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Publication

SHELTER

| Theme Paper

| Policy Review

| Case Studies

Theme

URBAN GOVERNANCE



Hudco Nav Nagar Yojana (HuNNY)

For Development of New Townships
- from Planning to Financing



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- » Urban Development Authorities
- » Housing Boards
- » Any other Government Corporation or Agency
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- » Sanction of Hudco loan upto 90% of the project cost for Government/Public Agencies



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INSIDE



Theme

URBAN GOVERNANCE

A major initiative in the direction of good governance was taken in 1992 through the 73rd and 74th constitutional amendment which accorded a constitutional status to the urban and rural local bodies. The urban local bodies, which were mostly superseded and had become dysfunctional, got a respite and recognition. Democracy barged into local institutions, and representation of weaker sections, women and backward classes was installed at the helm of civic affairs. These landmark amendments gave recognition to the urban and rural local bodies as the third tier of government along with functional and fiscal autonomy. State Finance Commissions were set-up to facilitate fiscal decentralisation while the Twelfth Schedule was added to the Constitution to recommend functions to be handled by the urban local bodies. The transfer of power to people has just begun by these amendments and many such endeavours are needed for its furtherance.

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FROM THE CHIEF EDITOR

The Internet is full of ideas and practices on urban governance. But what struck me the most was an essay by Gina Spencer, a grade 6 student of Immaculate Heart of Mary School, Canada. She describes good government as a body which provides citizens with services like education, healthcare, roads, water, park, jobs, voting right etc. According to her, the important qualities of good governance are transparency, responsibility and participation. Participation is also the principle of democracy, which empowers people to associate themselves with governance, irrespective of their social or economic status. Mahatma Gandhi had said- "My notion of democracy is that under it the weakest should have the same opportunity as the strongest...No country in the world today shows any but patronising regard for the weak....Western democracy as it functions today, is diluted fascism...True democracy cannot be worked by twenty men sitting at the centre. It has to be worked from below by the people of the village".

The same spirit was further reinforced by the former President of India, Dr. APJ Abdul Kalam, who advocated village development as part of good governance. The project PURA (Providing Urban Amenities in Rural Areas), is about upgrading village infrastructure and creating livelihood opportunities in villages so that the rural-urban divide is reduced, and also the migration to urban settlements.

I am reminded of an inscription on the Vidhan Soudha building of Karnataka State- "Government Work is God's Work". It gives a very important message for governance. First, the inherent nature of providing service as a representative and not as a custodian. Second, to provide service without any vested interest. Third, people should be the focus of policy and decision making.

The first major reform in governance took place in the early 1990s', with the call for democratic decentralisation of local government in India through the 73rd and 74th Amendments to the Constitution. Subsequently, schemes and initiatives like JNNURM, Right to Information, Citizen Charter, Right to Services Act, etc., reinforced the transfer of power to the people.

This issue of 'Shelter' has compiled articles to share achievements and challenges in urban governance, with focus on urban management and housing delivery. The article by AK Jain details out challenges for good governance. Case studies from Pune and Mumbai address some of these challenges. The effective use of technology to making governance more inclusive and participative is ably demonstrated in the case of Rajkot and Delhi. Similarly, Dr. SS Dhaliwal suggests a new property tax system, to empower people to self-assess their property tax, thereby ensuring greater transparency and timely payment. Other articles on policy review highlight issues on planning of NCT and cities developed through PPP.

The housing project for war victims in Sri Lanka by Kirtee Shah reflects an important feature of reconstruction activity, with international cooperation. Effective governance in housing delivery has been covered diligently in the articles by Prof. Abdul Shahban, Priyanka Dey and Monalisa Mohanty et al. The documentation of HUDCO project by Sukanya Ghosh (et al) for cyclone affected people in Odisha highlights the importance of training of masons and use of cost-effective technologies, as factors for success of similar projects in the future. Prof. Krishne Gowda (et al), in his paper argues the case for factoring in the housing needs of the poor while reorganising the city centres in large metropolises. Sanjukta Sattar highlights the various dimensions of the issues of homelessness and the options available to address it.

Hope that the articles in this volume would stimulate thought and action for improved urban governance.

CRITIQUE OF THE POST COLONIAL INDIAN CAPITAL CITY-STATE

NIPESH P NARAYANAN

Cities are for people and biases of image on how it should be, completely negate the discussion for the development of new typologies that are required for the changing lifestyle and the emerging new urban social and economic order.

Keywords: Urban Development and Politics; Media; Urban Culture; Urban Governance

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Aspiration is one of the key factors that has been driving India's urbanism since Independence. The whole idea of defining a new nation on modern cities, which was based on aspirations that swayed towards the skewed image of the developed world still holds true. Starting with the construction of an image for a city by the British to the post-independence predilection for modernity, Delhi today has reached a stage where almost every project by the authorities is geared towards an image makeover including the Master Plan.

Such aspirations have more physical manifestations in Indian context, as state and central government have more power in cities than the city government itself (even though 20 years have passed after 74th Constitutional Amendment ¹). Delhi presents a special case as land is under control of the central government and Indian politics at the Centre has been for more than a decade now governed by mixed ideologies of the multi-party coalition system.

Delhi's urbanism is formulated in a system that completely circumvents democratic means and thus resulting in the civil society activism. Such activism combined with the media images constantly reinforces the aspiration of what a city should be. All these aspirations are mere images which some have enough faith to call a vision, but have no concrete grounding on what needs to be done resulting in urban blunders.

This paper investigates different aspects of urban development resulting from popular aspirational image.

1.0 BACKGROUND

“A village, normally speaking, is backward intellectually and culturally and no progress can be made from a backward environment” (Parel 1997) wrote Jawaharlal Nehru, who later became

India's first Prime Minister, in his letter to M K Gandhi in 1945. As opposed to the ‘village’ being backward, the city was seen by Nehru as a symbol of independent and modern India. Post independence while the nation was on a path to establish an Indian identity, the notion of the city was still a colonial construct. Even when Nehru's self-reliance and import-substituting industrialization was in its prime, the impulse to make the Indian city a prototype of the first-world city was a fundamental one (Nigam 2001). Nehru embraced modernity and thought that as a model for the country to go forward, cities should become the laboratory and urban planning the tool. Planning was rational, could predict future scientifically and most importantly destiny was in man's control. Thus, planning and designing cities became the epitome of modernity. The so called rational thinking of the west imposed the aspiration for India to have cities that resembled that of the developed world. This approach completely negates the complexities of the Indian cities and focuses on image building, which is resulting in cities moving away from being humane.

2.0 COLONIAL CONSTRUCT OF THE IMAGE FOR THE INDIAN CITY

Even though early enough, there was a general interest of the West in India, mainly through Arab scholars and later through the Asiatic Society, the standard reference for the imperialists to understand India was, 'The History of British India', by political theorist James Mill published in 1817. "Mill disputed and dismissed practically every claim ever made on behalf of Indian culture and its intellectual traditions, concluding that it was totally primitive and rude. This diagnosis went well with Mill's general attitude, which supported the idea of bringing a rather barbaric nation under the benign and reformist administration of the British Empire." (A. Sen 2005) This understanding of India by the ruling British is the foundation for any urban reform being taken up in the colonial era.

Late 19th century was when the British started to ensure public health in their home land towns; they implemented the same in India, which became a starting point for the construction of an image on how a city 'should' be in India. "To institutionalize the 'modern' process of planning, the Public Works Department published 'The Handbook on Town Planning in 1876'. The handbook contained guidelines for undertaking urban development projects all over the country and it is easy to trace the origins of many current professional philosophies

and practices to this book" (Menon 2007). This imposed a post-industrial urban rationale on a pre-industrial Indian metropolis. Industries in Delhi were more craft based and thus lacked the so called disciplined rigor and order of an assembly line unit, so were the spaces which they occupied. The British parts, which were majorly cantonment areas, due to military presence had strict order and sanitized streets creating a sense of heterotopia² for the natives. Since the colonizer lived in such a space, it automatically seeped into the psyche of the populous, on how an ideal city should look.

Pre-British, the city of Delhi (Shahjahanabad) was more egalitarian at least in the spatial mix of different economic groups, mainly because of its size and the economic mix of the karkhana³, along with other building blocks of the city. Even though the segregation existed, but everything was within the compact city of Shahjahanabad⁴ through a diverse mix in the karkhanas itself, thus geographical isolation of the economically weaker section was impossible.

Post the 1857 mutiny⁵ the British decided to segregate themselves and created separate quarters, where the Indian elite would also live. This led to a clear divide between the 'natives' and the 'colonizer' because of the size of the divided sector. Once the natives are grouped into one category it was easier to see them as one homogeneous entity. This became the beginning of the

'colony'- 'colonizer' spatial divide. When the majestic city of New Delhi was getting planned in the early 20th Century, among other strategies, there was an intended open space (now called Ram Lila Maidan) left so as to keep a physical barrier between the natives and the colonizers. New Delhi was only for the colonizers and the royal and elite Indians, so the image of that became one that is to be aspired for – wide roads, clean lawns and under control & 'disciplined' urban spaces. The image of New Delhi added a progressive layer on top of the British cantonment image.

"Delhi, the walled city, rich with building traditions, and for Europeans, the quintessential Oriental landscape, encountered dramatic cultural upheavals in the nineteenth and early twentieth centuries. Reason, science, and the universals of modernism in Europe arrived in India along with an authoritarian imperialism and exploitative capitalism. For their own economic and political ends, the new regime introduced, encouraged, and imposed modernisms which had arisen under different circumstances in Europe and which were presented as the only legitimate expressions to which Indians might aspire." (Hosagrahar 2012)

After the mutiny of 1857 "the British realized that they had come within a hair's breadth of losing their empire in urban areas because their organic morphology made them difficult to control. There was a concerted effort thereafter to

rebuild Indian towns on more familiar terms that they could ‘understand’” (Menon 2007). Almost every city in North India saw a ‘Nai Sadak’ meaning New Road in English, which cut through the organic fabric and created an axis, at the focus of which came the industrial icon, a clock tower; creating an apathy towards the organic and an aspiration for the geometrically laid city.

After the capital of British Empire was moved to New Delhi from Kolkata, there was a huge migration of people into the city. New Delhi designed on the concepts of garden city could not accommodate this immigration, so naturally the population was absorbed by the much organic and adaptable Old Delhi (Shahjahanabad). Old Delhi reflected poor living conditions prevalent in Europe during industrialization, thus government decided to analyze the situation. “On 3rd August 1935, Arthur Parke Hume was commissioned by the Government of India to write a report on the relief of urban congestion in Old Delhi” (Legg 2007).

It is an interesting correlation to read that the Hume report was formulated to study the ‘congestion’ in Old Delhi and the result of the Commission’s finding lead to the creation of Delhi Improvement Trust (DIT). Thus, the main focus of DIT was to ‘de-congest’ the native city. Phrases like ‘congestion’, ‘high density’ and ‘mixed use’ got included in the urban design and planning vocabulary with a negative

connotation. Also, it is interesting to note that Delhi region having a hot and dry climate, shading of the built environment is very important, for habitable spaces. Thus a fine fabric with mutual shading is a natural built response, which started to picture itself as unhealthy and dirty. Typical typologies of buildings in Delhi were derivatives of a perimeter block, creating a vibrant and public street, except for iconic buildings like mosques, temples and palaces (or forts) etc. The image of a clean city has wiped out perimeter block as an architectural language and established a building practice which produces only free standing buildings in space, resulting in dead motor vehicle dominated roads and unsafe public domain, prevalent even today.

3.0 CASTING OF A DICTATOR – THE MASTER PLAN

By late 1940s DIT was under attack from popular media for adhoc developmental projects. One of the key problems was that, DIT along with few other private builders, operated in Delhi and did not contribute much to the city, especially with relation to the post 1947 partition led migration. Thus in 1951, Birla committee (also known as DIT enquiry committee) was established for looking into irregularities in development by DIT.

One of the main reasons considered for the failure of DIT was that it did piece meal development projects

which at that time were juxtaposed against the ‘majestic’ and ‘planned’ New Delhi of the British. Thus, the obvious outcome of the committee was to formulate an umbrella organization which would look at the city of Delhi as a whole and develop a ‘master’ plan. This, as understood from Christopher Alexander’s ‘New Theory of Urban Design’, can easily be associated as a starting point for the city to degrade and lose its wholeness (Alexander 1987), as well as the custom of few officials deciding for the masses on what is good for them.

Indian Government in November 1955, as per the Birla Committee Report’s recommendations, created Delhi Development Authority (Provisional) and in 1957 came up with a Delhi Development Act, which gave Delhi Development Authority (DDA) a constitutional bearing. One of the main objectives of DDA was to develop land for various purposes in the city, so it became the largest speculator in the city, playing with the land dynamics, almost exclusively, for the first decade of its formation.

Organizational structure of DDA was such that it was placed directly under the central (federal) government, thus the development rights were under the Central Government, thus completely disassociating the city residents with the development process. The same structure is followed throughout India, for almost all other development agencies of cities, which are placed under the respective State Governments. This

structure gave exclusive and independent powers to DDA. “Underlying the power granted to technocratic elites and experts, such as Le Corbusier, was the understanding of urbanization as the pinnacle of a nation’s social and political development. This framework of thought positioned the state and its technocrats as agents of history, removing planning from the scrutiny of democratic politics.” (Prakash 2002) This also led to the unique situation in Delhi, wherein the development in the city became a showcase for the entire nation and the world to judge the performance and vision of the central government as Delhi was the only direct development-initiative laboratory available for the central government.

After the formation of DDA, the image for a city, which was a colonial construct, became stronger, so also the opinion that a Master Plan will ‘tame’ the city. One of the national dailies published in 1960 mentions - “If Delhi is to be planned into a well integrated city, and to be maintained as such, it needs inhabitants with a primary ‘urban’ psychology.” (Why a Master Plan for Delhi 1960) This is in tune with the thought process of Albert Mayer, the head of Ford planning team for Delhi’s first Master Plan, who cited village-like habits of migrants as one of the constraints in ‘master’ planning Delhi (Sundaram 2012). Hence the first Master Plan of Delhi, published in 1962, was essentially a creation of, an image for the city rather than a city for the

people. Such an approach stages the Master Plan as a ‘regulatory’ document rather than a ‘facilitating’ agency framework. This regulatory framework fountainheads projects and regulations ranging from macro aspects like assigning specific use category to land, barricading the centre of the city to keep people out etc, to micro interventions like creating fences on road dividers to stop people from crossing the road at ‘non-designated’ spots, evacuating slums which don’t conform to the constructed image etc. The plan was based on land use zoning, which essentially designated separate areas for industrial and commercial purposes, which intended to have ‘clean’ residential and core city areas. This completely negates the fact that people working in these commercial and industrial zones also need a habitable environment, all to achieve the image constructed over a period of time for the perceived-core/important parts of the city.

Subsequent Master Plans started to refine this image based on the collective memory of the urban middle class, to an extent that the vision statement for the 2021 Master Plan is to create a ‘world class city’, even though the core of the new plan is essentially that of the 1962 Master Plan. “In part, this desire of the city planners to make Delhi into another global metropolis, may be ascribed to the rapidly emerging ‘new global order’. In a sense, what marks this new global order is the ‘de-

territorialization’ of the third-world metropolis, a sundering of its ties with its national location and its integration into the network of a handful of global cities.” (Nigam 2001) In that sense the image for the Indian metropolis is now being copied from global experiences.

4.0 ASPIRATIONAL URBANISM⁶ AND ACTIVISM OF THE BOURGEOIS

Post liberalization of the economy in 1990s, the urban middle class became stronger and globally more connected to strengthen and skew the collective memory of the urban citizens. This collective memory is constructed over a period of time as discussed previously. The pre 1857 order and discipline in the British cantonment as oppose to the lively streets of *katras and mohallas*⁷; the legibility of axis and focal elements of post 1857 British interventions as opposed to the organic streets and climatologically responsive morphology; the autocratic and majestic image of New Delhi as opposed to the people oriented and democratic *bazaars*; the fear of congestion imposed by Hume committee report and DIT as opposed to lively narrow streets with intense community bonding and mixed use; the master planned, grand and modern ‘spectacle’ city as opposed to incremental, user generated vernacular cities demonstrates the transition in city building process. This is now transformed into an image building exercise, the picture perfect, which is why blatant claims like

Delhi's aspiration to be like Paris or London so often surface in the media. Such claims are nothing more than just a tangible image to the aspirational construct.

During the preparation for Commonwealth Games in Delhi in 2010, there was a massive plan to uproot slums and relocate them on the outskirts of the city. One particular example was that of Yamuna Pushta slum which was demolished by DDA in 2004 in a drive to make the river Yamuna's flood plains encroachment free (Burke 11 July 2010), while on the other hand in 2009 Delhi Metro Rail Corporation started its yard and an interchange station on the very flood plains. Similar were the cases of Akshardham temple constructed in 2005 and Commonwealth games village constructed in 2010. It is interesting to note that slums created out of semi permanent construction materials would logically harm the river bed less than the massive concrete structures. It becomes very clear if this is read against another drive to visually cover the edges of slums in Delhi during the commonwealth games with flex-printed panels, so that the visitors won't see the slums. These moves clearly suggest a notion of 'shame' because of the organic and informal nature of the slums versus the aspiration for a formal 'picture perfect' city.

As the development control rights lays with DDA and is headed by Lieutenant Governor appointed by the central government, the state

government and the city governments have little or no say in development (except in road transport etc.) (Sixty Ninth Constitution Amendment Act 1991). This creates a situation where the development projects in Delhi are governed by the national aspirations of a world class city, a notional idea, rather than the local needs.

The general election is governed by the national issues while the state and municipal elections are seldom pinned on urbanization (except on basic urban services like water supply, electricity etc.). In 1992 the 74th Constitutional Amendment Act (74th CAA) gave local governments power to strengthen local governance but Delhi was deliberately kept out of it (India 1993). Thus, the system itself is programmed to slip the discussions on urban issues of the city in any democratic forum. Even though Delhi government launched Bhagidari (a scheme for local participation (Delhi Governemnt n.d.) based on the participation by the Resident Welfare Associations (RWA)), it is usually termed as pseudo-democratic, because the RWA don't have any mandate to be democratic and usually is dominated by retired residents of a neighborhood. Also it is against true democratic values, as it represents only property owning residents.

Thus, because of absolute lack of any democratic forum for urban discussions, the bourgeois have resorted to the court of law to

resolve urban issues. This may seem like a good breakthrough in the democratic system, but this approach is taken only by the elite and in the process they are reinforcing and are governed by the colonial construct of aspirations and image of what a city should be. So now the judicial activism for urban issues becomes an act of cultural hegemony. It is quite evident from many court cases on how the judicial activism of the bourgeois is skewed, leading to an urbanism of aspiration.

In the famous 1996 MC Mehta case, environmentalist filed a Public Interest Litigation (PIL) for removing polluting industries from Delhi (M C Mehta Vs Union of India & Ors 1996 Judgement). While it is completely logical to not have or regulate polluting industries, but because the aspirational image was at play, a demand was made to relocate the industries on the outskirts of the city. Technically if the industries are moved outside, the perceived-core city areas will have better order and will be cleaner as per the aspirational image of the city. With industries the people working in them will also move, effectively having almost no impact on the pollution levels, if not an increase because of the travel demand.

It is not just the case with individuals, even DDA's moves are almost always governed by the aspiration image; e. g. "in 2003, the *Ridge Bachao Andolan* (Save the Ridge Movement) submitted a petition to the Supreme Court of

India challenging the construction of India's largest shopping mall complex for being built on Delhi's southern ridge, a protected green space, in the up-and-coming South Delhi colony of Vasant Kunj. This constituted a land use violation of the statutorily binding Delhi Master Plan. Expert testimony by the DDA defended the project in the Court for being 'planned' and thus legal because of the involvement of professional builders, its high-quality construction, and its strategic function in boosting Delhi's architectural profile. Showing graphic models and architectural blueprints of the proposed development, emphasizing the project's 300 million USD price tag, and describing the (shopping) mall as a 'world class' commercial complex, the DDA suggested that the visual appearance of the future mall was in itself enough to confirm the project's planned-ness. How could a project of such strategic importance in Delhi's effort to become a world-class consumer destination not be planned, the DDA's lawyer argued. This was so even after its own 'Expert Committee' found the complex in 'flagrant violation' of planning law. During the course of the mall proceedings in the Supreme Court, an adjacent multi-generational slum settlement in conformance with the land use designation listed in the Master Plan was declared 'unplanned' and illegal by the DDA for being a 'nuisance' to the neighboring middle class residential colonies. Based on a set of photographs

showing the 'unsightly' conditions in the slum and despite the absence of a survey or scientific evaluation of its so-called 'nuisance-causing activities', the DDA demolished the settlement without compensation, an action upheld by the court." (Ghertner 2011)

Aspirational urbanism was at its prime during the preparation for Commonwealth Games in 2010 with many expensive projects launched, just to capture the constructed image described above (Ramesh 2008) e.g. the revitalization of Connaught Place (CP). CP was part of the British New Delhi and was built as a majestic white shopping arcade. With commonwealth games in mind Rs. 6.71 billion (USD 111.4 million⁸) was spent on making it look world class. While not much change can be seen at CP with respect to the urban issues that prevailed pre project conception, cosmetic treatment like façade re-plastering & re-painting and polished granite stone for paving, service trenches etc. were major initiatives. While discussing the making of 'world class city' Asher points out that, "public finances in early 2000s were gradually shifted away from education, public housing, healthcare and food subsidies towards large, highly visible and 'modern' infrastructure projects." (Ghertner 2011)

It is also a problem that the developments in Delhi are governed by the aspirations of the urban middle class and is being reflected throughout urban India. Also it is

an interesting fact that the voting population in urban middle class is extremely low as compared to the lower economic section of the society, thus resulting in a sort of a cultural hegemony by the bourgeois superimposing and exaggerating the ideal image of the 'world class'. Now that Delhi's urban development is not directed through a democratic apparatus, the resultant at least in perception is apolitical; this along with a multi party coalition at the centre makes the developments in Delhi politically quite easy to be reflected across India. From flyovers to metro rail⁹, projects happening in Delhi become an aspiration for the whole nation.

5.0 CONCLUSIONS

It is not that the professionals are completely unaware of this skewed aspiration that is driving the urbanization of Delhi, but it is a highly charged political issue. Also newer projects, for instance, the Shahjahanabad renewal by INTACH (Indian National Trust for Art and Cultural Heritage) try to go back to the pre 1857 urban scenario breaking away from the aspirational construct. This approach of going back to the roots is also problematic; it is a reflection of the Hegelian idea of 'absolute recall', which Slovene philosopher and cultural critic Slavoj Žižek beautifully explains as 'when we think we are returning to some roots, we are effectively creating in the very return what we are returning to'. Thus, in either case of

following the general aspirational image or the effort to achieve pre 1857 urban scenario are both intrinsically a creation of a pseudo urban image.

“If cities are the crucibles of ideation (where the future is imagined), then that imagination needs to be debated quite separately from the politico-economic processes, if only to protect them as public places. The Indian city needs to be re-imagined, from the grandiose Nehruvian symbol of ‘progress and scientific ideologies’ to a place where the quality of life is nurtured and reduced equitably, and where control over resources is vested in its citizens. The urban object needs to be relocated from being an epiphenomenon of other forms of planning to a crucial, active agent that reinstates Eros as a prime deity in the city.” (Ravindran 1996) Cities are for people and biases of image on how it should be, completely negate the discussion for the development of new typologies that are required for the changing lifestyle and the emerging new urban social and economic order.

Metropolitan cities in India are growing at a very fast pace so is the change in the way people live. India is a developing nation with per capita income as low as 1/80th of that of USA¹⁰ and also there are other problems of a developing nation. All this calls for a new way to look at Indian metropolis, a way that can be devoid of constructed image biases. This way of looking at cities will intrinsically push for an egalitarian Indian metropolis,

looking at the faults and rectification measures at the basic structure on which Delhi survives today and not at cosmetic treatment. It is time to re-think what Delhi is? New ways of hitherto unseen collective living can be seen in Delhi, both at groups of white collar employees as well as unskilled migrants¹¹, such and many similar changes in social relationships are not yet even acknowledged by development agencies, thus resulting is an urban space that is completely out of sync with the reality. Such out of sync development is what leads to anarchic ruptures in the city, from slums to gated communities, from high crime rates to domestic violence, all of which is a big hindrance to a creative society.

A city is definitely more than sum of its parts, and thus there is a need for city level planning and urban design, but the essential vision that needs to be achieved by this planning needs a complete re-thinking. India is going through a demographic dividend and majority of its younger population are moving quickly to urban areas. This demographic dividend will be of no use unless we conceive our cities in a manner that will facilitate development of creativity in individuals and happiness¹² as a collective identity.

NOTES

¹ As a consequence of inadequate Constitutional provision for the Local Self Government, democracy in municipal governance was not stable. The 74th Constitutional Amendment Act 1992, provides a constitutional bearing to urban

local bodies and provide them with powers including financial autonomy. [(India 1993)]

² Heterotopia as described by French philosopher & social theorist Michel Foucault where in the behavior of an individual is not normal as a result of the quality of the space.

³ Karkhana means a factory in Hindi. When Shahjahanabad was being developed, land parcels were given to rich traders and were called karkhanas. Each of these karkhanas accommodated the owner as well as the workers, bringing an economic mix in the building block of the city itself.

⁴ Shahjahanabad or today's Old Delhi, is the city established by Mughal Emperor Shah Jahan in 1639 AD.

⁵ In 1857 there was a sepoy mutiny usually considered the first struggle for freedom, where the Indians in the British Army revolted and tied up with the local Kings/Queens to take over the colonial power. Post 1857 the rule of India was shifted from the British East India Company to the Crown of Britain.

⁶ Aspirational Urbanism is the term first used by author in his presentation titled 'Invisible Man' identifying the issues on homelessness, at "Digital Deliberations", a one-day workshop on digitization of identity and its impact on homeless masses; held at National Institute of Advanced Studies (NIAS), Bangalore, India, July 2012. The workshop was a CSCS (Centre for the Study of Culture and Society) - NIAS Urban Research and Policy Programme initiative.

⁷ Katras and mohallas are traditional neighborhood structure in Delhi that existed during and pre mughal era.

⁸ This conversion is on changing rates, so should be considered only to get a rough idea about the cost.

⁹ It is interesting to mention here that the metro rail in Kolkata started functioning as early as 1973, but the idea of a metro rail was never copied in any other city for decades even though cities like Mumbai, Chennai and Delhi were feasibly big. The metro rail in Delhi started to function in 2002 and by 2010 studies for feasibility for a metro rail system in more than 12 Indian cities began and operations started in the city of Bangalore in 2011.

¹⁰ This comparison is drawn just to position the economic condition of India, use of USA or that of per capita income have no other specific reason.

¹¹ Based on field studies by author in Delhi during 2010-13.

¹² Inspired from the 'happiness quotient' concept of Bhutan.

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HOMELESSNESS IN INDIA

SANJUKTA SATTAR

The most vulnerable sections experiencing homelessness are the women, children and aged, as an outcome of death of male adult earning member and sometimes due to domestic violence. Most of the homeless are not beggars but many of them are engaged as casual wage labourers, rickshaw-pullers, construction labourers, shoe-shiners, rag-pickers and as domestic help.

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Food, clothing and shelter are the basic human needs. However, there are many who barely manage to acquire the first two necessities but the third remains beyond their reach. A large section of the population therefore lives and sleeps at public places, like roads, pavements and streets, and is categorized as the 'homeless population'. Thus 'homelessness' can be defined as a condition of people lacking housing, because they cannot afford or are unable to maintain a regular, safe and adequate shelter. Homelessness is a growing phenomenon worldwide and also in India. Though both urban and rural areas have significant share of homeless population, it is found that, the decadal growth rate of homeless population has declined by 28.4 per cent in rural areas during 2001-2011 but the same has increased by 20.5 per cent in urban areas. In fact, in India, big cities are also capitals of homeless population. This paper attempts to analyze state and sector (rural-urban) wise distribution of homeless population in India and discuss the major initiatives taken by the government and other concerned authorities to tackle homelessness.

1.0 INTRODUCTION

Shelter is the basic human requirement that needs to be met on priority basis. Housing is an important source of shelter, comfort and social status; as “home” performs basic protective and symbolic functions (Smith 1977). Housing fulfills physical needs by providing security and shelter from weather and climate; psychological needs by providing a sense of personal space and privacy; social needs by providing a gathering area of communal space for the family, the basic unit of the society; and

also sometimes meets the economic needs by functioning as a center for commercial production. Universal Declaration of Human Rights recognizes the right to housing as part of the right to an adequate standard of living. It states that:

Everyone has the right to a standard of living, adequate for the health and well-being of himself and of his family, including food, clothing, housing and medical care and necessary social services; and the right to security in the event of unemployment, sickness, disability, widowhood, old age, lack of livelihood or other circumstances beyond his control.

Universal Declaration of Human Rights, article 25, para 1.

Article 11(1) of the International Covenant on Economic Social and Cultural Rights (ICESCR) also guarantees the right to housing as part of the right to an adequate standard of living. The right to adequate housing was a key issue at the 1996 Habitat meeting in Istanbul and the main theme in the Istanbul Agreement and Habitat Agenda. Paragraph 61 of the agenda identifies the steps required by the government- “promote, protect and ensure the full and progressive realization of the right to adequate housing”. The 2001 Habitat meeting, known as Istanbul+5 reaffirmed the 1996 Istanbul Agreement and Habitat Agenda and established the UN Human Settlement Programme to promote

the right to housing in cooperation with the Office of the High Commissioner for Human Rights, known as the UN-Habitat. This programme is the most important international forum for the right to housing. Thus, basic human right to safe and secure housing has been the universal issue. Yet a large section of the population lives and sleeps at public places, like roads, pavements and streets, and is categorized as the 'homeless population'. Thus, homelessness continues to be a growing phenomenon worldwide and in India.

Homelessness perhaps, is the most visible and most severe symptom of the lack of respect or the right to adequate housing. A conservative estimate from the United Nations (2005) puts the number of homeless population in the world to be 100 million. India accounts for 78 million homeless people (Action Aid, 2003). Homeless people are found in both urban and rural areas but 'the rural dimension of homelessness has been almost absent in policy debates' (UNCHS 2000). Rural areas often experience 'hidden homelessness'. This is due to the distinctive character of rural homelessness in which people tend to try to cope through makeshift arrangements that render homelessness more hidden (UNCHS 2000).

Against this background in this paper an attempt has been made (a) to analyze state and sector (rural-urban) wise growth and distribution of homeless population

in India, (b) to examine the issues related to homelessness in megacities in the country, and (c) to discuss the major initiatives taken by the government and other concerned authorities to tackle homelessness. In this paper, the census of India 2001 and 2011 data have been used to comprehend the size and magnitude of homelessness in the country.

2.0 THEORY OF HOMELESSNESS

Homelessness is more than 'rooflessness'. A home is not just a physical space, it also has a legal and social dimension. A home provides roots, identity, and a sense of belonging and a place of emotional wellbeing. Homelessness is about the loss of all of these. It is an isolating and destructive experience and homeless people are some of the most vulnerable and socially excluded in our society. The two main causes of homelessness is poverty and failure of the housing supply system. The other causes are domestic violence, the erosion of family and social support, political, ethnic and social turmoil, natural disaster, physical and mental illness, the deinstitutionalizing of the patients with mental problems and disability. Hence, homeless persons are heterogeneous in terms of their age-group, gender, livelihoods, place of origin and the reasons for living in the street.

The homeless people are those who lack fixed, regular, safe, and adequate night time shelter and also one who has night time residence at

a publicly supervised or privately operated shelter designed to provide temporary living accommodation, or an institution that provides a temporary residence for individuals intended to be institutionalized, or a public or private place not designed for, or ordinarily used as a regular sleeping accommodation for human beings. People living in substandard housing with inadequate facilities, should also be included under homelessness. All such housing arrangement often is an antecedent condition of homelessness. Therefore, rise in the number of slum dwellers can be considered as an indicator of increase in the magnitude of homelessness. But in reality it is very difficult to capture the actual magnitude of homelessness as large section of this segment of the population remains invisible. This is due to various reasons. According to the Census of India definition, the word houseless does not consider people who live in makeshift arrangements or in deplorable housing conditions. So, sections of the population who are vulnerable of becoming homeless are not considered. Besides, the government's official surveys are conducted during the day time, when it is difficult to trace the homeless. Moreover, the homeless population, out of fear, maintains distance from the enumerators.

3.0 SITUATION IN INDIA

The total houseless population in India according to Census of India 2011 is 1.82 million. Since 1961

onwards till 1981 the number of houseless population has shown a rising trend. The rise was sharp between 1961 and 1971. The number of houseless population declined during 1991 till 2011, but this fall was lower during 2001 and 2011 (Figure 1). In the rural area the number of houseless population maintained a rising trend till 1981 and since then it has started to fall. Whereas, in case of urban areas the number of houseless population has maintained a rising trend since 1961 till 2011. The picture of rural-urban differentials of houseless population is also an interesting one. Since 1961 till 2001, rural areas accounted for larger number of houseless population in comparison to urban areas. But in 2011, the number of houseless population registered a fall and was also, for the first time, less than the urban areas. The difference in the share of rural and urban houseless population has

followed a declining trend over the years.

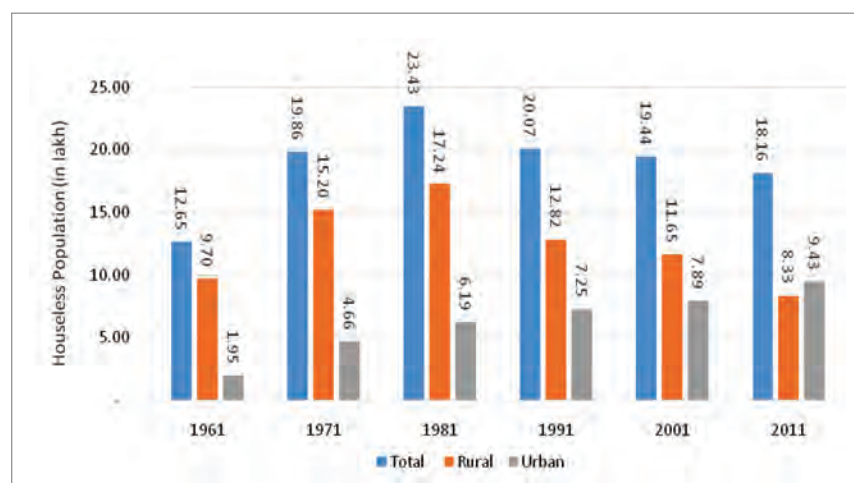
To the contrary, the share of the rural and urban houseless population to total population shows that the problem of homelessness was higher in urban areas in 2001 as well as in 2011. Between 2001 and 2011 the share of urban houseless population has increased in urban areas whereas it has declined, though marginally, in rural areas. On the whole it may be concluded that houselessness has declined in the rural areas in comparison to the urban areas, where it is a rising phenomenon. The probable reason behind this is that the rural poor migrate to urban areas in search of employment and better living condition and end up with a poorly paid job or remain unemployed. This jeopardizes their chance of affording a house hence they add to the number of houseless

population in the urban areas.

From the state-wise distribution of the houseless population (Table 1), it is found that generally the bigger states (Uttar Pradesh, Maharashtra, Rajasthan, Andhra Pradesh) have greater number of houseless population in comparison to other states. In majority of the Indian states the number of houseless population has declined. This decrease is significantly noticed in Maharashtra, Gujarat, the southern states of Tamil Nadu, Kerala, Karnataka, Andhra Pradesh and in the north eastern states. The states which have registered a significant increase in houseless population include Uttar Pradesh, Rajasthan West Bengal and Delhi. Whereas in Uttar Pradesh, both in rural and urban areas the houseless population increased. In Delhi, the number increased in urban areas but has declined in the rural areas. In Rajasthan, houseless population has increased in both rural and urban areas, while in West Bengal the number of houseless population decreased in urban areas but increased in rural areas.

In India, about 32 per cent of the population live in urban areas of which 26 percent live below official poverty line and 40 per cent do not have proper housing (Banerjee-Guha, n.d.). According to Census 2001, India has about two million homeless people which is much under-reported figure due to the lacunae in enumeration. According

Figure 1 : Houseless population in India, 1961-2011



Source: Based on data from Census of India for the respective population censuses.

Table 1 : State-wise distribution of houseless population by rural and urban areas

States/UTs	Total houseless population		% of houseless population to the total population					
	2001	2011	Total		Rural		Urban	
			2001	2011	2001	2011	2001	2011
Andaman & Nicobar Islands	242	76	0.07	0.02	0.03	0.01	0.14	0.05
Andhra Pradesh	1,63,938	1,43,787	0.22	0.17	0.18	0.12	0.32	0.27
Arunachal Pradesh	442	1,522	0.04	0.11	0.04	0.12	0.04	0.10
Assam	13,355	12,482	0.05	0.04	0.05	0.04	0.07	0.06
Bihar	42,498	41,640	0.05	0.04	0.04	0.04	0.15	0.11
Chandigarh	2,722	4,116	0.3	0.39	0.04	0.02	0.33	0.40
Chhattisgarh	28,772	22,991	0.14	0.09	0.14	0.09	0.14	0.11
Dadra & Nagar Haveli	1,471	997	0.67	0.29	0.74	0.39	0.42	0.17
Daman & Diu	1,071	730	0.68	0.30	0.65	0.24	0.72	0.32
Delhi	24,966	47,006	0.18	0.28	0.11	0.08	0.19	0.29
Goa	5,280	3,063	0.39	0.21	0.44	0.25	0.34	0.19
Gujarat	2,20,786	1,45,055	0.44	0.24	0.47	0.17	0.38	0.33
Haryana	59,360	50,703	0.28	0.20	0.24	0.17	0.39	0.27
Himachal Pradesh	8,364	4,119	0.14	0.06	0.13	0.05	0.22	0.13
Jammu & Kashmir	12,751	18,812	0.13	0.15	0.13	0.09	0.10	0.32
Jharkhand	10,887	23,092	0.04	0.07	0.03	0.07	0.06	0.09
Karnataka	1,02,226	79,424	0.19	0.13	0.18	0.11	0.22	0.15
Kerala	16,533	13,362	0.05	0.04	0.04	0.02	0.09	0.05
Madhya Pradesh	2,31,246	1,45,254	0.38	0.20	0.38	0.15	0.39	0.33
Maharashtra	3,40,924	2,13,511	0.35	0.19	0.42	0.16	0.25	0.22
Manipur	2,607	3,084	0.12	0.12	0.14	0.10	0.06	0.16
Meghalaya	1,827	1,187	0.08	0.04	0.09	0.04	0.04	0.03
Mizoram	336	110	0.04	0.01	0.02	0.01	0.06	0.02
Nagaland	2,002	791	0.1	0.04	0.08	0.04	0.22	0.06
Orissa	42,871	33,579	0.12	0.08	0.10	0.06	0.21	0.20
Pondicherry	1,662	1,622	0.17	0.13	0.06	0.02	0.23	0.18
Punjab	46,958	47,164	0.19	0.17	0.15	0.16	0.28	0.18
Rajasthan	1,43,497	1,78,226	0.25	0.26	0.20	0.21	0.42	0.43
Sikkim	286	305	0.05	0.05	0.05	0.05	0.10	0.02
Tamil Nadu	86,472	50,503	0.14	0.07	0.08	0.04	0.21	0.11
Tripura	857	3,307	0.03	0.09	0.03	0.07	0.03	0.14
Uttar Pradesh	2,01,029	3,19,700	0.12	0.16	0.08	0.10	0.28	0.41
Uttaranchal	14,703	12,104	0.17	0.12	0.17	0.09	0.18	0.18
West Bengal	1,10,535	1,36,914	0.14	0.15	0.03	0.05	0.40	0.36
India	19,43,766	18,15,854	0.19	0.15	0.16	0.1	0.27	0.25

Note: 1. The number of homeless persons has been computed from share of houseless population provided by the Census of India (2011) for the states.
2. The data for Delhi relate to NCT.

Source: Based on data available from Census of India 2001 and 2011.

to an estimate of Action Aid, the total homeless population in India is 78 million (Action Aid, 2003). Micro-estimates indicate a

similarly high rate of homelessness in Indian towns and cities. According to Census 2001, the number of houseless population is

highest in Kolkata followed by Greater Mumbai (Figure 2). A study conducted by Action-aid International reported the number

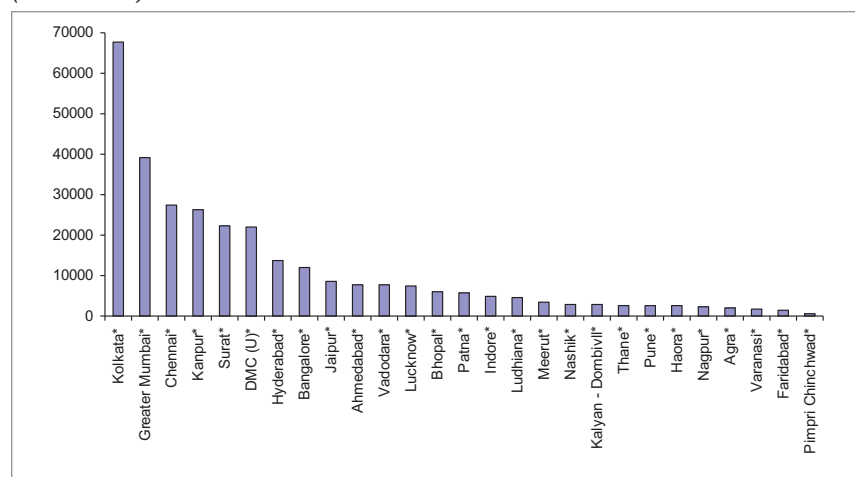
of homeless population as 1,00,000, 60,000, 40,533, 32,254, in Delhi, Kolkata, Chennai and Mumbai respectively (Menezes, 2010 as quoted in Banerjee-Guha n.d.). In the three Indian megacities, Delhi, Mumbai, and Kolkata, the share of population living in slums is about 32.5 per cent, 54 per cent, and 33 per cent, respectively (Census 2001)

streets of Mumbai, Kolkata, Chennai, and Bangalore. The number of homeless children in Delhi is about 1,00,000 (www.slumdogs.org). Among the million plus cities of India, Kolkata accounts for the largest number of houseless population (Census 2001). Greater Mumbai ranks second, but the difference in

years, while 24 per cent lived in the city for a period ranging between 20 to 60 years (Calcutta Samaritans 2003). About 64 per cent of the homeless in this city are born in the city itself. Scheduled Castes, Scheduled Tribes and Other backward Classes together make up 24 per cent of the homeless population of the city. One in every two homeless persons in the city is a Muslim minority. Thus, it may be said that the homeless or the 'urban apartheid' are predominantly those who are already socially and economically deprived thus making them 'doubly marginalized'. They are pushed to the brink of living due to negative perceptions on homelessness, in addition to the fact that they belong to the marginalized community. The most vulnerable sections experiencing homelessness are the women, children and aged, as an outcome of death of male adult earning member and sometimes due to domestic violence. Most of the homeless are not beggars but many of them are engaged as casual wage labourers, rickshaw-pullers, construction labourers, shoe-shiners, rag-pickers and as domestic help. Some due to acute hardships adopt extreme ways of earning like, prostitution and selling their body parts (professional blood donors) and most of them are women. Those who beg are mainly old widows and persons with disability.

In Greater Mumbai, majority of the homeless population are casual

Figure 2 : City-wise number of houseless population in million plus cities in India (census 2001)



Note: * Municipal Corporation.

Source: Lok Sabha Unstarred Question No. 2564 dated 08.12.2006

and as mentioned earlier, higher the number of slum dwellers greater is the magnitude of homelessness.

The mega cities of India have a large number of homeless population. In Delhi, according to Delhi Development Authority, at least 1,40,000 people or about one per cent of the population is homeless (Tulsyan, 2008). In Mumbai approximately 1,75,000 persons or more are homeless (Shetty 2011). In Kolkata, there is about 1.94 million homeless population. Together, about 3,14,700 children living in the

numbers between Kolkata and Greater Mumbai is significant than between other cities.

In Kolkata 38 per cent of the population resides in makeshift tents on the pavements. About 82 per cent of these families do not have a ration card or voter's identity card. On an average the numbers of members in each family is more than five and the minimum family income is Rs 80 per day (KMC 2004-05). A little more than 3 per cent of the homeless population arrived in the city in the last ten

labourers or daily wagers, petty businessmen, vendors and even taxi drivers and only a small section are beggars or are engaged to part-time begging when they were unemployed. Here the property rates being the highest in India, speculation and hoarding in real estates has been the most lucrative mode of investment, and this has been one of the many causes of homelessness in the city of Mumbai.

In Delhi, majority of the homeless population comprise of migrants who move to the city in search of jobs and better opportunities. Most of them are unskilled so they have to accept jobs with low remuneration. This leads to their inability to pay higher rents, hence having no other option but to live on streets or in slums. Most of the homeless and the houseless of this city are rickshaw-pullers, casual labourers, construction workers, factory workers, vendors, domestic servants or beggars. They are mainly located in the periphery of the city where the living conditions are unsatisfactory.

4.0 GOVERNMENT INITIATIVES TO ERADICATE HOMELESSNESS

National Urban Housing and Habitat Policy 2007, which was last revised in 2007, advocates public-private partnership for providing affordable housing for all and specifically to the urban poor. The policy focuses on multiple stake-

holders like private sector, cooperatives, industrial sector (for labour housing and services) and institutional sector (employee housing) to meet the housing needs. It was estimated that in 2006-07, the housing shortage in India was 24.7 million, of which 99 per cent belonged to Economically Weaker Sections (EWS) and Lower Income Groups (LIG). Jawaharlal Nehru National Urban Renewal Mission (JNNURM) has taken major policy initiative to meet the challenge by emphasizing on increased supply of land through, increased incentive for higher FSI, Transfer of Development Right (TDR), increase inflow of funds and reservation of 10-15 per cent in every new public-private project or 20-25 per cent of FSI, whichever is higher, for EWS and LIG. States were asked to prepare 10 years Perspective Plan for EWS and LIG. JNNURM has two sub-components to address housing needs of the urban poor, namely, BSUP (Basic Services to the Urban Poor), in 63 JNNURM Cities and IHSDP (Integrated Housing and Slum Development Programme) in rest of the cities. To mitigate the problem of homelessness in rural areas scheme like Indira Awas Yojana (IAY) which was launched as a subscheme of Rural Landless Employment Guarantee Programme (RLEGP), were launched. The main objective of the scheme was to provide free dwelling units to the Scheduled Caste and Scheduled

Tribe population and to the freed bonded labourers living below poverty line.

5. CONCLUSIONS

Homelessness in India is an economic and socio-political problem. Though in last one decade the number of houseless population has started to decline, the presence of a large number of slum population, those living in substandard dwellings and those 'living rough' on the pavements have been a source of constant worry. After studying the conditions of these poor homeless population, mainly those struggling for a space of their own and a roof over their head, one thing emerges, that there is the lack of concern of the State towards accommodating the poor in the city or in the villages where they are entitled to minimally decent housing and other opportunities.

Moreover, these homeless populations are subjected to multiple vulnerability like poverty, lack of economic opportunities and social discrimination. They are not faceless and do not conform to the same socio-economic background. However, over the years the government and the development agencies have ignored this fact and treated them as monolith. Therefore it is necessary to tackle the problem of homelessness and inadequate housing of specific groups as per their socio-economic conditions and provide solutions that meet their requirements.

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MANUFACTURING ECO-FRIENDLY HANDBAGS BY HIV+ WOMEN'S SHG

Under the Swarna Jayanti Shahri Rozgar Yojana (SJSRY) for alleviating urban poverty, HIV+ poor women in Chandigarh have been given an opportunity to create a livelihood for themselves. For the first time, an HIV+ women's SHG was formed and recommended for sanctioning to a bank in Chandigarh and an HIV+ person was given an individual loan to establish a micro-enterprise.

To begin with, field based consultations were organized in phases by the President of CNP+ (Certified Network Professional). Community Organizers briefed the

community about two components i.e. UWSP (Urban Women Self-Help Programme) and USEP (Urban Self Employment Programme) to avail individual and group benefits under this scheme. Several awareness programmes on HIV/AIDS were organized for ULB staff, NGOs, banks and CDS members, with an objective to develop understanding and familiarity with HIV. Finally, 10 HIV+ women were shortlisted, jointly by the Community Organizer and CNP+, for making a Self Help Group (SHG) for manufacturing and printing of eco-friendly bags as a

group activity for their livelihood support and income generation.

The SHG started two units, one after another, in the FY 2011-12, for manufacturing eco-friendly bags. The project was developed by Regional Centre for Entrepreneurship Development (RCED), Chandigarh and financed by the micro-finance branch of Canara Bank, Chandigarh. Machines were purchased from Delhi and training of SHGs was conducted by the suppliers and NGOs. The details of the projects are given in the following table:

Name of SHG	Project Cost (Rs.)	Loan Amount (Rs.)	Subsidy Amount (Rs.)	Margin Money (Rs.)
Maa Shakti mandal self Help group (Unit of Manufacturing Eco friendly Bags)	5.00 L	3.00 L	175000	25000
Bhagwati Mahila Group (Unit of printing bags)	5.25 L	3.15 L	183750	26250



This project has opened new ways for livelihood generation to the HIV affected women of poor community.

Courtesy: Best practice entry submitted by State UPA Cell SJSRY, Municipal Corporation, Chandigarh

A SCIENTIFIC APPROACH TO PROPERTY TAX ASSESSMENT IN URBAN AREAS OF PUNJAB

Dr S S Dhaliwal

Even though house tax remained as one of the important revenue sources for municipalities, but the will to recover was missing due to the political environment. In fact, new township of SAS Nagar had no house-tax levied till March 2013.

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Even after having agricultural revolution, nearly cent percent increase in life expectancy, improved literacy rate and a sizeable middle class, the State of Punjab has failed to improve the quality of life and civic amenities in the expanding urban areas to a desirable level. In fact, the towns have exhibited the deterioration in civic amenities and public utility services in urban areas due to lack of massive investments in urban infrastructure and housing. There is unplanned growth, which has taken a toll on urban areas. The rising population due to migration from rural to urban areas; inadequate infrastructure; rising urban poverty etc. are the other factors which contributed to the increase of slums and degradation of living standards in cities due to lack of planning and foresight.

One of the important sources of revenue for all the municipal bodies in the State is house tax. This source of income of the Municipalities has been sacrificed by all the political parties in the name of giving relief to the economically weaker sections of the society. Whereas, people belonging to economically weaker sections are made to suffer most due to non-availability of municipal services in their areas of living, the rich community, in the name of the poor, is enjoying the benefit of non-imposition of municipal taxes. This social issue can only be tackled in a scientific way of determining municipal taxes. This article is an attempt by the author to determine / assess and levy property and house-tax in an urban area in a scientific, transparent and rationale manner.

1.0 BACKGROUND

The house-tax, as defined in “The Punjab Municipal Act 1911”, is a ‘Tax’ to be levied on the properties situated in an urban area. Earlier the house-tax used to be assessed on the rental value of the property which remained static over time.

Hence the quantum of house tax became negligible over a long period. When the municipal authorities tried to levy it on the basis of prevalent market rent, it was opposed by the owners of the property, as the rent received was much less than the prevalent market rent, leading to more litigation between assesses and municipal bodies.

However, the assessment of house-tax on the prevalent rental value was replaced by market value by amending “The Punjab Municipal Act 1911” in 1994. This did not help as the criterion to determine the market value was cumbersome. Hence, there was no appreciable increase in income. Despite this, more and more people were brought under the exempted categories and presently these categories include self-occupied house; personnel of armed forces; freedom fighters; ex-service men; physically challenged person (disability or impairment is 50 per cent or above); buildings belonging to charitable institutions; citizens above the age of 70 years provided the annual income does not exceed Rs 60,000 per annum; and widows.

Even though house tax remained as one of the important revenue sources for municipalities, but the will to recover was missing due to the political environment. In fact,

new township of SAS Nagar had no house-tax levied till March 2013 but has all the basic amenities, hospitals, international cricket stadium, big shops, industrial houses and big posh houses. However, to receive grant from central government under Jawaharlal Nehru National Urban Renewal Mission (JNNURM), the municipal bodies have to fulfill certain conditions and one of which was imposition of house tax. The empowerment of Rural Local Bodies/Urban Local Bodies by Government of India through 73rd and 74th Amendment to the Constitution has not been given a practical shape even after two decades of their enactment and they are still impoverished. The State governments still want to keep a control on the functional and financial autonomy of the municipal bodies. But the time has come when these bodies are to be empowered for levy of taxes and improve their revenue base for delivering state-of-the-art civic amenities.

2.0 THE CHANGING OUTLOOK

The Central Government had earlier introduced urban reforms, which included imposition of property-tax in the urban areas, Modern Rent Control Act and Double Entry Accrual Based Accounting System in the municipal bodies. The government also initiated a process that will provide reform linked assistance to State Governments and Urban Local Bodies in the country. In Punjab, an action plan was made but nothing concrete came out.

The Government of India's Jawaharlal Nehru National Urban Renewal Mission (JNNURM), which was launched on 3rd December 2005, for a period of seven years up to 31st March 2012, and now extended to 31st March 2014 had thrust on mandatory municipal level reforms. Property tax reform with GIS, is one of the six mandatory reforms of JNNURM. Although, this reform is applicable to the JNNURM cities (Amritsar and Ludhiana in the state of Punjab) but it can also be extended to other urban areas not covered under JNNURM. In the recently reviewed performance on state level reforms, Gujarat is the only state to have achieved all 10 optional reforms required by the Mission. Five states namely, Andhra Pradesh, Madhya Pradesh, Maharashtra, Orissa and Uttar Pradesh have achieved 9 out of 10 reforms.

In the process of achieving JNNURM reforms, the State of Punjab has now come out with a new policy to levy property-tax, based on the market value of the property and has devised a formula for assessment of property tax which is described as below:

- Market Value = (The cost of construction + collector rate) – 10% (depreciation) on the construction cost
- Annual Value = @5% of Market Value
- Property Tax = @1/2% of Annual Value

One can see that this policy, as

formulated by the State, has not been framed with a scientific approach, rather has been framed with a view to complete the formality under JNNURM, to seek grant from central government. The procedure defined therein is cumbersome and will lead to litigation. The procedure for calling comments from the concerned residents, which is time consuming, was not complied with. Further, there could be different views on the cost of construction which depends on the quality of material used; the labour cost and so on. It would be difficult for the municipal officers to reach a final figure with so many variables. There could also be local political pressure and complaints.

3.0 THE RATIONALE OF SELF TAX ASSESSMENT

The issue of House Tax in Punjab was studied on the analogy of United Kingdom / European countries, which indicated that there is a need for a scientific approach to the whole process of imposition of property-tax.

Initially it was discussed by the Punjab government to levy the Property Tax by dividing the city into different zones by assuming that all the pockets of Zones are having equal access to civic amenities and public utilities. But the ground reality in Punjab Towns and Cities is quite different e.g., water supply is not adequate; the towns are yet to be covered with 100 per cent water supply and sewerage services; sanitation is poor; storm

water drainage system is yet to be laid; solid waste management is behind schedule; the roads are in a state of disrepair. Therefore, dividing the area of the city into different Zones would not help city administrators to charge the tax properly and efficiently on all the properties falling in that particular Zone. Even though this system is being implemented in England and the residents are paying the Council Tax, as is being named there, as per the bands for the last 20 years, this may not be effective in India. In England, the bills are sent in the month of March every year and the residents are charged the amount as per the directions given i.e., monthly; quarterly or yearly. Mostly these are paid by debiting directly from the account of the payee.

The practice of property tax assessment in United Kingdom (UK) shows that:

- The tax being charged is very clear;
- The valuation is done by an independent agency;
- The decisions are binding on all and in case of any dispute the appeal lies to the Agency only;
- The tax is paid by the occupier;
- An independent fraud agency checks the exemptions and discounts, being claimed by the residents;
- No political interference in levying the tax. The councils have no say in assessing it; and
- The list of exemptions and discounts is clear in nature.

The prevailing situation in United Kingdom and other western countries is different and cannot be equated with India. The population in those countries and the infrastructure/construction has stabilized and refurbished, whereas in India, it is still in transitional phase. Therefore, the method of dividing the urban area into different zones cannot be adopted in Punjab. In view of the above, only a scientific method, if adopted meticulously, will help all stakeholders in the following way:

- All residents, as they will be able to assess themselves;
- Municipal authorities, as it will be easy to assess and levy tax without any problems. There will be no requirement of calling the objections and if objections are received they can be decided by the sub-committee. This will save time, money and energy, because the litigation will decrease;
- State, as the policy will be appreciated by one and all. The political interventions would be minimised;
- Students, as the premises used by students will not be charged, which includes hostels and residential properties which are being used by students as their residence;
- Senior citizens, as they will be granted remission from paying, if the annual income is less than Rs. 100,000;
- The society at large, as all the residents will be paying happily, since the scientific way of

calculation will be transparent and rationale;

- The political parties, as the Councillors having an alliance with different parties will not have to pressurise the municipal authorities to reduce the levy of property-tax; and
- Eliminating the litigation, as most of the time and energy of municipal bodies is spent on assessment of property-tax; listening to objections and then attending different courts when the assessment orders are challenged.

Therefore, if agreed with full conviction and implemented with a commitment to improve civic amenities and public utilities in urban areas, the scientific process of property tax assessment, implementation and collection through an independent body, will have the following gains:

- better planning of resources and making practicable plans for the development of the town/city;
- bringing rationalisation in the basic structure of the tax to be charged as well as uniformity in all the urban areas of the State;
- collecting more revenue for the municipal councils;
- reducing the burden on the finances of the State;
- overall improvement of the area;
- proper data base including census and house-hold count for elections; and
- valuation process of all the properties in a town.

4.0 SCIENTIFIC METHOD FOR PUNJAB

The pattern being used by Councils in England has to be adapted to the Indian situation, if it is to be applied in urban areas of Punjab. . The pre-requisites for implementing the scientific method of property tax assessment in Punjab are:

1. to form an independent valuation agency to assess the property / house-tax to be charged in the urban areas. This agency should consist of Engineers, Architects and urban management scholars;
2. to form an independent fraud investigative agency to check the occupancy; exemptions and discounts being sought;
3. to make necessary amendments in the Municipal Act for the constitution of valuation and fraud investigation agency;
4. to fix a date for valuation assessment of properties, informing all residents and other stakeholders.
5. Discounts: For achieving property tax compliance, the following discounts are suggested:
 - The property / house-tax bill is based on at least four adults living in a property. If only two or less number of adults live in the property (as their main home), the tax is reduced by 25 per cent;
 - Second home discount : If a property remains un-occupied but it is not the sole or main residence of any individual then a second home discount up to 15 per cent may apply;
 - Long term empty discount: Where a property remains unoccupied (empty) following the expiry of a six month exemption, a discount of up to 50 per cent can be granted. Physical inspection of all such properties may be carried out to verify their status.
 - Disability Band Reduction: If a property has been adapted to meet the needs of a disabled occupant, then the house-tax payer may apply in writing for a reduction in their house-tax by one band.
6. Exemptions: Some dwellings are exempt from paying house-tax. The list outlined below broadly explains which types of properties may be exempted and for how long. No property should be exempted forever and there should be a review after a specified period, depending on the type of property. The list of property in exemption category are:
 - All places of worship;
 - Vacant houses where major repairs are being undertaken;
 - Vacant properties owned by a charity (Red Cross etc.) for a period of six months;
 - A owner of house if detained in prison, if it was the main residence and head of the family;
 - Properties owned and occupied by Armed forces e.g., Cantonment areas only;
 - Properties being used as hostels for the stay of the students of a school/college/or a university;
 - Properties owned and being occupied by the personnel of an Embassy for the stay of diplomats;
 - Personnel of armed forces; freedom fighters; ex-service men;
 - Physically challenged person (with disability or impairment of 50 per cent or above); and
 - Buildings belonging to charitable institutions, citizens above the age of 70 years provided that the annual income does not exceed Rs 100,000 per annum and widows.

The next main question is about how these properties are assessed and how the property-tax is levied. In this matter, it is proposed to make the valuation of the property on the basis of the market value of the property and tax may be assessed and levied accordingly.

It is also recommended that different rates be charged for commercial and industrial properties, as these normally have a

major implication on the traffic flow of heavy vehicles. Table-A is an illustration on the calculation of house tax for residential and commercial properties. It is also proposed that a date, two year prior to the due date, may be fixed as the cut off date for assessing the property / house-tax.

5.0 CONCLUSIONS

When the process of scientific approach is adopted, the valuation of properties, as determined at least two years prior to the imposition of new method, should be accepted so that it does not affect the house tax evaluation process. However, the valuation should be updated as and when the property gets sold, on the basis of its market value mentioned in the sale transaction deed. This means if the occupant alters the house or add something to the house, the house tax will not get affected till it is sold. The property tax should not be assessed and evaluated by the present Municipal Administrative staff and should be done by an independent agency. In case of any doubt or fraud being committed by a person, then a complaint will be filed which will be investigated by the Fraud Investigation Agency. The policy is straightforward; clear; easy to understand and defined in a simple way, which can be understood by all.

TABLE-A: ASSESSMENT OF HOUSE TAX

A. Residential Properties

Band	Value of property	Tax to be charged per annum (all figures in rupees)
R0	up to 1,000,000	Nil
R1	From 1,000,001 to 2,000,000	3,000
R2	From 2,000,001 to 3,000,000	4,000
R3	From 3,000,001 to 4,000,000	5,000
R4	From 4,000,001 to 5,000,000	6,000
R5	From 5,000,001 to 6,000,000	7,000
R6	From 6,000,001 to 7,000,000	8,000
R7	From 7,000,001 to 8,000,000	9,000
R8	From 8,000,001 to 9,000,000	10,000
R9	From 9,000,000 to 10,000,000	11,000
R10	More than 10,000,001	12,000

B. Commercial Properties including properties housing Banks

Band	Value of property	Tax to be charged per annum (all figures in rupees)
C1	Up to 50,000,000	9,000
C2	From 50,000,001 to 60,000,000	12,000
C3	From 60,000,001 to 70,000,000	15,000
C4	From 70,000,001 to 80,000,000	20,000
C5	From 80,000,001 to 90,000,000	25,000
C6	From 90,000,001 to 10,000,000	30,000
C7	From 10,000,001 to 12,500,000	35,000
C8	More than 12,500,001	40,000

C. Residential property being used for Commercial activity

In case a part of the residential property or in full has been converted for a commercial activity, then it is proposed to assess the property as a commercial asset and the property tax be levied accordingly.

D. For Industrial plots/factory/ware-house

Band	Value of property	Tax to be charged per annum (all figures in rupees)
IFW1	Area up to 500 sq yds	15,000
IFW2	From 501 to 1000 sq yds	20,000
IFW3	From 1001 to 2000 sq yds	25,000
IFW4	more than 2001 sq yds	35,000

Note: The Bands have been marked separately for each category to differentiate, so that it does not come into conflict with each other.

REORGANIZING CITY CENTRES AND FACTORING IN THE HOUSING NEEDS OF POOR

The Case of Bangalore City

KRISHNE GOWDA
P. MAMATHA RAJ
M. N. CHANDRASHEKAR

Majority of the urban poor working in the unorganized sectors prefer and require to be in urban pockets with ready access to the work place which offers multiple job opportunities, thanks to their low levels of income. They are forced to live in slums which are closer to their work place.

Keywords: Central Business Districts, centuries old structures, cosmopolitan city, urban poor, unorganized sectors.

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City centers or CBDs of large metropolises are highly active economic nodes and also are socially complex. They manifest complex land use patterns and are ever in the process of reorganization and are constantly getting transformed. The intense economic activity of CBDs needs the services of the poor invariably all the 24 hours; therefore ideally the poor have to be living in and around the CBD. But unfortunately, the residential areas of these poor have become slums with very little civic amenities and other facilities for wholesome living.

As the economy advances, the housing for newly induced activities requires to accommodate changes. Since the poor are an inevitable and highly productive human element in the CBD, they have to be provided with housing and other life facilities through the process of reconstruction and augmentation of housing space in the CBD. Innovations in floor area ratio policies are necessary to accommodate this demand. In this reconstruction of the CBD, outlays under poverty alleviation programmes can also be utilized for meeting the needs of the working poor who are very much the citizens of the city centers.

As an urban metropolis, Bangalore is typical and its CBD is quite dense and busy needing a range of planning interventions. The experiences regarding planning for the transformation of Bangalore CBD can be very enriching.

1.0 INTRODUCTION

Central areas or Central Business Districts (CBD) and such other densely populated highly active regions of cities require to be reorganized in response to the needs of a constantly modernizing and expanding economy. These are traditional city areas with possibly centuries old structures sustaining

business activities interfacing with large and increasing numbers of stakeholders such as customers, workmen, investors, controllers, tax men and service providers.

Among these stakeholders, large numbers are urban poor living in nearby places in slums and such other squatter/shanty areas. Even as the structures, buildings, roads, water and sewage lines, electricity connections and wireless equipments are changed in response to new and additional requirements and technology up-gradations, the needs and living quarters of the poor have to be provided for with improved and augmented facilities. So far, this aspect has remained neglected. Locating the poor in far off places as an alternative may not be a feasible option because they need to be very near the central area or the work place, perhaps all the twenty four hours, on all the days of the year. Moreover, they cannot ply from far off places; neither do they have time nor have affordable transport facilities; possible scarcity of their services is also a matter of significance and could possibly make the CBD lose its productivity. In view of the invariable organic relationships between the poor and the central area activities, any transformation of the structures

therein or any cleaning up or providing connectivity and wholesomeness has to factor in the overall needs of the poor. Thus, the poor have to share a significant part of the transformed facilities in central areas. For working, warehousing, transporting, vending, servicing etc., the place in the central areas is shared by the people. Among these people, the poor are an invariable, necessary and constant component. These latter have to have a significant and suitable share in the newly designed and provided or reconstructed facilities.

The poor also have dependents – children, women, older relatives, the sick etc.; an invariable and natural element of human existence. They need school, hospital, crèche and open air facilities. So, these have to be designed and provided nearby. These are the times when inclusive growth, inclusive banking, participatory decision making etc. are gaining vogue. All these have to embrace the locally preponderant poor. Providing access to these life inputs has to be an integral part of inclusive growth. Any effort or plan to remodel the city centre should incorporate the needs of the poor, the sustainers of the activities of the busy areas, the CBD.

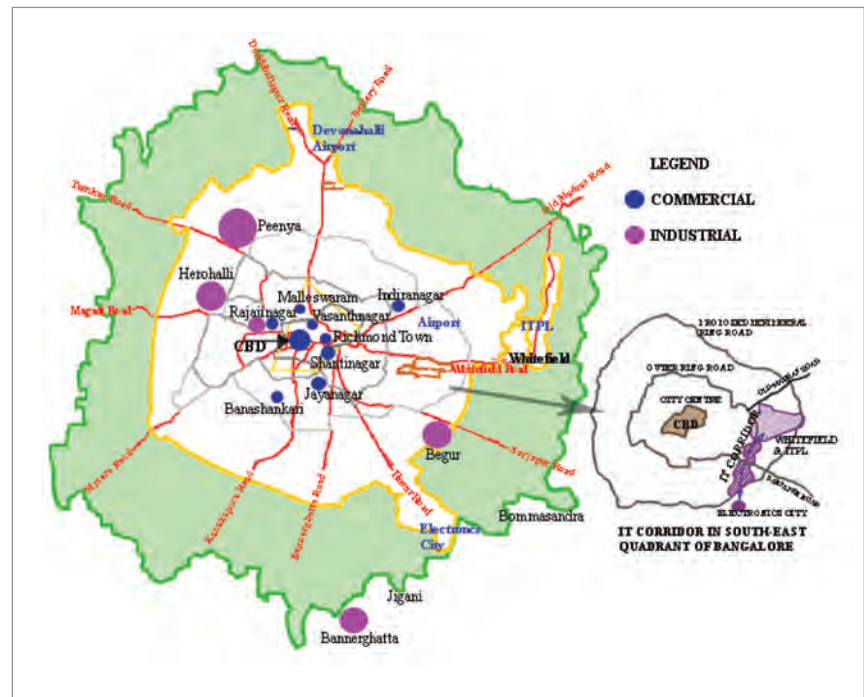
All these pro-poor interfaces, government policies, institutions, provisions, laws and allocations are at play. An appraisal of these government interventions in Bangalore city, require to be recorded though briefly.

2.0 ECONOMIC ACTIVITIES IN CBD - BANGALORE

Bangalore, being a principal trade centre of south India has attracted people from all over the country. Since it is a highly cosmopolitan

Bommasandra, Jigani and Rajajinagar are having industrial estates; and the recently developed Information Technology Park Limited (ITPL) and Electronics City cater to the requirements of the

Figure 1: Distribution of major commercial and industrial activity in Bangalore



city, it attracts people from varied regional and cultural backgrounds and skills; this in turn helps the city to secure a strong economic base entailing a larger area of influence. Some of the more important nodes of business activity in Bangalore are Chikpet, Krishna Raja Market (K.R. Market) and surrounding areas and Shivajinagar having traditional trade, Mahatma Gandhi Road (M. G. Road) and surrounding areas, Jayanagar and Mallewaram with retail trade and commercial establishments and Peenya,

Information Technology sector (IT Sector).

At present, the city is based on three principal activities namely, administration, trade and commerce, and industry. Among these three, trade and commerce, and administration are concentrated largely in the CBD. The CBD evolved as an important trading centre with a number of wholesale and retail markets and still continues to be the main business centre of Bangalore right

from pre-independence times (1947). This area is specialized in selling various wares including those with ethnic specificities, grouped and displayed in particular areas, whose names are derived, based on individual trades.

The trade and wholesale merchandise areas located in the CBD are the economic hubs of the region with huge transactions, supplying a variety of goods ultimately to various income groups. These specialized activities and features of CBD have definite locational specificities. This overall characteristic prevails throughout the expanse. These specialized activities are:

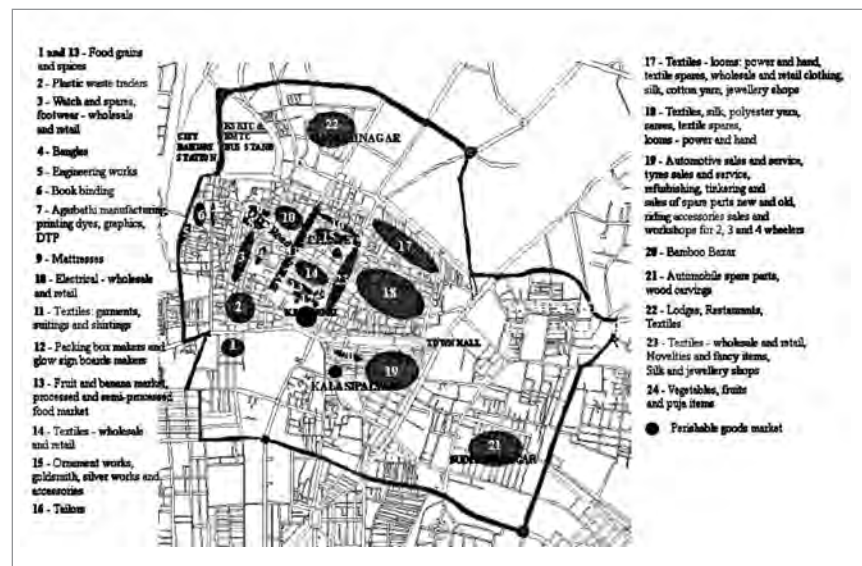
- Trading in fabric, fabric rolls, saris (wholesale and retail), dyes and chemicals, pure silk yarn, zari and saris, raw materials for silk industry, dress materials, dyeing and finishing of art silk.
- Trading in electrical goods and accessories (wholesale and retail), imported light fittings, puja articles in metal (statues, idols, lamps, bells, etc.), Trading in watches, clocks and spares. Making and trading in jewellery (including imitation gold items), musical instruments, fabricating and trading of trunk boxes, glow sign boards, chimneys, jewelry boxes, machine parts for power looms, aluminum, brass and copper utensils, stoves & their spare parts including servicing.
- Major hub for distribution of

- pharmaceutical products.
- Manufacturing textile machines including power looms (around 10,000 power looms mainly involved in weaving art silk), Trading in accessories of power looms, Machine repair and reconditioning, inputs for carpentry and wood based industry.
- Transportation node, Transport agencies and automobile workshops.

processed food items, dinner leaves, use and throw plastic items and fruits mainly banana market.

- Major hub for trading in printing inks, paper, wedding cards, printing stationery, printing (printing press, desktop publishing), Packaging of agarbathis and book binding.
- Trading in footwear (wholesale and retail), shoe uppers, sole

Figure 2: Economic activity zone in CBD, Bangalore



- Bamboo trading and vegetable wholesale market
- Trading in power tools like drills, pumps, motors, carpentry tools, agricultural tools.
- Trading in food grains mainly rice, Wholesale trading of chilly, soap nut, oil and tamarind and trading of pulses, processed and semi-

All the above specialized economic activities depend highly on the services of urban poor who work as coolies, helpers and laborers, clerks and salesmen, mechanics, cartmen, drivers and hawkers.

Over a period of time, along with expansion, the CBD has undergone transformation. The land uses have

changed gradually and variously; from residential to commercial in residential areas and intensive development of existing commercial areas. The Peripheral CBD mainly has activities related to transportation, public and semi-public and commercial establishments including entertainment industry.

3.0 LAND USE DEVELOPMENT TRENDS

A close examination of the stages of land use changes from 1990s to the present reveals that the residential land use in Bangalore covers nearly 38.06 percent today showing an increase from 28.78 percent in the 1980s. However, the percentage of residential land use in CBD declined from 29.71 to 20.20 percent. Following is the table consisting of land use data in CBD of Bangalore

Table 1. Land Use trend in last three decades in Bangalore and CBD

Land Use	Bangalore	CBD	Observations
Residential	3 fold increase	Declined by one third	The trend of CBD is opposite to that of Bangalore
Commercial	3 fold increase	1.5 times increase	Increase trend in CBD does not match that of Bangalore
Industrial	3 fold increase	Declined by one fifth	The trend of CBD is opposite to that of Bangalore
Public and Semi-public	2 fold increase	No change	Increase in Bangalore due to urban sprawl whereas CBD shows no change
Parks, playgrounds and open spaces	Declined by one fifth	No change	Proportionate increase not seen during expansion of the city
Traffic and Transportation	Nearly doubled	Negligible increase	Increase in Bangalore due to urban sprawl whereas CBD shows no change

for comparison during the last three decades. The distribution of residential, commercial, industrial and transportation categories of land use is

Table 2. Distribution of residential, commercial, industrial, public and semi-public, parks and open spaces and transportation facilities land use in CBD and parts of Bangalore

Area	Residential	Commercial	Transportation Facilities*	Public & Semi-Public	Parks & Open spaces	Industrial
CBD	129 (20.2)	204 (32)	55 (8.6)	101 (15.78)	16 (2.5)	21 (3.25)
Richmond Town	97 (26.6)	76 (20.82)	-	55 (15.1)	25 (6.8)	3 (0.01)
Shivajinagar	110 (36)	32 (10.4)	12 (3.9)	35 (11.33)	11 (3.6)	1 (-)
Vasanth-nagar	95 (30.35)	68 (21.73)	-	65 (20.77)	29 (9.3)	2 (0.01)
Malleswaram	452 (30.73)	62 (4.2)	5 (-)	310 (21.1)	207 (14.1)	46 (3.1)
Shantinagar	481 (34.36)	90 (6.4)	25 (1.8)	235 (16.8)	123 (8.8)	60 (4.3)
Jayanagar	702 (52)	80 (5.9)	1 (-)	100 (7.4)	71 (5.3)	24 (1.8)
Rajajinagar	666 (49.3)	75 (5.5)	1 (-)	68 (5)	36 (2.7)	100 (7.4)
Indiranagar	508 (48.8)	81 (7.8)	2 (-)	76 (7.3)	77 (7.3)	5 (-)
Koramangala	341 (44.5)	37 (4.8)	3 (-)	148 (19.35)	25 (3.3)	21 (2.7)
Banashankari	945 (51.1)	70 (3.8)	5 (-)	127 (6.9)	72 (3.9)	20 (1.1)
Vijayanagar	420 (42)	34 (3.4)	5 (-)	127 (12.7)	27 (2.7)	20 (2)

Source: Survey Report conducted for Revised CDP Draft Report, BMP,

All areas are in hectares with its percentage in brackets. The percentage value is calculated based on the total land use of the area including land uses other than those mentioned above.

* Land use value excludes area occupied by roads and railway lines

considered for comparison of CBD with other parts of Bangalore which have contribution to land use in the said categories.

From the above data it is observed that CBD is the only area in the city which has maximum commercial land use comprising about 15 percent of the total commercial land use of the city. The next largest commercial land use seen is in the extension areas which have only 3 to 5 percent of the total commercial land use of the city. These commercial land uses are within residential areas in the form of commercial complexes, malls departmental stores and one-stop shops and have grown naturally in response to manifest demand and are facing the main roads to cater to the needs of the nearby residents. This characteristic of having a large concentration of commercial land use at one place is seen only in the CBD and not in any other part of Bangalore.

The above data also reveal that CBD is the only centre having a large proportion of land for transportation facilities when compared to the areas adjacent to it and to extension areas. The city railway station, the intra and inter – city bus terminal at the centre of the city have contributed to the development of a roughly radial network of roads in the city.

4.0 URBAN POOR AND SLUMS

Bangalore with a labor force (work-

ing population) of more than 2.5 million has nearly 40 percent in the unorganized sector (Census of India 2001) which is nearly a million. Though 2011 census figures are not published in this regard, a similar percent will mean an unorganized component population of about 2.5 million. Bangalore's slum population is about 989,244 in 474 slums, almost 20 percent of urban population (Siddagowda, 2008) with little or no access to basic services; amounting to nearly 1.7 million in 2011 population terms. A majority of the urban poor working in the unorganized sectors prefer and require to be in urban pockets with ready access to the work place which offers multiple job opportunities, thanks to their low levels of income. They are forced to live in slums which are closer to their work place. The poor in the slums are under duress to pay the slum lords. These latter are a social phenomena requiring a separate study – a sociological investigation.

The provisional totals published by Census of India after the 2011 census presents an alarming picture. The population stands at 8.47 million, with about 20 percent of population in 0-12 age bracket resulting in an active population of 6.60 million. No information about unorganized sector is published yet. However it is likely to be at the same percentage level as in 2001. The slum population is estimated to be in the range of 30 to 40 percent of the 84.74 million population, spread among 569 slums within the BBMP limits), of which 228 are no-

tified slums and 341 are un-recognized.

The slums in Bangalore come under the jurisdiction of the municipal body or BBMP (741 Sq. km), the planning authority or BDA (1306 Sq.km- 741 Sq. km = 565 Sq.km) and outside these under the Karnataka Slum Clearance Board. Of the 569 slums, about 40 are in the CBD, 220 in the intermediate zone adjacent to CBD, the reason being there is large scope nearby for them to find jobs, and the rest in the periphery. As mentioned in some of the studies, the reality of Bangalore's slums is that they are almost double and the proportion of population living in slums is more than 22 percent which is higher than the official figures. The density data of slums are more than 50 years old and vary from 1500-2500 persons per hectare, where as the ones which are 10 years and above have only an average of 750 persons per hectare. In the 1960s and 1970s, CBD had only two classified slums with a population of 5,000 located in Kalasipalyam and Cottonpet area. In early 1980s, out of the 24 slums on corporation land, 4 were in CBD with a density of approximately 400 pph (ODP Bangalore 1972 and CDP Bangalore, BDA, 1985 and 1995). CBD has nearly 10 percent of nearly 400 officially declared slums in Bangalore with most of them being more than 30 to 50 years old.

Average household size of these slums is 5.57 which are considerably higher than that of the city. The density of these slums varies from

Table 3: Ward-wise Slum Population and Household in CBD

Sl. No.	Ward Number	Name of Ward	No. of Households	Population
1	27	Gandhinagar	22	82
2	28	Chikpet	--	--
3	29	Cottonpet	303	1,665
4	30	K.R.Market	118	649
5	46	Chamarajpet	3,100	15,540
6	47	Dharmaraya Temple	249	1,375
7	48	Sudhamanagar	4,279	23,343
8	77	Sampangiramanagar	60	350

Multiple Sources: Karnataka Slum Clearance Board, Bangalore and Slum Population, India, Series 1, Census of India,

1500 to 2500 pph. A study conducted on slums in Karnataka, by STEM, a research organization, reveals that more than 60 percent of the slums lack toilet, drainage, roads and street lighting facilities, 30 percent do not have drinking water facility and more than 70 percent are not provided with garbage disposal and public health facilities. Though the Integrated Housing and Slum Development Programs (IHSDP) guidelines state that the minimum floor area of dwelling unit should not be less than 25 sq. m with preferably two-room accommodation, kitchen and toilet, the existing slum dwelling unit area and facilities fall far below the normative requirements. This situation has led to overcrowding of the slums without any improvement in the provision of basic needs leading to further deterioration and is becoming a problem of safety and health, security beset with crimes.

Slum dwellers are nearly 58 percent literate. 54 percent of the slum

dwellers are employed as workers in various areas such as house workers, construction and coolie, service including domestic servants, clerical and sales, mechanics and machine operators, helpers and laborers, cart-men, drivers and hawkers. There is also about 8 percent who are mainly women involved in hawking activity. In CBD, most of the slums are more than 50 years old and the residents are very poor. These urban poor cannot afford to spend on traveling. They are forced to reside close to the work place and hence they reside in slums, the only place affordable in CBD, thereby increasing further, the average household size and density, despite inadequate infrastructure. These slums are highly congested pockets in the CBD consisting of low rise dilapidated and obsolete dwellings with high occupancy; built of less than substandard materials,

vulnerable to fire, floods, rain and wind.

The reasons why these people live in CBD slums are the following:

- Location of transportation node, trading and processing in CBD requires large numbers for physical work as helpers which in turn provides ample opportunities for the urban poor to earn their livelihood.
- The existing road network in the core CBD being narrow and discontinuous, cannot facilitate the transfer of goods through a mechanized system and hence has to depend on some kinds of manual mode only, requiring the services of deft coolies and cart-men.
- Presence of commercial establishments and transportation nodes provide scope for vendors and hawkers to earn their livelihood. These latter sub-serve an important socio-economic need.
- The presence of people for long hours in the CBD gives rise to the need for various types of hotel and eatery facilities day and night. These also are a source of employment and rush in the central areas.

Proliferation of slums and its problems will continue to exist due to job opportunities available and emanating; more so in cities, which are the foci of growth. Under these circumstances, the number of urban poor is bound to rise in the CBD and with their requirement to stay closer to the work place the only choice for them is to reside in the existing slums and such other

facilities. In such a situation there will be further congestion and deterioration in the slum conditions and will percolate into the adjacent areas. These slums are generally held to be an unwelcome element affecting the civic environment adversely in the neighboring areas.

Trade and transportation activities in the CBD require the services of these people who in turn depend on the activities for their daily income and living. The poor people living in the CBD are therefore an integral and inevitable part of the central environs and any improvement that occurs in the CBD must benefit its people, particularly, the poor of the locality. The poor are de facto owners of a substantial part of CBD, though they are not investors and legal title holders.

5.0 HOUSING SCENARIO

The population projection for BUA is as follows:

The attraction of the capital of Karnataka is due to the job opportunities, education and also its lower

density of population in comparison with other metros and its pleasant climate. This would continue to attract, at least for the next decade, large number of migrants.

Considering that 45 percent of this land is required for residential pur-

Table 4 indicates the following:

Population	
Projected population in BUA by 2021	12.62 million
Population in BUA as on 2011	8.47 million
Increase in population by 2021	4.15 million
Area	
Area of BUA in 2021	741 Sq.Km
Area of BUA in 2001	531 Sq.Km
Increase in area of BUA	210 Sq.Km

poses, nearly 95 sq.km of land is for housing. Apart from this, another 40 sq.km of 'developed vacant land' is available for housing, considering 75 percent of the total 'developed vacant land' of BUA as it is mainly in residential areas. This amounts to 135 sq.km of land requirement for housing to cater to the additional population.

Also, Bangalore is one of the most advanced cities from the point of view of demographic changes that the whole country is undergoing, in different degrees. It reveals a drop in the intrinsic birth rate and an increase of young adults migrating into the city from other parts of the

country. The city is characterized by a combination of the demographic maturity and economic attraction for the young man-power (Source: Census of India 1991-2001 and BMP CDP Revision Report 2004). This prospect entails an increased need for housing.

In response to the decline of residential land use and population in CBD, mixed land use can promote work-home concept by bringing in residences closer to the work place which provide a better social climate and thus reducing the need and time for travel. This will also improve and optimize the existing residential land use which is also one of the characteristic needs of CBD and will be an incentive for people to live there. Hence CBD should encourage work-home concept by absorbing a part of the

Table 4: The Population projection for BUA

Census year	BUA	Decadal variation in %	Area (Sq. Km)
1971	1,664,208	37.88	177.30
1981	2,921,751	75.56	365.65
1991	4,130,288	41.36	445.91
2001	5,686,844	37.69	531.00
2011	8,470,000	48.94	741.00
2021*	1,262,775	48.94	741.00

Multiple Sources: Census of India, 2001, Series 30, Karnataka, Paper 2 of 2001, Provisional Population Totals and BDA, Bangalore (compiled by author)

*Against year 2021, the population figures are projected at the same rate and the area is based on the notification issued by the government for BBMP on June 2007, earlier known as BMP.

housing requirement of the city to arrest the decline of its residential population and to further add to it.

Further, Bangalore's annual growth percentages for population, employment and per capita income are 3, 6 and 9 respectively (Bangalore City Report, World Bank, 2002 and BMP CDP Revision Report, 2004). On the whole this is a favorable situation. As employment increases twice as much as the population, the activity rate improves. Income increases three times faster than the population, which is very favorable. The report also states that with respect to the annual income growth rate of 9 percent, the growth of income of the rich has quadrupled in 10 years as against those with less than Rs.20000 per annum which has remained unchanged. Land is unaffordable to the lower income segment as they have very little purchasing power. Hence the poor are threatened with expulsion or consigned to being precariously crammed in the central zone slums.

Measures taken by the BMP to relieve the congestion in CBD by relocating certain markets, have further added to the problems. Though such relocations have nowhere proved to improve either the economic situation or congestion, they will definitely hit the urban poor in the area. Relocation of existing economic activities or the slums will create further confusion in the existing system and disturb the economies of the CBD, by creating unemployment and uncertainties in economic activities, due to destruction of livelihood of the

urban poor who are the mainstay of the local economy.

There are visible disparities between slums and better off neighborhoods, which increase social tension in poorer areas. The JNNURM - City Development Plan, Bangalore has come up with a vision statement that Bangalore will have no more new slums and the existing ones would be redeveloped within a period of 15 years with provision of better housing conditions and basic services. Hence, work-home concept, which encompasses residential population significantly, has to emphasize also on housing for lower income segment that are required for the CBD to continue to function effectively, since it has a major share of trading and transportation activities requiring the services of the working class population.

6.0 REQUIRED DIRECTION FOR INTERVENTION

In the process of re-organizing and retaining existing functions and absorption of the additional activities into the CBD, one needs to be sensitive to certain existing functions which have evolved over a period of time. CBD, possessing its strengths as compared to the rest of the city, should focus on the following issues in the process of transformation to make a mark on the city.

6.1 Land Use

Since CBD is the prime land of the city it needs to act as the niche sustaining the city's economy. This is possible only through intensified and planned use of this valuable

land. Intensification of this land use can be achieved through mixed land use as it is an inevitable and major characteristic of the CBD. Obviously, the floor area ratio, FAR will have to be increased imaginatively and swiftly in a planned manner. Anyway, constant replanning and rebuilding is taking place in the CBD.

Specialized economic activities, intensely dense commercial and residential spaces have made the land use pattern in the CBD, highly mixed. This has caused very high congestion. Attempts are needed for decongesting these areas. This also brings in variety and liveliness as against stagnation which creates inequality of public investments and makes it a dead area. It favors 24-hour markets too, which are recognized as the emerging trends in real estate as per the Urban Land Institute. By creating places with certain activities including parking round the clock, allows business to spread out their peaks in services and also increasing safety and security. A city like Bangalore with BPOs, software companies and international tourists, needs certain areas to function round the clock. CBD, with its transportation nodes, commercial and entertainment centers and tourist centers of heritage significance, can integrate certain 24 hour activities such as restaurants, cyber cafes, tourist information centers and such other activities. These activities will further diversify the CBD land use.

CBD with mixed land use can promote work-home concept by bring-

ing in residences closer to the work place. As has been already mentioned, the projected scenario of Bangalore, shows an increased demand for housing. If this activity is also located in the CBD, It would strengthen the work-home relationship. By doing so, it also arrests the present problem of declining residential population, reduction in travel time and cost and promotes mixed land use bringing in higher social value or significance. Even in developed countries, this trend is being witnessed.

The envisaged built form has to make a provision for a higher FAR to meet the future needs in any future reconstruction of the CBD. Residential land use with higher FAR should promote housing for all categories or income groups including, the poorest segments of CBD residents. Proper facilities for work and living helps arrest the decline of the quality of life for the resident population. Activities round the clock would allow the businesses to spread out their peak time and increase safety and security. These can be located at transportation nodes, commercial and entertainment centres and around heritage buildings of tourist interest. This has to be done duly keeping the complementarities in view.

6.2 Urban Poor

The urban poor who are participating in sustaining the economy need to be provided with housing with the requisite basic services in the CBD, as dislocation will disturb the existing work-home relation, which

has been possible through residing in the slums within or closer to the city centre, some of which are as old as 50 years or even more.

As the CBD depends on the services of these urban poor in various inevitable ways, during the development process these slums require to be reorganized as livable and activity spaces for them with improved facilities. This is also in accordance with the vision statement of Bangalore Comprehensive Development Plan, CDP to redevelop all the existing slums and stop any more new slums coming up. The same can be achieved if the scarce and valuable land, occupied by low rise scattered slums in CBD, is redeveloped by adopting compact multi storied housing, which is generally the characteristic feature of new built-form of the CBD. Pooling slum land and developing it under public private partnership programs would enable to accommodate more number of families in a smaller area of land with better services and the remaining land occupied by slums could be leased to the developers for commercial development in return for the construction and maintenance of multi storied housing for the slum dwellers. Such a measure helps to retain the urban poor whose services are essential in CBD and provides better living conditions as against the existing situation. As far as possible, water supply and waste disposal systems need to be suitably modified along with facilities for rain water harvesting. In brief, the CBD slum lands will have to be transformed so that a highly

mixed land use, including residence for the poor, becomes sustainable.

7.0 CONCLUSION AND RECOMMENDATION

Provision of a better livable space in the form of compact multi-storied housing with adequate infrastructure to the existing slum dwellers and the other urban poor could be done by pooling of land occupied by slums. This could also strengthen the work-home concept for this section of population, who are required for various activities. Such projects would make it possible to accommodate more families in a smaller parcel of land and reduce the manifest disparities between the slums and better off neighborhoods thereby reducing social tensions and promoting a higher level of social advance and integration. As most of these slum lands are owned by BMP, these projects can be undertaken by the Karnataka Slum Clearance Board in coordination with BMP, Housing Department of Government of Karnataka along with private developers. Resource allocation and planning and development coordination are urgent in this regard. Thereby the land occupied by slums can be better and more effectively utilized without provoking any social strife or disturbances. As for funds, many anti-poverty program grants may be utilized in a coordinated manner.

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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 and delays are avoided 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. Save the file 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 or planning 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 includes 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.

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LOCAL GOVERNANCE FOR SPECIAL TOWNSHIPS IN MAHARASHTRA

Case of Hill Stations and Private Cities

RAJESH S. PHADKE

Where a Nagar Panchayat or municipal council is formed and develops alongside a privately developed city in a manner that both entities are incentivized to negotiate with each other to provide efficient services without overlap, there would still need to be a mechanism to provide services and governmental controls in islands and territorial pockets disconnected from the main body of the nagar panchayat or municipal council.

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With shift of the government's role from 'provider' to 'facilitator' there has been public policy in India to develop new cities, townships and hill stations with sizeable investment in infrastructure from public-private partnerships. In Maharashtra, specifically around Mumbai and Pune, Special township and hill station projects financed wholly through private investment are coming-up. These small and large hill stations and private cities will eventually face the governance dilemmas during their development period till the required threshold size is achieved to form a regular Municipal Council. These new townships are urban in character and occupation but falls under Gram Panchayat which is for rural areas. Though the entire physical and social infrastructure is developed and maintained by the project proponent the residents are subjected to payment of property and other taxes to local authority. This is leading to conflict between the local authority and the project proponents. Government of Maharashtra has limited options for the governance model of these small and large size new urban areas based on the provisions of "The Maharashtra Municipal Councils, Nagar Panchayats and Industrial Townships Act, 1965". The options of Nagar Panchayat and Industrial Township Authority as a local body can be considered with required amendments. The option of a modified Industrial Township Authority is more suitable.

1.0 CONFLICT BETWEEN DEVELOPER AND LOCAL AUTHORITY

The development of private townships is posing a new challenge with respect to governance of such townships. In all its policies the Government of Maharashtra has put the onus of providing and maintaining the infrastructure of

the townships on the developer, which calls for huge upfront investment. The developers have to provide and maintain services till such time a democratically elected governance structure is in place as per the provisions of the Constitution of India. This transition period is critical for the developers as the rights of the local authorities namely the gram panchayats are not relinquished.

The gram panchayats being the local authorities have the power to levy and collect taxes from the developers on the development being carried out by developers. Ironically local gram panchayats neither provide any of the services such as water supply, sewerage, solid waste collection nor they are capable of doing so. Thus the collection of taxes by such gram panchayats is an unnecessary burden on the developers. Even after the township is fully developed it is difficult for the developers to hand over the infrastructure to the new governing authority as they have invested huge sums in creating the infrastructure which usually does not get recovered till such handover takes place. It has also led to anxiety amongst all stakeholders about future of local governance of these newly developed entities.

2.0 NEW TOWNSHIPS DEVELOPED BY PRIVATE DEVELOPERS

With shift of the governments role from 'provider' to 'facilitator' states have come out with policies to develop new cities, townships and hill stations through public-private partnerships. The Government of Maharashtra (GoM) has permitted more than one dozen new townships under Special Township Regulations and at least three new hill stations under the Special Regulations for Development of Tourist Resort / Holiday Homes / Townships in Hill Station Type Areas, 1996. Some of these townships and hill stations are reaching partial completion stage and are being occupied and populated. Although they are mainly located within the jurisdiction of local village authorities, namely gram panchayats, they are being managed and serviced independently by the project proponents and paid for by the residents and businesses located in such small areas. All these newly developed townships are totally urban in character and occupation yet, they are subjected to the jurisdiction of the Local Authorities meant for rural areas.

3.0 ADDRESSING LOCAL GOVERNANCE ISSUES

Around Mumbai and Pune in Maharashtra, many Special Township and Hill Station projects financed wholly through private investment are coming-up. Both large Hill Stations and private cities

will eventually face the same governance dilemmas as they transition to self-governing democracies. If local autonomy can be integrated into a new form of local governance, within the constraints of the Indian Constitution, it may well induce a significant increase in the degree of private investment that could be attracted to new city development and simultaneously reduce the degree of financial support the state government would otherwise be required to provide to new cities. Without a new local governance model, new cities with private investment get discouraged.

4.0 POSSIBLE GOVERNANCE MODELS

Urban Development Department (UDD) of the Government of Maharashtra has limited options today for the governance model of these new townships based on the provisions of 'The Maharashtra Municipal Councils, Nagar Panchayats and Industrial Townships Act, 1965.

One of the option under Chapter XXVI-A (Sections 341A to 341E) of the Maharashtra Municipal Councils, Nagar Panchayat and Industrial Townships Act, 1965 is to form a Nagar Panchayat for such areas.

One of the qualifying criteria for constituting a Nagar Panchayat stated in Section 341A (1) (a) specifies that the population of the area as per the last census should be minimum 10,000 and maximum

25,000. This restriction could be overcome by amending the Act and inserting a clause carving out exception for the Special Townships, Hill stations, Industrial Townships and new cities meeting other specified requirements approved by the state government, regardless of their population.

Section 341C confers powers on the state government to extend to Nagar Panchayat the provisions of the Act applicable to the Municipal Council of a 'C' Class city selectively and by making suitable modifications. The state government can thus apply only those provisions of the Act, especially relating to the duties and functions, as are relevant to the special townships, hill stations, industrial townships and new cities meeting other specified requirements.

The state government may on case to case basis delete functions not relevant in the newly planned township, after careful examination.

Section 49A of the Act empowers a Municipal Council to discharge its duties and functions either by itself or through an agency. However, the terms and conditions of contract between the Council and the agency are to be determined by the government. Using this provision, the Urban Development Department would play a key role in deciding which services will be provided by the project proponents and on what terms.

In order to make it possible for the

project proponent to partly meet the cost of various services, the Government may consider allocating some fixed percentage, of the total property taxes paid by residents and businesses to the project proponent. This will in effect avoid double taxation in the form of service charges and property tax that the property owners are subjected to in the present situation.

5.0 APPLICABILITY TO NEW CITIES

The aforesaid proposition needs to be examined for its applicability to the various types of new cities. Such a solution may be appropriate for small townships which are very close to the existing municipal councils and corporations. But large projects founded as new cities, in undeveloped areas, with the size and level of investment to be permanently self-sustaining cities in their own right create a separate set of issues and problems. New city projects may offer higher level of services and they may be successful at convincing citizens to pay higher fees for a higher level of service. New cities developed with significant private investment in public infrastructure will not be able to attract and sustain such outside support without managers who are at least partially accountable to investors, and mechanisms that assure investors that the government will not seize the infrastructure assets without providing fair compensation.

The state government needs to

acknowledge that some form of state enabling legislation will be necessary to grant legal sanction to whatever governance model and form is determined to offer the best policy for encouraging new city development while still recognizing that at some point new cities will need to become self-governing democracies in the Indian tradition. Such enabling legislation will require considerable deliberation and analysis. However, a new governance form would need to address some of the basic questions.

Should a new city be inside the existing gram panchayat or remain outside the existing city or municipality? If it remains within the jurisdiction of a gram panchayat, but does not get any services from it, the promoter of the new city will have to invest in a full range of services and civic amenities including off-site connecting infrastructure, such as approach roads, water source development, water conveyance, power transmission, etc., without having any of these investments even partially defrayed by local tax revenues. Apart from its inequity, such an outcome makes local government less efficient and serves as a disincentive for private investment. New cities built in this way bring in new infrastructure and urban amenities, act as an economic impulse for the local economy by generating new employment and business opportunities to local entrepreneurs, and bring in new civic facilities like education, health, communication, fire safety and the

like to the local population.

Although some private city developers are willing to make these investments, no arrangement exists for a transparent sharing of governmental responsibilities between the developer and a new local government, especially for the kinds of services that would be needed in a remote, rural location characterized by some of the following challenges:

- i. Dependence on the villages for low-category service jobs such as maids, cooks, drivers, sweepers, cleaners, gardeners, watchman, and the like;
- ii. Dependence for supply of affordable products of daily consumption such as a fruit-vegetable-fish-meat market and services like vehicle or household goods repairs, barber, laundryman, cobbler, etc;
- iii. Dependence of the township / new city on the village crematorium and burial ground.
- iv. Levying of property taxes by the gram panchayat without providing any services;
- v. Assertion by local leadership of the gram panchayat's authority in matter of building permission, licensing of certain establishments such as tea, coffee and milk shops and eating places;
- vi. Lack of any regulatory or coercive powers to stop nuisance causing activities

such as grazing of stray village animals in the township / new city; and

- vii. Unauthorized construction in and around the township/new city by the local villagers.

Even with vigorous planning, construction and start-up of normal municipal service delivery, the natural evolution of cities can take many years. It is inappropriate to think that local citizens, with no financial stake in a new city, should be empowered immediately to alter the Master Plan, set service fees and alter the development before it is completed. If a private entity is going to be attracted to invest in public infrastructure, it is reasonable to permit the investors to transparently recover reasonable returns on investment during fixed periods of time and to then have the opportunity to contract with successor governments if satisfactory terms can be negotiated.

Where a Nagar Panchayat or municipal council is formed and develops alongside a privately developed city in a manner that both entities are incentivized to negotiate with each other to provide efficient services without overlap, there would still need to be a mechanism to provide services and governmental controls in islands and territorial pockets disconnected from the main body of the nagar panchayat or municipal council.

Some high-end residential developments recover 100 per cent of the capital costs of whatever

limited infrastructure is built from the sale of real estate. But large cities require a larger investment in infrastructure with debt instruments carried over a much longer period of time. Capitalized interest costs over time and the need to substantially oversize municipal infrastructure to meet the demands of a city in future, means that new cities can be compared easily to small townships on this issue. If the entire cost of initial infrastructure, depreciation, interest and capital cost of replacement were all built into the price of the developer's real estate, it could make it impossible to provide both a robust mix of differently priced residential products, but it could also be a bar to providing sufficient affordable housing and other capital investment that principally benefit low income persons, and are essential for the development of vibrant and healthy cities. So it would be important to determine in advance what percentage of capital costs would be recovered from initial real estate sales, and what portion would be recovered through annuity in the form of fixed fees billed with variable operation and maintenance fee. Further, private investors must be allowed a reasonable period of time to transparently recover their infrastructure investments without fear that assets will be seized without just and fair compensation.

Is an arbitrary split of local tax revenues with a portion going to the Nagar Panchayat or municipal council, and a portion going to the

private development company, legally defensible unless it is linked to the scope and extent of services provided, based on some agreed formula.

The Maharashtra Municipal Councils Act allows most public realm assets such as streets to be seized without compensation from the local government if they are used and operated de facto as public property regardless of underlying ownership. No one (other than government) will invest in infrastructure if there is a possibility (bolstered by statute) that the government can seize such assets without providing reasonable compensation. Special enabling legislation could grant an exception to this provision of the law where new cities are constructed of a certain size, a minimum distance from another existing city and where the developer has purchased a critical mass of land, and other threshold requirements. It could also prescribe a formula for how reasonable compensation would be calculated and paid to the developer in the event, the new local government wishes to acquire infrastructure assets owned by a private company.

The state exercises a great deal of control over local governments because most of them are small, lacking the capacity to carry out their own planning, resource management and financial administration. This would not be the case with new cities that begin as large private developments. New cities must respect the sovereignty

of the state and be accountable to the state, but this can be accomplished with periodic review by the state, rather than injecting civil servants from outside for the purpose.

The stability of investments made in new cities is directly influenced by the ability of local decision-makers to continue implementing the Master Plan.

Keeping this in view, options for governance of new independent private cities can be as suggested in subsequent paragraphs.

5.1 Option 1: Industrial Township Authority

Because industrial townships are specifically mentioned in the Indian Constitution, the Maharashtra Municipal Councils, Nagar Panchayats and Industrial Townships Act, 1965, under Chapter XXVI-B delineates how they shall be established in Maharashtra. The constitution does not make clear whether industrial townships were intended to be an alternative form of municipal government, or merely a zone free from municipal annexation by other traditional local governments. Although the issue has not been litigated, it can be argued that since the Municipal Councils Act does not provide for direct election of the members of the local governing bodies of industrial townships at any point in the township's development, industrial townships are not really intended to be self-governing municipal governments.

However, this arrangement could be revised by statutory amendment without impact on the Constitution as the constitution is silent on exactly what constitutes an industrial township.

The SEZs, where more than 50% area is used for residential or other non-industrial use, and Maharashtra Industrial Development Corporation's (MIDC) industrial areas are widely recognized as appropriate areas for which Industrial Township Authority (ITA) can be appointed. Under Special Regulations for Hill Stations, 1996, hill stations are considered as an 'Industry'. Under Section 63(1) (A) of the Bombay Tenancy and Agricultural Land, Act 1948, Special Townships, hill stations and tourism projects are treated as 'bona-fide industry'. For all such areas, ITA can be established at least for an initial period of 30 years after completion of the project.

In the matter of granting Industrial Township status, the Gujarat Municipalities Act, 1963, under Section 264A makes a very liberal provision. It empowers the state government to notify an urban area to be an industrial township under proviso to clause (1) of article 243Q of the Constitution of India. Section 264B(c) empowers the State Government to appoint a person or a committee to administer the area as if it is a Municipal Borough and apply to it any of the provisions of the Gujarat Municipalities Act. Under this provision, the Gujarat Government

has decided to establish notified areas / townships in the Special Investment Regions (SIR) notified under the SIR Act.

However, since the current provisions relating to Industrial Townships in the Municipal Councils Act envisage such townships only by the MIDC, City and Industrial Development Corporation (CIDCO) or a Cooperative Society formed for developing a co-operative industrial area, some amendments to Chapter XXVI-B will be necessary.

An area originally established as a special zone for industrial activity, hill station, or a special township could be later notified as elected governing body after it reaches a sufficient level of resident population and economic activity. After the transition period, MIDC members, Association of Industries and Collector appointees should be replaced with directly elected governing body members who proceed to operate under the authorizing legislation of Section 341F to 341S rather than other provisions of the Municipal Councils Act. An advantage of operating under the provisions of Section 341 is that the governing body and administrator of an industrial township would have greater autonomy, and its functions and responsibilities are sharply focused on managing new cities. Greater local autonomy would give increased confidence to investors for local planning and decision-making.

5.2 Option 2: Nagar Panchayat With A Difference

As stated in foregoing para, a Nagar Panchayat under Section 341A(1) of the Maharashtra Municipal Council Act can be established for Special Township, private townships and privately developed hill stations. However, this will require amendments to dispense with the minimum population norm of 10,000 stated in clause (a) of the Section 341A (1) to benefit areas with less population. Further, for better governance, the State Government may have to exercise its powers under Section 341C to apply the provisions applicable to a 'C' Class municipal council with following modifications:

- i. Although functions and duties of the Nagar Panchayat will be those listed in Section 49 (2) and 49 (3), it will focus only the core functions similar to the ones mentioned in Section 314 M for the Industrial Township Authority.
- ii. As empowered under Section 49A, the Nagar Panchayat will discharge its duties and functions as far as possible through an agency of project proponent or its nominee by entering into appropriate contracts with prior approval of the state government. The pricing of the services will be transparent based on formula or norm approved by the state government.
- iii. Nagar Panchayat will exercise powers under Chapter XI –

Streets and Open Spaces, and Chapter XIII – Drainage, within the jurisdiction of the township only in consultation with the project proponent.

- iv. The Nagar Panchayat shall assign and pay a fixed percentage of the consolidated Property Taxes and Local Body Tax or Cess or Octroi grants for meeting the cost of the services provided by the Agency (or other formula based on the percentage of services provided by project proponent and the local government authority respectively). Any shortfall between these allocations and the agreed price will be met by additional service charges to be levied and collected by the project proponent under the terms of lease of land and / or buildings.

It may be clear from the foregoing that what is proposed is a hybrid between the ITA and the 'C' Class municipal council in the garb of Nagar Panchayat. The arrangement overcomes one of the main objections to the ITA, that it is not a democratically elected body. With extensive outsourcing of services, primarily to the promoter of the project, it will retain the focus on service delivery. The limited regulatory functions such as registration of births and deaths, licensing of certain establishments, and coercive actions against nuisance-causing activities will be handled by the Nagar Panchayat directly. Even for performing those

functions assistance needed by the Nagar Panchayat can be outsourced to the agency.

This arrangement will honor a fundamental principle of governance that regulatory and coercive power cannot be completely delegated, and even partial delegation must be done carefully so as to avoid undermining the final authority and democratic accountability of elected officials. Service functions can be given to a private entity more readily, and in fact this has occurred in many cities in other countries.

5.3 Option 3: Gram Panchayat

This option permits to evolve a local governance system as provided only by the existing Bombay Village Panchayat Act and Municipal Councils Act statutes. The project proponent makes and can continue to make agreements with gram panchayat for service delivery but gram panchayats are usually slow to adopt modern municipal service delivery practices, and it will be difficult to achieve consistent policies. Over the space of many years, residents of new townships could be organized to participate in local government and seek election to gram panchayat so that more progressive and efficient local governance can be advanced. Such a strategy would eventually lead to the establishment of a nagar panchayat after the population reaches 10,000, but the process would be haphazard, and it could interfere with the planning and city management functions set up by

project proponent. Furthermore, it is unlikely to give outside investors' confidence that their investments would be protected by stable local governance, and it is certainly not a model to develop new city governance with public-private partnership projects.

6.0 CONCLUSIONS

This paper attempts to draw up general policy guidelines for new cities, and highlights possible options. Of the three options spelled out in foregoing para Option 1: a modified Industrial

Township Authority is recommended. Needless to say, this too will call for some minor amendments to the Chapter on 'Industrial Townships' of the Municipal Councils Act. However, there is a need to have an urban governance body for gradually transitioning of new townships from company management of the new city to autonomous self-governing democracy with full devolution of powers, as envisioned by the 74th Amendment. Further, deliberations and detailing is

necessary to evolve a model for governance of new Townships, particularly being developed with private initiatives.

REFERENCES

- The Maharashtra Municipal Councils, Nagar Panchayats and Industrial Townships Act 1965.
- Special Regulations for Development of Tourist Resorts/Holiday Homes/Townships in Hill Station Type Areas 1996.
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- The Maharashtra Regional and Town Planning Act 1966.

URBAN HOUSING FUND

Availability and flow of institutional credit from the formal sector in urban areas is a critical requirement for mitigating the housing shortage among the large segment of population. Towards the same, in the Union Budget 2013-14, the Hon'ble Finance Minister announced the establishment of an Urban Housing Fund (UHF):

"It is proposed to start a fund for urban housing to mitigate the huge shortage of houses in urban areas. I propose to ask the National Housing Bank to set up the Urban Housing Fund and, in consultation with RBI, I propose to provide Rs. 2000 crore to the Fund in 2013-14."

Accordingly, the National Housing Bank (NHB) has formulated a new refinance scheme for channelizing funds into the urban housing sector. The scheme seeks to augment resources and improve credit availability and meet the housing needs of the people in lower income segments residing in urban areas. The scheme is based on area parameter and loan & cost parameters consistent with the needs and capacity of the people in the lower income segments.

The scheme will provide refinance assistance to eligible Primary Lending Institutions (PLIs) in respect of their loans extended in urban areas to lower income segments for the purposes of purchase /construction of dwelling units; repairs / renovation / upgradation of dwelling units; and incremental housing. Under the Scheme, the individual loan size should not exceed Rs. 10 lakh and the carpet area of the dwelling unit, for which housing loan is availed, should not exceed 60 sq.mt. or the cost of the dwelling unit should not exceed Rs. 16 lakh.

The eligible beneficiaries under UHF Scheme are those whose household income should not exceed Rs. 4 lakh per annum. It may be mentioned here that Rajiv Rinn Yojana (RRY), a centrally sponsored scheme envisages 5 per cent interest subsidy to the EWS / LIG borrowers. Inclusion of people marginally above the LIG segment within the scope of UHF would enable them to have better access to the formal housing finance system resulting in more inclusive housing in urban areas. It should however, be ensured that individual should not get the benefit of both UHF refinance scheme and Rajiv Rinn Yojana. In this regard, the banks must follow due diligence in identification of the beneficiaries in terms of eligible income group and ensuring that the beneficiaries have not availed similar benefit under other subsidy schemes of the government, like Rajiv Rinn Yojana, by obtaining necessary documentary evidence, including Aadhaar based identification, etc.

Refinance from NHB would be available to the extent of 100 per cent of the eligible loans sanctioned and disbursed by the banks. The refinance assistance under this scheme will be available for tenure of 3 to 7 years. Interest rates under the scheme would be fixed over the entire tenure of refinance and banks would be encouraged to lend at fixed rates in order to safeguard the borrowers against volatility of interest rates in the market. The banks would be required to ensure that for all refinance claims made under the Urban Housing Fund, only those loans are included where the on-lending rate to the borrower(s) does not exceed 2 per cent over and above the maximum refinance rate under the Fund. Repayment under the scheme would be on quarterly basis.

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URBAN GOVERNANCE: CHALLENGES AND OPPORTUNITIES

A.K. JAIN

The process of urban development is intimately linked with the system of governance, which articulates the participation of civil society, addresses the issues of transparency and ethics and democratic decentralization of decision making process. It has direct bearings on the aspects of the environment, urban poverty, infrastructure/basic services, equity and capacity building and the resources.

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Before beginning, plan carefully

- Cicero, Marcus T.

India's urban centres are the engines of its economic growth. However, in spite of the constitutional provisions for decentralized, local governance, orthodox urban administration, along with inadequate infrastructure and limited resources of the local governments are acting as retardants in making the Indian cities sustainable, equitable and productive. There is a need to develop a comprehensive insight into urban problems and policies, and evolve a paradigm of urban governance with the imperatives of decentralization, localization, partnerships, equity, transparency and accountability. Civic engagement and participatory development is no more subsidiary to the main strategy of "governance", but should be its basis. To meet these challenges in the context of decentralization of power from central/state governments to local levels, there is a clear need to strengthen the urban local bodies and to empower the local communities.

1.0 INTRODUCTION

During the last century, urban

population of India increased tenfold, and cities today are faced with problems of environmental pollution, land degradation and loss of bio-diversity. Concentration of intense economic processes and high levels of consumption in cities increase their resource demands. As given in the Table-1 below the annual urban growth rate was 2.8% during 2001-2011, as compared to 2.1% during the previous decade.

Bulk of the urban growth in India is concentrated in large cities. It is estimated that the present number of metropolitan cities (plus one million population) will go up from 53 to 75 by 2021, including 9 mega-cities with more than 10 million population. It is projected that India will have the greatest concentration of mega-cities in the Asia region.

Table 1: India-Urbanisation and Related Indicators, 1951-2011

Census	Number of town/urban agglomerations	Urban population (in million)	Urban population as percent of the total	Annual Growth Rate
1951	2845	62.4	17.3	-
1961	2365	78.9	18.0	2.3
1971	2590	109.1	19.9	3.2
1981	3378	159.1	23.3	3.8
1991	3768	217.6	26.1	3.1
2001	5161	285.9	27.8	2.1
2011	7936	377.0	31.1	2.8

Source: Census of India, Government of India 1951-2011

This is happening largely because the Indian cities act as engines of national growth, adding value to rural produce, serving regional markets and attracting national and international investments. The estimates indicate that cities in India account for 60 per cent of national domestic product (NDP). Delhi, Mumbai and Kolkata contribute about 80 per cent of India's GDP and 60 per cent of its value added manufacturing. The share of construction activity is 8 per cent of GDP and it contributes directly to the development, expansion, improvement and maintenance of human settlements.

Indian cities manifest a duality of both, triumph and tragedy. The majority of population suffers a growing sense of loss and frustration as their lives and hopes for the future disintegrate. Millions of people lack secure and adequate shelter and basic services. The living conditions in urban areas, which are full of slums and squatter settlements, are bordering inhuman levels. One out of every three persons in our cities lives below the poverty line and about two-third of India's urban poor are living in unplanned settlements and slums, lacking rudimentary services. The prevailing development and governance framework have not been able to serve these vast populations. During the recent years, there had been a growing concern on the issues of urban governance and its interactions with civil society, infrastructure services, poverty, ecological sustainability, employment and social equality.

Symptoms of crisis are visible in continuing poverty and unemployment, slums and squatter settlements, environmental pollution, shortages of housing and the basic services as water, sanitation and electricity. Problems vary in kind and severity but no city is without its share. Despite a century of industrialization and development, more people today are ill-housed than ever before and the goal of higher living standards is receding. The root cause could be the following?

- Economic development models which are not succeeding;
- Inequalities in wealth and opportunity-both within and between nations;
- Value systems and societal priorities which don't serve community needs; and
- The failure of urban institutions and governance.

2.0 URBAN GOVERNANCE

The process of urban development is intimately linked with the system of governance, which articulates the participation of civil society, addresses the issues of transparency and ethics and democratic decentralization of decision making process. It has direct bearings on the aspects of the environment, urban poverty, infrastructure/basic services, equity and capacity building and the resources.

The Indian federal has a three-tier institutional system with the central government at the top, state

governments at the second level and local governments at the grassroots level. The responsibility for providing basic services and implementing development programs is mainly of the local government. India has the distinction of having the largest number of democratically elected local governments in the world-more than 250,000 rural and urban local bodies with almost 3 million elected representatives.

The form of governance prevalent in the country at all three levels is generally bureaucratic and involves conservative controls. With the 74th Constitutional Amendment Act (1992), the urban local bodies have been assigned greater role in urban planning and governance. However, effectively this has not happened in most of the states, as the governments are reluctant to part with their powers. Poor municipal capacity and finances are acting as barriers in the area of decentralization. It is urgent that in the spirit of decentralization and democratic governance, the role of civil society and community organizations is incorporated in urban management. This would make it possible to channel and meet demands of local development.

These amendments also envisage the preparation of district and metropolitan development plans, which integrate investments and their spatial implications. This needs a suitable plan making mechanism which responds to the local needs, in line with new

economic policies and democratic decentralization. In order to enable the implementation of a new strategy, it would be necessary to restructure the local bodies and service departments and to equip them to initiate and embrace ecological sustainable, socially just, economically viable and culturally transferable approaches. The traditional role of ULBs has to change from 'provider' to 'facilitator'.

According to UN Habitat, good urban governance is characterized by the following interdependent and mutually reinforcing norms:

- Sustainability in all dimensions of urban development.
- Subsidiary of authority and resources.
- Equity of access to decision-making processes and the basic necessities of urban life.
- Efficiency in the delivery of public services and in promoting local economic development.
- Transparency and accountability of decision-makers and all stakeholders.
- Civic engagement and citizenship.
- Security of individuals and their living environment.

In order to translate new policies and paradigm into practice, a framework of the governance objectives is to be prepared. It should clearly spell out economic, environmental, financial, social, constitutional and political

objectives. With the ongoing globalisation, economic liberalisation and devolution of power to local bodies, urban governance has to connect with the general masses and the political system. Participatory decision making has to be institutionalised. The professionals require expertise exercised with integrity and striking a balance between the political process and service delivery.

2.1 Sustainability

The UN-Habitat advocates for the convergence of various aspects of sustainability, which are central to the planning and governance of urban areas.

Economic sustainability relates to the capacity to put local/regional resources to productive use for the long-term benefit of the community, without damaging or depleting the natural resource base on which it depends and without increasing the city's ecological footprint. This implies taking into consideration the full impact of production cycles.

Social sustainability refers to the fairness, inclusiveness and cultural adequacy of an intervention to promote equitable rights over the natural, physical and economic capital that support the local culture and livelihoods of communities, with particular emphasis on the poor and traditionally marginalized groups. Cultural adequacy means the extent to which a practice respects cultural heritage and cultural diversity.

Ecological sustainability pertains to the impact of urban production and consumption on the integrity and health of the city-region and global carrying capacity. This demands long-term consideration between the state, dynamics of environmental resources and services, and the demands exerted over them.

Physical sustainability concerns the capacity of an intervention to enhance the livability of buildings and urban infrastructure for all city dwellers, without damaging or disrupting the environment. It also includes a concern for the efficiency of the built environment in supporting the local economy.

Political sustainability is concerned with the quality of governance guiding the relationship and actions of different actors among the previous four dimensions. It implies the democratization and participation of local civil society in all areas of decision making.



Figure 1: Sustainability is integration of economy, environment and society

As sustainability cuts across various levels of government and development sectors a matrix can be developed integrating its various aspects with the issues at the policy, strategic and operational levels. In this context the performance of present urban services and systems needs to be reassessed with reference to environment, hygiene and public health, which include clean drinking water supply, drainage, effluent treatment, wastewater recycling, sanitation, sewerage and solid waste management.

The key to success of sustainable urban governance is the adoption of participatory, local planning which allows the communities within a given constituency to link together, survey their problems as a group, and then enter into a collaborative process with their municipal governments and with other concerned organisations in the city to jointly develop programmes which resolve their problems.

A GIS based, geo-referenced, digitised mapping is an essential tool of urban governance, planning and development. The maps should reflect in layers the information with respect to services, linkages, housing development, illegal colonies, slums, existing land use, land ownership, land values, socio-economic characteristics and physical conditions of the settlement. Constant updating of digitised maps and data is necessary. The mapping is a pre-requisite to facilitate community participation and development of

the local area plans by a process in which all the local stakeholders look at the situation and plan together. The local planning process should allow a decentralised collective land, financial, social and community management.

The participatory local area planning process includes its integration with city development plan and brings various departments and service agencies, RWAs, CBOs, NGOs and the stakeholders on a common platform. Local area plans being a part of a comprehensive, collaborative process are very different from the conventional project approach, in which a few scattered communities may be improved, but they are not linked to the overall development process of the city. In the conventional programmes, the government takes the role of planner and financier, leaving communities with little room for participation. In the participatory local area plan the government takes the role of facilitator and supporter to communities.

The municipal entities need to change their role from that of administrators to service providers with their own financial strength. Improved tax revenue combined with rational user charges will enable the city to leverage its own resources and also to access new forms of financing through partnerships, municipal bonds, cross financing through property development, rationalizing taxes, parking and service charges, change of land use and Floor Area Ratio charges, betterment levy, etc. With

the increasing role of the private sector in urban process, a new regulatory system needs to be put in place to ensure inclusion, equity, transparency and sustainability.

2.2 Subsidiary and Participation

In view of the emerging urban challenges, new forms of urban governance have to be explored. The scope of ongoing municipal management has to be enlarged with new partnerships, subsidiaries, the mandatory process of community management and delegated management. The centralized, administrative approach needs to change to local governance approach integrating economic growth, environmental sustainability, financial, social, political inclusion and institutional reforms. Appropriate forms of governance and management should be evolved on the basis of ownership of the system, management efficiency, monitoring, regulation, operation & maintenance, financing, cost recovery, and locational suitability.

With the decentralized, local and participatory planning, the role of the local government is undergoing a radical change. In the changing environment, skills are necessary to strike a balance between the economic and inclusive growth and between political process and service delivery. This necessitates reassessing the role of the urban professionals which correspond to the thrust areas. It has to change from controller to catalyst, from office manager to organizer and

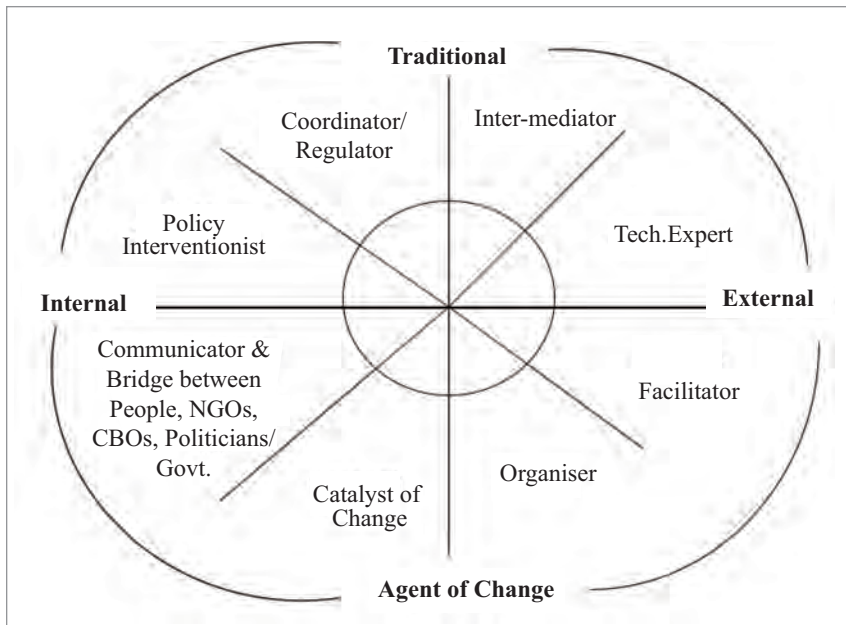


Figure 2: Changing Role of Urban Professionals

from technical expert to facilitator. This involves capacity building of urban professionals who are able to coordinate, integrate and converge the aspects of land management, financing, social, environmental, technical and institutional/organizational sustainability into urban governance.

The development and nurturing of partnerships has been identified as the new tool for achieving progress without hampering resources for future generations. A leveraging strategy can be adopted so as to encourage private sector to participate in infrastructure/city development for which there is an urgent need of inter-sectoral cooperation. It is necessary to explore the areas where the government can cooperate in the partnerships with the private sector, encouraging cooperation and

competition in the critical areas of concern, such as given below:

- Land assembly and development.
- Transport services
- Clean technology and laws for environmental safeguards.
- Water, sanitation, drainage and waste management.
- Housing along with utilities, services, open space and community facilities.
- Slum upgradation, rehabilitation and urban renewal.

Capacity building has to play an important role in this agenda if it has to be successfully implemented. At present there is a woeful lack of urban management and “urban managers”, who could comprehensively foresee and manage the overall urban development. The planners of today are specialists in particular fields

like transportation planners, architect planners, engineer planners, social planners, etc. There is a need for professional urban managers who could comprehend the problems, conceptualize options and conceive solutions to urban development through a comprehensive assessment and vision of the present and the future. Capacity building efforts along with policies have to be developed to allow for greater awareness and attitude towards formation of public-private-people partnerships (PPPP). Capacity building efforts have to aim at the sustainability and its four interrelated principles of transparency, efficiency, mutual understanding and partnership. This involves redefining the policies, goals, roles and procedures with the participation of the civil society. The stages from cooperation to coordination to integration are to be developed integrating the financial/economic, spatial, technical and institutional aspects.

2.3 Equity and Inclusion

Four critical areas, viz. community empowerment, community action, governance reforms and communications are vital for equity and inclusive governance. The specific areas within the government domain are election reforms, representation in local development bodies, local planning, economic and social inclusion, transparency and accounting reforms and mobilizing investments.

The areas within the community domain are local leadership, self-help groups, family welfare and controlling social aberrations (such as noisy processions, fat marriages, protecting the rights and entitlements of pedestrians, handicapped, homeless, poor/slum dwellers, expropriations, family violence, child marriage, child labour, illiteracy, gender discrimination, etc.), imparting education and health, community empowerment and physical and environmental improvement by voluntary action.

Information and Communication Technology (ICT) and e-governance are emerging as tools of community empowerment, efficient service delivery and reduced corruption. The local municipal governments, police, service agencies, banks, etc. are gradually adopting web sites, e-banking and e-governance, replacing time consuming and corruption generating paper work. This is the fundamental building block of urban governance. The key result areas to achieve better governance are enhanced efficiency, employment generation, social inclusion, education, healthcare, gender equity, and protecting the human rights.

2.4 Efficiency and Delivery

The urban governance principles are more or less known. The issue is lack of efficiency and delivery due to various factors, such as lack of plan and program and financial allocations. The question is whether

urban governance and economic growth are themselves oxymoron in view of finite resources and the issues of equity, human rights and welfare and participatory development. Change can't be expected without a pathway which gives a clear orientation and a series of steps to be taken in a long journey.

For efficiency in delivery of public services, it is necessary to work out a participatory pathway in the form of local area plan and set up SMART goals which are Specific, Measureable, Action-oriented, Realistic and Time bound. This is complemented by:

- Setting up the benchmarks, standards and norms.
- Preparation of action plans at policy, strategic and operational levels for a basket of facilities, services and amenities.
- Institutional/organizational capacity building.
- Legal framework and procedural reforms.
- Financial planning and harnessing the private and community sectors.

2.5 Transparency and Accountability

Corruption is not confined to the government sector, but cuts across all the borders. It would be innocuous to consider financial misappropriation as the ultimate form of corruption. Other forms of corruption, which are widely prevalent and conspicuous, are

administrative discretion, discrimination, inefficiency, favours and inaction; manipulations and non-payment of taxes and service charges, public land appropriation; sexual exploitation, child labour and violations of human rights.

The present approaches dominated by vigilance, police and legal actions have been grossly inadequate. In fact, the medicine is worse than the illness. The vigilance and police also tend to become the wheels in the corruption machinery. The social, political and systemic changes are more difficult and hence are underplayed.

There is a need to establish simple and easily comprehensible audit and accounting standards in order to cap, reduce, and eventually eliminate scope for corruption. These standards could focus on identifying when transactions should be looked into, what should be monitored, mandates of transaction, documentation and disclosure. The system of internal and external audit needs to be complemented with an appropriate Fiscal Responsibility Act for elected local authorities. Outsourcing of accounting through standard contracts and computerization of accounts would be imperative. Social Audit policies can be based on best practices available in different States. The Right to Information legislation provides a powerful tool for transparency and accountability.

2.6 Civic Engagement

The process of urban governance is intimately linked with the participation of civil society and democratic decentralization of decision making process. It has direct bearing on the aspects of the livelihoods, poverty, infrastructure/basic services, equity

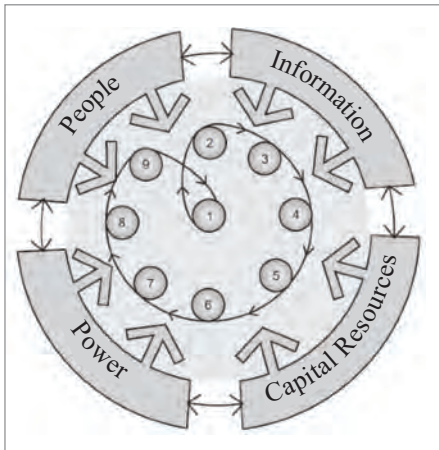


Figure 3: Governance- Actors and Stakeholders

and capacity building. In this context the local bodies have to play a catalyst role and act as a bridge between the people, NGOs, CBOs, politicians and the government.

Governance- Actors and Stakeholders

Governance is the art of integrating the people, power, capital resources and information in the context of place and time. It is the process of decision making that engages all the potential actors and stakeholders who will be affected by the decisions that are made. Governance is a process of bringing together actors from the government (service delivery agencies, health, education, etc.), local government (both-political decision makers and technical/administration), civil society (NGOs, community groups) and the private sector enterprises and associations.

India has the distinction of having the largest number of democratically elected local governments in the world. One of the basic tasks of elected local bodies is consensus building through participatory decision making. This involves a series of steps– to convene, to clarify the functions and roles, to deliberate, to decide, to agree and to implement (which includes monitoring). Clearly the local bodies have to develop the procedures and capacities to involve the community in decision making by way of a systematic and meaningful process.

2.7 Urban Security

People in urban areas are exposed to various kinds of natural and man-made dangers and risks. The natural dangers arise mainly from geological, hydrological and air disturbances, which impact the

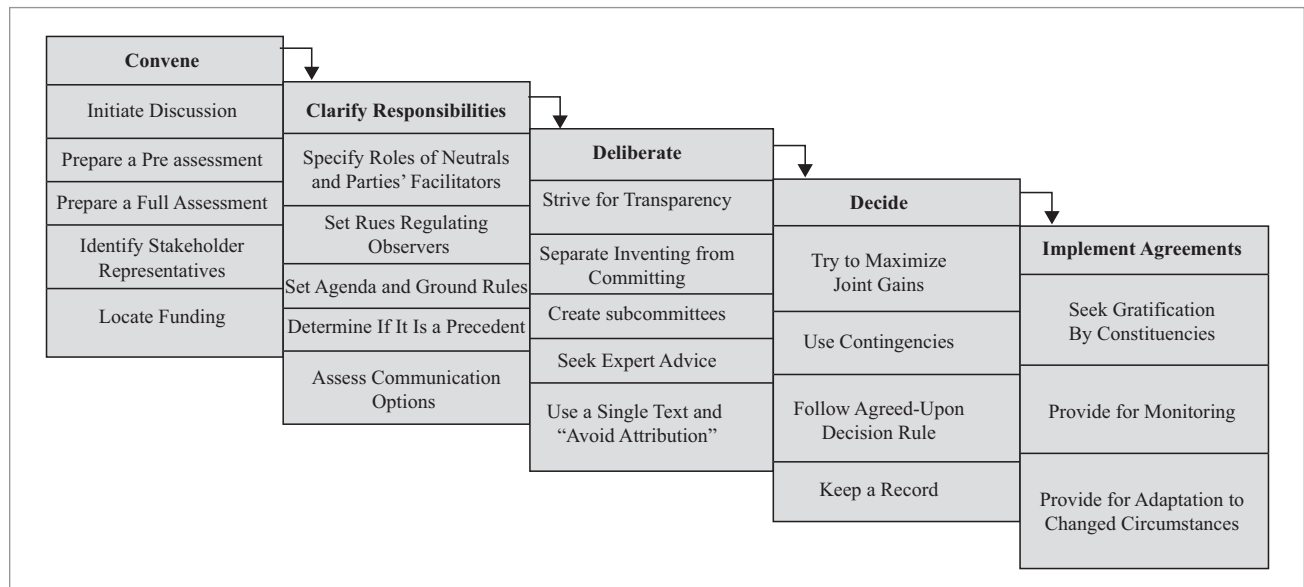


Figure 4: Ladder of Consensus Building

human life and property. The man-made dangers mainly cover crimes, unsafe buildings, roads, traffic, energy, amenities, services and unhealthy and polluted environment. The children, elderly, women, disabled and the poor, including homeless and squatters constitute the most vulnerable group of people. The factors that make a city unsafe include a poor urban environment – dark or badly lighted streets, derelict parks and empty lots, badly maintained public spaces, inadequate signage, lack of public toilets especially for ladies on roads and in public buildings, markets, schools, etc. Empty streets and service lanes/backyards become crime prone due to isolation and darkness. Gender discrimination, lack of respect and sensitivity towards the women, children, disabled and elderly are the common issues of urban security. Traffic and transport hazards are mainly due to poor roads, rash driving, lack of safe pedestrian crossings and sidewalks, no lanes for NMVs /cycles, etc.

Delayed response or non-intervention of authorities in disaster, crimes and violence is a major reason of urban danger. The victims find it extremely difficult to get timely help in case of an emergency and are tossed from one office to the other, having compartmentalized jurisdictions, which are confusing to a common man. This is perhaps one of the biggest reason that make a city

unsafe. In this scenario, following actions pertaining to urban governance are necessary:

- a). To establish a unified information network and action platform for comprehensive emergency services, both for natural disasters and man-made hazards, crimes and accidents, providing police, fire, medical, traffic and other emergency services and assistance.
- b). To prepare action plans with respect to risk reduction and human safety.
- c). To review the safety laws, norms and standards and adopt the practices of safety audit, controls, protocols and monitoring.
- d). To adopt gender sensitive and safety oriented design of buildings, public spaces and roads, and such other measures for crime prevention and mitigation.

Community involvement and voluntary actions are crucial in urban safety and security.

3.0 GOVERNANCE TOOLS AND ACTIONS

The urban governance is citizen centric, service oriented and involves many organisations, service agencies and stakeholders. As such, it has a political and democratic dimension, which necessitates a legal, institutional and mandatory framework along with a

strategic action plan. Urban governance does not happen due to voluntary or routine bureaucratic interventions, but needs a systematic four phase action, which is well-structured, clear, participatory and delivery oriented. This involves a strategic integration of knowledge management, localization and participation, implementation and consolidation in achieving the key result areas.

Having worked on the Master Plan for Delhi-2021 (MPD-2021), which is planning law for the National Capital, mandatory provisions for critical governance issues have been introduced therein, as given below:

3.1 Information Base and Indicators

The following physical and socio-economic indicators shall be documented and disseminated (Table 2):

- i). **Demographic:** Population size, population distribution in relation to holding capacity, age-sex structure, household size, rate of migration, causes of migration, etc.
- ii). **Land use:** Land use pattern, Development / Layout plans, etc.
- iii). **Housing:** Slum and squatter settlements, housing with essential services
- iv). **Social Infrastructure:** Mortality rate and infant mortality rate, access of

Table 2: Tools for Participatory Urban Governance

Phase	Tool/Methods
1. Information Base/Indicators	<p>Indicators Checklist: Demographic, physical, social, economic, environmental, housing, infrastructure service and transport indicators.</p> <p>Mapping: Geo-referenced, digitized maps, with on-line computerized land & property transactions, registration, building plan approval.</p> <p>Stakeholder and Community Profiling: To identify stakeholders and to analyse their roles, to ensure equal participation of both men and women in decision making, gender sensitive governance.</p> <p>Vulnerability and Poverty Assessment: Information about poor and vulnerable communities.</p> <p>Issues and Options: An overview of situation analysis and review of options.</p>
2. Localisation and Participation of Stakeholders	<p>To promote stakeholder dialogue, consensus building and commitment .</p> <p>To create a mechanism for cross-sectoral and multi- institutional coordination, effective participation and focus.</p> <p>Subsidiary of authority by localisation and decentralisation of planning and governance negotiated agreements and partnerships, identifying key stakeholders and political leaders.</p>
3. Strategy Formulation and Implementation	<p>Strategy formulation: A methodological framework for user charges, taxes, augmenting funds, investment, PPP, devolution of finances, accounting procedures, etc.</p> <p>Action Planning: Actor-specific and time bound targets and commitments whose results can be monitored. Identification of priority action area, projects and investments, from central/state/private sources.</p> <p>To facilitate and demonstrate new approaches to urban problems and to induce replication.</p>
4. Follow-up and Consolidation	<p>Institutionalization and Civic Engagement aligned to legal, administrative and political systems.</p> <p>Program Evaluation, MIS: Guidelines to assess program success, shortcomings, delays, costs, etc.</p> <p>Monitoring to gauge progress in delivery of services and citizen outreach as a feedback for replication, up-scaling, adjustment and improvement.</p> <p>Transparency and accountability</p>

population to safe drinking water, access to low cost sanitation, removal of solid waste per capita, distribution of police and fire services, requirement of old age homes, working women's hostels, adult education centres, etc.

- v). **Transport:** Percentage trips by public transport (modal split), cost of using and operating different modes, passenger capacity and distance traveled

by public transport per year in relation to population, facilities provided on railways/ metro stations/ I.S.B.T, requirement of petrol pumps & CNG stations

- vi). **Economic Aspects:** Distribution of households by income, distribution of households by consumption expenditure, employment, participation rate, employment in different sectors, shifting/ relocation of in-

dustries, growth of informal sector, shifting of government offices, etc.

- vii). **Environment:** Air pollution, water pollution, noise, quality of water of river Yamuna, ridge area conservation, etc
- viii). **Natural Disasters:** Flood prone areas & effected population, other natural disasters, etc.

3.2 Mapping by Spatial Data Infrastructure (SDI)

SDI and documentation of the information with respect to settlements, colonies, villages, buildings, utilities, transport network, land use, etc. Geographical Information System, land/ground surveys, layout plans and land use plans shall be systematically organized and disseminated. This will provide a platform for documentation, planning and timely implementation of the Plan.

3.3 Local level Participatory Planning

It begins with defining the local areas and work out systems and procedures for the preparation of local plans by participatory process, along with institutional capacity building.

3.3.1 Slum Rehabilitation and Social Housing policies, physical and financial strategies and organizational structure for slum & JJ rehabilitation shall be worked out with the objective to make Delhi Slum free within a given time frame.

3.3.2 Infrastructure Development planning strategies, plans and projects shall adopt latest technological and management interventions.

3.3.3 Environment Planning strategies for coordinated sustainable development, including conservation of Yamuna River bed and flood plain, Ridge etc.

3.3.4 Unified Metropolitan Transport and traffic management envisages bringing many organisations and government departments on a common platform for safer, comfortable, efficient and sustainable mobility of people and goods.

3.4 Monitoring

A dedicated high level monitoring committee be set up for collection and analysis of primary and secondary data, overall monitoring of implementation of the plans. The Enforcement and Plan Monitoring Group may comprise of the professionals, concerned local bodies and residents and evolve strategic action plans to ensure enforcement of the Plan. The targets given in the master plan will help in monitoring and regular review of the performance of various sectors.

3.5 Legal Framework

The legal framework shall be reviewed along with the framing of the new regulations for emerging areas, such as land assembly and private sector participation in housing and land development, regularisation & up-gradation of unauthorised colonies and areas of mixed land use and local level planning regulations.

4.0 CONCLUSIONS

India with more than 1210 million people, 3.3 million sq. km of area, 28 states, 6 union territories, 1 national capital territory, 671 districts, 8000 odd cities and towns and 600,000 villages needs to have a

differential and effective governance structure which addresses the local issues in its ecological, social, cultural and economic contexts. Urban land, housing and planning are state subjects which are inextricably linked with the political and governance system. In this context district and local planning, along with administrative, financial and legal reforms are critical, which aim at equitable, result oriented and inclusive governance.

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RAJKOT RITE# PROJECT: M-GOVERNANCE BEYOND E- GOVERNANCE

VIJAY ANADKAT

The use of Information and Communication Technologies (ICT) and mobile technology for information sharing enables the service providers to incrementally add services quite easily. The wide spread usage of mobile technology and easy to understand text messages has enabled us to lower the barriers for acceptance of these services.

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This case study paper examines how Rajkot Municipal Corporation(RMC),Gujarat has successfully implemented the m-governance project in form of RITE (Responsive Intelligent Transparent and Effective) to provide services to citizens through click with own fingers.

The case study consists of four parts (1) what is meant by m-governance and how it reaches beyond e-governance in Urban Local Bodies (ULBs); (2) what are services offered by RMC under m-governance and how one can access those; (3) out reach of services comparing before and after situation; and (4) issues and problems faced by RMC to implement the project. The case study provides path to implement m-governance in Urban Local body. Local government strategic planning and governance through mobile have a positive effect on better outreach to citizens with cost effective and responsive governance. It also improves the financial performance of the ULB.

1.0 INTRODUCTION

Rajkot is one of the fastest developing cities located at the center of Saurashtra region of Gujarat State situated in the western part of India. The city has a geographical area of 104.86 sq.kms and has a population of 1.3 million (Census, 2011). Rajkot is best known for its association with the Father of Nation, Mahatma Gandhi and small ancillary industries like forging, casting, etc. Rajkot is the second largest market for manufacture of golden and silver jewellery. Rajkot is one of the biggest centre for engineering goods in Gujarat.

Rajkot Municipal Corporation (RMC) is responsible for the city development and to provide basic services to the citizens of Rajkot city. Rajkot is divided into 23 wards and is among the four major cities of Gujarat State. RMC has demonstrated many innovations to deliver city management functions efficiently and is known for successfully implemented projects under Public Private Partnership (PPP). City has prepared different plans for improving services and to minimise the gap between supply and demand of urban services.

Rajkot is a city which always tries to keep pace with time and technology. It has an average literacy rate of 80.6 per cent. The mobile subscriber in the city is more than 8.88 lac, which is roughly 69 per cent of total population. As per 2011 census, 10 per cent of the total population of Rajkot is between 0-6 years. Assuming that 20 per cent of the population is below 12 years, coverage of mobile is estimated to be more than 86 per cent. RMC has targeted this extensive mobile network to provide point to point delivery of government service in a personalized manner and to achieve this, RMC has started an ambitious project of m-governance,

which goes beyond e- governance, and named it RITE which means- Responsive, Intelligent, Transparent and Effective.

2.0 WHY M-GOVERNANCE?

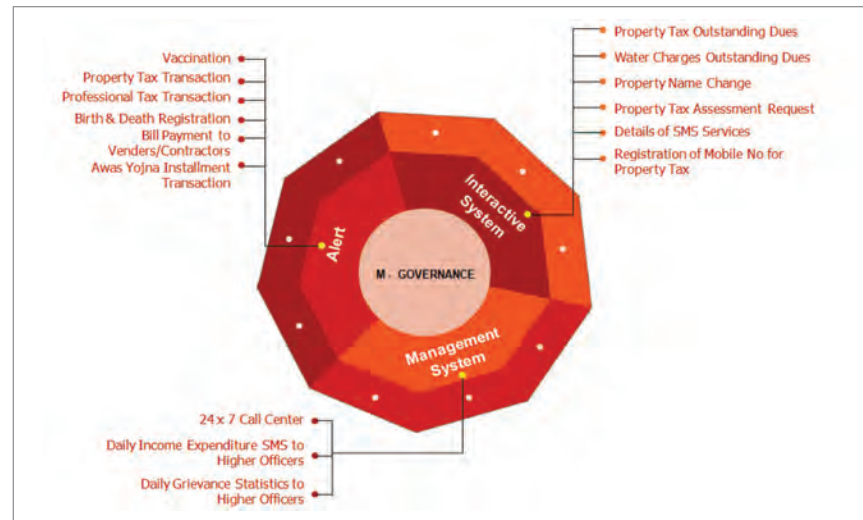
In the context of urban local bodies, the use of Information and Communication Technologies (ICT) and mobile technology for information sharing enables the service providers to incrementally add services quite easily. The wide spread usage of mobile technology and easy to understand text messages has enabled us to lower the barriers for acceptance of these services. After successfully implementing e-governance in all service areas, RMC has focussed on elimination of queues. It was observed that inspite of putting most of the service related information on website, citizens were still queuing. A close analysis revealed that Rajkot is having only about 10 per cent internet penetration, as a result the benefits of e-governance are not reaching to people at large. On the other hand, a study of the number of mobile subscriber's figure shows that more than one mobile is available in each family. This means that if mobile technology is combined with ICT, the problem of reaching to the remaining 90 per cent without internet facility can be easily solved.. The focus of Corporation, therefore, shifted from e-governance to m-governance and ICT combined. Earlier people used

to stay in queue for 1-2 hours to get the tax details and then in another queue for payment of property tax. The result was frustrated citizens, waste of time and low recovery of property tax. With the improved system, the compliance to property tax payment has improved. In the m-governance service, if a citizen

single batch mode operation,

- Effective back office integration of all citizen centric services,
- Centralized Server Architecture, and
- m-governance is backed by successful and effective implementation of e-governance

Figure 1: m-governance of services in Rajkot



sends a sms, such as BILL<space><17 digit property tax no>, to the central processing centre, the return message gives details of the total dues, discounts, if any, etc. within a fraction of a minute. The project was started with the aim of providing information immediately to the citizens by using mobile services. m-governance at RMC is powered by pre-defined process-cycles and back-office integration. The main features of m-governance project at RMC are:

- online operations and not a

3.0 M-GOVERNANCE SERVICES

The span of m-governance project is extended to almost all the areas of services. Citizens can now access these services at their finger tips, using their mobile phones. Based on usage of services, RMC has divided services in three parts, as shown in Fig 1:

1. Alert Services

- Vaccination
- Property tax transaction
- Professional tax transaction
- Birth & death registration
- Bill payment to vendors/con-

- tractors
- f. Awas Yojana (housing scheme) instalment transaction
- g. Cheque return
- h. Property name change
- i. Payment reminder service
- i. Property tax dues reminder service
- ii. Water charge dues reminder service
- iii. Professional tax dues reminder service

2. Interactive Services

- a. EMI payment details
- b. Property tax outstanding dues
- c. Water charges outstanding dues
- d. Property name change details
- e. Property tax assessment request
- f. Registration of mobile number for property tax
- g. Complaint status
- h. Light pole complaint

registration

3. Management Services

- a. Call center
- b. Daily income expenditure SMS to higher officers
- c. Daily grievance management statistics to higher officers

- d. Daily cheque return details to Commissioner
- e. Employee presence registered on face detector to Department Head
- f. NOD (Note of Day) service for officials

3.1 Citizens' Registration for m-governance Services

(as on July 2013)

Out of 8.80 Lacs mobile subscribers, 2.78 Lacs (i.e. 32% of total) are registered with RMC for different services.

Service	Numbers
Property Tax	153190
Water Charges	6438
Birth	65108
Death	28705
Awas Yojna	5840
Profession Tax	12586
RTI	4158
Payment Alert System (Vendor)	2703
Total	278728



Figure 2: Rajkot 24x7 Call Center (Photo credit- Vijay Anadkat)



Figure 3: Anytime Payment Kiosk at Rajkot (Photo credit - Rajkot Municipal Corporation)

3.2 Before and After m-governance

Service	Without m-governance	With m-governance
Property Tax and Water Charges Outstanding dues	To know municipal dues citizen need to stand in long queue .	Just one SMS and immediately information sent to mobile. Citizens are free from queue. This has also increased municipal revenue collection to almost double.
Grievance Management (24x7 Call Center)	Different Call centers for each type of complains, citizen need to remember different phone numbers for different service.	24 X 7 call center, all complain registration at one place, citizen to remember only one phone number.
	Registration of complain manual, high overhead of running different complain centers.	Only one center, fully computerized .
	No 24x7 service.	24x7 service.
	Monitoring of service not possible.	Continuous monitoring, details easily available online, 90% complains are solved within 72 hours.
Birth/Death Registration	No mechanism to know about registration of Birth/Death.	SMS is sent to parents/relative for Birth or Death registration, now citizens visit City Civic Center after receiving alert SMS. So their visit to RMC is 100 per cent successful.
Property Tax/Water Charges Alert Service	Tax payers get transaction information of their property tax/water charges only by visiting the RMC office.	As soon as transaction occurs in property tax/water charges, owner gets transaction alert SMS.
Professional Tax Alert	Professional tax payer get transaction information only by visiting RMC office.	Professional tax payer get transaction alert SMS as soon as a transaction occurs.
Property Tax receipt cancellation alert	Transparency is very important while making any kind of payment. After paying property tax /water charges or professional tax people do not get any information if transaction is cancelled.	Alert SMS send to property tax /water charges or professional tax payers if receipt is cancelled.
Daily Income/Expenditure SMS	No details of daily income / expenditure to higher officials.	Every day higher officials receive SMS for daily income / expenditure .
Grievance Statistics SMS	No details of complaints to higher officials.	Every day higher officials receive SMS for daily solved / registered complaints .
Daily Cheque Return details to Commissioner	Not possible	Number of cheque return drop down to almost 25%.
Presence details registered on face detector to department head	Not possible	Regularity of employees presence.
Payment Reminder Service for 1. Property Tax 2. Water Charges 3. Professional Tax	Not available	With this service RMC has increased their collection by Rs.33 crore and additionally 45000 citizens have paid their dues as compared to last year (Financial year 2012-13).

3.3 Improvement in Efficiency

Interactive Services				
Sr	Service Name	Improvements in Working	Cost Efficiency	Delivery of services
1	Property Tax outstanding dues	Elimination of queues	Deployment of staff to other work, which were responsible to provide such information. Cost saving in manpower, electricity and man management upto Rs.10 lac/annum	Immediate
2	Water Charges outstanding dues	Elimination of queues		Immediate
3	Property Name Change	Elimination of queues		Immediate
4	Property Tax Assessment Request	Citizen on their own send request, no need for paper application. Request registered to database and Tax inspector has to take follow up action.	Manpower is effectively utilised	Service is supported by proper back end process of property tax assessment
5	Registration of Mobile number for Property Tax	Citizen gets quick response on their mobile on property tax dues, receipts etc.	Manpower saving	Immediate
6	Registration of Street Light complaint	It will be easier for people to complain.	Human intervention is removed for complaint registration	Immediate
Alert Services				
1	Vaccination	Fulfilling social responsibility	Implementation of national immunization scheme	Immediate
2	Property Tax Transaction	Citizens are more informed about their transaction	Cost of delivery is almost negligible	Immediate
3	Professional Tax Transaction			
4	Awas Yojna Installment Transaction			
5	Birth & Death Registration	Reduces citizens queries about status of registration	Make RMC's functioning more effective and demonstrate positive impact on citizen's lives	Immediate
6	Bill Payment to Vendors/Contractors	Reduces Vendors / Contractors queries about status of payment	Deployment of staff to other work, which were responsible to provide such information. Cost saving in manpower and man management about Rs.3 lacs/annum	Immediate

Management Services				
1	24 x 7 Call Center	Single contact point for All types of complaint.	Earlier 10 different complaint centers were maintained by RMC. Cost saving of Rs. 60 lacs/annum.	No delay in transfer of complaint to concern officer.
2	Daily Income Expenditure SMS to Higher Officers	Higher Officers are better informed. They get up-to-date and comprehensive information about income and expenditure	This allows Higher Officer to focus on better fund management	Immediate
3	Daily Grievance Statistics to Higher Officers	Higher Officers are better informed. They get up-to-date and comprehensive information about grievance management	This allows Higher Officer to focus on better grievance Management	Immediate
4	Status of complain, pending complain with officer	One can know status of complaints of his area immediately and accurately	This allows Officer to focus on providing better Management	Immediate

3.4 How Does It Work?

3.4.1 Sample Messages

SERVICE	MESSAGE
Alert Services	
Property Tax	<RMC-eGov> Received Rs. 3004 Discount Rs. 263 for Property No 09 /01710/000/000 vide rec.no 001/000/2010/0114615 Pending Amount is 0
Awas Yojna	<RMC-eGov> Received Rs.430.00 for Awas No 002/000/0897 Vide Rec No 2010/27563 for 01-08-2010 To 31-08-2010
Vaccination	<RMC-eGov> Reminder for vaccination-It is time to give <<TT-10>> Vaccination to your Child. Born on 26/06/2000
	<RMC-eGov> Reminder for vaccination-It is time to give <<OPV-0>> Vaccination to your Child. Born on 21/07/2010
	<RMC-eGov> Reminder for vaccination-It is time to give <<Measles & Vitamin-A (Dose 1)>> Vaccination to your Child. Born on 30/10/2009
Birth Registration	<RMC-eGov> Your child Birth Reg.id-2010/0016248/0000 RMC Congratulate you & your family. We suggest you to plant a tree let tree, grow with your child.
Death Registration	<RMC-eGov> Death Registration of your relative is completed vide Death Reg.id-2010/0006669/0000. You can Collect Death Certificate
Professional Tax	<RMC-eGov> Received Rs.2306.00 for RC No PRC0401584 Vide Rec No 2010/05376 for 01-06-2010 to 30-06-2010>>RMC-e-Governance

Service	Message
Account Bill Payment	<RMC-eGov> Payment of -Jnnurm Mission Expenditure of Rs.14800.00 is done By ECS Dt 27-07-2010. Will be credited in your account in 3 days
Receipt Cancellation	Your receipt no 000/000/2009/0150447 is cancelled due to INSUFFICIENT AMOUNT now your pending amount is 3199
Management Services	
Call Center Summary	<RMC-eGov>Call Center Summary for 30-07-2010 Pend Comp 295 Solved 196 Total Pend 1116 Total Solved 38036...Total Comp 48073
Income Expenditure	<RMC-eGov> Income for 27-07-2010->Rs.95.57 Lacs and Exp->Rs.118.95 Lacs. Income till Dt->Rs.16330.86 Lacs.
Cheque Return	<RMC-eGov> Cheque Return Details for 08/13/2012::Property Tax-150350. Total Cheque Return Rs.5008866
Presence Details	<RMC-eGov> Presence Details for Your Department Computer Section. Present 11 Absent 2 Date 08/24/2012=11.48.01
Interactive Services	
Water Charges Dues SMS Format : Water <13 digit connection no>	Outstanding dues for 14 /000050176 is : Rs. 9025.00Discount: Rs. 3385
Property Tax Dues SMS Format : Bill <17 digit PropNo>	Outstanding dues for 13 /11939/000/000 is : Rs. 86610 Discount: Rs. 1686 Net Payable Rs.84924
Property Tax Registration SMS Format : Reg <17 digit PropNo >	Your Property No 22 /06020/000/x00 is linked with your mobile no xxxxx01175
Property Name SMS Format : Name <17 digit PropNo >	Owner Name for 06 /00930/000/000 is : xxxxxxxxxx xxxxxxxxxx VASANT
Street Light Complaint SMS Format : Light <Pole no with Wardno>	Your Comp. for TL Not Functioning is registered by SMS at RMC Call Center. Your Comp. No is 104610
Payment Reminder Service	
1. Property Tax	1. <RMC-eGov> Outstanding dues for 10 /01657/000/000 as on 13/05/2012 is : Rs. 14340 Pay Before 31/05/2012 and Avail Benefit of Rs.940 Amount Payable Rs.13600
2. Professional Tax	2. <RMC-eGov>Profession Tax dues for NATIONAL CORPORATION(PEC0419048) Rs.2400 on 05-06-2013 <<Now Pay by Credit-Card/DebitCard from www.rmc.gov.in>>
3. Water Charges	3. <RMC-eGov>Water Charge dues for 11 /000080200 Rs.1824 on 26-03-2013 <<Now Pay by NETBANKING/CreditCard/DebitCard from www.rmc.gov.in>>

3.5 Outreach:

3.5.1 Facts and Figures

TSR	DEPARTMENT	SERVICES FOR	BENEFICIARIES
Alert Services			
1	Property Tax	Transaction alert through SMS	158312
		Receipt Cancellation Alert	3643
		Cheque Return Alert	497
		Name Transfer Alert	11103
		ECS Reminder	45
2	Professional Tax	Transaction alert through SMS	20450
3	Birth Registration	Birth registration details through SMS	62447
		Vaccination alert through SMS	588850
4	Death Registration	Death Registration details through SMS	27325
5	Awas Yojna Installment	Installment transaction alert through SMS	38123
6	Payment Alert System	Account Payment SMS to Vendors and Contractors	26082
7	Dues Reminder	Property Tax	362142
		Water Charges	1486
		Profession Tax	17449
Interactive Service			
1	Property Tax	EMI Payment by ECS	81
		Property Tax outstanding dues through SMS	31550
		Property Tax Name change details through SMS	1353
		Registration of mobile no for transaction alert	586
		Property Tax Assessment Request through SMS	292
2	Water Change	Water Charges outstanding dues through SMS	2049
3	General	Details of RMC Services	12738
4	Call Center	Registration of Light Pole complaint through SMS	2248
Management Services			
1	General	Daily Income-Expenditure SMS to higher officers	9336
2	General	Daily Grievance Statistics to Higher Officers	10687
3	Call Center	Running of Call Center through SMS	1025812
4	Staff Presence	Presence on Face Detector	14019

4.0 LIMITATIONS & CHALLENGES

- Queues to know municipal tax dues:** Earlier people used to stay in queue for 1-2 hours or more, to get the dues details and then they have to stand in another queue for payment of those dues. Daily 18% interest is charged on pending dues and hence every day the total due was different. With implementation of m-governance, this problem is effectively addressed..
- Creation of Awareness among citizens:** Creating awareness among citizens to use m-governance is a big challenge. RMC has started printing instruction for how to access m-governance services on demand bill and receipt; and also got good support from print and electronic media. Every City Civic Center is having details on signage board on how to access m-governance services.
- Creating logical group of services based on application:** After any new initiative, challenge is to sustain it, for which better management is required. So, based on usage, the services are divided into three groups, namely interactive, alert and management.

- **Opposition from employees:** RMC faced tremendous opposition from field level employees as after registering a complaint, system sends SMS to the concern officials immediately, irrespective of time, so field level staff used to receive complaint SMS at night also. This made them to be compulsorily available on the network 24X7. Another problem was that officials have to update status of a complaint through SMS only. This used to

increase their mobile bill.

To resolve these issues RMC has created priority of complaints and if a complaint is not urgent, then it is sent during day time i.e. from 9am-9pm and for SMS charges, mobile service providers were requested to provide 200 free SMS to each employee.

- **Technical Issues:** Engineers send SMS with 20-30 complaint numbers at a time and due to limitations of technology, not a single status update was done.

It was found that system allows 160 characters in a single SMS. If length is more than prescribed limit, then it is treated as garbage. To avoid such a problem in future, RMC instructed all field staff to send only 10 complaints at a time.

- **Language Issue:** Till date, sending SMS in Gujarati is not possible. But RMC has simplified the text so that a person with little knowledge of English can understand.



Figure 4: Payment for any RMC service can be made at any Post office in Rajkot (Photo credit- Rajkot municipal Corporation)

5.0 IMPACT OF THE PROJECT

1. With Birth or Death registration alerts, citizens now visit RMC office only after receiving alerts. This has reduced frequent visit of citizens to check the status of registration .
2. After Vaccination Alerts, National Immunization Programme is being implemented successfully. As per observation of leading pediatricians and head of Indian Pediatric Association, Rajkot Chapter, Vaccination Preventable Diseases (VPD) is almost nil and vaccination dropout ratio is continuously decreasing.
3. Citizens can know their municipal dues by just sending a SMS to RMC.
4. Grievance redressal has become more efficient and interactive by m-governance.
5. RMC has started payment reminder service for the municipal dues. With payment reminder within short span of three months, more than 45000 citizens have paid their dues which is Rs. 33 crore higher as compared to the last financial year.
2. M-governance reduces gap between Organization and Citizen.
3. Service delivery mechanism becomes more effective.
4. Effectiveness of payment reminder service shows that most of the citizens are ready to pay their dues if proper follow up is made.
5. Vaccination alert has resulted in decrease in drop out ratio of vaccination and Vaccination Preventable Diseases (VPD) has become almost nil.
6. Trust on local government system has increased drastically.
7. It is a win-win situation for both citizen and organization.

Responsive, Intelligent, Transparent and Effective.

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 Computer Society Of India web content: http://www.csi-india.org/c/document_library/get_file?uuid=26268add-691c-46f9-a806-dd955c7cb6c9&groupId=10157
http://www.gujaratinformatics.com/e_Governance_awards.html

Recognition at National and International Level

Rajkot Municipal Corporation has received recognition for successfully implementing m-governance system in the city of Rajkot. Some of the recognitions at national and international level include:

1. Web Ratna Award Platinum Icon
2. CSI Nihilent Award 2011-12 (Award of Excellence G2C Project Category)
3. National e-Governance Award 2011 (for e-Governance)
4. Manthan South Asia Award 2011 (for m-governance)
5. m-Billionth South Asia Award 2011 (for m-governance)
6. Nagar Ratna Award (for 24x7 Call Center)
7. Skoch Digital Inclusion Award 2011-2012 (for Value Added Service)
8. Skoch Digital Inclusion Award 2011-2012 (Multiple Payment Options)
9. EDGE Award 2011
10. E-India 2010 award

6.0 LESSONS LEARNT

1. Reduction in human dependency and lesser human intervention leads to error free administration.

GOOD GOVERNANCE THROUGH CITIZEN ENGAGEMENT: STORY OF HUMARA 103¹

**YUKI AZAD TOMAR
NEETI VAID
GARGI SINGH**

Involving various stakeholders is the key to good governance. People come forward to participate only if they are aware of the structure and benefits attached to it. A communication strategy was chalked out to sensitize local administration and community members about the issues in their ward and the importance of their participation.

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Information and knowledge are nowadays the driving force for decision making in the global society. The mobile phone and internet have become essential tools in our everyday life and have opened new channels of communication between citizens, institutions and administration. They offer greater access to public information and increase citizen participation in urban governance. This paper investigates the role and potential of mobile phones in e-governance, and more specifically e-engagement. We define citizen engagement as a process of participation in state affairs that goes beyond being able to voice an opinion, but also to participate in decision-making processes. Active engagement means being able to seek greater accountability and information through increased discussion and consultation.

1.0 INTRODUCTION

Good governance is not about running a government for five years but it is about reaching to the people. Participation by the governed is the cornerstone of good governance in a democracy like India. Participation could either be direct or through legitimate intermediate institutions or representatives. It is important to mention that representative democracy does not necessarily mean that the concerns of only the most vulnerable in society would be taken into consideration in decision making. It rather means that decision making will be participatory and transparent. This results in freedom of association and expression on the one hand and

an organized civil society on the other, which in turn leads to sustainability. For development to be sustainable, every citizen should have a voice in planning for their welfare. It is vital that the leadership and citizenry be empowered to co-create sustainable and resilient communities for effective results.

Citizen engagement is, at its core, about creating the necessary enabling environment that will ultimately result in long-term social change. And modern technologies can be an amazing tool in reaching this goal. This article stresses the role of the mobile phone in community participation for achieving good governance. The information contained in the article is based on the work done under Research and Development funds of HUDCO in Ward number 103 of Delhi.

2.0 MOBILE PHONES: AN INTERFACE BETWEEN GOVERNMENT AND CITIZENS

What is the rationale to use mobile phones as the new interface between government and citizens? The mobile phone is the first digital Information and Communication Technology (ICT) which has

reached poor households and communities. India is a country where we have more mobile owners than toilets and it is considered as the world's fastest growing mobile market. In fact, it has become the most essential means of communication because of its access, reach and affordability. Due to mobility and network infrastructure, mobile phones have penetrated to areas with infrastructure constraints and no other means to offer public services. Due to their mobility and round the clock connectivity, public services offered via mobile phones are accessible everywhere and at all times. Mobiles are also highly interactive as compared to traditional communication technologies such as TV, radio, brochures, posters, etc. Immediate response and feedback are other important characteristics of mobile phones.

Policy makers and technocrats are gradually recognizing that mobile phones can also be engaged in development activities that previously would not have been possible. Now the big question is, to what extent can mobile phone be used as an ICT tool to allow citizens to participate in urban governance initiatives? There is a growing recognition that good governance requires inclusion and representation of urban stakeholders, as well as ensures accountability and integrity of local government actions. Widespread

access to mobile technology allows citizens to be closer to the government by improving citizen engagement and institutional responsiveness. 'Connected' citizens provide feedback, register their grievances quicker, improving accountability of government officials as well as service quality. By maintaining anonymity of users, ICT eliminates entry barriers for all citizens and allows real-time monitoring of systems and resources, making it easier to expose wrongdoings.

There is a very wide range of potential governance related services which can be delivered and communicated via mobile phones, including services relating to health care, agriculture, education, employment, transportation, law and order, tax, judicial and legal systems, etc. In most cases, the mobile phone is used as a platform to spread information, updates, alarms and notifications related to emergency and disaster management, elections, traffic, weather, etc. For example, an Early Warning System (EWS) and a District Emergency Operations Centre (DEOC) was launched in Alappuzha, Kerala in May 2009. The EWS is using a group Short Message Service (SMS) system to issue warnings about natural calamities and sudden changes in climate to various sections of the public. Fishermen, farmers, police, fire and

rescue personnel and the media are the immediate beneficiaries of the Early Warning System (EWS).

3.0 HUMARA 103: A STEP TOWARDS CITIZENS REACHING TO GOVERNMENT

Citizens want to access good-quality civic infrastructure and public services such as good roads, clean parks and quality schools. But the government often fails to meet the aspirations of the citizens for obvious reasons like lack of finances, manpower and technical capabilities. Humara 103 is a community effort to transform Ward no.103 (Punjabi Bagh) of Delhi. The challenge is to achieve international service standards by active participation of various community based organisations and individuals— resident welfare associations, schools, businesses, associations and public agencies.

Delhi is divided into 5 zones, each managed by a different urban local body viz. East Delhi Municipal Corporation, North Delhi Municipal Corporation, South Delhi Municipal Corporation, New Delhi Municipal Council and Delhi Cantonment Board. The smallest unit for governing civic services is the Municipal Ward. Each Municipal Ward caters to approximately 150,000 citizens of which only an approximate 30 per cent are registered voters. There are 104 municipal wards in Delhi. Every municipal ward is

represented by a Ward Councilor (elected representative). The Ward Councilors together choose the Mayor (voluntary position with a term of 1 year). The executive system of municipal governance is headed by a Commissioner and has different departments responsible for sanitation works, water supply & sewerage, horticulture, engineering, roads, taxation & revenue, licensing, etc. Each constituency for Delhi state assembly consists of approximately 3-4 municipal wards. This seemingly logical and well placed structure of the government is complex in its functionality – and makes action on common issues pertaining to civic services really difficult. The communication chain in such a structure keeps higher authorities far from the ground reality.

The coordination between various institutions is quite a challenge, as a result the delivery of civic services get affected. The challenge is to break the complex reporting system through mechanisms that work. New and affordable technologies like mobile phones and social media can help to bridge information gaps and provide channels for citizens to contribute timely feedback on service delivery and other development initiatives.

With this framework in mind, the Humara 103 initiative focused on increasing the interface between community and institutions

through use of smart technologies for effective delivery of services and continuously monitoring the results achieved. The approach followed was:

- 1) To break the existing complex reporting systems and replace them by simple but effective reporting mechanisms;
- 2) To increase the interface between government and citizens using mobile phone; and
- 3) To evolve mechanisms of participatory governance which gets acknowledged by both administrators and citizens.

To achieve these goals the following initiatives were taken:

1. Identifying the main civic issues in the ward;
2. Identifying resident volunteers from the ward who are willing to participate in the project;
3. Designing communication strategies and material to create awareness among the citizens ; and
4. Holding interactive sessions with citizens
 - a. to make them aware of issues in the ward,
 - b. explain their role in good governance,
 - c. encourage participation,
 - d. Encourage citizen engagement in scoring the lanes on the basis of cleanliness

- and sanitation, and
- e. To award best safai karamchari on the basis of scoring.

3.1 Communication Strategy Framework

THREE PHASES OF COMMUNICATION STRATEGY FRAMEWORK

Phase 1: Advocacy-

To arm influencers and decision makers with the information they need, and to encourage them to take action for positive change.

Phase 2: Raising Awareness-

Designed to raise visibility of the importance of good sanitation and horticulture behavior to build public support and create an enabling environment for change.

Phase 3: Community Participation –

To empower individuals and families to make decisions based on correct information and improved understanding about civic issues and to motivate communities to help create positive social norms.

Involving various stakeholders is the key to good governance. People come forward to participate only if they are aware of the structure and benefits attached to it. A communication strategy was chalked out to sensitize local administration and community members about the issues in their ward and the importance of their participation. A three way communication approach was adopted to cover the full spectrum of people involved. It clearly defined:

- The audience receiving the information (the who);
- The content of the information (the what);
- The methods to be used to convey the information (the how); and
- The approaches to promote action for change (the action).

3.1.1 Phase 1: Advocacy

The purpose of the advocacy phase of the strategy is to mobilize the government, to strengthen sanitation and horticulture programming. Advocacy creates a platform to bring about effective implementation of the programs of the government. The focus of the communication is to promote evidence-based advocacy, to increase knowledge and influence key decision makers. The objective is to galvanize support to translate commitments into concrete actions.

In the advocacy phase the action is on delivering an argument to gain commitment from political leaders

and to prepare society to focus on a particular issue. On its own, advocacy cannot achieve much. Social mobilization and effective communication are also essential to achieve its objectives. The role of advocacy, communication and community mobilization are becoming increasingly valued means of achieving desired results.

The first component of advocacy was creating awareness and gaining the commitment of decision-makers for this cause.

Exclusive Helpline Number

Residents in ward 103 cover a wide economic and social spectrum. There are educated affluent people with access to mobile phones, computers, and tablets and there are people from low socio-economic backgrounds, most of who may

have only one basic mobile phone per family. Keeping the variety of citizens in mind, a helpline number has been set up for community participation in the ward.

3.1.2 Phase 2: Raising Awareness

Mass media is an important medium to communicate effectively with a large number of people by leaving them with a powerful image. It can overcome barriers of literacy and language and it is ideal for delivering a simple, clear and focused message.

It can support community mobilization and interpersonal communication efforts; promote specific behaviours through multiple activities and products,



Figure 1: Promoting helpline number

enhance the credibility of non-professionals such as community volunteers as reliable sources of information and services; convey important logistical information easily, for example, spreading awareness about helpline number to file complaints related to sanitation and horticulture.

In order to promote the helpline number in the community a communication campaign was developed and an awareness drive was conducted in Ward 103. Using entertainment mediums like a special campaign song, street plays, puppet shows, posters, Christmas celebrations, parades and newspaper articles, residents were made aware of the issues in the ward and about the special helpline number and its uses. Media was used in following ways :

- **Print Media:** Print media such as, hoardings, posters and pamphlets were used. In this strategy, mass media was closely linked to reinforce other communication efforts.



Figure 2: Pamphlet to promote the helpline number

- **Help line Number:** The aim of the campaign was to build awareness and create a movement promoting adequate sanitation and horticulture standards in the Ward. A helpline number with support from MCD councillor especially for residents of Ward no 103 has been started. Residents of the ward call on the number for complaints related to sanitation and horticulture issues in their locality.
- **Social Media:** Facebook page (<https://www.facebook.com/mc dpunjabibagh>), YouTube and SMS campaigns were used to engage youth in promoting the campaign and generating awareness. The objective was to initiate a dialogue within the community about the issues of sanitation and horticulture
- **Press Release:** Press releases and video packages have been used as communication tools to generate interest of journalists. An article on 'Addressing Civic Issues through Community Participation' was published in the Hindustan Times, Delhi edition of 8th January 2014.

Many development planners in the third world have appreciated the value of using traditional or folk media as an alternative communication strategy in development programmes. There is a renewed interest in the use of the folk media for development, as newer concepts of development advocated local

participation and integration of indigenous media and mass media. Thus, skits, puppet shows and street play performances were made at different places for spreading awareness.

- **Puppet Show-** Puppet shows were performed at schools and other places in the community. Colourful puppets were used to grab the attention of the viewers. The characterization was done in the manner that the audience could relate themselves to the puppets. Music and songs were added to make the puppet show more attractive. Video puppetry has also been developed to reach more people in a short span of time. Video puppetry was also uploaded on the 'Facebook page' of the campaign and on YouTube for a better and quicker reach.

3.1.3 Phase 3- Community Participation

Community participation was witnessed to be positive with up to 200 people calling the helpline number to report civic issues, in one month. A graphic representation of records of calls made to the helpline number show active community participation in the initiative. The only exception is the month of November when no communication initiatives were taken to engage the residents. This shows that awareness campaigns are important at the beginning of any initiative aimed at community



Figure 3: Informing about the helpline number residents of ward 103



Figure 4: Singing Humara 103 song during the awareness campaign

participation. This is proved by the fact that maximum number of calls per day were made to the helpline number during the awareness drive/campaign.

3.2 System Set – For Citizen Engagement

It was observed that while a lot of residents called the helpline number directly to report civic issues, there were people who shared their complaints with a socially active member of their lane who they considered a bridge between the local government and

the residents. In order to include these stakeholders, a new structure of reporting was designed.

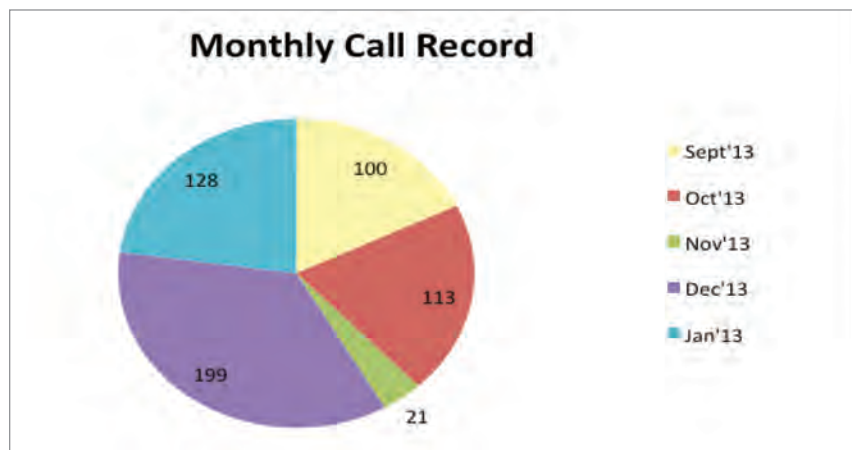
Division of Ward: During elections, every area is divided by polling booths. Each polling booth has a couple of lanes under it. The residents go to vote in the polling booth that corresponds to their area. Utilizing this structure, we divided the ward according to the polling booths.

Resident: The residents can register their complaints by calling the helpline number directly or by

reporting it to their area coordinator. Residents are given a complaint number by the helpline and a constant update on their complaints is provided to them via SMS or email. Once the issue is addressed, they are called back for feedback on the work done.

Area Coordinator (AO): For each polling booth, a socially active member volunteered as a coordinator. The area coordinator registers the complaints of the residents by calling the helpline number. AO is also responsible for coordinating with the Public Service Officer, in the helpline office, for successfully resolving complaints.

Public Service Officer (PSO): In the office of the helpline number, a Public Service Officer has been hired to head the operations. The responsibilities of the PSO are to forward the complaints registered on the number to the respective government departments and to ensure action on the registered



complaints. PSO is also responsible for monitoring the status of the complaints. When the issue is addressed, he/she is responsible for checking the work done by checking the satisfaction levels of the complainant. PSO is encouraged to pursue all complaints to satisfaction. This is done by awarding him a monthly bonus, which depends directly on the number of complaints he was able to successfully resolve to the satisfaction of the complainant. Reports of complaints, the status and satisfaction levels achieved are generated at the end of each month for the local authorities to analyze.

The system makes it easier for the councilor to monitor the performance of the local government bodies. Depending on the number of complaints that were successfully resolved, the Public Service Officer will be given a monthly bonus to promote good work

3.3 Community Participation to Award Best Safai Karamchari

A successful organization can generally trace its success to motivated employees. Increasingly, organizations are realizing that they have to establish an equitable balance between the employee's contribution to the organization and the organization's contribution to the employee. Establishing this balance is one of the main reasons

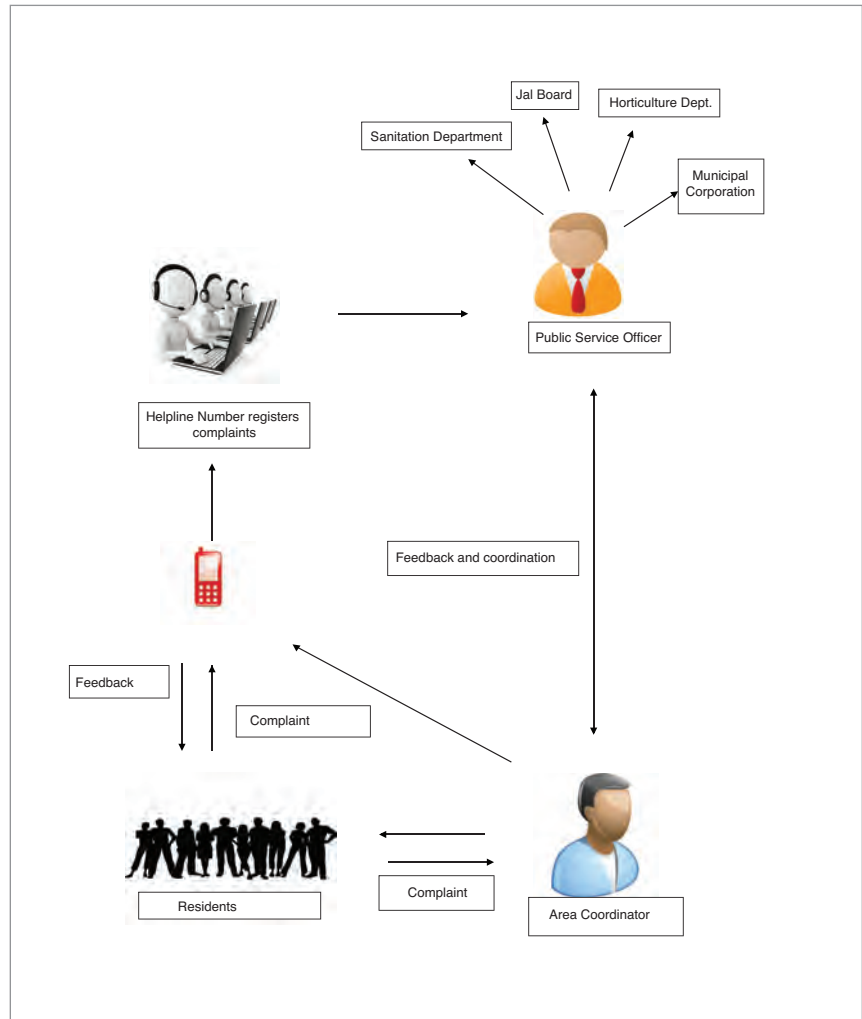


Figure 5: Schematic representation of Citizen Engagement

to reward and recognize employees. At a minimum, the organization expects its employees to efficiently perform the tasks assigned to them and to follow the rules that have been established to govern the workplace. The public worker system in India lacks an incredibly important component i.e. incentives for good performance. People tend to perform better when recognized for their good

performance. While this is a well-embraced concept in the corporate world globally, public sector in developing countries often lags behind.

Bringing the same concept to the public system, crowd sourced citizen sanitation scores were used to rate streets based on their cleanliness. Citizens score the cleanliness of their streets on a



Figure 6: Mrs. S Sirsa MCD councillor of the Ward 103 awarding Ms. Bimla, 'Best Karamchari' trophy

weekly basis on a scale of 1-10. Accumulated data over a period of two months was used to identify the cleanest streets of the Municipal Ward. This data was then used to identify the "Best Karamcharis for the Month" to be awarded to the top 5 consistent performers over the two months.

4.0 CONCLUSIONS

Cities in India have a diverse set of people living in each ward, which is the smallest documented division of a city. Administration of such an area is a challenge as the needs of a very diverse audience have to be met. It is not possible for just a few individuals from government bodies to monitor the administration of such a place. Citizen participation in administration, thus becomes a crucial part for successful

implementation of daily maintenance in a city. Since almost everyone owns a mobile phone, an interactive mechanism, encourages citizen participation.

Increased transparency through ICT at all levels of government can deepen the connection with the public, instill a greater sense of trust, and can lead to increased citizen participation. With a majority of Indians having an access to mobile phones and gradually using internet facility they are looking forward to seek more social interaction with their government. The potential for increased efficiency and social engagement through the use of ICT can help to create the public services for the future that citizens demand and deserve.



"We are the garbage pickers... Nobody ever notices us. For the first time, you noticed us. I have been working here for 20 years and my son never knew what I do. Today, you made my son proud of me. Thank you"

Mukesh, Safai Karamchari

NOTES

¹ This article is prepared on the outcome of HUDCO/HSMI funded Research and Development Project on 'Participatory communication for Ward transformation - Let's do it Punjabi Bagh'

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We would like to express our special gratitude and thanks to Ms. Anita Bhargava for her guidance and constant supervision as well as for providing necessary information regarding the research. We would also like to express our thanks to Mr. Rahul Tomar, President of *Mitr*, for his kind co-operation and encouragement which helped us in completion of this research.

GOOD GOVERNANCE: PROCESSES THAT ENSURE SERVICES ARE PROVIDED AT BEST VALUE

PRATIMA JOSHI
ROSS PLASTER

Community participation is an important component in the implementation of policy and the execution of projects, and by extension an important component of good governance, as it ensures that there is dialogue between the executive apparatus and the beneficiaries who they plan for.

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Good governance can be defined as 'the effective implementation of appropriate policy'. Keeping this in mind, this article describes Shelter Associates' method of facilitating developments in marginalised communities, and advocates for the adoption of the principles of Shelter Associates' model when implementing government programs and providing municipal services. Shelter Associates' model has been refined over a 20-year period in urban and peri-urban contexts and has demonstrated its capacity for enabling the beneficiary community's ascent out of poverty in a timely, tangible, and permanent fashion.

The article references no external sources and draws upon the experience gathered from Shelter Associates' involvement in the process of slum rehabilitation. As an active participant or as a critic of other projects, Shelter Associates has advocated for these principles to be institutionalised in government policy as it is likely to: (1) ensure the effective expenditure of the public sector's resources (both funds and land), (2) maximize the impact of government interventions aimed at addressing the plight of Indian citizens living without access to housing or essential services, and most importantly (3) link public funds with the Shelter Associates model to amplify the benefits already achieved using relatively small private donations.

1.0 INTRODUCTION

This article uses empirical evidence collected as an active participant in the process of slum rehabilitation and observations collected by critiquing other slum rehabilitation projects such as the Basic Services for the Urban Poor (BSUP) as it has been implemented in Pune and Valmiki Ambedkar Awas Yojana (VAMBAY) as it was implemented

in Sangli & Miraj. These experiences and criticisms are organised under 4 categories: (1) data, (2) city-wide perspective, (3) community participation, (4) monitoring, and (5) joined-up thinking. Shelter Associates hold data and practical experience in high regard as opposed to theoretical concepts and hypothetical projects generated from a remote vantage point.

As the phrase good governance can be subject to interpretation, it should be stated at the outset that Shelter Associates' principal concern in relation to the issue of governance is the effective implementation of appropriate policy; the most important words in that definition being 'effective' and 'appropriate'. Processes devised and adopted by Shelter Associates to ensure the appropriateness and effectiveness of its projects are described in the context of two projects which the NGO's are engaged with: (1) 'From slums to housing societies', a city-wide slum housing project which provides homes with security of tenure that is being implemented as part of the Integrated Housing and Slum Development Program (IHSDP) of the Jawaharlal Nehru National

Urban Renewal Mission (JNNURM) in Sangli & Miraj, where Shelter Associates are being supported by the Sir Dorabji Tata Trust and (2) 'One home, one toilet', a city-wide slum sanitation project that provides individual toilets to individual families to address the dire state of sanitation in Pune and is being implemented using grants from private and corporate donors and philanthropy foundations. The projects differ in their scope, type, objective, and funding structure but the concepts which have been built into them to ensure the effective implementation of appropriate ventures are universal and applicable to policy writers and planning practitioners all across India.

2.0 DATA

Data provide the foundation for all of Shelter Associates projects; slum data are methodically collected, meticulously organized using GIS, and presented using Google Earth® as a base map. The spatial organization of slum data is a prerequisite for planning appropriately as it allows an accurate profile of a surveyed area, whether a city, a neighbourhood, or an individual slum, to be generated. Once an accurate profile has been created, the data are analyzed, and conclusions are generated which formulate the approach of the rehabilitation strategies. With an up-to-date and accurate data set, valid theories of cause and effect, or input and impact, can be composed

where input would be the proposed intervention and impact would be the desired result, such as providing security of tenure, reducing open defecation, or increasing a slum family's income.

When composing the city-wide slum housing project in Sangli & Miraj in 2009, slum level data were collected from all the slums across the whole urban area and organized spatially. Once this city profile was created, we saw that there was an opportunity to provide security of tenure to the families of 29 slums with the use of only 7 slum sites. The city profile created using the slum level data showed that of the 29 slums, 7 were on tenable land and 22 slums were in un-buildable zones (situated on land that was reserved for other land uses, or on land that flooded, or on land that was likely to be affected by road widening schemes.) The city profile also indicated that all the 22 slums on land that could not be developed, were within two-kilometres of one of the 7 sites that could be developed. Our planning concept was simple, to redevelop the slums on tenable land to a higher density so that they can become receiving sites for one or more of the slums in their proximity which are on land that is untenable. This way all 29 slums could be included within the rehabilitation process and none of the slum dwellers currently residing in the non-buildable zones will be relegated to the outskirts of the city.

As part of the Pune city-wide slum individual sanitation project, slum level data are also being collected by Shelter Associates for all slums in Pune (approximately 300 slums) and verified on site with the assistance of the slum communities and the administrative ward offices' engineers. This extensive data set permits the most vulnerable slums in each of the 15 administrative wards to be identified and allows for the efficient application of resources. The funds awarded privately to Shelter Associates will be used over a 3 year period (2013 – 2015) to provide 1,500 individual toilets to 1,500 families living without access to improved sanitation and in the most vulnerable settlements across the 15 administrative wards of Pune. The idea being that if a pilot project can be produced in each of the 15 administrative wards, and if the data sets for each administrative ward can be made available to the appropriate administrative ward office as part of a comprehensive toolkit, then the administrative ward officers will be able to prioritise their own sanitation spending and target their own sanitation interventions.

Just as up-to-date and accurate data sets can allow for the composition of policies which can catalyse projects that are appropriate for, and tailored to, the issues of either housing, sanitation, or any other development issue, inaccurate or insufficient data can have the

inverse effect. The draft Pune City Sanitation Plan (CSP) contains heterogeneous data which are inconsistent and ambiguous. The data related to open defecation indicated within the tables of the document does not match with the associated open defecation map, and neither the tables nor the open defecation map correlate with the actual ground reality. This misinformation creates confusion, fails to establish a base line and therefore creates an atmosphere where it is difficult to generate appropriate projects or monitor the impact of any intervention.

3.0 CITY-WIDE VISION

A city-wide vision is as important as data because it affords the opportunity for the impact of a

project to be greater and it allows for the efficient use of a valuable and finite city resource, land.

The central idea of the city-wide slum housing project in Sangli & Miraj, the relocation of 22 slums on untenable land to 7 tenable sites which are being developed to a higher density, was only possible because Shelter Associates had generated an accurate profile of each slum within the city and displayed the information all on one interface. This allowed the slums of the city to be viewed as a city-wide issue and the GIS software allowed data to be interrogated at a city level to create a series of outputs which showed information such as: (1) land ownership, (2) development plan reservations, (3) flooding, (4) or any other data which had been collected. This concept of city-wide

planning and identifying untenable and tenable sites was vital to Shelter Associates city-wide slum housing project as it not only allowed the maximum number of potential beneficiaries who could be included with the scheme but also permitted them to stay within the same neighborhood and not moved to an unfamiliar area of the conurbation or expelled to sites beyond the edge of the urban area where there are very few amenities and essential services and limited access to emergency services.

Had the isolated slum-by-slum approach been adopted where slums are regenerated in-situ, such as the 'kutchra' to 'pucca', such as the projects being implemented in Yerwada in Pune as part of the BSUP of the JNNURM, land would have been wasted because only the 7 tenable slums would have been included in the scheme and there would have been no effort to investigate increasing the capacity of the site to accommodate vulnerable slum dwellers on untenable land within the proximity, or as part of a strategy to provide affordable homes for an increasing migrant population. The typical slum-by-slum, kutchra to pucca, approach is severely limited as it: (1) is unable to address the needs of slum dwellers who reside in non-buildable zones, (2) provides neither a safe nor a healthy environment for its beneficiaries, security of tenure remains lacking and the existing foot print, with narrow lanes, is made more permanent by the transformation of

Shelter Associates and data

Shelter Associates have and maintain 'on-line city profiles' for Pune and Sangli & Miraj on the Shelter Associates web site. Each city profile contains information for all slums within the municipal areas including: the land ownership, the condition of the residences, the condition of infrastructure, and the connection to essential services. The information is available on-line and is free for everyone including the city administration.

In addition to the 'on-line city profiles', the NGO has developed an 'on-line survey system' where all collected data can be inputted, and in September 2013 a mobile application was developed which allows data to be uploaded to the 'on-line survey system' by a surveyor with a smart phone in a slum, ward office, or any other location.

Shelter Associates was the first organization in India to create and use data profiles for planning for the poor and their technology led model for generating appropriate and effective interventions has resulted in various awards: (1) the title of 'Google Earth Hero' in 2007, (2) a grant for winning a philanthropic organizations due diligence process in 2013, and (3) a grant from Google Giving for being 1 of the 10 finalists in the Google Impact Challenge India in 2013.

kutchra houses to pucca structures so the residents continue to be denied access to natural light, natural ventilation, and emergency services, and (3) can actually be considered as detrimental to the city as it blocks precious land that could have been developed to a higher density.

The advocates for a slum-by-slum approach state that slum dwellers should be allowed to remain where they currently reside and should not be evicted and use this as a critique of a city-wide vision which includes relocation of slum dwellers. This is a moot point because slum-by-slum advocates cannot provide a solution for slums in areas which flood or are reserved for road widening or are affected by other development plan reservations, nor can they provide solutions which provide a basic level of access to light, ventilation, and emergency services. Slum-by-slum advocates state that slum dwellers should remain on their existing sites as they are against evictions; Shelter Associates are also against evictions; of the three moves which have happened so far as part of the city-wide slum sanitation project in Sangli & Miraj, two have been peaceful relocations where the slum families dismantled their homes and moved, and one was mainly peaceful but did include the arrest of a few slum lords who were against the project as they had vested interests in keeping the slum as a slum. We have found that when the communities are included within the project as stakeholder

and are involved in the design and decision making process, they are much more receptive to the rehabilitation venture, which in

discredits the administration but it disheartens the intended beneficiaries and represents a waste of public spending.

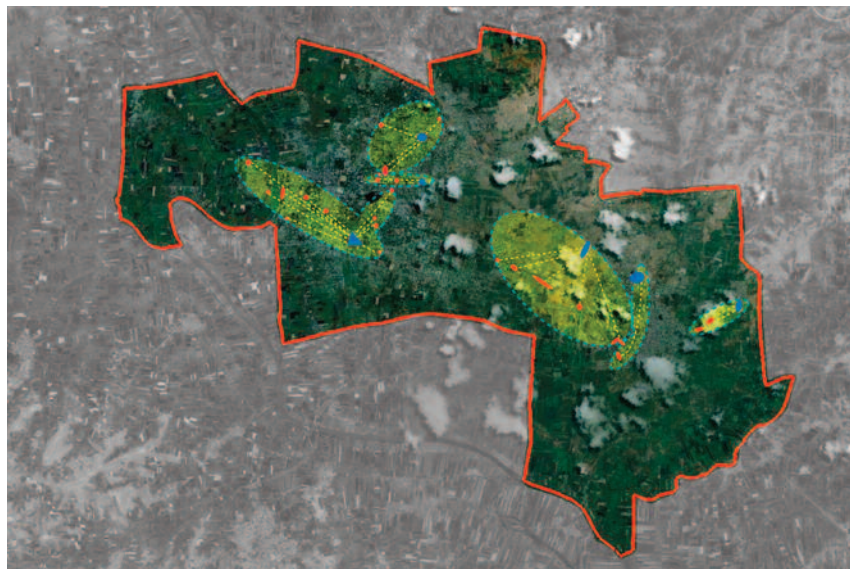


Figure 1: Shelter Associates' city-wide concept for slum housing project in Sangli & Miraj

turn makes the rehabilitation effort much more likely to succeed.

4.0. COMMUNITY PARTICIPATION

Community participation is an important component in the implementation of policy and the execution of projects, and by extension an important component of good governance as it ensures that there is dialogue between the executive apparatus and the beneficiaries who they plan for. An authoritarian approach to governance, and slum rehabilitation, can result in policies and projects which are inappropriate for the conditions and ineffective in terms of the policy's intentions. This not only

A project which clearly illustrates the importance of community participation is a slum rehabilitation project which was implemented in Sangli & Miraj under VAMBAY in 2003/2004. 'Shelter Associates' was not involved in this project but, due to working within the same context, was aware of the detrimental impact that the project has had on its beneficiaries. The VAMBAY project in Sangli & Miraj poignantly illustrates the importance of community participation as the slum communities were not involved in any stage of this project, which is largely the reason why the project has failed to achieve its rehabilitation objective.

The VAMBAY project included the

construction of over 2,000 tenements across 3 sites which were all built on the outskirts of Sangli & Miraj. Once built, although not complete, as the drainage connections had not been carried out, the slum communities were moved from their community within the city to their new homes outside the conurbation. The project pushed the slum communities, who were relocated to 1 of the 3 sites, deeper into poverty as the new homes were remote from the settlement and poorly served by public transport; the VAMBAY beneficiaries have been moved out of the city and are no longer near any of the facilities which are necessary for their existence.

In addition to the lack of public transport networks, they are also no longer close to places of employment, government, hospitals, emergency services, markets, shops, or schools. Thus being relocated to the outskirts of the city has been detrimental to every aspect of their lives; the remote location has affected: (1) their access to income opportunities, (2) their access to government offices, (3) their access to healthcare, (4) their safety, (5) their education and training opportunities, and most worryingly (6) their children's future. This has had presumably unintended, although unsurprising consequences for the beneficiary families; it has been observed that many families with more than one child have had to prioritize their

spending in favour of the boy child if the family cannot support the, now increased cost of sending both the children to school. This is of concern especially when considered in relation to the Millennium Development Goals (MDG's) which highlight the girl child's education as one of the main objectives of addressing poverty (MDG 2: Achieve universal primary school education and MDG 3: Promote gender equality and empower women).

The VAMBAY project, as executed in Sangli & Miraj, is the opposite of good governance because it has failed to be either appropriate to its socio-economic context or end user, or effective in achieving the desired outcome. It could be argued that it has even facilitated an impact that is contrary to the objective implied by the mandate of a slum rehabilitation project; it has

actively worked against its objective. It is an example of an insensitive planning strategy which was generated in isolation from the beneficiary communities and/as a result, has pushed the beneficiaries further into poverty and worse than that, has had a detrimental impact on the beneficiary's successor generation by reducing the education opportunities of the girl child. These issues are all additional to the fact that the design of the houses was worked out without the input of the community and does not suit their requirements and most of the houses, at the time of writing, are still lacking working toilets that are connected to either a septic tank or a municipal drainage line.

Shelter Associates' city-wide slum housing project in Sangli & Miraj is an example of appropriate and effective planning due to its city-



Figure 2: The city-wide slum housing project in Sangli & Miraj - Shelter Associates and a beneficiary community discussing the design of the residential building.

wide approach (explained above, which allows all beneficiary communities to stay within the same neighbourhood, and within reach of employment, healthcare, emergency services, markets, institutions, government services, commerce and education), and because the design of the: (1) residential buildings, (2) individual apartments, and (3) the community centres were all developed in close collaboration with the slum communities and influenced by slum profiles which informed the design process. The government, both the administration and the elected members were also included in the design development as they too were important stakeholders. This level of communication and sensitivity was applied to ensure

that the end product would be: (1) customer centric and suit the nuances of the beneficiary community's culture, the reality of their socio-economic situation and their aspirations for the future, (2) the municipal corporations planning codes and building regulations, and (3) the allocated budget.

The buildings of our city-wide slum housing project in Sangli & Miraj contain 31 residential units in 4 stories; there are 8 families per floor, except on the ground floor where one unit is removed to create an entrance into the internal courtyard, and an area for two-wheeler parking and they feature an accessible terrace at the top of the building. The beneficiary

community supported the design all through the implementation process, especially the idea of an accessible terrace as it will provide them with space that can be utilized for: (1) social functions, (2) informal gatherings, (3) drying papads, (4) drying clothes and cooking utensils and (5) it can be used as a study area for the children; feedback from the beneficiaries during the design stage indicated that the loud slum environment is not conducive to studying.

The IHSDP residential units are all arranged around an internal courtyard and are all accessed via single-loaded corridors. This means that the corridors are shared by very few families so the space can easily be used by the families to:

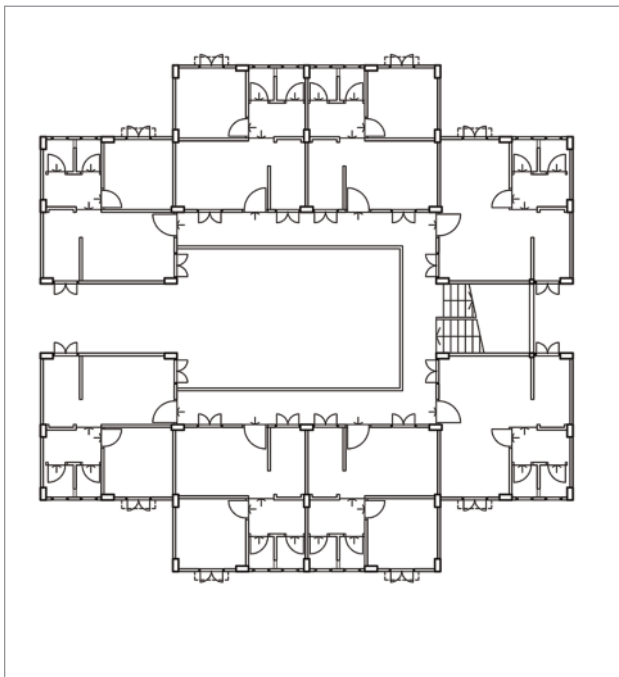


Figure 3: The city-wide slum housing project in Sangli & Miraj - residential units are organised around a central courtyard

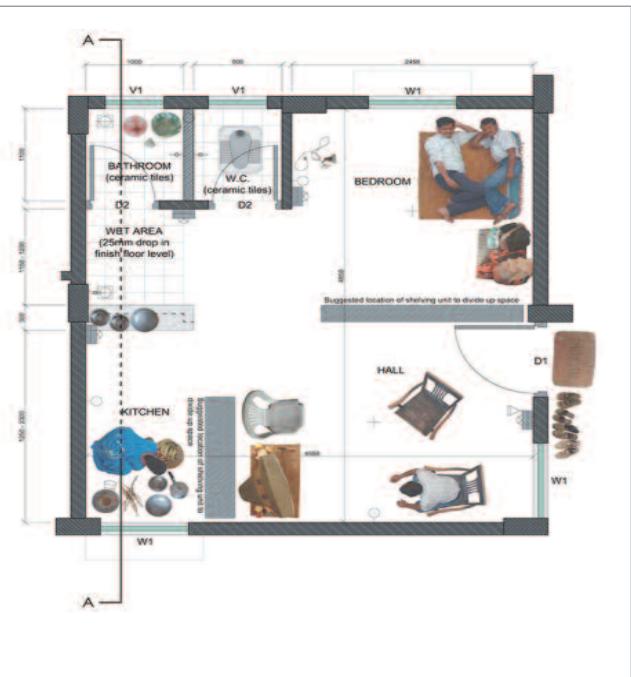


Figure 4: The city-wide slum housing project in Sangli & Miraj - residential units are designed to maximize the use of the 25 m² of floor area



Figure 5: Dattawadi housing project in Pune – beneficiaries have reported increases in their health & safety, economic situation, and employment, education, and matrimonial options

(1) store their chappals (sandals), (2) dry and air their clothes, (3) cultivate plants and (4) use as an external play area for small children. The internal courtyard in the building design also enables the apartments to be healthier and cheaper to run as every unit has an external wall which faces out of the building and an external wall which faces the inner courtyard. This allows windows to be positioned on both sides of the apartment thereby maximizing the potential for natural lighting and natural ventilation. This design means that the need to artificially light or artificially ventilate the beneficiary

family's home has been minimized. The plumbing lines and connections have also been designed to be fit on the external faces and along the main roads; no services are laid under buildings or in any other location which is difficult to access for maintenance purposes.

Designing small homes where space is limited takes skill and the location of: (1) doors, (2) windows and (3) the circulation should be considered. The entrance into the Shelter Associates' residential units has been positioned to minimize the circulation and to maximize the amount of usable floor area

available to the beneficiary family. The VAMBAY units in Sangli & Miraj are a good example of homes where little consideration has gone into their design; the entrance and the cooking area are diagonally opposite to each other in the rectangular plan, meaning that the main space is bisected by circulation, which reduces its usable floor area and its potential. In the Shelter Associates' houses, a window has been positioned directly over the proposed cooking area to ensure that the cook, typically the wife and/or mother, is close to a window should she wish to survey the housing society and

also to ensure that the cooking area is well ventilated. There is a requirement for the cooking areas to be well ventilated as the slum profiles indicated that most women in the slums of Sangli & Miraj typically cook using traditional methods which create a significant amount of indoor air pollution (IAP) which leads to severe respiratory problems. The slum profiles also indicated that the same women have a tendency to cook on the floor, this is why no kitchen platform has been provided in the kitchen layout (although there is space for one, should the family adopt a stand-up method of cooking in the future.)

While the IHSDP beneficiaries are yet to occupy their new homes, the subject of community participation has been proven to be an important factor in the long term impact of rehabilitation efforts in previous projects implemented by Shelter Associates. A slum rehabilitation housing project called Dattawadi, which was constructed in 1996 – 1998 in Pune, placed the same emphasis on community participation in the design (and construction) process, and has resulted in a project where all the original beneficiaries still reside there and have reported that their new houses have had a positive impact on their: (1) health, (2) safety, (3) employment options, and (4) matrimonial options. The slum dwellers have been rehabilitated into a housing society and have ceased to be identified as ‘slum dwellers’.

It should be stated that the funds sanctioned by the Government of India for the IHSDP in Sangli & Miraj, as with all other government projects, did not include a financial allocation for community participation. All the work carried out by Shelter Associates in relation to community participation, the various meetings to explain the project, answer questions, address fears, build support, design the buildings, residential units, community centres, and communicate the various implementation issues are being carried out with the support of the Sir Dorabji Tata Trust. It is important therefore to state that while community participation is a necessary component of good governance, it should be institutionalised as a formal component of the government’s slum rehabilitation policy, which should not only state the

importance and requirement of community participation as an official component of slum rehabilitation policy but also: (1) explain the methodology for actually ensuring that it happens and that it is effective, and (2) ensuring that there is an adequate budgetary allocation.

5.0 MONITORING

Monitoring is essential to the implementation of policy as it allows those in positions of power to ensure the compliance of the government departments responsible for the execution of their instructions. Currently there is no rule in India which makes regular monitoring with the stakeholders mandatory at any level of government.

When preparing the road map for the execution of the city-wide slum housing project in Sangli & Miraj in



Figure 6: The city-wide slum housing project in Sangli & Miraj – A progress meeting taking place to ensure that issues of implementation are overcome.

2011, 2-years after the funds had been sanctioned by the Government of India, Shelter Associates raised this issue with the state government and insisted on the inclusion of a clause requiring the local government, who were, and at the time of writing still are, the implementing agency, to convene a meeting every week with all stakeholders to discuss the progress of the project. The clause was added to the road map and listed those who should be invited as project stakeholders, they were: (1) the municipal commissioner, (2) the city engineer, (3) the slum officer, (4) the NGO/consultant – Shelter Associates, (4) the slum community leaders, (5) allied government agencies, (6) the contractor, and (7) the emergency services, when required.

This feature of the project has been instrumental in overcoming problems of implementation, as the meeting provides a forum for all stakeholders to come together and discuss the issues and make decisions in a transparent and accountable manner.

6.0 JOINED UP THINKING

Communication and co-ordination between the executive and the political sides of the government as well as the different departments within the administration, especially between housing departments and infrastructure (transport, water, drainage, electricity) departments is important for the implementation of effective policy.

The result of un-joined up thinking is that housing policies are framed in isolation of infrastructure policies and do not support each other, such is the case with VAMBAY house in Sangli & Miraj where the new housing has been completed and the infrastructure, the public transport networks and the drainage connections for the toilets are in the best case lagging behind, and in the worst case not planned at all.

7.0 CONCLUSIONS

To conclude, it can be said that 'Shelter Associates' has developed a methodology of implementing projects which are: (1) appropriate for their intended users, and (2) are effective and sustainable.

It is hoped that our experience and projects, which are documented and available on our website, can demonstrate the value of institutionalizing: (1) data collection, (2) a city-wide consciousness, (3) community participation, (4) monitoring procedures and (5) joined-up thinking when composing and implementing government policy. It is also hoped with equal measure that governments will be aware of the consequences of not applying these concepts and learn from experiences of the BSUP in Pune and VAMBAY in Sangli & Miraj. A lack of monitoring results in projects that do not take off, or progress timely, or are implemented to a substandard quality, and a lack of community participation can result in damaging projects; such is

the example of VAMBAY house in Sangli & Miraj which has pushed many Indian citizens from poverty into penury.

The current slum rehabilitation policy, Rajiv Awas Yojana (RAY), goes some way to realising the integration of these concepts of good governance but unfortunately this policy document fails to institutionalise the requirement for monitoring and does not explain how to ensure community participation. Shelter Associates believes that the concepts advocated in this article, as the standards of good governance, should be an integral part of the training of government officers and reified into the next slum rehabilitation policy, or adopted as an associated statutory document, to ensure that the Government of India, the state governments, and the municipal corporations, all satisfy their duty associated with their station and their implicit obligation, as resource managers and service facilitators, to Indian citizens living in poverty.

There is a dire need to create strong linkages between the central, state and urban local bodies. Regular review meetings at all levels must be made mandatory whereby there is accountability built into the system from the ULB to the central government. These meetings must mandate participation of all stakeholders including NGO's and community representatives.

HOUSING MARKET AND THE POOR IN MUMBAI

DR ABDUL SHABAN

In some wards of Mumbai, the prices during 1993-2010 have appreciated more than 12 per cent per annum and have been as high as 28.6 per cent. In South Mumbai and Bandra, in western suburb, the residential flat prices were as high as ₹ 75,000 per sq. ft. in 2010. This shows that wages are not keeping pace with the rise in real estate prices.

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A majority of population in Mumbai lives without proper shelter. The lackadaisical public policy for a long time towards housing, has led the marginalized sections to create slums and live in the sub-human environment. The enormous flow of the capital from industry to real estate in the city is not able to produce housing for all. In fact, the market reforms and rising real estate prices have further increased the vulnerability among the marginalised sections with respect to housing. This paper shows that where the real estate has been a leading sector in propelling the economic growth in the city, in many ways this growth has been irrelevant and counterproductive to the interests of the poor.

1.0 INTRODUCTION

Mumbai has undergone considerable restructuring of its economic and industrial sectors in recent years. Once famous textile industries in the city have disappeared leaving its labours astounded and spatially fixed. The industrial use of lands are giving way to financial, trade and housing sectors. However, the enormous flow of the capital from primary circuit (manufacturing) to secondary circuit (built environment) is not able to produce housing for all, and shelter in the city remains a major issue. Although, politics of shelter has been a way to garner the vote from the marginalised majority (the poor) in the city, nothing significant has been delivered to reduce the homelessness, enhance affordability

among the weaker sections, or decongest the over-crammed rooms through improved planning. In fact, the market reforms and rising real estate prices have further increased the vulnerability among the marginalised sections with respect to housing. In this paper an attempt is made (a) to examine changing housing prices in the city and public housing policies, (b) to understand the impact of these on the marginalised sections and their increased decentralisation or peripheralization from the city core/nodes, a larger process of city restructuring. The paper is divided into four major sections. Section 2 discusses the rise in real estate prices in the city by wards and in comparison to wages of the factory workers. The section also briefly examines the role of government of Maharashtra and institutions created by it with regard to the provision of affordable housing to the city dwellers. Section 3 discusses the rise of slum population in the city due to failing shelter policy of the government, while the last section sums up the paper.

2.0 SHELTER IN THE CITY – A DREAM FOR THE MAJORITY

Increasing population, lack of land supply, and lackadaisical govern-

ment policy response have created considerable housing and shelter issues in the city. The prices of the houses in the city have increased enormously over the years and have gone beyond the reach of average citizens. The ratio between the index number of earning of factory workers in Maharashtra and price of residential flats in Mumbai provides further insight into the issue (Table 1). The ratio has considerably risen over the years. Notwithstanding the rise in income of factory workers, the comparatively higher rise in real estate prices have dashed the hope of the working class to own a house in the city. During 2003 and 2010, the prices of real estate in the city have appreciated 3.1 times relative to the wages of factory workers. Only in the eastern suburb of the city, the appreciation in real estate prices was slightly lower while it was the highest in the city district. The Figure 1 shows that growth rate in real estate prices in the city has been significantly higher in all the property tax wards.

The prices during 1993-2010 have appreciated more than 12 per cent per annum and have been as high as 28.6 per cent in some wards. In South Mumbai and Bandra, in western suburb, the residential flat prices were as high as ₹ 75,000 per sq. ft. in 2010. This shows that wages are not keeping pace with the rise in real estate prices. As against the cost of the residential flats, the average family earnings of the average citizens remain at only Rs. 5,000 per month (at 2007-2008 prices) and many of them work well

below poverty wages (Jain and Shaban 2009; Sujata and Shaban 2008; Sharma et al 2008; Shaban 2010). This forces them to squat on public land and trade their goods through hawking and vending. Given such a situation, the housing

market in Mumbai, in fact, denies any access to formal housing to a large majority of its citizens (Sharma 2007: 291).

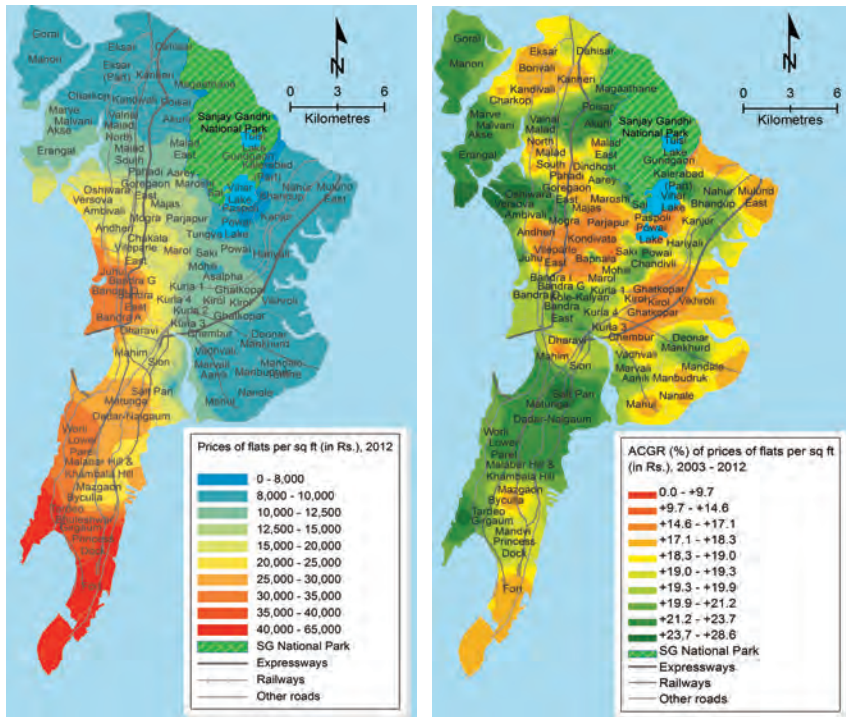
The archaic Rent Control Act 1974 (amended several times) has also resulted in rapid obsolescence of

Table 1: Comparison of earnings of factory workers and prices of residential flats in Mumbai.

Wages/Prices/Index		2003-04	2009-10
Average annual wages of factory workers*	Rs. per annum	71,778	1,03,000.0
	Index no. of wages	100	143.0
Average price of flats in Gr. Mumbai (Rs) [§]	Rs. per sq.ft.	3,725	16,726.0
	Index number	100	449.0
Average price of flats in Mumbai District (Rs) [§]	Rs. per sq.ft.	6,872	32,889.0
	Index number	100	478.6
Average price of flats in Western Suburb (Rs) [§]	Rs. per sq.ft.	3,726	16,592.0
	Index number	100	445.3
Average price of flats in Eastern Suburb (Rs) [§]	Rs. per sq.ft.	2,269	9,494.0
	Index number	100	418.4
Flat price index - wage index ratio (2003 and 2010)	Gr. Mumbai	-	3.1
	Mumbai District	-	3.3
	Western Suburb	-	3.1
	Eastern Suburb	-	2.9

Source: * Government of Maharashtra, 2005, 2012. § Times of India (2003, 2010).

Figure 1: Price of residential flats and its annual compound growth rate (ACGR) by property tax ward in Mumbai, 2003-2012.



Note: The data related to residential flat prices available from Times of India have been adjusted to property tax wards.

Source: Based on data from the Times of India (2003, 2012).

buildings in the island city. Most of the buildings constructed in the 1940s and 1950s require repair and maintenance. It is estimated that there are about 16,502 buildings in the city built before 1940 (Janwalkar 2006) which are in a dilapidated condition; some of them have collapsed in recent years, killing a number of persons. A judgment passed by the Supreme Court on September 4, 2008, has paved the way for the redevelopment of these buildings by providing extra floor space index (FSI) to the builders who now can profitably build the structures and make available to every resident family of the

buildings a 225 sq.ft. (now 269 sq.ft.) flat free of cost (Mahapatra 2008). The decision by the court ushers in hope for redevelopment of dilapidated buildings in south and central Mumbai.

The government's inadequate response and skewed policies are responsible for the housing crisis in the city. It is estimated that until 2001, Bombay Housing and Area Development Board (BHADB), the unit of Maharashtra Housing and Area Development Authority (MHADA) for Mumbai region, had constructed some 1,23,774 housing units of which 47,000 were for the

low income and economically weaker sections, 68,000 for the middle income group, 29,600 were under the Subsidised Industrial Housing Scheme (SIHS), over 17,000 under slum clearance scheme, and 18,000 units under other schemes. MHADA has developed over 57,000 plots under various schemes, of which over 50,000 were meant for the economically weaker sections (Sharma 2007). The available land to MHADA has been rapidly shrinking. The housing board has a large tract of land within Mumbai, but about 1,500 hectares is occupied by its 105 housing colonies. Most of the remainder is encroached upon, leaving MHADA with very limited land available for development of public housing in the city.

In order to get land for affordable housing [affordable houses are defined as having 27.88 square metre carpet area for Economically Weaker Section (EWS), upto 45 square metre carpet area for Lower Income Group (LIG) and upto 80 square metre carpet area for Middle Income Group (Mahada 2013)], MHADA has proposed to initiate joint ventures with private land owners and developers in the city. Under this scheme, if land owners/developers having a plot of minimum of 2000 square metre area transfer their land in the name of MHADA, then MHADA will get higher FSI sanctioned over the existing zonal FSI of 2.5. The additional FSI will be shared equally between MHADA and the developer/owner.

Developers/owners may also handover this FSI to MHADA in a built up form for which MHADA will pay the cost of construction to developers/owners, based on district schedule of rate (DSR), towards construction cost or carve out the proportional land of MHADA share for self-implementation scheme by MHADA (MHADA 2013a). However, this scheme is unlikely to make any significant impact as the DSR are much lower than what the developers can get from the open market.

Mumbai was expecting a massive respite from congestion due to the availability of about one-third of some 600 acres of land from 60 mills for open space. But this has suffered a setback due to the state government's active lobbying for the mill owners and changes in Development Control Regulations (DCR), 1991. Mumbai has open spaces of only about 0.03 acres per 1000 persons. Recommended open spaces at the international level are often 4 acres per 1000 persons. The availability of mill land was expected to somewhat correct this lopsided statistic. It was widely believed that Mumbai would get 400 acres (160 ha) for open space and for public housing. The Supreme Court ruling of March 7, 2006, however, awarded much of the land to builders. Of the 600 acres only 133 acres have been provided for open spaces and public housing (Katakam 2006).

The controversy over the sale of mills land dates back to 1991 when

the government, in response to pleas by mill owners, introduced Section 58 in the DCR, 1991, better known as the 'one-third formula'. The Section 58 allowed mill owners to divide the entire mill land into three parts. They could then sell one-third, give the second part to the MCGM to create open spaces and the third to MHADA for providing affordable housing to the families of mill workers who lost their livelihoods due to closure of the mills. In 2001, however, the state government used a loophole in the Maharashtra Regional and Town Planning Act, 1966, and amended the DCR, according to which only land that is vacant—that is, with no built up structure—shall be divided under the one-third formula. Thus the mill owners managed to keep the bulk of the land, and the area to be given to the municipal corporation and to the workers was substantially reduced (Katakam 2005, 2006).

Till now MHADA has received 15.78 hectares of land in 36 mills and taken physical possession of 27 mills at 22 places admeasuring 9.69 hectare. Approximately 24,500 tenements can be built on 15.78 hectare of land out of which 16,500 tenements will be for mill workers and 8,000 for transit camp residents (approximate distribution between mill worker and transit resident is 2/3:1/3). The carpet area of each tenement for mill workers and transit is maximum 225 sq.ft. as per DCR provision.

The construction work of 10,165 tenements on 11 various locations

is completed. Towards this, MHADA has got approval for construction of 12,000 tenements on mill land (MHADA 2013b).

The political bargaining and competition within the city has been able to assure some housing schemes for the poor in an otherwise neoliberal regime. In early 1990s, in order to win votes of the majority of the population in the city, the Shiv Sena Chief, Bal Thackeray, had announced a million free houses for the slum dwellers. The Shiv Sena in alliance with the Bhartiya Janata Party was able to secure a majority in the state assembly poll in 1993. To fulfil their election promise, the alliance attempted to provide houses for slum dwellers through cross-subsidy under the Slum Rehabilitation Scheme (SRS) in 1997. The transfer of development rights (TDR) was granted to the builders who came forward to develop slums and provide flats of 225 sq.ft. (now 269 sq.ft.) carpet area free of cost to the dwellers. A total of 1,54,022 tenements, till date, have been allotted to slum dwellers under this scheme (SRA, n.d.). The scheme had good response from slum dwellers at the beginning. However, it has also generated a lot of corruption in the related government departments and political system. There have been cases of corruption against the Slum Rehabilitation Authority (a wing of MHADA which looks after the Slum Rehabilitation Scheme) for favouring builders connected with

politicians from the city through TDRs.

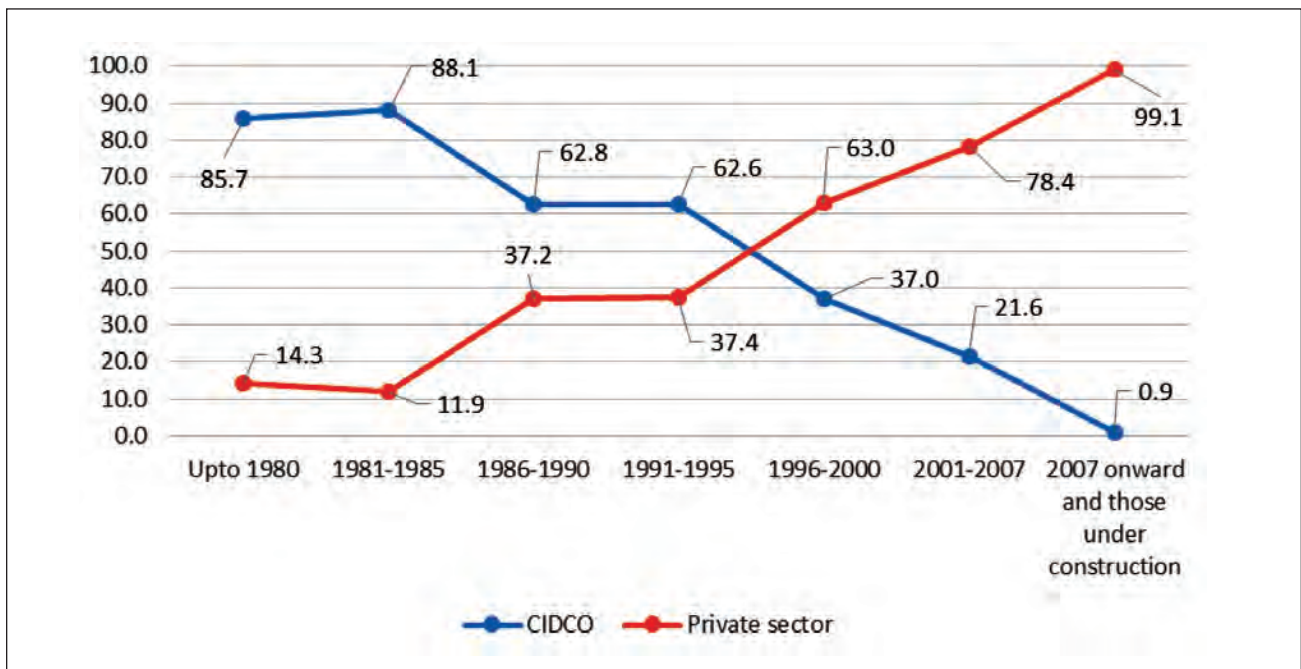
Rajiv Awas Yojna (RAY) launched in 2009, envisions in situ and cluster development of slums and making the city slum free by providing 269 sq.ft. carpet area tenements to a family living in a slum. It also proposes to transfer the property right to slum dwellers. Of the total cost of tenements, it is proposed that 50 per cent will come from the central government, 40 per cent from the state government and the rest 10 per cent from the beneficiaries. Mumbai is gearing up to implement the project and Municipal Corporation of Greater Mumbai (MCGM) has initiated the process of identifying slum dwelling by aerial survey

and socio-economic survey of slum households. However the task before MCGM is huge, as more than 60 per cent of the total population of this largest city of the country lives in slums on approximately 8 per cent of land, and will need to be largely housed on this 8 per cent of the land.

On the mainland, across the Thane creek, City and Industrial Development Corporation (CIDCO) has been planning and constructing a new city, Navi Mumbai. It is estimated that CIDCO by 2012-13 had constructed some 1,23,577 housing units, of which some 51 per cent housing units were meant for the economically weaker sections and lower income group, while 26 per

cent was reserved for MIG and 23 per cent for HIG (CIDCO 2013). Navi Mumbai did ease some housing problems in the city, but as CIDCO itself largely withdrew from creating low cost housing since early 1990s and started relying on builders, the dream of the common man in the city for low cost housing or a shelter got a rude shock. As can be seen from Figure 2, the share of CIDCO in housing stock creation has declined to mere 0.9 per cent in post 2007. The private sector constructed flats are offered on premium prices and are well beyond the affordability of the common man. Additionally, as mentioned above, most of the housing stock created by CIDCO in recent years

Figure 2: Percentage contribution to housing stock in Navi Mumbai by CIDCO and private sector



Source: Based on data collected from CIDCO Office, Navi Mumbai.

has been for the upper and middle income groups. In many ways that is against the basic premise on which the CIDCO was set up (Shaw 2005).

The nexus between politicians, builders, and crime mafia in the city has added to the problem of affordable housing in the city. Most of the land meant for housing for the poor is often either diverted to some other purpose (as in the case of mill land) or not developed. “The housing market in the city best represents the political economy of Mumbai, with its base in creating wealth by any means, resulting in vast structural inequalities in the system” (Sharma 2007: 286). The land and built structures in the city are primarily used for speculation. “It is estimated that, at any point of time, over 15 per cent of the newly constructed housing units remain vacant for such speculation” (Sharma 2007: 292). As builders and politicians protect interests of each other and earn huge sums of money, the crime mafia and underworld are also attracted to the business. The crime mafia is able to extract huge sums of money from builders. It is claimed that the crime mafia has been more effective in regulating and controlling builders in the city than the government (Shaban 2010). Various rival criminal gangs operate in the city and extract booty from builders as protection money. Given the economic returns from this sector, criminals deploy their intelligence

to gather related information. It is estimated that over 5,000 youth are employed by various criminal gangs to collect information on real estate and business projects, carry out extortion, threats and even kill those who defy the dictates of their gang leaders (Sarkar 2002, Shaban 2010).

3.0 SLUMMIZATION OF THE CITY

Another peculiarity of Mumbai city has been the size of its slum population. High real estate prices, government apathy and bureaucracy on many fronts and lower wages have undermined the city’s development. This has resulted in the amassing of the population in slums. As per Census 2001, about 54 per cent of Mumbai’s population was living in slums. The available data from population Census 2011 shows that 41.3 per cent of the households in the city (Greater Mumbai) live in slums. Many claim that Census of India data undercount their actual number and do not reflect the actual situation in the city. Going by this claim, the proportion of population living in slums in Mumbai is estimated to be about 60 per cent of the total population (Shaban 2008).

Slum living, large families and dense population have implications for crime and deviance. Densely populated areas weaken informal and formal modes of control. A

large family with limited resources often results in family disruption and decreasing formal and informal social control. Communities with a higher level of social disruption tend to be characterised by a lower rate of participation in voluntary organisations and local efforts which have an important role to play in controlling crime. Overcrowding in houses means that personal matters are difficult to be kept private in domestic life (Shaban 2010). “Husbands and wives cannot keep their intimacies or arguments a private matter that others can at least pretend didn’t happen...Fathers are seen in their underwear, mothers while in labour, sisters during their period... Sometimes there are disclosures that can lead to serious consequences: abortion, incest, illegitimacy, adultery and narcotics scars” (Suttles 1968: 91).

The slum population is not evenly distributed in the city. The highest concentration of the slum population is found in the eastern suburb which is the least developed part of the city (Shaban 2010). The peripheral areas like Mankhurd, Govandi, Deonar, Vikhroli, Bhandul, Chembur, have a large share of their total population living in slums. Higher concentration of slum population is also found along the Sanjay Gandhi National Park (SGNP) where the poorer sections of the population find it easier to encroach upon the forest or SGNP land. However, the eviction laws by

the government have been strengthened over time and those living in unregularised shanties and slums often remain under threat of eviction in the city.

4.0 SUMMING UP

A majority of population in Mumbai lives without proper shelter. The lackadaisical public policy for a long time towards housing, forced the marginalized sections and migrants to create slums and live in the sub-human environment. In recent years, the neoliberal approach to urban development has propelled up the flat prices so much that the housing has become unaffordable and gone beyond the reach of the lower income groups. SRA which had created much hope for affordable and free housing is sinking into the quagmire of corruption and becoming a tool for extortion by the builders, bureaucrats, politicians and slums lords. Navi Mumbai which was planned to act as counter magnet and to decongest Mumbai by offering affordable housing to Mumbai's residents has also seen steep rise in real estate prices and CIDCO has almost shunned its role of providing affordable houses. In fact, the three major agencies MHADA, CIDCO and SRA have become largely irrelevant to the common man for whom they were created, as they have largely favoured the private sector, which is unable to deliver the housing to the common man at an affordable cost.

In sum, where the real estate sector has been a leading sector in propelling the economic growth in the city, in many ways it has been irrelevant and counterproductive to the interest of the poor. Public institutions created to enhance the housing stocks, especially for the weaker sections, like SRA, MAHADA, and CIDCO have got reduced to market agencies with their roles significantly compromised.

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MENU DRIVEN SLUM REHABILITATION: A PRACTICAL DESIGN APPROACH ¹

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Common terrace on each floor compensates for the space constraint and also increases interaction among residents. This space could also be used by residents who run household industries or for spill over household activities.

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Several of the slum rehabilitation programs that have been drawn up in the past in India have failed to succeed. Slum dwellers have been found to abandon their allotted dwellings. As Rajiv Awaas Yojna is launched into its implementation stage with the vision of a slum free future for Indian cities; it becomes essential to develop practical solutions that would accommodate the needs and preferences of the slum dwellers. Rajiv Awaas Yojna advocates 'micro-planning' which calls for tailor made interventions for each slum. This study tries to understand the needs and preferences of the slum dwellers and suggests some practical solutions to accommodate the same. The study is based on surveys conducted in the city of Howrah, located in the state of West Bengal in India. Surveys were conducted in five slums to understand the 'needs' and 'wants' of the residents. The present living conditions, nature of dwellings and lifestyle was studied. Correspondingly their preferences were noted. Based on this design solutions were developed for three types of interventions; namely, in-situ slum up-gradation and improvement, in-situ redevelopment and relocation. The study includes demonstrative solutions which clearly outline how such interventions can be executed on the micro level in slums and the costs that are likely to be incurred by the state and the beneficiaries.

1.0 INTRODUCTION

Over the years, several slum redevelopment programs have been drawn up and executed in our cities. Several of those projects have failed. Slum dwellers have abandoned their new homes and returned to their old ways. As we reach the implementation stage of Rajiv Awaas Yojna², it becomes necessary to modify our approach. RAY

envisages a slum free future for our cities. This demands tailor made interventions for each household in each slum. These interventions should accommodate a variety of designs for planners and dwellers to choose in different condition. This study tries to understand the dwellers' needs and suggest some possible solutions to problems which may arise during execution of RAY.

The study is based on surveys conducted in the city of Howrah, located in the state of West Bengal in India. The purpose of these surveys was to access the present situation and to understand the priorities and preferences of the slum dwellers in Howrah. As per the USHA surveys³ conducted in 2011 there are 565 slums in Howrah. The urban local body needs to draw up redevelopment options for each of these slums. Based on their present status, it may be said that broadly three types of interventions may be applied to the slums; namely, in-situ slum upgradation and improvement, in-situ redevelopment and relocation. This paper highlights some design options for each of the interventions.

Table 1: Description of selected slum

Name of slum	Basis of selection	No. of households	Age of Slum in years	Avg. Household size	Distribution of Dwellings based on type
Indira Colony	Infrastructure upgradation under previous program	273	40	3.52	Kutcha= 63% Semi pucca = 36% Pucca = 1%
Nepali Para	Infrastructure upgradation under previous program, migrant population from Nepal	183	50	3.88	Kutcha =50% Semi pucca=45%, Pucca = 5%
Ichapur para	Govt. resettlement colony	160	6	3.6	Pucca = 100%, 25 sqm flats allotted in G+3 structures
Khaldhar Muslim Para	Minority Slum, Untenable land	36	10	4.8	Kutcha = 8% Semi pucca = 92%
Round tank lane slum	Selected for pilot project of RAY, Migrant population from neighbouring states	430	30	4.14	Kutcha = 10% Semi pucca = 85% Pucca = 5%

2.0 METHODOLOGY

Data were collected through primary and secondary sources. USHA survey data comprise basic data on demographic condition of the dwelling units and status of the existing infrastructure of all the surveyed slums. This helped develop a slum profile of Howrah. Using this data, five slums were selected in which primary survey was conducted. Primary surveys included slum respondent surveys and focus group discussions. The five slums were selected in such a way as to generate a comprehensive idea about possible scenarios and priorities of various ethnic groups and communities residing in

different slums. Given below is a brief description of the selected slums.

The slum respondent survey questionnaires collected factual, perceptual and preferential data from selected slums.

- Factual data comprised basic socio- economic data, condition of dwelling unit and status of infrastructure.
- Perceptual data – Residents were asked to rank their level of satisfaction on a 5 point Likert scale with their dwelling unit, sanitation and sewerage, water supply, access road and community facilities. For slums which have undergone upgradation of resettlement

before, the impact of such intervention was noted. Changes in income, employment, expenses and access to facilities was studied.

- Preferential data comprised of the residents' future expectations and priorities. They were asked to rank their priorities on a scale of 1 to 5. Priority factors included dwelling unit, water supply, sanitation, drainage and community facilities. The dwellers were also asked about the type of dwelling unit they preferred like detached, semi detached, row housing, swalkups etc. and their willingness to pay.

Sample size was calculated based on

90% confidence level and 10% confidence interval. During the surveys the layout of slums were noted and rough maps were prepared showing the distribution of kutcha, semi-pucca and pucca dwellings.

The focus group discussions were held to understand the community level dynamics. This helped to identify how closely knit the communities are. During such discussions, community volunteers were identified, who would help in mobilizing the community. These volunteers would then be allotted 30-40 households. They would note the deficiencies in each dwelling unit. Later when the design solutions are prepared for the households, the volunteers would

explain these interventions and get them approved. Only when designs are approved by at least 70% of the residents, would it be applied.

3.0 WHAT DO THEY NEED?

Before we begin devising design solutions for our users, who in this case are slum dwellers, it becomes necessary to understand their lifestyle and their needs. Only with an adequate understanding of their “needs” can we provide for their “wants”. Slum dwellers have a certain lifestyle which is intrinsically linked to the type and layout of their dwellings. Resettlement would definitely alter this lifestyle. Though it might be expected that this change would be

readily welcomed, its implications might not always be positive. The proposed design should therefore take into consideration the needs and habits of the dwellers. For instance, the slum dwellers residing in shanty hutments use outdoor spaces as an extension of their dwelling for several activities. This includes household industries. Such outdoor spaces are lacking in walkups.

USHA surveys indicate that only 26% of the slum dwellings in Howrah are pucca. 56% are semi pucca while 18% are kutcha. Majority of the dwellings (41%) are rented. Only 19% of the dwellings have a roof slab, while the rest are tiled or covered with roofing or

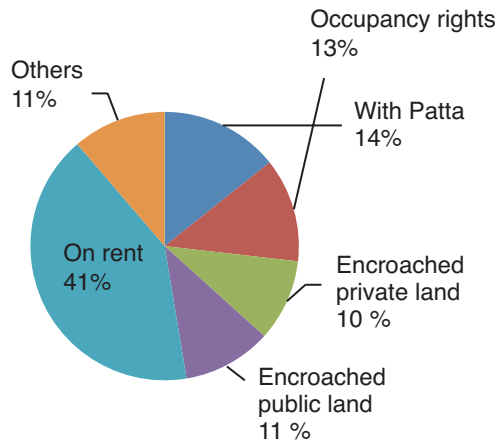


Figure 1: Ownership status in Howrah slums

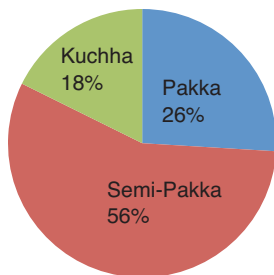


Figure 2: Type of Dwellings in Howrah Slums

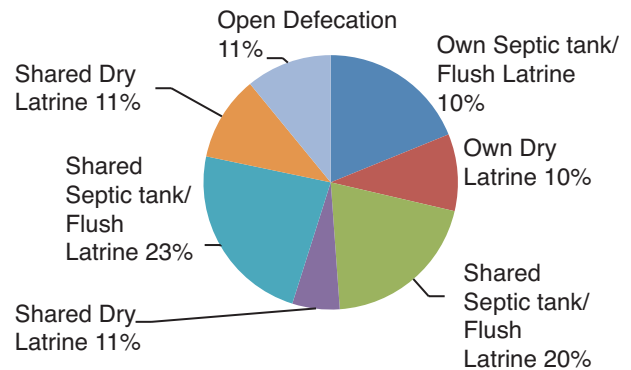


Figure 3: Sanitation facilities in Howrah Slums

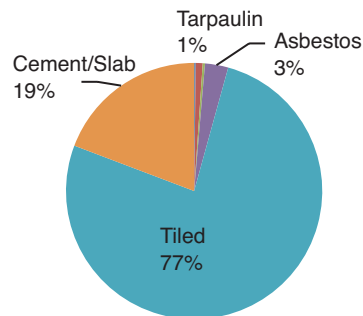


Figure 4: Roofing material used in slum dwellings

plastic sheets. About 29% of the slum dwellers have access to their own toilets. 60% use shared or community facilities while 11% have no access to proper sanitation facilities. Figures 1-4 summarize some of the basic findings from USHA surveys conducted in Howrah.

Space is probably what lacks the most. On an average the dwellings in Howrah's slums are 18 to 25 sq m in area. They lack storage spaces. Cooking activities have to be accommodated within the living room due to the lack of a separate kitchen area. Sometimes such activities are carried out in the alleys or open spaces abutting the hutment. Figures 6 and 7 show some of the activities carried out in front open space. Indira Colony had a number of household industries operating in such open spaces. In addition to the USHA survey data, detailed surveys were conducted in five slums. Table 2 shows the distribution of dwellings in the slums based on the average built up area. It is quite evident that 82.8 %

of the dwellings are below the 25 sq m standard. It should also be noted that 79.4% of the dwellings have only one room. Though RAY prescribes 25 sq m as the minimum size of a dwelling unit, it may prove to be insufficient living area in many cases. Table 4 outlines the distribution of households in the slums on the basis of household size. It was found that 78.4 % of the households had more than 3 members. 43.84% had more than 5

members in their household. Such large families are to be accommodated within the standard 25 sq m dwelling unit.

The last slum redevelopment project executed in Howrah was in 2006 under the BSUP program. Three hundred and twenty households were relocated and provided dwellings in G+3 walk-ups in the Ichapur area of Howrah. Each unit was 25.08 sq m in area. Six years later, when this slum was

Table 2: Average built up area of dwellings

Built up area	Nepali Para	Indira Colony	Khaldar Muslim Para	Ichapur Para	RT Lane Slum	Average
1-25 sq m	60%	69%	92%	100%	93%	82.8%
25-36 sq m	38%	31%	8%	-	7%	16.8%
36-50 sq m	2%	-	-	-	-	0.4%
> 50 sq m	-	-	-	-	-	0%



Figure 5: Kitchen area in dwellings



Figure 6 & Figure 7: Outdoor spaces being used for various activities

Table 3: Number of habitable rooms in surveyed slums

No. of Habitable rooms	Nepali Para	Indira Colony	Khaldar Muslim Para	Ichapur Para	RT Lane Slum	Average
1	52%	60%	92%	100%	93%	79.4%
2	33%	37%	8%	-	7%	17.2%
3	13%	-	-	-	-	3.2%
> 3	1%	-	-	-	-	0.2%

Table 4: Household sizes in slums surveyed

HH Size	Nepali Para	Indira Colony	Khaldar Muslim Para	Ichapur Para	RT Lane Slum	Average
1-3	24%	23%	19%	20%	22%	21.6%
3-5	36%	50%	30%	13%	47%	35.2%
5-7	31%	15%	38%	27%	23%	26.8%
> 7	9%	12%	13%	40%	8%	16.4%

surveyed, it was found that for 57% of the households, the living area proved to be insufficient. It should be noted that 78% of the households there had more than 4 family members. A similar situation may arise in the future as well. Hence, the proposed design should try to maximize living area within the 25 sq m area constraint.

4.0 WHAT DO THEY WANT?

As per the survey results, the slum dwellers preferred their present form of detached single storey dwelling. Table 5 given below clearly shows that 56.75% of the users prefer detached dwellings. However a significant percentage of users acknowledged the fact that walk-ups are becoming an

inevitable future due to severe lack of land. It was found that majority of users were willing to pay only Rs. 20 per month. It would become difficult to maintain structures at such low charges, hence proposed

Table 5: Slum dwellers preference for type of dwelling unit

	Nepali Para	Indira Colony	Khaldar Muslim Para	RT Lane Slum	Average
<i>Detached</i>	75%	78%	69%	5%	56.75%
<i>Walk-Ups</i>	13%	22%	31%	95%	40.25%
<i>Other</i>	8%	-	-	-	2%

dwellings or walk-ups should be low maintenance.

In slums with predominantly

kutcha dwellings, the residents gave higher importance to individual dwelling unit and were willing to use community or shared sanitation facilities. A dwelling unit would be a permanent asset. Alongside, slums which have predominantly semi pucca or partially pucca dwellings, gave more importance to sanitation and water supply.

Residents have developed social ties and surveys revealed that most slums are closely knit communities. Walk-ups often result in disarticulation and damages existing neighbourhood ties. The proposed design should allow users to maintain such interactions. In addition to living area, the dwellings lack storage and work spaces. Surveys indicate that 4-7% of households engage in household industries. Such activities are presently carried out in outdoor spaces. The congested slums located within the urban maze have no recreational spaces. The proposed design should accommodate such needs as well.

Ichapur slum was a complete relocation. It was noticed that the relocation altered residents' income

and expenditure pattern; reduced access to employment and social infrastructure. Travel expenses and house maintenance expenses increased as well. In-situ redevelopment or upgradation was preferred by users to relocation.

5.0 DEGREES OF INTERVENTION

It would be uneconomical and impractical to demolish and redevelop each and every slum. This is because there are several areas in which infrastructure upgradation has been done under past programmes. In certain slums residents have undertaken housing transformations on their own. Pucca structures are also seen in some slums. Community halls and workshops have already been built. In these cases it would be a loss of investment to undertake mass scale demolitions. Hence it is proposed to provide in-situ upgradation and improvement to such slums.

Upgradation or improvement would include,

- Upgradation of the dwelling unit in terms of number of rooms, area and material of construction (i.e. kutcha to pucca), addition of separate kitchen area.
- Provision of internal services like individual water connection and toilets.
- Slum level infrastructure upgradation like provision of drainage, street lighting, community spaces etc.

The survey results show that majority of residents would like to retain

their detached dwellings. For slums with high density and predominantly poor or kutcha tenements, it would be economical to redevelop the slum in-situ. Given below is a brief account of the scenarios in which the three interventions could be adopted.

5.1 Slums Eligible for In-Situ Upgradation and Improvement

- Slums which have undergone upgradation under previous programmes, or where a significant percentage (>25%) of houses are pucca or partially pucca or have undertaken housing transformations.
- Slums where dwelling units are acceptable but infrastructure is lacking. In that case only infrastructural upgradation will be done.
- It would be financially viable to retain the already provided infrastructure. In this case partially pucca houses could be upgraded to requisite size and individual toilets could be added. Context specific solutions may be provided for each dwelling unit.

5.2 Slums Eligible for In-Situ Redevelopment

- Slums where predominantly dwellings are inadequate and semi pucca or kutcha.
- If percentage of pucca or partially pucca dwelling units is less than 25%, upgradation of dwelling units would become uneconomical and impractical.

In that case, it would be advisable to go for complete redevelopment.

5.3 Slums Eligible for Relocation

- Slums located on untenable land, hazardous land, low lying land, or land which cannot be permitted (land use incompatibility) for residential use, relocation becomes inevitable.
- In case of relocation, the following factors should be kept in mind
- The new site is at minimum distance possible.
- Site has good connectivity via public transport
- Has adequate access to social infrastructure like schools and hospitals.
- Has access to employment hubs.

Redevelopment calls for mass scale shift of population. During the construction process, the slums would be demolished phase wise and housed in new dwellings. This shifting of population is a challenge in itself. It has been seen in past BSUP projects that slum dwellers were housed in deplorable transit sites. It is important to construct adequate transit dwellings at the city level to house the population during construction phases. The design should however be flexible so that these units could easily be transformed to regular dwellings when transit units are no longer needed.

6.0 POSSIBLE DESIGN

SOLUTIONS

6.1 Demonstrative Solution for In-Situ Upgradation and Improvement

Upgradation and improvement would be challenged because in a slum different dwelling units would be in different conditions, and sizes. Land area is non-uniformly encroached resulting in different plot sizes. All these factors would act as constraints. To demonstrate what could be done, an actual section has been taken from Indira Colony. Figure 8 shows a site layout of the section. There are 7 dwellings of different area and condition. The DUs require upgradation, in size, material of construction and internal services.

Dwelling Unit 1: has a 9 sq m pucca room and two semi pucca rooms of total 17.09 sq m. There is a separate kitchen but no toilet.

Dwelling unit 2: has a 12.6 sq m semi pucca room and a separate kutcha structure of 6.2 sq m. Kutcha structure is used as kitchen.

Dwelling unit 3: is an entirely kutcha structure of 23.2 sq m.

Dwelling unit 4: is a semi pucca house of 22.2 sq m area. There is a separate kitchen area and a pit latrine.

Dwelling unit 5: is an entirely kutcha dwelling of 26.9 sqm with a separate kitchen area.

Dwelling unit 6 and 7: are almost identical semi pucca dwellings with 17.8 sq m area.

Table 6 shows a detailed inventory of the existing state of the houses.

The community volunteers can help prepare such an inventory. Figure 9 shows the site layout. The dwelling units are located alongside a water body. The residents use the pond water for household activities.

6.1.1. Proposed Approach

It is proposed that community volunteers identified during the focus group discussions help coordinate the process of interventions. They can be allotted 30 to 40 households. Each volunteer would note the upgradation needed in each dwelling unit within his/her domain. Later when the final designs are prepared they may assist in getting the designs approved by the users.

Each unit is designed to be approximately 26 to 27 sq m in area. Every unit comprises a living room, a kitchen, a bedroom and separate

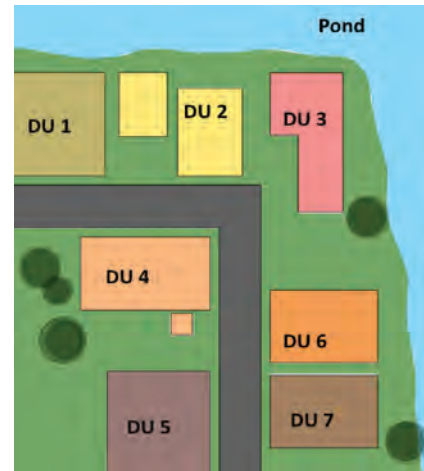


Figure 8: Site layout



Figure 9: Details of dwelling units

Table 6: Detailed inventory of area and condition of dwellings

Sr. No.	Type of Structure	Existing area in sq m		New area in sq m
DU 1	Has Pucca walls	Pucca	9	26.9
	Semi pucca roof	Semi-Pucca	17.09	
	No toilet/separate kitchen	Total	26.09	
DU 2	Partly pucca structure	Kutchha	6.2	26.9
	Kitchen in a separate kutchha structure	Semi-Pucca	12.6	
	No toilet	Total	18.8	
DU 3	Entirely kutchha structure	23.2		26.2
DU 4	Pucca walls & semi pucca roof	22.2		27
	Separate pit latrine			
DU 5	Entirely kutchha structure	26.9		26.9
	No toilet			
DU 6 & 7	Pucca walls & semi pucca roof	17.8		DU 6 = 26.9
	No toilet/separate kitchen			DU 7 = 26.4

bath and toilet. Figure 11 shows the detailed plan of two such units. The design tries to preserve the existing pucca walls and rebuild the dwellings around these pucca walls. A semi-detached arrangement has been worked out. Since the previous dwellings were below standard in area and space was a constraint, completely detached dwellings of required size was not possible. The units have a common wall in the kitchen. The unit has been so designed that the bedroom has a view of the pond. Access has been provided to the backyard through the kitchen, so that the residents can use the pond water for washing purposes. In Indira colony 77 % of the households have more than four members in the family. To

accommodate such households within the 26 sqm dwelling, an additional mezzanine floor has been accommodated within the bedroom to house an additional bed. This mezzanine would be accessible via ladder. Within this same floor a storage loft has been accommodated above the bathroom. The residents may chose to install the mezzanine floor based on their needs and financial abilities.

Consider dwelling unit 1. In this case the 9 sq m pucca room is retained as the bedroom. The walls of the adjoining semi pucca room is retained and internal walls have been added to form the kitchen, bath and toilet. Height of the dwelling has been increased to

accommodate the mezzanine floor. Roof slab has been constructed over entire dwelling.

In case of dwelling unit 4, all the existing walls have been kept, but the pit latrine has been demolished. Walls have been extended in this part to accommodate the kitchen.

Since each dwelling is in different initial conditions, the costs incurred would also be different. For e.g. DU 1 incurs the least cost of Rs. 80,192 as it already has pucca walls which were reused while DU 4 costs Rs. 1.37 lakhs as extra walls had to be built. Table 7 highlights the costs incurred and the repayment options available to the users of the 7 dwellings. It's quite clear from the table that dwellers owning pucca structures would incur nominal costs to upgrade their houses while ones with kutchha houses would have to pay the cost of an entire unit. The average cost of an entire unit would be Rs. 4.1 lakhs. This arrangement ensures that the dwellers' previous investments and self initiated transformations are retained, preventing financial losses.

6.2 Unit Design for In-Situ Redevelopment or Relocation

The design takes into consideration the needs and habits of the slum dwellers and tries to accommodate the same in the design. It is proposed to resettle the slum dwellers in G+3 walk-ups to save land area. The height should be restricted to four stories to avoid the use of lifts. 62.3% of the residents were willing to pay only Rs. 20/

month as maintenance which is not high enough to maintain lifts. Also the cost of the unit needs to be kept as low as possible. In this, however, senior citizens and physically handicapped residents should be allotted flats in the ground floor.

The proposed walk ups have four dwelling units each of 27 sq m on each floor, i.e. 16 flats in each walk up. Ground coverage of each block is 166.6 sq m and total built up area is 666.4 sq m. As mentioned earlier, it was found during survey that residents have lack of storage space

and separate kitchen area. They also use outdoor space for household and economic activities which would be lacking in walk-ups. The proposed unit was designed keeping these factors in mind. Each dwelling unit consists of a bedroom with wall cupboard, a living room



Figure 10: Proposed design

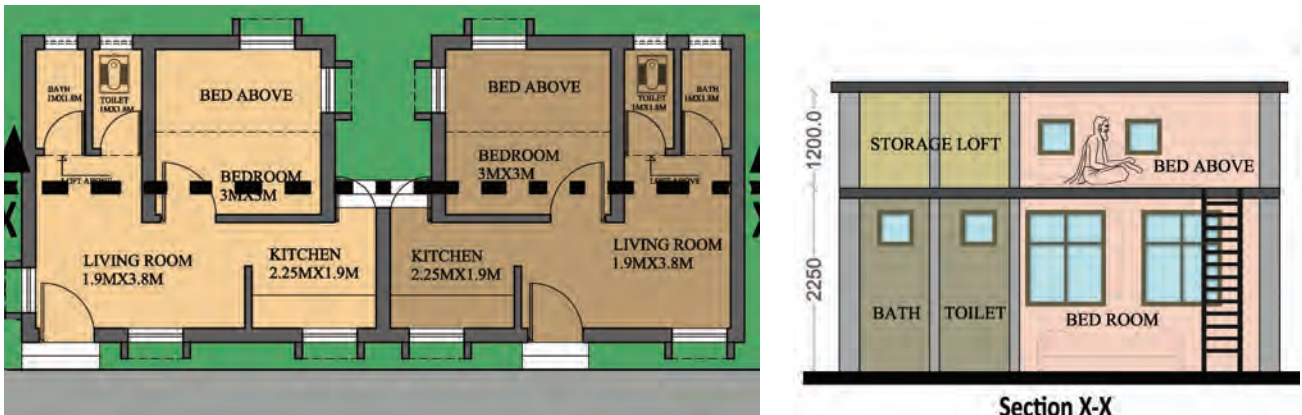


Figure 11: Details of dwelling unit

Table 7: Preliminary Estimate & Repayment Option

Sr. No.	Existing area in sq m		New area in sq m	Total Cost incurred @ plinth area	Beneficiary contribution (20%)	No. of EMI @ Rs. 850
DU 1	Pucca	9	26.09	80192	16038.4	19 (1.5 yrs)
	Semi Pucca	17.09				
	Total	26.09				
DU 2	Kutcha	6.2	26.09	168560	33712	40 (3.3 yrs)
	Semi Pucca	12.6				
	Total	18.8				
DU 3	Kutcha	23.2	26.2	205408	41081.6	48 (4 yrs)
DU 4	Semi Pucca	22.2	27	137088	27417.6	32 (2.7yrs)
DU 5	Kutcha	26.9	26.9	210896	42179.2	50 (4.1 yrs)
DU 6	Semi Pucca	17.8	26.9	151088	30217.6	36 (3yrs)
DU 7	Semi Pucca	17.8	26.4	147168	29433.6	35 (2.9yrs)
Note: Estimate is calculated on the basis of Plinth Area Rates of CPWD.						

with wall cupboard, a kitchen, balcony, separate bath and toilet, a balcony and a storage loft. Since 78.4 % of the households have more than 4 members in the household, the bath and toilet have been kept separate. In addition to the above spaces, common terraces are provided on each floor. Common terrace on each floor compensates for the space constraint and also increases interaction among residents. This space could also be used by residents who run household industries or for spill over household activities. The terraces are designed to be receding, i.e. their width reduces on the upper floors to allow visibility to lower

floors. Figures 11 and 12 show the ground and first floor plan of the walk-ups. Figures 13 and 14 are three dimensional views of the walk-ups. The buildings could be so arranged that the terraces overlook the tot lots.

6.2.1. Cost of the Unit and Beneficiary Contribution

Estimate is calculated on the basis of plinth area rates of CPWD.

- Cost of each walkup = Rs. 9000 x (160.7x4) + 12% for internal service connections = Rs. 64,79,424.
- No. of dwelling units in each walkup = 16 and hence cost per unit = Rs. 4,04,964

6.3. Transit Unit Design

The transit blocks are also designed to be four storied. Each unit is designed to be exactly 12.5 sq m in area i.e half of the standard 25 sq m dwelling. This is to retain the temporary nature of these units and to ensure that users willingly evacuate these units when their dwelling units are ready. There are eight units on each floor and 32 units in each walk-up. Each unit comprises a room and a kitchen. Two units share a bath and toilet. The common wall between the units is in the kitchen. This 125 mm wall could be easily demolished to convert the two units into one unit of 25 sq m. This way when transit buildings are no longer required, the units could be distributed to slum dwellers. Common space is provided on each floor for spill over of household activities.

6.4. Demonstrative Site Redevelopment

To demonstrate the application of the above designs, a slum was selected in Howrah. The Round Tank Lane slum is located close to the Howrah Railway station and has good access to public transport and social infrastructure. The land is owned by the municipal corporation. Presently, there are 430 households residing there. When surveyed the residents preferred walk-ups to detached dwellings.

This site has been selected as an ideal location for transit site as well because:

Table 8: Sharing of Cost

Central Government	50%	Rs. 2,20,482
State Government	30%	Rs. 1,21,490
Beneficiary Contribution	20%	Rs. 80,990
Total Cost	100%	Rs. 4,04,964

This amount could be repaid by beneficiary at Equal Monthly installment which works out to Rs. 850/month for eight years.

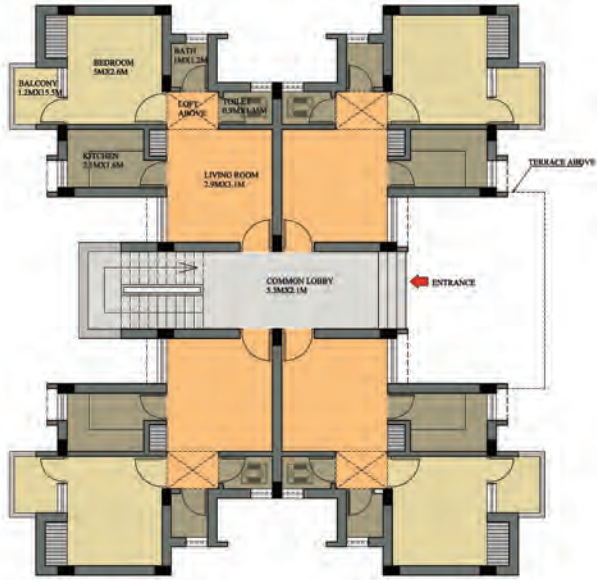


Figure 12: Ground Floor Plan



Figure 13: First Floor Plan



Figure 14: Rear View



Figure 15: Front View

- It is well connected to the rest of the city via road and rail-ways.
- Has good access to government schools and hospital.

A design solution was drawn up for this slum accommodating units for

the slum dwellers and transit blocks as well. The site is located amidst the old industrial area of Howrah. The slum is extremely congested and comprises semi pucca dwellings of 17 sq m area. Units mostly consist of a room and a verandah. The residents used

community toilets. Pictures below show the congested lanes of the slum. The *Burn Standard* industry is located alongside. The site is located close to the Howrah railway station and is well connected to the “*Burra Bazaar*” an important market place in Howrah. Figure 19



Figure 16: Ground Floor Plan



Figure 17: Typical Floor Plan



Figure 18: View of Transit Block



shows the surroundings of the site. Vacant land is available near the site where the residents could be temporarily housed when the first phase of demolition is undertaken.

It is proposed to develop this site in three phases. In phase one, five transit blocks would be constructed which could be used for the next two phases. In phase two and three, 12 and 15 walk-ups would come up respectively. Figure 20 shows the basic layout and phasing. During the first phase residents would reside in temporary arrangements made in the nearby vacant plot and would be shifted into the transit units after construction is completed. In the later two phases the transit units would house the residents of the demolished units. Community volunteers identified during the focus group discussions would help coordinate this shift from present dwellings to transit units and finally to new flats.

The transit area is kept separate from the slum redevelopment area. Five transit blocks are grouped in the north of the site. Separate entry and exit points are provided for them. A green belt visually separates this area from the rest of the site. There are two entries provided to the redevelopment area; one from the south end and the other from beside the community centre. The walk-ups of phase 2 and 3 are grouped around the two separate playgrounds. Refer to

figure 22. The units have been so arranged that the terraces overlook the grounds. Figure 23 shows a view of the blocks from the playground. Large playgrounds have been preferred to small tot-lots and



Figure 19: Pictures showing the congested lanes of R.T.Lane slum



Figure 20: R.T. Lane slum & its surroundings

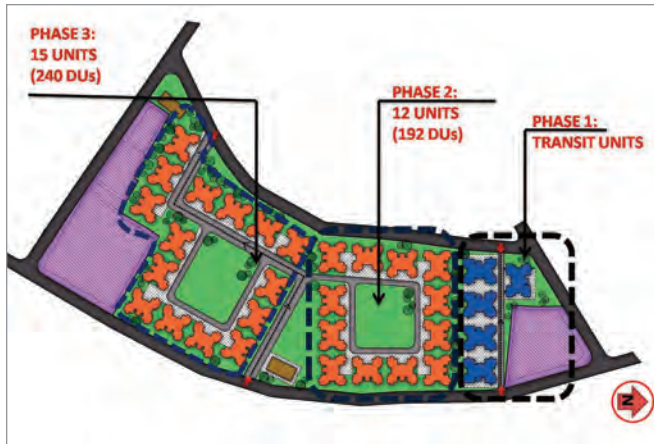


Figure 21: Phasing of development

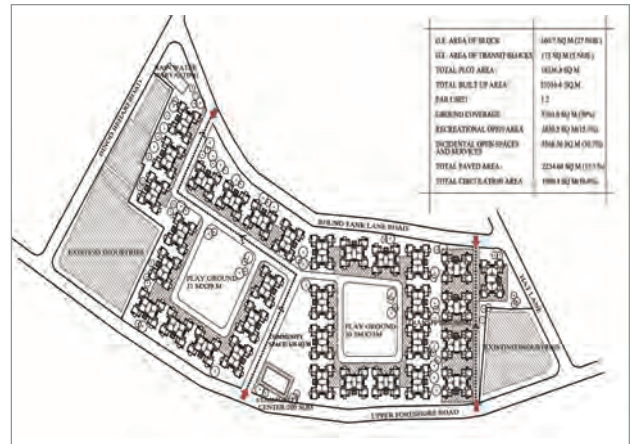


Figure 22: Site plan

cluster arrangements because residents often don't maintain small tot-lots. Large open spaces can be used for community activities and can be maintained by the resident association or community based organization. Community centre with hall and workshop has been

added at the middle of the site and is easily accessible from the main road. This would allow large vehicles easy access to the workshops in the community centre. Table 9 contains the details of the area calculations. Ground coverage has been restricted to 30%

and 15.7 % of the area is reserved as recreational spaces. Rain water harvesting (RWH) has been incorporated into the design. This could supplement the water needs of the users. The RWH tank is located at the south end of the site which is the lowest point.

Table 9: Area Calculations

Ground Floor Area of units	160.7 m ² (27 Nos.)
Ground Floor Area of Transit units	173 m ² (5 Nos.)
Total Plot Area	18136.8 m ²
Total Built Up Area	21016.4 m ²
F.A.R. Used	1.2
Ground Coverage	5303.6 m ² (30%)
Recreational Open Spaces	2850.5 m ² (15.7%)
Incidental Open Spaces & Services	5568.56 m ² (30.7%)
Total Paved Area	2234.04 m ² (12.3%)
Total Circulation Area	1890.4 m ² (10.4%)



Figure 23: Aerial view of the proposed site



Figure 24: View of the units from playground

7.0 CONCLUSIONS

The process of upgradation or redevelopment should be inclusive and participatory. Hence it becomes essential to involve the users from the beginning. Focus group discussions should be organized to assess the users' needs and preferences of the users. Community volunteers should be identified during such discussions. It has been found that volunteers are better able to mobilize the community during the upgradation of rehabilitation process. Based on users' preferences, design should be prepared. Multiple options or choice may be prepared for the dwellers to choose from. Large families may choose the option of mezzanine while others may not. Users may choose options based on finances available. The proposed designs should be approved by a majority of the users failing which, the projects may remain unsuccessful. The community volunteers can help explain the

designs to the users and get their approval. The unit designs suggested are based on preferences of slum dwellers in Howrah. This may vary from place to place. However, the process through which the designs were developed could be applied elsewhere.

NOTES

¹ Extracted from a dissertation titled "Developing Strategies for the Application of Rajiv Awaas Yojna in Howrah" submitted for partial fulfillment of masters of city planning in IIT Kharagpur.

² Rajiv Awaas Yojna (RAY) was a slum development program launched in June 2009. It envisages a "slum free" future for Indian cities. RAY has been launched into its implementation stage in 2013.

³ USHA stands for Urban Statistics and HR Surveys which were conducted in all municipal areas selected for application of Rajiv Awaas Yojna. This survey essentially collects information on demographics, dwelling unit condition and status of infrastructure from each household of each slum identified within the city.

⁴ As per the National Sample Survey Organization in India:

Kutchra House is one in which : the walls and/or roof of which are made of material other than those mentioned above, such as un-burnt bricks, bamboo, mud, grass, reeds, thatch, loosely packed stones, etc. are treated as kutchra house.

Semi -Pucca House is one in which the house

that has fixed walls made up of pucca material but roof is made up of the material other than those used for pucca house.

A Pucca house is one, which has walls and roof made of the following material.

Wall material: Burnt bricks, stones (packed with lime or cement), cement concrete, timber, etc and the roofing material is Tiles, GCI (Galvanised Corrugated Iron) sheets, asbestos cement sheet, RBC, (Reinforced Brick Concrete), RCC (Reinforced Cement Concrete) and timber etc.

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LESSONS IN INCLUSIVE GOVERNANCE: EXPERIENCES OF THE SPARC-UDRC ALLIANCE IN URBAN ODISHA

**MONALISA MOHANTY
KEYA KUNTE**

In order to demonstrate the capacity of communities to initiate a process and build at lower costs, Odisha Mahila Milan began organizing Housing exhibitions that showcased affordable solutions and acted as a tool for mobilization and dialogue with government officials.

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This paper describes the lessons in inclusive governance emerging out of the experiences of the Urban and Development Resource Centre (UDRC), the Odisha partner of the Society for the Promotion of Area Resource Centres (SPARC). Both UDRC and SPARC work in partnership with two grassroots organizations: Slum Dwellers' Federations and Mahila Milan. This partnership will henceforth be referred to in the paper as the alliance or the Odisha alliance.

In 1998, UDRC emerged as one of the few urban NGOs in Odisha, through a catalyzing experience related to evictions in Bhubaneswar. Later, through its collaboration with the SPARC alliance, it sought to create strategies to capacitate communities and engage with government to access basic amenities and housing. At the time of its inception, there was little institutional or financial base for working with the urban poor in Odisha, a state with one of lowest social and human development indicators and one of the highest populations of marginalized groups and tribals in the country. There was also no precedent to follow, neither for the Odisha alliance nor for the local government.

It is within this context that this paper examines the experiences of the alliance in Odisha, from its initial stages of community organizing to negotiating with cities for access to basic amenities and housing and finally, the lessons emerging from implementation of projects. The paper is organized as follows: First, it describes the formation of the Odisha alliance and the unique urban development challenges posed by the state. Second, it reflects on the early capacity building activities of the alliance, elaborating on savings, surveys and mapping as means to organize communities and democratize information on slums. Third, the paper traces the efforts of the alliance to engage with government through pilot projects and more recently, through the implementation of urban poverty schemes in Odisha.

1.0 INTRODUCTION

In 1998, 700 residents of 5 slums in Shahid Nagar, located in an upscale area at the heart of Bhubaneswar, were loaded onto trucks in the middle of the night and dumped in a vacant, snake-infested area on the outskirts of the city. There was no pre-relocation survey, no planning done for allotment of plots, no provision of water, electricity or other basic services. The government backtracked on its promise to provide pattas to families, providing land documents to only a few deemed eligible on the basis of arbitrary documentation. A sympathetic councillor cooked food for the people for the first three days, the municipality sent water twice in a vehicle, but no other assistance was provided. Residents were in a state of despair and confusion and without understanding how land was allocated, resorted to land grabbing. An NGO known as DAWN (Development Alternatives for a Wider Network) was located adjacent to the site and seeing the plight of people, intervened to bring relief to the community. The organization initiated a detailed survey of the households and area using a land map obtained from the Bhubaneswar Development Authority in order to set up an equitable system

of land distribution. They supported the households to rally and demonstrate against the government to provide the promised entitlements. Women of the Mahila Samiti, a registered women's community group that had operated in the previous slum, played a major role in carrying out this work with the NGO team. The survey eventually helped most households obtain pattas.

DAWN was only expected to offer short-term assistance, but as they worked with the community, they realized the extent of neglect faced by the urban slum dwellers in Odisha's cities. There were no policies or institutional mechanisms to address their challenges and communities were not organized nor equipped to engage with local authorities. In 2008, some staff from DAWN left to form UDRC (Urban and Development Resource Centre), an NGO based in Bhubaneswar that was structured to focus on slum dwellers. In its formative years, UDRC interacted with SPARC and a shared set of objectives led to a deeper relationship and collaboration between the two, known as the Odisha alliance.

UDRC modelled its own structure based on SPARC's partnership model, working alongside two grassroots movements, the Odisha Slum Dwellers Federation (OSDF) and Mahila Milan. OSDF is part of the National Slum Dwellers Federation, formed in the 1970's by a group of community leaders in the slums of Mumbai that joined hands with SPARC in 1985. Mahila

Milan is a federation of women's collectives, created in 1987, whose work includes supporting the needs of its members for savings and credit. The Odisha alliance works in 5 cities, namely, Bhubaneswar, Puri, Cuttack, Paradeep and Rourkela and in 3 cities in West Bengal, namely, Kolkota, Kona and Kalyani. Today, there are about 9,000 members in 184 settlements within the Odisha alliance.

The evolution of the alliance in Odisha must first be understood within the challenging constraints set by its local context. Odisha is one of the least urbanized (17% of the total population) and poorest (47% of the total population) states in the country. But perhaps two of the state's most distinguishing features are the high population of marginalized communities and its predilection for natural disasters.

As per the 2011 census, 26% of the population belongs to Scheduled tribes and 16% to Scheduled castes. These groups are agrarian or forest-dependent in terms of their livelihoods but have gradually been displaced as have villages brought into the expanding urban

boundary, forming patches of urban poverty surrounded by rich residential areas. The census puts the slum population in Odisha at 23% but this includes settlements such as these that are generally categorized as slums although the families have customary land rights and decent housing but lack infrastructure. Several such settlements have shrunk in land area as families have been co-opted into signing away their rights to the city due to the development pressures of surrounding neighbourhoods, market forces and at times, calamities. Settlements in Bhubaneswar such as Nayapalli or Rasulgarh, comprising large tribal and scheduled caste families, started off with 10 acres but are now left with less than 1 acre.

Another distinct feature of Odisha is the tragic consequences of natural disasters particularly for informal settlements which became apparent in October 1999 as several slum dwellers lost their lives and homes to the super cyclone that devastated the state.

The challenges of this urban context have put pressure on the state and



Figure 1: Settlement in Puri, Odisha with traditional house forms within the city limits



Figure 2: Annual flooding of ringroad settlements along the Kathjodi river in Cuttack

its cities, already grappling with their own lack of resources and capacities. It is within this context that the alliance in Odisha was built around and supported by the experiences of NSDF, Mahila Milan and SPARC in other cities. The following paragraphs describe the early capacity building activities of the Odisha alliance and the efforts to partner with government in the implementation of projects.

2.0 CAPACITY BUILDING: SAVINGS, SURVEYS AND PILOT PROJECTS

Women hold a central position in the work of the alliance. In several settlements, men are often addicted to illicit liquor and it is the women who work, maintain the home and manage money. Today, ninety percent of Odisha Mahila Milan, the Federation and UDRC members are women and they are the actual drivers of the process, as development initiatives cannot succeed without the direct involvement of those who hold together their homes and communities.

Mahila Milan is thus an integral part of the alliance and was first formed to encourage families to collect daily savings and slowly build their financial capacities. UDRC and its community members first interacted with SPARC's women's savings group, Mahila Milan, at Hyderabad to learn about organizing themselves around savings. After returning, fifty members began a savings group and this concept soon spread

to other slums in Bhubaneswar.

Learning visits, such as the initial Hyderabad meeting, or what became known as 'Peer exchanges' continued to be facilitated between the Odisha Mahila Milan, federation and the more experienced Mahila Milan from other cities. The exchanges were centered around learning about savings and later about surveys.

Community-led slum surveys and mapping is a powerful tool for the alliance to create an informational base for strategizing and negotiations, particularly as government has little data on slums. Even obtaining land ownership data poses a challenge as un-digitized land records are held by several different departments in Odisha that rarely, if at all, co-ordinate in putting together a comprehensive database. Thus, community-led slum surveys form the first step in legitimizing the status quo, in establishing how many families were there and creating an accountable and collective database, crucial for formalisation of land rights or legal rights

These capacity building and organizing tools of the alliance were meant to create a further impact. A Mahila Milan leader explains, "These activities (savings, surveys and peer exchanges) are like throwing a stone into stagnant water, meant to create vibrations and convey the message of change, action and the power of collectivity into the minds of those burdened with evictions, threats, neglect,

powerlessness and survival struggles."

In 2001, as savings and surveys became established organizing tools, the alliance began its foray into construction. The more experienced Mahila Milan from Mumbai again paid the Odisha Mahila Milan a visit to teach them how to make bricks and later laadis that they themselves had earlier learnt from SPARC's architects and engineers.

In order to demonstrate the capacity of communities to initiate a process and build at lower costs, Odisha Mahila Milan began organizing Housing exhibitions that showcased affordable solutions and acted as a tool for mobilization and dialogue with government officials.

One of the earliest and largest exhibitions was held in Cuttack in 2001. Cuttack Mahila Milan had formed in 1999, primarily as a response to the cyclone that had claimed many lives in the city. It began with members in just 5 slums and by 2004 had spread across 48 slums. In 2001, Mumbai Mahila Milan visited Cuttack prior to the exhibition to help the local Mahila Milan. Two houses were made of cloth and one of concrete. Housing designs were developed by the alliance in consultation with slum dwellers. Designs used pre-cast roofs for a ground plus one structure that allowed for incremental growth. Local materials and construction labour were used. About 5000 community members, including government

representatives, visited the exhibit. Through the housing exhibitions, communities and government officials saw visible outputs and gained confidence in the work of Mahila Milan. The results were twofold: one, it led to the formation of more savings groups in other slums and two, the Cuttack Development Authority

approached Mahila Milan to lead slum surveys and low-cost housing development. This experience formed the basis of many more such city-poor joint ventures as the path towards working with city authorities was being gradually laid.

3.0 PARTNERSHIPS WITH GOVERNMENT

Savings, surveys and house model exhibitions all sought to demonstrate the initiative and capacities of communities to create their own solutions, particularly in the absence of state driven initiatives. By 2004, cities in Odisha began to notice these efforts and sought to engage with the alliance on various fronts.

In July 2004, the alliance was invited by the cities of Bhubaneswar and Cuttack to jointly identify all slums in the city and list families that fell

below the poverty line so that they could start accessing state programmes. Mahila Milan and the Odisha Federation saw this as a tremendous growth in their relationship with the city and an acknowledgment that authorities did not have accurate information about slums. By working jointly, both the alliance and the government were learning from each other and beginning to refine how data was being collected. By the end of that year, the survey was almost complete and the federations in two other cities Paradeep and Puri, decided to embark on a similar count; so that



Figure 3: House Model Exhibition, Cuttack, 2001

they would be prepared even before their local governments approached them.



Figure 4: Model House, Munda Sahi resettlement site, Cuttack, 2002

Land, as it does even now, continued to be an issue of contention between the tribal population and government. In 2001, the alliance became a mediator between tribal communities and the government to stifle repeated evictions, and thus helped produce the first negotiated resettlement in Cuttack. The Mundas are a tribal community that migrated to Cuttack in the 1960s as their traditional livelihoods were obstructed by forest depletion. In the city, they worked as construction labourers but were marginalized and discriminated. Housing was never provided for, so these households camped on the construction site and later on the city outskirts. When construction work slowed down in the 1970s, the

mundas were employed by the Cuttack Development Authority nursery to construct a greenbelt to ease pollution on the outskirts of



the city. By 2001, the city had grown around land that had been occupied by the mundas for 40 years and soon began to exert development pressure. The land was purchased from the state to build an eye hospital and the tribal households were threatened with evictions. However, the tribals refused to move and the Cuttack Development Authority (CDA) approached the alliance for an equitable solution. The alliance negotiated a relocation plan in which 113 households would obtain a 338 square foot plot and individual land rights on state government land in a district 6 kms away. In partnership with the city and the tribal community, the resettlement was achieved without deployment of a single police force nor forced eviction and allowed

some of the most marginalized populations to access land. With support from the alliance, the community carried out the household surveys and allotted plots. Mahila Milan also built a housing typology for 10 houses in the new site to showcase to those wanting to build their own houses, a low-cost design option produced by architects from the alliance. The process initiated by this resettlement was to help produce a precedent for other cities as well.

The alliance sought to further their participation in local governance by working with cities under several urban development/urban poverty schemes. Under the Valmiki Ambedkar Awas Yojana (VAMBAY) scheme launched in 2001, pilot projects were developed in some cities of Odisha to demonstrate community capacities to do feasible affordable housing and community toilets blocks. Yet, the efforts to scale up were unsuccessful as the state lacked the capacity and finances to invest sufficiently in development at the time.

4.0 INCLUSION IN URBAN POVERTY SCHEMES

Over the last decade, the central government has formulated two important policies for the urban poor, both of which are being implemented in Odisha. One, is the Jawarhalal National Urban Renewal Mission (2005) and the other is Rajiv Awas Yojana (2009). In most states, Odisha notwithstanding,

realizing slum upgrading or rehabilitation projects has been a daunting task. Several cities have not been able to access funds as there is no capacity to implement projects. Those that have accessed subsidies, struggle to implement within the financial limitations imposed by policy. Other cities have met deliverables but executed projects in a top-down manner, leading to vacant rehabilitation buildings and dissatisfied communities. The following paragraphs discuss the experiences of the alliance in the realization of these schemes in Odisha.

Basic Services for the Urban Poor

In 2005, the Government of India launched the JnNURM scheme. Within it were two sub-missions, Integrated Housing and Slum Development Program (IHSDP) and Basic Services for the Urban Poor (BSUP). The main thrust of the BSUP was on integrated development of slums through projects for providing shelter, basic services and other related civic amenities with a view to provide utilities to the urban poor. The mission statement also emphasized reforms driven, fast track, planned development of identified cities with a focus on efficiency in urban infrastructure/services delivery mechanism, community participation and accountability of Urban Local Bodies (ULBs) towards citizens.

Two cities in Odisha, Bhubaneswar

and Puri, were selected to receive BSUP funds. In 2007, the alliance, upon request of the Bhubaneswar Municipal Corporation (BMC), conducted a slum survey in Bhubaneswar to review the amenities available to various settlements and prioritize them for upgrading based on their eligibility for subsidies and vulnerability to water shortage, flooding, and other criteria. Three sites were shortlisted to receive subsidies and municipal engineers prepared a detailed project report (DPR) comprising designs, site plans and cost estimates for the sites. Tenders for construction were called in 2007 but no bid was received. In October 2009, an exchange was initiated by the alliance between officials from Odisha's housing department and the Pune Municipal Corporation (PMC) with whom SPARC (through its partner not-for-profit construction company known as SSNS) was implementing an upgrading project in Pune. The exchange aimed to enable the state to implement the BSUP in Odisha through the lessons in community participation from Pune.

In Pune, SPARC had negotiated with the PMC to modify the eligibility criteria for project tenders under the BSUP scheme so that NGOs would be eligible to bid. Further, SPARC and Pune Mahila Milan partnered with architects to work with communities to produce house designs. Currently, this project is underway and Pune

Mahila Milan are working as community contractors to build the houses they helped design. Mahila Milan are also responsible for initiating community meetings, site supervision and billing. After the delegation of housing department representatives from Odisha visited the Pune BSUP project, the BMC modified their procurement guidelines to allow NGO-CBO participation and solicited a bid for the upgrading project once again.

In January 2010, four years after the scheme had been initiated; the alliance won the bid to upgrade three settlements (Nayapalli Sabar Sahi, Dumduma, Bharatpur) in Bhubaneswar. This was the first BSUP project to be implemented in Odisha. However, the time lag between the initial call for bids and implementation had resulted in outdated data. In all three sites, the alliance had to initiate a re-survey of households to assess their eligibility as several discrepancies were found with the original list. In Nayapalli, the settlement layout had to also be redone as on-ground verification found changes not recorded in the Detailed Project Report produced by the BMC in 2007. The alliance, as the appointed contractor, had no obligation to revise this data, yet, out of accountability to the communities did so of its own cost. It is important to note that without an institutional mechanism that accounts for the additional effort and costs to update data, most

implementing agencies would simply carry out the work as in the original DPR, regardless of its accuracy.

There have also been design challenges. After assessing the local context, the alliance requested that the house designs proposed in the DPR be modified. However, the BMC rejected the proposal on grounds that any modification to the DPR had to be sanctioned by the central government which would delay the process. Houses are thus being built with limited site planning and architectural inputs. Rather, the focus of the state appears to be on achieving deliverables with little attention being paid to the real needs of slum dwellers. Households therefore resort to finding their own solutions. For example, houses have in-built kitchens as per the DPR. However, as all households cook on the chullah, the kitchen has been converted into a room and families continue to cook outside. In another instance, toilets are being built within the houses but are not yet connected to sewage lines and households continue to defecate in the open till then.

The biggest challenge however is that subsidies being released to the project under the BSUP scheme are based on cost estimates provided in the DPR produced four years earlier. No mechanism allows for cost escalation to be accounted for and the alliance has had to depend on its grant funds to pay for the additional cost of construction as well as for the capital funds to be

put in for the initial stage of construction. With increasingly delayed payments by the municipality, and an ever increasing project timeframe, there is considerable financial pressure on the implementing agency.

In sites where the alliance is implementing, there is an established relationship with communities and a continuous dialogue with the municipality.

Mahila Milan had begun working with the communities long before the project bid was won to help set up savings groups and organize communities. It is therefore accountable to find a solution despite financial pressures but not all settlements have been so fortunate. In Puri, for example, of the 9 BSUP projects that were tendered, 5 were abandoned by contractors who could not afford the impacts of cost escalation. In 2



Figure 5: Mahila Milan and community contractors, Nayapalli Sabar Sahi, Bhubaneswar



Figure 6: BSUP houses being built in Nayapalli Sabar Sahi, Bhubaneswar

of these 5 sites, houses lie demolished as neither the state nor implementing agencies take accountability for the displacement of households.

Fortunately, Bhubaneswar Mahila Milan was already quite active in Nayapalli, so the project has been able to move forward, albeit slowly. A remarkable step for Bhubaneswar Mahila Milan has been their involvement in construction of such a scale. Furthermore, the project demonstrated participation where households were seen as partners and not as beneficiaries. In Nayapalli, where households own their land, Mahila Milan actively worked with households to demarcate plots which were irregular and where homogenous planning was not feasible. Mahila Milan members work as contractors and community members as site supervisors, responsible for obtaining materials from suppliers, maintaining registers for labourers and billing and overseeing the construction. Throughout the

implementation of the project, it has taken intense discussions between Mahila Milan, representatives of the community and the municipality to reach consensus on various aspects. In reaching this stage, perhaps the biggest achievement is the building of stronger relationships.

Rajiv Awas Yojana

When Rajiv Awas Yojana (RAY) was announced in 2009, the ambitious policy recognized, for the first time, the need for a city-wide planning strategy and efforts were made to write-in community participation. Although a separate cell was set up to work with communities, the RAY guidelines for activities such as surveys, mapping and DPR preparation do not institutionalize participation and many consultants hired for the work have no accountability towards the communities except to complete the task within the given deadline.

Procurement criteria for hiring

consultants to prepare DPRs under RAY are exclusionary as they demand a large scope of work and technical requirements far beyond the scope of many NGOs that work with community based organizations. Despite this, the alliance was the only NGO amongst 9 other consultancies to be empanelled to produce DPRs under RAY in Odisha. Two years on, the alliance has not been able to participate in a single DPR. A primary reason is that organizations must put in their own money to prepare the DPR and will be paid only if their proposal is sanctioned by the central government. Thus, participating in producing the DPR is only feasible only for commercial organisations without any or much mandate, commitment or investment in involving the affected communities.

The same exclusionary eligibility criteria also apply to tenders released to hire consultants to produce city-wide slum data under RAY. The enormous scope of work



Figure 7: Settlement Survey and GPS mapping by Mahila Milan, Cuttack, 2010-11

and extensive technical requirements, have excluded communities from participation as large consultancies have taken over the process. In an attempt to provide an alternative to these top-down mapping techniques, the alliance demonstrated a community-led mapping project in Cuttack in 2010. Through this, Mahila Milan mapped slums using simple, inexpensive GPS devices and carried out settlement surveys, both of which were then collated in Google and an open-source GIS software. Despite repeated presentations and discussions with the city to incorporate this methodology, the tender to map slums under RAY remained open to technical consultants who fit the stringent criteria. However, the enormity of the task has made this selection a lengthy process. In 2012, the Cuttack municipal corporation requested the alliance to share their mapping data, thus recognizing and legitimizing data collected by the communities.

Thus, exclusionary policies and a lack of accountability contribute to the ineffective realization of projects.¹⁷ Cities are also faced with their own governance challenges; weak administrative capacities, the constant transfer of officials and conflicting priorities towards the urban poor can often affect crucial projects. For instance, in 2005, the alliance became a nodal agency to coordinate local communities, the Cuttack Development Authority (CDA), Sewerage Board and others to develop a resettlement plan for

slum dwellers living on the river bed alongside the Cuttack ringroad.

Located between Kathjodi River and a busy main road, these slums are flooded every year, forcing people to squat on the main road during the monsoon and rebuild their houses every year. But it was the forced evictions taking place by the Cuttack Municipal Corporation that compelled the federation to get involved in early 2000. The Odisha Mahila Milan and Federation used their own surveys for negotiations, providing data to point out how much land would actually be cleared for them.

By September 2005, the Collector, CDA representatives and Mahila Milan had jointly identified a relocation site half a kilometre away from the Ring Road settlements and 14.4 acres in area. Known as Krushak Bazaar, this area of land sits in the heart of a city facing land shortages and thus, has tremendous development potential. Subsequently, over 7 years, three proposals (in 2006, 2010 under IHSDP and 2011 under RAY) prepared by the alliance with its own resources have all been stymied due to land conflicts and the transfer of key government officials supporting the process.

5.0 CONCLUSIONS

For slum dwellers, rehabilitation and upgrading are the culmination of several years of uncertainty about land tenure and vulnerable living conditions. Before achieving this end, the aim of the alliance is to

focus on building the capacities and empowering communities to participate effectively in decisions regarding their lives. From the point of view of the alliance¹⁸, “These tools and methods developed by the urban poor are participatory in two senses: first, in encouraging widespread involvement of urban poor groups in designing and implementing initiatives and second, in ensuring that these organizations retain a central role is what is designed and implemented and how it is managed and evaluated when working with local governments, national agencies or international donors.”

One of the achievements for the alliance is the recognition of some of its capacity building activities such as savings and surveys, by cities. Pilot projects by the alliance have served as precedents to demonstrate community initiative and capacity but also innovative solutions to local governments. Besides housing exhibitions, the alliance also builds community toilets and has created loans for communities to upgrade their own houses. Yet, there is a lack of policy support and capacities, financial and otherwise to translate these pilots into scalable projects.

In 2005 and 2009, when two urban policies: Jawaharlal Nehru Urban Renewal Mission (JnNURM) and Rajiv Awas Yojana (RAY), were announced, it appeared that there was opportunity to make the provision of housing and basic amenities an inclusive and scalable process.

However, in most cities, the three tiers of government produce financing, planning and project design and only then seek to mobilize communities through social organizations. For instance, participation at the project stage continues to be structured around financial contributions and some mobilization during construction work. The design of houses and planning of settlements is done by external consultants or municipalities, with limited community interaction and producing solutions that are often standardized and unrealistic. There is little exploration on other alternatives to upgrade settlements such as provision of financing for incremental housing and provision of infrastructure by the state. Most construction work is still handed over to consultants with finances to implement projects but with little accountability towards communities. Ofcourse, the challenge for NGO-CBOs wanting to participate is their limited technical and financial capacity. This presents the risk of being asked to mobilize the communities with little voice in the planning of the project itself. Thus, efforts at inclusion are still met with forms of development that are largely exclusionary.

Cities continue to make development decisions regarding the urban poor within conflicting urban agendas. This has sometimes led to the general classification of tribal or newly urbanized villages as slums resulting in land acquisition under the guise of redevelopment or

upgrading. Added to this, is the lack of proper information, weak administration and the pressure to meet deliverables under various pro-poor schemes, thus reducing projects to ad-hoc forms of development.

Hence, the role of the alliance has emerged as crucial in exerting pressure on the authorities to provide alternate solutions and create space for inclusive governance. Playing this interface has the potential to design the architecture for institutional arrangements to link resources (both technical and financial) and communities to build homes and provide amenities to slum dwellers. It also forces communities of urban slum dwellers and cities to build relationships with each other and refine their strategies of inclusive governance.

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This article primarily draws on documentation developed by SPARC and SSNS. For more details, see SPARC's website www.sparcindia.org; see also SSNS's website www.sparcnirman.org.

Note: SPARC is a Mumbai based NGO, set up in 1984 and works alongside the National Slum Dwellers Federation (NSDF) and Mahila Milan (Women Together in Hindi) to enable communities to access basic amenities, sanitation facilities and housing. The SPARC alliance works in 9 states and 70 cities across India.

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HOUSING FOR THE WAR VICTIMS IN SRI LANKA: USING THE 'PEOPLE PROCESSES' IN HOUSING TO REBUILD THEIR LIVES IN THE AFTERMATH OF THE CONFLICT IN SRI LANKA

KIRTEE SHAH

The participatory/consultative approach is meant to see them as 'owners'/'clients' (as against receiver of the dole/subsidy) and gives them decision making options, restoring their confidence, self-belief and dignity in the bargain. Emphasis of the program is on the 'process' as much as the 'product'

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The Government of India, in a gesture of goodwill to a friendly neighbor, is providing financial assistance and organizational help in constructing 50,000 houses for the internally displaced persons (IDPs) and other war victims in Sri Lanka. This assistance is not in cash, it is in kind, in the form of constructed houses, one each for 50,000 families, being constructed over 500/700 locations in the Northern and the Eastern provinces of Sri Lanka. With each family building its own house, it is called an 'owner-driven' housing program. Three international public service agencies have been engaged on a professional basis, to provide technical and organizational assistance to each family in constructing the house.

1.0 THE CONTEXT

The Government of India (GoI), in a gesture of goodwill to a friendly neighbor, is providing financial assistance and organizational help in constructing 50,000 houses for the Internally Displaced Persons (IDPs) and other war victims in Sri Lanka. The housing program, undertaken by the GoI and implemented through the Indian High Commission in Colombo, is an important step in the process and a critical input in the rehabilitation of the families who are emerging from the trauma of a long drawn out --25 years—civil war that subjected them variously to multiple displacements, violence, destruction, death, human rights violations, alleged war crimes and crippling socio-economic dislocations. The GoI's contribution

to the program is estimated at US \$ 260 million (Indian Rs. 14300 million and Sri Lankan Rs. 35750 million). The houses are being constructed in the Northern and the Eastern provinces of Sri Lanka, the worst affected areas of the war.

Sri Lanka, an island in the Indian Ocean, 28 kms. off the south-eastern coast of India, is about the size of Ireland with a population of 20 million. Sri Lanka is ethnically, linguistically and religiously diverse. The Sinhalese make up 75 per cent of the population (2012 census) and are concentrated in the densely populated south-west and central parts of the Island. The Sri Lankan Tamils live predominantly in the north-east of the island forming the largest minority group at 11.2 per cent of the population. There are also Indian Tamils who form a distinct ethnic group which comprises 4.2 per cent of the population.

The Sri Lankan civil war was a tragedy for the country. Beginning in 1983, an intermittent insurgency against the government by the Liberation Tigers of Tamil Eelam (the LTTE, also known as the Tamil Tigers), a separatist militant organization, escalated into a full scale war to create an independent

Tamil state called Tamil Eelam in the North and the East of the island. After a prolonged campaign lasting over decades, the Sri Lankan army defeated the Tamil Tigers in May 2009 bringing the civil war to an end. The LTTE was wiped out, Sri Lankan government re-established control over the entire Island (LTTE had controlled most of the north of the country and half of the eastern coastline from around 2002 to 2008) and the Tamil National Alliance dropped the demand for a separate state. The long war caused much hardship to the population, immense damage to the environment and heavy losses to the economy. About 80,000 to 100,000 people killed and the estimated economic cost of the war placed at US \$200 billion, 5 times the current GDP of Sri Lanka, convey in some way what the war meant to the small island nation and its people.

The conclusion of the armed conflict saw the emergence of a major humanitarian challenge for the Indian government too, with nearly 300,000 Tamil civilians housed in camps for Internally Displaced Persons. In June 2009, Prime Minister of India, Dr. Manmohan Singh, announced a grant of INR 5 billion (SLR 12 billion) for relief and rehabilitation in Sri Lanka and worked to put in place a significant program of assistance to help these IDPs return to normal life as quickly as possible as also consistently advocated the

need for them to be resettled to their original habitations as early as possible. India's immediate humanitarian assistance to IDPs included supply of 250,000 family relief packs; establishment of an emergency medical unit which treated over 50,000 IDPs; supply of over one million roofing sheets,

400,000 bags of cement for constructing temporary housing, provision of 95,000 starter packs of agricultural implements and 10,000 bicycles to IDPs and returnees in the Northern Province. The housing program forms a part of the assistance package by GoI to the war torn island nation.



Figure 1: Foundation for future extension of the house

2.0 FEATURES OF THE GOI AIDED HOUSING PROGRAM

Though the geo-political factors can never be discounted in such international assistance, there is much that is positive in intent and humanitarian in motive in this gesture by GoI. The following are the special features of the post disaster recovery housing program.

- Large scale: Direct assistance to 50,000 IDPs and other war affected families i.e. between 200,000 to 2,50,000 people. (Total population of Sri Lanka is 20 million, the Tamils are 15.4 percent of the total and the estimated number of IDPs was 300,000).
- Substantial Investment: US\$ 260 million in construction of houses alone (INR 14,300 million; SLR 35,750 million).
- The assistance follows a bloody and long civil war; meant for the people who have suffered heavily due to forced displacements and other reasons; contribution is towards long term rehabilitation; covers a large section of the affected population (not a token gesture); the action is in the main theatre of the war, the Eastern and the Northern provinces of the island, physically devastated by bombing and unsafe with mines and the housing is a critical, expensive and energy intensive component (in delivery) of the rehabilitation effort.
- The assistance is not in the form of money, the conventional way of country to country financial aid-- with no direct people contact, wherein the ultimate beneficiary is not a party to the deal, does not know, does not participate. This assistance is not in cash, it is in kind, in the form of constructed houses, one each for 50,000 families, being constructed over 500/700 locations in the Northern and the Eastern provinces of Sri Lanka. Each family is a direct participant.
- Houses are not built by the contractors and handed over to the beneficiaries to occupy. 45,000 of the 50,000 houses are being built by the families themselves (1000 houses under a pilot project in Jaffna province have been constructed by the contractors and occupied by the families). With each family building its own house, it is called an 'owner-driven' housing program.
- Each family is the 'owner' of the house. The estimated cost of a house—5,50,000 SLRs--is being transferred by the Indian High Commission in Colombo to a special bank account of the 'owner' family electronically. For the purpose special bank accounts are being opened.
- In constructing houses the owners/families/communities have not been left to fend for themselves. Three international public service agencies with substantial experience in post disaster reconstruction housing in Sri Lanka--UN Habitat, International Red Cross Society, and Habitat For Humanity--and one government housing development agency—National Housing Development Authority of Sri Lanka --have been engaged by GoI, on a professional basis, to help the house building families in their work, to provide technical and organizational assistance to each family in constructing the house. Their job is not to construct on behalf of the owner but facilitate, guide and support when necessary. Beneficiary identification; assistance in obtaining proper land titles from the government agencies, procurement of building materials and hiring skilled labour; technical help in selecting designs from the given options; guidance in cost estimation, finance management, cost control, making desired modifications in design, ensuring quality construction, etc. are the main functions of these facilitating agencies.
- Land for construction of the house, where it has been lost in the war, is being given by the Government of Sri Lanka to each family --either at the original location or nearby with the consent of the family. Legal title is ensured.
- Ample care is taken and systems are being developed to avoid/minimize leakages, corruption and other dislocations. Grievance redressal

system is in place.

- Each family is given a choice to select design from a number of options. The owner is free to make changes in the design of the house or even add construction area (additional cost, over and above the prescribed budget of SLR 5,50,000 is to be borne by the owner family)
- Compared to most disaster reconstruction programs, the house size provided is reasonably large: 550 sq. ft. It includes a hall, kitchen, two bedrooms and a sanitation unit consisting of a bathroom and a toilet with the waste disposal facility. The size of a typical house built under the government sponsored rehabilitation program for the victims of the earthquake of January 2001 in Gujarat, India, was between 280 to 320 sq. ft. Approximately 3,00,000 such houses were constructed.
- The 'owner-driven' approach has a loftier objective than just the reduction in cost of construction through the owner's unskilled labour contribution . The participatory/consultative approach is meant to see them as 'owners'/'clients' (as against receiver of the dole/subsidy) and gives them decision making options, restoring their confidence, self-belief and dignity in the bargain. Emphasis of the program is

on the 'process' as much as the 'product'

3.0 PROGRESS

Considering that the construction work on the owner driven segment of the housing started in October, 2012 the progress, in a short period of little over 6 months (in April 2013), with over 11,500 starts and construction at different stages on several sites, is good. With planned

All these make this project a large scale, people centered initiative of sensitive giving, dignified receiving, confidence restoring and community building humanitarian effort for the people beaten and brutalized by a prolonged and bloody civil war. The assistance from a neighboring country is a critical first step in the long term rehabilitation. And being done in a sensitive, capacity building and empowering manner sets the tone



Figure 2: The owner family with their house under construction

starts of over 20,000 units by end of the year, it is quite an impressive progress. The quality of construction, generally speaking, is also up to the mark.

and offers an opportunity to build further on the social and economic recovery, reconciliation and peacemaking.

4.0 CHALLENGES

4.1 Need to integrate physical and social infrastructure with the houses under construction:

- GOI's housing program is confined to construction of houses alone (it also has a repairs/retrofitting component of 5000 units). Physical infrastructure (roads, electricity, water, transport, etc) and social amenities (school, dispensary, community centre, etc.) do not form part of the program. As the sites of the new settlements are in distant places or the existing facilities and services have been damaged or destroyed, normal life is difficult without the physical and social infrastructure.
- Not that there are no plans or budget for repair or construction of such infrastructure. However, responsibility for providing the infrastructure rests with various departments and agencies of the Government of Sri Lanka. And in the areas that were cut off for a long time from the mainstream administration and where prejudices and antagonism still persist despite the formal closure of the war, things do not always work well. Follow up, pushing, presentation and arguing the case on behalf of the neighborhood/community, becomes necessary and that often requires external support.

4.2 Need to improve the settlers' income and employment prospects

- Houses and infrastructure

restored, the major problem facing the resettled families is the sustainable livelihood, income and employment. Returning from long



Figure 5: One of the contractor built houses in the early first phase



Figure 4: Contractor built housing cluster in the first phase

displacement, having lost tools, economic assets, contacts and often at new locations, the economic rehabilitation is the toughest challenge facing the communities and the government. Most of the settlers have small land plots ($\frac{1}{4}$ to $\frac{1}{2}$ acre), the agricultural pursuit is not adequately paying and the agricultural laborers do not get sufficiently paying work on a sustained basis. Much work is required in making people employable, earning livable income and building the region's economy.

4.3. Need for Ideas and Action for Trauma Care, Reconciliation and Peacemaking

Though the war has ended, the root causes of the conflict are not gone. The minority Tamil community continues feeling discriminated against. In fact, the 'victor' and the 'vanquished' perception is strongly entrenched with the nature of the outcome of the war and it seems to bury under the carpet of normalcy the latent hostility, distrust and antagonism between the two main community groups. Though the war is over, the situation is anything but normal. The political environment, with the party in power claiming military victory for the majority group, is not helping either. Reports of indiscriminate killing of the civilian population and other war crimes during the last phase of the war (it is claimed that between 50,000 to 70,000 civilians were



Figure 6: Project monitoring committee, consisting of senior government of India officials, visit the project regularly

killed) has left much bitterness and festering wounds.

Trauma care, confidence building and peacemaking are as important, if not more, as house building and settlement development. And for understandable reasons do not form part of the GOI's housing effort.

4.4 Challenge of Making the Housing Participatory and the Program "Owner Driven"

There is a huge perception gap between "owner driven" from the top down and "owner-driven" from the bottom up. If communities do not see the way it should be seen, the effort could fall between the two proverbial stools — neither externally controlled, nor internally owned. Participatory way of

working is not easy compared to external agencies making the decisions. Serious effort is needed to bridge this perception gap. Not only the field staff but functionaries of the facilitating agencies need to be prepared for this 'mindset' matter. Converting communities into the 'clients' and the 'owners' are not easy. It needs conscious effort and much hard work.

5.0 THE GOVERNMENT ROLE IN ADOPTING THE "PEOPLE PROCESS"

Lastly, let it be said that though the professionals with the NGO background, experience of participatory work, commitment to 'people processes' and given to seeing housing in the larger developmental context had—and have-- a role to play in shaping this

massive program in an ‘owner driven’ or ‘community managed’ fashion, sensitivity, understanding and trust displayed by the officers and agencies of the Government of India in this way of doing things can never be undervalued.

The author of this paper is involved in the project now for two years. Invited by the concerned Ministry of GOI—Ministry of External Affairs-- to advise on the implementation strategy, he advocated the case for an ‘owner driven approach’. The fact that Sri Lanka had tried such an approach earlier during the post tsunami reconstruction; had agencies with relevant experience to undertake responsibility; the ‘risk’ factor was known; the dispersed sites and the large scale of the program made it a logical way of going about; the 1000 houses pilot project by GoI, constructed using commercial contractors, which cost almost twice as much and took much longer to complete, argued the case for the decentralized owner driven approach. And the fact that the Indian High Commission in Colombo, in charge of program implementation, was convinced about the approach and wanted to go that way, also weighed in favour of the owner driven approach.

Certainly there was much arguing and convincing to be done at various levels. Trusting people, poor people, people in distress, that too with government money, is not always easy. That ordinary people can build houses on their own, does

not go well with the official program planners and the decision makers. Keeping the contractors out on a large scale investment has its dynamics too. Risks are not difficult to invent in a non-conventional way of doing things, especially when the concerned parties at both the ends – contributor and receiver--are the national governments. The real credit for the adopted ‘owner driven’ approach, which is transferring funds to the communities and assisting them to construct the houses on their own with an objective not only to transfer the risks to them but also to give them an opportunity to stand on their feet, is with the concerned governments and the officers in charge of decision making. But for their vision, ability to see positives and value in the approach and willingness to take some calculated risks, advocacy or no advocacy, the people centered approach would not have been possible.

6.0 CONCLUSIONS

Though this is an early stage and the major part of the work still remains to be done there is an unmistakable evidence that the people are responding by assuming responsibility, showing enterprise, working hard and putting their own savings in making their houses ‘bigger and better’. And they are proud of what they are doing.

Ending this piece by quoting a paragraph from one of this writer’s report to the Project Monitoring

Committee set up by the GoI will summarize the tale better.

“The client satisfaction level is high. Not only the usual complaints are conspicuous by absence (a prominent feature in most such public housing projects) and not only they do not grumble or complain about the cost escalation, their confidence and satisfaction level is visibly high. To a question, on her views on corruption in the project, in a long interview, the lady of the house told me with confidence that the system left no scope for corruption at all. She explained that considering that the full amount of GOI subsidy was directly deposited in her bank account electronically; that she was not required to push any paper or file; that she herself made payments to the masons and other labour, there was no chance or scope for corruption. This community trust is a huge plus for the project. But the real deliverer is the working of the systems and the sub-systems. Efficient and transparent transfer of funds-- electronically to the beneficiary families-- is one such sub-system. The point is this: that the positive outcome witnessed till date is not only because of the owner driven method of working. It is also because of proper systems, procedures and individuals being in the place.”

NOTES

*INR - Indian Rupees
SLR - Sri Lankan Rupees*

SCHOOL-CUM-CYCLONE SHELTERS CONSTRUCTED BY HUDCO IN ODISHA: REVISITING AFTER A DECADE

**SUKANYA GHOSH
RITABRATA GHOSH**

The shelters were constructed on the sites of existing schools selected by the state government of Odisha, which were damaged in the cyclone. The highlight of the project was use of cost-effective, environment - friendly & energy-efficient building materials & technologies, which HUDCO used to promote through building centres along with disaster-resistant features and other special features like rain water harvesting.

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In the aftermath of the Super Cyclone of 1999, HUDCO did commendable work in creating valuable community assets like School-cum-Cyclone shelters in the affected districts of Odisha through the network of Building Centres, utilizing funds from Hon'ble members of Parliament under the Member of Parliament Local Area Development (MPLAD) programme. These buildings constructed by HUDCO, were designed to be used as school buildings in the normal period and as shelters for the local residents during natural calamities like cyclone or flood. These structures were live demonstration of use of cost effective, energy efficient and environment friendly building materials and technologies, which were intended to help create awareness among the common for using these materials in their own construction work. Another major aim of this initiative was to make the building centres self-sustainable. Though these structures have seen quite a few natural calamities over more than a decade, a need was felt to revisit a few of these structures immediately after the cyclone Phailin of 2013 which was comparable to Super Cyclone of 1999, to ascertain whether or not they served their purpose properly. Lessons learnt from the study would give scope for further analysis and measures to be taken for long sustenance of the structures.

1.0 INTRODUCTION

Natural disasters have struck the state of Odisha repeatedly in the past. While the coastal districts of Odisha are prone to frequent floods and cyclones the western part of the state suffers from droughts. A large area of the state is prone to earthquake and, in addition, the state is sometimes affected by heat waves and forest fires. The history of

disasters substantiates the fact that about 80 per cent of the state is prone to one or more forms of natural disasters. Odisha is vulnerable to cyclones in the periods of April-May and September-November. Once every few decades a super cyclone strikes Odisha. In the recent past, two successive cyclones in October, 1999, which included the severe cyclone that hit Ganjam coast, damaged the infrastructure in 14 districts of the State and disrupted public life. Again in October, 2013, a very powerful cyclonic storm, Phailin, struck the coast line of Odisha and damaged houses and infrastructure to a great extent

The state of Odisha, having 80 per cent of annual rainfall concentrated over 3 months, is also vulnerable to floods. High population density in coastal districts, encroachment on the flood plains, poor socio-economic condition, weak infrastructure and mud houses increase the vulnerability. Floods are the most recurrent disaster in the state.

After the super cyclone in the year 1999, Odisha State Disaster Mitigation Authority (OSDMA)

was formed to co-ordinate and implement the reconstruction work, keeping in mind the need for disaster preparedness to face any future eventuality. OSDMA promotes Community Based Disaster Preparedness Activities (CBDPA) so that people can face emergencies in an organized manner.

2.0 BACKGROUND

2.1 Cyclone Phailin

The second-strongest tropical cyclone ever to make landfall in India, behind only the 1999 Odisha cyclone, was Cyclonic Storm Phailin (Thai: meaning "sapphire") in October 2013. As per the Odisha government sources, around 12 million people might have been affected due to this cyclone. As part of the preparations, 600 buildings were identified as cyclone shelters and people were evacuated from areas near the coast, including Ganjam, Puri, Khordha and Jagatsinghapur districts of Odisha. The cyclone prompted India's biggest evacuation in 23 years, with more than 550,000 people moved from the coastline in Odisha and Andhra Pradesh to safer places.

2.2 Super Cyclone in 1999

The strongest tropical cyclone ever recorded in the North Indian Ocean was 1999 Odisha cyclone. It was also the deadliest tropical cyclone in the Indian Ocean since the 1991 Bangladesh cyclone and deadliest



Figure 1: 14 Coastal Districts Affected by Super Cyclone

Indian storm since 1971. It caused the deaths of about 10,000 people, and extreme damage in its path of destruction.

Due to heavy torrential rain over southeast India in the aftermath of the cyclone, record breaking flooding occurred in the low-lying areas. The storm surge was 26 feet (8 meters). It struck the coast of Odisha, travelling up to 20 km inland. Approximately 2.75 lakh homes were destroyed, leaving 16.7

lakh people homeless. Another 195 lakh people were affected by the super cyclone to some degree. A large number of high school buildings were also damaged during the cyclone.

3.0 HUDCO'S ROLE IN DISASTER MITIGATION IN POST 1999 CYCLONE

Besides providing a huge financial package for reconstruction of houses damaged by the super cyclone to the Government of Odisha, HUDCO was also nominated by Government of India as the nodal implementing agency to construct school-cum-cyclone shelters in the affected areas of the state. The Hon'ble members of Rajya Sabha came forward to donate `10 lakh each from their 'Member of Parliament Local Area



Figure 2: Destruction Caused by the Cyclone



Figure 3: Shelter under Construction

Development' (MPLAD) fund. A separate wing in the name of 'Orissa Cyclone Rehabilitation Project Management Office (OCRPMO)' was established under the HUDCO Regional Office, Bhubaneswar in August 2000 with a team of dedicated HUDCO officials/consultants mainly for implementation of school-cum-cyclone shelter projects under MPLAD (Rajya Sabha). However, later on, the same wing took up implementation of various other cyclone rehabilitation projects like Model Village projects, school-cum-cyclone shelters under MPLAD (Lok Sabha), and projects under the Chief Minister's Relief Fund.

OCRPMO implemented, 78 school-cum-cyclone shelters in 14 cyclone affected coastal districts of Odisha with funding from 78 Hon'ble MPs of Rajya Sabha from their MPLAD fund during 2000 – 2003. The construction was taken up through the network of functional building centres of Odisha. Odisha has a



Figure 4: Bapuji Bidyapitha, Barimund, Khurda

distinction of being one of the pioneer states in the building centre movement. The shelters were constructed on the sites of existing schools selected by the state government of Odisha, which were damaged in the cyclone. The highlight of the project was use of cost-effective, environment-friendly & energy-efficient building materials & technologies, which HUDCO used to promote through building centres along with disaster-resistant features and other special features like rain water harvesting. The aesthetically pleasant structures were produced with the in-house designs developed by HUDCO after



Figure 5: Govt. Girls' High School, Purushottampur, Ganjam

ascertaining requirement from concerned school authorities and keeping site conditions in view. Total covered area that could be generated for each structure with the available fund of Rs..10 lakh was around 300 square metre (3300 square feet) with a construction cost of as low as Rs. 3,333/- per square metre (Rs..303/- square feet), which included cost towards electrification, plumbing, water-supply, rain water harvesting, landscaping etc., apart from civil construction/ finishing.

Role of Building Centres in post disaster construction activities

A number of building centres existing at that time in the state of Odisha, (which HUDCO had promoted), were identified for execution of the project. Building Centres facilitated production of cost effective, energy efficient and environment friendly building materials, imparting training to local masons and artisans on cyclone resistant construction techniques as well as cost effective building technologies and propagating the technology at the grass-root level including creating awareness among the common people. The building materials produced by the building centres were put to use in construction of school-cum-cyclone shelters.

The building centres, under the technical guidance of HUDCO, could restrict the cost of

construction quite efficiently to generate maximum possible built-up space with available funds through use of the following cost



Figure 6: RCC Well-ring foundation with RCC Capping

effective building materials and technologies –

- Cement Concrete Blocks/ Fly Ash Bricks/ Laterite stone (local material) for masonry
- Rat Trap Bond in red bricks
- Reinforced Cement Concrete (RCC) Door & Window Frames and Bison Board Door/ Window Shutters to minimize use of wood
- Filler Slab/ Ferro-cement Channel roofing in strategic portions of buildings
- Pre-cast RCC Well-ring foundation with consolidated sand and RCC capping
- Twin Leach Pit for sanitation

The role of building centres was not only praiseworthy for their direct implementation of these unique social assets but also for their indirect contribution towards creation of awareness among the

masses about the alternative building technology in the remote areas of the cyclone affected districts and also creation of a trained workforce of local masons and artisans in this technology. In the process, the building centres became self-sustainable.

4.0 NEED TO REVISIT

Since school-cum-cyclone shelters constructed after 1999 have witnessed a number of cyclones during the last decade, the question which comes to mind is whether they could serve their purpose properly or not. To answer this question, in the aftermath of Cyclone Phailin of October 2013, a condition survey of two such shelters was facilitated as a part of an academic study by an architecture student of IIT Kharagpur. Though the purpose of the survey was purely academic, the



Figure 8: Structure at present

findings could be used for internal evaluation by HUDCO.

4.1. Projects revisited and existing condition after Phailin

The survey was carried out on 31.10.2013 for two shelters in Balasore district. The following points emerged from the condition survey -

4.1.1 Town High School, Balasore

- Around 1500 people took shelter during Cyclone Phailin in early October 2013.
- Condition deteriorated due to lack of maintenance.
- The adjacent/ surrounding areas of the building were



Figure 7: Structure after construction

found with lot of water-logging and lack of cleanliness.

- The plinth protection of the



Figure 9 : Water logging/ lack of cleanliness, poor condition of staircase & plinth protection

structure was found damaged.

- The internal spaces of the building especially the staircase etc. were quite poorly maintained.
- The internal walls were found to have lots of patches of water-seepage, which occurred

due to lack of maintenance.

4.1.2 Barabati Girls' High School, Balasore

- Condition deteriorated due to lack of maintenance.
- The plinth protection of the structure was found in poor

condition.

- Structure not being used for school purpose, mostly being used for storage of furniture etc.
- Quite a few window shutters found missing and were never repaired/ replaced.
- The internal walls were found to have lots of patches of water-seepage, which occurred



Figure 10: Structure at present



Figure 11: Structure after construction



Figure 12: Lack of cleanliness, poor condition of plinth protection, Hall being used for storage, window shutters missing

due to lack of maintenance.

4.2. Why shelters sustained

For analysing the reasons as to why these two structures sustained the powerful cyclone Phailin and could give shelter to people in distress, it is worth discussing the aspects considered during construction.

The following disaster resistant features were adopted:-

- Corners of walls being the weakest points, corner reinforcement in shape of one 12 millimetre bar had been put in all junctions of external walls which continued from plinth beam to roof slab. Specially designed RCC corner blocks with a hole to allow the corner reinforcement to go



Figure 13: Demonstration of corner reinforcement/ corner block

through these blocks were used.

- 90° junctions on external walls had been avoided as far as possible and instead either chamfered or rounded corners

were provided for smooth flow of wind during cyclone.

- Continuous RCC Bands were provided at 3 levels (Plinth, Lintel & Roof).
- Considering the soil quality prevalent in the area, the foundations had been designed with precast RCC well-rings with consolidated sand filling and RCC capping. The plinth beam was designed to rest on the capping.
- High Plinth was provided to protect structure from flood water

In addition, the following points were also considered

- Shapes were adopted appropriate to cyclonic conditions.
- Ground + 1 storied structures were constructed with a hall on the first floor for access to upper floor during floods or storm.
- Flat roof/ roof with gentle slope with access to terrace for emergency during the floods or water surge was provided.
- Core toilet on 1st floor for use of sheltered population during the emergency was provided.
- Hand pump was provided to draw water at the first floor level (during flood).
- Plinth protection done for the buildings with outward slope

not to allow rain water to damage the foundation or wall.

4.3. Points to ponder

HUDCO made full effort for successful implementation of shelters and handed over the completed structures to the school authorities. HUDCO had also arranged to cover all such structures under insurance policy for a period of 10 years. With HUDCO initiation, the state government at that time issued a government circular empowering the concerned headmasters/headmistresses to rent out the shelters for social functions to the local residents, so as to generate fund for the purpose of maintenance of the structures. However, it is now the responsibility of the authorities who own the structures to maintain them properly so that they could serve their purpose for a prolonged period.

5.0 CONCLUSION

Like any other asset, school-cum-cyclone shelters need regular repair and maintenance not only to prolong life of the structure but also to serve as emergency shelters during the time of natural hazards. Generally, state public works department is approached for this sort of repair and maintenance works. Since there are so many school-cum-cyclone shelters under school and mass education

department of government of Odisha, a maintenance programme may be initiated at the state level. School authorities may be guided by state level experts to carry out maintenance activity.

Such a programme will ensure a minimum standard for the structures to be maintained. Maintenance programme should be systematic to prevent the need for major repairs. It should have sufficient budget to ensure that the

building functions properly at all the times. There should be regular inspection and maintenance plan including annual estimate. It is to be made as a day-to-day activity which is like other regular activities of schools. The school authorities including administrative staff, teachers, students, and even parents may take part in school maintenance programme. However, fund-raising activities as part of the school maintenance programme

should be continued.

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BOOK REVIEW

Right to Toilet: A Roadmap for Total Sanitation by A.K. Jain, (2014)

Readworthy Publications, New Delhi, p. 154, Rs. 695

The 2011 Census reveals that 12.33 lakh households do not have latrines in their homes and about 25 lakh households in India are still using dry (non-flush) latrines which need manual scavenging. The position of public toilets is still worse and conspicuous by their absence and pathetic maintenance.

According to Mr. A.K Jain sanitation is a major social, health, gender and ecological issue and is cause of water contamination and pollution. Women, especially the poor, are worst affected by the non-availability of toilets. The author proposes a set of measures which starts with legislation on the 'Right to Toilet' and a paradigm shift in the sanitation policies. He suggests revisiting the sanitation technology, planning and design standards and adopting eco-sanitation practices. The book 'Right to Toilet: A Roadmap for Total Sanitation' by A.K. Jain reviews the priorities of the government sponsored and funded schemes like the JNNURM. The book provokes the readers to explore new and innovative ways to solve this basic



human issue which deserves serious attention of policy makers, planners, engineers and urban local bodies.

As pointed out by Dr. Bindeshwar Pathak in his foreword, the book by Mr. A.K. Jain is yet another step towards promoting awareness about good sanitation, more so because Mr. Jain wants that toilet should be made a Fundamental Right. Being associated with urban and town planning, housing and various architectural and engineering projects, Mr. Jain has consolidated his experiences to come out with principles on integrating sanitation into city planning to achieve good living. Hence, the book is a 'must' read to understand the sanitation system in full perspective, especially in the Indian context. It is a good effort and a new approach to the subject which makes its reading very refreshing and useful.

Book reviewed by: Dr. Akshaya Sen, Fellow, Human Settlement Management Institute (R&T Wing of HUDCO), New Delhi.

IMPLEMENTATION OF MIS IN JABALPUR MUNICIPAL CORPORATION

Jabalpur Municipal Corporation (JMC) is one of the pioneers in harnessing the power of information technology (IT) in the state of Madhya Pradesh. JMC provides a wide range of municipal services to its citizens, these include services pertaining to health, sanitation, education, safety and utilities such as water supply, drainage, street lighting, roads etc. IT enabled systems have been put in place in JMC to enable standardizing these processes and obtaining timely & accurate information, thereby benefiting 14 lakhs citizens of JMC. The major functions/activities of JMC which have benefited by the use of management information system (MIS) and IT package include: (i) Property tax, water tax and rent; (ii) Death and birth certificates; (iii) Social security schemes; (iv) Tanker booking; (v) Vehicle tracking management system; (vi) Geographical information system; (vii) Booking of community halls; (viii) Issues of license & ration cards; (ix) Granting building permission; (x) E-library; (xi) Project monitoring system.

The Process: The biggest challenge was the change management. Adopting keyboard for running the systems and processes, at first, appeared daunting for hundreds of frontline clerks and counter operators. Computer and system related training was imparted to the staff so that they attained good working knowledge and gained confidence in handling the applications.

Result Achieved: IT-enabled system in JMC has resulted in substantial efficiency in collection of water and property taxes, among other benefits. Water tax collection has increased from Rs 1 crore in 2007-08 to Rs 11.42 crore in 2010-11 which is 1100 per cent increase in revenue. The number of registered water connections has increased from 35303 to 123000 during the same period, which is a 250 per cent increase in number of registered water connections. Similarly, the number of property tax payers has increased from 1.45 lakh in 2007-08 to 1.69 lakh in 2010-11. The new MIS system has been sustained by JMC for last 5 years. As the outcome of this new modernized system, processes are user friendly and beneficial to the corporation and now the departments/employees are eager to try to incorporate IT enabled solutions in more and more processes.

Water tax collection has increased from Rs 1 crore to Rs 11.42 crore which is 1100 per cent increase in revenue. The number of registered water connections has increased from 35303 to 123000 which is a 250 per cent increase in number of registered water connections. Similarly, the number of property tax payers has increased from 1.45 to 1.69 lakh.

Lesson Learnt: The key lessons learnt from the implementation of MIS by Jabalpur Municipal Corporation include:

Implementation of e-governance solutions can sustain over a long

period of time; Redesign of processes is a must before automating them; Security, privacy and e-payment facility must be given; Citizen feedback is necessary for improvement of services; In e-governance efforts, IT should not viewed as an end in itself, but as means, therefore, involvement and training of all stakeholders is necessary; hanging processes and people's minds and the way how ULB interacts with citizens needs to be the focused; Implementation of e-governance solutions lead to more transparency less dependency on lower staff, prompt services, less expenditure on establishment; Raised employees skill levels in the operation of hardware and software; Employees got benefit from professional development opportunities; and better tax compliance by people who were reluctant to pay taxes.

Transferability: There is no ideal structure of solutions for successful implementation of e-governance solution, but political will and skilled manpower is essential for implementation of e-governance solutions in any ULB. Even the District Rural Panchayat bodies can also benefit by introducing this MIS. The lessons learnt by JMC during the period after introduction of this MIS also can help the partners to devise and introduce more conducive and user friendly systems and processes in future.

Courtesy: Best Practice Entry submitted by Jabalpur Municipal Corporation. Further details available on: www.jmcjabalpur.org

HOUSING PROJECT EXECUTION – MONITORING USING GPS TECHNOLOGY IN KARNATKA

Rajiv Gandhi Rural Housing Corporation Ltd. (RGRHCL) was established in the year 2000. At the initial stage, the housing schemes were implemented through 27 Deputy Commissioners (DC) and Chief Executive Officers(CEO)-Zilla Panchayats of the district, wherein the physical progress report were faxed to RGRHCL and it was re-entered and consolidated. The funds were released to the respective DCs and CEOs based on the progress report. It was further distributed to the gram panchayats through taluk panchayats (Block) and Urban Local Bodies and finally the money was given to beneficiaries through A/c payee cheques by gram panchayats. This whole process of fund transfer to end beneficiaries took 3 to 4 months.

Between 2001-2003 RGRHCL started issuing paper limits (at par system) for releasing funds and the progress reports were received through email, where the time for reaching the money to the beneficiary was reduced to one month. In the years 2003-2005, the company introduced gram panchayat-wise online progress

update, off-line approval system and the paper limits (at par system) for making release of funds, where time for funds transfer to the beneficiary A/C was reduced to one month.

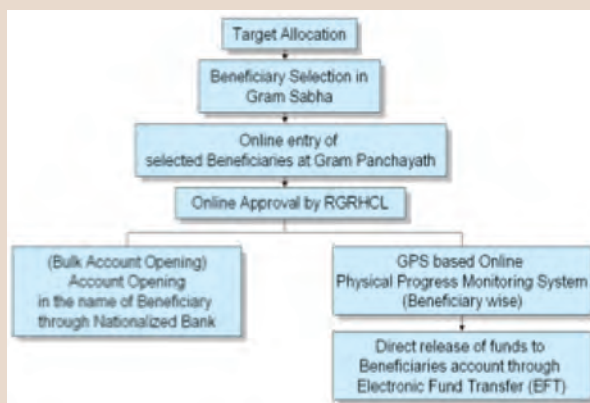
In the years 2005-2009 the company started implementing the housing schemes through 5628 gram panchayats and bank accounts were opened by RGRHCL for all 5628 gram panchayats through core banking and introduced Direct Release of funds to Gram Panchayaths accounts through Electronic Fund Transfer (EFT) system. The time for fund credit in the beneficiary A/C was reduced to one week.

From 2010-2011 the company has been using the following technologies for monitoring the housing schemes faster, more effectively, and transparently: (a) online beneficiary selection (approval); (b) online beneficiary-wise physical progress update; (c) GPS based progress update; and (d) direct release of funds to beneficiary's bank A/C. Through this process, the money

transfer to the beneficiary bank A/C was reduced to one hour.

The Company has successfully completed more than 23 lakh houses under various schemes, for which the government has spent more than `6500 crores through this EFT system. The flow of funds is directly reaching the beneficiary in one day. The system has resulted in transparency; fund transfer to the beneficiary 'in time'; optimum usage of funds; avoiding blockage of funds; control & monitoring of all the accounts; generation of various MIS Reports ; GPS based unique identification of a house. RGRHCL is the first to implement bulk volume of transactions through online EFT system in Karnataka.

Transferability: GPS based identification of the area and controlling in duplication has been shared and implemented for Horticulture Department, Government of Karnataka for its Suverna Bhoomi Yojana and the software was also designed and developed by RGRHCL



Flow Chart at Present



GPS based progress data uploading to the Central Server using internet

Courtesy: Best Practice Entry submitted by Rajiv Gandhi Rural Housing Corporation Ltd. .

COLLABORATIVE RESEARCH AND DEVELOPMENT ACTIVITIES WITH NATIONAL INSTITUTES OF EMINENCE

The Research and Training wing of HUDCO (Human Settlement Management Institute), provides financial assistance to promote research work in the field of housing, infrastructure, planning, urban management & governance and climate change. The assistance is provided by way of grants to academic and research institutions in the country such as IITs, IIMs, SPAs and other post-graduate institutions of eminence. Research proposals of applied nature which attempt to solve specific problems in the area of human habitat or in newer and complementary fields, are considered for financial support by HUDCO. These research proposals can be for a duration of one to three years with well-defined outcomes at intermediate periods/intervals.

The 30 research studies sanctioned till date, covering the broad themes of Urban Environment, Eco-cities, Solid Waste Management, and Urban Transportation, along with the name of the principal researcher and the institutions are given below:

1. Assessing Urban Sustainability in the Context of Urban/Spatial Cluster Typologies using GIS and Multivariate Analysis by Dr (Mrs) Rajashree-Kotharkar, Visvesvaraya National Institute of Technology, Nagpur
2. Modelling for Pedestrian Friendly Transit Oriented Development by Dr. P Vedagiri, Indian Institute of Technology, Mumbai.
3. Assessing and Modelling the Infrastructure Crunch of Gulbarga City: Holistic Approach to Plan a Sustainable City Using Geospatial Technology by Dr. Priya Narayanan, Central University of Karnataka, Gulbarga
4. Development of a Model framework for Land use based Estimation and Prediction of Solid Waste Generation by Dr. PP Anilkumar, National Institute of Technology, Calicut.
5. Multi-partnership Model of Self Sustainable Shelters for Urban Homeless Poor by Dr. Geetika, Motilal Nehru National Institute of Technology, Allahabad.
6. Awareness of Sanitation and Solid Waste Management: Can it be a way forward? by Shri Tara Shankar Shaw, Indian Institute of Management, Shillong.
7. Cover Bonds as a Complimentary Source of Financing Mortgage Lending in India: Lessons from the Global Covered Bond Systems by Dr. Rajat Kathuria, Indian Council for Research on International Economic Relations, Delhi.
8. Environmental Performance Assessment of Major City of Chattisgarh based on Green City Index by Dr. MK Verma, National Institute of Technology, Raipur.
9. A study of Feasibility of PPPs as Mitigation Strategy for Climate Change by Dr. L Boeing Singh, Indian Institute of Technology, Guwahati.
10. Participatory Communication Initiative for Ward Transformation: Let's Do it Punjabi Bagh by Ms. Yuki Azaad, Delhi University, Delhi.
11. Traditional Indian Residential Architecture – Form, Design, Social Spaces and Relevance by Shri TS Randhawa, Indian National Trust for Art and Cultural Heritage, New Delhi.
12. Construction of Low Volume Roads on Soft Subgrade Soil Improved by Locally Available Marginal Materials by Dr. Rajesh Kumar Tripathi, National Institute of Technology, Raipur.
13. Design Development of Sustainable Construction Material from Agricultural Waste by Dr. Rahul V. Ralegaonkar, Visvesvaraya National Institute of Technology, Nagpur.
14. Modelling Cost Benefits of Energy Efficient Interventions for Affordable Mass Housing in Warm-Humid Climate by Prof (Dr) Subrata Chattopadhyay, Indian Institute of Technology, Kharagpur.
15. Model Village Development for Juang Tribe in Odisha in Public and Private Partnership by Dr. (Ms) Harshit Sosan Lakra, Indian Institute of Technology, Roorkee.
16. Development of a Contaminated Site Classification and Remediation System by Dr. Arvind K Nema, Indian Institute of Technology, Delhi.
17. Study of Non-Performing Assets of HUDCO. by Dr. (Mrs.) P Krishna Prasanna, Indian Institute of Technology, Chennai.
18. Housing, Urban Development and Infrastructure: Study of the Impact of PPP and Private Equity Investments by Dr. Thillai Rajan A., Indian Institute of Technology, Chennai.
19. Energy Efficiency in Eco Cities by Prof. Radha Kant Barik, Indian Institute of Public Administration, New Delhi.
20. Urban City Analysis to Measure its Resiliency and Strategically Improve Emergency Response by Dr. Nimesh B Bolia., Indian Institute of Technology, Delhi.
21. Social Implication Assessment Framework for BSUP Programme by Dr. Krishna Kumar Dhote, Maulana Azad National Institute of Technology, Bhopal.
22. Municipal Infrastructure Potential for HUDCO Lending by Dr. KK Pandey, Indian Institute of Public Administration, New Delhi.
23. Identifying Models for Information Intermediaries in Dense Human Settlements by Dr. Arpan Kumar Kar and Dr. P Vegneswara Ilavarsan, Indian Institute of Management, Rohtak.
24. Guidelines for Demand Responsive and Context Sensitive Bicycle Infrastructure Planning for Sustainable Indian Cities by Dr. Sudeshna Mitra, Indian Institute of Technology, Kharagpur.
25. Study on Primary Collection of Solid Waste in Bangalore by Dr. Gopal Naik, Indian Institute of Management, Bengaluru.
26. Future Proof Design of Transportation Systems: Optimization of KSRTC / BMTCL Scheduled under Uncertain Demands by Prof. TG Sitharam, Indian Institute of Science, Bengaluru.
27. Trip Makers' Perception towards hard and Soft Factors of Bus Service & the Impact of Bus Ridership by Dr. Bhargab Maitra, Indian Institute of Technology, Kharagpur.
28. Application of Geo-informatics in Housing the Urban Poor by Dr. Sulochana Shekhar, Central University of Karnataka, Gulbarga.
29. Architecture Typologies – Exploring Alternative living Solutions for Sub-Urban India by Prof. U.A. Athavankar, Indian Institute of Technology, Mumbai.
30. Shelter for Urban Poor through Community Approach: Study of Homeless Persons at Lucknow & Varanasi by Dr. Ram Manohar Vikas, Indian Institute of Management, Lucknow.

Priority is given to themes which have a bearing on development of sustainable human settlement with special focus on areas / activities pursued by HUDCO as per its Memorandum of Association or emerging themes of applied research. Funding to a maximum limit of Rs.25.00 lakh per research activity plan, on approval of the proposal by the Board of Directors of HUDCO, is provided to support activities outlined by the institutions. The research projects are evaluated in terms of innovations, implementability, benefits to society and HUDCO's mission to promote habitat development to enhance the quality of life. Interested institutions may forward their proposals, in the prescribed format, through the Head of the institution to the Executive Director, HUDCO/HSMI, New Delhi.

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