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SHELTER

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Theme

VOICES FROM SLUMS

HUDCO Welcomes its new CMD Dr. M. Ravi Kanth, IAS (r)

Dr. Medithi Ravi Kanth, IAS (r) has taken over as Chairman & Managing Director (CMD) of Housing and Urban Development Corporation Limited (HUDCO) on 11th April, 2014.

Prior to joining HUDCO, he was CMD of Projects & Development India Limited (PDIL) on 'absorption basis', and as an IAS officer of 1986 batch in Kerala cadre, Dr. M Ravi Kanth was Principal Secretary to Government of Kerala and Joint Secretary, Ministry of Power, Government of India, New Delhi.

Dr. M. Ravi Kanth is M.A. (Economics) and Ph.D. (Agri-Exports) from Andhra University, L.L.B. from Delhi University and MBA (Finance) from Melbourne, Australia.

Dr. M. Ravi Kanth has served in various positions in Government of India viz. Dy. Chief Executive, Nuclear Fuel Complex, Dept. of Atomic Energy, Hyderabad; Private Secretary to MOS in Finance & Company Affairs, MOS (i/c) Labour & Urban Development; Director, APEDA in Ministry of Commerce & Industry; Chairman & Managing Director, National Handicapped Finance & Development Corporation in Ministry of Social Justice and Empowerment.

Dr. M. Ravi Kanth has also held several positions in the State Government of Kerala and Government of Delhi. These include District Collector & District Magistrate of Kannur (Cannanore); Managing Director of Cashew Export Development Corporation, Kollam (Quilon); General Manager, KSCSC and Director of Food & Supplies Department; Sub Collector & Sub Divisional Magistrate, Tellicherry in Kerala and as Secretary, Delhi Minorities Commission, Controller of Weights & Measures (Legal Metrology) and Food & Supplies in Government of Delhi.

Dr. M. Ravi Kanth has travelled widely in India and abroad, and brings with him unique vision and commitments of his own. Summoned up they are as follows : 1. Help the poor and the downtrodden, by preventing wastage of resources. 2. Promote and practise Health, Happiness, Honesty, Harmony and Humanity. 3. Uplift the Underprivileged, by advocating for Social Justice and Serenity. 4. Reduce inequalities and obstacles for Growth and Development of the Nation. 5. Inculcate egalitarianism, vegetarianism, cleanliness and commonsense. 6. Strengthen human relations, family bonds and child, women & old-age care. 7. Bridge the gaps between the Rural and Urban infrastructure & distribution. 8. Provide qualitative inputs to children for quality output and bright India. 9. 'Live Light and Give Light' by being close to the nature and down to earth.

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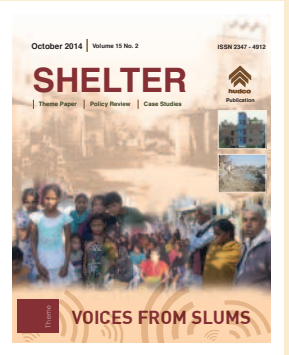

Theme

VOICES FROM SLUMS

According to the UN-Habitat, slums are groups of people living in urban areas that lack one or more of these amenities- durable housing, sufficient living space, access to safe water, access to adequate sanitation and security of tenure that prevents forced evictions. However, it is important to highlight that not all slum dwellers suffer from the same degree of deprivation. While slums are treated as black spots on the city canvas, it is the place which provides shelter to many low cost service providers, be it maids, *kabadiwala*, motor repair mechanics, construction workers etc. Cities cannot live without their services and it is for this reason that each city has pockets of slums at locations close to the economically active areas. Greater the economic activity in a city, more are the slum pockets. It is therefore, important that cities device mechanisms to integrate slums with the urban scape and provide inclusive housing and social services; a safe and healthy living environment for all — with particular consideration for children, youth, women, elderly and disabled; affordable and sustainable transport and energy; promotion, protection, and restoration of green urban spaces; safe and clean drinking water and sanitation; healthy air quality; job creation; improved urban planning and slum upgrading; and better waste management. It is a tall order and needs to be undertaken along with the participation of the community for far reaching results.

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FROM THE CHIEF EDITOR

World Habitat Day was established in 1985 by the United Nations General Assembly through Resolution 40/202 to take stock of the state of our towns and cities, in the context of adequate shelter for all. Each year, World Habitat Day is marked on the first Monday of October. The theme of World Habitat Day 2014 -'Voices from Slums'- has been earmarked to recognize the abysmal condition of life in slums, and give voice to slum dwellers for improving quality of living conditions in existing slums.

Slums are inevitable in fast urbanising countries, like India. But, proliferation of slums manifest the shortcomings in our planning process, being fully aware that people are going to migrate to cities in search of better employment, better infrastructure, better health facilities and better education opportunities. Slums do not come by choice but often due to the lack of it.

Slum up gradation has to be looked at from the perspective of social integration, livelihood requirements, equity, integration with existing city, etc. The groups being heterogeneous in terms of caste, ethnicity, religion, family size, employment activities etc. require much more understanding than a conventional housing project.

The slum housing projects are often unpopular because beneficiaries are moved to new resettlement locations. Therefore, relocation should be considered only after exhausting all options. All slum rehabilitation projects need a robust participatory approach for success. In these projects, the community should become decision makers for their upliftment, but in an organised and professional manner. The role of government has to be that of a facilitator- giving structurally safe housing typologies, adhering to planning norms and establishing linkages with the city infrastructure services. There is a need to develop processes and tools to protect the social, economic and cultural fabric of the people who have been living in slums. The policy makers and professionals in urban arena should be accosted with real stories, on slum upgrading programmes highlighting that these initiatives can achieve better life conditions for slum dwellers, and greater economic and social impacts for a city as a whole.

This issue of Shelter combines the spirit of voices from slums in the four theme papers.The paper by Sheela Patel acknowledges the alliance of community and professionals to produce strategies that address their own problems as well as those of the city. The paper by Ila Bose (et al.) emphasises community participation as a powerful organizing ideal that advances the communitarian agenda. Prof. Geeta Mehta poses eight questions to all the stakeholders in affordable housing in India, in the context to overcome huge housing shortage in the country. Mukta Naik (et al.), argues for a favourable policy environment for incremental housing that ensures adequate quality of affordable homes by leveraging the existing investments on the ground in low-income settlements.

In the context of the proposed mission on "housing for all by 2022", Dr. M Ravi Kanth, CMD, HUDCO, has shared his opinion on Affordable Housing and discussed the initiatives of HUDCO, in this context. Arjun Kumar has outlined the estimated urban housing shortage by caste and ethnic group which focussed on the need for group specific policies (economic and social), to eradicate shelter deprivation and enhancement of the quality of life in urban India.

The North East has been a new entrant to the country's urban club. In this context, Dr. Binayak Choudhury highlights the issues and requirements of growing demand of urban services across the urban north east. Ankit Kathuria (et al.), discuss the imperatives to frame a transport policy that fulfils mass mobility needs, keeping in mind the large share of riders who are urban poor. The Chandigarh case study by Manoj Teotia and the Delhi case by Rajiv Sharma examine the process of community empowerment in improving the living conditions of relocated slum families.

The paper of Ian Mell (et al.) examines Smart City discourse in theory and in praxis, debating its value in an Indian context, and explores whether the rhetoric of more innovative investment in smarter ICT, environmental resource management, e-governance and social mobility can be applied in India.

We hope you enjoy reading these articles.

VOICES FROM SLUMS

To Speak and be Heard!

SHEELA PATEL

It is the passivity that produces the passive yet aggressive actions where people just walk away from state provided benefits of housing or livelihood or other services since they never wanted them in that particular form in the first place. Not repaying loans is another form of rejection of the solution that comes without community engagement.

Ms. Sheela Patel (sparcsnss@gmail.com) is the chair of the Shack/ Slum Dwellers International (SDI) board, as well as the founder and Director of the Society for the Promotion of Area Resource Centers (SPARC), NGO support to the National Slum Dwellers Federation and Mahila Milan in India.

This article seeks to reflect on the voices of the poor from the perspective of the organised and federated communities of slum dwellers associated with the alliance of the Society for the Promotion of Area Resource Centers (SPARC), Mahila Milan (MM) and National Slum Dwellers Federation (NSDF). This paper will help the readers to understand and get familiar with this alliance of professionals and slum dwellers, their processes and mechanisms of knowledge creation, problem solving and negotiation on the issues of land security, access to basic amenities and services, and their demonstrated abilities to produce strategies that address their own problems as well as those of the city.

Within this framework, the concept of "voices of slum dwellers" as a term can be seen to have a passive or active connotation depending on how it is interpreted. Many researchers and scholars nationally and internationally have sought to document "what people say" and bring these issues to the notice of policy makers and political leaders.

The article indicates that the leadership of this movement has systematised tools that facilitate people to develop skills, collate data and information about themselves and make representations not only of their challenges but also their strategy for change, in which they seek an active driving role. The article concludes with a message that to make slum development programmes effective, there is a need to build the capacity and confidence of senior leaders of cities and government officers to listen, negotiate and produce joint ventures with articulated and empowered communities of slum dwellers. There joint ventures would co-produce solution at a scale, needed to address the challenge of slums in a city.

INTRODUCTION

Slums in cities, the face of informality of habitat and livelihoods, have lived in the shadow of the formal and legal city for centuries. Individuals seeking cash incomes, or households expelled by disasters from rural areas and a wide spectrum of events in their environment, produce the push to compel individuals and households to migrate to cities. Their logical integration into the formal city fabric, through planned locations for the migrants to stay and work, remains an ongoing challenge and their lives remain cast in illegality and perpetual insecurity.

India remains one of the few countries in the world where urbanisation even in the 21st century is still below 35 per cent although many parts of India, especially the developed and industrialised southern states are more urbanised. Yet despite the volume of people living informally and working in informal jobs, city development plans and budgetary investments do not produce scale or volume of intervention to address their needs of secure tenure and basic amenities. Even today 50 per cent of those who defecate in the open are in India's villages and cities. The question is, why is that so?

The national urban investment program of JNNURM (2005-2012 extended to 2014), has done little to address the challenges of habitat for the urban poor. Hardly 2-4 per cent of households in the cities, where this investment were made, benefitted from the subsidies and the question to be asked is: why so? Is it that the poor are doing nothing about the situation themselves? Is the city and its leadership unaware of the overarching impact of poor living conditions on the present and future workforce of the city? Are state governments in charge of all urban local bodies and urban development activities incapable of developing a governance and developmental response to these challenges? Can a national government at the centre afford to allow this status quo to continue? Is it a matter that no one cares, including the poor, or is something really wrong in the manner in which this entire issue of informality is being addressed?

This reflection is written from the perspective of a movement of slum dwellers called the National Slum Dwellers Federation (NSDF) and SPARC Mahila Milan (SPARC MM), its sister organisation, that have worked since 1986 with the Society for the Promotion of Area Resource Centres (SPARC), an NGO based in Mumbai. Today operating in 70 cities and towns in 9 states, the alliance of SPARC MM and NSDF seeks to build an organised voice and community engagements that get federated at city level, state level and national level. NSDF organises federated communities of the urban poor and Mahila Milan empowers the collectives of women by building their skills and capacity to manage local settlement challenges and develop collective leadership.

Since 1996, Asian, African and Latin American slum dwellers have adopted the federation model developed by NSDF and MM, in which the entire slum neighbourhood get organised and network with each other, to build skills and capacity to represent themselves to the city state. Thus, Shack/ Slum Dwellers International (SDI) becomes their voice in the global discourse on urbanisation and the urban poor. Today SDI assists local federated communities and their national organisations to make representations to their governments and cities to produce really inclusive cities where the poor benefit among others. If the challenges don't get resolved locally, SDI makes representation globally to explore changing paradigms of global development investments and intrude them on local engagements.

SDI is aware that its capacity and ability to make impact locally and globally is dependent on the production of voice at all levels- local to global. That voice, which is the ability to articulate what the poor have to face when dealing with exclusion and how it impacts their lives and that of their neighbourhoods, does not occur by itself. After all, for centuries, the poor who come to cities to improve their lot have been maligned, have been deemed criminal and faced many hardships due to the conventional exclusion and persistent evictions of their habitat that get demolished each time the city needs the land they have encroached. The inability of the marginalised poor to make demands, for decades, has made them believe they have no rights other than what their patrons provide for survival, under their patronage.

BACKGROUND OF NSDF

NSDF was founded in 1975 by slum dwellers who were defending their slums against evictions. Initially started in Bombay, this organisation, although unregistered, networked slum dwellers from 12 -16 cities and built a solidarity seeking recognition of the rights of slum dwellers in the city[1]. In 1984, SPARC was set up by professionals seeking to develop partnerships with slum dwellers[2] and at that time it worked with women's collectives from pavement slums forming a women's organisation called Mahila Milan. Together, the three organisations formed an alliance which will be almost three decades old this year. It represented some significant and vital elements to develop a critical mass of slum dwellers agreeable to stay organised over long periods of time, to demonstrate their capability to contribute to the city and in return seek identity and voice in city matters.

Savings and credit managed by women

The most vital aspect of this organisational alliance was to build knowledge and skills that the urban poor could develop and utilise to build capacity amongst slum dwellers and ensure the production of insights and possibilities to explore development that works for the poor and the city. Having supported women's collectives in the slums where NSDF was federating slum dwellers, the process sought to highlight the role and contribution of women in the survival strategies of slum dwellers seeking to ensure households and neighbourhoods got access to water, were protected against evictions and to plan safe neighbourhoods for children, home based economic activities and to manage homes. Women managed home finances but had no control over them. By initiating savings and creating capacity to provide loans, a simple financial became the basis for creating accountability and governance structures in the slums, with both men and women getting loans but women managing them. Once their internal savings and loan management systems started working well, they led to external loans coming to the community through SPARC, leading to income generation and housing loans with women managing all these processes.

Enumeration of slum dwellers

Somehow city and state governments never have up to date information about slums. Surveys of slums often produce inaccurate data, wrongly spelt or completely wrong names, and the residents association never get access to the data that is collected. Slum profiles and household surveys form a powerful enumeration tool that demonstrates the capacity of resident's association and NSDF to collect accurate data that residents can check and verify at any point of time. SPARC took on the role of managing the digitalisation of data in such a way that the data can be aggregated or disaggregated for usage by different organisations and for different purposes.

Precedent setting and strategic solutions

Based on residents' networks, priorities and available data, a wide range of priorities were set. Land tenure, basic amenities, sanitation, housing, relocation due to infrastructure projects, safety and many other priorities were set by the networks, and the process of reflection amongst the leadership was to take on the challenge of not only identifying the problem but finding a solution for it. It emerged from reflections that often the problem may be rightly identified by a top down approach, but the solution often did not work for the poor. So, while there was recognition that the resources and skills for the solution would not all be necessarily available with slum dwellers, they should always be consulted in the process of finding a solution. Further, often the strategy that worked for the poor within the constraints of what was feasible was often not within the norms of the regulatory framework. The alliance designed real time output- a house, a sanitation facility, to illustrate to the technical, administrative and political leaders, representing city and government, what poor need and how it could be produced. This precedent often got approval due to the apparent common sense and logic demonstrated in practical terms rather than a contestation of policy. In many instances the residents of a settlement got permission to explore that option, often financed by the city and over time it replaced the non-functional policy it contested. Communities of the poor designed, executed and managed these projects, building skills and capacity and livelihoods as they went along this exploration.

Horizontal or Peer exchanges for solidarity and learning

Once a particular strategy worked in one area, it was shared with slum dwellers from other slums in the city, with slum dwellers from other Indian cities, and now with slum dwellers from other countries. The horizontal peer exchanges are based on the belief that most effective learning is by seeing and doing and best learnt from peers. Both teaching and learning are powerful processes that will improve the quality of life that transform the self-image of people who never considered that they could make

Picture 1 : **A toilet block in Pune built by the Mahila Milan**

contributions to change, or to teach someone anything.

Negotiations for engagement

In India, the Constitution is committed to the state taking responsibility for citizens who are vulnerable, but cities practice the opposite in most instances. City planning norms make those residing in slums as illegal. While cities have historically not allocated spaces for informal and low income settlements and people who perform critical functions in making cities run, instead of the cities supporting and assisting the poor, cities have by and large been hostile to the informal city dwellers and their relationship with the city has been through evictions and denial of basic services. While the constitution gives equal right of vote to the poor, most elected representatives have done very little to change statutes in the city that deny the poor access to secure tenure, and only recently are issues of water, sanitation, and electricity begun to be provided despite legal tenure. This has led to the city and slum dwellers locked in a war of attrition and their relationships with their elected representatives almost feudal. Rather than demanding their attention, elected representatives by and large contribute very little to overall development of informal settlements. Yet, despite these negative backdrops, organised communities of the urban poor seek to engage the state with data, with clear documentation of deficits in basic needs and more importantly with solutions they have begun to develop inviting the city leadership to explore these solutions and engage in working together to make change happen.

In the last three decades, NSDF and Mahila Milan have found that not all city and state political and administrative set-up agree to engage the community. Yet often breakthroughs emerge where the administrative or political leader sees value in exploring the possibility presented by the slum dwellers, and explore engaging them to produce projects that serve the city and the needs of the poor. Over the years there are many such examples.

- In 2000 the Government of Maharashtra working to improve the public transport in the city of Mumbai[3], initiated the MUTP (Mumbai Urban Transport Project) in collaboration with Indian Railways and sought a loan from the World Bank. The challenge of relocating 18,000 households from the railway tracks was only possible due to the design and execution of relocation projects undertaken by the railway slum dwellers federation through a contract given to SPARC to undertake their relocation
- In 1998, the commissioner of Pune city invited SPARC, NSDF and Mahila Milan to design and undertake the construction of community toilet blocks in Pune with capital provided by the municipality, based on a

demonstration project showing how this community toilet block could be managed by communities. Mumbai Municipal Corporation subsequently developed a similar project and continues to construct community toilet blocks in the slums since 2000. Many other cities are exploring this possibility.

- In 2009, slum federations affiliated to NSDF and Mahila Milan in Pune, Nanded, Bhubheshwar and Puri were invited by their city to take up BSUP[4] projects under JNNURM that represent a few community driven and designed slum upgrading efforts in city projects.
- In Pune and Mumbai, police commissioners worked with Mahila Milan, and set up Police Panchayats where 7 women and 3 men from slum community and a policeman from the local police station were invited. Local community members presented their problems, ranging from theft to under-age runaway marriages to kidnapping to domestic violence, and other such problems which were dealt with in most parts in community discussions. If the two parties were not satisfied with the solutions suggested by the panchayat, they were assisted to go to the police station, register an FIR and the panchayat ensured the problem was dealt with humanely, so that the slum dwellers need not fear the police and the law.

These and many such projects have emerged from various explorations. While they emerge from dialogue and negotiations with an official or politicians, once it begins, through horizontal exchanges, they inspire other slum dwellers to explore such possibilities. Seeing how some other politicians or administrators have accepted the strategy, encourages others to explore it as well. Once the city or state government undertakes to participate, the scale of the projects grow exponentially, and attract the attention of the national government whose possibility to formulate policies that other states can take up lead to great scale and many more communities benefiting from the program.

Picture 2 : **A house under construction in Bhubaneswar.**

THE VALUE OF VOICE VERSUS THE "VOICES OF SLUM DWELLERS"

Many years ago, the World Bank produced a sensitive and valuable document called "Voices of the Poor"[5]. It was insightful from different points of view. It helped top down decision makers to hear what the poor had to say about their circumstances. It provided insights into variations of what the poor from different regions had to say about their circumstances, which generated discussions and debates about the need to listen to what the poor had to say. Within the alliance, however, there was not much excitement about such a concept. NSDF and Mahila Milan leaders believed that there was *a deep difference between listening to the voice of slum dwellers and the ability of slum dwellers to voice their issues.*

They believe that listening to the voices of the poor is an improvement from ignoring them, but never the less ensures that the poor don't decide what needs to be done, or are deemed incapable of articulating what they need and how it should be delivered or do not have the capacity to deliver it if the

resources are available. They also believe that such a passivity where the poor say what their situation is, with no accountability of the researcher who documents what they say to produce solution, represents complete lack of accountability to those who tell you what their problems are and therefore seems unethical to the poor. It also produces and deepens the passivity amongst the poor and strengthens their imagery of being recipients and beneficiaries of whatever the elite or the state wishes to give them, having no say in what should be prioritised.

NSDF and Mahila Milan leadership often believe that it is this passivity that produces the passive yet aggressive actions where people just walk away from state provided benefits of housing or livelihood or other services since they never wanted them in that particular form in the first place. Not repaying loans is another form of rejection of the solution that comes without engagement. There are many instances of such outcomes in state delivered subsidies of services that are more easily misconstrued to be that the poor don't like development or by non-payment or selling the asset they demonstrate that it's better not to give anything to the poor.

What produces a voice?

This is a question on which there is a great deal of reflection, discussion and debate within the federations of the organised poor. There is, first of all an acknowledgement that VOICE - the ability to state one's aspirations, demand accountability, engage in possibilities for solving critical challenges, engagement in contestation of what should be the right way forward, or taking risks and exploring the unknown... are all very difficult for most poor and marginalised individuals and households whether urban and rural. In urban areas it is more so because development interventions instead of being supportive remain largely hostile to the right of the poor to demand this from the state. Instead, often the message is that they should be grateful for being allowed to stay. Most first generation migrants often claim to be grateful that they have managed to survive in the city. Their children born in the city, however, demand more and have greater expectation, but remain in beneficiary mode expecting someone else to give.

So once again what produces a voice? Our experience has shown that there are many crucial foundations on the basis of which voice and capacity to present their aspirations, negotiate for solutions etc can get defined and developed. Firstly, it's collective and solidarity of association. Through this, the sustained collective engagement, positive self-images and self-belief that whatever the poor do to survive, emerges from innovation, and solutions emerge within limited resources and restricted opportunity. Though such outcome may be limited, they demonstrate thoughtful decision making, collective choice making and ingenuity. Secondly, seeing patterns of solutions demonstrate that what was considered an isolated strategy undertaken for expediency, is not incidental or isolated, but seen across large numbers which makes each individual and household develop collective identity. Thirdly, having invested in developing solutions that breach the limitations of a survival solution produces confident and positive self-image and capacity. It also helps to present the strategy devised collectively by the community, especially when there is internal consensus that the solution is acceptable to all. Fourthly, the format of any dialogue produces impact. When an individual narrates their situation alone to an outsider, all the sense of inferiority or insecurity produces supplication, unlike when professionals or administrators are invited to a large assembly where in the midst of their peers they present the strategy to the administrator or politician or professional. Finally, having once breached the divide of presenting their perspective to decision makers, they become better at it the next time, and the more they watch others confidently presenting their perspective to others, it inspires them to follow their new role models.

The challenge of being heard

Yet it is not simple. Just as the capacity to present and articulate their position and aspiration is crucial and has to be developed, the ability to listen, respond and honour what the poor in slums say requires leadership of the elite who are decision makers, to be able to respond. Often, well developed positions by the representatives of the poor get ignored or opposed or

set aside simply because it seems to be inconceivable that they (the poor) can have an opinion, a position or a possible alternative. In other instances, it may be that exploring the strategy developed by the poor means changing policy or practice which is also considered a risk of reputation. In some instances, it may conflict with other interest groups who are dominant and the capacity to arbitrate between these interests judiciously may not be well developed.

Participation, empowerment and citizenship

At the end of the day, the reality is that there are more than 30-65 per cent of slum dwellers living in informality in cities in India. A majority of them are second generation, born in slums of the city, globally connected and under the age of 30[6]. They represent a group very different from their migrating fore fathers. They are increasingly net savvy, connected to global knowledge and more embedded in their urban identity. Cities can no longer work only on fiats from the top. Building capacity and support for every segment of the city, building networks across different sections, facilitating participation and demonstrating assistance for initiates taken locally is a crucial way forward. Such processes will produce empowerment and create thousands of local initiatives which can be woven into a tapestry of city level development that works for all. This makes the challenge of producing a voice for the marginalised, a crucial and important milestone for city leadership, which if suppressed or denied will produce violent backlash.

CONCLUSIONS

The big picture challenge of transforming cities

Crafting this article has further sharpened our own understanding of the value of organised communities of the marginalised as a way to empower and facilitate mainstreaming the participation of the urban poor into city development processes. No longer can a city afford to focus on a few and ignore the majority. Yet, these changes cannot happen easily and quickly. Cities demonstrate the most powerful interlinked and tightly networked population, all interdependent on each other, whatever may be the socio economic or caste or linguistic differences. Illness in one location can impact everyone else. Be that climate linked disasters, traffic jams, health challenges, all affect everyone. Expanding urban areas are swallowing villages and hamlets many of which have no urban services for decades. Such areas quickly become slums, where it later becomes almost impossible to provide amenities and services. Yet neither the residents are empowered with voice initially to make demands, nor is the city ready to provide amenities early on.

Change can't be brought about in a day, a year or 5 years

Producing voice building, organisational capacity, producing scalable solutions that will demonstrate change, takes time. Often the hurry to deliver goods produces distortions which are as bad as not providing anything. Sustainable change takes time, and it is only when it is facilitated in a manner that builds capacity, that change is sustained and built on. Yet, those who are exploring voices want things in a hurry! If and when the goals are to develop sustainable and inclusive cities, programs have to develop a range for action learning and refining. People's voice facilitates this learning and helps embed new practices as projects develop.

NOTES

1. NSDF
2. Gender and Urban Federations
3. MUTP Article by IIED
4. BSUP Guidelines
5. World Bank Paper on Voices of the Poor
6. Census on Slums

REFERENCES

Census of India, Census 2011, 30-09-2013, Primary Census Abstract for Slum.

Government of India, Guidelines of the Basic Services for the Urban Poor program, a part of the Jawaharlal Nehru National Urban Renewal Mission, a program by GoI.

Narayan, Deepa, et. al. Voices of the poor is a 3 part publication by the World Bank, 1999.

Patel Sheela and Mitlin Diana, "The work of SPARC, the National Slum Dwellers Federation and Mahila Milan", working paper 5, Working Paper series on poverty reduction in Urban Area, Dec 2001, by Human Settlements Program, IIED.

Patel Sheela and Mitlin Diana, "Gender and Urban Federations", Making Gender and Generation Matter for Sustainable Development, IIED.

Patel Sheela, D'Cruz Celine and Burra Sundar, "Beyond evictions in a global city, people managed resettlement in Mumbai". IIED Environment & Urbanization Vol 14 No 1 April 2002.

UNTHINKING COMMUNITY DEVELOPMENT

Talking the Walk

ILA BOSE
RENU KHOSLA

"It is vain to talk of the interest of a community, without understanding what is the interest of the individual"

– Jeremy Bentham; philosopher, jurist and social reformer

In order to generate qualitative information, the individuals that comprise a settlement, must be deeply integrated into the data collection process - for no one else knows the intricacies of a neighbourhood better than those who occupy it. A variety of Participatory Learning Action (PLA) tools can help build a nuanced understanding of people, their problems, resources, assets and challenges.

This article serves to contextualize the concept of community participation by emphasizing that it is a powerful organizing ideal that advances the communitarian agenda. Today, participatory planning is seen as an essential part of any development agenda in order to promote sustainable change and obtain better results. State governments are looking at community participation as integral to planning processes, as those plans made without the contribution of community voices have been unsustainable and disconnected from ground realities. State machinery is more and more looking towards community based plans to ensure grounded planning. The main purpose of community participation is to capture community voices and represent them in the city's plans. This article portrays CURE's work in this realm, illustrating it through four different case studies across Delhi and Agra: Community Shares in Sewer System for Home Toilets Networked to Trunk Sewers; Shared Septic Tank in Savda Ghevra Resettlement Colony; Spot Fixing the Drainage in Nursery Basti; and Social Coherence to Recharge Ground Water and Revive City Wells in Agra. In conclusion it is clear that voices for planning must come from within the community. By enabling communities to be part of the actual decision-making process, CURE helps them to make that fundamental leap - from voiceless beneficiaries to vocal owners.

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CONTEXTUALIZING COMMUNITY PARTICIPATION

It is a common misunderstanding that a community is a social whole where every individual occupies a clearly defined place and that people's interactions are mostly cooperative rather than seeped in conflict. In reality, communities are unorganized and heterogeneous, comprised of spatially associated individuals with something in common (Hillery, 1995) sheltering a multitude of varying, competing and often conflicting interests. These individuals often lack a sense of community or social identity and while the word community conveys an impression of singularity, this is deceptive as communities are rarely clear and identifiable.

In this context, the idea of community participation holds a central place in any development agenda as it aims to involve people in developmental processes by identifying common goals and interests, and enabling them to take collective decisions to overcome their collective and individual concerns and to improve their quality of lives. It is about mining local information, recognizing

individual differences, making choices, being strategic, leveraging local resources, talents and networks, and liberating the energy needed to spark local change. Community participation is a 'powerful organizing ideal' that serves to advance the communitarian agenda. It is a process by which individuals, families, or communities assume responsibility for their own welfare, and develop the capacity to contribute to their own and the community's development and influence the direction and execution of development projects rather than merely receive a share of project benefits. In other words, community participation is the scaffolding that fosters sustainable development in and of communities. (Khosla. R, 2014)

Today, community participation is seen as an essential development process for promoting sustainable change and achieving better results. Furthermore, its tools and practices are viewed to be a magical solution in redevelopment and slum upgrading. State governments are looking towards community participation as integral to planning processes, as those plans made without the contribution of community voices have been unsustainable and disconnected from ground realities. The State machinery is more and more looking towards community based plans to ensure grounded planning.

CAPTURING COMMUNITY VOICES

The main purpose of community participation is to capture community voices and represent them in the city's plans. Such engagement requires that the communities are mobilized, organized and empowered and are ready to engage with local agencies in the processes of planning and implementation aimed at a better quality of life. While it is true that communities possess a deep understanding of the place and its problems, the individuals that make up a community are usually not very involved with each other and are caught up in the hustle bustle of city life, which makes for a certain degree of individualism. To plan for a community by involving individuals, it is important to first build a 'sense of community'.

The idea of community comes with a better understanding of the people who are spatially associated. Before drawing conclusions about them, it is fundamental to gather as much information about them and their living area as possible, both the arithmetic and the ground realities. In order to generate qualitative information, the individuals that comprise a settlement, must be deeply integrated into the data collection process - for no one else knows the intricacies of a neighbourhood better than those who occupy it. A variety of Participatory Learning Action (PLA) tools can help build a nuanced understanding of people, their problems, resources, assets and challenges. While the gathered data can help build up development plans, the process of evidence building – getting the social, economic, cultural and physical details - helps bring people together. During community workshops and meetings, people are encouraged to share their stories, needs and concerns; discuss solutions to their problems and to create social networks and systems that glue people together. People learn to come together, to work on shared problems and set aside their personal agenda, choose their leaders and champions and create trusting relationships.

Planning with and by the community is critical to the process of sustainable community development. Street level meetings, focused group discussions and larger community meetings, help shape the plans of the people that seek to address issues of improving their settlements with better basic services of water, home toilets, improved drains, wastewater treatment systems etc. Deeper discussions on the what, how, where, when, and who of the plans, results in innovative and reimagined solutions for addressing the community's concerns, infrastructural inadequacies as well as behavioural issues.

Eventually, community voices must find their way into a city's plan. The information gathered from several settlements, needs to be organized

in way that the planners and engineers of the government are able to analyse and fold these within their plans. By overlaying community plans on formal settlement maps, and using Geographic Information System (GIS) platforms, the data across communities can be stitched together, spatially analysed and merged into grand plans for many more communities. These community based information systems help governments to make this leap from one-size-fits-all planning mode to planning that is more granulated with localized, contextualized and customized solutions.

Women, young people and interested groups, who will be part of the implementation of these plans are encouraged to form street and user groups, nurturing their local leadership and empowering them, crowd sourcing their talents and including them in the process of planned upgrading (Khosla, R. 2014). The most productive way to involve people systematically in the process of planning is to organize them into various groups responsible for achieving specific goals– Toilet Groups (for monitoring community toilet management), Youth Groups (responsible for all youth related activities and involvement), Women's Health Clubs (functioning as health monitoring bodies and self-help facilities) etc. By organizing people into groupings with clear responsibilities, implementation plans of the community get drawn up.

NURTURING COMMUNITY PARTNERSHIPS

The Centre for Urban and Regional Excellence (CURE) is a development organization, whose core strength is working with low-income and poor communities. Communities are where CURE's home is. From these communities emerges the new imagination and vision for change that CURE uses to curate an enabling environment for pro-poor urban and social policy and the notion of an inclusive and equal city. CURE helps to amplify the 'voices of people' giving them the strength and weight of collective action, in particular those that may be excluded by virtue of being very poor, women, disabled, or marginalized for reasons of caste, class and religion. By enabling communities to be part of the actual decision-making process, CURE helps make that fundamental leap - from beneficiaries to owners.

CURE's close work with the community is being traced here through four examples of its community-led initiatives in Delhi and Agra.

Sewer System for Home Toilets Networked to Trunk Sewers

Sapheda Basti, is an illegal slum community in the Geeta Colony area in East Delhi. It has 650 families - mostly migrants, yet many who have been living here for over 30 years. The settlement is an encroachment on Delhi Development Authority land and has minimal basic services, on shared basis. In most families, all members work as skilled/unskilled labour, locally or from home, and have a combined monthly average income of Rs. 15,000. CURE has been working with this settlement since 2011 on improving people's access to basic water and sanitation facilities. Community interactions have been at the core of CURE's work in this settlement and have been used as a mechanism to identify the core issues, the residents of this area face. During its work with the community, a key concern that was repeatedly cited by the people was the poor quality of the public toilet – deeming it to be an insufficient, unsanitary and unhealthy option. Residents dreamed of having private toilets, recognizing these to be safe, dignified and healthy solutions. They voiced their concerns over the risk women and girls faced in using the community toilet or when defecating in the open, when the toilet closed up. They also recognized, that it was through the toilet that diseases were spreading, and that illness kept men and women out of work and unproductive, and the families poor. The residents offered to share the cost of a regular system. They organized themselves into an O & M committee and set up a bank account to which households started contributing their investment, they took charge of all liaisoning with engineers and contractors and also over the actual construction process. In addition to this the residents became more active in their engagement with the

local sanitary committee members and ensured regular cleaning of their streets and drains.

This was an idea that came from the people, who were helped with making the choice – after discussing the good and the bad of each. CURE converted the idea into an engineering design and assisted the community in the meetings and interactions with government officials.

The community-led sanitation solution has enhanced the social capital of Safeda Basti by encouraging collective action, association, decision-making, consensus building and resource sharing. It has also strengthened community leadership by helping the poor understand their entitlements and building their ability to negotiate for their entitlements. An important outcome of this participative process is the sustainability of the initiative, as the community is now in control, an attribute that is of essence to the vulnerable poor.

Shared Septic Tank in Savda Ghevra Resettlement Colony, Delhi

Savda Ghevra is the largest recently planned resettlement colony in New Delhi without the planned basic services that must go with any planned development - piped water supply, underground sewerage for home toilets, roads etc. In resettling slum dwellers in Savda Ghevra, the plan has been for community toilets – even as there was secure land tenure here. Toilets became a primary need once livelihoods were re-established in the new site. Despite plentiful lands, open defecation was common as the community toilets were un-operational. It was proving dangerous – fears of sexual and physical assault were paramount. Houses were small, self-built and structurally weak and while making home toilets with septic tanks was an option, people were recognizing that their poorly constructed tanks were leaching into ground water and creeping up the house walls, besides creating a dangerous hole underneath, precipitating collapse. Numerous discussions with the community, predominantly women, resulted in the idea of home toilets connected to a shared septic tank, away from individual homes.

To identify the required technical aspects for the construction process, leaders were identified from each street who worked with CURE to search for the contractor, address resident issues, oversee the building etc. These leaders enabled CURE to work on the technical portion of the initiative while taking into account the social aspect of the settlement and its individuals. The street leaders also collected the money for de-sludging and regular maintenance and deposited it into the bank account of the O&M committee. During the construction process, the poorest also got to work on the

Figure 1 : **Development of Design Plan with Residents for a Slum Networking System in Sapheda Basti**

Source: *Energy Statistics 2011, Central Statistics Office, Government of India; India Energy Handbook 2011; Kumar, S (2011) Benchmarking Energy Use in Buildings and Cleanrooms, ISA Vision Summit, Bangalore*

Figure 2 : **Mobilization of Street Leaders for implementation of Shared Septic Tank Initiative in Savda Ghevra**

project and earn money.

A design solution was engineered, that was capable of being built, managed, and maintained by the people - a community-based sanitation system connecting 322 household toilets to a shared septic tank and an up-flow filter that forms a decentralized wastewater treatment system (DEWAT) to treat the black and grey waters in Savda Ghevra for reuse.

From its inception, the process accounted for sustainability through informally chosen street leaders representing the residents who were trained in the long-term O&M of the community septic tank and DEWAT. Households connecting into the system also decided to contribute a small fee, to finance long-term O&M expenses - engendering local responsibility and accountability. A community led solution has de-engineered a sanitation solution capable of providing in-house services in the city's unplanned urban fringe.

Spot Fixing the Drainage in Nursery Basti, Delhi

Nursery basti, with a population of approximately 210 households, is situated in East Delhi. CURE began its community engagement by trying to understand the context and form an initial rapport using PLA tools. People were involved in mapping their settlement, identifying the hotspots and prioritizing their needs. The community angst related to the unfinished drainage system in the settlement. One particular spot that was the most troublesome was where all the water from one part of the settlement drained to, with nowhere to go. Adding to the chaos was the school in the neighbourhood that had made an opening in its wall to let out its wastewater, flooding the road everyday. Besides the deteriorating state of the road, the stagnating water on the road was resulting in high incidence of illnesses. With the help of the community, CURE studied the drain and discussed possible solutions. The plan was to make the last mile connection to the slum drain, intercept and convey the school wastewater through an underground pipe into the drain, deepen and de-silt the existing drain and connect it to the city's main drain through the community toilet.

A sanitation monitoring committee was mobilized. Group members came up with a system to monitor the construction process. Local labour and masons were identified for the construction even as the group oversaw the process. Simultaneously, awareness meetings were held with the community to build a sense of responsibility – to

Figure 3 : **Spot Fixing with Sanitation Monitoring Committee in Nursery Basti for Repairing Drainage System**

prevent disposal of plastic and other waste into the drain that would choke it. By fixing a spot, an overall improvement in the hygiene and sanitation in the community became apparent. The city's support came in the form of a resurfaced road.

Social Coherence to Recharge Ground Water and Revive City Wells in Agra

Agra has over the years lost many of its natural and social foundations, especially with regard to water. The collapse of the water system of Agra is the result of a fragmented society and the unsustainable environmental actions and decisions of its communities. Tajganj is a group of 13 settlements in the neighbourhood of the Taj Mahal. They are slummy, lack water and have poor sanitation. Ground water tables in the area were rapidly dropping. Because the area was not fully networked to piped water and/or had erratic supplies, people were drawing water from individual bore wells without realizing the damage to the environment. Over the years the ground water quality had deteriorated and the numerous water wells that traditionally served the water needs of people in the area had dried up. CURE is working with the residents of these settlements to do four things; conserve water, harvest rainwater, recharge water into the ground and treat and reuse wastewater. Neighbourhood groups are coming together to map their areas, generate a water footprint, discuss options and solutions etc.

Figure 4 : **Development of Design Plan with Residents for a Slum Networking System in Sapheda Basti**

Traditional fairs and festivals, associated rituals and crafts of these communities are being revived – evening temple prayers, kite flying festivals, monsoon festivals (Sawan ke Somwar), pigeon flying contests, henna, sanjhi art, etc.; rebuilding the inherent knowledge of people of their area, crowdsourcing their particular wisdom and designing solutions for nudging the ecological cycle back to its natural state.

CONCLUSIONS

Conceptualizing and implementing engineering and technological solutions for the betterment of a community through an umbrella approach, makes up one end of the developmental spectrum. The other elements that constitute this spectrum and must be tapped include retrofitting designs originating from the communities and targeting behaviour change. Without including the ideas of people on the ground and in the absence of awareness and knowledge building, investments by the city in infrastructural improvement and physical upgradation may just happen to fall by the wayside. It is imperative that time is spent in understanding the various social, psychological and cultural facets that make up the individuals that inhabit communities in urban settings – that come from different areas, lack cohesion or a common notion of their community or city.

Voices for planning must come from within the community. With technical solutions these can be converted into plans and designs. Accompanied by a rhythmic capacity building and behavioural exercises, communities can become coherent partners, taking responsibility for their living environments, upgrading and management. This process takes time to be nurtured and skills to manage.

CURE works closely with communities, often for years, building rapport, mutual understanding and trust. There is no work that can begin without understanding the differing parameters set by the individuals that make up a settlement. CURE believes in un-thinking, re-imagining and re-socializing a settlement's planning narrative,

complete with de-engineered solutions. The foundation of this approach is to do away with fixed notions and old templates and approaching a group of people without presuppositions and assumptions and to use the opportunity to de-complex and de-engineer systems and solutions.

It is the work of NGO's to assimilate and try to absorb the needs of the poor into city level planning. It is important for the State to make real space for community voices. CURE begins its work with a community imagined as a tabularasa, a clean slate.

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REFERENCES

Hillery, G. A. (1955). Definitions of Community: Areas of Agreement Rural Sociology, Vol. 20, 111-123

Khosla, R. (2014), Community Participation: Deconstructing the Challenge

Khosla, R. (2014), Agra's Street Culture, Seminar Magazine

GENERAL GUIDELINES FOR SUBMISSIONS OF ARTICLES

The following checklist should be used when preparing an article for submission Please be sure to follow the specifications exactly and completely to ensure that your article is reviewed timely manner and any delays avoided further along in the publishing process should your article be accepted for publication.

1. The paper should be created using a word-processing program (such as Microsoft Word) and should be between 3,000 and 5,000 words in length. The file may be in .docx or .doc format.
2. The paper is typewritten, double-spaced, and formatted to print on 8.5" x 11" (or A4) size paper. It is written in the third person in a clear style, free of jargon.
3. The first page of the article includes the following:
   i. the paper's title and
   ii. an approximately 200-word abstract that emphasizes the paper's contribution to the field and its practical architectural/ planning social/ economic implications.
   iii. the name(s), position(s), professional or academic affiliation(s), and email address(es) of the author(s), as well as the full postal address of the corresponding author;
4. The body of the paper should include the following:
   i. an introduction to the subject,
   ii. background information,
   iii. discussion of procedure,
   iv. results,
   v. conclusions,
   vi. implications for practice and advancement of research,
   vii. references,
   viii. acknowledgments (optional; if funding for the research was received from non-personal sources, the sources must be identified in this section), and
   ix. an autobiographical sketch.
5. Please ensure that:
   i. References are complete, have been arranged alphabetically by author surname and checked for accuracy.
   ii. Reference citations in the text are referred to by author name and year. If there are more than two authors, the name of the first author followed by ", et al." has been used.
   iii. References contain the following information, in the order shown: names of all contributing authors (last name followed by first initial), date of publication, title of article, names of editors (edited books only), title of journal or book, volume and issue numbers (journals only), location and name of publishing company (books only), and inclusive pages (journals and articles in edited books).
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      a. Large enough to be readable when reduced to fit the journal page size (approximately 5.25" x 8.25").
      b. A brief caption is provided for each figure/ picture/ graph.
      c. The figure is cited in the text.
      d. Please ensure that scanned images are of a high resolution to ensure good quality printing (not less than 640 x 480)
   v. All tables are included either in the original manuscript file or as a separate Microsoft Word document and have been checked to ensure that they can be easily reproduced on the journal page size approximately 5.25" x 8.25").
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EIGHT QUESTIONS ABOUT AFFORDABLE HOUSING IN INDIA

GEETA MEHTA

In 2012-13, 95 per cent of the financing in the housing sector flowed to middle and high-income group housing from the public sector banks and housing finance companies, where the shortage is a mere 4 per cent. Compared to this, only 5 per cent of the financing flowed to the economically weaker section and low-income group housing from these sources, where the unmet need is of the order of 95 per cent.

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As the Government of India has set the goal of providing 'affordable housing for all by 2022', this paper suggests revisiting the social housing priorities in India and learning from the precedents that have proven successful in India and abroad. Arguing through a set of eight fundamental questions posed to all stakeholders in affordable housing, the paper calls for according housing a fundamental right status and concludes that given the huge shortage of urban housing in India, especially for the economically weaker sections and lower income groups of the society, major intervention is needed now in affordable housing before the problem gets worse, due to projected increases in urban population.

INTRODUCTION

Housing impacts every indicator of human development. Homelessness, housing poverty and illegality negatively impact economic opportunities, water supply, sanitation, health, education as well as psychological and social wellbeing of people. However, even after 67 years of Independence, housing is still not a fundamental right in India, just like the Right to Education or the Right to Information. Efforts in the mid 1980s to enshrine the Right to Housing in the constitution failed and have not been attempted since then[1]. We need to question our commitment to this goal. Only when we have the courage to ask fundamental questions such as this that are at the core of our society, can we achieve the results worthy of our nation. It is with this intention that the questions below are posed for, and to all the stakeholders in affordable housing in India.

Q1: Is speculative urbanism a threat to affordable housing and social equity in India today?

Following the neo-liberal model of economic development that has increasingly gained popularity in many countries in the past two decades, Indian governmental organizations at the state as well as city level have become brokers rather than providers of social good, with a goal to monetize and capitalize on public and urban land rather than regulate and guard against market failure and exclusions. Inadequate access to housing adversely affects not only the quality of life for the majority of our people, but also the quality of the human resources available to the private sector players, who lobby for the neo-liberal model, in turn affecting their own growth and prosperity in the long run.

While market forces can ensure that housing is made in the most efficient way, these forces cannot ensure that every one gets at least minimum acceptable shelter. This has been well illustrated in the case of Bangalore, where illegality, housing poverty and homelessness has increased in tandem with economic development and liberalization since 1990s. It has been argued that such economic development not only stimulates homelessness but is actually dependent upon it.[2]

Current policy frameworks have an increasing emphasis on private actors and developers, and the role of housing as an economic good seems to outweigh its role as a component of welfare and social security. In 2012-13, 95 per cent[3] of the financing in the housing sector flowed to middle and high-income group housing from the public sector banks and housing finance companies, where the shortage is a mere 4 per cent. Compared to this, only 5 per cent of the financing flowed to the economically weaker section and low-income group housing from these sources, where the unmet need is of the order of 95 per cent. This was despite the fact that affordable housing is a sector marked for priority lending by the Reserve Bank of India.

A major factor for increasing social inequality in India in recent years has been the sale of large tracts of farm land to developers at throwaway prices, who then go on to develop these lands for middle or high income housing, reaping profits in the range of 100~400 per cent on their investments. These profits are multiples of those for real estate developments in any other country, including China. The city or state governments in India rarely impose obligations on developers to contribute adequately to the building of equitable social and physical infrastructure outside their properties. Capacity building of town planning offices, so that they can adequately negotiate public good from private developers, and make the land sales, permission and inspection systems more transparent, can help this situation.

State and city governments have also failed to enforce the mandatory reservation of land for low-income housing. Delhi set for itself a very low quota for low-income housing, and even failed to meet that. In order for adequate amount of affordable housing to be provided, mandating reservation of land for such housing can prove useful. Lease instead of sale of land must also be considered to ensure that the spirit of the law is protected in the long term. This has been effective in Singapore, where land is given only on lease, and 80 per cent of the population lives in social housing.

Q2: Informality and legality in housing

While the formal sector in India has reaped the benefits of India's robust GDP growth over the past two decades, the informal sector has been marginalized further. Outdated concepts of legality leave a large number of people in India outside the proverbial bell jar, articulated by the economist Hernando De Soto in his famous book "The Mystery of Capital".[4] Intermediate forms of legality, transitional housing and progressive building codes need to be devised to protect the most vulnerable people whose housing needs are not being met under the current policy frameworks. Redefinition of legality must include various forms of housing ownership and rentals to enable all urban residents to enter the legal housing market.

Individual residents can also be illegal within a legal settlement. Resettlement colonies, where people evicted from squatted land are given legal plots are intended to be the sole owner-occupiers, making resale and renting illegal. However, rental housing comprises anywhere from one-third to one-half of all resettlement colonies but the renters are deemed illegal, reducing the urban poor to the status of an illegal encroacher who can be evicted. It has been shown that families thus evicted rarely recover from this shock, due to loss of assets built with hard earned savings, loss of livelihoods or additional burden of commuting, increased violence, and large-scale dropouts from schools.[5]

Q3: Whom is affordable housing for?

Affordable housing should not be just for those who can afford it, but for improving living conditions in the entire spectrum of housing poverty. This includes homeless people on the street, squatters near water bodies, and squatters on prime urban land. There are also hierarchies among squatters, with women headed households who are renters and sub-renters, being the most vulnerable and deprived. While 53 per cent of all houses nationally do not have a latrine within the premises, the figure rises to 66 per cent and 77 per cent for Scheduled Caste and Scheduled Tribe households and within them to 78 per cent and 88 per cent for female-headed SC and ST households. However, in every slum redevelopment project, these are the groups most likely to be evicted without compensation.

Migrants, who come to the city for seasonal work, do not perhaps even want a permanent house. Dormitory housing for them, such as was built for mill workers in chawls in Mumbai, is a good solution and should not be overlooked. Affordable housing needs to be conceptualized as a continuum of achievable steps that poor and vulnerable families can embark on- improving their condition as they climb up the steps devised by policy, and aided by social programs and people's own efforts.

The post-war Japan did not have resources to build individual homes for the workers who were needed to power its industrial rise, so micro-housing and dormitories for men and women were built in all industrial cities. However, such minimal housing was supported by strong social and physical infrastructure that greatly helped in overall societal development.

Better regional and urban transportation to enable commuting from distant affordable housing to places of employment should also be considered during the planning stages.

Q4: Are mixed-use mixed-income housing developments better for the city?

Zoning laws from the post war period that sought to segregate cities into industrial, residential and commercial zones did not learn from the many vibrant traditional towns around the world. In trying to protect residential areas from industrial pollution, they also segregated non-polluting industries and commercial uses that were compatible with residential uses, in turn making the city more inefficient for its users. Newer planning systems are moving away from this paradigm by promoting mixed-use development.

Mixed-income developments make a city more socially equitable, allowing various income groups to interact, thus reducing mutual distrust that can lead to insecurity and fear. Interdependence of low and high-income communities is a fact of life in India, so proximity of the two income classes should be expressed in shared infrastructure and social spaces. Japan's very hierarchical pre-modern society was turned into a modern, mostly homogenous middle class, within one generation by creating shared social housing, schools and other social institutions for all. While Japan's success of engineering national pride and communal harmony is difficult to emulate, lessons can be learnt from it. When cities with more social segregation in USA were bustling with race riots in 1980s, such unrest was limited in New York due to the various social classes rubbing shoulders on the subway and other public places, reducing the level of distrust and resentment.

The power of mixed income developments to reduce social tensions is also evident in Mumbai, the most socially integrated and therefore, more vibrant and tolerant of all Indian cities, despite the political rhetoric. The quintessential image of Mumbai is that of luxury sky- scrapers with informal housing and urban villages right next door. While it may surprise a visitor, it is a healthy solution till enough affordable housing is built to give everyone a step on the formal housing ladder.

Mayor De Blasio of New York City is following the example of many cities that are realizing the power of mixing income groups. While developers could get additional

Picture 1: **Street based urbanism helps improve lifestyles, a feeling of social solidarity, and economic opportunities.**

floor space index as an incentive for building affordable housing, it will now be made mandatory for all new housing developments. Roosevelt Island in New York built in the 1960s is a good example of market rate and subsidized housing along a street that serves as a common transport and commercial spine. Via Verde in Bronx, built in 2012, is an award-winning example of mixed income, multi-generational and mixed-use development, where the commercial spaces, low-income rentals and ownership apartments are all built to the same high standard of design and materiality, but financed and regulated separately in one complex. Such local policies and results are easier to institute in New York due to the strong Mayoral system of city governance, but much harder to achieve where top down state governments are hard to hold accountable for local city matters

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Q5: Is street-based urban design better for housing than "towers in the park"?

People in low-income neighborhoods depend upon each other to meet their daily needs, but good neighborliness benefits rich and poor alike. Eyes on the street and a feeling of togetherness, that Jane Jacobs wrote so passionately about, enriches public life. The "tower in the park" housing typology propagated by Modernists like Le Corbusier hampers possibilities of such sharing and adversely affects the social capital, lifestyles and incomes of poor communities. The unkempt left over spaces in between the towers in Gautam Nagar in Mumbai are a good example of bad urban design. Traditional Indian cities were built along streets, which are the ultimate public spaces open to all. They are spaces for socializing, trade and fun.

'Tower in the park urbanism' in higher-income new developments in Gurgaon and other such place is also sterile and uncomfortable for long-term living. It prioritizes cars and makes walking or biking unpleasant, or even dangerous. While the most developed Northern European cities are trying hard to encourage walking and cycles, Gurgaon is repeating all the

Picture 2 : **Relocating people from vibrant informal communities into poorly designed high-rise housing blocks destroys social capital and adversely effects people's lives and livelihoods.**

mistakes of Modernism. It is no surprise that Gurgaon leads in the number of incidents of violence against women.

Q6: Can incremental affordable housing help in wealth creation for homeowners?

Owner-built incremental housing was the norm in housing in India as well as most other countries till just a few decades ago. Such housing, in slums and higher income neighborhoods, could be adapted to families as they grew or changed. Even very-low income sites and services scheme such as Hai El Salam in Egypt, Orangi Project in Pakistan and Aranya Township in India have shown that incremental housing helps in wealth creation of owners. Incremental wealth creation is also popular in suburban housing in United States of America, where owners add equity to their homes by building additional parking or bedrooms. Adequate infrastructure and basic urban services are the key to such transformation.

For reasons sited above, a finished house built of permanent (pucca) material, should not be the only form of affordable housing. Traditional mud, bamboo and thatched houses were not only climatically suited to their environment, but were also 100 per cent recyclable and comfortable. This was empowering for the people as they could build, repair and expand houses by themselves. The new fixation on pucca houses is rendering such homes illegal, also resulting in loss of building craft traditions.

Q7: Can affordable housing inspire pride among residents?

Social housing is often built with poor design and cheap materials, as a visual symbol of poverty. This is particularly true of high-rise resettlement colonies. Tower in park type of social housing in Pruitt–Igoe in Saint Louis in USA was so hated by its residents that it had to be dynamited down in 1972. The stigma attached to living in apartments, in an environment where people had been conditioned by the real estate market to desire individual homes on a private lot, added to the residents' sense of alienation. However, similar social housing in Japan proved quite successful as people considered

them symbols of the rise of middle class and of national pride and progress.

Ideally, social housing should be integrated into other neighborhoods. Singapore is a good example of high standards in design and materials in social housing, where a variety of housing typologies and budgets are also provided in close proximity to each other to facilitate an integrated society.

The new Social Urbanism in Medellin is a good recent example of what strong and positive buildings can do for the self-confidence and social development of neighborhoods. Libraries designed by world famous architects placed in the poorest areas of Medellin have become hubs of learning, community action and hope. Cable cars that are bringing public transport access to neighborhoods on most difficult terrains are integrating the city and reducing crime at a remarkable rate.

Q8: How best can communities participate in affordable housing?

While the importance of user-participation in affordable housing is understood, it is not easy and often not undertaken. There are successful examples of NGOs such as Slum Dwellers Internatonal (SDI)[6] helping18,000 households participate in the design and execution of their own relocation plans for a relocation project in Mumbai in 2000. URBZ[7] , another community based organization in Mumbai helps communities envision and improve individual homes and neighborhoods. However, the real challenge of affordable housing is in operation and maintenance. While individual families can maintain and repair a small single-family house, the systems to maintain multi-family affordable housing in India are not yet in place. This is evident from the dilapidated condition of even the recently built high-rise affordable housing projects.

SoCCs or Social Capital Credits[8] is a system of exchange for social good, designed to incentivize communities to be involved in their neighborhoods and multi-family buildings in rich as well as poor neighborhoods. Communities are helped to develop SoCC Earning and SoCC Spending menus related to the design, construction, operation and maintenance of housing. SoCCs can be earned for participation in building related activities, waste management, maintaining public areas and streets, improving neighborhood safety etc. Earned SoCCs can then be redeemed for products and services such as telephone talk time, skill building courses, healthcare and school scholarships. The system also nurtures the social capital of communities, developing local leadership and pride.

CONCLUSIONS

Overall, there is a need to revisit our social housing priorities and learn from the precedents that have proven successful in India and abroad. Major intervention is needed now in affordable housing before the problem gets worse due to projected increase in urban population. Access to affordable and appropriate housing must be seen as a public good, the protection and provision of which requires a strong public commitment; and a recognition of housing as a right and an entitlement. Such commitment can result in benefits across all sectors and all parts of our nation.

REFERENCES

1 India Exclusion Report 2013-14, Action Enterprise, Bangalore, India. First Edition. ISBN 987-81-926907-0-4

2 Graham Tipple and Suzanne Speak. The relationship between economic development and homelessness in South East Asia. University of Newcastle upon Tyne, UK. Accessed at http://r4d.dfid.gov.uk/PDF/Outputs/HumanSecurity/ConfPaperTheRelationshipBetweenEconomicDevelopmentAndHomelessnessinSouthEastAsia.pdf.

3 Trends & Progress of Housing in India, Published by National Housing Bank, 2013

4 Hernando De Soto, The Mystery of Capital: Why Capitalism Triumphs in the West and Fails Everywhere Else, 2000

5 India Exclusion Report 2013-14. Action Enterprise, Bangalore, India. First Edition. ISBN 987-81-926907-0-4

6 https://strikingpoverty.worldbank.org/c130103

7 https://urbz.net

8 www.asiainitiatives.org/soccs/

SHIFTING THE HOUSING PARADIGM

Embracing Incremental Construction and Access to Finance in Low-Income Neighbourhoods

MUKTA NAIK
RAKHI MEHRA

At present, between 30-60 per cent of housing units in low income settlements are on rent. India's rental housing is being successfully and efficiently supplied by homeowners in low income settlements, making it entry point for migrants that are moving into the city for better economic opportunity.

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With the majority of affordable housing supply coming from the incremental housing segment, the government and financial institutions—as well as the not-for-profit sector—must find ways to engage and support this housing typology through policy and techno-financial instruments.

This requires a paradigm shift that seeks to include and not further marginalise informal areas of the city, where most incremental housing is built. Besides providing of basic services like water supply, sewerage and sanitation, it is important to provide technical assistance to self-help homeowners to improve housing quality in the form of trained masons and community architects. Access to finance, the biggest obstacle for the urban poor in ensuring housing security, can be addressed by delinking it from legal titles. Instead, by thinking of tenure not as title, but as a right to occupy property, the urban poor can be facilitated with small- and medium- sized loans to incrementally improve their housing, making it easier not only to provide adequate space for growing families and thus reduce crowding, but also to provide additional space for home-based businesses and for informal rental, all of which enhance income and help bring needy families out of poverty.

BACKGROUND

Despite government statistics that claim that the absolute urban housing shortage in terms of number of housing units has reduced in India, the new figure being 18.7 million instead of 24.7 million, the fact remains that too many Indians do not have adequate access to shelter. Many more city dwellers live in poor conditions on account of extreme crowding, structurally unsafe buildings and homes located in neighbourhoods that do not have access to basic amenities such as sanitation and potable water and are unable to access housing finance to improve their housing conditions.

A deeper reading of NSSO data as well as field analysis highlight that the concern about the sheer number of housing units is a lesser one as compared to the worrying issue of overcrowding, with over 5 people sharing a room being the norm. Low-income families need adequate space and the flexibility to be able to add space to homes for multipurpose use of dwelling, for livelihood activities, accommodate family expansion and/or addressing rental demand. It is in appreciating this detail that the dichotomy is revealed between the existing housing supply for low-income and commonly advocated schemes of government and private sector on affordable housing.

The majority of urban housing supply, especially low- lower middle-income housing, is self-built and incremental. This nature of housing offers flexibility that incorporates changing family sizes and economic conditions. It lends

itself naturally to the social reality of the extended Indian family. Moreover, incrementally built neighbourhoods are capable of attaining the low-rise high-density form that is now, in the wake of a global awareness about environmental sustainability, considered desirable due to better thermal comfort and low carbon footprint.

The government policy has focussed on supply-side interventions i.e creation of contractor-delivered formal sector housing for the urban poor, whether by the public or private sector. Citing high land prices and unavailability of urban land as the prime reasons, this supply is usually in the form of apartments ranging from 25 square metres to 60 square metres located in high-rise energy inefficient buildings, away from city centres adding to transportation costs as well as impacting livelihood opportunities.

This paper argues for a favourable policy environment for incremental housing that ensures adequate quality of affordable homes by leveraging the existing investments on the ground in low-income settlements. Cognizant of the huge impediments posed by the issue of tenure and legality, the article shall focus on highlighting the value generated by incremental housing, identifying the significant complexities associated with this typology of housing. Further, the paper proposes techno-financial policy solutions to deliver scalable impact for urban low-income households. Many of these observations emerge from a workshop on 'Informality and Incremental Housing' co-hosted by micro Home Solutions (mHS) with the Centre for Policy Research (CPR) in June 2013.

WHY SUPPORT INCREMENTAL HOUSING?

The paper takes the position that incremental housing is the only viable and scalable model for delivering affordable housing in India today and in the future, primarily because it decentralises the construction-process and offers more decision-making power to households. Moreover, self-built housing is progressive housing. By nature, it improves over time with further savings and investments, unlike developer-built apartment housing that is at the risk of dilapidation and poor maintenance in the long run.

Socio-economic advantages

The urban form of high-density low-rise neighbourhoods respects the livelihood, socio-cultural ethos and lifestyle choices of low-income segments. Mixed-income and mixed-use neighbourhoods add to economic vitality, safety on streets and multi-functional use of space.

Self-help housing supports local businesses and entrepreneurship. Construction activity in these neighbourhoods employ local masons and contractors and gives business to local material suppliers. Beyond business transactions, the market reinforces social relationships. In many cases, homeowners are able to lower the cost of construction by availing second hand materials and contributing their own labour or contracting skills. Self-help housing promotes recycling of building materials and contributes to sustainability.

Affordability

Incremental investment makes improved housing and increased spaces affordable to homeowners over a period of time.

It leverages government investment and scarce resources in infrastructure with household efforts in finance, home building and improvement. A quick estimation of the government resettlement colonies in Delhi, home to 2.1 million people, reveals that over USD 1.3 billion have been invested by low income households over a period of 30 years (at today's prices)[1] . These investments have largely been made with the households' own savings and borrowings and access to expensive informal credit. The numbers clearly indicate that once given access to serviced land in well-networked urban development areas, low-income households have the ability and capacity to undertake home construction. New and innovative financial products are being designed and offered by housing finance companies such as Swarna Pragati, India Shelter Housing Finance, SEWA[2] Grih Rin etc. to address the issues of tenure and mortgage finance for the low

income households with average loans sizes of Rs 2 lakhs.

Supply of affordable rental housing

At present, between 30-60 per cent of housing units in low income settlements are on rent[3] . India's rental housing is being successfully and efficiently supplied by homeowners making it entry point for migrants that are moving into the city for better economic opportunity. Government programs to directly own and manage rental stock have failed in this regard- they are over regulated, over subsidised and few and far between. Mass housing schemes do not address the large-scale demand for a diverse set of rental options- dormitories, shared rooms, family etc. Supporting incremental housing through policy measures will, therefore, encourage current homeowners to offer more and better quality spaces for rent and reduce the prevalence of overcrowding, squatting and creation of new slums.

SIGNIFICANT COMPLEXITIES

Despite several advantages, self-help housing is associated with limited urban planning, poor infrastructure, over-crowding and illegality. Rather than embrace the Indian-ness and ingenuity of homegrown neighbourhoods, several policy documents in the past have classified such areas as slums. Planners have rejected the possibility of high-density, low-rise living and promoted development norms that embrace the idea of single use zoning. The international view is, however, changing due to concerns on social unrest and the environment and, therefore, high density is being encouraged. Indeed, it is a necessity in order to be able to reconcile urbanization in the context of climate change.

There are some critical barriers that need to be understood and addressed by multi-stakeholder efforts and coordination.

Legality and tenure

It has been a stumbling block for governments as well as financiers to recognise the positive aspects of incremental housing and to think beyond the barriers of legality and tenure.

Many incrementally built neighbourhoods are formalised over-time. The settlements usually possess some security of tenure, however, complications exist. Either the land use is not residential by master plan or settlers have squatted on land owned by government or private individuals. Often a monetary transaction is involved, which is not registered or documented. Some informal settlements come up on environmentally unsuitable land such as floodplains and along canals. It is important to admit that while all informal settlements may not be tenable and may require other thoughtful interventions and relocation, over 50 per cent of the self-built settlements are on plotted lands, with opportunity for home-improvements[4] .

Households that do possess security of tenure find that formal institutions do not acknowledge informal evidence of tenure. They are thus excluded from accessing finance from formal sources and

MORE EXPERIMENTATION REQUIRED FOR WORKABLE IN-SITU UPGRADATION MODELS, ESPECIALLY IN SMALL CITIES

The Jawaharlal Nehru National Urban Renewal Mission (JNNURM) and Rajiv Awas Yojana (RAY) have been the most ambitious steps taken by the government in addressing the issue of low-income housing. RAY, in particular, seeks to replace slums with more liveable neighbourhoods through the strategy of (preferably in-situ) slum rehabilitation and redevelopment. However, the RAY scheme is largely limited to the provision of 25 square metre flats in multi-storey buildings. As mentioned before, apartments fail to solve the problem of crowding. A review of BSUP projects has also suggested that many of these are poorly designed and exhibit poor quality of construction.

While high densities make in-situ slum upgrades unfeasible in metro cities, it might be meaningful to explore this model in small and medium sized towns across India, where slums are typically single storey homes. Ahmedabad Municipal Corporation's scheme to provide seven basic services to slum households and offer them a 10-year no eviction warranty, is a case in point.

There is also a need to explore efficient and varied models for in-situ rehabilitation, especially the creation of alternates to the high-rise, focusing instead on low-rise high-density formats.

resort to expensive informal financing for home improvements at over 5 per cent per month. This pushes them further into the debt and reinforces a poverty cycle.

Basic services

In the absence of registered ownership and titles, informal settlements are not covered by the city's basic services like water and sanitation, though interestingly electricity is no longer contingent on legality. While electricity connections have reached settlements (irrespective of security of tenure), toilets and other provisions that will impact health, child mortality and women's safety among other issues, are still found wanting. Other than the inability of city governments to provide services to these areas, narrow lanes and dense urban form make retrofitting in these areas difficult. The lack of sewage lines prohibits homeowners from putting in separate household toilets even if they are willing to spend on one. Decentralised systems for water supply and sewage that are being piloted in different locations of India are required to tackle this issue. Lack of basic amenities puts households in these areas of the city at a severe disadvantage. Not only is health adversely impacted, but precious time is spent in activities like collecting and storing water. This in turn impacts their earning capacity. For instance, in Delhi's Savda Ghevra resettlement colony, a socio-economic survey of 500 households found that women were unable to work because the water supply tanker arrives in the middle of the day[5] .

Non-engineered design and construction

Incremental housing, despite all the benefits, has also become synonymous with poor quality of dwelling. There is scant regard for safety among the urban poor largely because of lack of awareness of homeowners as well as construction workers. Fieldwork shows that two other factors contribute to the low priority for safety in incremental construction—the perception that a 'designed' structure is unnecessary and far more expensive and a fatalistic attitude that assumes that harm will not come to their home in the event of a disaster.

Only 2 per cent of India's masons and labour workforce are trained while the majority learns the trade on the job, by trial and error. Despite this fact, the majority of government and NGO schemes work on training masons and contractors from the perspective of skill improvement, livelihoods and job creation. As a result, the mason is trained to be absorbed into the formal construction industry, but trained masons do not serve self-built neighbourhoods. The construction workforce in self-built areas lack the technical know-how to construct vertical buildings in RCC and this is the primary reason for the building collapses in recent years (Thane in Mumbai, multiple collapses in Savda Ghevra and Laxmi Nagar in East Delhi)[6] .

Low quality building materials

The majority of self-built homes in India use brick for walls, in itself a material that offers poor insulation or protection from dampness. Roofing materials for single floor homes range from temporary materials like thermocol, cardboard and tarpaulin to asbestos cement or iron roofing sheets.

Poor construction practices and structural issues

Poorly mixed mortar, incorrect masonry work and lack of adequate reinforcement are some of the common problems in self-built structures.

Weak or no foundations, owing to poor knowledge of structural design mean that self-built structures are likely to be damaged or collapse in the event of a natural calamity such as earthquake or flood. Owing to small plot sizes, homeowners want to maximise living space. This means that, in multi-storey structures built out of brick and reinforced cement concrete structures, column sizes are of the same thickness as the walls, which renders the building weak and prone to collapse.

With growing vertical densities this requires investigation. Further, the seismic guidelines and building code is not adapted in low income settlements and thus there is very little technological innovation in non-engineered structures.

Layout and Design

Space maximisation is the highest

priority for the urban poor. Aspects like light and ventilation that are necessary for good health take a backseat. The problem is more acute in the case of multi-storey structures in dense settlements.

SUPPORTING INCREMENTAL HOUSING THROUGH POLICY

Policy interventions are an effective way to facilitate design of a diverse portfolio of affordable housing solutions instead of prescribing certain implementation models. Besides this aim, integration of housing related policy with other measures to target urban poverty such as the National Urban Livelihood Mission (NULM) is important.

Many organisations in India such as SEWA, Mahila Housing SEWA Trust, Transparent Chennai, Habitat for Humanity, Aga Khan Planning and Building Services, Housing and Urban Development Corporation Ltd. (HUDCO), URBZ, Centre for Urban and Regional Excellence (CURE), The Society for the Promotion of Area Resource Centres (SPARC) and Shelter Associates have been working on various inter-related aspects of urban poverty like shelter, basic services and finance, each from their own unique positions of strength.

In June 2013, mHS and Centre for Policy Research co-hosted a workshop to delve deep into the above-mentioned barriers that inhibit the creation of safe and plentiful housing in low-income neighbourhoods. The interdisciplinary nature of participants evolved clear positions and the expertise being shared in the two-day workshop resulted in a rich and nuanced discussion on supporting incremental housing. Importantly, government representatives from the Planning Commission as well as city-level urban bodies in Delhi and Chennai assured practitioners that the government's stand is rapidly shifting from the position of ignoring or rejecting informality to finding ways and means to support it, although they are often overwhelmed with the task at hand.

The challenge remains to bridge the gaps between intention and implementation; and between the ideas propagated at central government level and the adoption of these ideas by states and urban local bodies. The following suggestions address practical areas where governments can make impact.

Improving access to basic services

The foremost policy intervention in self-built settlements is to facilitate residents' access to services such as individual connections for drinking water, toilet facilities, and sewage and waste disposal.

Issues

- Despite the unrolling of several schemes to facilitate access, there are several issues. The experience in Chennai with the Rs 100 water connection scheme illustrates that applications for government subsidy schemes are tedious and complex to understand and come with unrealistic requirements. They include hidden costs such as requiring the installation of rainwater harvesting systems and the purchase of hand pumps, which cannot be met by the urban poor and remain unenforced even among the upper income groups. Schemes for low-income households are often not rationalised with those that the larger population can avail of and the paperwork is generic and not tailor-made.
- Title and building plan approvals are still required to access services such as a water connection.
- Applying for access to one service often requires further hurdles that are not clear at the outset, for example, in Chennai, a sewage connection is mandatory in order to access an individual water connection.

Successful interventions

In cities where intermediary agencies such as NGOs and urban professionals work, they have lobbied with municipalities and created a framework for bottom-up access to services. Mahila Housing SEWA Trust (MHT), for instance, acts as an aggregator and lobbies with service providers, as their work in Ahmedabad and other cities has

shown. The organization creates and empowers low income Resident Welfare Associations (RWA) to be the formal interface with the government. It also provides small loans for purchasing equipment for toilets and water connections. On the other hand CURE, an NGO working in Delhi, constructed a private decentralized solution for individual toilets in resettlement colonies of Delhi by mobilizing the community and through grant funds. They are working independently of the municipality and government service providers, but have created provision for a future linkage into government sewage systems. Often, in the absence of an NGO working in the area, communities in informal settlements access services through informal and political channels such as appealing to their local MLA or Councillor. If the settlement is not large enough or not politically activated, they do not have any formal recourse to address the absence of access to services.

Suggested policy actions

- Mandate access to services irrespective of tenure status;
- Evaluate decentralized infrastructure solutions that can be retrofitted into existing settlements. Governmental agencies such as NEERI and other social enterprises have developed low-cost interventions suited for these settlements;
- Allow for intermediate services, through private and community solutions that are 'future proof' i.e can graduate into long-term government schemes. For instance, delivery via community organisations and NGOs is often effective;
- Facilitation through NGO to generate awareness by holding subscriber camps and access to finance for purchase of equipment;
- Rationalise the application forms (Forms are not comprehensible even to an informed educated audience such as the one present in the workshop); and
- Ensure transparency but provide flexibility to states/cities in the application and allotment process.

Access to Construction/ Housing Finance

The microfinance industry has been providing loans to residents in settlements through innovative mechanisms that ascertain the creditworthiness of the client for livelihood generation purposes. Little did MFI agencies know that 20-30 per cent[7] of the loans disbursed were deployed for housing-related investments and improvements. It can be argued that investment in housing promotes livelihood stability as the homes are used as workspaces and additional rooms fetch rental income. Finance for home improvements, however, is a huge barrier and the lack of tenure adds to this problem, as discussed earlier. Innovative finance solutions are the need of the hour.

Issues

- Developing a housing finance scheme for low income that is rigid on tenure, is designed to have no off-take. Majority of India's low-income population live with diverse tenure arrangements. Government schemes that have this requirement will not be able to serve the majority of this

Picture 1 :	**Many in Delhi's Mangolpuri resettlement colony, created in the '70s to relocate slum dwellers, still live like this because they do not have the money to built a better home**

Picture 2 : **Despite the poverty and crowding, residents of informal communities like Mangolpuri take pride in their homes**

segment.

- The issue of tenure is complex and a binary understanding of title/no title on property or land is not the right way to address the issue.
- Traditional city planning that relies largely on land-use planning and is rigid in nature falls short in supporting home-grown neighbourhoods; however, several flexible approaches including the 'whole slum' approach taken up during the JNNURM project period by some municipalities, show promise in looking at housing and city planning holistically.
- Accessing schemes such as ISHUP[8] is practically impossible because of current eligibility conditions- it requires building plan approvals, minimum carpet area and a cap on subsidy amount plus eligibility approval through nodal agencies that are not equipped to aggregate the demand and work with the financial institutions.
- Microfinance regulation prevents MFIs from lending above Rs 50,000, thus missing the incremental housing demand
- Housing Finance Companies will not be refinanced by NHB if primary security (i.e title) is not available.
- The National Disaster Management Authority (NDMA) guidelines, circulated through National Housing Bank, mandate a building plan approval process that is top-down and leads to corrupt practices without ensuring compliance on structural safety; this does not work for informal areas where incremental housing is the norm and these homes are left out of the ambit of safety regulations
- Lack of confidence in the low-income market and apprehensions that the NPA rate for loans up to Rs 2 lakh is higher than 10 per cent.

Successful experiments

In 2009-10, some of the larger MFIs (SKS, Equitas, Ujjivan, BASIX, MIMO Finance) had designed specific products for housing that were of longer duration than a typical product (up to 7 years), with loans up to Rs 3 lakh[9] and relied on third party social collateral and tenure security to provide the loans. International Finance Corporation (IFC) is working with National Housing Bank to develop a Housing Micro Finance (HMF) toolkit for the sector to encourage lending for housing finance.

To tackle the issue of tenure, a commendable application of the whole slum approach was seen in the case of Sangli-Miraj-Kupwad, where the corporation worked with NGO, Shelter Associates, to create citywide maps of slums and land ownership patterns. A collaborative approach was used to identify slums that need to be relocated and those that can be redeveloped in-situ.

Suggested actions

- National Housing Bank to continue lending for incremental housing through the pre-financing channel that offers flexibility, in order to develop portfolio and confidence in this segment.
- A ladder of property rights must be constructed to allow for lending where there is a minimal security of tenure (i.e

lease hold arrangements).

- Beyond what the land is zoned for, as per plan, it is important to know the status of various settlement types in the city in terms of whether residents have clear title, right to occupy, right to rent or right to sell. Various permutations of these will determine flexible ways of looking at land in the city. Moreover, the situation in each city will differ drastically. mHS studies have indicated that the ownership (government or private) of land on which slums exist changes a lot from city to city. However, while the need to provide housing for the poor must be balanced with the need for land for other purposes, we must also remember that mixed-use neighbourhoods could be highly efficient mechanisms for cities to cope with urban problems and planners must see these neighbourhoods not as problems, but as possible solutions to the challenges of providing amenities.
- The Microfinance Bill, currently tabled in Parliament, will no longer require MFIs to engage in mortgage-based lending for the purposes of housing by looking at the right to occupy land rather than legal titles. It will also remove the current cap of Rs 50,000 on microfinance lending. If passed, the Bill will provide a direct impetus to the self-construction market.
- States to provide documentation to homeowners in informal areas that property is bankable/can be mortgaged but not sold or transferred by the individual.
- Other apex lending bodies such as SIDBI[10] , NABARD[11] that work with cooperatives, MFIs and NGOs should encourage lending for home improvements and incremental construction including loans for water, sanitation, room extensions, etc.
- R&D and experimentation (pilot projects) offering new loans products to enhance off-take of government schemes such as ISHUP and mortgage guarantee fund.
- At present, the Ministry of Housing and Urban Poverty Alleviation (HUPA) is working to develop new policies, both to tackle the issue of slum redevelopment as well as to replace existing interest subsidy schemes with new ones.

Improving disaster preparedness, construction quality and building safety

A supporting component of technical assistance is necessary to enable self-built communities to build safer and better quality homes. In the absence of a formal building plan approval process, it is debatable as to whether some sort of regulation is implementable in such neighbourhoods, since it is too early to comment on self-regulation models to implement and monitor safety standards.

Issues

To reiterate, the major areas that need technical support are:

- Poor quality of construction with little regard to lighting and ventilation;
- Poor structural quality, especially for multi-storey structures;
- Poor preparedness levels for disasters, both natural and man-made; and
- Limited technical expertise for mason/contractors for vertical construction.

Successful interventions

A number of models for providing technical assistance can be offered. Habitat For Humanity International is working with MFIs in southern India to provide technical assistance in home upgrading to ensure quality construction. Micro Home Solutions has developed innovative structural engineering solutions (in 3D formats) for multi-story construction (G+2 floors) that can be delivered to mason/contractors, as well as prepared easy-to-understand training material suited for masons and contractors serving the incremental housing market. This training manual is currently being piloted in a number of informal settlements in Ahmedabad. In a pilot project in Delhi's Mangolpuri resettlement

Picture 3 : **mHS worked hard to sensitise community members about safety issues while constructing their homes**

colony, mHS had offered a bundled technical assistance service with the finance provided by an MFI. This had allowed the construction of 30 safe and well-designed housing units in the area.

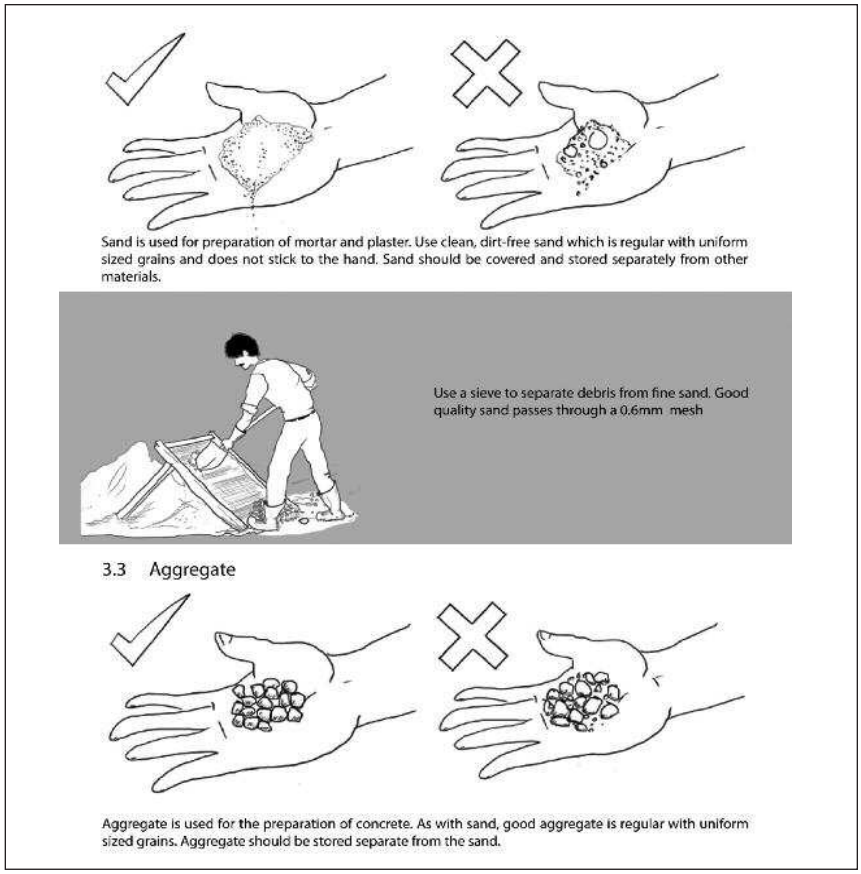
While the above examples demonstrate the work done by the NGO sector working with community organizations and finance companies, government partnerships can make it easier to scale up such initiates. In Thailand, CODI[12] works with community architects to bridge the technical know-how gap between innovations in the construction sector, skills and the practice on the ground. In fact, the work done by CODI is now being replicated in cities across Thailand, Indonesia, Vietnam and other south-east Asian nations.

Suggestions/ Action points

- Disseminate appropriate training to masons and contractors, that focusses on correction of common construction mistakes and ensure better design and structural safety ;
- Testing models of delivery of technical assistance through HUDCO supported building centres and collaborating with a resource pool of local architects and professionals;

Picture 4 : **Before and after of Manjesh's home looked like when mHS began working with Mangolpuri residents in association with microfinance players BASIX.**

- Encourage participation of community in disaster preparedness plans for informal areas;
- Building centres must become hubs that promote and strengthen the idea of community architects and community builders, who will advocate and ensure safety of construction. It must be noted here that the idea is not to enforce a system of sanctions and approvals on informal settlements, but rather to build skills and awareness so that there is a bottom-up demand for safety and improved structural design. This has been amply demonstrated in mHS pilot projects as well as in CODI's work across the south east Asian region; and
- Community building centres can pull together a variety of resources for working on suitable local building materials, technologies, the adaptation of local skills and building practices to urban built environments; all of which can be effectively used to support the self-help housing market that functions through people's own investments and does not rely on government subsidy alone.



Picture 5 : **A page from mHS-designed graphic manual to train masons for informal sector self-help housing.**

GOING FORWARD

Even with the best intentions, supporting informality through government schemes like the JNNURM and RAY has been tricky, essentially due to an inability or unwillingness of professionals and bureaucrats to delve into the complexity of the issues on ground. Moreover, measures to support incremental housing can only be implemented by an appropriate combination of stakeholders, in a decentralized model and this requires far more patience (10-20 years perhaps) than is acceptable in the current economic and political climate. Ever so often, therefore, there is "an urge and impatience to do something world class and grand[13] " that disallows nuanced and insightful work, being undertaken by practitioners to inform policy.

The paradigm can be shifted only through policy that offers incentives for state and local governments to take on the work of providing services, delivering technical assistance and creating conditions for better access to finance. At the same time, policy needs to refrain

SUPPORTING INFORMAL RENTAL HOUSING: A NARRATIVE FROM GURGAON

It is well documented that affordable rental housing offers the urban poor a foothold in the city and a significant percentage of those living in self-built neighbourhoods are renters (or sharers, referring to relatives that share space with a household and offer payments in kind). Conversely, self-built neighbourhoods are important to retain and augment the stock of affordable rentals in a city. Besides, landlordism is a significant source of income for landowners in low-income areas.

A recent study[1] found that landlords in Gurgaon's urban villages and unauthorised colonies are unable to efficiently manage their rental businesses because of a lack of adequate infrastructure, inefficiencies in operations and maintenance, poor management and accounting skills. The study also found that landlords are keen to upgrade the rental housing that they offer and improve their own skills, to bring down inefficiencies. However, they feared that the government would interfere in their business, deeming it illegal or levy service tax on them. In a city where informal rentals are the only supply of housing for the urban poor, especially for low- and middle-income migrants, measures to support this form of supply are necessary.

Of course, addressing this need via regulation is contentious, bringing in compliance and transaction costs on the side of the government as well as landlords, costs that the renter will eventually bear. A community-based approach to strengthen the informal rental market can be intertwined with other efforts to support incremental housing. Additionally, a rental housing component must be added to slum redevelopment and rehabilitation schemes so that renters continue to be served and are not forced to create more slums.

from being overly prescriptive, allowing governments and local community organisations to adapt for local conditions and context. Moreover, this approach requires an essential shift from subsidized housing to market-based solutions. In this way, instead of creating perverse incentives for large private developers to cash in on free land or for the poor to sell free housing, government would be able to encourage self-investments in housing by the LIG and middle income groups as well as rental housing within self-built communities for the urban poor. There is also a place in this scenario for catalysing private informal rentals.

To begin with, there is an urgent need to create a working group at the city level that consolidates experiences of state and local governments, as well as private practitioners, across the country with regard to incremental housing. Based on these experiences, it would be possible to create materials and empower a panel of experts to advise governments on specific projects as well as on national and state policy.

Through this paradigm shift, the Government of India through the Ministry of Housing and Urban Poverty Alleviation (HUPA) has the opportunity to drastically upgrade the quality of living for low- and middle- income families across the country that have invested and created their own vibrant neighbourhoods. We must remember that while we mull our policy options, self-built settlements are growing and expanding in cities across India everyday. We require to urgently address issues of basic services, construction expertise and legal rights in these areas if we are to provide the urban poor lives of dignity as enshrined in our Constitution.

REFERENCES

1 mHS, 2011, 'Self construction: Enabling safe and affordable housing in India'

2 The Self-Employed Women's Association of India

3 Field estimates, mHS

4 mHS study for World Bank on incremental housing, unpublished

5 Survey component, mHS' DHS pilot project in Delhi's resettlement colonies

6 mHS, 2013, 'Built to Collapse', unpublished research study

7 Statistics from SEWA Bank

8 Interest Subsidy Scheme for Housing the Urban Poor

9 Rates of interest were effectively 19-21% per annum that poses a high monthly burden largely due to the short tenure.

10 Small Industries Development Bank of India

11 National Bank for Agriculture & Rural Development

12 The Community Organizations Development Institute (CODI) is a Thai government agency formed in 2000 through the merging of the Urban Community Development Office (UCDO) and the Rural Development Fund.

13 Quoting K C Sivaramakrishnan, former bureaucrat and currently Visiting Professor with Centre for Policy Research, New Delhi.

EXPERT VIEWS OF CMD, HUDCO ON
AFFORDABLE HOUSING

Dr. M. Ravi Kanth, IAS (r)
Chairman & Managing Director (CMD)
Housing and Urban Development Corporation Limited (HUDCO)

1. How do you see the housing scenario in the country?

As per the Census 2011, the total urban households were estimated as 78.86 million and the total urban housing stock was estimated as 78.48 million for residential and residence-cum-other uses, including non-serviceable *kutcha*. The number of vacant houses in urban areas were estimated as 11.06 million in 2011. The Report of the Technical Group on Urban Housing Shortage during the 12th Plan period (2012-17) has assessed the urban housing shortage to be 18.78 million in 2012. Most of this shortage is due to households living in congested houses & requiring new houses (14.99 million) and households living in obsolescent houses (2.27 million). Significantly, 95.62% of the shortage assessed pertains to Economically Weaker Sections (10.55 million) and Low Income Groups (7.41 million) of the society. The funds requirement

HUDCO Place, New Delhi- Planning, Design & Development by HUDCO.

for addressing urban housing shortage of 18.78 million works out to be around Rs. 9.6 lakh crore.

As per the Census 2011, the estimated number of rural households were 167.83 million, whereas total rural housing stock was 166.16 million for residential and residence-cum-other uses. There were 13.58 million vacant houses in rural areas in 2011. According to the estimation of the Working Group on Rural Housing for the 12th Plan period, the total rural housing shortage in the country in 2012 was around 43.9 million dwelling units, and 90% of this shortage pertains to BPL families. Keeping an approximate unit cost of Rs 1 lakh in rural areas, for the estimated deficit of 43.9 million units, the requirement of funds is of the order of about Rs. 4.4 lakh crore.

Thus, the total fund requirement to address the deficit for the housing sector (urban plus rural housing) is about Rs. 14 lakh crore.

> HUDCO has emerged as the leading national techno-financing CPSE with the major objective of financing/encouraging the housing activity in the country and alleviating housing shortage for all groups in rural and urban areas as well as the development of infrastructure in human settlements.

2. What is the contribution of HUDCO in reducing housing shortage both in urban and rural areas?

The Government of India had set up HUDCO as a fully owned public sector enterprise in 1970, in order to effectively address the housing

and urban development requirements in the country with special focus on the housing and urban service delivery for the Economically Weaker Sections (EWS) and Lower Income Groups (LIG) of the society. HUDCO today has emerged as the leading national techno-financing CPSE with the major objective of financing/encouraging the housing activity in the country and alleviating housing shortage for all groups in rural and urban areas as well as the development of infrastructure in human settlements.

HUDCO has many special schemes to promote affordable housing and they are quite successful. HUDCO's support for a variety of housing options include: Housing projects both in urban and rural areas for all sections of the society taken up by State Governments, Urban Local Bodies, Housing Boards/ Corporations / Agencies, Parastatal Institutions, Development Authorities, etc.; Housing projects for employees by State Governments/public Institutions; Land acquisition projects for housing; Housing projects under JNNURM for meeting the State/ULB contribution (Viability Gap Funding); Take-out financing of earlier borrowed loans from other lenders as per HUDCO norms; Employee housing through the recently launched 'Rent-to-Own' scheme of HUDCO; and Retail financing to individuals through HUDCO NIWAS.

Till end July 2014, cumulatively, HUDCO has sanctioned 16.5 million houses under 14,850 schemes, with a loan component of Rs. 45,971 crore for housing projects in the country, out of which about 15.36 million units (95%) are for the EWS/LIG beneficiaries. Besides, HUDCO has also financed Rs. 5127 crore directly to individuals through its retail financing window of HUDCO NIWAS.

3. 'Affordability' is important when we talk of buying a house and this becomes very important for urban poor. What are the means by which HUDCO can promote houses which are affordable to the urban poor?

Since inception, HUDCO has been promoting affordable housing which is very important for the socio-economic development of the country. HUDCO is the largest Housing Finance Company (HFC) in India addressing the housing and housing-related infrastructural needs of the poor. With an allocation of significant quantum of its housing funds for the Economically Weaker Sections and Low Income Groups of the society, with a relatively lower interest rate, higher extent of unit cost extended as loan, and with a relatively longer repayment period, HUDCO makes houses affordable for the urban and rural poor segments. HUDCO cross-subsidises the interest rates for loans for housing of poor and this rate is even below our average cost of borrowing. The above affordable terms of finance and other efforts of HUDCO have resulted in over 95% of the dwelling units supported by HUDCO benefiting the EWS & LIG groups. Further, towards cost reduction of housing units, HUDCO has been promoting technology advocacy through the network of Building Centres/ Nirmithi Kendras, which encourage the use of local building materials and adoption of cost effective construction practices that are environment friendly, aesthetically pleasing and yet economically affordable.

4. HUDCO has stopped funding to Private Sector. Do you think that this will restrain the delivery of housing stock?

It is recognised that private sector would have to step in a big way for provision of affordable housing in the country. HUDCO has not stopped financing private sector for affordable housing segment. In fact, HUDCO has very special and competitive terms of finance for private sector, constructing affordable housing projects that have been approved by the

Central/State Government.

5. How is HUDCO supporting the Government of India initiatives on affordable housing?

Since inception, HUDCO has been assisting in the implementation of 'Government of India Action Plan Schemes', such as the Two- Million Housing Programme (2 MHP), Night Shelters, Swarna Jayanti Shahari Rozgar Yojana (SJSRY) for training component, National Slum Development Programme (NSDP), Valmiki-Ambedkar Awas Yojana (VAMBAY), Jawaharlal Nehru National Urban Renewal Mission (JNNURM), Interest Subsidy Scheme for Housing the Urban Poor (ISHUP) and 'Affordable Housing in Partnership' Scheme. All these initiatives of HUDCO are in line with the Government of India's policy of sustainable development of human settlements including Affordable Housing for All, Provision of Secure Tenure, Slum Rehabilitation and Upgradation, Expansion of Urban Infrastructure and promotion of Good Governance in the cities and towns in India.

Under JNNURM, besides undertaking appraisal, monitoring, capacity building and supporting the agencies through preparation of CDPs and DPRs, HUDCO has also been providing Viability Gap Funding (VGF) to State/Local Governments. HUDCO has been chosen as the Nodal Agency as well as a Prime Lending Institution (PLI) for Interest Subsidy Housing for Urban Poor (ISHUP) scheme which has now been rechristened as 'Rajiv Rinn Yojana' (RRY). HUDCO is now expected to take a lead role in implementing the Government of India's flagship programme for creating slum-free cities – 'Rajiv Awas Yojana' (RAY) with Preparation of Slum Free City Planning as well as appraisal, monitoring, capacity building and Viability Gap Funding.

6. Kindly elaborate the steps HUDCO proposes to undertake for improving the housing sector.

It has always been the endeavour of HUDCO to finance housing and infrastructure projects in innovative ways along with the conventional method of financing. On the housing front, HUDCO introduced innovative financing for housing for the Below Poverty Line (BPL) households in various district panchayats in rural areas in Rajasthan and financing for construction of 1 lakh dwelling units for EWS families in urban areas under the Mukhyamantri Shahari BPL Awas Yojana in Rajasthan, through Rajasthan Avas Vikas and Infrastructure Ltd. Similar schemes are being worked out in other States, which would help in provision of affordable housing to all.

HUDCO has taken many new initiatives during the year 2012-13 & 2013-14 to expand its reach and enhance its contribution for improving the housing sector, especially the affordable housing segment. Towards this, HUDCO has set up an exclusive Innovation Cell. The important initiatives, in regard to housing, are as follows:

i. **Towards improving access to housing for all sections of the society**, especially at the lower rungs of the society, HUDCO has introduced two innovative products in FY 2013-14, namely, Rent-to-Own Scheme and HUDCO Nav Nagar Yojana (HuNNY). Rent-to-Own scheme is a 'rental-cum-ownership' scheme which is designed to facilitate an agency to initially avail loan from HUDCO on behalf of its identified lower level employees and would allot the houses to them, initially on rental basis. The ownership would be transferred after receiving full repayment. HuNNY offers a comprehensive solution to the growing cities/towns from 'Planning to Financing' the sustainable habitats. Under the scheme, HUDCO would provide technical and financial support for developing potential sites as planned urban extensions to meet the requirements of the ever growing population.

ii. Micro Finance for Housing: HUDCO Board has given in-principle approval for equity investment of Rs.1 crore in the proposed new Housing Finance Company, promoted by SEWA. Through the proposed equity participation, HUDCO would ensure financial inclusion of the women members of SEWA, who have so far been denied the benefit of home loans through the formal lending mechanism. HUDCO is also in the process of devising an innovative product for extending loan assistance to Micro Housing Finance Institutions in India for on-lending to informal sector households who are deprived of formal sector financing.

iii. Venture Capital: HUDCO Board has approved the proposal for the subscription of Rs.25 crore in Class-A units of India Inclusive Innovation Fund (IIIF) – an Alternative Investment Fund – Venture Capital Fund (VCF) being established by the National Innovation Council. The fund will provide risk capital to enterprises that create and deliver technologies and solutions in products and in services aimed at enhancing the quality of life of the people at the bottom of the socio-economic pyramid. The Fund will invest in the enterprises involved in the housing and urban development sector including start-ups as well as emerging and growing ventures that needs support to scale-up potentially successful solutions and business models, allowing them to maximize their social impact in the Habitat Sector.

iv. MoU with Several Organisations: As a step towards further promoting the housing and habitat sector, HUDCO has entered into memorandum of Understanding (MoU) with several organisations such as National Culture Fund (NCF) for conservation of heritage sites/buildings; Construction Industries Development Council (CIDC) for creation of skills required in the building construction industry; National Commission for Women (NCW) under CSR for improving the living conditions of widows at Vrindavan, Mathura; National Building Construction Corporation (NBCC) for joint development of projects; and School of Planning & Architecture, New Delhi for research related activities in the habitat sector.

7. What are HUDCO's future plans in the housing sector?

In the light of the significant deficit in the housing and urban service delivery in the country and the need for massive efforts to achieve the objective of affordable housing and provision of urban basic services for all, HUDCO is fully geared up to face the challenges of social housing delivery as well as the provision of urban infrastructure services in the country.

The future growth path for the housing portfolio of HUDCO is envisioned in HUDCO's Corporate Plan-2020. The Corporate Plan-2020 has a major focus and thrust on social housing in order to achieve the national goal of affordable shelter for all. It anticipates an increase in the social housing operations to a significantly higher level, so as to retain HUDCO's premier role as the only HFC of its kind with a mandate of 'profitability with social justice' and also help the Government of India in its mission of providing housing for all by 2022. HUDCO's recent innovative initiatives and expansion of its activities, in addition to its conventional techno-financing business, would give a big push to the housing sector.

PLANNING FOR URBAN NORTH EAST (NE)

Issues and Imperatives

DR. BINAYAK CHOUDHURY

A major part of the North East region has been categorized as Scheduled Area and is being largely administered under the special provisions of the Indian Constitution. While the Fifth Schedule of the Indian Constitution looks after the administration and control of the Scheduled Areas of Manipur, Nagaland, and Arunachal Pradesh, the Sixth Schedule of the Indian Constitution takes care of the Schedule Areas of Assam, Meghalaya, Tripura and Mizoram.

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It is but obvious that a sound urban infrastructural base is not only critical to urban living, it is equally crucial to infuse and sustain the urban growth momentum. Urban North East has been a new entrant of the country's urban club. Urban North East started growing only after the bifurcation of Assam and the attainment of Statehood by Arunachal Pradesh. 2011 census shows half of Mizoram becoming urban with Assam still remaining the lowest urbanized state of North East. However, Assam accounts for more than fifty percent of the region's urban population. While the intercensal growth in the level of urbanization has been highest in Tripura, Mizoram recorded the lowest growth. Historically the urban governance structure across North East has been the coexistence of formal municipal government (designed by Lord Ripon) and the traditional tribal councils. A major part of the region has been categorized as Scheduled Areas and is being largely administered under the Schedule V and VI of the Indian Constitution. Not to speak of availability of formal rental housing or intracity mass transit system or sewerage network, even fifty percent of urban North East is not blessed with the provision of three basic urban services, - water, electricity and latrine. Given a rich demographic dividend awaiting the region by the later part of this decade and a number of schemes generously being sponsored by the Central government, urban North East is replete with a sea of opportunities for its urban settlements to strengthen their infrastructure, address the poverty issue and at the same time, revitalize their administrative system. However such an intervention should be preceded by and followed with a series of reforms aimed at the structural, financial and fiscal domain of urban governance.

PROLOGUE

It is but obvious that a sound urban infrastructural base is not only critical to urban living, it is equally crucial to infuse and sustain the urban growth momentum. Urban North East has been a new entrant of the country's urban club. Till 1971 the level of urbanization of North Eastern India was at an abysmal low of five percent. Urban North East started moving since late seventies with the bifurcation of Assam in 1972 to create the independent states of Mizoram, Meghalaya and Arunachal Pradesh, attaining statehood in 1987. The prime factor behind the urbanization of North East has been the proliferation of service sector across the North Eastern states. Although the economy of all the seven north eastern states is predominantly agrarian, the share of service (tertiary) sector in the States' Gross Domestic Product has been rising over the years. In view of the growing service sector, the importance of the urban settlements across the North Eastern states hardly needs to be highlighted. But the all important question is – are the urban settlements of North East India in a position to shoulder the growing demand of urban services? How can we sustain the growth of these urban centers? The present paper therefore tries to seek answers to these queries by referring to the scope of different urban development programmes and urban management tools across the urban North East.

METHODOLOGY

The present paper begins with an analysis of the urbanization pattern of the north eastern states. It is then followed by an examination of the level of urban services,- state wise and then by a reference to the urban governance system across the north eastern states. The emerging tools in urban planning and management, especially those related to infrastructure finance and planning shall be dwelt upon thereafter. This section is followed by a reference to urban demographic dividend of NE States and then by the provisions under different urban development schemes across urban North East. Finally, the paper drafts an agenda towards the renewal of urban North East through a holistic approach.

URBANISATION IN NORTH EAST – A PRÉCIS

The seed of urbanization in North East India was sown only in early part of nineteenth century with the British Rulers setting up a few administrative centers for policing this part of their Indian colony and for exploiting its natural resources. Deliberate urbanization of the human settlements by the British empire across the North East was however not uniform. While Assam, Meghalaya, Manipur received attention, the rest of North East remained predominantly rural in character. While Meghalaya was the seat of British Administration, Manipur the gateway to Burma (Myammar), Assam the land of resources, rest of North East could not register its importance before the British Administration in having their settlements receiving an urban status. The growth in the urbanization level across the north eastern states could be traced back to three time periods – post independence period (1950 –1970), post Statehood period(creation of independent states by bifurcating Assam), post liberalisation period (1990 onwards).

The growth of urban North East, since 1971 could be discerned from Table 1. It is seen that except Manipur and Sikkim, the urbanization level has been on a secular rise across the north eastern states. The reason behind Manipur experiencing a marginal fall in its urbanization level during the decade of 1991 – 2001 could be the stagnating urban economy of the four hill districts of Manipur. Again the reason behind the quantum jump in the urbanization level of Arunachal Pradesh during the decade of 1981 – 1991 and 1991 – 2001 has been due to its attaining full statehood in 1987. With the natural increase in urban population slowing down and the urban pull factor getting weakened, the plausible factor behind urbanization of NE could be the net rural – urban migration.

The growth of towns (Table 3) during the intercensal period (2001 – 11) across the north eastern states clearly substantiates the pace of urbanization in North East (NE). The growth in the number of urban centers have been spectacular in all the north eastern states except Mizoram, which already has a well distributed urban spaces across the

Table 1: Urbanisation Profile of North East India

Name of the State	Urbanisation Level					Regional Rank (2001)	Regional Rank (2011)
	1971	1981	1991	2001	2011		
Assam	8.62	9.88	11.09 (2487796)	12.72 (3389413)	14.08 (4388756)	7	8
Manipur	13.19	26.42	27.52 (505645)	23.88 (575964)	30.21 (822132)	2	2
Meghalaya	14.55	18.07	18.59 (330047)	19.63 (452612)	20.08 (595036)	4	7
Mizoram	N.A.	24.67	46.09 (317946)	49.50 (441040)	51.51 (561977)	1	1
Nagaland	9.95	15.52	17.21 (208223)	17.74 (352821)	28.97 (573741)	5	3
Tripura	10.43	10.99	15.29 (421721)	17.02 (543094)	26.18 (960981)	6	4
Arunachal Pradesh	3.70	6.56	12.79 (110628)	20.41 (223069)	22.67 (313446)	3	6
Sikkim	9.00 (20000)	15.00 (50,000)	9.00 (37006)	11.10 (59870)	24.97 (151726)	8	5

Source : *Census of India 1971,1981,1991, 2001, 2011. Figures in parentheses indicate urban population. Rank calculated by the author*

Table 2 : Projected Urban Population (2026)

Name of the State	Population in '000	Name of the State	Population in '000
Assam	6600	Mizoram	680
Arunachal Pradesh	762	Nagaland	453
Manipur	690	Sikkim	127
Meghalaya	678	Tripura	929

Source: *Census of India, Population projection for India and States 2001 - 2026*

state. Sikkim has been an exception in not adding a single town to its geography probably because its existing urban centres retaining the growth momentum and its economy not experiencing a structural change.

Although Mizoram is the most urbanized state in North East, its contribution to the urban population of North East is about seven per cent. While Assam accounts for fifty three percent of the urban population of North East, Arunachal Pradesh's share is as low as four percent. The intercensal (2001 – 11) growth in the level of urbanization has been highest in Sikkim (153.43) followed by Tripura (76.08) and Nagaland (67.38) while it has been lowest in case of Mizoram (27.43) with Assam registering the second lowest spot (27.61).

Table 3 : Growth of Urban Centres Across North Eastern States

Name of the State	Growth in number of Statutory and Census Towns					
	2001		Total	2011		Total
	Statutory Towns	Census Towns		Statutory Towns	Census Towns	
Assam	80	45	125	88	126	214 (71.2)
Manipur	28	5	33	28	23	51 (54.5)
Meghalaya	10	6	16	10	12	22 (37.5)
Mizoram	22	0	22	23	0	23 (4.5)
Nagaland	8	1	9	19	7	26 (188.90)
Tripura	13	10	23	16	26	42 (82.6)
Arunachal Pradesh	0	17	17	26	1	27 (58.8)
Sikkim	8	1	9	8	1	9(0.0)

Source: *TCPO, Ministry of Urban Development, Govt of India, 2012*

N.B.: Figures in parentheses indicate the percentage growth in the number of towns across NE States

There has been no million plus cities in North East as per 2011 census. Out of 468 one lakh plus cities across the country, North East has only 12 cities with Assam having 7 out of them and rest are five capital cities of other NE States, except Gangtok and Itanagar

On density parameter, Manipur is having the highest urban density with Mizoram at the bottom. It thus becomes clear that not a single north eastern state on its own could claim the top position on all the spatio demographic features. One may capture the salient features of urban North East as follows :

- Urban features not uniform across the states
- Mizoram is the most urbanized state
- Absolute urban population highest in Assam
- Urban Area largest in Assam
- Decadal increase in urbanization level highest in Tripura, lowest in Mizoram
- Density of urban population highest in Manipur and lowest in Mizoram
- Urbanisation highly concentric around the State capital

Although many NE States reported no slums in 2001 census and the slum data of 2011 census not yet published, we can rely on the Report of the Committee on Slum Statistics of Registrar General of India (RGI), which has projected the slum population till 2017. It is evident from Table 4 that all the

eight NE States shall have a substantial number of slum population which calls for timely intervention following a holistic approach.

Table 4 : Projected Slum Population (2017)

Name of the State	Population
Assam	1253798
Arunachal Pradesh	131494
Manipur	78789
Meghalaya	226415
Mizoram	117599
Nagaland	89226
Sikkim	15729
Tripura	149232

Source: *Report of the Committee on Slum Statistics, RGI*

URBAN GOVERNANCE IN NORTH EAST INDIA

Historically North East India is largely inhabited by numerous tribes, each being an atomized group and is characterised by a nearly total absence of secondary interface with others. A major part of the region has been categorized as Scheduled Areas and is being largely administered under the special provisions of the Indian Constitution. While the Fifth Schedule of the Indian Constitution looks after the administration and control of the Scheduled Areas of Manipur, Nagaland, and Arunachal Pradesh, the Sixth Schedule of the Indian Constitution takes care of the Schedule Areas of Assam, Meghalaya, Tripura and Mizoram. Under the provisions of the Fifth Schedule, the executive power of the State rests with the Tribal Advisory Council which looks after the development of the area and is answerable to the Governor of the State. Under the provisions of the Sixth Schedule, the tribal areas in the states of Assam, Meghalaya, Tripura and Mizoram are declared as autonomous areas and the development of the autonomous districts rests with the Autonomous District Councils. With the enactment of the Seventy Fourth Constitution Amendment Act, 1992 (CAA), Government of India constituted a Committee of the Members of Parliament in 1995 to settle the confusion regarding the applicability of provisions under CAA to the Scheduled Areas of the North East. As such, the urban centres in the Scheduled Areas have been grouped under three categories, viz.

(i) Transitional areas having urban and rural character to be governed by Nagar Panchayats;

(ii) Larger urban centers to be governed by Municipal Councils; and

(iii) Industrial and mining townships having a special character to be treated under a special category.

The Committee further suggested that the Autonomous District Council should have an Urban Affairs Committee to coordinate the activities of local bodies at different levels for a harmonious urban development. However, the implementation of the provisions under the CAA across the north eastern states has been only cosmetic by way of granting marginal fiscal and functional autonomy to the urban local bodies.

The urban governance structure in North East is given in Table 5.

Urban governance across North East assumes special significance in the face of reform driven approach of most of the centrally sponsored schemes, namely, Jawaharlal Nehru National Urban Renewal Mission (JNNURM), Urban Infrastructure Development Scheme for Small and Medium Towns (UIDSSMT), Integrated Housing and Slum Development Programme (IHSDP), Rajiv Awas Yojana (RAY), Integrated Low Cost Sanitation Scheme (ILCS). While JNNURM takes care of the capital cities only, the rest of the programmes are meant for all statutory towns.

But despite the existence of formal urban government, parastatal agencies still trespass the domain of urban local bodies. Alongwith the parastatals, several State government departments also look after the urban affairs as indicated in Table 6.

The financial governance in the urban governments across North East has also been in totters. Revenue deficit plagues almost all the urban local bodies across North East. The dependence of urban local bodies on higher level governments for capital expenditure is a normal phenomenon. Most of the urban local bodies are yet to switch over to double entry accrual based accounting system and none of them publishes the balance sheet. The municipal fiscal regime still follows the age old Annual Rental Value Method (ARV) for the estimation of property tax. Not only do the ULBs have a low tax base, the administration

Table 5 : Urban Governance Structure in North East

Name of the State	Urban governance structure	Governed by	Remarks
Assam	Three tier urban local bodies (ULBs)	The Assam Municipal Act 1956 (as amended) except the six districts under the Autonomous Territorial Districts. Separate act for Guwahati Municipal Corporation.	Elected bodies in position
Meghalaya	Two tier ULBs	The Meghalaya Municipal (Amendment) Act 1973. However the Autonomous Councils have the power to notify and constitute a town committee.	Nominated bodies in place or administrator run ULBs
Mizoram	Three tier ULBs	Mizoram Municipalities Act 2007. As of now, enforced only in for Aizawl.	Elected body for only Aizawl, other urban areas are governed by village councils
Manipur	Three tier ULBs	The Manipur Municipalities Act 1994 except the four hill districts to which the Manipur (Hill Areas) District Council Act 1971 applies.	Elected body in position except the lone hill town
Nagaland	Two tier ULBs	The Nagaland Municipal Act, 2001	Elected bodies in position
Arunachal Pradesh	Two tier ULBs	The Arunachal Pradesh Act, 2009	Elected body for only Itanagar – Naharlagan and Pasighat
Tripura	Two tier ULBs	The Tripura Municipal Act 1994 except the areas under the Tripura Tribal Areas Autonomous Districts	Elected bodies in position
Sikkim	Three tier ULBs	The Sikkim Municipalities Act 2007	Elected bodies in position

Source: *Tabulated by the author*

of municipal tax is also highly lackadaisical across the ULBs (it is not at all imposed in many States!). Most of the urban services are offered free. Community participation in urban governance is almost negligible, despite the constitutional provisions of having Ward(s) Committee and the mandatory requirement for Area Sabhas and Community Development Societies, Neighbourhood Committees / Groups.

URBAN INFRASTRUCTURE IN NE INDIA – AN INVENTORY

Urban infrastructure across North East is not only highly deficient in supply but also poor, qualitatively. There is no single agency to take care of respective urban services. For example, in Guwahati, there are three agencies involved in the provision of water supply and drainage and two agencies for roads.

It has been a sad commentary that none of the north eastern town has got a sewerage network except a very small part of Guwahati. Intra city mass public transport is non - existent in as many as six capital towns (out of eight). Intermediate public transport, in the form low capacity passenger vehicles, auto rickshaw, cycle rickshaw etc., rules the roost in intra-city commuting. Although banking and insurance network is well laid across urban

Table 6 : Functional Domain of Urban Institutions across NE States

Name of the department / institution	Urban functions
Development Authority	Permission to land use, execution of infrastructure schemes
Town & Country Planning	Preparation of land use plan and zoning regulations, formulation, execution and evaluation of different urban development schemes
Public Works	Roads, drains, bridges etc
Public Health Engineering	Water supply & sanitation

Source: *Tabulated by the author*

North East, there has hardly been any governmental rental housing in the urban areas of North East. The tele-density across urban north east appears significant but power scenario offers a bleak story. The Alpha Wise City Vibrancy Index for Guwahati prepared by Morgan Stanley corroborates the miserable infrastructure scenario across the urban North East.

followed by Meghalaya with other States having varying degrees of accessibility to different services. It further reveals that water still remains the first priority in the planning for the provision of urban services.

URBAN DEMOGRAPHIC DIVIDEND OF NORTH EAST

Although the urban population of

Table 7 : Urban Amenities in North East India (2001)

Name of the States	Percentage distribution of household having tap water	Percentage distribution of household with no latrine	Percentage distribution of household with electricity	Percentage distribution of household with pucca house
Arunachal Pradesh	87.2	0.1	98.5	62
Assam	36.6	0.9	94.6	75.5
Manipur	65.6	0	99.3	29.1
Meghalaya	95.6	0.2	99.3	88.3
Mizoram	72	0	99.8	92.1
Nagaland	25.7	1.3	100	72.7
Sikkim	98.2	0	99.4	99.9
Tripura	60.6	0.9	95.3	57.6

Source : *NSS Report 535, Housing Conditions and Amenities,2008 - 09*

There seems to be an utter lack of coordination between the different departments and organizations involved in the provision of urban services. For example, while the Public Health Engineering department (PHED) provides water in the urban areas , the urban local body collects the water tax or charges but seldom do they pay the dues to PHED in time and in full. The level of urban services across the urban centers of the north eastern states, as given in Table 7, reveals that Sikkim tops the list in the provision of services on account of water, sanitation and electricity

the respective NE States accounts for a modest proportion of their respective total population, it certainly holds a key to expedite and strengthen the States' urban base. Given the projected aggregate population in the 15 – 59 age group (Table 8) in NE States by 2017 and assuming the urbanisation level of North East at 21 per cent around that period, we can roughly estimate that by 2017, there would be a sizable 15 million urbanites in 414 urban settlements across entire North East. But sadly enough, the percentage share of NE States in the total country population belonging to 15 – 29 age group with formal training is a mere 0.6 per cent. Not only this, the percentage of persons in the 15 – 29 age group with formal training in the respective total population of NE States is also a paltry 1.4 percent against the country's at 3.9 per cent. To add woes to it, the share of NE States in the seating capacity of ITI[1] and ITC[2] of the country is also a meager 0.5 per cent. However, the only silver lining in this dismal scenario is the increase in NE States' share in the young labour force during 2006 – 17 at 3.4 per cent.

Coming to the State-wise percentage distribution of labour force by sex and sector across NE States (Table 9), it is found that NE State's share has been much below the national average with the only exception that urban female share in other NE States is better than that of the national average.

However, in this entire scenario, North East edge past the rest of the country as far as educational attainment is concerned, as revealed in Table 10. We find that NE States fare well as far as the number of illiterates, having education upto primary and below primary and higher secondary and secondary level amongst the labour force is concerned.

RENEWAL OF URBAN NORTH EAST

Urban development has always been a cyclical phenomenon. With urbanization, there has been a spontaneous urban decline of the core areas because of its exploitation beyond the threshold limit. Urban North East has been no exception to

Table 8 : Demographic Dividend of North East

Name of the State	Projected percentage of population in 15-59 age group by 2017	Projected population of 15-59 age group by 2017 in million	Percentage share of States of persons in 15-29 age group with formal training against the country total	Percentage of Persons with Training in the Age Group (15-29)	State's share in the increase in young labour force (15-29) during 2006 – 2017 against the country total	State's Share in seating capacity in ITI and ITC against the country total
Assam	65.10	21.4	0.8	1.4	4.8	0.6
Other NE States	68.30	10.1	0.4	1.3	2.0	0.5
India	63.90	820.6	----	3.9	-----	-------

Source: *NCEUS Report, 2009*

Table 9 : Urban Labour Market Scenario

State wise percentage distribution of labour force by sector and sex, 2005			State wise distribution of labour force in million by sector and sex, 2005	
Name of State	Urban Male	Urban Female	Urban Male	Urban Female
Assam	10.72	1.89	1.19	0.21
Other NE States	12.84	5.88	0.75	0.34
India	20.13	5.52	93.96	25.75

Source: *NCEUS Report, 2009*

Table 10 : State wise Percentage Distribution of Labour Force by Educational Attainment

Name of the State	Illiterates	Primary and below Primary	Secondary and Higher Secondary	Graduates and above
Assam	18.89	28.32	21.56	10.14
Other NE States	19.64	30.35	20.03	8.02
India	22.14	25.64	16.99	17.45

Source: *NCEUS Report, 2009*

urban decline. There had been occasional deliberate attempt to arrest this decline through urban renewal. Urban decline and urban renewal being the inevitable processes, balancing factor has been the pace of change. Urban growth infected with economic decline, physical decay and adverse social conditions leads to physical and economic deterioration of land and buildings and dilapidated services and utilities. Urban renewal is thus the revitalization of the derelict areas of an urban settlement and consists of redevelopment or reconstruction, rehabilitation and conservation. Urban renewal therefore takes care of two issues – functionality of the urban services and optimality in the use of urban infrastructures. The road map to urban renewal across the urban settlements of NE includes – making an inventory of the areas needing interventions and the prioritization of the interventions; relocating urban activities (city level functions) to ensure required density and commensurating services; changing land use to fully utilize the potential land values by introducing Transferable Development Rights, Land Pooling and Redistribution, Accommodation Reservation, Incentive Zoning and banning non conforming use; and rehabilitating the slum dwellers.

INFRASTRUCTURE DEVELOPMENT IN URBAN NORTH EAST

A stream of opportunities are available before the urban governments across north east in the form of different urban development schemes sponsored by the central government. It is high time that ULBs across North East make best of these opportunities. Table 11 lists the schemes available for urban infrastructure development and eradication of

urban poverty.

ULBs across North East must work on a mission mode to avail of these massive grants to strengthen the infrastructure base of their respective town, address the problems afflicting urban poverty and revitalize their administrative infrastructure.

THE URBAN AGENDA

In order to make the Urban Local Bodies (ULBs) across North East structurally, functionally and fiscally stronger, following agenda is put forth:

- Traditional local governance infrastructure (autonomous village councils) should be moulded in the current format of municipal governance to ensure effective local level democracy;
- Densification by raising FAR[3] in urban settlements as proposed for by urban planners should not be permitted particularly in the hilly regions across North East because of its tectonic sensitivity and terrainous topography (located in the Zone V of disaster vulnerability);
- Small and Medium towns across North East should be given more attention because of their inherent locational advantage hitherto unnoticed;
- In view of entire North East enjoying tremendous potential to be the locus of commercial hub once the Look East Policy gets nationally and internationally acknowledged and enforced. Despite being a landlocked region, identification of GEM (Generators of Economic Momentum) towns should be undertaken forthwith for accelerated development in the Thirteenth Five Year Plan;
- Land being held mostly by community or clan, any land use plan (including preparation of Master Plan) should be undertaken taking the local

Table 11 : Urban Sector Schemes

Name of the Scheme	Coverage	Objective	Conditionalities
Jawaharlal Nehru National Urban Renewal Mission (JNNURM)	The State capitals	Development of urban infrastructure Strengthening of urban governance	State government and ULBs to undertake massive reforms
Urban Infrastructure Development Scheme for Small and Medium Towns (UIDSSMT)	All statutory towns other than State capitals	Development of urban infrastructure	State government and ULBs to undertake massive reforms
Integrated Housing and Slum Development Programme (IHSDP)	All statutory towns other than State capitals	Development of urban infrastructure in slum areas	State government and ULBs to undertake massive reforms
Rajiv Awas Yojana (RAY)	All statutory towns	• Housing and infrastructure in slum areas • Biometric and GIS based slum mapping	State government and ULBs to undertake massive reforms
Non Lapsable Central Pool of Resources	All statutory towns	Urban infrastructure development	
Ten Percent Lump Sum Central Pool Fund (available for north east only)	All statutory towns	Urban infrastructure development	
Integrated Low Cost Sanitation (ILCS)	All statutory towns	Sanitation for slum areas	
Swarna Jayanti Sahari Rozgar Yojana (SJSRY)	All statutory towns	• Self employment • Small infrastructure development through wage employment • Skill development • Development of community structures	

Source: *Tabulated by the author*

community into confidence;

- Rain water harvesting should not be confined in the building bye-laws but practised in the right earnest;
- In view of very poor score against Fiscal Autonomy Ratio (FAR), Revenue Decentralization Ratio (RDR) and Expenditure Decentralization Ratio (EDR), municipalities should be strengthened fiscally by taking recourse to property tax, other civic taxes, user charges etc. Unit area method should be adhered to for estimating property tax. Municipal Tax tribunal should be constituted to settle disputes;
- Municipal accounts through double entry accrual based accounting and regular audit by C&AG or local audit must be ensured;
- Any asset creation must be supported by asset management;
- Universalisation of urban services should be ensured;
- Formula based grants – in – aid should be adhered to even if a number of NE States are exempted from the constitution of State Finance Commission under Article 243 M;
- Timely utilization of fund should be ensured to expedite timely release of subsequent fund besides plugging cost overrun;
- GIS – MIS integration of all urban information should be ensured;
- For bigger towns, additional floor space index and Transferable Development Rights (TDR) may be granted, if permissible from the standpoint of disaster vulnerability;
- e – municipal governance and single window service should be introduced;
- State-wise uniform municipal staffing should be ensured with a dedicated municipal cadre;
- Land use change should be permissible in selective cases on payment of heavy premium;
- Public Private Partnership(PPP) mode should be followed in the provision of all urban services;
- Infrastructure gap analysis should be meticulously done to assess infrastructure needs;
- Credit worthiness of ULBs should be enhanced;
- Municipal ombudsman should be appointed for all states;
- Property title certification must be introduced;
- Community participation through formal structures (area sabhas, CDS[4] , NG[5] / NC[6]) must be ensured;
- Maintenance and periodic updating of municipal data base, following uniform format should be made mandatory for the all the ULBs; and
- Skill formation and upgradation of the vast milieu of urban labour force should be planned for, to cash in the demographic dividend to be had by all the NE States by 2017.

EPILOGUE

Urban development requires serious attention in its own right. However, urban development ought not to be superfluous. It should enable an urban area to act as the prime mover of the whole socio-economic operational system. All the aforesaid schemes appear to be the enabler. But in order to reap the fruits of these schemes, urban North East must be courageous enough to undertake the reforms within the given time line. If North East has the will, the aforesaid schemes are the way. Let us combine these two and wait for a prosperous urban North East.

END NOTES

[1] Industrial Training Institute

[2] Industrial Training Centre

[3] Floor Area Ratio

[4] Community Development Society

[5] Neighbourhood Group

[6] Neighbourhood Committee

NOTES

The deprivation index {DI = 0.5 X + 0.25 (Y+Z)}, where X, Y, and Z are respectively the percentages of household fetching water from a distance, without latrine, and without drainage prepared by Twelfth Finance Commission by deriving the distance of each State from the minimum deprived state and weighing it by 2001 population. It also corroborates the infrastructural backwardness of NE States.

The decentralization index calculated by the Eleventh Finance Commission also substantiates the poor governance infrastructure across urban North East. No perceptible governance reform is visible to suggest any departure from the decade gone by.

The fiscal health of ULBs across North East is in a wretched condition as is evident (Twelfth Finance Commission) from their revenue effort with respect to own revenue of the respective States and GSDP (net of primary sector). While Arunachal Pradesh and Mizoram draws a blank, Assam scores a mere 0.434 and 0.374 and the rests relegated to second decimal. No fiscal reform has yet been undertaken to reverse the situation.

The district infrastructure index, defined as $DII_i = \sum w_i x_{ij}$, where DII_i is the composite index for the ith infrastructure, w_i is the weight assigned to the ith infrastructure and x_{ij} is the value of the

ith infrastructure for the jth district and where xij of equation is further defined as xij = 100*(yij/yiA), where yij is the value of the ith infrastructure for the jth district and yiA is the value of the ith indicator for whole of North East calculated by the Planning Commission also suggest uneven position of the State across the different infrastructure although it does not differentiate between urban & rural space.

REFERENCES

Assam Development Report 2002 , Planning Commission, Government of India.

India Infrastructure Report 2008, Oxford University Press, New Delhi.

Kundu, A. (2005), Handbook of Urbansation in India, Oxford University Press, New Delhi.

Kundu, Amitabh (2007), Infrastructure Financing and Emerging Pattern of Urbanisation: A Perspective, NIUA, New Delhi.

Mathur, M. P. (2004), Municipal Finance and Municipal Services in India: Present Status and Future Prospectus, Second International Conference on Financing Municipalities & Sub-National Governments, Washington DC.

Mathur, O. P. and S. Thakur (2004), India's Municipal Sector, A Study for the Twelfth Finance Commission, National Institute of Public Finance and Policy, New Delhi.

Mohanty, P. K. (2000), City Development Strategy and Comprehensive Municipal Reforms: The Approach of Hyderabad City in India, Asian City Development Conference, Japan.

Mohanty, P. K. (2001), Strategic Issues in Municipal Infrastructure Development, Infrastructure Forum organised by the World Bank at Washington D C.

Mohanty, P. K. (2003), Financing Urban Infrastructure: Some Innovative Practices of Resource Mobilisation, CGG Working Paper.

Nallathiga, Ramakrishna (2007), Off-budget Approaches to the Delivery of Urban Services: the Potential of Public-Private Partnerships, ICFAI Journal of Public Finance, Volume V (2): 53-64.

Pethe A.M. and M. Godke (2002), Funding Urban Infrastructure - From Government to Markets, Economic and Political Weekly.

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For more information and details on submission of Best Practices please contact Executive Director (Training), HUDCO's HSMI, New Delhi (edthsmi2013@gmail.com)

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URBAN HOUSING SHORTAGES IN INDIA

Aspects of Economic Category, Caste and Ethnicity

ARJUN KUMAR

The issue of housing poverty and deprivation remains close to the weaker economic category such as EWS and LIG households as well as caste and ethnic groups. Among caste and ethnic groups, SC households were found to have high urban housing shortages as compared to ST and Other households.

Keywords: *Urban Housing, Housing Shortages, Right to Shelter, Quality of Life, Twelve Five Year Plan, Rajiv Awaas Yojana, Economic Category, Caste, Ethnicity*

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This paper has estimated the urban housing shortages in India in 2012 by Caste and Ethnic group following the methodology of the Technical Group on Urban Housing Shortage, 2012-17 (TG-12) using data from Census 2001 and 2011 and NSS Housing Condition Rounds unit record data 2008-09. The TG-12 estimated number of urban households to be 81.35 million and urban housing shortage to be 18.78 million in 2012, majority of which belongs to Economically Weaker Section and Low Income Group households. Households living in congested conditions were found to be the main factors leading to these housing shortages. Among Caste and Ethnic Groups, housing shortages were found high for Scheduled Caste households as compared to Scheduled Tribe and Other households. Results suggest the need for attention on urban housing with targeted group specific policies (economic and social), to eradicate shelter deprivation and enhancement of the quality of life in urban India.

INTRODUCTION

Several policies and programmes are being implemented in urban India to tackle the housing problem with the mission of providing affordable housing for all, especially shelter and basic services to all slum-dwellers and urban poor such as National Urban Housing and Habitat Policy 2007, Jawaharlal Nehru National Urban Renewal Mission (JNNURM), Affordable Housing in Partnership Scheme (AHIP), Interest Subsidy Scheme for Housing the Urban Poor (ISHUP) and Rajiv Awas Yojana (RAY), etc. RAY envisages a 'Slum-free India' with inclusive and equitable cities in which every citizen has access to basic civic and social services and decent shelter. It aims to provide the support to enable states to redevelop all existing slums in a holistic and integrated way and to create new affordable housing stock.

The Technical Group on Urban Housing Shortage, 2012-17 (TG-12) constituted by the Ministry of Housing and Urban Poverty Alleviation, Government of India has estimated the urban housing shortages for 2012 to be 18.78 million, out of which 95.62 per cent pertains to economically weaker sections and low income groups of the society. These shortages were arrived at by putting together factors such as excess of households over housing stock, household living in congested conditions, non-serviceable temporary houses, obsolete houses and households living in homeless conditions.

Micro level studies have shown that the Scheduled Castes have experienced caste-based discrimination in accessing basic public services and common public resources. The failure of entitlements due to caste based exclusion is significant. This calls for corrective measures preferably through legal procedures, to bring about equality across social groups in all the spheres. Fighting discrimination calls for additional policies, complementing anti-poverty and economic development programmes. 'Inclusive policies' must include interventions and positive steps to overcome social exclusion and discrimination in various market and non-market institutions from where people access source of livelihood and social needs (Thorat & Sabharwal, 2011).

The insights from the experience of poverty and consumption expenditure changes during the periods 1994-2005 to 2005-10, particularly during the latter period, need to be kept in mind in developing a pro-poor inclusive growth strategy during the Twelfth Plan. The results imply that a broad-based pro-poor policy needs to be supplemented by group specific policy (social, religious and economic groups) and this must be made an integral part of the overall planning strategy (Thorat & Dubey, 2012).

The Twelfth Plan recognises the inclusive growth approach as the means to an end that would demand outcomes which yield benefits for all and particularly to the marginalised sections of society (Thorat & Dubey, 2012). As per the Approach Paper of the Planning Commission, "inclusive growth should result in lower incidence of poverty, improvement in health outcomes, universal access to school education, increased access to higher education, including skill and education, better opportunities for both wage employment and livelihoods and improvement in provision of basic amenities like water, electricity, roads, sanitation and housing. Particular attention needs to be paid to the needs of the SC, ST and OBC population, women and children as also minorities and other excluded groups" (Planning Commission, 2011).

This paper estimates the urban housing shortages in India in 2012 by caste and ethnic group (social groups[1]) following the methodology of TG-12, using data from Census 2001 and 2011 and NSS Housing Condition Rounds unit record data 2008-09.

URBAN HOUSING SHORTAGES – 2012 AS PER TG-12

As per the Census 2011, the total number of Census houses[2] in urban areas were 110.1 million of which 11.1 million were vacant and another 0.7 million were occupied but kept as locked. There were 76.1 million houses used for only residential purposes and 2.4 million houses used for residential-cum-other uses, the two together giving the housing stock[3] of 78.5 million. There were 78.9 million households[4] (excluding institutional[5] households). The growth rates of housing stocks were found to be higher than households, which resulted in narrowing the gap between households and housing stocks over the period of time and eased the housing situation.

There has been a massive rise of 4.6 million vacant census houses, from 6.5 million in 2001 to 11.1 million in 2011 (Table 1). The TG-12 noted that- "Applying the proportion of 79.82 per cent of urban houses used for residential purposes (excluding the locked and vacant houses) as per Census 2011, it can be inferred that around 9.43 million residential units were lying physically unutilized that could meet a large part of housing needs." However, the TG-12 categorically stated the unavailability of information pertaining to the characteristics of these vacant and locked houses such as size, physical conditions, reason for the non-occupancy and being locked.

The increase in the number of households is understandably due

Table 1 : Levels and Changes in the Census Houses and Households in Urban India during 2001 and 2011

	2011		2001		2001 – 2011 (Changes)		
	No. (millions)	as proportion during 2011 (in %)	No. (millions)	as proportion during 2001 (in %)	No. (millions)	as proportion during 2011 (in %)	
Number of census houses							
Total number of census houses	110.1	100.0	71.6	100.0	38.6	53.9	100.0
Total number of vacant census houses	11.1	10.1	6.5	9.0	4.6	71.9	12.0
Total number of occupied census houses	99.0	89.9	65.1	91.0	33.9	52.1	88.0
Number of occupied census houses							
Total number of occupied census houses	99.0	100.0	65.1	100.0	33.9	52.1	100.0
Occupied Census Houses used as Residence	76.1	76.9	50.2	77.1	25.9	51.6	76.3
Residence -cum- other use	2.4	2.4	1.8	2.8	0.5	27.8	1.5
Shop/ Office	10.7	10.8	7.8	12.0	2.9	36.7	8.5
School/ College etc.	0.4	0.4	0.3	0.4	0.1	48.0	0.4
Hotel/ Lodge/ Guest house etc.	0.4	0.4	0.3	0.4	0.1	48.1	0.4
Hospital/ Dispensary etc.	0.3	0.3	0.3	0.4	0.1	22.5	0.2
Factory/ Workshop/ Workshed etc.	1.5	1.5	1.2	1.9	0.3	22.3	0.8
Place of worship	0.6	0.6	0.4	0.6	0.2	42.6	0.5
Other non-residential use	5.9	6.0	2.8	4.3	3.2	113.1	9.3
No. of occupied locked census houses	0.7	0.7					
Total Households	78.9		53.7		25.2	46.9	
Occupied Census Houses used as Residence and Residence -cum- other use	78.5		52.1		26.4	50.8	
Total Households - Occupied Census Houses used as Residence and Residence -cum- other use	0.4		1.6		-1.2		

Source: Tables on Houses, Household Amenities and Assets, House listing and Housing Data, Census of India, 2001 and 2011.

to the addition to the urban areas recorded in the latest Census. The total number of urban agglomeration and other cities and towns had gone up by only 2541 in the 10 decades of the last century. However, during 2001-11, the number has gone up by 2774, from 5161 towns in 2001 to 7935 towns in 2011, majority of these being the "Census towns". The jump in the number of census towns from 1362 to 3894 during 2001-11 is unprecedented in the history of the Indian Census. The number of statutory towns increased from 3799 to 4041 during 2001-11. In the 2011 Census, 475 places with 981 Outgrowths (OGs) have been identified as Urban Agglomerations[6] (UAs) as against 384 UAs with 962 OGs in 2001 Census.

The number of households as on March 31, 2012 works out as 81.35 million by TG-12, using annual exponential growth rate during 2001-11 and discounting the increase on account of additional towns in 2011 Census. The TG-12 has estimated the housing shortages in urban India in 2012 by adding four factors; households living in (a) non-serviceable kutcha/temporary[7] houses as per Census 2011 figures; (b) obsolescent houses[8] (excluding non-serviceable kutcha/temporary houses); (c) congested houses[9]

requiring new houses; and (d) homeless condition. The excess of households (that do not include homeless) over housing stock has been marginal in 2011 and the gap was found to be narrowing over time as discussed before. Thus, the TG-12 has not incorporated excess of households over housing stock while estimating the housing shortage and also added that this phenomenon may not be considered as housing shortage. With regard to estimation of houseless condition, the TG-12 considered that half of the total homeless population of 0.8 million, as per Census 2011, were single migrants whereas the other half had an average household size of 3. By this estimate, the housing need for the homeless should be roughly 0.4 million for single male migrants and 0.13 million for those with families, taking the total to 0.53 million in 2012.

The total urban housing shortage in 2012 was estimated to be 18.78 million, out of which 5 per cent, 12 per cent, 80 per cent and 3 per cent were on the account of households living in non-serviceable temporary houses, obsolete houses, congestion conditions and homeless conditions respectively (Table-2). The urban housing shortage in 2007 was estimated at 24.71 million by TG-11. There was decline of almost 6 million housing shortage between 2007 and 2011. This was mainly on account of excess of households over housing stock which narrowed over time. The excess of households over housing stock was estimated at 7.47 million by TG-11 in 2007, whereas this gap reduced to 0.4 million in 2011 which has eased the housing situation. Thus, TG-12 did not incorporate this factor in the estimation of urban housing shortages in 2012.

Table 2 : Summary of Households having Housing Shortages in Urban India, 2012 by the Technical Group on Urban Housing Shortage (TG-12) (2012-17)

	Shortage (in millions)
Total Households	81.35
Households living in Non-Serviceable Katcha/Temporary Houses	0.99
Households living in Obsolescent houses (excluding non-serviceable katcha/ temporary houses)	2.27
Households living in Congested houses requiring new houses	14.99
Homeless Households	0.53
Total Housing Shortages	18.78

Source: *The Technical Group on Urban Housing Shortage (TG-12) (2012-17), Ministry of Housing and Urban Poverty Alleviation, Government of India*

URBAN HOUSING SHORTAGES – 2012 BY ECONOMIC CATEGORIES

The classification of various economic category households such as economically weaker section (EWS), low income group (LIG), middle and high income group were based on household income criteria prevalent in 2012. EWS households are those with income up to Rupees 5000 per month and LIG households are those with income between Rupees 5000 and 10000 per month. The TG-12 using the consumption expenditure data from NSS 66th Round for 2009-10, found that EWS category households comprise one third of the households in urban area and 80 per cent of the households have expenditure equal to or below the LIG category. According to TG-12, the households from EWS, LIG, middle and high income group category accounted for 56.18 per cent, 39.44 per cent and 4.38 per cent respectively of the total estimated urban housing shortage. These figures were arrived at by the estimation of total housing shortage in 2012 by consumption expenditure deciles classes using NSS 65th Round (housing condition round) for 2008-09.

ESTIMATION OF URBAN HOUSING SHORTAGES – 2012 BY CASTE AND ETHNIC GROUPS

The shares of households in urban India during 2011 were 4.04 per cent, 14.34 per cent and 81.62 per cent for STs, SCs and Others respectively (Table 3). Out of 81.35 million estimated urban households in 2012, the number of estimated

Table 3 : Number of Households and their Share across Social Groups in Urban India, 2008-09, 2011 and 2012

	ST	SC	Others	Total
NSS 2008-09				
Share of households in %	3.28	14.43	82.29	100.00
Census 2011				
Households (in millions)	3.19	11.31	64.37	78.87
Share of households in %	4.04	14.34	81.62	100.00
2012* (Forecasted)				
Households (in millions)	3.29	11.66	66.40	81.35

Source:- *Tabulated by the author*

households for STs, SCs and Others were 3.29, 11.66 and 66.40 million respectively.

The urban housing shortage by caste and ethnic groups has been estimated taking into account the 4 factors as per the TG-12 estimation for urban housing shortage, as discussed in the following sub-sections.

Households living in Non-Serviceable Temporary Houses

Urban households living in non-serviceable temporary houses in 2011 were 0.99 million. Among social groups, the urban households living in these non-serviceable temporary houses in 2011 were 9.23 per cent, 28.26 per cent and 62.51 per cent for STs, SCs and Others respectively (Table 4). The households living in non-serviceable temporary houses in 2012 were estimated to be 0.99 million and the number of estimated households living in non-serviceable temporary houses for STs, SCs and Others were 0.09, 0.28 and 0.62 million respectively.

Housing Shortage due to Obsolescence excluding Temporary Houses

The households living in obsolete houses excluding non-serviceable temporary houses in 2012 were estimated to be 2.27 million and the number of estimated households living in obsolete houses excluding non-serviceable temporary houses for STs, SCs and Others were 0.05, 0.30 and 1.89 million respectively (Table 5).

Households living in Congested Conditions

18.4 per cent of the urban households were living in congested conditions in 2008-09. Among social groups, the urban households living in congested conditions in 2008-09 were 16.77 per cent, 26.52 per cent and 17.08 per cent for STs, SCs and Others respectively (Table 6). The households living in congested conditions in 2012 were estimated to be 14.99 million and the number of estimated households living in congested conditions for STs, SCs and Others were 0.55, 3.09 and 11.34 million respectively.

Households in Homeless Conditions

The households in homeless conditions in 2012 were estimated to be 0.53 million by TG-12 and the number of estimated households in homeless conditions for STs, SCs and Others were 0.03, 0.12 and 0.38 million respectively. Due to unavailability of data, the household share of the bottom most quintile across social groups was

Table 4 : Estimation of Households living in Non-Serviceable Temporary houses across Social Groups in Urban India during 2012

	ST	SC	Others	Total
Households living in Non-Serviceable Katcha/Temporary Houses in 2011				
in millions	0.09	0.28	0.62	0.99
Share in Non-Serviceable Katcha/ Temporary Houses in %	9.23	28.26	62.51	100.00
Households living in Non-Serviceable Katcha/Temporary Houses in 2012				
in millions	0.09	0.28	0.62	0.99
Total Households in 2012				
in millions	3.29	11.66	66.4	81.35
Households excluding Non-Serviceable Katcha/Temporary Houses in 2012				
in millions	3.20	11.38	65.78	80.36

Source:- *Tabulated by the author*

Table 5 : Estimation of Housing Shortage due to Obsolescence excluding Non-Serviceable Temporary/Katcha houses across Social Groups in Urban India during 2012

	ST	SC	Others	Total
Households living in 40-80 years old dwelling unit having bad condition of structure of the house excluding non-serviceable temporary/katcha houses during 2008-09 (as proportion of households in %)	1.11	1.72	1.34	1.39
Households living in 80 and more years old dwelling unit excluding non-serviceable temporary/katcha houses during 2008-09 (as proportion of households in %)	0.53	0.95	1.55	1.43
Households in Obsolescent or unacceptable dwelling units (40-80 years old dwelling unit having bad condition of structure of the house and 80 and more years old dwelling unit) excluding non-serviceable temporary/katcha houses during 2008-09 (as proportion of households in %)	1.64	2.67	2.89	2.82
Households excluding non-serviceable temporary/katcha houses, 2012 in millions	3.20	11.38	65.78	80.36
Households living in Obsolescent houses (excluding non-serviceable temporary/katcha houses) in 2012* in millions	0.05	0.30	1.89	2.27

Source:- *Tabulated by the author*

Table 6 : Summary of Process of Estimating Households living in Congestion and requiring a New Dwelling Unit across Social Groups in Urban India during 2012 (in millions)

		ST	SC	Others	Total
A	Total estimated households during 2008-09	2.18	9.59	54.68	66.44
A1	Total estimated households excluding non-serviceable katcha/temporary houses during 2008-09	2.14	9.49	54.47	66.10
B	Estimation of households requiring a separate dwelling unit to take care of congestion excluding those living in non-serviceable katcha/ temporary houses during 2008-09	0.37	2.62	9.86	12.85
C	Estimation of Households requiring a separate dwelling unit to take care of congestion in non-serviceable katcha/temporary houses during 2008-09	0.00	0.00	0.00	0.00
B + C	Dwelling units required on account of Congestion during 2008-09	0.37	2.62	9.86	12.85
D	No. of households with married couple not having a separate room, living in bad structures aged 40-80 years excluding non-serviceable katcha/temporary houses during 2008-09	0.01	0.06	0.28	0.34
E	No. of households with married couple not having a separate room, living in 80 year old houses excluding non-serviceable katcha/ temporary houses during 2008-09	0.00	0.02	0.25	0.27
D + E	Deductions to be made on account of double counting	0.01	0.08	0.52	0.61
(B+C) - (D+E)	Estimated households requiring a new dwelling unit on account of Congestion during 2008-09	0.37	2.54	9.34	12.24
{(B+C) - (D+E) /A}*100	Households living in Congested Living Conditions as a Proportions of Total Estimated Households of NSS during 2008-09 (in %)	16.77	26.52	17.08	18.43
	Total Households in 2012	3.29	11.66	66.40	81.35
	Households living in Congested houses requiring new houses in 2012	0.55	3.09	11.34	14.99

Source:- *Tabulated by the author*

applied to the total estimated households in homeless conditions in 2012 by TG-12 to arrive at the estimates for social groups (Table 7).

Table 7 : Households in Homeless Conditions across Social Groups in Urban India during 2012

	ST	SC	Others	Total
Share in Bottom Most Quintile during 2008-09 (in %)	6.23	22.89	70.88	100.00
Homeless Household* (in Million)	0.03	0.12	0.38	0.53

** TG-12 assumed that all homeless households were subsumed in bottom two deciles or Bottom quintile. Homeless households across social groups were calculated by applying their household share in bottom quintile during 2008-09 upon figure of 0.53 million homeless households as taken by TG-12 for 2012.*

***Source**- National Sample Survey, Housing Condition Round (65th) unit record data, 2008-09.*

Total Urban Housing Shortages - 2012 across Caste and Ethnic Groups

Total urban housing shortages in 2012 comes out to be 18.78 million by adding the four factors (non-serviceable temporary houses, obsolete houses, congestion conditions and homeless conditions) as discussed before. Among social groups, the number of estimated urban housing shortages in 2012 for STs, SCs and Others were 0.72, 3.79 and 14.23 million respectively (Table 8). Urban housing shortages as proportion of urban households in 2012 were 23.05 per cent for aggregate and among social groups, 22.01 per cent, 32.54 per cent and 21.44 per cent for STs, SCs and Others respectively. Out of the total urban housing shortages of 18.78 million in 2012, STs, SCs and Others accounted for 3.86 per cent, 20.24 per cent and 75.92 per cent respectively. SC households were found to have high urban housing shortages as compared to ST and Other households.

Table : 8 Summary of Households having Housing Shortages across Social Groups in Urban India, 2012 (in millions)

	ST	SC	Others	Total
Total Households (in millions)	3.29	11.66	66.40	81.35
Share of households in %	4.04	14.34	81.62	100.00
Households living in Non-Serviceable Katcha/Temporary Houses	0.09	0.28	0.62	0.99
Households living in Obsolescent houses (excluding non-serviceable katcha/temporary houses)	0.05	0.30	1.89	2.25
Households living in Congested houses requiring new houses	0.55	3.09	11.34	14.98
Homeless Households	0.03	0.12	0.38	0.53
Total Housing Shortages	0.72	3.79	14.23	18.74
(as proportion of households in 2012 in %)	22.01	32.54	21.44	23.05
(as proportion of housing shortages in 2012 in %)	3.86	20.24	75.92	100.00

***Note**- Shortages by each social groups have been added up here to arrive at total housing shortages by each factor in 2012, which may slightly vary from the aggregate urban housing shortages estimates in 2012.*

CONCLUSIONS AND POLICY ISSUES

This paper discussed the housing situations and shortages in urban India, and also focused on aspects of economic category, caste and ethnic groups. This paper also estimated the urban housing shortages in India in 2012 by caste and ethnic group, following the methodology of TG-12 and using data from Census 2001 and 2011 and NSS Housing Condition Rounds unit record data 2008-09. Given the magnitude of urban housing shortage, it is imperative that adequate and affordable urban housing has to be given immediate attention and thrust from the States, by allowing more housing supply to eradicate shelter deprivation and to enhance the quality of life.

The issue of housing poverty and deprivation remains close to the weaker economic category such as EWS and LIG households as well as caste and ethnic groups. Among caste and ethnic groups, SC households were found to have high urban housing shortages as

compared to ST and Other households. ST and SC households were also found lagging in the attainment of housing amenities as compared to Other households. This calls for the need of supplementary targeted group specific policies (economic and social) in urban housing.

Given the dynamics of urban housing, recommendations of the TG-12 such as declaration of housing to be made part of infrastructure sector or declared to be an industry (so that it is possible to incentivise the construction activities to deliver an appropriate mix of dwelling units to meet the needs of the people in housing poverty), bring in the vacant houses into the housing market through taxation and incentive policies, create extra space or build extra rooms through support from public agencies to tackle the problem of congestion and shift the households living in houses more than 80 year old to new units, will act as complimentary measures to reduce the estimated urban housing shortage of 18.78 million. These additional and alternate measures will also help to achieve the targets effectively and reduces dependency on single remedy of supply of affordable housing by the state which may have concerns like high gestation periods among others. Measures like these would help in the attainment of the Twelfth Five Year Plan's objective of 'Faster, Sustainable and More Inclusive Growth' in urban India.

NOTES

[1] Scheduled Tribes (STs), Scheduled Castes (SCs) and Others.

[2] 'House' was defined 'as a building or part of a building having a separate main entrance from the road or common courtyard or stair case etc. Used or recognised as a separate unit. It may be inhabited or vacant. It may be used for a residential or non-residential purpose or both'.

[3] Housing Stocks includes occupied census houses used as residential and residential cum others use.

[4] A 'household' is usually a group of persons who normally live together and take their meals from a common kitchen unless the exigencies of work prevent any of them from doing so. Persons in a household may be related or unrelated or a mix of both.

[5] A group of unrelated persons who live in an institution and take their meals from a common kitchen is called an Institutional Household. Examples of Institutional Households are boarding houses, messes, hostels, hotels, rescue homes, jails, ashrams, orphanages, etc.

[6] An urban agglomeration is a continuous urban spread constituting a town and its adjoining outgrowths (OGs), or two or more physically contiguous towns together with or without outgrowths of such towns. An Urban Agglomeration must consist of at least a statutory town and its total population (i.e. all the constituents put together) should not be less than 20,000 as per the 2001 Census. In varying local conditions, there were similar other combinations which have been treated as urban agglomerations satisfying the basic condition of contiguity. Examples: Greater Mumbai UA, Delhi UA, etc.

[7] Katcha/Temporary Houses: Houses in which both the walls and roof are made up of materials that needs to be replaced frequently and made up of straw, cloth, etc (grass / straw / leaves / reeds / bamboo, etc). Non-Serviceable Temporary House: Temporary houses in which wall is made of Grass, Thatch, Bamboo, etc. Plastic or Polythene.

[8] Obsolescent houses comprised of households living in 40-80 years old dwelling units having bad conditions of structure. The TG-12 estimated this to be 2.82% of all dwelling units.

[9] A married couple sharing a living room with an adult is considered as congestion. This estimated by TG-12 to be 18.42% of the total households.

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REFERENCES

Census of India (2012), H-Series Tables on Census Houses, Household Amenities and Assets, 2011, Registrar General and Census Commissioner, India, Ministry of Home Affairs, New Delhi.

Kumar, Arjun (2013), "Access to Basic Amenities in Urban India -Status of Levels across Caste, Ethnicity, Religion, Livelihood Categories and Poverty in Various Class Sizes of Towns and Cities", Urban India, July – Dec 2013, National Institute of Urban Affairs.

Kumar, Arjun (2014), "Access to Basic Amenities: Aspects of Caste, Ethnicity and Poverty in Rural and Urban India—1993 to 2008–2009", Journal of Land and Rural Studies, January 2014, Vol. 2, No. 1, pages 127-148, Sage Publication.

Kundu, Amitabh (2006): "Trends and Patterns of Urbanisation and their Economic Implication" (Chapter 2) in India Infrastructure Report on Urban Infrastructure 2006 by Infrastructure Development Finance Company, Oxford University Press, New Delhi.

Kundu, Amitabh (2011), "Politics and Economics of Urban Growth", Economic and Political Weekly, Vol - XLVI No. 20, May 14, 2011.

Kundu, Debolina, and Dibyendu Samanta, (2011), "Redefining the Inclusive Urban Agenda in India", Economic and Political Weekly, Vol - XLVI No. 05, January 29, 2011.

Ministry of Housing and Urban Poverty Alleviation (2007), Report of the Technical Group [11th five year plan: 2007-12] on Estimation of Urban Housing Shortage, Ministry of Housing and Urban Poverty Alleviation, National Buildings Organisation, Government of India, New Delhi.

National Sample Survey Organisation (2010): "Housing Condition and Amenities in India: 2008-09", Report No 535, National Sample Survey Organisation, Ministry of Statistics and Programme Implementation, Government of India, New Delhi.

Planning Commission (2011), "Faster, Sustainable and More Inclusive Growth: An Approach to 12th Five Year Plan", Planning Commission, Government of India, New Delhi.

Thorat, Sukhadeo and Nidhi S. Sabharwal (2011), "Social Exclusion and Commons" in "Vocabulary of Commons" book by Foundation for Ecological Security, printed at WQ Judge Press, Bangalore, India.

Thorat, Sukhdeo and Amaresh Dubey (2012), "Has Growth Been Socially Inclusive during 1993-94 – 2009-10?", Economic and Political Weekly, Vol - XLVII No. 10, March 10, 2012.

A HUDCO CSR ASSISTED NIGHT SHELTER IN THE CITY OF KOLKATA

Amidst a milieu of burgeoning socio-legal concerns and interventions for 'Homeless' in India, the 'CSR and Sustainability Policy' of HUDCO appreciably enlists among other activity thrust areas, the following: 'Initiatives for slum redevelopment including environmental improvement in low income habitats, sanitation infrastructure and support; Projects of day/night shelters, children homes, senior citizens/poor citizens home etc. and to provide support for the projects of barrier free amenities/accessible facilities for physically challenged as well as to provide equipment for support'. HUDCO has extended grant assistance to several Urban Local Bodies (ULBs) for construction of Night Shelters/ Shelter facilities, besides undertaking activities like supporting skill building initiatives, construction of Pay & Use toilets and health care needs like purchase of ambulance, under its "CSR and sustainability policy".

SARBARI, 19 B, Chetla Hat Road, Ward No. 82, Kolkata

'Sarbari', is a shelter for Homeless and mentally ill women run by ISHWAR SHANKALP, an NGO working with homeless and mental health in the Kolkata metropolitan area. The institution was born in April 2010, propelled with the realisation that homeless women with mental illness who live on the streets are extremely vulnerable to different kinds of abuses: the gang-rape of a homeless woman in the city who was under the NGO's treatment for mental health and was recovering, was the catalyst owing to her recovery from mental illness and consequential improved hygiene and physical appearance, ironically she became more susceptible to the incidence of rape. The subsequent 'Shelter for Urban Homeless' scheme of West Bengal and grant assistance from HUDCO to renovate the shelter building has been more than enabling.

The Shelter is housed in a Kolkata Municipal Corporation owned building, in the southern end of KMC area. It is set off from the main Chetla Hat road and has a walled boundary, hence ideally suited to the shelter type. The building was originally meant to be a 'vagrant home' under the West Bengal Vagrancy Act. It's a Ground +1 RCC structure; the shelter operates only on the ground floor. There are clear spatial units for rest and sleep; for psycho-social recovery activities; livelihood activities; doctors' unit; Special Care unit, administrative unit; Community Kitchen, verandahs and an open courtyard. The NGO runs a community-based outreach program called 'Naya Daur' for homeless persons with psycho-social disability within the Kolkata metropolitan area. The field officials bring mentally ill destitute women to the shelter for rehabilitation, resettlement and restitution. Initially when a woman is identified as homeless and having mental illness through the Outreach program or through Kolkata Police and consequently agrees to be brought in the shelter, the primary emphasis is on basic hygiene, physical and mental health care and symptom reduction. Once the women become stable and functional, they are gradually involved in the routine household activities of the shelter which act as basic life skill therapies. Counsellors and therapists identify their interest and aptitude and accordingly occupational and vocational therapy training programs begin. Having identified their employment options, effort is made to resettle the women for self-sustenance. Wherever possible, they are restored back to their families of origin. Women leave the shelter only after they are restored or rehabilitated. From the year 2012-13, the Shelter is also emphasizing on providing entitlements to the residents. Several bank accounts have been opened. The process of applying for UID cards has begun.

The shelter is managed as per the institutional norms of the 'Scheme of Shelter for Homeless' of the West Bengal Government. The NGO has a team of 42 regular and 6 consulting officials including social workers, medical and paramedical personnel especially in the area of mental health. A seven member Board involving doctors and paramedical professionals are at the helm of running the Shelter. The shelter has enabled mentally ill homeless women to shift from being treated as 'law breakers' and arrested under the Anti-Beggary Act to people who need care; need a place to heal from the wounds inflicted by family, state and society and a place that would enable them to redefine their identity, find new skills and start rebuilding life.

It is herein accentuated for readers to internalise that 'Night Shelters' or 'Shelters for homeless' are more than places for the homeless people to rest in the night. There are several causes and conditions that characterise 'homelessness', hence there are 'homeless types'. Homeless people may be young or old, men or women, families or destitute, orphans or run-away kids, able bodied or infirm, beggars or workers and migrants or natives. Homelessness may be transient or perpetual. Each homeless type has associated conditions and concomitant relief, recovery or rehabilitation needs. Therefore every project intervention to address 'homelessness' must take the inherent heterogeneity of the homeless population construct as their point of departure' and create and nurture institutional mechanisms for meaningful outreach, this of-course leaves the debate of structural frameworks within which 'Homelessness' posits and perpetuates.

Documented by Sangeeta Maunav, Senior Manager, HUDCO's Human Settlement Management Institute, New Delhi

PUBLIC TRANSIT AND URBAN POOR

A Trade off between Urban Poor Mobility Needs and Transport Policy

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The challenge is to frame a transport policy to fulfil mass mobility needs, keeping in mind the large share of riders who are urban poor. For this, relationship between transport infrastructure and urban poor has to be clearly understood as to how people are getting affected by a lack of access to transport services and what makes them likely to fall into "transport poverty".

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Urban poor are deprived of basic necessities of life like secure housing, livelihood and easy access to adequate health facilities. Their mobility needs have to be evidently understood so that they don't spend more on travel than what they can afford. In past years many new initiatives towards public transportation have been taken, but a study by UNEP has revealed that these initiatives have not been able to meet the needs of the urban poor. Therefore, it's a challenge now for the decision makers to frame a transport policy that is able to fulfil the mass mobility needs of riders who constitute this vulnerable group. Few issues that should be kept in mind while attempting policy formulation, to maintain a trade-off between transport policies and urban mobility needs are: firstly, implementing a differential fare structure so that urban poor can afford the transportation cost. Secondly, resettlement of this group along transit corridors will help by increasing the accessibility to transit systems. Further, strong implementation of national urban transport policy will make the transport system socially inclusive and equitable. Finally, providing good pedestrian facilities to access the public transit system will help in increasing the ridership by reducing the overall travel cost.

INTRODUCTION

Indian cities are in the midst of a considerable wave of urbanization as approximately 10 million people move to towns and cities in India in search of jobs and opportunities according to the World Bank overview 2013. These people moving into cities require shelter to live and also fast and cheap transit system to access jobs. The physical infrastructure services like water, sanitation and public transport in cities are now becoming incapable of meeting the requirements of these migrants and hence increasing the difficulty level for urban poor to survive in cities.

According to World bank, urban poor is a person or a family who is "deprived of employment opportunity, income, inadequate and insecure housing and services, little or no social protection mechanism and limited access to adequate health and education facility". The urban poor are most vulnerable and susceptible to various risks like rise in fuel price, rise in public transit fare, etc., which make it difficult for them to access public transport, thereby affecting their employment opportunity.

The challenge to the decision makers now is to frame a transport policy to fulfil mass mobility needs, keeping in mind the large share of riders who are urban poor. For this, relationship between transport infrastructure and urban poor has to be clearly understood as to how people are getting affected by a lack of access to transport services and what makes them likely to fall into "transport poverty". Transport poverty is reached when a household is forced to pay more in travel costs than it can reasonably

afford. For example, the poor are generally rehabilitated on the outskirts of cities, thus increasing their cost on travel. They rely on private vehicles, which again means that lower income groups and urban poor spend more time on travel, than other income groups.

BACKGROUND

Effects of transport policies on urban poor

In the Jawaharlal Nehru Urban Renewal Mission (JNNURM), there was a sub-mission for urban infrastructure and governance which was focused on infrastructure development, including road network and urban transport redevelopment connecting the peri-urban areas to the city centre. Although, this mission was catering to urban poor in providing them mobility, it was not in favour of subsidised fare structure.

According to a research Report by "UNEP Risø Centre on Energy, Climate and Sustainable Development, Technical University of Denmark"[1], it is evident that in Ahmedabad, a sizeable group of low income households do not use public transit services like Bus Rapid Transit (BRT). In terms of per capita household expenditure of Indian cities on transportation, it was found that, on an average, six to seven per cent of total household income is spent on travel related costs. But, on the other hand, urban poor spend no more than 3 per cent of household income on transportation.

Following results were claimed by the Report after a survey of 580 low income household in Ahmedabad (Table-1):

Table 1 : Implication of lack of affordable travel choice in Ahmedabad

S. No.	Factors	Values
1	Walk to work (women)	30%
2	Walk to work (men)	30% walk +20% cycle
3	In the absence of affordable PT system	16% use Intermediary Public Transport (IPT)
4.	No. of urban poor using BRT	0.4 %
5.	Average trip lengths (Women-urban poor)	3.2 km
6.	Average trip lengths (men-urban poor)	5.3 km and lower

Source: *UNEP Report*[1]

Table-1 indicates that public transit ridership is not preferred by the urban poor. Further, a very small average trip length is observed in this group. Also, maximum urban poor rely on Non-Motorised Transport (NMT) or walking. Talking about formal modes of public transit like BRT, urban poor represent only 0.4 per cent of the total ridership. Therefore, it could be logical enough to conclude that planning these transit systems under JNNURM schemes was not done specifically to facilitate the mobility needs of the urban poor.

Public transport accessibility by urban poor

Slums being the core disposition of the urban poor, it's important to understand where, why and how these squatter settlements occur. The old and run-down conditions of houses in the inner city areas compel and pull the urban poor to rent them out. From herein the complex relationship develops in terms of a variety of serious issues like socio-economic, environmental and accessibility. Inaccessibility to public transport limits movement of urban poor[2]. Talking about metropolitan cities, this inaccessibility results in lack of access to jobs and education opportunities for the families of urban poor. Apparently, it can be seen that mobility of urban poor is mostly restricted to NMT or walking. Also, it is evident from the UNEP report that urban poor make fewer transit trips as compared to the non-poor, due to low affordability.

The brazillian "favellas" (slums) which are apparently close to the areas where job opportunities

persist, are still not served by proper transit services hence causing a mobility issue to the urban poor[3].

Urban sprawl, urban poor and public transport

The expansion of the urban areas and the multiple facilities it has to offer, is a very alluring affair for the rural masses. These rural masses migrate into the urban areas and fill into the little gaps and cavities of the intricate urban fabric, making it all the more complex. This migrant population forms the urban poor segment of the society. For them travel to different parts of a city, looking for opportunities of livelihood, reinforces the fact that city needs to provide transportation facility, which is affordable. The reason why public transit should be encouraged is because it supports accessibility to the important civic services like education and health. Restriction to mobility tends to limit the job opportunities to urban poor and hence they tend to resettle themselves around job centres, even in slums or dilapidated housing.

Strategies to maintain a trade-off between urban poor mobility and policies

Society needs a socially equitable growth, which can be achieved by including the growth of urban poor in the economic structure. A trade-off between urban poor mobility and transport policy can be achieved by the following policy initiatives:

Differential fare structure: A model can be developed to form a fare structure with variable rates. In some countries differential fare structure is seen on the basis of distance of travel or time of day in which a person is travelling. On the aforesaid fare structure an innovation can be worked out by linking the fare structure to the economic status of the person. An innovative way to achieve a good fare structure is by carrying out a reliable life cycle analysis of different transport systems and then testing various policy options, considering different fare structures.

Differential fare structure is more complicated than the conventional flat fare system but with the upcoming of smart card like "MORE- India's common mobility card", it will be easier to implement.

Few examples of countries implementing differential fare structure on the basis of one or more parameters are listed in Table-2.

Table 2 : Different types of differential fare structures in world

Continent	Country	System	Variable Fare system
Asia	Hong Kong, China	Hong Kong (MTR)	Distance based
Asia	Japan	Tokyo Metro	Distance based
Asia	Singapore	Singapore (SMRT)	Distance based
Europe	Great Britain	London Underground	Zone based
North America	USA	Amtrak	Distance & demand based
North America	USA	Greater Seattle Area (King County Metro)	Zone and peak based
North America	USA	Puget Sound Region (Sound Transit)	Zone & distance based

Source: *http://en.wikipedia.org/, retrieved on 28th August 2014*

Resettlement of urban poor along Transit Corridors

To increase the mobility of urban poor, rehabilitation of poor should take place along transit corridors, so as to increase their accessibility to the public transit modes. It can be included as a policy initiative under "transit oriented development (TOD)". On the other hand wherever space permits, the transit corridors should be planned in a way that it becomes more accessible to the urban poor living in squatter settlements. Integrated land-use planning and TOD should go hand in hand. Cities like Guatemala, Curitiba in Brazil and Arlington County, Virginia are examples of good TODs.

A report on "Working Group on Urban Strategic Planning-2011" by

Ministry of Housing and Urban Poverty Alleviation, India focuses on planning in consonance with the income distribution structure of the city. It tells that the urban poor should be located near public transport nodes/links and space should be provided for the urban poor in master plans for living, selling and working - at city, zone and local levels.

Implementation of National Urban Transport Policy (NUTP), India

NUTP focuses on providing socially equitable, inclusive and sustainable transportation system[4]. According to the NUTP, all income groups should have equal access to transit services. Hence, it is essential to keep the NUTP guidelines in mind at the time of planning any new transit system in a city.

Cities with a similar emphasis as mentioned in NUTP are Bogota, Columbia and Palembang, Indonesia. These are moving towards pro-poor transport system for the city. These cities are using various mobility interventions to bridge the rich and poor divide so as to have an equal access to transit services

Providing good Non-motorised Transport (NMT) facilities to access the public transit system

Pedestrian walkways should be safe, efficiently lit up and comfortable enough to walk. Pedestrian infrastructure like street furniture and sitting places is a good idea because it will be used by pedestrian to take rest during their journey[5]. Good pedestrian facilities will facilitate urban poor to use public transport system by reducing their access and dispersal cost. Bike sharing schemes to access the public transit services will also help in increasing the accessibility to public transit services. This will also control the growing motorization and promote the use of environment friendly technology. Cities working on major NMT improvements are illustrated in Table 3.

Table 3 : NMT improvements in different cities across world

City	Type of Improvement
Bengluru, India	Improving access and safety on roads for cycling
Cape Town, South Africa	Improvement in NMT Infrastructure
Mexico , North America	Promoting bicycling as an environment friendly and low cost mobility solution for the population
Hangzhou, city of Zhejiang Province in Eastern China	World's largest bike sharing program providing clean mobility options to city residents
Temeke, Dar-es-Salaam, Tanzania	Promoting bicycling as an environment friendly mode of transport in Marikina NMT project
Nairobi, Kenya	Improvement of walking and cycling infrastructure
Eldoret, Kenya	Creating a safe walking and cycling infrastructure
China	Multi modal transportation: Integrating BRT with public bicycle sharing

Source: *Pro-poor mobility: Policy guidelines and case studies (2013) , TERI.*

CONCLUSIONS

Urban poor are most vulnerable to risks related to change in transport policies like rise in fare structure or fuel price. Policy formulation should be socially inclusive. Even though previously developed policies/schemes like JNNURM were connecting the peri-urban areas, they were still not complementing the mobility needs of urban poor. A trade-off between urban poor mobility needs and transport policy can be achieved by strategies like differential fare structure. This will decrease the load of transportation cost on urban poor, hence their monthly transportation cost will not be more than what they can afford. Policy like resettling the urban poor along transit corridor is no doubt a difficult option but can be planned very well if the transit corridor is reaching the suburban areas because relocating them to these areas is easier due to the availability of land. This will reduce the access and egress cost to a transit system.

Adhering to NUTP guidelines will help in attaining socially equitable growth while planning future of transportation infrastructure.

Finally, providing good pedestrian facility will help increase the ridership of urban poor and will also help reduce the environmental impacts. The aforesaid strategies, if implemented and enforced effectively, can help fulfill the mobility needs of the urban poor.

REFERENCES

1 UNEP Riso Centre on Energy, Climate and Sustainable Development report, Retrieved August 20, 2014 from http://www.unep.org/

2 Aisha Faiz (2011, December). Transportation and urban poor, ITE Journal. Pg 40-43. Retrieved from www.ucd.ie/t4cms complete.

3 Ken Gwilliam (2002), Cities on the move : a World Bank urban transport strategy review. Retrieved from http://siteresources.worldbank.org/ complete

4 Pro-poor mobility: Policy guidelines and case studies (2013) , TERI. Retrieved from www.teriin.org/div complete.

5 Sharma, R., Parida, M. and Jain,S.S. (2010), "Planning for Mobility of the Urban Poor", Nagarlok,Vol. XLII April-June,No.2.

FINDINGS OF NSSO SURVEY - 69th ROUND ON URBAN SLUMS IN INDIA

The National Sample Survey Office (NSSO), Ministry of Statistics and Programme Implementation has released the key indicators of urban slums in India, generated from the data collected in its 69th Round survey during July 2012 to December 2012. The last survey on slums was conducted as part of the 65th Round of NSS (July 2008- June 2009). Some of the salient findings of the survey are as follows:

Number of Slums

- A total of 33,510 slums were estimated to be present in the urban areas of India. About 41% of these were notified and 59% non-notified.
- Maharashtra, with an estimated 7723 slums, accounted for about 23% of all slums in urban India, followed by Andhra Pradesh, accounting for 13.5%, and West Bengal, which had a share of about 12%.
- Of the 19,749 non-notified slums estimated to exist in urban India, Maharashtra accounted for about 29%, West Bengal for about 14%, and Gujarat for about 10%.
- Out of an estimated 13,761 notified slums in urban India, Andhra Pradesh had about 23%, Maharashtra about 14%, and Madhya Pradesh, West Bengal and Tamil Nadu about 9% each.

Number of Slum Households

- An estimated 8.8 million households lived in urban slums, about 5.6 million in notified and 3.2 million in non-notified slums.
- The notified slums formed 41% of all slums but housed 63% of all slum-dwelling households in India.
- As many as 38% of slum households of urban India were estimated to be living in Maharashtra, and 18% in Andhra Pradesh.
- Of slum households in non-notified slums, 40% were estimated to be present in Maharashtra and 9% each in Gujarat and West Bengal.

Average Slum Size

- At the all-India level the average slum size was estimated at 263 households. The average notified slum had 404 households and the average non-notified slum had only 165.
- For notified and non-notified slums taken together, average slum size was highest in Maharashtra (433), followed by Karnataka (392) and Andhra Pradesh (352).
- State-level average slum sizes of notified slums varied widely. For Maharashtra the average was over 1000 households whereas for Chhattisgarh, it was only 84.
- About 56% of slums in the million-plus cities and 58% of those in other urban areas had less than 150 households.
- About three-quarters of non-notified slums (77% in the million-plus cities and 74% in other urban areas) had less than 150 households. About 40% of the notified slums, both in million– plus cities and also in other urban areas, had 150-450 households.

Characteristics of Slums

- At all-India level 44% of slums – 48% of notified slums and 41% of non-notified slums – were located on private land.
- In about 60% of all slums, the majority of houses had pucca structures. The proportion of such slums was 85% among notified slums but only 42% of non-notified slums.
- Tap water was the major source of drinking water in 71% of all slums at the all India level. The figure was 82% in notified slums and 64% in non-notified slums.
- The phenomenon of absence of electricity in slums appeared to be largely confined to non-notified slums. At all-India level only 6.5% of all slums had no electricity – the corresponding figures being 11% for non-notified slums but only 0.1% for notified slums.
- In about 66% of all slums, the road within the slum used by the dwellers as main thoroughfare was a pucca road. The proportion was 83% for notified slums and 55% for non-notified slums.
- At the all-India level 31% of slums had no latrine facility, the figure being 42% for non-notified and 16% for notified slums.
- About 31% of all slums had no drainage facility – the figure being considerably higher for non-notified slums (45%) than for notified slums (11%).
- At the all-India level, 27% of all slums had no garbage disposal arrangement – the figures being about 38% for non-notified slums and about 11% for notified slums.
- In an estimated 32% of all slums, the approach road to the slum usually remained waterlogged due to rainfall. The figure was 35% for notified slums and 29% for non-notified slums.
- At the all-India level 24% of slums benefited from welfare schemes such as Jawaharlal Nehru National Urban Renewal Mission (JNNURM), Rajiv Awas Yojana (RAY), or any other schemes run by the central government or state government or any local body. The proportion benefiting from such schemes was 32% among notified and 18% among non-notified slums.

Compiled by Akash Sharma, Research Associate, HUDCO's Human Settlement Management Institute, New Delhi.

PARTICIPATORY URBAN ENVIRONMENTAL REVITALIZATION IN A REHABILITATED COLONY

Ramdarbar Shows The Way

MANOJ KUMAR TEOTIA

Participation is crucial for the success and sustainability of environmental revitalization initiatives, essential for sustainable development of human settlements. The participatory initiatives by the local people, supported by the area councillor, has changed the face of Ramdarbar from a very congested, encroached and polluted habitation to open, clean and green settlement.

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"Ramdarbar", a rehabilitated colony of Chandigarh, experienced degeneration in its civic services, which was further aggravated in 1980s due to rapid growth of population. There was no participation of local citizens in management of sanitation, parks, protection of urban forestry/ environment in the neighbourhoods of Ramdarbar. The situation started changing after 1997 when the local elected councillor mobilized the people and started to involve them in the maintenance of basic facilities and civic services. The citizens voluntarily demolished extended boundaries of their houses, removed animal shelters/other encroachments from about 90 parks and contributed labour and money for developing parks. Today, environmental infrastructure of the colony has improved considerably and isolated human settlement of the past has been integrated with mainstream settlements of the city. In this context, the major objective of the paper is to study the dynamics of people's participation in environmental revitalization of Ramdarbar, with a view to see its necessity for urban regeneration and replication of good initiatives for sustainable development of urban human settlements.

INTRODUCTION

The city of Chandigarh, initially planned for five lakh, experienced tremendous growth in its urban population and crossed a sky touching tag of a total population of 9 lakh in 2001 and 10.55 Lakh in 2011 with 8.09 lakh and 10.25 lakh persons living in urban area in respective census decades. With urbanization, large number of slums came up in the city. In 1970 only 4454 'jhuggis' were listed. But in 1974 their number grew to 8,003. The population living in the slums also grew rapidly. Census of India, 1961 reported only 1,922 persons in temporary huts near sector 26 but their number grew to 22,939 persons in 1971. Slum population further grew to 0.58 lakh persons in 1991. The slum population in Chandigarh again increased to 1.07 lakh persons (13.24 per cent of the total urban population) in 2001 but it decreased marginally to 0.95 lakh (9.28 per cent of the total urban population) in 2011.

THE CONTEXT

Chandigarh, the only planned city of North India, is considered to be a unique combination of urban architecture and planning. The unplanned developments that took place in the last few decades in Chandigarh, were not anticipated by the founding fathers of the city. The city started facing physical and environmental decline from early years of its construction due to migration, haphazard growth of slums and encroachments, which have been further aggravated in 1980s and 1990s. Chandigarh was planned for a population of 5 lakh to be realized in two phases. The first phase comprised 1 to 30 sectors

for a population of 1.5 lakh and the second phase was to accommodate another 3.5 lakh in sectors 31 to 47, naturally demanding a continuous inflow of labour force (Chandigarh Administration, 1998). However, according to the Census of India, 1991, the population of Chandigarh was 6.42 lakh in 1991, that is, the city had already crossed the projected population of 5 lakh. The services and other facilities provided for it were already being felt to be inadequate. Le Corbusier's idea to have Chandigarh, as an administrative city, with a finite size (5 lakh) and precise quality of its citizens has not worked' (CRRID, 1999). Chandigarh has experienced tremendous growth in its urban population due to migration from the neighboring states and it has crossed a sky touching tag of total population of 9 lakh in 2001 and 10.55 Lakh in 2011 with 8.09 lakh and 10.25 lakh persons living in urban area in respective census decades.

With urbanization, a large number of slums came up in the city which grew from 4,454 'jhuggis' in 1970 to 8,003 in 1974. The slum population in Chandigarh grew rapidly from 1,922 persons in 1961 to 22,939 persons in 1971 and further to 0.58 lakh persons in 1991 and 1.07 lakh persons (13.24 per cent of the total urban population) in 2001. The slum population decreased only marginally to 0.95 lakh (9.28 per cent of the total urban population) in 2011. Some of rehabilitated colonies also grew like slums with

Picture 1: **Location of Ramdarbar in Chandigarh**

multiple deprivations. The survey of un-authorized and rehabilitated colonies of Chandigarh (CRRID 1999), found a total population of 2.27 lakh persons (55,670 households) living in 45 colonies (19 authorized and 26 unauthorized). Out of 2.27 lakh persons, 1.09 lakh were living in authorized and 1.18 lakh persons in unauthorized colonies, with multiple deprivations.

'Despite the serious efforts of the administration to provide better shelter to such dwellers, there has been no dent in the increasing influx of such migrants and their present number in the unauthorized colonies, calls for an immediate programme for action, as the pockets of abject poverty and the denial of basic human needs in areas of affluence does not augur well for the state and the economy

as a whole' (CRRID, 1999). According to Kalia (1987) 'a major factor contributing to the growth of unauthorized squatter colonies in Chandigarh was the city's poor economic base. The administration's efforts at providing housing failed to keep pace with the phenomenal growth rate of the city. The administration's efforts to solve the slum problem by setting up transit colonies have not been effective because these efforts have ignored the related issues of income, jobs, security of tenure, land and development policy, health and above all, education. Planned as transit colonies, they have acquired a permanent character, but without the necessary infrastructure.' In an excellent work on 'Urban Planning in the Third World: The Chandigarh Experience', Sarin (1982) describes the development of the city, showing how concepts inherent in the master plan and the policies pursued in its implementation not merely ignored, but totally excluded a major section of the population from legal housing and employment. Kalia (1987) has highlighted that 'Chandigarh's planners had paid little attention to urban labour and had discouraged informal activities'. In 1971, 11 per cent of the population was living in partially or totally illegal settlements. A recent Study by Teotia (2013) shows the poor state of affairs in the context of planning for the poor in Chandigarh. The participation of people and beneficiaries has been negligible in most of the housing programmes supported by government including JNNURM, leaving multiple deficiencies in the implementation of initiatives for housing the urban poor.

POOR ENVIRONMENTAL INFRASTRUCTURE IN RAMDARBAR IN PRE-INITIATIVE PERIOD

Ramdarbar, one of the oldest rehabilitated colonies of Chandigarh, is situated in southeast periphery of Chandigarh (Ward 23) near the Defence Area/ Army Transit Camp and in close proximity to the Industrial Area, Phase II (Refer Picture-1). The colony was rehabilitated in two stages, first in 1974 and second in 1979. There were about 1,500 houses in Phase-I and 2,500 houses in Phase-II but number of households have grown considerably. The population base of Ramdarbar has been growing and in 2001 Ramdarbar had a population of 29,384 persons comprising of 16,833 males (57.28 per cent) and 12,551 females (24.71 per cent). Out of the total population, about 39 per cent belonged to the category of Scheduled Castes (SCs), which was much higher than the city average of 17.28 per cent.Ramdarbar was short of civic infrastructure and had appalling living conditions prior to 1997. The parks, as the one shown in Picture-2, were in poor condition. The first picture (far left) shows parks encroached by slum dwellers. A major road adjoining the colony (picture in the centre)

Picture 2 : **Ramdarbar prior to Revitalisation Initiative** From left to right. Far left: Illegal construction of slums in a park; Centre: Dumping of garbage on a major road adjoining to the colony; Far right: One of the site with scattered garbage/ waste.

became a dumpsite for the residents. The scenes of scattered garbage were very common (picture in the far right) due to poor waste collection. But things are quite different now. The transformation has come up with the active support of people under the dynamic leadership of the elected ward member from this locality. The ward member was later elected as Mayor of the city of Chandigarh, twice.

In the pre-initiative period, Ramdarbar was deficient in water supply, sewerage, solid waste management, roads, parking and civic services like health, education etc., coupled with the unprecedented population pressure of migrants. The colony received negligible attention from the Administration for environmental improvement and upgradation of municipal infrastructure/services. There were about 90 parks/ open spaces planned in Phase-I and II, but in actual these spaces were encroached by the residents for rearing pigs, buffaloes, cows, goats, hens etc. Some of these places were used by local houseless people as temporary shelters, huts and stores for unused/old household articles. This made the colony very dirty and congested. Absence / poor conditions of services like play grounds, community center, dharamshala and schools was stark in 1980s and early 1990s. People used to drink water collected in 4-5 feet deep pits near their houses. There were many outbreaks of diarrhea and malaria, resulting in many deaths. There were no parking facilities and no electricity was provided in the markets of Ramdarbar. A general view about the pathetic condition in the colony was evident from the fact that several residents used to recite *"Ram Darbar to Sirf Naam Ka Hi Ramdarbar Hai, Lekin Yeh Narak Ka Dwar Hai",* (Ramdarbar was named only for name's sake, but actually it is a gateway to Hell !).

PARTICIPATORY INITIATIVES FOR ENVIRONMENTAL REVITALIZATION

The situation started changing after 1997. Some of the development activities in Ramdarbarwere started after the first elections of Municipal Corporation of Chandigarh. The local Municipal Councillor, Mrs. Kamlesh was from the same locality and fully conversant with its problems. She initiated several development activities for environmental revitalization of Ramdarbar by mobilizing local people. The first initiative was taken towards upgradation of water supply system in the slum colony. Subsequently, projects for construction of toilets, installation of streetlights, etc. were taken up. But the improvement in Ramdarbar was not visible and residents were depressed and not coming forward to participate. To improve situation and make a visible improvement, the Councillor started a campaign by rehabilitating slum dwellers from Ramdarbar, shifting people with domestic animals to Mauli Jagran, and augmentation of local infrastructure and services. The slum rehabilitation and other development initiatives garnered considerable support of people for other local initiatives i.e., removal of encroachments from parks and the roads for green growth. The message of her genuine efforts went to the people living in Ramdarbar who promised to support her in carrying local initiatives for regeneration of environment. With this a local champion was born to work for the development of the local area.

The Ward Councillor conducted an assessment survey and discussed the priorities of people. She further linked these improvements with the government programmes. A brief analysis of measures initiated for urban environmental revitalization in Ramdarbar has been discussed below:

Removal of Encroachments and Development of Parks

Removal of encroachment from about 90 parks was a gigantic task. The administration tried to remove encroachments by using bulldozers but failed due to stiff opposition by the encroachers. The Councillor along with her husband and several like-minded residents started a drive to convince encroachers to remove their encroachments

Picture 3 : **Development of Parks in Ramdarbar** From left to right: Far left: An encroached park; Second from left: beginning of removal of encroachments; Third from left: Local people working for development of a park; Far right: A fully developed lush green park.

willingly. They contacted each household and persuaded them for removing encroachments. In several cases when male head of the household was not convinced, the female counterparts were approached for the purpose. The result was that residents, led by women, came forward and voluntarily removed their encroachments. This changed the face of the colony and Ramdarbar got back its breathing space (see the transition of an encroached park in Picture-3).

Residents of the area contributed towards construction of boundary walls and railings of the parks. Councillor sourced the balance finances from Councillor's Ward Development Fund and MP's Constituency Development Fund. About 90 parks have been developed in Ramdarbar which has enhanced greenery and beauty in the area. Similarly, people removed encroachments voluntarily from their houses on repeated appeal of the Councillor, which resulted in widening of streets and roads. The Councillor also got the local dharamshala vacated from the unauthorised possession of Central Reserve Police Force (CRPF) and got it repaired, so that it can be used by local residents for organising their social functions.

Plantation and Greening of Built-up Area

The local Ward Councillor, Mrs. Kamlesh took the challenge of bringing greenery to Ramdarbar on the lines of Chandigarh. She mobilized local community for an extensive plantation drive. The first plantation drive was started from the local dharamshala. Next target was the local government school of Ramdarbar, where about 200 plants were planted. Then about 250 plants were planted in the Government Model Senior Secondary School and thousands of plants were planted in all the 90 parks of Ramdarbar.

Use of Derelict Land

A large parcel of land was lying unused in the area sandwiched between Ramdarbar and Industrial Area Phase-II. It acted as a virtual dumping ground for industrial/ factory waste. The place used to stink due to decay of garbage and accumulation of filthy water. It was also a health hazard for Ramdarbar and the community living in nearby areas. Taking cognizance of this problem the Ward Councillor, with a team of local residents, met the then Advisor of the Union Territory, Chandigarh, with a proposal to develop this land as a green area. The Administration initially had reservations to convert prime land into the green area. But after a lot of persuasion and pressure of local residents, it was clarified that being in close proximity to the air force station no construction can be done on this land and the only option is to plant trees and keep this area green and also free from future encroachments, by the slum dwellers. The Government supported this idea and instructed the forest department to take possession of this land and plant trees. The forest department planted about 20,000 trees in the vacant

Picture 4 : **Development of Greens in Vacant Land** From left to right: Far left: UT Advisor and Local Ward Councillor planting trees on vacant land; Second from left: Enhanced greenery on vacant land; Third from left: A green park; Far right: Children playing in the park.

land, resulting in further value addition to the green initiatives of Ramdarbar and its people (Picture-4 shows enhanced greenery on vacant land).

Development of Cactus Park

Another dirty and filthy land parcel adjoining Ramdarbar has been transformed into a Cactus Park (Picture-5). The area where people used to throw garbage and debris, is today one of the most beautiful parks of Chandigarh and many people come here for a walk. It has become a centre of attraction not only for the residents of Ramdarbar but also for outside visitors. A visit to this park by UT Advisor and Commissioner left them impressed and they praised the efforts of the Ward Councillor and residents of Ramdarbar.

Door to Door Waste Collection

The work of garbage collection was contracted out to a private contractor but the services were inadequate and residents were dissatisfied. The Ward Councillor took the challenge to improve this service and met the municipal officials several times but nothing concrete was done and deficiencies in sanitation activities continued. She then prepared an action plan and met the Commissioner for support to the idea of undertaking sanitary work in Ramdarbar, with the help of locally employed male and female sanitary workers. The Commissioner agreed and a Society with the name Mohalla Sudhar Committee (MSC) was constituted for the purpose of undertaking sanitation related works in Ramdarbar.

Picture 5 : **Cactus Park in Ramdarbar** Left: Before initiative; Right: After initiative.

MSC recruited 32 part time sanitary workers and 4 supervisors for the work of collection and segregation of household waste from Ramdarbar itself. Of the total staff strength, half of the workers were female. Municipal Corporation of Chandigarh (MCC) extended financial support of Rs.1,500/- per employee through MSC constituted for the purpose and another Rs 500 per employee was contributed by the residents in the form of monthly user charge. Initially, collection of user charge from the residents was a difficult task but after getting convinced about the benefits, the Councillor could make them agree to participate in this process. To purchase essential equipment and manual-carts etc. required for the purpose of collection and transportation of waste/garbage and to provide sanitation services, MCC agreed to pay a grant of Rs. 51,000/- per annum. Since this amount was also inadequate to meet the expenses on sanitation work, it was decided to collect an additional amount of Rs. 10/- per household per month. The work of door to door household waste collection

Picture 6 : **Door to door waste collection** (clockwise) 1) Garbage littered near houses; 2) Garbage thrown near the bins; 3) The clean area near the bin after initiative; 4) Door to door collection of waste in progress.

was taken over by MSC on 15th February 2003 and has resulted in complete transformation of the area (Picture-6). To make this scheme successful, 'garbage bin free' scheme has been implemented and throwing of garbage in open places and road-side pits is now prohibited. A Campaign was launched through loudspeakers and several small hoardings, to make the residents aware that throwing of garbage is prohibited in open places or in the road side and please throw your garbage at the demarcated place or give it to the person employed by the MSC.

According to the Ward Councillor, this initiative has resulted in net saving of about Rs. 1,000/- per employee for the MCC, which comes to about Rs. 35,000/- per month for about 30 sanitary workers and five supervisors, earlier posted in Ramdarbar. The area is now clean and no garbage can be seen outside the dustbins, which are covered. The officers of public health department and municipal corporation inspected various sites in Ramdarbar and appreciated the efforts by the MSC and the local people in upkeep of Ramdarbar. Press/ Media have also covered this and appreciated the efforts of the Ward Councillor, local residents and MSC. The author of this article also carried a study of local initiatives for urban regeneration in Ramdarbar. Some news clippings on this initiative, are shown in Picture-7 below.

Picture 7 : **Newpaper clippings on Ramdarbar** From left to right: Far left: Showing voluntary initiatives by people for removal of encroachments; Second from left: Residents of Ramdarbar show MC the way; Third from left: MSC makes Ramdarbar from Hell to Heaven; Far right: Author in a separate study highlights Ramdarbar as model of urban regeneration.

IMPACT OF THE INITIATIVES

The impact of the initiatives is visible. Improvement in the level and quality of urban infrastructure/municipal services, wide and pucca roads/ streets, availability of open/ play area for children and enhanced greenery in and around Ramdarbar, has resulted in substantial improvement in the housing stock and people are now investing money to upgrade their houses. The initiatives based on dynamism of people's participation in environmental revitalization are sustainable and can be replicated in other rehabilitated colonies. The important message is that voice of people is important and successful leaders assimilate such movements for constructive improvements. In the case of Chandigarh, local leader played a crucial role in mobilizing people and ensuring they get recognized when it comes to distribution of resources from MCC and Chandigarh Administration.

The environmental condition in Ramdarbar has improved considerably. The colony has virtually been transformed from '*Narak ka dwar!* (Gateway to Hell!) to *Swarga ka dwar!* (Gateway to Heaven!)'. Urban transformation is visible in almost all spheres of life. The dynamism of people has regenerated living conditions in the colony. The fragmentation of urban settlements has reduced with improvement in overall environmental infrastructure in the colony. The immediate impact of initiatives are not only visible in the form of improvement of physical urban environment but also through betterment of social, economic and health conditions of the poor people.

CONCLUSIONS

The paper illustrates that dynamics of people's participation is crucial for the success and sustainability of environmental revitalization initiatives, essential for sustainable development of human settlements. The participatory initiatives by the local people, supported by the area councillor, has changed the face of Ramdarbar from a very congested, encroached and polluted habitation to open, clean and green settlement. The environmental infrastructure of the colony has improved considerably after voluntary removal of encroachments, development of 90 parks, plantation drives and the neighborhood sanitation programme. The initiatives are sustainable and can be replicated in other rehabilitated colonies. Ramdarbar's participatory model of environmental revitalization has broken the public sector monopoly. It could pave the way for a much needed policy aimed at participatory environmental management, a necessary condition for sustainable development of urban human settlements in the country.

ACKNOWLEDGEMENTS

Photo credit: Mrs Kamlesh Banarsidass, Former Ward Councillor and two times Mayor, Municipal Corporation Chandigarh.

REFERENCES

Centre for Research in Rural and Industrial Development (CRRID 1999), Report on Baseline Socio-economic Survey of Unauthorized and Rehabilitated Colonies of Chandigarh, submitted to the UT Administrator, Chandigarh (unpublished), Chandigarh: CRRID

Kalia, Ravi (1987), Chandigarh: The Making of an Indian City, Oxford University Press, New Delhi,

Sarin, Madhu (1982), Urban Planning in the Third World: The Chandigarh Experience, Mansell Publishing Ltd: London

Teotia, Manoj Kumar (2013), Planning for the Urban Poor in Northwestern India: Emerging Policies, Practices and Issues (A Case Study of Chandigarh), an Unpublished report carried under HUDCO Research Grant: Chandigarh CRRID.

---------- (2003) Urban Regeneration through Environmental Revitalization in Rehabilitated Colonies of Chandigarh: Ram Darbar Shows the Way, an unpublished report, Chandigarh: CRRID.

WHISPERS TO VOICES

Meeting the Aspirations of Slum Communities

RAJIV SHARMA

Most often, the community develops strong ties with location, which bring a sense of security, and unites them to fight for a common cause. This sense of community feeling is missing in the relocated sites.

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Slums are an integral part of a cityscape in developing countries. However, the condition of slums vary from one location to another. Planning norms for townships prescribe residential neighbourhoods for different income groups, but incorrect priorities for development manifest in the form of slums, which remain a challenge for urban professionals. There have been many attempts to address the problems of slums and to integrate them in the development process, however, the process of this integration is complex and cannot be addressed through conventional planning systems alone. New approaches are being adopted to tackle the problem of slums-from relocation to in-situ development, from site and services to fully developed neighbourhoods. The success stories in slum upgradation process are those, which are able to address the needs of slum community through robust planning, combined with social empowerment. This paper examines the process of slum upgradation in two projects in Delhi. It compares the satisfaction level of residents, in terms of approach of different stakeholders, in this process. The findings are based on rapid assessment survey and interviews with few families and key stakeholders in the area.

INTRODUCTION

Cities are considered engines of economic growth because they generate wealth for the nation and provide employment opportunities for skilled and unskilled workers. Cities are centres of education, culture, health and innovation and provide opportunity for entertainment, good infrastructure, housing, job opportunities, medical facilities, etc. These attributes of cities, attract many from rural areas. The agencies are unable to cope with the large-scale influx of population, resulting in marginalization of migrants from the main stream. In developing countries, it has been further established that even though urbanisation may increase incomes, the phenomenon has led to increase in urban poverty because quality urban housing is costly. The migratory unskilled rural population, adds to the labour force but is unable to access the formal housing, and is thus constrained to live in slums and squatter settlements that are crowded and unhealthy. These slums are also poorly serviced with basic public utilities including safe water and sanitation facilities, on account of the haphazard nature of their physical environment.

This paper focuses on 'Voices of Families' from two resettlement colonies in Delhi. The two colonies have different typology, location and set of facilities but have one thing in common, that in both cases the families have been relocated more than 25 kms from their original slum locations. The issues addressed in this paper are based on personal interaction with the members of resettled families in

December 2013.

Savda Ghevra, Delhi

Savda Ghevra (SG) was developed by the Delhi Urban Shelter Improvement Board (DUSIB), about 40 km west of New Delhi to re-house the families evicted from slums in Lakshmi Nagar (East Delhi), in 2006. There are currently about 8,500 families with 42,500 people living in plots allotted by the Municipal Corporation of Delhi (MCD). Each family was allotted a semi-serviced plot on the basis of eligibility- 18 square meters to squatter families who could prove, on the basis of their ration and voter cards, to have lived in Delhi pre-1990, and 12.5 square meters to families possessing ration cards post January 1990 up to December 1998. Despite formal planning, the site has not developed in a consistent manner–partly because the infrastructure provisioned by the government remains un-built or incomplete, but also because the relocated families have mostly built the houses themselves incrementally– a process characterized by individual decisions. The area is characterized by poor quality housing ranging from one-storey chattai or chadar houses to consolidated two-level reinforced concrete construction, built incrementally over time. This process is in response to available skills, economic capabilities, materials and resources occurring with little or no external assistance or intervention. The housing stock thus created does not conform to the engineering standards and pose risk to the nearby structures.

Bawana, Delhi

Bawana, located about 35 km north-west of New Delhi, was developed by Delhi Urban Shelter Improvement Board (DUSIB) and has two types of settlements. The first phase started in 2004 and largely housed people evicted from Yamuna Pushta and some other slum settlements from north-east Delhi. In this phase, plots were given to the beneficiaries on the same criteria as Savda Ghevra. The second phase which started in 2010 comprises of resettlement of people from slums settlements in south Delhi, in 1184 flats constructed as G+3 structures by the Delhi State Industrial and Infrastructure Development Corporation (DSIIDC). However, less than 300 flats have been occupied so far.

THE RELOCATION NIGHT-MARE

The problems due to relocation are manifested in terms of living conditions, distance from their place of work, if employed or engaged in vending activities, employability in the relocated site, loss of income due to home based economic activities etc. The emotional attachment and accessibility to quality civic services at the previous site cannot be quantified but has a serious bearing on the decision to relocate. Most often, the community develops strong ties with location, which bring a sense of security, and unites them to fight for a common cause. This sense of community feeling is missing in the relocated sites. Moreover, children and elderly are unable to utilise their time productively, in the relocated pockets. Some of the issues which emerged during interactions with the community, are explained in the context of the two projects:

Savda Ghevra

The process of relocation in Savda Ghevra is not complete and has been faced with lot of problems, as described below:

- The civic services were not developed as per norms, thus causing hardship to the lives of relocated families.
- The livelihood opportunities had reduced after relocation. Women in the household, girls, young boys and elderly now do not have the opportunity to participate in income generation activities.
- Water was supplied through tankers and collection of water has become a daily chore of life, which results in loss of livelihood/ absenteeism from school/ unpleasant incidents of fight for collection of water at the tanker site.
- Sanitation was through septic tanks and community toilets, although open defecation also prevails. The condition of drains was bad and water stagnates in front of houses.
- There was no system of solid

…the area is also unsecured for women especially, for working women. Isolated area is the threat for anyone..." Seema working in an IT firm in North Delhi.

"Connectivity is not good. Buses are few and overcrowded during rush hours..." a resident from Savda Ghevra

"….the facilities are not enough and those exists, are not in good condition. We are helpless to live in this condition because no other option is available…" owners of spice shop from SavdaGhevra

"…the condition of poor sanitation increases the risk of health problems…"Shama residing close to open park

waste disposal and residents throw their waste in open land/ parks.

- Poor street lighting and road conditions make the area unsafe after sunset.
- The transportation connectivity between Savda Ghevra and earlier site is not good and about 3-4 hours is spent in travelling. As a result, people have stopped commuting to the earlier site regularly.
- Civic services like education and health facilities are inadequate. There are no parks and children play areas and community centres in the locality.
- People are constructing houses without technical knowledge and through local contractor. The result is unsafe construction, which has resulted in collapse of a few houses.
- The inferior construction material and poor quality construction technology is used, as they feel that designed structures are far more expensive.
- Moreover, incremental housing was preferred for which they borrow money from relatives and private lenders at 18-20 per cent interest rate.
- People are looking at their homes as an asset to contribute to increase their income through rental and home based economc activities.

Savda Ghevra has been able to tackle many problems incrementally, starting with few pockets. This has been made possible with the intervention of an NGO (CURE- Centre for Urban and Regional Excellence, New Delhi) which started working with the community of Savda Ghevra, to address the problems. The NGO felt the need of community integration and community participation before undertaking any improvement scheme. So, resident's awareness workshops were conducted and members participated in these workshops to outline their problems, as well as solutions.

Bawana

The area had fully developed flats with facilities like water supply, sewerage, electricity, drainage, neighbourhood park, circulation area and street lights. The area was in the neighbourhood of Bawana Industrial area, thus providing job opportunities to the relocated families in the vicinity. However, the families were not able to break their linkage with the earlier location. As a result, men travel

every day to the earlier site for livelihood activities, with increased travel time and cost due to poor public transport connectivity. The relocated families were dissatisfied with the project and their complaints could be categorised in three categories. First, is about the location of this project, second about the civic services and third about the quality of construction. Although Bawana is within an industrial area, the members of the relocated families do not work in these industries. The reasons could be that they do not possess required skills or they have consolidated their position in the earlier settlement. There is very little interaction within this community, probably due to the flats system, which they are not used to.

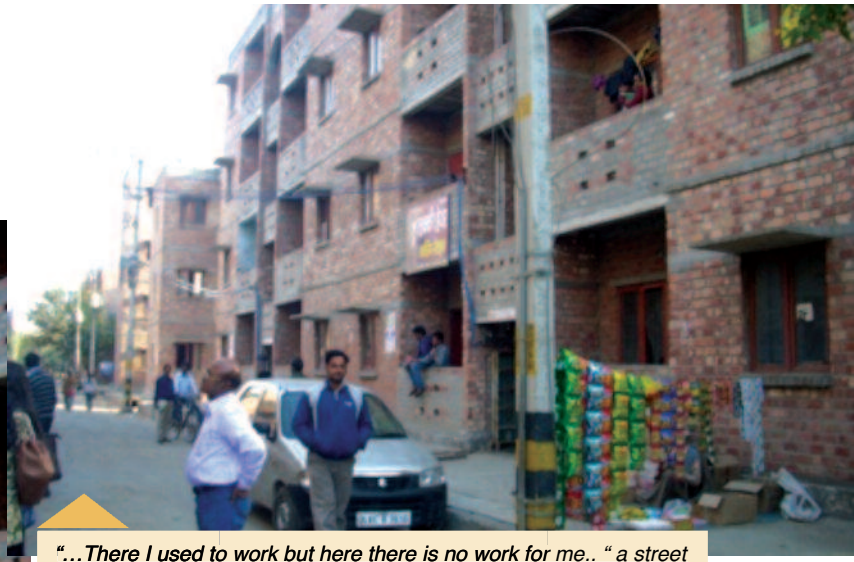
Some of the problems pertaining to civic services in this area are:

- People are not used to living in flats, they complain of having to go up and down the stairs many times a day.
- There is no RWA, and since many flats are still vacant, the process of registering a RWA will take some time. Once the RWA get registered, it would empower them to negotiate with the government for their own well-being.
- Education and health facilities are not available in the vicinity
- Public transport is inadequate, as a result it takes many hours to reach the city centre or their earlier work place.
- There is no home based economic activity, as a result women and elderly do not find themselves engaged during day time. This has reduced their monthly income.
- There is no possibility of supplementing their income through rental or vending activities.
- Boys, and in some cases both boys and girls, prefer to go with their father or parents, rather than going to school.
- The quality of construction in Bawana was much better than Savda Ghevra, however complains of seepage, cracks, minor repairs etc. were reported by the residents.

PROCESS OF TRANSFORMATION

The process of transformation is very difficult, since it's a matter of uprooting people from one place and moving them to another. Such a process is accompanied with issues like emotional attachment to the area, livelihood, security, transportation, access to civic services and most importantly uncertainty about the profile of the new community.

Today, the housing condition in Savda Ghevra is good and physical infrastructure is improving. The area is well connected by road and public transport is available, although at low frequency. People are consolidating their housing units as per their needs. Some have built G+3 structures, while others are happy in ground floor only. But, families feel elevated. The message



"…There I used to work but here there is no work for me.. " a street vendor in Bawana

"…we have no livelihood here… our means of earning has reduced…."a old man in Bawana

being that when people get all the basic amenities, they try to adjust as per the opportunities.

The community could avail these facilities because they came together as a group rather than individuals. In Bawana, the housing typology being ready to occupy flats, the opportunity for expansion was limited. Although, the quality of construction and infrastructure was better in Bawana but satisfaction level was low. Also, the opportunity for people to participate in the planning of their own well-being was limited.

Some of the lessons from these two projects are summarised below, for taking advantage in similar projects, in future:

Community empowerment and engagement

The first initiative was taken by formulating a Resident Welfare Association (RWA), which was registered under the Societies Registration Act, 1860. This initiative has empowered the community and elevated their status as a group, which could have access to funds earmarked under various schemes of Government of India and Delhi Government. The RWA are working effectively in many other colonies of Delhi, for the welfare of the society. They provide an opportunity to interface with the government, for the prosperity of their communities.

The NGO has shown the importance of empowerment in slum community. People are now happy living in Savda Ghevra and know whom to approach for meeting their demands. Now, they are in a position to ask the government for their rights, with dignity. However, there are still some problems, as mentioned below:

- Not all households are members to RWA, so some areas are not covered by the programmes initiated by RWA. However, the number of members is increasing with time.
- The elderly feel that they do not have any activity in this area.
- The health facilities are inadequate for the number of households.
- There is no sports and entertainment facility for the youth.

Improvement in quality of services

The earlier settlements from where the communities were relocated had a locational advantage, in terms of connectivity to schools, hospitals and livelihood activities. Although, residents had to compromise on services like water supply, sanitation, drainage, congestion etc, but benefits were rated as far higher compared to disadvantages, by a majority of residents. However, the new location was also marred by problems related to inadequate basic services and facilities.

The NGO- CURE, helped RWA of Savda Ghevra to systematically identify the key issues in the resettlement colony and find a solution to these problems within the community itself. Tools were designed to capture the voice of the community, so that subsequent action is taken in the right direction. Some of the outcomes of these interactions are given below:

- Water supply through tanker, has been streamlined by the RWA, which has made specific points for parking of tankers. From these points, water is transported inside each lane, through flexible plastic pipes with specific collection points. The pipes are inserted in 6 outlets of the tanker and these pipes pass through 6 different lanes. The access to water is thus

Picture 1 : **Water supply system after community initiative**

provided to each household without much inconvenience and fight. This way people get more water, and get it in front of their house.

- The drinking water is still a problem. This issue was brought to the knowledge of the local MLA and now water vending units are being installed, which will supply RO purified water to the residents at a cost. Tokens can be purchased for use in these machines and treated water can be collected in a container.
- Community septic tank, with treatment facility of effluent, has been built by residents with the support of NGO-CURE, benefitting 322 households.
- Local councillors and MLA have come forward to use their development funds to repair drains and make drains at places where they are missing.
- Street lighting has been installed, making the area safe at night.
- Frequency of bus service has been increased during peak hours, thus facilitating travel to the place of work, not a nightmare.
- Government is routing its programmes through RWA, thus accelerating the process of overall development of this area.

Addressing the issue of incremental income

The beneficiaries feel dissatisfied with relocated projects on two counts. First, increase in transportation cost on livelihood activities, education, health etc. Second, loss of income due to less opportunity for home based economic activities, lack of participation of children and elderly in incremental income generation etc. As a result, the community looks forward to various ways of increasing income, especially the use of rental income from the house. Therefore, a lot of emphasis is given to construction of multiple floors which can be let out for rental purposes. The communities of Savda Ghevra and Bawana have lot of potential for forming Self-Help Groups under the National Urban Livelihood Mission.

Technical advice for construction and maintenance

The construction of houses is done by the community on the plots provided by DUSIB in Savda Ghevra, whereas Bawana had ready to move flats, thus requiring no construction. The community constructs the house, either on its own or through local mason/ contractors. Construction is often done, partly utilising material recovered from previous house and partly by procuring new or used building material from the market. The greed of maximising usable space and lack of money often results in unsafe structures. The use of cheap building material and untrained manpower has resulted in poor quality of construction. As a result, some cases of house collapse were reported from Savda Ghevra. Thus, some intervention in terms of trained manpower is required for quality construction. The building centres, promoted by HUDCO, could be involved in this process. The government officials should keep a vigil on the type of construction and prevent any encroachment, what so ever.

Micro-credit for housing and other needs

Communities borrow from relatives and friends for construction of houses, health problems, marriages, social requirements, livelihood activities etc. Since they do not have access to formal borrowing, they borrow money from informal money lenders at exorbitant interest rates. Consequently, people find it difficult to repay even the interest, as the marginal increase in income is often less than the interest liability. Majority of families relocated to Savda Ghevra have taken loan for construction of houses for their own living, rental purpose or for making space for home based economic activities. In the absence of formal lending institutions like self-help groups, thrift & credit societies, micro-finance institutions etc., communities face difficulty to access cheap funds. Therefore, role of these institutions needs to be encouraged to strengthen the informal credit market in such locations.

Convergence of other social development programmes

RWA has an important role to approach the government for implementing various social/ physical development schemes in the identified locations. The strength of RWA is an asset for implementation of government funded schemes and many departments interface with them for effective implementation of these schemes, However, it is important that the process of prioritising local needs and implementation is done in an transparent manner. Some of the initiatives in this regard are:

- Establishment of self-help groups to help those women who want to work from home.
- The NGO has also helped to generate home based economic activities in the area, in vocations which are amenable to the community.
- The NGO has also mobilised local youth in door-to-door collection of waste, segregation and treatment at the neighbourhood level. The recyclables fetch a value to the collectors, whereas manure is also sold to the nearby areas. The NGO is constantly monitoring this process and training the youth in aerobic composting of organic waste.

CONCLUSIONS

A viable solution to the problem of resettlement colonies rests on three pillars: adaptive design, innovative financing and community participation. In this context, the study of Savda Ghevra and Bawana is a good learning example, which seeks to uplift the lives of urban poor through community participation and retrofitting systems.

In case of slum upgradation programme, the issue pertaining to livelihood is paramount. Second is the need for improved services followed by housing and other attributes of improving quality of life. To address the issue of livelihood slums should not be relocated and if so, they should be relocated in close proximity of existing layout. If this is not possible, the earlier and relocated sites should be well connected with fast and reliable public transport system, so as to achieve minimum dislocation in terms of livelihoods. We must remember that relocations generate employment opportunities in a variety of professions. The employment generation potential of relocation projects can overcome livelihood issues, if correct planning is perceived to institutionalise employment within community, to cater to the needs of these communitites.

Community participation is a development strategy that has been tested and adopted as a useful tool that would assist people not only to identify priority needs, but also to part take in planning, implementation and evaluation of

"... Delhi is a city that takes everyone in. Twenty years ago it was an undeveloped place; today it shines like a mirror..".Sirajuddin, chicken supplier in Savda Ghevra.

"...people used to called jhuggiwala, but now we are plot owners..." Mohammad, a resident of Savda Ghevra

community projects that are expected to improve the lives of such communities. So it is the duty of individuals also to work in a community. It means that any development project meant for a community must prompt the cooperation and absolute involvement of all the stakeholders.

Community participation in planning and decision making process from "up-rooting" of settlement to relocation should be well-thought-out. People are attached to their habitats emotionally as well as due to their job necessity. The post-relocation community development and empowerment process is very important and should precede the implementation of any development scheme. Some suggestions for community empowerment include:

- Community to engage in self-help initiatives to operate government/ NGO-assisted projects such as door-to-door waste collection, waste composting, septic tank management etc. Self-help groups and lane managers could be trained for regular inspection and up-keep.
- Promote women's savings groups i.e. thrift and credit societies for cash loans at cheap interest.
- Train potential teachers from the community.
- Encourage welfare committees and community counselling centers to address issues of women's security, family disputes etc.
- Collective transport options for weekly trips to wholesale markets, recreation and higher education for youth etc.

It is felt that giving full housing/land tenure rights would encourage financial inclusion of people in the city (right to the city). The government must set and meet minimum living standards for slum upgradation/ relocation (access to water, sanitation, and electricity and infrastructure management). Any deviation in these standards should not be encouraged and projects not conforming to these standards should not be approved.

In the case of site and services scheme, each household should be provided with approved plans indicating various construction options, specifications and construction costs. Local trained masons should be deployed initially for few years, to undertake development of sites and also transfer skills to local workers. Linkages with local building centres would be very useful in this regard. The government should incentivize the setting up of industries and social amenities (hospitals etc) in the resettlement areas. A database of all land transactions made by flat/land owners, post-relocation, through biometric system or registration, should be created and regularly monitored. Any change in title should lead to the cancellation of allotted land and passing on the benefit to the next beneficiary in the list.

Banks should be encouraged to extend loans for account holders of Pradhan Mantri Jan Dhan Yojana (scheme for financial inclusion of poor) to offset high interest loans (@17 to 23 per cent interest) for house construction and extension. Micro-finance institutions and thrift & credit societies could play an important role in this regard.

NOTES

[1] *A kind of thin mattress, which is also used as curtain.*

[2] *Bed sheet*

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REFERENCES

Center for Urban and Regional Excellence (2013), "Decentralized Sanitation Systems in SavdaGhevra: Improving Access of Women and Children to Household Toilets", Center for Urban and Regional Excellence, New Delhi.

Himali (Sri Lanka), Rabia Khan (Pakistan), Mahesh (Nepal), Rupa(Sri Lanka), Sukanya (Sri Lanka), Akshaya (India), Aditi (India),Musharraf (Bangladesh) and Arun(India) (2013), "A rights-based approach to Resettlement, (inter) national standards and Local Practices", I.H.S. Refresher Course, HUDCO's HSMI, New Delhi.

Sehgal, Prashansa and Narain, Jayati (2010), "Volunteer Report of Celebrating Lives in Bawana", Hazards Centre, New Delhi.

Puri, Eshaan and Bhatia, Tripti (2009), "Commonwealth Games 2010: Displacement of Persons", Working Paper No 213, Centre for Civil Society, New Delhi.

https://maps.google.co.in/

http://delhishelterboard.in/main/

http://dda.org.in/planning/slums_jj_rehabilitate.htm

SMART CITIES

What Value will they bring to Urban Development in India?

IAN MELL
SEJAL PATEL
SASWAT BANDYOPADHYAY

Smart Cities must address key performance indicators that promote economic growth, socio-cultural development and interaction with the environment, including improved mobility, and establish a more refined and accessible governance structure.

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Development in India is placing continued socio-economic pressures on urban landscapes to meet the growing needs of an expanding urban population. With a proposed 100% rise in India's urban population over the next thirty years, planners are questioning the preparedness of the nation's cities to successfully integrate such proposed growth(McKinsey Global Institute, 2010). One alternative method of achieving this is through investment in Smart City principles. In May 2014 the Indian Prime Minister Shri Narendra Modi announced INR 7060 crore to fund one hundred new Smart Cities; an investment programme that is being proposed to integrate the innovations of ICT with an understanding of India's unique urban development context. The viability of such a process of investment is though under researched, requires further analysis to highlight its appropriateness in India.

INTRODUCTION

"Estimates suggest that India's urban population will grow by up to 18 per cent annually to 590 million by 2030 and to approximately 700 million by 2050 (Government of India: Ministry of Home Affairs, 2011). Such a rate of growth, whilst economically imperative to foster year-on-year development, places additional pressures on an already limited urban environmental resource base (McKinsey Global Institute, 2010). Furthermore, rapid growth restricts the ability of service providers, i.e. water, electricity, banking and other social services, to maintain an effective level of provision(McKinsey & Company, 2005; McKinsey Global Institute, 2001). It can, therefore, be questioned whether the continued expansion of urban areas in India can be managed to effectively maintain the current human-environmental balance. Failure to achieve this goal would raise doubts on whether India could provide the social and economic resources to support its growing population (The High Expert Committee (HPEC) for Estimating the Investment Requirements for Urban Infrastructure Services, 2011).

Whilst it could be argued that Indian cities have historically shown an ability to adapt to change, the current rate of growth brings into question whether such an approach is feasible in the twenty-first century (McKenzie & Ray, 2009; Nagendra, Nagendran, Paul, & Pareeth, 2012). A reliance on innovation, foresight and the resourcefulness of the nation's people, developers and the government can, as a consequence, no longer be relied upon, especially when considered against the changing climatic, social and economic influences, being

witnessed in India (Drèze & Sen, 2013; Roy, 2009). As a result of this growing concern, in May 2014 the Indian Prime Minister Shri Narendra Modi outlined his government's proposals to fund one hundred new Smart Cities to help alleviate the chronic shortage in housing, boost economic prosperity and develop greener and more liveable cities. Shri Modi's announcement raises a number of key issues in Indian development:

1. What is the most appropriate form of investment in urban environments?
2. Where should investment be allocated – new towns, urban extensions, or in retrofitting the existing urban settlements?
3. What should be emphasised in urban development – technology/ICT, housing, transport or environmental resource management?
4. How should development be managed, and who should lead this process?

Each of these issues permeates development debates in India, querying whether there is a single or unified approach to investment that could be considered as appropriate for Indian cities (Das, 2007). Shri Modi's declaration thus provides a platform to assess the potential value of investments in Smart Cities in India through an evaluation of how the principles and application of the concept have been adopted globally.

The following paper examines Smart City discourse in theory and in praxis, debating its value within an Indian context, and explores whether the rhetoric of more innovative investment in smarter ICT, environmental resource management, e-governance and social mobility can be applied in India. Examples from the established Smart City users, i.e. Europe, North America and more recently the Gulf States, are used to illustrate the complexity of applying the concepts and principles in India.

INTRODUCTION TO SMART CITY CONCEPTS AND PRINCIPLES

The research literature posits a number of definitions of what Smart Cities are (Giffinger et al., 2007). Each shows variation in the terminology and focus of their discussions, illustrating an inculcation of principles which can be classed as being geo-politically specific (Hollands, 2008). The Smart City discourses developed in the USA, Europe and more recently the Gulf States propose alternative interpretations of what the concept means, how they should be developed, and, importantly, what they are aiming to achieve (Caragliu, Del Bo, & Nijkamp, 2011; Greenfield, 2013). This paper does not propose to take a specific conceptual position on Smart Cities, rather, it assesses the additional complexity associated with the lack of consensus on what constitutes a 'Smart City', and how these issues can be applied/translated in an Indian context.

In short the fluidity of the Smart Cities concept highlights two key issues: first, concepts such as Smart Cities are spatial by contextualised, as a result their focus and meaning varies between locations, and secondly, Smart City discussions offer a more pluralistic response to urban development narratives that promotes an integration of socio-economic, technological, environmental and political influences (Datta, 2012). Although a number of these factors are discussed in the explorations of sustainable city debates (Campbell, 1996; Guy & Marvin, 1999; Kenworthy, 2006), the central assumptions implicit within Smart Cities thinking focus firmly on more efficient and effective decision-making. Therefore, whilst sustainable cities provided an understanding of the complementarity of social, economic and environmental resource management, Smart Cities can be conceptualised as creating an alternative horizontal approach to investment that uses ICT as an overarching conduit for development, whilst socio-economic and environmental issues are influences which key into the effective contributing of technology (Smart Cities Council, 2013).

WHAT IS A SMART CITY?

Defining a Smart City requires an initial reflection on what they are proposed to do. In India the growth of Smart Cities is seen as a mechanism to bring order in a dynamic urban context. As a consequence, to fully engage with Smart Cities, the Indian government, planning professionals and the nation's citizens will have to rethink the ways they view urban development (Narain, 2014). Although Narain's reporting of the development 'bigger picture' for the 100 Smart Cities highlights a number of the inherent complexities of engaging with a nebulous concept, it is equally important to identify what makes a Smart City. Narain posits that 'smart is, as smart does' highlighting one of the key principles of the concept: raising the question of who the generation of knowledge and expertise is for and how this can be translated into appropriate application.

The label 'smart city' is, as a consequence, a fuzzy but fashionable concept. Loosely, Smart Cities are viewed as cities which employ information and communications technology (ICT) to improve the liveability, economic competitiveness, workability and sustainability of an urban environment. One of the most globally accepted definitions of a Smart City is provided by Hollands (2008:308), who defines them as 'the utilization of networked infrastructure to improve economic and political efficiency and enable social, cultural, and urban development'. Drawing on comparable ideas, Giffinger et al.(2007) reported that Smart Cities must address key performance indicators that promote economic growth, socio-cultural development and interaction with the environment, including improved mobility, and establish a more refined and accessible governance structure. They, thus, highlight a lineage to the working definition of Smart Cities proposed by the European Union who state that: 'A Smart City is a city seeking to address public issues via ICT based solutions on the basis of a municipality driven multi stakeholder partnerships'(European Commission, 2014).

Both Hollands and Giffinger et al. can therefore be considered to highlight how the conceptualisation of Smart Cities varies across regions, especially in the Global North and in the Middle-East. More recently the British government's Department of Business, Innovation and Skills (BIS) outlined what it considered Smart Cities to be, and as the definition below states, they appear to have amalgamated the previous discussions into a clearly focussed rationale for Smart Cities. They seethe 'smart city'as a term denoting the effective integration of physical, digital and human systems in the built environment to deliver a sustainable, prosperous and inclusive future for its citizens (BSI, 2013).

Despite the fluidity of conceptual discussions presented in the research and literature, in praxis, the main focus of Smart Cities has been to promote the use of technology/ICT as the key driver of urban development. In each of the main Smart Cities investment locations, i.e. the USA and Europe, and potentially most visibly in the Middle-East, ICT has been afforded as the most prominent feature of Smart City investments (Caragliu et al., 2011; Hollands, 2008). Therefore, the ongoing applications of the concept in the context of global South have been framed by this principle. However, there have been calls for a more subtle approach to Smart City development which goes beyond technology (Narain, 2014).In such cases transport, social housing, and ecological mechanisms have been promoted as key elements that provide additionality to the benefits that Smart City can deliver. Thus, within the literature there is a plurality to the discussion of the network capabilities of effective investment in Smart Cities, which has not necessarily been extended across the globe, in practice (Greenfield, 2013; Tranos & Gertner, 2012). Whilst this provides scope to address a range of urban development issues, it also illustrates the potential ambiguity of the concept, and therefore, the problems of implementation[1] .

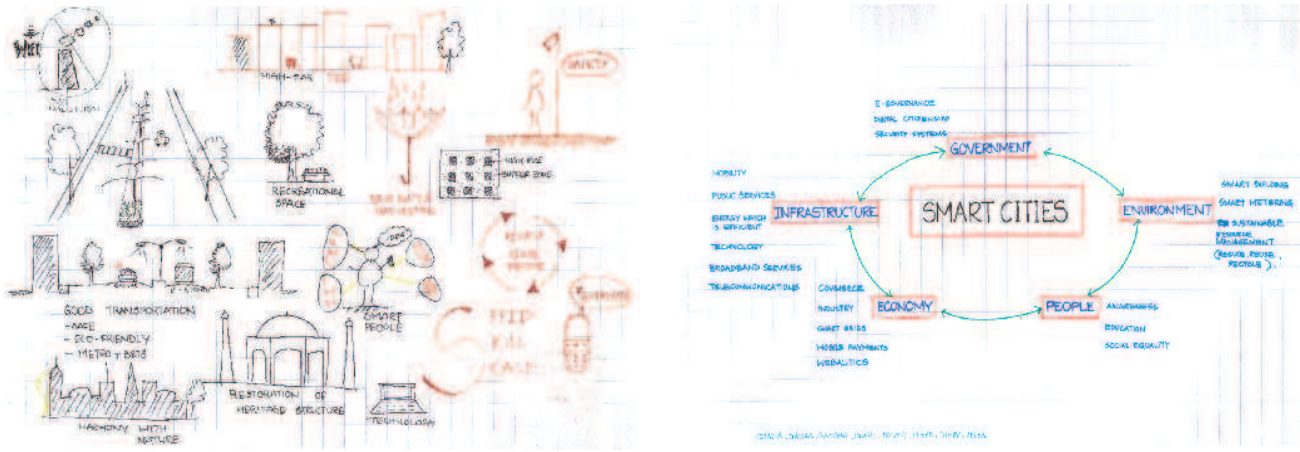

Figure 1 : **CEPT Student conceptualisations of Smart Cities**

One criticism levelled against Smart Cities has been the use of structured sets of criteria, standardised assessments and benchmarking tools to evaluate whether a location can be considered smart (Greenfield, 2013). Whilst, standardised techniques can promote continuity to approaches between locations, and can be considered to highlight effective investment, the use of such techniques can also lead to locationally specific implementation problems. These include the application of conceptual processes which may not translate effectively between locations or a lack of opportunities for developers to incorporate additional contextual criteria which may be absent from the Smart City tools (Hollands, 2008). Consequently, as noted above, Smart Cities are effectively being employed within a pluralistic investment framework which may or may not take into account the specific context of a location. The application of Smart City benchmarking may therefore be limited, as methodologies that promote an overarching approach to assessment cannot be universally applied.

To address this issue, European approaches to Smart City investment have discussed the need to adapt more locally sensitive forms of development. This includes assessing the micro-scale application of service provision (and management), such as water and sanitation, to lower the reliance on external resources (Allwinkle & Cruickshank, 2011). Whilst in North America, the issue of scale is not considered as such a central driver of Smart City investment due to the alternative approaches to urban-suburban investment. As a consequence, in North America, there is a greater emphasis placed on the role that ICT holds in effectively managing the delivery and efficiency of services including e-governance mechanisms (Smart Cities Council, 2013). However, a number of cities including Portland (Oregon), Philadelphia (Pennsylvania) and New York are all utilising smarter urban management practices to moderate the negative impacts of growth (Netusil, Levin, Shandas, & Hart, 2014; New York City Environmental Protection, 2010; Philadelphia Water Department, 2011). More recently the applications of Smart Cities in the Gulf States has seen an extension of a combination of these two approaches to ensure that the capacity of the environmental resource base is sufficient to support socio-economic and ICT led management strategies (Lazaroiu & Roscia, 2012). Discussions of Smart Cities in Europe and North America may therefore differ because the criteria associated with the designation of Smart Cities vary drastically between locations. As a consequence, planners need to think more critically about how the various human - environmental

interactions that exist in urban areas, impact upon the framing of Smart City developments.

WHAT IS A SMART CITY NOT?

Much of the academic and practitioner (grey) literature only focusses on what the authors conceive Smart Cities to be. However, there is less written about what cannot be considered smart in urban development discourses. Whilst, there are authors who criticise the assumptions made in the Smart City rhetoric (Greenfield, 2013), there is a limited level of critical analysis to support these discussions within the literature. The simple retort of what a Smart City isn't would also need to reflect on what they are. Therefore 'Un-Smart Cities' are less efficient, they don't place long-term emphasis on development goals, they approach investment from singular perspectives (i.e. water or sewage) not as an integrated process, they do not promote inclusivity in the planning process. They also lack the foresight to apply a more refined use of systems (technological, social, economic and ecological) to support growth and they do not offer a healthy and safe living to the residents (Datta, 2014; Kenworthy, 2006; Williams, 2010). Each of these issues, along with a range of others, can be identified in most urban development contexts, including India (Das, 2007). This does not though imply that all cities are un-smart, rather it identifies the parameters presented above, a pre-requisite for the development of Smart Cities.

From a reading of the Smart City literature a number of themes are repeatedly discussed questioning the validity of investment in the concept. These not only include reflections on the lack of consistency in the use and definition of Smart Cities, as discussed above, but also identify a number of further investment issues which also need to be addressed. These include:

- A lack of locationally specific context integrated into the discussions of Smart Cities. This limits the inclusion of an understanding of the development problems, and the history of urbanism within a given location.
- Smart City guidelines place too much emphasis on 'efficiency' and potentially offer an inappropriate model of optimisation of urban systems.
- The proposed upgrades to urban systems could be considered to be exclusively for the benefit of administrators, which could lead to increased authoritarianism within local/city government.

We can therefore question whether we, as planners and developers, have a grounded understanding of what Smart Cities are and how they should be planned. The discussion presented above highlights the fluidity of meaning associated with the concept of Smart Cities, and the ways that we choose to view future urban development. However, where there is an additionally strong political and financial will to invest in Smart Cities, the outcomes from North America and Europe indicate that positive collaborations between government, industry and local communities can be developed. However, there is a need for strong leadership to be associated with this process to ensure the investment is structured and focussed on key delivery principles. This interpretation should also include a review of whether the discussions of Smart City discussions simply offer new urban development rhetoric or a useful approach to investment in urban areas? Given the complexity of defining what is and is not a Smart City, and how they should be invested in, the following sections outline how the concept of Smart Cities is being applied globally and what characteristics can subsequently be applied in India. .

APPLICATION OF THE MAIN THEMES OF SMART CITIES GLOBALLY

In 2011 the EU opened its 'Smart Cities and Communities' research programme with €420million of funding. The initial focus of this programme was to look at how communities and IT-enhanced governance could be integrated across Europe. This was followed by the launch of the European

Innovation Partnership for Smart Cities and Communities in 2013, which combined ICT, energy management and transport management to develop innovative solutions to the major environmental, societal and health challenges facing European cities (Giffinger et al., 2007). These Partnerships aimed to overcome the resistance impeding the changeover to Smart Cities, to co-fund demonstration projects and to help coordinate existing city initiatives and projects, by pooling its resources together. The long-term objectives of the process were to establish strategic partnerships between industry and European cities to develop the urban systems and infrastructures of tomorrow.

Another second key project in the European context was conducted by the Centre of Regional Science at the Vienna University of Technology (VUT)in 2007,which conceptualized six main dimensions of a 'Smart City '. To assess the performance of cities as per these dimensions, VUT applied these characteristics to an investigation of 70 middle sized European cities (Giffinger et al., 2007). These proposed dimensions, as shown in Figure 2, are: a smart economy; smart mobility; a smart environment; smart people; smart living; and smart governance. These classifications connect with traditional regional and neoclassical theories of urban growth and development (Caragliu et al., 2011), and are based, respectively, on theories of regional competitiveness, transport and ICT economics, natural resources, human and social capital, quality of life, and the participation of society members in cities. The dimensions established by VUT were divided further into thirty-one factors and again into seventy-four measurable indicators. Collectively, the indicators gave a smartness index of a city.

Since its publication, the conceptualization of Smart Cities, presented by VUT, has gained increasing acceptance, and can be considered to have helped to create consensus, globally. The Smart Cities Council of USA, a forerunner in the sector and a for-profit, partner-led association for the advancement of the Smart City business sector in the USA has adopted similar dimensions to VUT, whilst also re-defining Smart Cities as a city which use ICT to enhance liveability, workability and

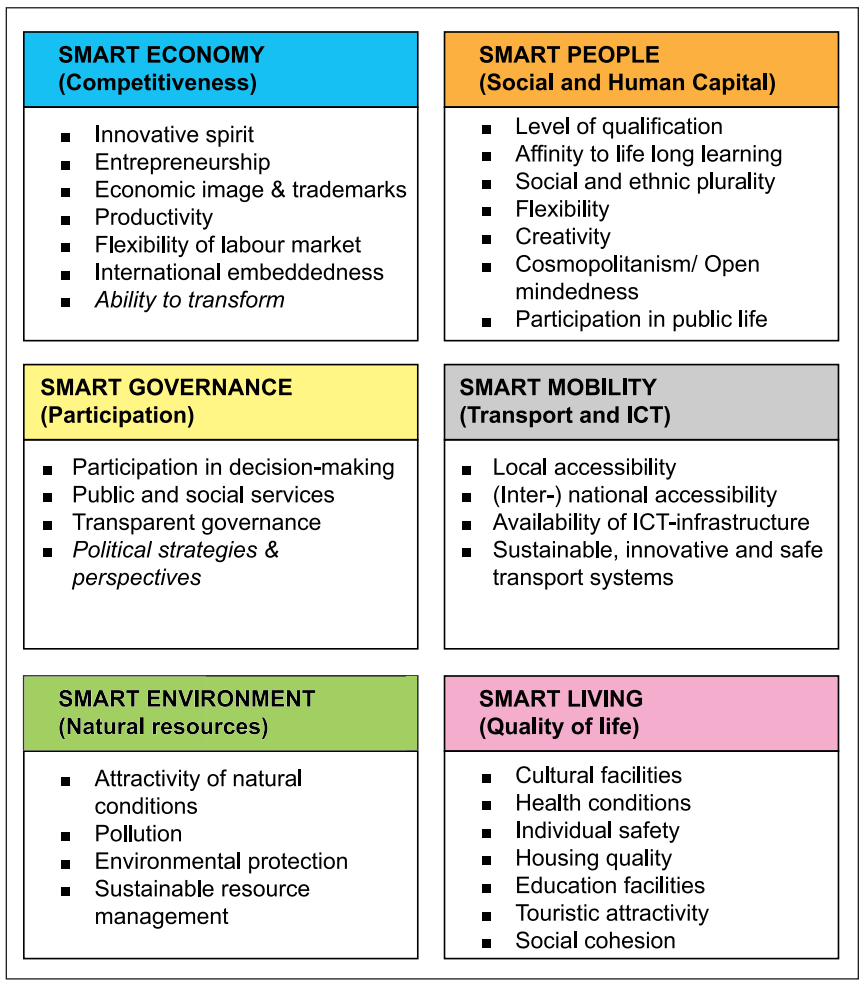

Figure 2 : **VUT Six Dimensions of Smart Cities(Giffinger et al., 2007:12)**

Figure 3: Smart Cities Council Criteria

Sector	Factor	Indicators in EU (TU Vienna)	Indicators of Smart City Council
ECONOMY	Innovative Spirit	R&D expenditure in % of GDP	R&D
		Employment Rate in knowledge-intensive Sectors	Innovation
		Patent apllications per inhabitant	
	Entrepreneurship	self-employment rate	New startups
		New businesses registered	Employment levels
	Economic Image & trademarks	Importance as decision-making centre	
	Productivity	GDP per employed person	GDP per capita
	Flexibility of Labour Market	Unemployment rate	
	International embeddedness	Proportion in part time employment	
		Companies with HQ in the city quoted on national stock market	
		Air transport of passengers	
		Air transport of freight	
	Local and Global Connection		Exports
			International events held
PEOPLE	Level of qualification	Importance as knowledge centre (top research centres, universities etc.)	Secondary education
		Population qualified at level 5-6 ISCED	University graduates
		Foreign language skills	
	Affinity to life long learning	Book loans per resident	
		Participation of life-long-learning in %	
		Participation in language courses	
	Social and ethnic plurallty	Share of foreigners	
		Share of nationals born abroad	
	Fiexibillty	Perception of getting a new job	
	Creativity	Share of people working in creative industries	Foreign born immigrants
			Urban living lab
			Creative industries
	Cosmopolitanism / open mindedness	Voters turnout at European elections	
		Immigration-friendly environment	
		Knowledge about the EU	
	Participation in public life	Voters turnout at city elections	Secondary education
		Participation in voluntary work	University graduates
GOVERNANCE	Participation in decision making	City representatives per resident	
		Political activity of inhabitants	
		Importance of politics for inhabitants	
		Share of female city representatives	
	Public and social services	Expenditure of the municipal per resident in PPS	
		Share of children in day care	
		Satisfaction with quality of schools	
	Transparent Government	Satisfaction with transparency of bureauocracy	Open data
		Satisfaction with fight against corruption	Open apps
	Online services		Online procedures
			Electronic benefits payment
	Infrastructure		Wi-Fi coverage
			Broadband coverage
			Sensor coverage
			Integrated health+safety operations

Contd....

MOBILITY	Local Accessibility	Public transport network per inhabitant	Public transport
		Satisfaction with access to public transport	
		Satisfaction with quality of public transport	
	International accessibility	International accessibility	
	Availability of ICT infrastructure	Computers in households	Smart cards
		Broadband internet access in households	Access to real-time information
	Sustainable, innovative and safe transport systems	Green mobility share	
		Traffic safety	
		Use of economical cars	
	Efficient Transport		Clean-Energy transport
ENVIRONMENT	Attractivity of natural conditions	Sunshine hours	
		Green space share	
	Pollution	Summer smog	
		Particulate matter	
		Fatal chronic lower respiratory diseases per inhabitant	
	Environmental protection	individual efforts on protecting nature	
		Opinion on natural protection	
	Sustainable resource management	Efficient use of water (use per GDP)	Energy
			Carbon footprint
		Efficient us of electricity (use per GDP)	Air quality
			Waste generation
			Water consumption
	Smart Buildings		Sustainability certified buildings
			Smart homes
	Sustainable urban planning		Climate resilience planning density
			Green space per capita
LIVING	Cultural facilities	Cinema attendance per inhabitant	Life conditions
		Museums visits per inhabitant	Gini index
		Theatre attendance per inhabitant	Quality of life ranking
	Health conditions	Life expectancy	Single health history
		Hospital beds per inhabitant	
		Doctors per inhabitant	Life expectancy
		Satisfaction with quality of health system	
	Individual safety	Crime rate	Crime
		Death rate by assault	Smart crime prevention
		Satisfaction with personal safety	
	Housing quality	Share of housing fulfilling minimal standards	
		Average living area per inhabitant	
		Satisfaction with personal housing situation	
	Education facilities	Students per inhabitant	
		Satisfaction with access to education system	
	Tourism attractivity	Importance as tourist location	
		Overnights per year per resident	
	Social cohesion	Perception on personal risk of property	
		Poverty rate	

Source: *Tabulated by author*

sustainability (Smart Cities Council, 2013). Given this definition, the Smart Cities Council proposes a Smart City index constituting same six dimensions i.e. smart economy, mobility, environment, people, living and governance. The Smart Cities Council criteria are shown in Figure 3. It further details these dimension through a set of forty six measurable indicators which broadly align with VUT's conceptualisation.

Whilst, the VUT and Smart Cities Council conceptualisations have become accepted norms in global discussions, there are further variations in how these principles are being applied globally. Evolving Smart City markets such as those in the Middle-East are drawing

inspiration from the VUT and Smart Cities Council criteria but are applying more localised conceptions of how these should be used. In the United Arab Emirates (UAE), Masdar has been championed as a model of Smart City development in the Gulf States. Conceived as a zero-carbon, car-free and 100 per cent solar powered city, Masdar encapsulates a number of key themes discussed previously: alternative approaches to energy production and consumption, and a more effective and efficient form of resource management (Kirby, 2014). The masterplan for Masdar also identifies that innovative ICT investment in a centralised control system is the most effective mechanism for managing the socio-economic and environmental needs of the city. This includes the provision of services, and flow of people and transport, to establish the most efficient use of resources by citizens, businesses and government (Sennett, 2012). Therefore, although the master planning of Masdar may not have produced additional criteria for investment in Smart Cities, they have drawn heavily on the global discussions of what makes a Smart City.

Singapore has also been reported as being a world leader in applying Smart City ideas. The nation's government has promoted the country as an 'Intelligent Island' where ICT has been used to manage and monitor the island state's resources. This has included the provision of high-speed fibre optic internet connections to citizens and the use of ICT to control the quality of the urban environment (Mahizhan, 1999). To ensure the success of this programme the Singaporean government has worked with private technology providers to ensure that the ICT systems they have developed provide sufficient scope to manage the city. Although the scale of Singapore, 791km^2, is relatively small, its population density (approximately 7,669 people per km^2) indicates that more efficient governance of environmental and social resources can, and has, increased the perceived quality of life (Bagchi, 2014).

The application of Smart City principles in the UAE and Singapore, therefore, highlight that it is only with an effective investment arena, that innovative forms of development can occur. However, the politicalised nature of development in both these locations could be considered contextually specific and unlikely to be replicated in the USA or Europe. We, therefore, need to assess how we rationalise the control of top-down city development programmes, against the more dynamic approaches witnessed in other locations. The application of Smart City ideas in India may provide a lens through which to the interactivity of these alternate viewpoints can be assessed.

In the Indian context, the proposed Smart City of Dholera attempts to integrate each of the objectives noted in Europe, the USA and in the Gulf States. Dholera is being promoted as a comprehensively planned city to ensure that citizens and the environment are synced through ICT and central command centre management (DNA India, 2013). The 'smart' branding of the city has been established to set Dholera apart from other developments, such as Lavasa, through the inclusion of more efficient city-wide managed systems. The scale of the development, 903 km^2, would make the investment twice as large as Mumbai (and bigger than Singapore), and provide scope to test/apply a range of water, sanitation, e-governance and ICT based transportsolutions (Datta, 2014). Furthermore, Dholera is located along the Delhi-Mumbai industrial corridor and would potentially act as a key centre of economic influence in India, hence its promotion as a key Smart City site. Currently though these discussions are hypothetical, yet the support from the Indian government suggests that Dholera will become a test case in the Smart City incubator.

The wholescale investment in technological solutions, as seen in Masdar, may therefore enable planners and developers to address the human-centered barriers to effective management visible in India (Datta, 2012; Roy, 2009). However, as the discussions of Smart Cities have developed, there has been a realization within the academic and grey literature that the varying conceptualization of

Box 1 : ISO 37120 Smart City Themes(ISO, 2014)

Theme	
1. Economy	10. Safety
2. Education	11. Shelter
3. Energy	12. Solid Waste
4. Environment	13. Telecommunications & Innovation
5. Finance	14. Transportation
6. Fire & Emergency Response	15. Urban Planning
7. Governance	16. Waste water
8. Health	17. Water & Sanitation
9. Recreation	

what can be considered a Smart City across the globe may be problematic to their use in India. As a response in 2014, the International Standards Organization (ISO) evolved a common performance yardstick for Smart Cities. ISO 37120 defines 100 performance indicators that shall or should be measured, along with a methodology to measure their effectiveness (ISO, 2014). Specifically, ISO 37120 defines seventeen key themes (see Box 1), supportedby a further forty six core and fifty-four indicators that cities either "shall" (core) or "should" (supporting) track and report to be a smart city. If India is to progress its Smart Cities agenda, it will need to learn the global lessons of how to effectively invest in Smart Cities, as well as, showing an understanding of how ISO 37120 can be implemented in the country.

PM NARENDRA MODI'S ANNOUNCEMENT OF 100 NEW SMART CITIES

Reflecting once again on an Indian context, in his first national budget as Prime Minister, Shri Narendra Modi announced that the Indian government was allocating INR 7060 crore to fund the development of one hundred new Smart Cities. Although the announcement was not accompanied by a detailed outline of where or how these cities would be developed, the proclamation does mark an important stage in the development of India cities (Bagchi, 2014). By promoting investments in Smart Cities, the Indian government is proposing an alternative approach to growth management, based on the promotion of technologically focussed Public- Private-Partnerships (PPPs), to manage delivery. The Indian government may, therefore, be limiting the potential for human interests to dictate development debates and instead promote a more functional, sustainable and smarter form of urban expansion. Shri Modi's announcement, therefore, provides scope to utilise alternative delivery options for decision-makers in India, proposed in Smart City discussions. Based on the assumption that Smart Cities will deliver more effective decision-making, efficient governance and more appropriate investment, the concept appears to be the polar opposite of existing urban growth discussions (Datta, 2012; Roy, 2009). Shri Modi's proposal can, as a consequence, be considered as an attempt to move away from the established criticisms that encapsulates development debates in India (Das, 2007), and instead looks to make full use of the ICT and systems management expertise established in India to drive growth.

India's renown as a world leader in ICT, and the focus of Smart City debates, shows a clear intention to integrate these ideas within development discussions. Furthermore the move towards universal 'e' and 'm-governance' mechanisms to empower the nation's population can also be viewed as supporting the use of Smart Cities (Datta, 2014). There is, though, scope within the development of Indian Smart Cities to ensure that societal mobility and inclusivity are promoted as key delivery principles. Social inclusion is often downplayed, being replaced by development which excludes some members of society. Smart Cities therefore have the potential to rationalise the needs of all citizens and to create more democratic places (Caragliu et al., 2011). However, to fully understand the potential of Smart Cities a specific contextual understanding of Indian growth is required, which is currently lacking.

There is, however, a noticeable caution within the discussions of Smart Cities, querying, whether it would be possible to move from the rhetoric of investment into meaningful delivery. The

complexities of growth debates in India suggest that myriad stakeholder influence can, and does, stymy effective growth (Mell & Sturzaker, 2014). Therefore, the development of Smart Cities will require strong (and long-term) leadership from the central government, and their advocates, to ensure appropriate delivery of the key principles of the concept (Hollands, 2008; Narain, 2014). As the process of development suffers, somewhat, from an endemic interaction of contrasting voices, the promotion of Smart Cities therefore provides an interesting platform to assess changes under the new government.

Given the strength of the BJP government in terms of control over the Lok Sabha and at the sub-national level, we can expect that a more meaningful engagement with the principles of Smart Cities could occur. Unfortunately, this process may still be subject to individual or stakeholder pressures, which could dilute the delivery of the concept (Datta, 2014). Over the next five-years it will therefore be interesting to monitor these discussions to assess whether the visibility of the government's support for Smart Cities can actually outweigh the embedded dynamism of development interests in India.

THE FUTURE OF URBAN DEVELOPMENT AND SMART CITIES IN INDIA

One could argue that the INR 7060 crore allocated to funding Smart City's shows a clear commitment from the government to approach development from an alternative perspective (DNA India, 2013). However, broken down into the funding for one hundred cities, the level of funding for each city unit becomes more constrained (Datta, 2014). Moreover, there are also concerns over how the funding will be allocated, who will be financially responsible for overseeing development, and who will be accountable for ensuring the delivery of the one hundred proposed Smart Cities? Each of these questions are yet to be answered, however, the allocation of the funding is a major first step in moving away from the conventional Indian planning process.

The BJP government have stated that the identified funding will be used to conceptualise and plan new development (or retrofit existing locations) rather than fund full investment programmes. Thus, although the level of funding per city may appear insufficient to deliver Smart City principles, they will provide scope for planners and decision-makers to identify which characteristics they propose to invest in. The funding announcement would further stimulate investment by engaging with other potential funders, i.e. ICT businesses, retail business, and transport operators to support PPP, which is deemed an essential component of effective Smart City investment. Furthermore, it highlights a commitment from the government to rethink and to position the nation as a world-leader in urban development and technological innovation.

The future implication of Smart Cities in India is currently unknown. Although the concept proposes an alternative way of thinking about urban development, there are still questions being raised about the relevance of Smart City governance in India. Promoting an effective form of management which integrates governance elements from both the centre and local will be a key for successful application of Smart City principles. Several concerns have been raised, which focus on the management of the development process and the subsequent delivery of efficient, high-tech and inclusive cities. Each of these objectives has been extensively critiqued in the research literature highlighting the difficulties inherent in Indian development (Datta, 2014; Giffinger et al., 2007; Hollands, 2008). These complexities include the perception that the government of India, and therefore by extension the governance of its cities, are overly bureaucratic, litigious, and in many cases take a dynamic view on prioritising development objectives (Datta, 2012). The structured criteria based assessments for Smart Cities proposed by the Smart Cities Council, VUT and BSI could therefore be undermined by such processes (BSI, 2013; Giffinger et al., 2007; Smart Cities Council, 2013). How the central government, and its agents at a state and local level, manage this process will play a major role in evaluating whether the application of Smart City principles in India is successful.

However, the support allocated to

Smart Cities highlights a change in government understanding of urban development. By promoting a more technologically led form of investment, the government is engaging the country's expertise in ICT, to rethink how development should occur. Furthermore, the continual growth of innovative forms of engineering (social and mechanical/industrial) suggests that a number of the key objectives of Smart Cities, namely: efficiency, innovation, inclusivity, and mobility, can all be delivered by professionals in India. The growth of Smart City thinking thus provides a platform where each of these areas can be integrated into a delivery process.

One final question that can be posited is: what happens if the proposed investment in Smart Cities fails to deliver the requisite change in the development and management of Indian cities? This may be an INR 7060 crore question, as the implementation of Smart Cities in India remains in its embryonic stages. In case of a failure, the choice for developers and urban planners would be to return to the default normative approaches to investment or they may attempt to look for opportunities beyond the formal boundaries of Smart City framework. What we could suggest is that the promotion of Smart Cities as an alternative may provide the spark that architects, town planners and government need to think beyond the existing legal and administrative limits that frame investment in cities. Alternatively, if city planners defer to the status quo then we may not see a noticeable change in attitude or delivery. The promotion of Smart Cities can therefore be considered to act as a potential catalyst to integrate an added fluidity to urban development debates. Over the coming years, each of these issues will be repeatedly discussed as the rhetoric of investment in Smart Cities moves on to scoping and finally investment. Whilst it is currently unclear how successful the promotion of the concept will be, it is possible to argue that any reflections on the dynamics of development will potentially lead to more sustainable forms of investment.

CONCLUSIONS

As urban planners, the authors question, the validity of an uncritical investment in Smart Cities. Although the concept can draw on a growing literature of international experiences, there is a need to undertake a robust contextualisation of their potential value in India. Also, given the diverse agro-climatic zones, socio-economic and politico-administrative milieu in India, a one definition-fits-all approach will not work. Hence a loose definition with broad characteristics will have to be conceptualised, with the indicators or specificities of which can be varied as per the local context of the cities subject to Smart City development.The specific development constraints, and opportunities, that make growth in India a unique process, need to be evaluated in conjunction with the contemporary discussions of Smart Cities, to ensure reciprocity of ideas, delivery strategies and monitoring (Caragliu et al., 2011; Datta, 2014; Narain, 2014). Furthermore, although the USA, UK and Europe have developed a set of normative approaches, criteria and benchmarking systems to establish the credentials of Smart City investment, such assessments have yet to be tested in India. As a consequence, a Smart Cities investment framework should be adopted in India only when tests show specific positive avenues where the balance of investment costs does not outweigh the estimated returns. Such a framework could be structured as follows:

- Identification within the central government of the definition, scoping and objectives for Smart Cities, with the possibility of developing a government portfolio for their development;
- Identification of a series of pilot sites to test the relevance and utility of this framing of Smart Cities;
- Identification of pilot sites that reflect the various agro-climatic zones, socio-economic and politico-administrative boundaries across India. Regional pilots should be included as exemplar projects to assess the structure of the government's Smart City criteria in different locations;
- Establishment of a reflexive process of monitoring for the policy-practice of Smart Cities at all scales, which should be independent of the private

business agendas;
- Greater dialogue to establish Public-Private-Partnerships to shape the functionality of the Smart City development and evaluation criteria; and
- Subsequent, support from all levels of government to integrate Smart City ideas in legislation, policy and practice.

However, if it is concluded that benchmarking of Smart Cities lacks a more nuanced application in Indian context than those based on eco-city and sustainability principles, then we can question whether it is appropriate for the Indian Government to promote one hundred new Smart Cities. At the current time Smart Cities offer Indian planners an opportunity to rethink the trajectory of urban development, and can bring into action new forms of investment and promote long-term improvements in the quality of place and life, economic competiveness and resource efficiency. Looking at global discourse and practices in Smart City, mainly revolving around the use of ICT, we suggest that most important aspect of ICT is not its capacity to build smart cities but its capacity to offer opportunities to be integrated into a wider social, economic and cultural transformation.

NOTES

[1] This variation is also shown in Figure 1, where Master's level students were asked to conceptualise what they considered Smart Cities to be.

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REFERENCES

Allwinkle, S., & Cruickshank, P. (2011). Creating Smart-er Cities: An Overview. Journal of Urban Technology, 18(6), 1–16.

Bagchi, I. (2014, June). Singapore offers help in Modi's smart city project. The Times of India. Retrieved from http://timesofindia.indiatimes.com/india/Singapore-offers-help-in-Modis-smart-city-project/articleshow/37744163.cms

BSI. (2013). The Role of Standards in Smart Cities. London.

Campbell, S. (1996). Green Cities, Growing Cities, Just Cities?: Urban Planning and the Contradictions of Sustainable Development. Journal of the American Planning Association, 62(3), 296–312.

Caragliu, A., Del Bo, C., & Nijkamp, P. (2011). Smart Cities in Europe. Journal of Urban Technology, 18(2), 65–82. doi:10.1080/10630732.2011.601117

Das, A. K. (2007). Urban Planning in India. Jaipur: Rawat Publishing.

Datta, A. (2012). India's ecocity? Environment, urbanisation, and mobility in the making of Lavasa. Environment and Planning C: Government and Policy, 30, 982–996.

Datta, A. (2014, May 14). India's smart city craze: big, green and doomed from the start? The Guardian. London. Retrieved from http://www.theguardian.com/cities/2014/apr/17/india-smart-city-dholera-flood-farmers-investors

DNA India. (2013). Dholera to soon host one of country's four smart cities. DNA India. Retrieved August 25, 2014, from http://www.dnaindia.com/ahmedabad/report-dholera-to-soon-host-one-of-countrys-four-smart-cities-1916195

Drèze, J., & Sen, A. (2013). An Uncertain Glory: India and its Contradictions (p. 448). London: Allen Lane.

European Commission. (2014). About Smart Cities. Retrieved August 25, 2014, from https://ec.europa.eu/digital-agenda/en/about-smart-cities

Giffinger, R., Fertner, C., Kramar, H., Kalasek, R., Pichler-Milanović, N., & Meijers, E. (2007). Smart cities: Ranking of European medium-sized cities Final report. Vienna. Retrieved from www.smart-cities.eu

Government of India: Ministry of Home Affairs. (2011). Census of India, 2011. New Delhi.

Greenfield, A. (2013). Against the smart city (The city is here to use). New York: Do Projects.

Guy, S., & Marvin, S. (1999). Understanding sustainable cities: competing urban futures. European Urban and Regional Studies, 6(3), 268–275.

Hollands, R. G. (2008). Will the real smart city please stand up? City, 12(3), 303–320. doi:10.1080/13604810802479126

ISO. (2014). ISO 37120:2014. Retrieved from https://www.iso.org/obp/ui/#iso:std:iso:37120:ed-1:v1:en

Kenworthy, J. R. (2006). The eco-city: ten key transport and planning dimensions for sustainable city development. Environment and Urbanization, 18(1), 67–85.

Kirby, T. (2014). City design: Transforming tomorrow. The Guardian. London. Retrieved from http://www.theguardian.com/smarter-cities/transforming-tomorrow

Lazaroiu, G., & Roscia, M. (2012). Definition methodology for the smart cities model. Energy, 47, 326–332.

Mahizhan, A. (1999). Smart Cities: The Singapore Case. Cities, 16(1), 13–18.

McKenzie, D., & Ray, I. (2009). Urban water supply in India: status, reform options and possible lessons. Water Policy, 11(4), 442.

McKinsey & Company. (2005). Powering India - the road to 2017. New Delhi.

McKinsey Global Institute. (2001). India: The growth imperative. New Delhi.

McKinsey Global Institute. (2010). India's Urban Awakening: Building inclusive cities, sustaining economic growth. New Delhi.

Mell, I. C., & Sturzaker, J. (2014). Sustainable urban development in tightly constrained areas: a case study of Darjeeling, India. International Journal of Urban Sustainable Development, 6(1), 65–88. doi:10.1080/19463138.2014.883994

Nagendra, H., Nagendran, S., Paul, S., & Pareeth, S. (2012). Graying, greening and fragmentation in the rapidly expanding Indian city of Bangalore. Landscape and Urban Planning, 105(4), 400–406. doi:10.1016/j.landurbplan.2012.01.014

Narain, S. (2014). How Smart is a Smart City? Centre for Science and Environment website. Retrieved from http://www.cseindia.org/content/how-smart-a-smart-city

Netusil, N. R., Levin, Z., Shandas, V., & Hart, T. (2014). Valuing green infrastructure in Portland, Oregon. Landscape and Urban Planning, 124, 14–21. doi:10.1016/j.landurbplan.2014.01.002

New York City Environmental Protection. (2010). NYC Green Infrastructure Plan: A Sustainable Strategy for Clean Waterways. New York.

Philadelphia Water Department. (2011). Green City, Clean Waters: The City of Philadelphia's Program for Combined Sewer Overflow Control. Philadelphia.

Roy, A. (2009). Why India Cannot Plan Its Cities: Informality, Insurgence and the Idiom of Urbanization. Planning Theory, 8(1), 76–87.

Sennett, R. (2012). The stupefying smart city. LSECities: An International Centre supported by Deutsche Bank. Retrieved August 25, 2014, from http://lsecities.net/media/objects/articles/the-stupefying-smart-city/en-gb/

Smart Cities Council. (2013). Smart City Readiness Guide: The planning manual for building tomorrow's cities today. Redmond, VA.

The High Expert Committee (HPEC) for Estimtaing the Investment Requirements for

Urban Infrastructure Services. (2011). Report on Indian Urban Infrastructure and Services. New Delhi.

Tranos, E., & Gertner, D. (2012). Smart networked cities? Innovation: The European Journal of Social Science Research, 25(2), 175–190. doi:10.1080/13511610.2012.660327

Williams, K. (2010). Sustainable cities: research and practice challenges. *International Journal of Urban Sustainable Development, 1(1-2), 128–13.*

INITIATIVES OF HUDCO'S HSMI

The activities of HSMI are carried out by the four centres of excellence namely, Centre for Urban Poverty, Slums and Livelihoods (CUP), Centre for Project Development and Management (CPD), Centre for Sustainable Habitat (CSH) and Centre for Affordable Housing (CAH). Some recent initiatives taken by HSMI are:

Research and Development

HUDCO is supporting innovative research initiatives in the housing and urban development sector through its collaborative research platform. The research should lead to a tangible project or guidelines for improving a sector specific issue. The research grant is awarded to national level institutions and universities of repute in the country. So far, grant to 30 research proposals have been awarded.

Rajiv Gandhi Fellowship

HUDCO has instituted a 'Rajiv Gandhi Fellowship' to encourage students to undertake research in the habitat sector. This fellowship follows the norms of the Ministry of Human Resource Development/University Grants Commission, and is awarded for pursuing M.Phil. and Ph.D. programmes at national level premier institutions. The institutions have to sign a MoU with HUDCO for availing this Fellowship for its students.

HUDCO Chairs

HUDCO Chairs have been reintroduced in a new format. The HUDCO chairs are functional at 18 institutions in the country and are supported in terms of activities undertaken for improving the sector. The chairs conduct skill development programmes, research & dissemination workshops and documentation.

HUDCO Best Practice Award

This award has been announced by HUDCO to promote innovative initiatives undertaken by urban local bodies. These awards are given under seven categories, viz., Urban Governance, Housing, Urban Poverty & Infrastructure, Urban Transport, Environmental Management, Energy Conservation & Green Building, Sanitation, Urban Design & Regional Planning, Inner City Revitalization & Conservation and Disaster Preparedness, Mitigation & Rehabilitation. The award is given to 10 selected entries/ organisation and carries a cash prize as well as a commemorative plaque and commendation certificate.

Network of India, Brazil and South Africa

IBSA is a trilateral agreement between India, Brazil and South Africa to promote south- south cooperation and exchange on several mutually agreed areas of interest. At the fourth meeting of the trilateral commission of the IBSA dialogue forum in Delhi in July 2007, 'Human Settlement Development' was identified as an area of cooperation between IBSA partners. The Ministry of Housing and Urban Poverty Alleviation (MoHUPA), Government of India, has nominated HSMI, as the anchor institute to provide support to the ministry in carrying out various activities under the network.

A Working Group on Human Settlement (WGHS) was established and subsequently a Memorandum of Understanding (MoU) on cooperation in the area of human settlement development was signed at the 3rd IBSA summit held in October 2008. A Joint Working Group (JWG) meeting was organized to finalize the strategy for operationalization of IBSA activities, including discussions on strategy paper. A joint meeting of the IBSA working group on Human Settlements was organized by HSMI in collaboration with Ministry of Housing and Urban Poverty Alleviation, Government of India in New Delhi during 17-18 May, 2013. Further, as anchor institution, HSMI was also represented by Executive Director, Training at the recently concluded International Seminar, organized by IBSA at Sao Paulo, Brazil during 12-14 March, 2014.

CITYNET – National Chapter India

HUDCO is an Associate Member of CITYNET since 1993. The purpose of CITYNET is to promote exchange of information, experience and skills through various research and training activities among members of CITYNET. The India chapter of CITYNET has been established with HUDCO/HSMI as the lead institution, so that more Indian cities could benefit from HUDCO's vast experience in the areas of common interest.

Capacity Building

HSMI, being the research and training wing of HUDCO, has been imparting training to in-house professionals and national and international professionals in the sector. HSMI has made an impressive contribution in handholding of urban local bodies through capacity building of professionals and functionaries for national level programmes.

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Networking

HUDCO and HSMI have signed Memorandum of Understanding with national and international agencies towards sharing of knowledge through seminar/ workshops, visits, documentation and training programmes.

For more information on the above, please contact Executive Director (Training), HUDCO/HSMI, New Delhi.

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