policy Imperatives for Growth and Welfare, Volume I-III*, Ministry of Finance, Government of India.
- Infrastructure Development Finance Company Ltd. & Department of Traffic and Transportation, Government of West Bengal 2008, *Comprehensive Mobility Plan for Kolkata Metropolitan Area*, Government of West Bengal, Kolkata.
- KMDA 2005, *Vision Plan 2025*, KMDA, Kolkata.
- Riberio E F N 2004, 'Plan Implementation and Enforcement, Innovative Mechanism and Techniques', *National Town and Country Planning Congress*, Indore.
- Roy, Souvanik 2010, 'Resource Mobilisation and Inclusive development for Empowering Urban Poor: Case Study JNNURM in Kolkata Metropolitan Area', *58th National Town & Country Planners' Congress*, Nagpur.

Heritage Development Plan Varanasi

DIVAY GUPTA

ABSTRACT

Varanasi has been recognised as an important heritage city having significant built heritage and intangible heritage in the form of traditions, rituals, crafts and arts, since time immemorial. However this heritage is threatened today from uncontrolled development, lack of policies, expertise and awareness. Though efforts have been made in the past to address these issues, such as in the Master plan of 2011, not much has been achieved on the ground. In this scenario an effort is being made to create a more comprehensive framework to protect the cultural heritage of this historic city by means of a Heritage Development Plan. This Plan will identify the cultural heritage resources of the city and create mechanisms for their protection. It will also support relevant heritage Detailed Project Reports under JNNURM to address the issue of urban renewal and regeneration in a historic context.

THE ETERNAL CITY OF VARANASI

Varanasi, also referred to as Benaras and Kashi, has been the ultimate pilgrimage spot for Hindus since ages. It is deemed one of the oldest and continually inhabited cities in the world, occupied at least since 1200 BC and considered in the same league as Athens, Beirut, Jerusalem

Divay Gupta has been engaged in cultural heritage conservation and management related projects and consultancies in India over the last 15 years, especially with Indian National Trust for Art and Cultural Heritage. He has a specialisation in Architectural Conservation from School of Planning and Architecture, New Delhi and in Heritage Management from University of Birmingham, UK.



Archaeological remains such as these are incorporated within new structures and are continued to be worship in different forms

and Rome. This can be verified through available archaeological evidence as well as repeated references in many ancient Hindu scriptures such as the Rig Veda and Padma Purana. This continuous history of more than 3000 years is manifested in Varanasi's rich, multi dimensional cultural heritage that is represented by its historic setting and settlement pattern, monuments with influences of different regional styles, vernacular architecture, crafts, living traditions and other forms of intangible heritage.



The river front of Varanasi with its famous ghats

Varanasi is also an important spiritual centre for many religions such as Hinduism, Buddhism, Jainism and Sikhism. It is most famously associated with Lord Shiva and is known as the holiest of Hindu cities. The city is perceived as an expression of all symbolisms associated with the religion and the spot for achieving eternal salvation. Hindus believe that one who is graced to die in Varanasi would attain salvation and freedom from the cycle of birth and rebirth. Ganges in Varanasi is believed to have the power to wash away the sins of mortals. Varanasi, along with Sarnath, where Budha gave his first sermon has been a symbol of wisdom and centre of learning for ages. Also a pilgrimage place for Jains, Varanasi is believed to be the birthplace of Parsvanath, the 23rd Tirthankar.

'Benaras is older than history, older than tradition, older even than legend and looks twice as old as all of them put together.' *Mark Twain*

Tulsi Das, the saint poet who wrote 'Ram Charit Manas' and famous novelists such as Prem Chand and Bhartendu Harishchand had associations with the city. Varanasi has been instrumental in promotion of spiritualism, mysticism, Sanskrit, yoga and Hindi language. Varanasi's 'Old City', the quarter near the banks of Ganga, is semicircular in form representing the *ardh chandra* (half moon), there by taking on the shape of the *uttar vahini* (north flowing) river. It has crowded narrow winding lanes that are flanked by road side shops and scores of temples, mosques and *havelis* (mansions). The River Ganga is the source and the culmination of the spiritual life of Varanasi, adorned by lofty stone structures with steps towards water called '*ghats*'. Varanasi has more than 84 *ghats* at its eastern



Manikarnika ghat

river front. Many of these were built when the city was under Maratha control, however many royalties like Bhonsles, Holkars, Nayaks, Peshwas and Scindias patronised these structures over a period of time. Varanasi is at a rare confluence of unique geography, mythology, urban form, cultural institutions and intangible heritage with special architectural, artistic and religious expressions. It is an exceptional testimony to living traditions, religious faith, rituals, festivals, music, dance, handicrafts and art forms that are practised till date and are passed from one generation to other. All these create the splendid cultural heritage of this city and make it a unique historic place, an example of a heritage city or rather a 'cultural landscape'.

VARANASI IN NEED OF CONSERVATION

Over the last 3000 years the city of Varanasi has seen many transformations. There have been phases of rapid growth, inertness, even destruction. Each layer has made its unique contribution to the city morphology and architecture. The religious symbolisms and

intangibles associated with the city have also played a critical role in its planning and layout. These aspects collectively shape the vibrant city of Varanasi. However in recent times, the pressures of expansive new development have increased manifold. These are no longer influenced by the geographical, social and cultural ethos of the city as was practised in the past. Driven by modern planning and building standards, commerce and real estate considerations, the pressures are now affecting the cultural heritage evolved over centuries, creating serious conflicts on ground and threatening the uniqueness, charm and appeal of this ethereal city. The impact is unsustainable for the city in the long term and deters tourism that is a source of local economy, as visitors come to Varanasi for an authentic experience of its cultural significance.

CONTEXT OF THE HERITAGE DEVELOPMENT PLAN

Efforts have been made in the recent past to address appropriate urban regeneration of Varanasi. Foremost stands the Master Plan 2011 prepared by the Varanasi



Lalita Ghat in 1900's. Source: British Library



Lalita Ghat today with pumping station in front



Uncontrolled development



Kunds under encroachment



Historic Haveli Gateway now built upon by modern construction



Historic Clock tower encroached by commercial development



Heritage building such as this haveli are under constant threat of demolishing for commercial gains or road widening

Development Authority (VDA) that for the first time identified special heritage zones in the city for planning purposes. Another significant thrust was made under JNNURM wherein a City Development Plan (CDP) was prepared with preservation of the city's culture as an integral part of its Vision for development. However, prevailing frameworks especially the regulations and guidelines are found to be inadequate in protecting the interests of this historic city and insufficient for directing new development sensitive to the existing fabric. Therefore, a need is felt for an integrated approach towards a more sensitive development of Varanasi. This was proposed to be done through a Heritage Development Plan (HDP) that respects and is in consonance with the unique urban character of the city and its cultural resources. The HDP was envisioned to build upon the existing efforts, especially the Master Plan and the CDP and use the opportunity of JNNURM to focus on heritage conservation through the process of urban renewal.

A heritage city like Varanasi needs sensitive development with focus on conservation of its rich cultural resources. In this regard the VDA involved Indian National Trust for Art and Cultural Heritage (INTACH) for preparation of HDP for Varanasi, with a view for identification, restoration and protection of heritage buildings and sites within the city.

THE HERITAGE DEVELOPMENT PLAN

The HDP is approached as per the principles put forth in various international best practices for urban heritage conservation. The plan has been developed in a 'holistic' manner, with the system of development

addressed as a whole. A multi-disciplinary approach was adopted, recognising that development is always a multi-faceted sector. A comprehensive understanding of the overall character, significant features and architectural variety of Varanasi's cultural heritage was derived from the documentation conducted by means of listing of its heritage components. The significance established through this process formed the driving factor in the planning process.

The plan is rooted in the existing legal and institutional framework for operational purposes and emphasises participatory approach through public consultation for sustainable conservation and development. It has been envisioned with the goal of making sustained efforts to preserve and maintain the cultural and traditional values of Varanasi while appropriating resources for its present and future needs and reciprocating to the needs of the city and its natural environment.

The detailed objectives of the HDP for Varanasi are:

- To control and regulate a heritage sensitive future urban development, within the city of Varanasi.
- To review the existing legal and institutional framework and to plug the gaps for heritage protection and management.
- To review the existing regulations and guidelines for development and propose changes as necessary.
- To arrest and prevent rampant demolition of heritage buildings in the city of Varanasi.
- To promote heritage friendly tourism and urban amenities.
- To make available basic infrastructure and services and stimulate the socio-economic changes in the city in a manner that effectively provides for the

urban poor and fulfils demands for development while ensuring the continuity of cultural and traditional values that form the essence of the city.

There were four essential aspects of the plan:

1. Listing of heritage resources and identification of Heritage zones and precincts was the first step. Various typical and unique typologies of built and cultural heritage sites like temples, mosques, *dharmshalas* (guest houses), *ghats*, *kunds* (water reservoirs), *havelis* and civic buildings were identified and listed in a standard format. More than 1200 such sites were found in the city. Besides, ten heritage zones were also identified.
2. Conservation through planning was proposed by delineating heritage zones with special heritage byelaws and regulations controlling the usage, façade and height of the new built form to maintain the character of the zones.
3. Pilot projects related to conservation, restoration and reuse of identified heritage buildings and sites for various community and tourism related activities and development of urban spaces through urban design and conservation were defined.
4. Operational and administrative aspects for the implementation of the HDP in form of reforms, institutional and administrative frameworks like heritage regulations, committees and cells proposed.

A future vision for Varanasi has been developed as a part of the HDP in order to determine the rate and direction of permitted change in the historic



Heritage Zones of Varanasi City

environment of the heritage city and to provide better living conditions and economic opportunities for the local communities living there. The HDP is a tool to strike a balance between the requirements of heritage protection and the needs of new development especially in heritage zones.



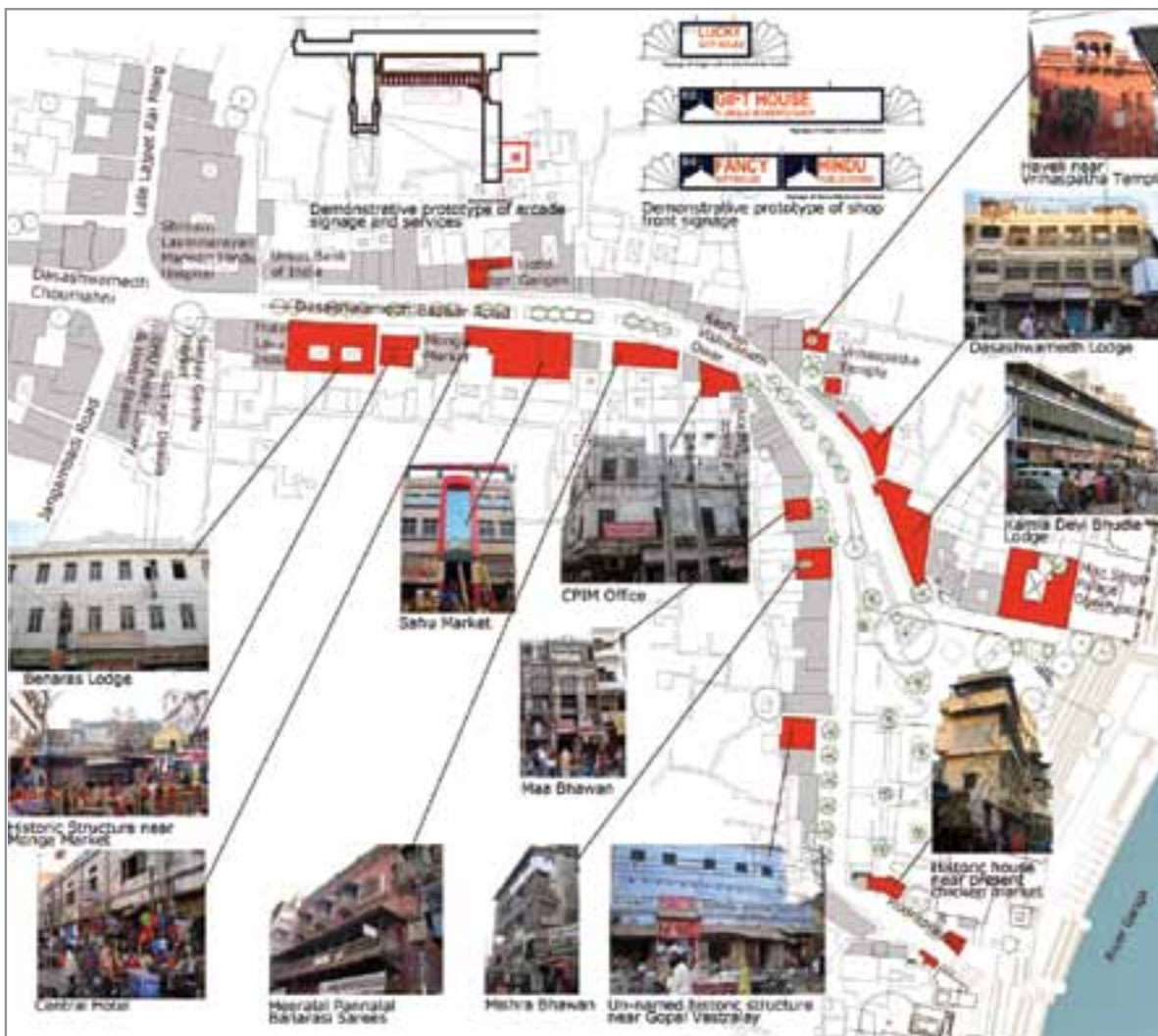
Haveli near Durga Kund



Ram Kund



Archaeological fragments at Kandwa



Identification of heritage building for conservation as part of the Pilot Project. Source: INTACH, HDP (2009)



Pushkar Kund



Dharmshalas such as this one at Kandwa are used by pilgrims for night halt during the Panchkroshi yatra

The HDP will now act as the guiding principle providing useful inputs towards heritage sensitive development of the city in future and the basis for conserving the built cultural heritage of Varanasi and regulation of its heritage zones. Heritage regulations and conservation strategy have been proposed for the identified heritage zones in the city as part of the HDP. The regulations and guidelines put forth by the HDP in consonance with the cultural character of the city may be processed as part of Master Plan and Zonal regulations.

PROJECTS OUTLINED UNDER THE HDP

Varanasi is recognised as a heritage city with immense cultural heritage, yet very few efforts related to conservation have been taken up in the past. This has resulted in a lack of confidence towards heritage conservation within the city. There were not many best practices to establish the benefits of conservation within the city. Thus, as a part of the HDP, five pilot projects were identified for which Detailed Project Reports (DPRs) were prepared to seek funding from the JNNURM. The pilot projects are:

- Rejuvenation of Dasashwamedh Cultural Quarter.
- Development Plan for Panchkroshi Yatra Marg and halts.
- Restoration Development of three *kunds*.
- Cultural centre at Chet Singh Ghat Palace.
- Conservation of some of the landmark heritage buildings in the city.

The projects have been envisioned with the common goal of making sustained efforts to preserve and maintain the cultural and traditional values of Varanasi, while reciprocating to the present and future needs of the city and its natural environment.

Dasashwamedh cultural quarter urban heritage rejuvenation

This proposal has been prepared and developed with a primary objective of adopting a financially sustainable model that enables access to basic infrastructure and services. It is to stimulate socio-economic changes in the city to effectively provide for the urban poor and fulfil demands for development while ensuring the continuity of cultural and traditional values that form the essence of the city. The basic profile of the envisaged pilot project is public space area improvement and heritage management in the overall context of urban renewal of the historic city. The area chosen for the pilot project is the Dasashwamedh

Cultural Quarter with pilot projects to be undertaken at the Historic riverfront from Pandey Ghat to Lalita Ghat and the road between Dasashwamedh Chouhmani to Dasashwamedh Ghat. The main project has been divided into four sub projects namely:

- Development of pedestrian environment of the road from Dasashwamedh Chouhmani to Dasashwamedh Ghat.
- Façade-scape development and street facing property management on the road from Dasashwamedh Chouhmani to Dasashwamedh Ghat.
- Historic riverfront regeneration from Pandey Ghat to Lalita ghat.
- Development of 'Varanasi Sanskriti Darshan' at the present site of Dasashwamedh vegetable and fish market.

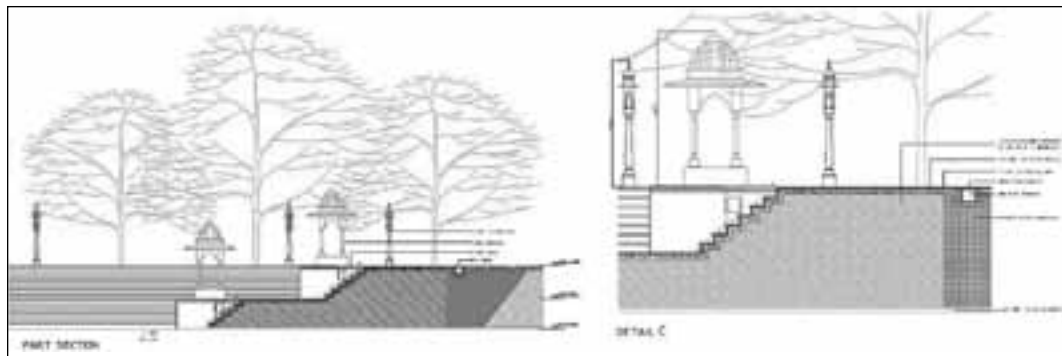
The DPR also gives recommendation for administrative framework for effective implementation of projects such as Creation of Dasashwamedh Cultural Area Rejuvenation Authority under VDA and Special Purpose Vehicle (SPV) under provisions for special areas development under the *Uttar Pradesh Urban Planning and Development Act 1973*.

Development of Panchkroshi Yatra Marg

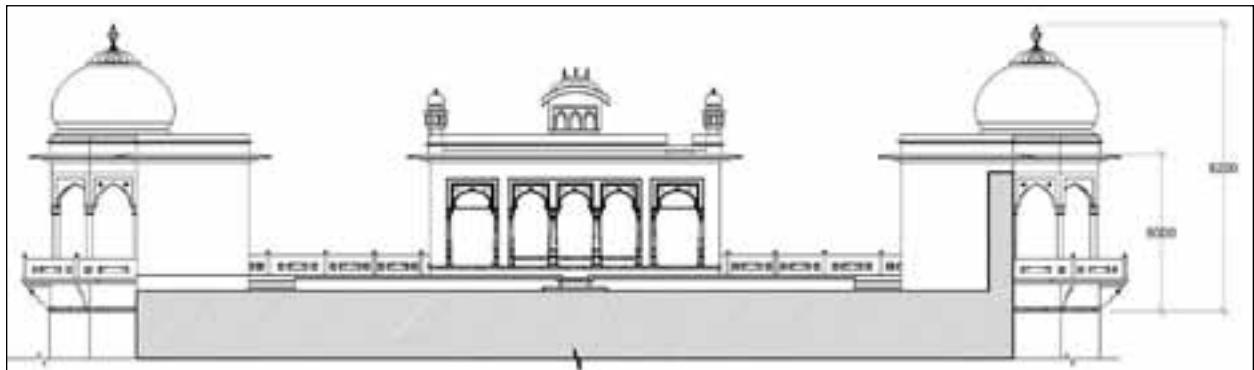
Panchkroshi Yatra at Varanasi is one of the most important pilgrimages for Hindus where the journey is more significant than the destination. It is believed that Lord Shiva used to undertake this Yatra twice every year. It is usually undertaken for the purposes of personal spiritual consciousness by circumambulating the sacred territory of 'Kashi Kshetra'. The DPR for Panchkroshi Yatra Marg proposes measures of



Stretch of riverfront taken up for conservation as part of pilot project



Proposed development around the selected kunds in Varanasi. Source: INTACH, HDP (2009)



Elevation of Chet Singh Palace. Source: INTACH, HDP (2009)



Balaji Ghat



Tripolia Gateway at Rampur. Source: INTACH, HDP (2009)

intervention along the Panchkroshi route, especially at the five halts; Kandwa, Bhimachandi, Rameshwar, Shivpur and Kapildhara. It outlines various issues and recommends conservation and environment up gradation for each halt for the purpose of conservation and infrastructure development in a manner that maintains the significance of the cultural resources while respecting the sentiments of the local community and the pilgrims.

Restoration and development of three kunds

There are more than 60 historic kunds spread in and around Varanasi. Many of these historic kunds face the danger of extinction today. They have become cesspools with limited accessibility, limiting their function as urban social spaces. In line with the CDP, three important kunds of Pushkar Talab, Pishach Mochan Kund and Sarang Talab were selected for a pilot project to restore and enhance their cultural values. The improvement of access, visual aesthetics as well as water quality by bio remedial measures has been proposed to regain the socio-economic and cultural contribution of these kunds in the urban fabric.

Cultural centre at Chet Singh Ghat Palace

Though there is no dearth of information on the history, art and culture of Varanasi by means of publications and other media, the city lacks a formal cultural and

interpretation centre, where all of this information can be made available directly to visitors, pilgrims and local citizens. Chet Singh Ghat and Palace, a landmark historic building from mid 18th century has been proposed to be reused to meet this requirement. Multiple activities with display galleries, library, performance areas and visitor amenities are envisioned as a part of the interpretation centre. The idea of the project was to demonstrate the reuse of existing historic buildings for social and visitor benefits for its continuity and relevance to the city. The building



Jagannath Temple Complex

is under private ownership; hence, a public private approach has been undertaken for its implementation.

Conservation and restoration of heritage buildings

The last project comprises of proposals for the restoration of Tripolia Gate in Ramnagar, Jagannath Temple complex at Assi and the collapsed Balaji Ghat. The proposals focused on restoration and reuse of some of the important landmark heritage buildings of Varanasi. The main purpose of this DPR was to generate interest in conservation of heritage buildings,

develop conservation methodologies and build awareness towards heritage conservation in Varanasi.

THE WAY FORWARD

The Heritage Development Plan has been prepared to act as the basis for all future development within the historic areas of Varanasi and the main instrument for the conservation of the heritage of Varanasi. It incorporates a framework for protecting the cultural heritage of this historic city.

Bibliographic References

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| <ul style="list-style-type: none"> • Chakrabarti, Tussar 2002, <i>Dasashwamedh Urban Cultural Quarter, Benaras</i>, Urban Design Thesis, unpublished, School of Planning and Architecture, New Delhi. • Eck, Diana L 1983, <i>Banaras: City of Light</i>, Routledge and Kegan Paul Ltd., London. • Gutschow, Niels 2006, <i>Benaras: The Sacred Landscape of Varanasi</i>, Axel Menges. • INTACH 2009, <i>Heritage Development Plan for Varanasi</i>, VDA, Varanasi. • Menon, A G K 1986, <i>Ghats at Varanasi</i>, INTACH, New Delhi. • Mitchell, George & Rana, P B 2006, <i>Benaras: The City Revealed</i>, Marg Publication, Mumbai. • Singh, Rana P B 2002, <i>Banaras Region: A</i> | <ul style="list-style-type: none"> <i>spiritual and Cultural Guide</i>, Indica Books, Varanasi. • Singh, Rana P B 2002, <i>Towards the Pilgrimage Archetype: The Panchkroshi Yatra of Banaras</i>, Indica Books, Varanasi. • Singh, Rana P B 2002, <i>Varanasi as Heritage City (India) on the scale the UNESCO World Heritage List: From Contestation to Conservation</i>, Department of Geography, Banaras Hindu University, Varanasi. • Singh, Rana P B 2004, <i>Cultural Landscapes and Lifeworld, Literary images of Benaras</i>, First Impressions, New Delhi. • Singh, Rana P B 2009, <i>Banaras the Heritage City of India: Geography History and Bibliography</i>, Indica Books, Varanasi. • Singh, Rana P B, <i>Panchkroshi Yatra</i>, | <ul style="list-style-type: none"> <i>Varanasi: Sacred journey, Ecology of Place and Faithscape</i>, Tara Book Agency, Varanasi. • Varanasi Municipal Corporation (VMC) 2006, <i>City Development Plan for Varanasi</i>, VMC, Varanasi. • VDA 2001, <i>Varanasi Master Plan 2011</i>, Town and Country Planning Department, Uttar Pradesh, Lucknow. • VDA 2002, <i>The Riverfront and Old City Heritage Zone of Varanasi: Nomination Proposal for inscription in the UNESCO World Heritage list</i>, VDA, Varanasi. • Medhsananda, Swami 2002, <i>Varanasi at the Crossroads</i>, Ramakrishna Mission, Golpark. |
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Godavari Riverfront Development Nanded

DEEPAK MHAISEKAR AND SANJEEV PATIL

ABSTRACT

The historic city of Nanded was established along the banks of the River Godavari. The river front has maintained religious significance for centuries as in most Indian cities, further enhanced by the presence of the sacred site associated with the Sikh Guru Shri Gobind Singh along the North bank. The tercentenary celebration of Gur-ta-Gaddi to be held at a massive scale in 2008 and JNNURM gave a significant opportunity for urban development of the City that was under decline over the last decade. The Godavari River front development undertaken as one of the projects, has resulted in creation of a significant urban space for residents and tourists, enabling the River to regain its place in the City's form and function.

BACKGROUND

Nanded is a historic city on the banks of the River Godavari with a strong religious and socio-cultural base, dating back over four centuries. It is a significant religious centre for the Sikhs, as the tenth and last Guru Shri Gobind Singh declared the consecration of the Sikh Holy Scripture Shri

Deepak Mhaisekar is Municipal Commissioner, Waghala City Municipal Corporation (NWCMC), Nanded since July 2006. He administered the preparation of Detailed Project Report (DPR) for Godavari Riverfront Development at Nanded along with getting the project approved and executed.

Sanjeev Patil is Project Manager representing Infrastructure Leasing and Financial Services Limited. He was Programme Manager for the Godavari Riverfront Development Project of NWCMC at Nanded. Sanjeev participated in DPR preparation and tendering and execution of the project.



The Sachkhand Sri Hazur Abchal Nagar Sahib Gurudwara and the riverfront before project implementation

Guru Granth Sahib as the eternal Guru and passed away at Nanded in 1708. A *gurudwara* (Sikh temple) was constructed at the site near the Godavari River, between 1832 and 1837. The historical shrine that is one of the five thrones of the Sikhs is revered as 'Sachkhand Sri Hazur Abchal Nagar Sahib'. The Gurudwara is visited by numerous devotees throughout the year (TSSHAS 2008).

The river front has significant religious association and a number of *gurudwaras* and other religious structures are constructed on the banks of the Godavari River. Much of the religious activity happens on the North bank along a series of *ghats* (stepped embankment) and pavilions, while the South bank is essentially barren land. Tourists and devotees at the Sachkhand Sri Hazur Abchal Nagar Sahib Gurudwara, visit the Godavari River first. They also carry river water in a processional manner early in the morning for the daily ritual of *takhat snan* (bathing the shrine) at the Gurudwara.

THREATS AND OPPORTUNITIES

In the last decade, Nanded witnessed a decline in economy and quality of life with closure of industries and the textile mills, slow job growth and high cost of land and housing causing slum proliferation. The decadal stagnation has been accentuated in Nanded due to diminishing textile industry and the relative lack of infrastructure investments that failed to keep up with increasing population or to allow the necessary expansion of the urban economy into surrounding areas. These issues have been exacerbated by the lack of integrated planning fragmented governance and weak fiscal systems.

The city continues to be a regional centre with availability of adequate water, presence of an airport and proximity to international airports. These strengths could be leveraged to attract investments in the industrial sector and boost trade and commerce. The new industrial policy formulated by the Government of Maharashtra along with infrastructure development with a special package for Marathwada region is expected to give a fillip to the development of Nanded. Several tourism spots of religious and historical significance in the city are popular attraction centres. The religious and cultural potential presents Nanded with opportunities for exploiting tourism as an economic activity. With proper marketing and branding, tourism can be the major economic activity for the city.

THE GUR-TA-GADDI CELEBRATIONS AND RIVER FRONT DEVELOPMENT

In 2008, three hundred years were completed since the declaration Shri Guru Granth Sahib as the Guru and on this occasion a Tercentenary celebration of Gur-ta-Gaddi was organised. About two million pilgrims from all over the world visited Sachkhand Sri Hazur Abchal Nagar Sahib Gurudwara and Godavari River Front on this occasion. The celebration created a tremendous opportunity to develop the city infrastructure to cater to its citizens as well as pilgrims.

Parallel to the celebrations, with the launch of JNNURM in 2005, Nanded became eligible to avail assistance for planned development as one of the selected Mission cities. In view of the Gur-Ta-Gaddi celebrations and as per the requirement of JNNURM, a City Development Plan (CDP) was prepared for the city in June 2006. The CDP was developed with consideration to guidelines and framework of JNNURM and requirements of the City. Taking this CPD as a base, 11 projects were proposed under various sectors. All these projects were approved with an estimated amount of ₹ 732.87 billion.

Under 'Heritage Development and Conservation', three areas of intervention were identified in the CDP (NWC MC 2006):

- Inner City Renewal
- Religious Places Development
- Riverfront Development

As the Gur-Ta-Gaddi celebrations were to be held at the Sachkhand Sri Hazur Abchal Nagar Sahib Gurudwara located at the North Bank of the River,

a Master Plan was prepared for the entire stretch of Godavari passing through the City, extending over a length of five kilometres on each bank. The banks were divided into five sub zones and in view of requirements for the Gur-Ta-Gaddi celebration, priority was given for development of two sub zones N-3, N-2 of North Bank and S-3 zone on South Bank. At the time of preparation for the Detail Project Report (DPR), for Godavari Riverfront, various studies were undertaken:

- Detail Topographical Survey.
- Detail Geo-Technical Investigation.
- Hydrological Survey.

Based on these studies, the exact alignment and detailed structural designs were developed for the promenade and *ghats*, keeping the main object of minimum obstruction to natural water flow in the River. Due care was given for minimum silting. The average bed level of Godavari River at this site is 340 metres and the normal flood level is 354 metres. All structures were designed with both these levels as mandatory controlling levels. As the major works were in river bed or on the banks of Godavari River, all the designs were submitted to Central Designs

Organisation, Nashik for scrutiny and approval. Following the approvals the designs were executed on site. The DPR was approved by the Central Steering and Sanctioning Committee for the project cost of ₹ 0.43 billion on February 21, 2007.

The River Front Development Project included the following components:

- Construction of nine *ghats* including jetty, promenade and submerged platform.
- Developing terrace gardens.
- Building of toilets and provision for drinking water.
- Landscaping for roadside plantation, parks, terraced gardens and embankment planting.
- Hardscaping for paths, walls as seating, pergolas and shelters.
- Lighting.
- Water sports facilities infrastructure.
- Construction of bridges across *nallahs* (drains).

The Project involved the following initiatives in the three selected zones:

- *Zone N-3*: In order to maximise the use of the River flowing through the city, a weir has been constructed to retain water at a designated level throughout the



The Sachkhand Sri Hazur Abchal Nagar Sahib Gurudwara and the riverfront after project implementation



The riverfront as a recreational and religious urban space for residents and tourists

year. The river is also dredged to give it, a uniform slope of 1:4000 along the stretch. The weir is ready to hold the monsoon water to maintain a steady perennial river level that would facilitate water sports and holy bath in the River by visitors.

- **Zone N-2:** A 900 metre long promenade has been constructed along Urvanshi Ghat, Bhim Ghat and Dunkin Ghat.
- **Zone S-3:** Zone S-3 is located exactly opposite to the N-3 Zone. In this zone a 900 metre long promenade has been constructed. As this area has good natural terracing and greenery, it was decided to develop lot of greenery in this area and botanical garden. The work of civil construction is over and the work of terracing and plantation is in progress.

BENEFITS AND IMPACTS

River front development through the undertaken project has revitalised the banks of the River for use by the residents of the City and by the tourists as a recreational and religious urban space. The Godavari riverfront has become a major Tourist attraction in the Marathwada Region in Maharashtra. There is almost 100% increase in number of tourists visiting the Sachkhand Sri Hazur Abchal Nagar Sahib Gurudwara every year, fuelled by the initiation of regular direct air service from Delhi, Nagpur and Mumbai. The banks have become an attraction for pilgrims, who come to visit the Gurudwara. With added changing rooms and space provisions for worshipping and performing of rituals, the visitors are enabled to use the river front for a number of religious activities.

Bibliographic References

- NWCMC 2006, *Nanded Vision 2025*, NWCMC, Nanded.
- Takhat Sachkhand Sri Hazur Abchalnagar Sahib (TSSHAS) 2008, TSSHAS, Nanded, viewed April 2010, <<http://www.hazursahib.com/HazurSahib/History.aspx>>.

Impact of JNNURM

Laxmiguda, Hyderabad

NATRAJ KRANTHI

ABSTRACT

The Laxmiguda Weaker Section Colony is one of the urban poor settlements of Hyderabad that was taken up as a project under JNNURM. A study of the settlement was carried out to investigate the impact of project implementation on the access of the urban poor to basic services such as housing, water supply, drainage, garbage disposal, toilets, roads and street lighting. Two primary sample household surveys were conducted within a period of four years. A comparative analysis of these two surveys revealed that project implementation under the Mission was instrumental in improved access to basic services for the residents. However, it was found that a number of issues related to socio spatial preferences of the beneficiaries, service delivery, maintenance of basic services, corruption, property resale and political interference still continue to exist.

INTRODUCTION

Hyderabad, the capital city of Andhra Pradesh, is one of the mega cities identified for urban renewal under JNNURM by the Government of India. As per the official government website¹, the current population of Hyderabad city² is more than six million and extends to an area of 650

Natraj Kranthi is an Assistant Professor at the School of Planning and Architecture, Bhopal.

He is an architect, who specialises in urban and regional planning with focus on urban poverty. Natraj is currently pursuing his doctoral research in Urban Planning at Jawaharlal Nehru Architecture and Fine Arts University, Hyderabad. He has recently submitted his Doctoral Thesis titled 'Security of Tenure and its Link to Urban Basic Services in Slums' with Hyderabad as the study area.

square kilometres. In the Greater Hyderabad Municipal Corporation (GHMC) area, under the sub-mission II for Basic Services to the Urban Poor (BSUP) of JNNURM, construction of at least 21,348 houses along with the provision of infrastructure facilities for the urban poor settlements was taken up (Ministry of Urban Employment and Poverty Alleviation 2010). Laxmiguda Weaker Section Colony is one of such settlements.

Laxmiguda is about 33 years old and was notified as a slum under the Andhra Pradesh Urban Services for the Poor³ (APUSP) project. Around four kilometres away from the Rajiv Gandhi International Airport, Laxmiguda slum is located on government land, extending to an area of 60,000 square metres in the Revenue Ward Number 21 of the Rajendra Nagar Circle, South Zone, GHMC.

SURVEY METHODOLOGY

In order to investigate the impact of the JNNURM on access to basic services by the residents of Laxmiguda slum, two primary sample household surveys were taken up within a period of four years. The first sample survey was conducted in June 2006, while the second sample survey was conducted in May 2010, after the project had been implemented. Besides the household questionnaire interviews, a series of semi-structured interviews with the slum residents were also conducted that were recorded through an audio visual medium.

A sample size of around 10% of the total households was considered for both the surveys. To eliminate bias and to reduce the sampling error, probability sampling techniques such as area sampling and simple random sampling were adopted. Utmost care was taken to see that the chosen sampling techniques were truly representative of the slum. The sample was distributed across the entire slum, so as to ensure geographical coverage. From the randomly selected structures, only one household from each structure was considered through simple random sampling technique.

COMPARATIVE ANALYSIS

According to the survey, the access to *pucca*⁴ houses by the residents of the slum increased almost three and a half times during the past four years from 25% to 87.5%. An apparent improvement in the housing condition, from dilapidated and shanty dwellings to *pucca* structures, was clearly evident, with an increased number of permanent structures in the slum.

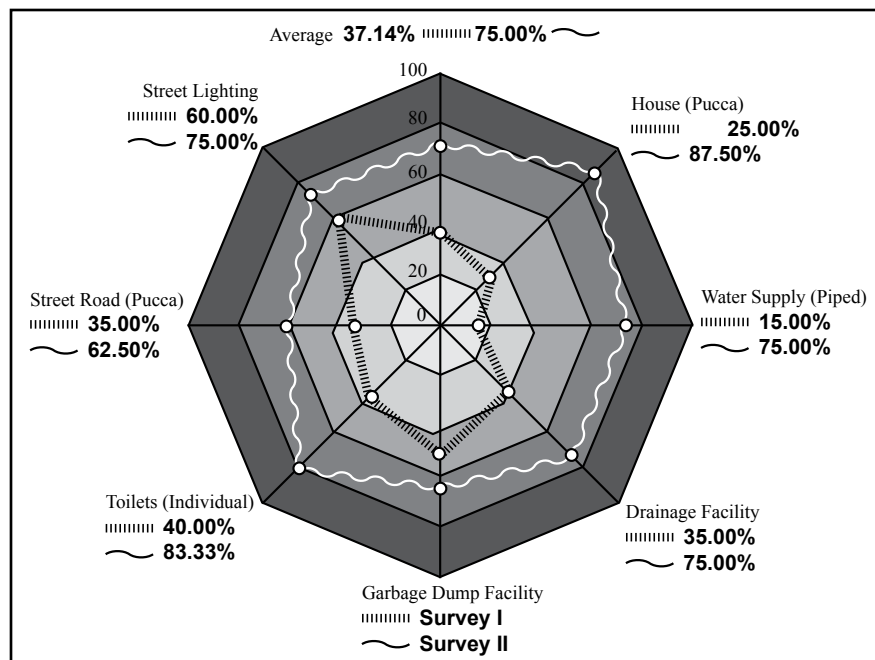
The residents now have more tenure security with no fear of eviction. However, several social concerns still need to be addressed. While there was improvement in the housing conditions, the residents still preferred to stay in independent houses rather than in the group houses as they are averse to the very idea of sharing space or services with others and often get involved in tussles with their neighbours for petty issues.



Location Map of GHMC



Location Map of Laxmiguda Slum



Comparative statement of Survey I and Survey II
In the year 2006, Laxmiguda slum had 192 households with a population of 913. The population increased to 2,843 by May 2010, with 480 households. A total of 1,088 new dwelling units (34 housing blocks with 32 units per block) of 25 square metres each were constructed under JNNURM, hence the increase in access to pucca houses from 25% to 87.5%.

There is substantial amount of improvement in access to piped water supply, from 15% to 75%. A few sample households still continue to depend on public stand posts. Residents rarely have to get water from the distant sources. However, water scarcity due to irregular frequency of water supply is an issue. The quality of water is now much safer and potable, reducing the precedence of water borne diseases.

The percentage of sample households that have access to constructed drains has increased from 35% to 75%. The metamorphosis from the ill maintained and unhygienic drainage system to the newly constructed drains is clearly evident and has improved the overall visual impression of the settlement. The improvement was not very considerable in the case of garbage dump facility. Poor maintenance by the concerned authorities remains to be a cause for concern.

The percentage of sample households that have access to either individual or attached toilets has increased from 40% to 83.33%. However, residents have expressed their dissatisfaction over the poorly built toilets. A few residents still use open land for defecation despite having attached toilets, as they found it difficult to change their life style.

A significant improvement in the access to pucca roads was noticed in the slum, the percentage increasing from 35% to 62.5%. As a number of pucca roads are currently being laid, further improvement could be

expected in the near future. Although there was a slight improvement from 60% to 75% in the access to street lighting, maintenance by the concerned authorities is a cause for concern.

As far as the overall access to basic services is concerned, the improvement was significant. The average percentage of sample households having access to basic services was almost doubled, from 37.14% to 75%. It is established through these surveys that there has been a discernible transformation in the quality of life of the slum residents over the past four years, in quantitative terms. However, the satisfaction levels about the newly built house blocks and the socio spatial preferences of the residents still appears to be a cause for concern.

MAJOR ISSUES

The major issues can be listed as:

- *Preferences of the beneficiaries overlooked:* The basic services were provided to the beneficiaries through a top-down approach, without considering their needs and socio spatial preferences. In a majority of the cases, the residents had no other option but to accept reluctantly whatever facilities were made available to them.
- *Drastic difference in built form:* A distinct contrast, particularly in the built form, between the older and the newly built housing blocks is clearly evident. Even the skyline of the settlement is uneven with



Laxmiguda Slum Map as in June 2006, before JNNURM project implementation



Laxmiguda Slum Map as in May 2010, after JNNURM project Implementation



Housing blocks constructed under JNNURM in Laxmiguda Slum

new blocks having four floors, while a majority of the older houses are not more than two floors.

- *Poor service delivery*: Discrepancies in the housing allotment and other basic services were commonly reported.
- *Corruption*: Due to widespread corruption among the concerned officials, some of the eligible and the deserving slum residents were left out from availing benefits.
- *Poor maintenance of services*: Due to the improper maintenance of services, the residents were suffering from communicable diseases.
- *Uncompromising attitude of the beneficiaries*: The slum residents were averse to the idea of sharing services with others.
- *Property resale*: A few beneficiaries used their allocated properties as an opportunity to make money through property resale in *benami* (nameless) transactions.
- *Political interference*: Due to the political interference, more than one dwelling unit was allotted to the same beneficiary in some cases.

These issues have resulted in development of infrastructure for the urban poor that may not be sustainable in the long run.

CONCLUSION

Through the Laxmiguda example, it can be seen that JNNURM has been instrumental in bringing about a positive transformation in the living conditions of the urban poor within a short period, with reaching implications on urban poverty alleviation. However, suitable precautions need to be taken for evolving an efficient and sustainable service delivery mechanism by considering the socio spatial preferences of the beneficiaries through a bottom up approach. There is also a need to streamline the allotment and monitoring procedures, curtail corruption and reduce or eliminate political interference. Further, a positive change may also be brought about in the general attitude of the urban poor to take care of problems relating to property resale and community harmony by conducting awareness programmes and making suitable amendments to the legislation.

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Bibliographic References

- Kothari, C R 2003, *Research Methodology, Methods & Techniques*, Second Edition, Wishwa Prakashan Publications, New Delhi.
- Ministry of Urban Employment and Poverty Alleviation (MoUEPA) & Ministry of Urban Development (MoUD) 2005, *Jawaharlal Nehru National Urban Renewal Mission: Overview*, Government of India, New Delhi, viewed June 2010, <<https://jnnurm.nic.in/>>.

jnnurmweb/toolkit/Overview.pdf>.

- MoUEPA & MoUD 2010, *Social Audit Toolkit for BSUP & IHSDP Schemes under JNNURM- A Handbook*, Version 1, Government of India, New Delhi., viewed June 2010, <https://jnnurmmis.nic.in/jnnurm_hupa/jnnurm/Handbook.pdf>.
- MoUEPA 2010, *Status of DPRs received under Basic Services for Urban Poor (Sub-Mission-II) from Mission Cities*, Government of India, New Delhi, viewed June 2010, <https://jnnurmmis.nic.in/jnnurm_hupa/jnnurm/DPR_BSUP-status.pdf>.

Notes

- ¹ <www.ghmc.gov.in>.
- ² Here Greater Hyderabad Municipal Corporation (GHMC) area.
- ³ APUSP was a partnership project (2000-08) between the Government of Andhra Pradesh and the United Kingdom Department for International Development aimed at achieving a sustained reduction in the vulnerability and poverty of the urban poor in Andhra Pradesh.
- ⁴ Usually in permanent/well-built/well-laid condition with good masonry work and reinforced cement concrete.

Book Review

Corporate Social Responsibility and Urban Development Lessons from the South

by Admundo Werna, Ramin Keivani and David Murphy

SUDHANSHU BHUSHAN



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'Corporate Social Responsibility and Urban Development: Lessons from the South' is an attempt to map the integration of Corporate Social Responsibility (CSR) and urban development in developing countries, identifying the gaps and presenting a holistic perspective on the subject. The intrinsically complex and therefore challenging process of conceptual mapping of the two has been handled well by the authors.

The aim is to present CSR as a major instrument to promote urban planning. To this effect, the book carves some new initiatives in business and community relationship which can be defined as the support of private enterprise to local communities via non-commercial means, an important dimension of CSR. CSR has been in vogue in the context of business planning through this century, with a number of businesses having initiated projects for community development as their social investment programmes. Yet, the initiatives reflect the lack of a unified approach and a holistic perspective.

CSR has been redefined with a very distinct focus towards urban development, addressing the inherent strengths and weaknesses. It shows that cities and towns are pivotal for development but their glaring problems are hindrances in the urban development. Poor infrastructure, urban poverty, unstructured growth and neglect of environmental concerns, are some of the

problems in urban development of cities in developing countries. These are the areas in which CSR initiatives can be driven by business and community partnership. Urban development in these countries needs an integrated and holistic approach. The authors explore means of establishing leadership, along with planning and meaningful implementation of the approach. Therefore, the objective of the book is to raise the awareness of the academics and practitioners about the value of CSR as a tool in development assistance. It would also serve as a handbook for business leaders and community planners in giving their CSR initiatives a direction and purpose.

The book can be divided in to three parts:

- Concept (Chapters 1 and 2).
- Illustration (Chapter 3, 4, 5 and 6).
- Road Map (Chapter 7).

The first part enumerates and defines CSR conceptually and gives it the context of urban development in developing countries. It also identifies gaps in CSR, as urban development has not been intrinsically integrated with it. Vice versa, the literature of urban development has been tracked 'noting gaps regarding CSR'. It lays down the framework for integrating CSR with urban development. The evolution of CSR is put in perspective through models like the one offered by John Elkington (pp. 11-12) that charts its three pressure waves:

1. Wave One: 'LIMIT' covers the period from 1960 to 1978, when western governments sought to limit environmental impacts and natural resource exploitation through legislation and regulation.
2. Wave Two: 'GREEN' was initiated in 1980s with a shift of focus from imposing limit on exploitation of environment to the production of 'green' products, thus moving towards sustainable utilisation of natural resources.
3. Wave Three: 'GLOBAL' saw concerns over global capitalism and move towards sustainable development.

The first part also gives an exposition of Carroll's CSR pyramid (p.15) where one graduates to various levels of responsibility; economic, philanthropic, legal and finally ethical. The authors discuss CSR related concepts of business community relations, corporate citizenship and corporate governance. Relational aspects of CSR and development are conceptually illustrated in context of various models. The importance of roles of small, medium and micro enterprises along with NGOs and civil society organisations is highlighted.

In chapter two on urban development, the hazards of modern cities in developing countries have been elucidated by discussing issues such as urban poverty, high living costs, new or extra needs, greater vulnerability to change in income and greater health risks. CSR has been inferred as a gap in urban development, urging that the private sector needs to play a crucial role in the area. Thus, the conceptual underpinning of the initial chapters is that CSR and urban development have to be holistically integrated.

Part two is a compilation of case studies in the context four themes in urban development, namely city wide interventions, the construction industry, utilities and social development. The themes are studied in varied socio-economic political systems of six developing countries; Brazil, Ghana, Lebanon, Nigeria, Philippines and South Africa with complementary data from other

countries. This gives a diversified perspective to the issues. The case studies are practical narratives of initiatives in this regard, along with identification of governance and implementation issues.

Part three is conclusion and lessons drawn from the case studies; from standpoint of the different elements and practices of CSR. The third part is crystallisation of CSR practices vis-à-vis urban development. Different elements of CSR are brought together and coherent perspectives given. CSR practices namely, corporate philanthropy and social investment, partnership and corporate volunteering or employee involvement in the community have been discussed at length. The final section contains recommendations and charts a future roadmap for CSR in urban development.

It is a good read for a variety of people concerned with issues of urban development, particularly practitioners and academics who have a major interest in the role of businesses in development and broader concepts of Corporate Social Responsibility.

Sudhanshu Bhushan is the Dean-Student Welfare at the Institute for International Management and Technology, Gurgaon. He has recently published, 'From Chaos to Serenity-The Divine Perspective of Management' a comprehensive narrative on synthesis of ideas from ancient heritage of Asian cultures with best practices of western management.

Building from the Bottom: Infrastructure and Poverty Alleviation

Edited by Sameer Kochhar and M Ramachandran

P S N RAO



Building from the Bottom

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Good quality and accessible infrastructure is the key to open the doors of the economy to the large underserved populations in various parts of the country and facilitating development. With the implementation of the provisions of the Constitution of India, increasingly, the responsibility for infrastructure development and maintenance will be decentralised and local governments will have to spearhead and govern the infrastructure and environmental improvement programmes and projects. For this, it is imperative that local governments acquire the capacities to plan, finance and implement service delivery.

In order to address the issues at hand, the Government of India launched the JNNURM five years ago and as the

term of the Mission nears completion in a few years from now, the time has come to take a close and hard look at the basic foundations on which the Mission was laid and the extent to which it has succeeded. At this crucial juncture in the history of Indian urbanisation and urban project implementation, this book comes in quite timely.

The book is a collection of papers by fourteen authors, presented in four sections covering policy, infrastructure, governance and service delivery and poverty alleviation.

Nandan Nilekani sets the tone with his paper on *The Power of Identity* and talks of identity as a door that can open other doors for greater accessibility to services and in the long term enable to implement the long held vision of development with a human face. M Ramachandran, having been in the driver's seat for long, describes the provisions of JNNURM, the flagship programme of the Government of India for improving the future of our cities. He calls for a new urban governance to be developed where cities can actively guide urban development and provision of infrastructure and services. On the other hand, Indiresan talks about urbanising the large number of our villages by providing urban services in the rural areas. He strongly opines that it is human development and not mere economic growth that should be the aim of public policy. Vijay Kelkar completes the policy segment of the book with his arguments on disinvestment and privatisation and calls for a bold and imaginative programme in this context for restructuring the country's public assets.

The second segment of the book on infrastructure opens with a paper from Hari Sankar focusing on public private partnerships as a vehicle for driving infrastructural development. Chetan and Hitesh continue the discussion on infrastructure, shifting the focus towards financing, particularly related to market based instruments. K K Pandey completes this segment with a discussion on fiscal decentralisation and financial sustainability for urban infrastructure. He talks of various municipal actions to stimulate own sources of revenue and also outlines ways of fiscal monitoring and control.

The third segment on governance and service delivery opens with the success stories of e-governance in Kalyan Dombivili Municipal Corporation as well as the Municipal Corporation of Greater Mumbai. Analysing the two experiences, Sameer Kochhar and

Gursharan Dhanjal conclude that the ability to obtain government services through non-traditional electronic means, enabling access to government information and completion of government transactions on an anywhere-anytime basis and in conformance with equal access requirement offers potential to reshape the public sector. This can result in building and strengthening relationships between citizens and the government. They also explore the e-Gram Project, in a succeeding paper and demonstrate that e-governance can be achieved not only in the urban areas but also in rural areas.

The last segment on poverty alleviation begins with a paper by N C Saxena who takes us through various programmes of the Government of India for poverty alleviation. He concludes that the poor contribute to the globalising economy of the cities as much as the non-poor and therefore, they cannot be deprived of their due share in civic amenities. Nitin Desai gives an exhaustive and analytical picture about Indian demographics and concludes that the demographic dividend is supply side potential in that working people can be as asset for growth and development. He states that the challenge of development is acute in the five northern states where the bulk of the demographic dividend can be realised over the next few decades. He also cautions that the demographic dividend may well become a demographic trap, if timely development initiatives are not taken. The manner in which the development is going to take place is discussed by Bibek Debroy in his paper where he explains the JNNURM programme of the Government of India. Finally, Naveen Surya completes the discussion with his paper on financial inclusion for the urban poor; he argues that financial inclusion is a vital medium for reaching growth and equitable development to urban India.

At the end of the book, several case studies of initiatives and success stories have been added, giving a closer and actual insight into the working of the infrastructure sector.

However, one must add that the discussion on disinvestment and privatisation in the book does not relate adequately to human settlements and urban development. Further, key areas of infrastructure such as health, education, social amenities and housing have been ignored. Papers on these vital aspects of infrastructure leave a gap in the discussion, particularly when the book is titled as 'building from the bottom'.

Nevertheless, despite these shortcomings, the book is very readable and the papers are well connected to one another in order to make for a stream of continuous thought. The book certainly makes for an addition to the existing literature on urban development, while partially adding to the current body of knowledge in this space.

P S N Rao is an architect, engineer, planner and urban sector specialist. He has over two decades experience in urban management, infrastructure, governance and related issues, is currently working as the Professor and Head, Department of Housing, School of Planning and Architecture, New Delhi.

Events and Conferences

■ 2ND INTERNATIONAL CONFERENCE ON CLIMATE CHANGE AND SUSTAINABLE MANAGEMENT OF NATURAL RESOURCES, TECHNOLOGY INNOVATION AND MANAGEMENT FOR SUSTAINABLE DEVELOPMENT 10 (TIMS 10)

Date: December 5-7, 2010

Location: Gwalior, Madhya Pradesh, India
This Conference will examine evidences and causes of climate change (natural and anthropogenic), impact of climate change on humans and ecosystems and mitigation of climate change through technological, social, ethical and political responses.

Organised by: Institute of Allied Sciences and Computer Applications, ITM Universe, Gwalior

Contact: Kuldeep Dwivedi

Web-link: <http://www.itmuniverse.in/iasaca/TIMS.htm>

■ 2ND EDITION OF GLASS PERFORMANCE DAYS

Date: January 11-12, 2011

Location: Bombay Exhibition Centre, Goregaon (East), Mumbai, India

The main topics of the conference in Mumbai will be adjusted to the needs and new challenges of the Indian market, covering the latest trends in the usage of glass in architecture and how to improve the profitability of flat glass companies. Special attention is dedicated to energy-efficiency issues in solar and glass technology. The special focus of the 2nd GPD India will be on architecture, flat glass and solar technology

Organised by: Glass Performance Days, Finland

Contact: Jorma Vitkala, Chairman, Glass Performance Days, Finland

E-mail: jorma.vitkala@glassfiles.com

Web-link: <http://www.gpd.fi>

■ STONE MART 2011

Date: January 20 - 23, 2011

Location: Export Promotion Industrial Park, Jaipur, Rajasthan, India
India Stonemart 2011 is the largest exposition on stone industry which

showcases the world of natural stones and ancillary products and services most comprehensively, conveniently and competently. It is an all encompassing expositional umbrella which brings together everyone, across the seven seas, connected with stone industry together under its ambit.

Organised by: Centre for Development of Stones (CDOS), Jaipur, Rajasthan and Federation of Indian Chambers of Commerce and Industry (FICCI), New Delhi. Rajasthan State Industrial Development Investment Corporation Ltd. is the Principal Sponsor.
Web-link: <http://www.stonemart-india.com/>

■ SIETAR INDIA CONFERENCE 2011: INTERCULTURAL SOLUTIONS FOR A SUSTAINABLE WORLD"

Date: January 22-23, 2011

Location: Taj Connemara, Chennai, India

The purpose of the SIETAR-India conference is to provide a forum for the exchange of ideas, techniques, strategies, theories, tools and creative expression useful to fostering effective intercultural relations and thus to develop ourselves as intercultural practitioners from the intercultural field. Professionals from any discipline that deals with intercultural issues and fields in which intercultural work is exercised and applied are encouraged to attend.

Organised by: The Society for Intercultural Education Training and Research (SIETAR)

Web-link: <http://events.linkedin.com/SIETAR-India-conference-2011/pub/399799>

■ BUILDING BRIDGES: NEGOTIATING CULTURAL MEMORIES IN CANADA AND INDIA

Date: February 16-18, 2011

Location: Kolkata, West Bengal, India

The objective of the conference is to focus on the construction, evolution, evaluation and representation of issues pertaining to various cultural memories

with its various ramifications in Canada and India.

Organised by: Centre for Canadian Studies, Department of Comparative Literature, Jadavpur University
Contact: D Dattaray, S Bhattacharya, D Bhattacharyya

Web-link: <http://www.sici.org/news/article/call-for-papers-jadavpur-university-kolkata-india/>

■ CONSERVATION OF ARCHITECTURE, URBAN AREAS, NATURE & LANDSCAPE: TOWARDS A SUSTAINABLE SURVIVAL OF CULTURAL LANDSCAPE, CSAAR 2011

Date: March 14-16, 2011

Location: Amman, Jordan

The conference aims to bridge the fields of architectural and environmental conservation. It aspires to bring together scholars from multiple disciplines and focus on conservation ethics as an essential component of environmental design within existing urban settings.

Organised by: The Center for the Study of Architecture in the Arab Region, Jordan

Al-Turath Foundation, Saudi Arabia. In collaboration with Queen Rania Institute of Tourism and Heritage, Hashemite University, Jordan.

Contact: Sami Kamal

Web-link: <http://www.csaar-center.org/conference/2011/>

■ INTERNATIONAL CONFERENCE ON CREATIVE INDUSTRIES, PACIA 2011 (PERFORMING ARTS AS CREATIVE INDUSTRIES IN ASIA)

Date: March 23-24, 2011

Location: Penang, Malaysia

The main focus of the conference is to examine the changing roles and status of Performing and Creative Arts, its importance and also its relevance to the globalised society.

Organised by: The School of the Arts, Universiti Sains, Malaysia

Contact: A S Hardy

Web-link: <http://www.usm.my/art/pacia/>

List of Acronyms

A

ACA-Additional Central Assistance
 ADB - Asian Development Bank
 ASCI - Administrative Staff College of India
 AIILSG - All India Institute of Local Self Government
 APUSP - Andhra Pradesh Urban Services for the Poor
 ASI - Archaeological Survey of India

B

BBMP- Bruhat Bangalore Mahanagar Palike
 BHC - British High Commission
 BRTS-Bus Rapid Transit System
 BSUP- Basic Services to Urban Poor

C

CA-Cities Alliance
 CAP- Crosscutting Agra Program
 CBO-Community Based Organisation
 CDIA - Cities Development Initiative for Asia
 CDN - Community Development Network
 CDOS - Centre for Development of Stones
 CDP-City Development Plan
 CEPT-Centre for Environmental Planning and Technology
 CFL-Compact Fluorescent Lighting
 CHDP-Comprehensive Heritage Development Plan
 CHF-Cooperative Housing Foundation
 CII- Confederation of Indian Industry
 CIP - Capital Investment Plan
 CIVIC -Citizens' Voluntary Initiative for the City
 CMA- Chennai Metropolitan Area
 CMC- Coimbatore Municipal Corporation
 CMDA-Chennai Metropolitan Development Authority
 CMP-Comprehensive Mobility Plan
 CMPO - Calcutta Metropolitan Planning Organisation
 CPWD - Central Public Works Department
 CRISIL - Credit Rating Information Services of India Limited
 CSO-Civil Society Organisation
 CSR - Corporate Social Responsibility
 CURE-Centre for Urban and Regional Excellence
 CWG- Common Wealth Games

D

DDA - Delhi Development Authority
 DEWAT-Decentralised Waste Water Treatment System

DPR - Detailed Project Report
 DTT - Deloitte Touche Tohmatsu

E

EE-Energy Efficiency
 EMRTS- Elevated Mass Rapid Transit System
 EWS-Economically Weaker Section

F

FAR - Floor Area Ratio
 FEED - Forum for Exchange and Excellence in Design
 FFA-Framework For Action
 FICCI - Federation of Indian Chambers of Commerce and Industry
 FSI-Floor Space Index

G

GEF - Global Environment Facility
 GHMC - Greater Hyderabad Municipal Corporation
 GIS- Geographic Information System
 GNCTD-Government of National Capital Territory of Delhi
 GoI-Government of India
 GoK-Government of Karnataka
 GoTN-Government of Tamil Nadu
 GRIHA-Green Rating for Integrated Habitat Assessment
 GTZ- Gesellschaft für Technische Zusammenarbeit
 GUCD - Gujarat Urban Development Corporation

H

HABITAT - United Nations Centre for Human Settlements
 HDP-Heritage Development Plan
 HMP-Heritage Management Plan
 HRMP- Heritage Resource Management Plan
 HUDCO - Housing and Urban Development Corporation Limited

I

ICLEI-SA -International Council for Local Environmental Initiatives-South Asia
 ICMA- International City/County Management Association

ID - Infrastructure Development
 IEC-Information, Education and Communication
 IFC - International Finance Corporation
 IHCN- Indian Heritage Cities Network
 IHSDP-Integrated Housing and Slum Development Programme
 IIT - Indian Institute of Technology
 IMaCS - ICRA Management Consulting Services Limited
 INTACH-Indian National Trust for Art and Cultural Heritage
 IT - Information Technology
 ITS-Intelligent Transport System

J

JNNURM - Jawaharlal Nehru National Urban Renewal Mission

K

KfW - Kreditanstalt für Wiederaufbau
 KMA- Kolkata Metropolitan Area
 KMC- Kolkata Municipal Corporation
 KMDA- Kolkata Metropolitan Development Authority
 KM- Knowledge Manager
 KSCB-Karnataka Slum Clearance Board
 KUIDFC-Karnataka Urban Infrastructure Development and Finance Corporation

L

LED-Light Emitting Diode
 LG -Local Government
 LIG- Low Income Group

M

MDG- Millennium Development Goals
 MJ - Mega Joules
 MMM - Mumbai Mahila Milan
 MNRE - Ministry of New and Renewable Energy
 MoHUPA - Ministry of Housing and Urban Poverty Alleviation
 MoUD-Ministry of Urban Development
 MoUEPA - Ministry of Urban Employment and Poverty Alleviation
 MPC-Metropolitan Planning Committee
 MRC -Municipal Reforms Cell
 MRTS-Mass Rapid Transit System
 MTC-Metropolitan Transport Corporation
 MTSU - Mumbai Transformation Support Unit

N

NCR-National Capital Region
 NDMC-New Delhi Municipal Council
 NGO-Non Government Organisation
 NIPFP - National Institute of Public Finance and Policy
 NIUA- National Institute of Urban Affairs
 NMT - Non Motorised Transport
 NUDBI -National Urban Databank and Indicators
 NUIS-National Urban Information System
 NUTP-National Urban Transport Policy
 NWCMC- Nanded Waghala City Municipal Corporation

O

O&M - Operations and Maintenance

P

PAP- Project Affected Person
 PAR - Plinth Area Ratio
 PEARL-Peer Experience and Relative Learning
 PIU- Project Implementation Units
 PMC- Pune Municipal Corporation
 PMU- Programme Management Units
 POA - Plan of Action
 PPIAF Public Private Infrastructure Advisory Facility Deutsche
 PPP-Public Private Partnership
 PRIA - Society for Participatory Research in Asia
 PROOF-Public Record of Operations and Finance
 PSP-Public Stand Post
 PWD - Public Works Department

Q

QOL- Quality of Life

R

RAY- Rajiv Awas Yojana
 RCUES - Regional Centre for Urban and Environmental Studies
 RE- Renewable Energy
 REEERC-Renewable Energy and Energy Efficiency Resource Centre
 RMC-Rajkot Municipal Corporation
 RTP-Rapid Training Programme
 RWA - Residents' Welfare Association

S

SHG - Self Help Group
 SIETAR - Society for Intercultural Education
 Training and Research
 SLB- Service Level Benchmark
 SLNA - State Level Nodal Agency
 SMC-Surat Municipal Corporation
 SOL - Standard of Life
 SPA - School of Planning and Architecture
 SPARC-Society for the Promotion of Area Resource
 Centres
 SPV- Special Purpose Vehicle
 SRA-Slum Rehabilitation Authority
 SUSTAIN - Citizen's Alliance for Sustainable Living

T

TAG-Technical Advisory Group
 TDR- Transfer of Development Rights
 TERI-The Energy and Resources Institute
 TNUDF-Tamil Nadu Urban Development Fund
 TNUIFSL-Tamil Nadu Urban Infrastructure
 Financial Services Limited
 TPIMA-Third Party Inspection and Monitoring
 Agency
 TSSHAS - Takhat Sachkhand Sri Hazur Abchnagar
 Sahib
 TUFIDCO-Tamil Nadu Urban Finance and
 Infrastructure Development Corporation

U

UAA-Uttarakhand Academy of Administration
 UIDSSMT -The Urban Infrastructure Development
 Scheme for Small and Medium Towns
 UIG-Urban Infrastructure and Governance
 ULB- Urban Local Body
 UMTA-Unified Metropolitan Transport Authority
 UN - United Nations
 UNESCO-United Nations Educational, Scientific
 and Cultural Organisation
 USAID - United States Agency for International
 Development
 UT - Union Territory

V

VDA –Varanasi Development Authority
 VMC - Varanasi Municipal Corporation
 VOSA-Village Operation and Support Area



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www.dronah.org



Dronah is an interdisciplinary organisation constituted by highly motivated professionals from various fields who share a vision for a better quality of life – one that is sustainable, environmentally sensitive and draws on the contemporary without foregoing the strengths of the traditional. It is our aim to actively promote sustainable development through conservation, utilisation of traditional practices and modern technologies, knowledge sharing and mutual interaction. The organisation is focussed on conservation and development of the built heritage, environment; and art and crafts with the involvement of local community, in addition to being engaged in documentation and educational activities.

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