SHELTER

Theme Paper | Policy Review | Case Studies

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Publication

HOUSING AT THE CENTRE

WORLD HABITAT DAY 2016 -

THEME :

NEW URBAN AGENDA AND SUSTAINABLE DEVELOPMENT GOALS

FROM THE CHIEF EDITOR

Urbanisation is both a cause and effect of development and therefore it holds tremendous potential to impact and transform the lives of the citizens, the economy of nations, and the health of the planet. Increasing urbanisation presents both challenges and opportunities on the social, economic, political, cultural, and environmental front. It is now well recognised that for safe, liveable and harmonious cities, participation of all stakeholders is essential and solutions to issues in urban areas cannot be standardised as they have to be context and culture specific.

October 2016 will be a turning point in the history of urban development and management. Beginning with World Habitat Day, followed by the Habitat III Conference at Quito, Ecuador and culminating with the World Cities Day on 31st October, a new urban agenda will be set for countries to adopt and follow in the coming decades. 17 Sustainable Development Goals (SDGs) with 169 targets have already been adopted by the United Nations member nations to prepare a strategy to end poverty, fight inequality and injustice, and tackle climate change by 2030. Further, the New Urban Agenda will be adopted at the Habitat III Conference, with the aim of securing political commitments across nations towards the cause of sustainable urban development.

World Habitat Day is celebrated to sensitize all stakeholders of their collective responsibility for the future of the human habitat and to initiate suitable action on a relevant theme to promote sustainable, inclusive and equitable development of human settlements. The theme for World Habitat Day 2016 is 'Housing at the Centre', which aims to recognise the basic right of every citizen to adequate shelter. Housing is key to economic and social development of a nation. In India, for example, it is estimated that investment in construction sector including housing has an income multiplier of 5, employment multiplier of 8 and contribution of housing to the GDP is 5 per cent. This justifies the role of housing as a prime-mover of the economy, particularly when more and more countries are changing their characteristics from rural to urban.

This issue of SHELTER focuses on the proposed new Urban Agenda to be adopted at the Habitat III Conference, the Sustainable Development Goals and the importance of housing development, through well-structured articles and other relevant material in circulation. Five issue papers, prepared by the United Nations Task Team on Habitat III have been included to present a glimpse of the preparatory process of Habitat-III.

Keeping in mind the focus of this volume of SHELTER, each article deals with issues that are germane to the theme, policies, and case studies with a view to critically analyse existing policies and formulate a roadmap to move ahead. The theme papers by Dr. PSN Rao, Shri Hitesh Vaidya and Dr. Akshaya Kumar Sen call for reformation of laws and urban development practises that will allow the private sector to participate in city development practises while providing a housing market within the reach of low-income families. The policy review papers by Dr. Poonam Prakash (et.al.) and Ms. Poonam Mehta (et.al.) examine the process of access to land and finance for low-income communities in India. The case study presented by Ms. Sejal Patel (et.al.) examines off-site resettlement of the poor households displaced by development projects in Pune and also deals with the subject of poor household's association with land for livelihood opportunities and social networking. We hope that you will enjoy reading this volume of SHELTER.

INSIDE
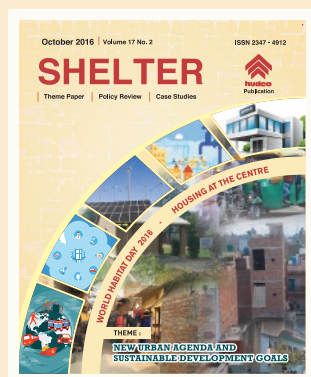
Theme

New Urban Agenda and Sustainable Development Goals

The Sustainable Development Goals (SDGs) replaced the Millennium Development Goals (MGDs) which ended in 2015. The SDGs were envisioned in the Rio+20 Conference in 2012 and formally accepted by the United Nations on September 25th 2015. The United Nations member countries adopted a set of goals to end poverty, protect the planet, and ensure prosperity for all as part of a new sustainable development agenda. Each of the 17 goals have specific targets to be achieved over the next 15 years. The new goals are diverse and focus on six key areas- people, planet, prosperity, dignity, justice and partnerships. They range from ending poverty, fighting inequality and injustice, and tackling climate change to strengthening international partnership for development by 2030.

This year, the Habitat III Conference on Housing and Sustainable Urban Development will be hosted in Quito, Ecuador and a new urban agenda will be adopted to re- affirm the commitment of governments to work towards sustainable urban development by establishing efficient public policies in favor of social inclusion, eradication of poverty and equitable redistribution of resources and wealth, sustained and inclusive economic development in harmony with nature and balanced territorial management. The SDGs and the new urban agenda will set out a road map for global actors to work towards an inclusive, prosperous and sustainable urbanization paradigm.

IN THE BOX

SUSTAINABLE DEVELOPMENT GOALS (SDGs)

On 1 January 2016, the 17 Sustainable Development Goals (SDGs) of the 2030 Agenda for Sustainable Development adopted by world leaders in September 2015 at an historic UN Summit officially came into force. These new Goals that universally apply to all countries will mobilize efforts to end all forms of poverty, fight inequalities and tackle climate change, while ensuring that no one is left behind.

The goals provide a framework for shared action "for people, planet and prosperity," to be implemented by "all countries and all stakeholders, acting in collaborative partnership." As articulated in the 2030 Agenda, "never before have world leaders pledged common action and endeavour across such a broad and universal policy agenda." 169 targets accompany the 17 goals and set out quantitative and qualitative objectives for the next 15 years. These targets are "global in nature and universally applicable, taking into account different national realities, capacities and levels of development and respecting national policies and priorities."

List of 17 Sustainable Development Goals:

Goal 1: End poverty in all its forms everywhere

Goal 2: End hunger, achieve food security and improved nutrition and promote sustainable agriculture

Goal 3: Ensure healthy lives and promote well-being for all at all ages

Goal 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

Goal 5: Achieve gender equality and empower all women and girls

Goal 6: Ensure availability and sustainable management of water and sanitation for all

Goal 7: Ensure access to affordable, reliable, sustainable and modern energy for all

Goal 8: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

Goal 9: Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

Goal 10: Reduce inequality within and among countries

Goal 11: Make cities and human settlements inclusive, safe, resilient and sustainable

Goal 12: Ensure sustainable consumption and production patterns

Goal 13: Take urgent action to combat climate change and its impacts

Goal 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development

Goal 15: Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss

Goal 16: Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels

Goal 17: Strengthen the means of implementation and revitalize the global partnership for sustainable development

Source : *https://sustainabledevelopment .un.org/sdgs*

SDGs AND THE NEW URBAN AGENDA

Urban Planning and Informal Settlements in Indian Cities

Dr. PSN RAO

> If a city is fortunate to have an approved and published plan in place at last, the next question is its implementation. How does the master plan get implemented? Land, the basic resource for city development needs to be acquired and given to the development authorities for implementation. This again is wrought with a large number of contradictions. As a result, we find that development authorities in various cities of India are hardly developing any planned extensions.

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Proliferation of informal settlements is a common phenomenon in Indian cities, given the rigid systems of city development where easy and affordable access to land for housing and income earning activities are not available. These settlements pose a major health, safety and environmental single. In order to achieve sustainable development goals through sustainable human settlements, it is argued that we need to sensitize all stakeholders to suitably reform our laws and urban development practices, so that the low income private sector can also have a room to operate in the city development process and provide a market within the reach of the low income families. To achieve this, states will have to amend the policy and law applicable to provide access to land and housing.

SUSTAINABLE DEVELOPMENT GOALS

Sustainable Development Goals (SDGs) came into discussion way back in the year 1972 when governments met at the UN Conference on the Human Environment at Stockholm to discuss the right to a healthy and productive environment. However, it was not until 1983 that the United Nations decided to create the World Commission on Environment and Development which defined sustainable development as "… meeting the needs of the present without compromising the ability of future generations to meet their own needs." Later, in the year 1992, the first United Nations Conference on Environment and Development was held in Rio de Janeiro, and it

was here that the Agenda 21 or the agenda for Environment and Development was developed and adopted.

Two decades later, at the Rio+20 Conference, a resolution known as 'The Future We Want' was reached and among the key themes agreed on were poverty eradication, energy, water and sanitation, health, and human settlement. Subsequently, this got transformed into Millennium Development Goals (MDGs) which were supposed to be achieved by the year 2015. In September 2015, the UN General Assembly adopted the 2030 Development Agenda for Sustainable Development and the Sustainable Development Goals (SDGs), 17 in number, emerged from this agenda.

The Goal-11 of SDGs aims to make cities and human settlements inclusive, safe, resilient and sustainable by achieving the targets, which are as follows:

11.1 - By 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums;

11.2 - By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport,

with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons;

11.3 - By 2030, enhance inclusive and sustainable urbanization and capacity for participatory, integrated and sustainable human settlement planning and management in all countries;

11.4 - Strengthen efforts to protect and safeguard the world's cultural and natural heritage;

11.5 - By 2030, significantly reduce the number of deaths and the number of people affected and substantially decrease the direct economic losses related to global gross domestic product caused by disasters, including water-related disasters, with a focus on protecting the poor and people in vulnerable situations;

11.6 - By 2030, reduce the adverse per capita environmental impact of cities, by paying special attention to air quality and municipal & other waste management;

11.7 - By 2030, provide universal access to safe, inclusive and accessible, green and public spaces, in particular for women and children, older persons and persons with disabilities;.

It is within this context that we need to examine the practice of urban planning in Indian cities and the way forward.

URBAN PLANNING IN INDIAN CITIES

Town and country planning or urban and regional planning is basically about organizing, allocating and regulating physical space for public good in human settlements. The origin of town planning dates back to several thousands of years. However, in more contemporary times, the first laws for modern town planning were enacted in Italy. Soon, similar laws were enacted in Great Britain. India followed the suit and in 1915, the erstwhile Bombay Presidency enacted a town planning legislation. The need to plan our human settlements, particularly our towns, had arisen primarily on account of the urgent need to maintain good public health and prevent the spread of diseases.

The congregation of human beings in large numbers in towns and cities poses a public health hazard. Such habitats consume large quantities of water and also generate liquid and solid waste. To maintain healthy sanitary conditions, we need to adopt planned methodology of organizing spaces and engineering systems so that sanitary conditions are maintained. While in the early years, safety, security, public health, functionality and aesthetics were serious considerations, they remain so today too. With burgeoning population in our towns and cities, the need for physical or spatial planning becomes only more important in the present day context than ever before. All the more, when air and water pollution, depleting natural resources, global warming, sustaining the natural environment, increasing costs of land acquisition and affordability considerations are coming into sharper focus.

How do we ensure planned growth of our human settlements? No doubt that good urban planning should be the starting point. Various states in our country have town planning laws. These laws enable the town planning departments and urban local bodies to prepare town plans or master plans. Urban development authorities have also been created to ensure that cities are developed in a planned manner. Private entrepreneurs are also encouraged to develop layouts which are sanctioned by the concerned organizations. So if there is such a large organizational paraphernalia, why is it that our cities do not bear any semblance of being planned?

Firstly, town plan or master plan preparation is a time consuming task. Departments of town planning in various parts of the country are in a challenging situation in terms of staffing, office infrastructure and equipments to manage tasks. In most places, positions are not filled or have been scrapped. As a matter of fact, there is a need to create more positions of town planners. Secondly, in the absence of latest technologies and techniques of mapping and surveying like geographical information systems and so on, the whole process of planning is becoming time consuming. Thirdly, in the absence of qualified professionals, consultants alien to the local conditions are assigned with the task of preparing different types of development plans. More often than not, this results in a disconnect with ground reality and things get delayed. Fourthly, the consultants and the local stakeholders find it

difficult to get on to a common plane of consensus. Master plans invariably take several years or even decades to prepare and approve to become statutory plans. Meanwhile, land undergoes subdivision, consolidation and development, on the ground and the plan loses its meaning because of the change in the ground conditions. In addition to this, there is of course local politics to contend with, since the approval of the plan is in the hands of the urban local body, a political entity, and this system is what is mandated by the Constitution of India under the 74th Constitution Amendment Act. Whilst extensive stakeholder meetings are envisaged, these end up more as stumbling blocks to derail the plan rather than to understand the larger public good and catalyse the process of implementation. The conflict between personal benefit and public good is extremely difficult to resolve.

If a city is fortunate to have an approved and published plan in place at last, the next question is its implementation. How does the master plan get implemented? Land, the basic resource for city development needs to be acquired and given to the development authorities for implementation. This again is wrought with a large number of contradictions. As a result, we find that development authorities in various cities of India are hardly developing any planned extensions. The state finds it more convenient to approve private layouts, rather than having planned development where the lands of the landlords are taken away with apparently a small compensation in

return. If roads, drains, pipelines and traffic go winding haywire, it is a serious problem. The outcome is therefore a product of the process!

Obviously, in such a situation, one is not in a position to estimate and plan the provision of infrastructure services, since the area plan does not follow any rational pattern. Drains do not follow slopes or property ownership lines and the result is obviously flooding during every rainy season. Physical infrastructure can still be laid under the roads, what about the social infrastructure? Parks, playgrounds, schools, hospitals, fire stations and a variety of other uses need land, which is not earmarked. The private layouts do not provide for them. At least this has been the experience in all our large metropolitan cities where 40 to 60 percent of the population lives in unapproved private layouts without proper planning or infrastructure. Comprehensively planned areas form only a small part of the cities in India. So, the challenge remains how to plan social infrastructure and who will provide land for them?

In pre-independence time, town planning, surveying and valuation were important subjects which were pursued with zeal. Stalwarts like Sir Patrick Geddes, Otto Koenigsberger, Le Corbusier, Jane Drew, Sir Edwin Landseer Lutyens, Walter George, John Terry, Maxwell Fry, Pierre Jeanneret, to name a few, intervened and contributed to the society by through their work on some nicely planned urban areas which stand the testimony of time and the citizens there are deriving

the benefits of planning even today. The Americans gave us the planned city of Jamshedpur built by the Tatas. Thanks to the British engineers, we have well planned areas called Cantonments. The 'towns' of Bangalore were a similar outcome. Early British surveyors and town planners gave us good town planning schemes in Mumbai and some other cities. Then, we had well planned steel townships and other similar areas for large public sector undertakings. We have our own leading lights in home grown town planners. Over the decades, however,the fact that there is no significant town planning initiative barring a few such as Bhubaneswar, Gandhi Nagar, Navi Mumbai, Greater NOIDA and some others speaks volumes of the state of urban planning in India today. Modern Indian town planning talent is available aplenty and present day town planners are equipped with modern tools and techniques. They need to be fully harnessed by the government ,to ensure better planned cities.

The other trend is permitting real estate developers to put up large area developments. However, it is seen that most of these are in awkward land parcels, shape being no consideration for approval. As a result, while there is everything inside, there is nothing outside. The near absence of external infrastructure for a variety of reasons is another reason for the failure of such a model. Gurgaon and most other city fringes are in this state of chaos, something consciously being encouraged by state governments.

Not having comprehensive city plans is one thing, not implementing them is another. Funding the implementation of master plans has always been a sluggish and long drawn process. As a result, plans on paper often remain far from ground situation. People do what they like on the ground. Further, lackadaisical regulation has led to haphazard constructions all over the city, particularly in the fringes. Then, there are unchecked informal sector encroachments. All these add up to the chaos on the city roads and build the total picture of disorder, disarray and dismay. Civic design and urban aesthetics are strange words to many in the present day urban scape, characterized by poverty and deprivation; when half of the city population is fresh from the village. Expecting them to meaningfully participate in stakeholder interaction on city planning is difficult. Often, they become target vote banks of political arithmetic and get protection for grabbing public lands, only to be regularized soon before the next election. India lives by the Delhi example of mass regularization. In such a political climate, technical considerations of town planning have sadly little role to play. Scientific town planning is therefore sidelined; a dangerous trend for urban disasters to follow.

When Jawaharlal Nehru National Urban Renewal Mission was announced with a huge budget of nearly Rupees One Lakh Crores, professionals were optimistic about the renewal process, but the hopes it brought were short lived. There was little in it for town planning. Instead of using the money for implementing existing statutory master plans, it was envisaged that non-statutory 'city development plans' be prepared afresh, projects be identified and funded. Thus, comprehensive town planning missed the shot in the arm and the only hope, thus evaporated.

Ms. Anna Kajumulo Tibaijuka, Retired UN Under-Secretary-General & Former Executive Director, UN-HABITAT, stated in the year 2009, "…. Yet to blame urban planners and their plans for our urban problems is like turning back the clock and going back in history to a time when no-one could have foreseen the problems we now face. ….. Many of the ills of urbanisation have been conveniently left at the doorstep of urban planners and planning. Actually, there is no replacement for planning. It is a function that results from our uniquely human ability to anticipate consequences. As the world grows more and more urban, it is vital that as governments accept urbanisation as a positive trend…." Therefore, it is high time the governments in the country take a close and hard look at the state of town planning in the country and initiate steps to strengthen the same.

INFORMAL SETTLEMENTS

Almost all Indian cities are confounded with the problem of illegal land subdivisions or 'unauthorised colonies'. These are basically residential colonies developed out of agricultural land subdivisions which are in violation of the urban development laws. Agricultural lands are subdivided, change of land use is not taken as it is very expensive to convert 'agricultural' land into 'non-agricultural' land as the fees for the same are usually high. Further, the same may also not be in consonance with the land uses proposed in the master plan. Moreover, if a colony needs to be developed as per the development controls, land sub-division laws, etc. more land has to be left for roads, open spaces and social amenities. Also, all this needs is a lot of paper work, documentation, time spending in visiting various offices and getting approvals, etc.

The response to all these difficulties is the proliferation of unauthorized colonies. The agricultural land owners find an easy solution by subdividing the land parcels into plots and selling them, with little land earmarked for roads, open spaces and amenities. Further, this also provides a lot of flexibility to the purchasers as it gives informality and flexibility. The purchasers often find these plots of land attractive since they offer varying sizes of plots, are available in various locations of the city, the payment terms are also flexible and one can incrementally construct the properties. Also, in the absence of any use restrictions, one can carry out various kinds of activities in the

property which can supplement the income of the householder.

Therefore, from the point of view of both the land owner as well as the purchaser, the informal land subdivisions present a major advantage. The huge unmet demand for housing in the urban areas and high prices of the formal products, either flats or plots of land, make this a viable solution for the low income population to gain access to land and housing.

While this type of proliferation of informal settlements is a very popular system in urban areas in India, there are many negative implications here. These colonies are of very high density with poor light and ventilation on account of not following any building byelaws and no setbacks; only the front side is open to ventilation. Further, the narrow roads are also a serious cause of concern as they lead to traffic congestion. The physical infrastructure in these colonies is also not developed. The land owners usually sell the plots with no infrastructure and over a period of time people make their own arrangements for water, drains, etc. No piped water supply is available in these colonies and residents usually have to depend on water tankers or by illegally taking water from nearby trunk pipelines. The streets are normally full of a maze of wires drawn from nearby networks and often dangerous. The narrow streets which are not in conformity with the norms, make

it very difficult for fire tenders to enter in case of a fire. Further, in the absence of any building plan approvals, the buildings are invariably non-engineered and not always structurally safe.

There is a lot of speculation that takes place in these colonies and the informal land market is a thriving speculative business. There are many entrepreneurs, middlemen and investors who are involved in this market. The total number of unauthorized colonies (informal settlements) in the city of Delhi, the national capital is over 1,800. They accommodate over 60 percent of the population of the city, mostly the low income families. Over the years, the government has initiated a policy of 'regularisation' of these areas by providing some infrastructure. Unfortunately, while this policy has been amended a few times, the funding remains little and few colonies have been regularized. Therefore, the infrastructure status in most of these areas still remains far from satisfactory with open drains, no sewerage system, open garbage dumping, unsafe buildings, fire hazards and traffic problems.

The situation in the other metropolitan cities of India is no different. In the city of Hyderabad, the capital city of the state of Telangana, a scheme of regularization called the Layout Regularisation Scheme (LRS) was initiated in order to regularize such informal settlements. However, the scheme did not meet with any

success and very few people have come forward to have their layouts regularized. This is a clear indication of the priorities of the people. This is also an indication that the people know that they would get protection and their buildings would not get demolished and therefore, continue to proceed in the illegal route.

CONCLUSION

While on the positive side, the informal settlements provide immediate relief for the property needs of the low income families, they do not provide for a safe and healthy living environment. They are against the conventional principles of urban planning. However, in view of the reality of the day, we need to draft a new urban agenda where we can take into cognizance the emerging realities of the day. The new urban agenda needs to recognize the inherent strengths of the private enterprise and provide for laws which make the development of such settlements easy. By reducing the conversion charges, reducing the standards of development to more acceptable levels so that the saleable area in the settlements is increased, we can achieve planned and orderly development and at the same time provide for the flexibility and informality desired by the local population to be free to develop land, start businesses, earn more income and improve their lives. Therefore, this calls for a complete overhaul of the local urban planning policies, practices, governance systems and laws. This would also

be acceptable to the politicians since it would be seen as a pro-people measure. Therefore, it is argued that the global and national, political and technical environment should be created so that the sustainability development goals of achieving sustainable habitats are achieved by the year 2030.

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GENERAL GUIDELINES FOR SUBMISSIONS OF ARTICLES

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

1. The paper should be created using a word-processing program (such as Microsoft Word) and should be between 3,000 and 5,000 words in length. The file may be in .docx or .doc format.

2. The paper is typewritten, double-spaced, and formatted to print on 8.5" x 11" (or A4) size paper. It is written in the third person in a clear style, free of jargon.

3. The first page of the article includes the following:
   i.   the paper's title and
   ii. an approximately 200-word abstract that emphasizes the paper's contribution to the field and its practical architectural/ planning social/ economic implications.
   iii. the name(s), position(s), professional or academic affiliation(s), and email address(es) of the author(s), as well as the full postal address of the corresponding author;

4. The body of the paper should include the following:
   i.   an introduction to the subject,
   ii.   background information,
   iii. discussion of procedure,
   iv.   results,
   v.   conclusions,
   vi.   implications for practice and advancement of research,
   vii. references,
   viii. acknowledgments (optional; if funding for the research was received from non-personal sources, the sources must be identified in this section), and
   ix.   an autobiographical sketch.

5. Please ensure that:
   i.   References are complete, have been arranged alphabetically by author surname and checked for accuracy.
   ii. Reference citations in the text are referred to by author name and year. If there are more than two authors, the name of the first author followed by ", et al." has been used.
   iii. References contain the following information, in the order shown: names of all contributing authors (last name followed by first initial), date of publication, title of article, names of editors (edited books only), title of journal or book, volume and issue numbers (journals only), location and name of publishing company (books only), and inclusive pages (journals and articles in edited books).
   iv. Figures/ pictures/ graphs submitted are:
      a. Large enough to be readable when reduced to fit the journal page size (approximately 5.25" x 8.25").
      b. A brief caption is provided for each figure/ picture/ graph.
      c. The figure is cited in the text.
      d. Please ensure that scanned images are of a high resolution to ensure good quality printing (not less than 640 x 480)
   v.   All tables are included either in the original manuscript file or as a separate Microsoft Word document and have been checked to ensure that they can be easily reproduced on the journal page size approximately 5.25" x 8.25").
      a. A brief caption is provided for each table.
      b. The table is cited in the text

6. If your paper is accepted for publication, you will be provided with information on where to send the hard copies of any figures if required.

7. The manuscript and any table/picture files should be sent via email to hsmishelter@gmail.com. ONLY original works neither published nor under review elsewhere will be considered.

WORLD HABITAT DAY 2016

Housing at the Centre

HITESH VAIDYA

> With an aim to re-establish the role of housing for the future of planned and sustainable urbanization, Habitat III is proposing the 'Housing at the Centre' approach, by positioning housing at the centre of national and local urban agenda. This approach aims to shift the focus from simply building houses to a holistic framework for housing development, orchestrated with urban planning practice and placing people and human rights at the forefront of sustainable urban development.

Hitesh Vaidya (hitesh.vaidya@unhabitat.org) is India Country Manager, UN-Habitat Office, New Delhi.

World Habitat Day was established in 1985 by the United Nations General Assembly to reflect on the state of our towns and cities, and on the basic right of all to adequate shelter. The first Monday of October is designated as World Habitat Day and each year, a new theme is chosen based on the current issues relevant to the habitat agenda, to promote sustainable practices that ensure adequate shelter for all. These themes promote the focus areas of UN Habitat such as inclusive housing and social services; safe and healthy living environment for all – with particular consideration for children, youth, women, elderly and disabled; sustainable transport and energy; improved urban planning and slum upgrading; healthy air quality; promotion, protection, and restoration of green urban spaces; safe and clean drinking water and sanitation; and better waste management.

The theme chosen for the World Habitat Day this year- "Housing at the Centre"- aims to reiterate the importance of housing for sustainable urban development and concomitantly for the growth of inclusive and vibrant cmmunities. The 'Housing at the Centre' approach is based on the outcomes of prior summits, declarations and strategies adopted by UN-Habitat. The Vancouver Declaration of Human Settlements (1976), the 'Global Shelter Strategy for the Year 2000' (1988), the Istanbul Declaration and the Habitat Agenda (1996), and the Global Housing Strategy have provided a learning for the development of this new approach.

Housing has a direct and indirect influence on a number of urban factors such as public spaces, energy, sanitation, safety, health, climate change, education, land, urban and rural linkages, mobility, basic infrastructure, local economic development, jobs and livelihoods, finance, technology, legislative framework, informal sector, inclusiveness, culture and heritage (See Figure 1). The Sustainable Development Goals address each of these factors and aim for their effective implementation by 2030. Placing housing at the centre of national and local urban agenda can help in constructively achieving the targets of all the Sustainable Development Goals. Better housing can vastly improve the living conditions of people and the surrounding environment. This influencing role of housing commands a need for an integrative approach encompassing broader national and local factors to solve the urban problems.

Housing also has one of the largest multiplier effects on economy and employment. Directing focus towards housing can substantially alleviate poverty and boost the country's growth rate. Housing construction and improvements,

Figure:1	Housing at the Centre
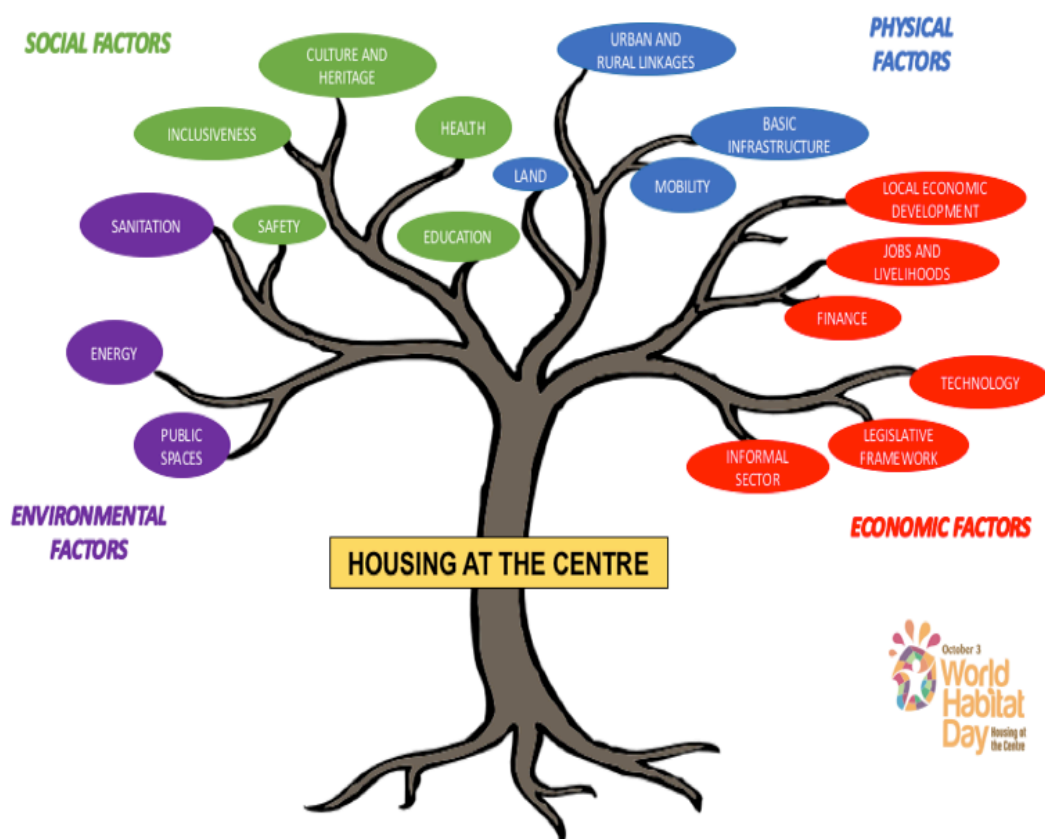
as well as the activities of buying and selling, can generate significant economic activity. The construction sector provides employment to people of all skill levels and directly influences primary, secondary, tertiary and quaternary sectors of economy. Housing also provides a place of employment for a number of micro and small industries and can be used as collateral to secure loans, besides home ownership ensures a greater sense of social security to the population. The level of economic and social effect of housing can be matched by few other sectors. Hence, productive and economic benefits of housing must be translated into a central element of macroeconomic policy. Greater focus on housing in urban development, such that it results in diversity, mixed use and business opportunities, will contribute to the prosperity of cities and greater economic growth the world.

The report on "Housing at the Centre of the New Urban Agenda by UN-Habitat (Position Paper, October 2015) broadly proposes the following principles which can be adopted at the National and Local Level to place housing at the centre of national urban development:

World Habitat Day Themes- Over the years
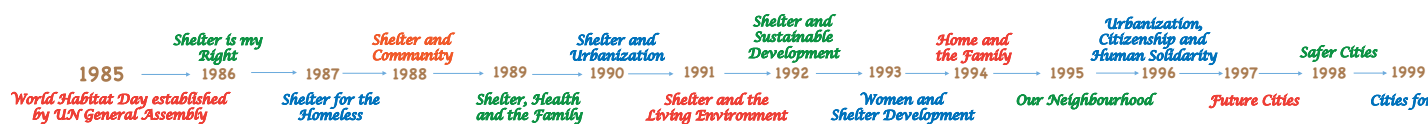
National Level

a) Integrating housing policies and strategies into urban development policies and adapted with economic and social policies.

b) National and local authorities must adopt a cooperative approach to develop long-term policies and establish finance tools in response to housing needs and affordability constraints.

c) Promote simultaneous approach of slum upgradation and new housing programmes to match the growing needs.

d) Quality and affordability must not be compromised, therefore, effective partnership with development finance institutions, private sector and civil society will help in successful implementation of the programmes.

e) Develop detailed plan of action, time frame and resource allocation with indicators for monitoring and evaluation.

Local Level

a) Housing must be cohesive and an integrating element in the existing infrastructure and the different elements of urban development.

b) Contribute to inclusion and urban diversity by optimizing the location of housing projects, especially locating them in the core of the cities.

c) Frame legislation to contribute to maximize affordability of housing and spatial inclusion.

d) Provide an opportunity for social, economic and spatial integration through continuous, participatory and inclusive urban planning process.

The proposed New Urban Agenda, to be adopted during Habitat III conference at Quito in October 2016, reaffirms the global commitment to sustainable urban development as a critical step for realizing sustainable development in an integrated and coordinated manner at global, regional, national, sub-national, and local levels and calls for readdressing the way cities and human settlements are planned, financed, developed, governed, and managed. The New Urban Agenda will also contribute to better implementation of the Sustainable Development Goals (SDGs) and targets, including SDG 11 which aims to make cities and human settlements inclusive, safe, resilient, and sustainable.

With an aim to re-establish the role of housing for the future of planned and sustainable urbanization, Habitat III is proposing the 'Housing at the Centre' approach, by positioning housing at the centre of national and local urban agenda. This approach aims to shift the focus from simply building houses to a holistic framework for housing development, orchestrated with urban planning practice and placing people and human rights at the forefront of sustainable urban development. A "Three-Pronged approach" addresses urban legislation, urban planning and urban economy to integrate housing into national urban policies and reinforce the importance of housing at the local level for the development of cities and people.

The guiding principles of New Urban Agenda will determine the shape of development of cities in which 'Housing at the Centre' will play a major role over next two decades. This year's theme envisages to generate the much needed awareness on the integrated and converged approach to address the challenges of urbanization to significantly improve housing and living conditions in the cities.

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HOUSING AT THE CENTRE

Enabling Provisions in the Urbanising World

Dr. AKSHAYA KUMAR SEN

> **The various policies and programmes undertaken by the Government of India have had significant positive results in the overall living conditions of the urban poor at large. As per Census of India figures, the urban housing stock has increased from 52.06 million in 2001 to 78.48 million in 2011, an increase of 51% in just one decade.**

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Housing sector has been a catalyst for sustainable urbanisation as well as national economic growth and is seen as a core sector in the economy having strong 'backward' and 'forward' linkages with other industries in the economy. The UN-Habitat's approach of putting 'Housing at the Centre' in the new urban agenda designed to have a holistic framework combining housing development with appropriate urban planning practice and placing people at the forefront of sustainable housing and urban development. This paper highlights the impacts of various policies and programme initiatives undertaken by the government of India towards promoting affordable housing in India and flags some of the unfinished agenda and challenges for creating an enabling market for affordable housing delivery along with slum upgradation and resettlement.

RELEVANCE OF HOUSING IN NATIONAL ECONOMY

Housing is one of the core sectors of the national economy all across the globe because of its strong backward and forward multiplier effects. It has been well documented that the European economies, faced with utter devastation after the Second World War, began the reconstruction process largely based on housing and the multiplier effects of housing investments drove growth from construction materials to consumer durables, thereby reviving the economies. In line with global trend, housing in India is also the core sector in the economy having strong 'backward' and 'forward' linkages with about 250 ancillary industries implying that its growth provides significant stimulus for several other sectors to grow. As per the estimates, (IIM Ahmedabad, 2000), housing investment has inter-industry linkages and investment in housing/construction sector has strong multiplier effects on generation of income and employment in Indian economy. A unit increase in the final expenditure on the construction sector would generate additional income in the economy as a whole which would be almost 5 times as high as the direct income generated within the construction sector itself. Further, investment in housing has an employment multiplier of almost 8 which indicates that an additional unit of final expenditure in construction sector induces overall employment generation in the economy as a whole by an extent which is eight times the direct employment generated in the construction sector itself (IIM Ahmedabad, 2000). It is also estimated that housing in India contributes to over 5 percent of the GDP of the country and for every rupee that is invested in housing and construction, Rs. 0.78 gets added to the GDP (Economic Survey 2011). Thus, investment in housing and real estate activities can be considered a barometer of growth of the entire economy. Housing is also an important employment generator, particularly for the unskilled and semi-skilled, including the rural poor and women. Housing construction also helps in supplementing agricultural

income of the seasonal migrant labour.

As per a recent study (NCAER 2014), the residential construction sector accounts for 1.24% of the total output of the economy (total construction sector: 11.39%), 1.00% of GDP (total construction sector is 8.2%), 6.86% of the employment (total construction sector is 11.52%) and 99.41 per cent of the jobs in housing sector are informal jobs. The Study also estimates that for every lakh invested in the housing sector, 2.69 new jobs (2.65 informal and 0.4 formal) are created in the economy. With induced effect, the number of jobs created would be 4.06 (3.95 informal and 0.11 formal). For every investment in the housing sector/ every unit of housing created the household income increases by Rs. 0.41. With induced effect, this is estimated to be Rs. 0.76 . Every additional rupee invested in the housing sector will add Rs. 1.54 to the GDP and with household expenditure considered, this is going to add Rs. 2.84. For every rupee invested in creation of housing, Rs. 0.12 gets collected as indirect taxes. All these figures show the significance and relevance of putting housing at the centre of new urban agenda for the national economic development.

A number of initiatives have been taken in the last two decades by the Government of India to promote human settlements as inclusive entities to adequately address the requirements of housing and basic services of all the citizens including slum dwellers. This includes initiatives for direct intervention for housing and basic services delivery to the most disadvantaged sections of the society in urban

Box 1:	Major schemes with focus on Social Housing as the main component	
Sl. No.	Major Scheme	Year since
1.	Subsidised Industrial Housing Scheme (Revised in 1966)	1952
2.	Low Income Group Housing Scheme	1954
3.	Subsidised Housing Scheme for Plantation Workers (Revised in 1967)	1956
4.	Slum Clearance and Improvement Scheme	1956
5.	Village Housing Projects Scheme	1957
6.	Middle Income Group Housing Scheme	1959
7.	Land Acquisition and Development Scheme	1959
8.	Rental Housing Scheme for State Government Employees	1959
9.	Jhuggi & Jhopri Removal Scheme (in Delhi)	1960
10.	Rural House Sites-cum-Hut construction Scheme for landless Workers	1971
11.	Environmental Improvement of Urban Slums (EIUS)	1972
12.	Workshed-cum-Housing Scheme for Artisans & Handloom weavers	1974
13.	Integrated Low Cost Sanitation (ILCS) Scheme	1980
14.	Fishermen Housing Scheme	1985
15.	Night Shelter Scheme for Foothpath Dwellers in Urban areas	1988
16.	SHASHU (NRY) (discontinued in 1997)	1989
17.	Indira Awas Yojana (exclusively for rural areas)	1990
18.	EWS Housing Scheme for Beedi workers & Hamals	1991
19.	Shelter Upgradation under PMIUPEP (discontinued in 1997)	1996
20.	National Slum Development Programme (NSDP)	1996
21.	Two-million Housing Programme for EWS/LIG	1998
22.	Prime Ministers Gramin Yojana- Gramin Awas Yojana	2000
23.	Valmki Ambedkar Awass Yojana (VAMBAY)	2001
24.	Jawaharlal Nehru National Urban Renewal Mission (JNNURM)	2005
25.	Interest Subsidy Housing for Urban Poor (ISHUP)	2009
26.	Affordable Housing in Partnership	2009
27.	Rajiv Awas Yojana (RAY)- Slum-Free India Mission	2012
28.	Pradhan Mantri Awas Yojana (PMAY)- Housing for All (Urban)	2015

availability for the weaker sections with appropriate in-built interest subsidy component, involvement of

upgradation for improving the income earning capability of the weaker section population, etc.

| Box 2: | Role of HUDCO in Social Housing Delivery |
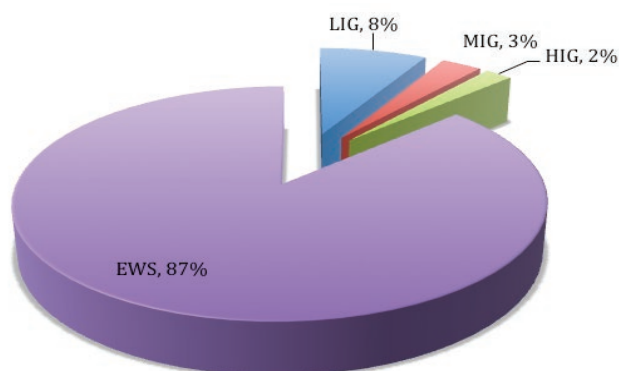
HUDCO, since its inception in 1970, has contributed very significantly to the housing sector with its support for over 16.6 million housing units, of which about 95% units are for the EWS/LIG beneficiaries alone. In the flagship programme of the Government, JNNURM – BSUP and IHSDP programmes, HUDCO acted as a project preparation as well as appraisal Institution for States for whom projects are not prepared by it. Further, HUDCO is also extending funding to meet the viability gap – the contribution of State government and urban local bodies, for the implementation of the approved schemes. In respect of the PMAY scheme, HUDCO has been playing a key role in fulfilling the national goal of housing for all by 2022. Along with NHB, HUDCO is a designated Central Nodal Agency for disbursement of the subsidy and monitoring the progress under PMAY.

| Table 1: | Growth of Urban Households and Urban Housing StockRole of HUDCO in Social Housing Delivery |

Census Year	No. of Households (Mn)	Decadal Growth Rate (%)	Urban Housing Stock (Mn.)	Growth Rate (%)
1991	40.7	39	39.30	40
2001	53.69	32	52.06	32
2011	78.87	47	78.48	51

Source: Census of India, and Report of the Technical Group on Urban Housing Shortage for the 12th Plan period, MoHUPA, Govt. of India

| Table 2: | Urban Housing Shortage in India in 2012 |

	Housing Shortage (Million)
Households living in Non-serviceable Kutcha (Temporary) Houses	0.99
Households living in Obsolescent Houses	2.27
Households living in Congested Houses requiring new houses	14.99
Households in Homeless conditions	0.53
Total Urban Housing Shortage in 2012	18.78

Source: Report of the Technical Group on Urban Housing Shortage for the 12th Plan period, MoHUPA, Govt. of India, 2012

IMPROVED ACCESS TO AFFORDABLE HOUSING IN INDIA

India has been actively engaged in addressing the twin challenges of housing and urban development. Provision of social housing has always remained a priority area of the government. Since Independence, recognizing the crucial role of social housing development for planned and holistic development of the country, a large number of schemes are being operated with focus on housing for weaker sections of the society (Box-1). These schemes are implemented by the State Governments through state level public housing agencies viz. Housing Boards, Development Authorities, Improvement Trusts, Slum Clearance/ Improvement Board, etc. with Government budgetary support and loans from financial institutions, particularly Housing and Urban Development Corporation Ltd (HUDCO). The Govt. of India had set up HUDCO as a fully owned public sector enterprise in 1970, in order to effectively address the housing and urban development, including urban basic services, requirements (Box 2). The public agencies of the States broadly followed the financing pattern of HUDCO in respect of social housing schemes.

The various policies and programmes undertaken by the Government of India have had significant positive results in the overall living conditions of the urban poor at large. As per Census of India figures, the urban housing stock has increased from 52.06 million in 2001 to 78.48 million in 2011, an increase of 51% in just one decade (Table 1). The absolute

housing shortage in terms of the difference between the number of households and number of housing stock in urban areas has significantly reduced from 1.63 million in 2001 (3% of the households) to 0.39 million (0.5% of the households) in 2011 reflecting the positive effect of the sustained efforts of the Government of India for increasing the housing stock in the country. The gross credit deployment to housing sector by Banks has increased from US$ 1.7 billion in 1997 to US$ 120 billion in July 2016 (RBI, 2016). This increased availability of funds to the housing sector has enabled in increased housing stock in urban areas.

However, there is a dilemma between increasing housing stock and increasing housing shortage in the urban areas. Statistics reveal that in spite of the appreciable growth in the urban housing stock in comparison to urban households, and in spite of the difference between houses and households being marginal (0.39 million in 2011), the urban housing shortage has increased considerably. This is mainly due to housing congestion (in terms of no exclusive rooms for married couples, etc.) and obsolescence factors (temporary as well as dilapidated houses which require new construction) as mentioned in Table 2. According to the estimation of the Technical Group on Urban Housing for the 12th five year Plan period (TG Report, 2012), the total urban housing shortage in the country in 2012 was 18.78 million dwelling units, and about 96 per cent of this shortage pertains to the economically weaker sections and the lower income groups of the society.

There has also been a substantial reduction in the percentage of urban households living in the slums. As per the Census of India figures, in 2001, about 23.5% of the entire urban households were living in slums, which significantly reduced to 17% in 2011. However, the absolute number of households living in slums has increased from 10.15 million in 2001 to 13.75 million in 2011 due to urban population growth. Indian mega cities of Greater Mumbai, Delhi and Kolkata houses about 42 to 55 per cent of slum population whereas the proportion of slums settlements and urban poor is roughly about 32 to 35% in 54 million plus cities. Mumbai topped the list with 54%, followed by Faridabad (46%), Aligarh (45%), and Meerut (44%), Warangal (43%), Amravati (43%), Raipur (37%), Nagpur (36%), Guntur (33%) and other cities.

KEY INITIATIVES ON HOUSING POLICY AND PROGRAMMES IN INDIA

The Government of India has been taking various key policies and programmes initiatives from time to time for improving access to adequate, safe and affordable housing for all in the urban areas. The India Habitat III National Report 2016 gives a broad overview of various initiatives undertaken by the Government of India and the state governments for promotion of housing in general and affordable housing in urban areas in particular (MoHUPA, 2016). Some of the key policy and programme initiatives in the housing sector are given below:

(a) Policy Initiatives

For the first time in India, a National Housing Policy in India was initiated in 1988 which was in approved August 1994. This was followed by formulation of a broader National Housing & Habitat Policy (NHHP) in July 1998 with some key initiatives like co-existence of public and private sectors through public-private partnerships, involvement of multiple-stakeholders, repeal of Urban Land Ceiling Act, permitting Foreign Direct Investment in housing and real estate sector, etc. However, all these policies were applicable to both rural and urban areas. Taking into account emerging challenges of required shelter and growth of slums and to keep housing in the centre of policy framework, the first ever urban areas specific National Urban Housing and Habitat Policy (NUHHP) was announced in December 2007. The Policy has sought to earmark land for EWS/LIG groups in new housing projects for provision of affordable housing for this segment of the population. In line with national policy, many state governments such as Rajasthan, Odisha, Uttar Pradesh, Haryana, Telangana, etc. have also formulated state Affordable Housing Policies for increased housing delivery in urban areas. Housing policy in India which earlier focused on building houses has substantially shifted to creating an enabling framework, improving access to credit and encouraging multi-stakeholder participation in housing. These policies also focus on sustainability and social inclusion and also recognize the key role played by the private sector.

(b) Programme Initiatives

The Government of India has taken a number of programme initiatives to keep housing in the centre of activities as a part of national economic development. The key

programmes launched include the followings:

(i) A major Government of India flagship programme called 'Jawaharlal Nehru National Urban Renewal Mission' (JNNURM), was launched in December 2005 with aim to cover construction of 1.5 million houses for urban poor with an expected approximate flow of INR 400 billion to social housing and basic services during the Mission period (2005- 2012) with two Sub-Missions: Basic Services for the Urban Poor (BSUP) seeks to provide seven entitlements/services - security of tenure, affordable housing, water, sanitation, health, education and social security in low income segments in the 65 Mission Cities; and The Integrated Housing and Slum Development Programme (IHSDP) seeks to provide the above mentioned seven entitlements, services in towns/cities other than the Mission Cities. By the end of mission period, as on June 2015, out of the finally approved 1.24 million units, 0.93 million units have been completed and the remaining are under progress (MoHUPA, 2016). The programme envisaged conditional release of grants based on undertaking of mandated reforms.

(ii) In an effort to enhance the affordability of the urban poor for getting housing loans from the formal sector, a scheme called 'Interest Subsidy Scheme for Housing the Urban Poor (ISHUP)' was launched in 2009 which provided an interest subsidy of five per cent per annum on a loan amount of up to 0.1 million for the economically weaker sections and lower income groups in the urban areas for acquisition/construction of houses.

(iii) The Government of India also launched a scheme of Affordable Housing in Partnership (AIHP) in 2009-10 with an outlay of INR 50 billion for construction of one million houses for EWS, LIG, MIG (middle income group) with at least 25 per cent for EWS category. The Scheme aims at partnership between various agencies/Government/parastatals/Urban Local Bodies/developers for realizing the goal of affordable housing for all. Over 24,000 housing units have been approved under the scheme till the Financial Year 2014-15.

(iv) For incentivising banks and financial institutions to lend to the urban poor, the Government of India has been implementing a Credit Risk Guarantee Scheme(CRGFS) whereby lending institutions are guaranteed against the loan default to the extent of 90 per cent. To streamline mortgage lending nationwide, the Government set up a Central Electronic Registry in the year 2011.

(v) In 2012, a major flagship programme launched by the Government of India is 'Rajiv Awas Yojana (RAY) which aims to create a Mortgage Risk Guarantee Fund to enable provision of credit to EWS and LIG households and to encourage the States to adopt policies that will create a slum free India on 'whole City approach'.

Box 3:	Housing Options under PMAY

Slum Redevelopment (1)	Affordable Housing through Credit Linked Subsidy (2)	Affordable Housing in Partnership (3)	Subsidy for beneficiary-led housing (4)
"In-situ" using land as a resource with private participation	Subsidy for EWS and LIG for new house or incremental housing	With private sector or public sector including Parastatal agencies	For individuals of EWS category for new house or enhancement
Extra FSI/FAR and TDR if required	Upfront subsidy @ 6.5% for EWS and LIG for loans upto Rs. 6 lakh, calculated at NPV basis	Central Assistance of Rs. 1.5 lakh per EWS house in projects where 35% houses for EWS category.	Cities to prepare a separate integrated project for such beneficiaries
GoI grant Rs. 1 lakh per house			Central assistance of Rs.1.5 lakh per beneficiary.

(vi) Pradhan Mantri Awas Yojana (PMAY): With a vision of 'Housing for All by 2022', building on the learning of earlier schemes for affordable housing provisions and as a more holistic approach to provide houses for all sections of urban poor including slum dwellers, the Government of India has launched a flagship program named 'Pradhan Mantri Awas Yojana (Urban) - Housing for All (Urban)' with 4 different verticals providing a set of housing options (Box: 3) in June 2015 to meet the urban housing shortage of the country, thereby fulfilling the aspirations of millions of households to have a decent living.

The Pradhan Mantri Awas Yojana (PMAY) envisages construction of 20 million houses with basic amenities. As compared to 1.01 million houses constructed with central assistance programme in India in last 10 years, under PMAY, 0.93 million houses have been approved till 5th September 2016 for central assistance within 15 months of the launch of the mission. The above Mission will substantially improve the access of the urban poor for formal sector housing finance as well as making the houses affordable to the urban poor segment. The houses to be built through public-private-partnership, interest subsidy and increased flow of resources to the housing sector.

(vii) To prevent frauds in loan cases involving multiple lending from different banks/HFCs on the same immovable property, the Government has facilitated setting up of Central Electronic Registry under the SARFAESI Act, 2002. This Registry has become operational with effect from March 31, 2011 (MoHUPA, 2016).

(viii) Increased access to housig finance: While the Housing and Urban Development Corporation (HUDCO) focuses on bulk lending for housing and urban infrastructure, the Housing Finance Companies registered with National Housing Bank provide retail home loans to individuals. The National Housing Bank (NHB) registers, regulates and supervises Housing Finance Company (HFCs), keeps surveillance through On-site & Off-site Mechanisms and co-ordinates with other Regulators. Tax incentives have also been provided as a relief for credit seekers.

(ix) State Housing Programmes: Several States of India have their own programmes on housing, apart from the national programmes. In addition, there are a large number of corporate real estate developers who have been providing housing, at times in the affordable category as well, in various metropolitan cities. Housing cooperatives have also been playing a significant role in supplying housing stock.

RECENT INITIATIVES TOWARDS CREATING ENABLING MARKET FOR AFFORDABLE HOUSING

It is evident from the above figures that urban housing shortage mainly pertains to the economically weaker sections and low income housing segments. The key reasons for this include both the demand-side and supply-side constraints. The Demand-side constraints include: (i) High interest rate making housing finance unaffordable for EWS/LIG; (ii) Lack of Microfinance Institutions in Housing Sector; (iii) Lack of awareness about various Government programmes and Supports; and (iv) Low affordability of poorer EWS/LIG (migrant labourers, pavement dwellers, etc.). The Supply-side constraints include: (i) High risk-low profit business; (ii) Land scarcity and skyrocketing land price; (iii) Housing Finance not available at low interest rate for developers; (iv) Fiscal incentives either not sufficient or not reached targeted segments sufficiently; (v) Cumbersome Building Approval Process leading to cost escalation; and (vi) Housing Boards/State Agencies not constructing EWS/LIG housing to meet the demand. These constraints have been recognised by the Government of India and a comprehensive strategy for enabling and catalyzing market for affordable housing has been chalked out to address these constraints in order to increase the supply of accessible as well as affordable housing stock in the urban areas in India. This matches with the program design of the new comprehensive mission, PMAY, launched for Housing for all in urban areas. The following key interventions have been made by

the Government of India in this regard, some of which have been reported in the India Habitat III National Report (MoHUPA, 2016).

1. Demand and supply side interventions: Towards further catalysing markets for affordable housing, a number of initiative, both demand as well as supply side, have been taken by the Government of India for promoting housing sector which include the following key efforts:

a) Provision of fiscal concessions including tax incentives such as Income Tax deductions on repayment of principal and interest of home loans availed, deployment of capital gains, subsidy and concessions for alternate building technologies and materials, resource mobilization through tax-free bonds for affordable housing, service tax exemptions for affordable housing projects, etc.

b) Encouraging Banks and Financial Institutions to lend to housing sector with earmarked allocation for affordable housing segment under Priority Sector Lending Norms, rescheduling/restructuring of loans to real estate projects, etc.

c) Setting up of Mortgage Insurance Companies to provide Title Insurance, an insured statement of the conditions of title or ownership of an immovable property.

d) Foreign Direct Investment (FDI) has now been further eased in construction and development sector with removal of minimum area and capitalization requirements and other conditions, simplification of foreign investments in the country through automatic route, instead of Government route.

e) External Commercial Borrowing (ECB) has been allowed for affordable housing and slum improvement projects to enable availability of cheaper funds for low-cost housing which can be raised by developers/builders and NHB/ specified Housing Finance Companies.

f) Creation of Real Estate Investment Trusts (REIT) has been approved and are expected to garner investment in the real estate sector by providing regular income streams, diversification and long-term capital appreciation to investors.

g) Setting up of a 'National Investment and Infrastructure Fund' (NIIF) with an annual flow of INR.20 billion to enable investment into infrastructure investment companies including National Housing Bank which is an apex level institution for housing finance in the country.

h) Broadening the Affordability Definition: Affordability is essentially a measure of an individual's capacity to pay the delivery price and affordable housing refers to housing units offered by the public agencies and private developers at prices which are within the budgets of various income groups (mainly economically weaker and low –middle income groups) and still should have all the basic amenities to cater to the daily needs of the households. In order to widen the ambit of people to be covered under the PMAY, the Government of India has re-defined the affordability definition in terms of income and size. The new income ceiling for economically weaker sections (EWS) and lower income groups (LIG) are Rs. 3 lakhs and Rs. 6 lakhs respectively and size of the EWS and LIG units are 30 sqm and 60 sqm respectively (MoHUPA, 2015).

2. Ease of Doing Business (EoDB): In order to attract investment into the housing sector and in keeping with the emphasis of the Government of India on Ease of Doing Business, approval procedures for housing and construction projects are being simplified and streamlined in consultation with other line Ministries viz., Environment, Forests & Climate Change, Civil Aviation, Culture, Defence and Consumer Affairs. The PMAY guidelines also mandate certain steps in this direction such as setting up of single window for construction permits, concept of deemed permission in certain circumstances etc. Simplification of procedures for issue of construction permits with an approach of single window clearance with increased automation is an important part of the new policies. Building Codes and byelaws have also been modified and now incorporate provisions for 'green buildings', natural disaster resilience and inclusive design for the elderly and the differently abled. Incorporating all these, the Government of India has recently brought out Model Building Byelaws for adaptation by the states.

3. Technology Sub-Mission: Improved construction technology and methodologies can help execute housing projects more efficiently and in lesser time. Construction techniques such as prefabricated and modular construction, and innovative construction materials can further help execute projects in lesser time and with reduced resources. Towards this, a Technology sub-mission has been set up under Pradhan Mantri Awas Yojana (Urban) to facilitate adoption of modern, innovative and green technologies and building materials for faster and quality construction of houses. Use of Space technology tools through NRSC, Hyderabad in the PMAY(Urban) mission, under which the progress of individual house construction will be monitored using geo tagged photographs. Various institutions such as BMTPC, HPL and HUDCO have been supporting the technology sub-mission.

4. Real Estate (Regulation and Development) Act 2016: In order to provide uniform regulatory environment to protect consumer interests, help speedy adjudication of disputes and ensure orderly & transparent growth of real estate sector, Government has come out with the Real Estate (Regulation and Development) Act, 2016 which received presidential assent on 25th March 2016 (The Gazette of India, 2016) and has been effective from 1st May 2016. The Act seeks to establish the Real Estate Regulatory Authority (RERA) for regulation and promotion of the real estate sector and to ensure sale of plot, apartment or building, as the case may be, or sale of real estate project, in an efficient and transparent manner. It also intends to protect the interest of consumers in the real estate sector and to establish an adjudicating mechanism for speedy dispute redressal and also to establish the Appellate Tribunal to hear appeals from the decisions, directions or orders of the RERA and the adjudicating officer and for matters connected therewith or incidental thereto.

5. Affordable Housing Policy: The Ministry of Housing and urban poverty alleviation (MoHUPA), Government of India has already developed a Model State Affordable Housing Policy for States. The States which have not yet formulated the State-level Housing Policy, can prepare their own policy based on the model State Affordable Housing Policy.

6. Rental Housing: With a vision to create a vibrant, sustainable and inclusive rental housing market in India, the Ministry of HUPA has drafted a National Urban Rental Housing Policy, 2015, which would encourage promotion of rental housing for various segments of incomes and suiting their needs. The objective of the NURHP is to create adequate rental housing stock by promoting Social Rental Housing (SRH) with special focus on affordability of vulnerable groups and urban poor through promoting shelter facilities for the most vulnerable groups and need based rental housing for specific target groups. In addition, a Model Tenancy Act has been prepared by the MoHUPA, Govt. of India which will promote rental housing market in India.

7. Skill Development for construction workers: It is estimated about 45 million people are employed in construction sector, less than 6% has the benefit of structured training and skill building. In view of this, the current focus is to intensify skill development training for construction workers for increased productivity and more contribution of labour force to urban economy.

8. Deendayal Antyodaya Yojana- National Urban Livelihoods Mission (NULM): Under this mission, urban poor are organized in Self-Help Groups, imparted skill training for self and wage employment and assisted to set up self-employment ventures by providing credit at subsidized rate of interest. Also, the Mission provides for shelters for urban homeless and infrastructure for street vendors. Government aims at bringing about greater convergence among various skill development programmes which are being administered.

UNFINISHED AGENDA

There have been many varied approaches in India to address the problems of land availability, affordable housing, integrating slums in the development process that ranges from conventional planning system to new approaches, from slum relocation to in-situ development, and from site & services to fully developed neighbourhoods. In spite of substantial efforts and the resultant quantum jump in the availability of housing stocks, in slum upgrading and prevention in India, urban housing shortage and slum populations are growing as fast as cities themselves and more proactive measures required in a massive scale to address the problem. The unfinished agenda for provision of affordable housing for all and slum upgradation and resettlement need to be addressed.

The challenge ahead for the policy makers and government of India is not only to fulfil the target of providing 20 million houses by 2022 but also better quality housing providing for women privacy and better amenities to ensure sustainable human settlements development. The actions required include: (i) providing minimum housing for all the people by a target date in line with the constitutional provision of right to shelter enshrined within 'right to life'; (ii) ensuring better living conditions for the slum population; (iii) promoting cost-effective innovative building material and technologies and use of local resources that are environmental-friendly; (iv) increasing the range of types and opportunities of housing to maintain city diversity and inclusiveness; (v) bringing vacant houses to use through fiscal incentives and regulatory changes; (vi) preventing the phenomenon of homelessness via national policies linked to regional and local policies of housing rehabilitation, involving NGOs, local authorities and law and order; and (vii) linking housing sector with strong economic growth and job creation.

The key challenges that need to be addressed for slum upgradation and prevention include: (i) coherent participatory approach for slum upgradation; (ii) integration of urban poor and migrants into formal urban fabrics through planned locations; (iii) providing security of tenure and basic amenities to address illegality and perpetual insecurity; (iv) creating awareness about climate change-induced resettlements; (v) provision of cheaper and long tenure funds for slum upgrading programmes in a large scale; (vi) Operation and maintenance of slum housing; and (vii) adequate dissemination about government's programmes and policies for slums. In order for cities to become smart, innovative approaches with respect to land development, shelter provisions and the use of space need to be devised so that they can respond more effectively to informal settlements. City Governments need to acknowledge the fact that slums and informal areas are part of the city and therefore require to implement City-wide slum upgrading programmes in association with communities, Community Organizations, universities and NGOs to survey all communities in their city and plan for the upgrading process through a bottom-up approach.

CONCLUSION

The role of housing for sustainable urbanisation and national economic development is well established across the globe as well as in India in terms of the sector's contribution for job creation and income generation through its multiplier effects, apart from providing security of tenure. The UN-Habitat's approach of putting 'Housing at the Centre' in the new urban agenda is designed to have a holistic framework combining housing development with appropriate urban planning practice and placing people at the forefront of sustainable housing and urban development. Towards this, there is a need to review the existing National Urban Housing & Habitat Policy 2007 and come out with a new Policy taking into account emerging housing problems, the unfinished agenda and available opportunities for a more focused approach to address the issues. At the same time, states and urban local bodies need to prepare their own housing & habitat policies and action plans strategically for a sustainable urbanization.

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ASSESSMENT OF MASTER PLAN PROVISIONS FOR LOW INCOME HOUSING IN FOUR INDIAN CITIES

**Dr. POONAM PRAKASH
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The guidelines of Pradhan Mantri Awas Yojana (PMAY) identify availability of urban land as the biggest constraint in providing housing to all, including the weaker sections. To facilitate the process of land availability, the scheme imposes certain mandatory conditions that require states, in addition to various other actions, to amend Master Plans for allocation of land for "affordable housing"

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This paper is based on the project funded under HUDCO Chair activities to assess the formal housing supply provision in four cities in northern region. The paper links master plan provisions for housing for the perspective year with the existing formal housing supply provisions particularly for low income groups in Dehradun, Ludhiana, Shimla and Chandigarh. Since, most of the policy and mission documents are related to 'adequate housing provisions' in the master plan, this paper examines such master plan provisions for these cities. The study also identifies the huge gap between the land and housing requirements given in the perspective plan period and existing land and housing supply in these cities. Finally, the paper concludes that master plan provisions need to provide much better problem diagnosis, approach to housing as well as proposals for land allocation for low income housing.

INTRODUCTION

Housing statistics over the decades continue to show increasing numbers of housing shortage. More than ninety percent of this shortage is stated to be in the Economically Weaker Sections and Lower Income Groups. In response to this,most of the political rhetoric as well as central government programmes and schemes for the urban poor include 'adequate provisions for their housing'. One of the frequent statements of this rhetoric is adequate provisions in the master plan for housing. The urban housing policy of 2007 and more recently launched Pradhan Mantri Awas Yojana 2015, both include this

as an important component of the policy provisions and programme guidelines.

Pradhan Mantri Awas Yojna, envisages "every family will have a pucca house with water connection, toilet facilities, 24x7 electricity supply and access" by 2022, the year our nation completes 75 years of its independence. The scheme guidelines identify availability of urban land as the biggest constraint in providing housing to all, including the weaker sections. To facilitate the process of land availability, the scheme imposes certain mandatory conditions that require states, in addition to various other actions, to amend Master Plans for allocation of land for "affordable housing"(MHoUPA,2015: p.24).

The National Urban Housing and Habitat Policy of 2007, setting a framework for various programmes and schemes stated as one of its first aims to encourage, state governments, urban local bodies, development authorities to periodically update their master plans and zoning plans which should interalia adequately provide for housing and basic services for the urban poor. (MHoUPA, 2007:p.17) It identified the role of state governments and urban local bodies to "prepare and update master plans alongwith zonal plans, … by respective agencies with provision of adequate land for urban poor.(p.22)."

This paper would like to examine the idea of 'adequacy' through study of existing provisions in the master plans of four cities. The study sponsored by HUDCO (completed in early 2014) included the four cities[1] of Dehradun (Uttarakhand), Shimla (Himachal Pradesh), Ludhiana (Punjab) and Chandigarh (U.T.) in the northern region. The assessment of provisions would be based on the manner of problem identification and proposals made in terms of approach, housing provisions and land allocation to finally suggest some framework for what can be considered as adequate housing provisions in the master plan.

OVERVIEW OF MASTER PLAN PROVISIONS IN FOUR CITIES

Ludhiana

Ludhiana is the largest city in Punjab, both in terms of area and population. The city is spread over an area of 160 square kilometers and accommodates approximately 16.13 lakhs population (2011 Census). Ludhiana is one of the prime industrial and educational centers of northern India, and is the crossroads of many different cultures. Presently, the city is commonly known as the "Manchester of India", the "hub of the Indian hosiery industry" and also as industrial capital of small scale industry in the country. The city is famous for its hosiery goods, woolen garments and leather items. The first master plan of Ludhiana city was prepared and notified for the period 1971-91. Further revisions to the plan could never be notified. It was with the enactment of the Punjab Regional and Town Planning and Development Act

2006, that the Master Plan for Ludhiana with the perspective year 2021 has been prepared and notified.

The present master plan of Ludhiana can be seen in three parts; overall objectives and assessment of problems; sectoral assessment of existing situation and proposals.

a) Overall objectives and assessment of problems

Master plan Ludhiana for the period 2007-2021 has listed twenty four objectives and as part of these objectives, the ones more directly related to housing include:

- To promote state of art physically planned, environmentally sustainable and socially equitable development of the city
- To minimize haphazard, unplanned and sub-standard growth and development of the city and to achieve planned growth to create healthy environment
- To make land market more effective and efficient by making available sufficient amount

of developed land for urban purposes at the most affordable cost

- To minimize growth of slums by making the informal sector an integral part of city planning and development process
- To provide adequate opportunities for creating affordable and cost effective shelter for all sections of society through the mechanism of cooperative housing

The overall assessment of problems is made through dividing the city into three zones: inner, middle and outer. Each of the zones is then delineated through colony names and general characteristics of the areas . This section sees slums as a nuisance who illegally occupy land and take illegal electric and water connections. Interestingly, the same language of illegality is not used either for unplanned colonies or for commercial activities infiltrating residential uses.

b) Sectoral Assessment of Existing Situation

The plan provides a separate chapter on slums and urban

Table 1:	Existing Residential land under various Master Plan periods					
Category	1971 (in ha)	Proposed (1991) ha	Existing as per Draft Master Plan 1985 (ha)	Proposed 2001 (ha)	Existing 2007 (Ha)	Proposed (2021) ha
Residential (Existing)	1267.65	5060.5	3591.22	6277.5	12273	43395
Total (Local Planning Area)	22708.3	22708.3	22708.3	22708.3	127122	127122

Source: TCPD Ludhiana for Previous Interim Master Plan for 1971-91 and 1985-2001, Government of Punjab, Town and Country Planning Department Punjab, 2007, Master Plan perspective year 2021.

poverty, providing in detail the population characteristics of these areas. According to this, maximum number of slum colonies (70%) developed between 1981- 2000 period.

Sectoral analysis of housing in Ludhiana in the plan is made primarily from census data which provides total number of occupied residential house growth versus household growth, ownership pattern, use patterns of occupied houses, and predominant material used for construction. This analysis is limited to the extent that no analysis of overcrowding is made through census data.

The approach used for assessment of existing situation does not provide a review of the current capacities or supply rates for formal housing provisions or for land development in the previous two decades. This is a major gap in the existing situation analysis as there is no assessment of the capacities that would need to be enhanced to meet atleast the quantum of housing. Implications of this gap is analysed in the next section.

Another major gap in this analysis is the approach used to make an assessment of housing shortage. While the chapter makes use of census data, slum population as well as a mention of dilapidated housing in the old areas, there is no clear picture of existing housing shortage that needs to be met immediately. One of the key reasons for the lack of a clear picture is the unavailability of planning information on the basis of which informed assessment can be made.

c) Proposals

In the absence of existing supply situation of land and housing as well as existing housing shortage in concrete terms, it is very difficult to make a realistic assessment of future requirements.

The proposals in the plan include a) total residential land allocation b) housing strategy for different type of housing areas.

Population of Ludhiana is projected to grow to 4 million in 2021 from 1.6 m in 2011. In the year 1971, when the master plan was prepared for the year 1991, the area proposed under the residential category was 1267.65 ha of the developed area. When TCPD revised the Master Plan in 1985 the area under existing residential use increased to 3591.22 hectares. (Table 1).Presently, Ludhiana Municipal Corporation is spread over an area of 15937 hectares.

Inferring from the table above, the first Master Plan 1971 -1991 proposed to supply residential land at the rate of 190 hectares per year and in the revised plan for the period 1985-2001, at the rate of 168 hectares per year. Between 1985 and 2007, the supply of land has been approx. 395 ha per year (also includes private residential colonies) In the present plan period of 2007-2021, it intends to provide residential land at the rate of 2,394 hectares/year. With an increase in required supply rate between 2007-2021 as more than six times of the existing supply rate,the plan provides very little information on how this increase will be achieved.

The housing strategy proposes development of new housing areas, up-gradation and re-densification through redevelopment of existing housing areas including unauthorized colonies, housing in villages. Except for the specific provision of ten percent built units or land reservation, the approach is very general in nature and provide no specific allocations in terms of land and number of housing units for EWS and LIG. For example in case of development of new housing areas it says, to overcome the existing housing backlog and to cater to housing need of future population up to 2021 would require 'specific action plans' to be evolved by the state and parastatal agencies with reference to the following:

- Determination of area requirement for creating the housing stock

- Identification of the areas for housing development

- Redefining the pattern and norms for new housing development

- The mode and manner of development, and the roles of the private and public sectors in the process

There is no assessment of how much land and new housing units would be needed to accommodate the existing shortage and future housing need. The plan provides no monitoring mechanism and it would thus be impossible to measure the achievements against the targets, since there are no specific targets set for land development and housing provisions in the plan.

Shimla

Shimla was established as the 'summer capital' of the British empire in the first half of the 19th century. Prior to the development of Shimla as a prominent hill station, it was just described as an obscure village. With time and development and also by acquiring the status of state capital of Himachal Pradesh, it has emerged as a major cultural, educational and institutional centre. As per census 2011, the population of the city is about 2.35 lakh.

of Himachal Pradesh Town and Country Planning Act 1977 and was notified for Shimla Planning Area in 1979. The proposals were envisaged for the perspective year 2001. A Draft Development Plan was prepared for the period 2001-2021 for Shimla Planning Area, but it is yet to get notification from the government of Himachal Pradesh.

a) Overall Objectives and assessment of problems

The draft plan does not have any overall objectives pertaining to development, and specifically

Shimla was not implemented adequately as the plan did not make any reservation of land or housing units for lower income groups. Development agencies concentrated on construction activity within city limits rather than providing and planning for serviced land in planning area. This has resulted in unplanned subdivison of land by private landlords with haphazard access to proper utilities and services. The development plan states that construction of houses on steep slopes, blatant violations of regulations, encroachments on green areas and absence of services infrastructure are common problems of residential areas.

The development plan recognises that LIG and EWS groups are not in a position to afford a house as house prices and rents are very high in Shimla. Yet, the plan refers to slums and hutments of construction workers in forest areas as the 'worst menace'.

Table 2:	Population and Housing Projections		
Years	**Total Houses**	**Total Population**	**Total Households**
1971	17965	72870	18217
1981	23801	95851	23962
1991	33766	129827	32456
2001	45163	144975	36243
2011*	60000	171817	42954
2021*	80000	318560	79640

Source: Town and Country Planning Department, Himachal Pradesh, and Draft Development Plan Shimla 2001 perspective year 2021
* Projected

Table 3:	Residential Land allocation			
Category	**1971- 2001**		**2001-2021**	
	1971	**2001**	**2001**	**2021**
Residential	424.32	1344.11	903.13	2124.00
Total urban area	591.05	2756.49	1475.75	3081.41
Total Planning Area		4309.87	9950.00	9950.00
*area in hectares				

Source: Town and Country Planning Department, Himachal Pradesh, Draft Development Plan Shimla 2001 perspective year 2021.

The first statutory Interim Development Plan (IDP) for Shimla was prepared under the provision

housing in Shimla. The development plan of Shimla laments that the Interim Development plan of

b) Sectoral Assessment Of Existing Situation

The draft development plan for Shimla Planning Area uses census data and a survey conducted by TCP departement to analyse the population and housing trends and make future projections. However, the methodology adopted for making the population projection is very unclear. Similarly, a standard household size of four has been used with no regard to the changing nature of families in Shimla.

Sectoral analysis of housing includes number of houses, ownership status, roof type, type of structure, kitchen, age, condition, number of storeys and access to infrastructure.

The analysis is very limited with no assessment by housing typology, income groups, overcrowding etc. The plan does not talk about critical areas of high housing demand and areas with old and dilapidated housing. Given that Shimla is a very environmentally sensitive area, the plan does not give enough emphasis on spatial representation of land suitability and extent and direction of the settlement.

The draft plan is silent about the number and location of slums in the city and provides very generic statements about their origin and impact on the city. There is no mention of the slum population and how it has changed over the years.

As in the case of Ludhiana, the approach used for assessment of existing situation does not provide a review of the current capacities or supply rates for formal housing provisions or for land development in the previous two decades. This is a major gap in the existing situation analysis as there is no assessment of the capacities that would need to be enhanced to meet atleast the quantum of housing.

c) Proposals

The draft development plan provides the expected population, shortage of houses, supply of residential land and even the sites for development of satellite towns and counter magnets to relieve the existing pressure in the city by 2021. The draft development has projected that the population of Shimla Planning Area would increase from 1.5 lakhs in 2001 to about 3.1 lakhs in 2021.

With a hilly topography, there is an acute shortage of land and new developments are being built in forest areas and steep slopes, while older areas have seen an increase in the number of storeys.

According to the Interim Development Plan (IDP) of 1971 for the Shimla planning Area, existing residential area in 1971 was 424 hectares which is 72 percent of the total developed or urban area and of which about 95 percent lies within the municipal corporation limits. IDP proposed to develop 1344 hectares of land as residential for the perspective year 2001, for which land was to be supplied at a rate of 46 hectares per year. But according to the draft development plan of 2001 the existing residential area is 903.13 hectares with land suppy

rate of 24 hectares per year which is half of the projected rate of supply and there is deficit of 440 hectares of residential land. In order, to meet the target of 2124 hectares, to accommodate thirty five thousand houses, serviced residential land will need to be supplied at the rate of 61 hectares per year. This is about three times the current supply rate. The existing supply of land was mostly enabled in an unplanned manner by private subdivision of land, as the planning agencies concentrated mainly on construction within urban areas rather than on planning for new developments. There is, hence, great need to not only match the expected rate of supply of land but also enable it in a planned and phased manner supported with adequate infrastructure.

Table 4:	Housing Stock and Housing Shortage in Planning Area and Urban Agglomeration Area (1971 to 2025)					
Year	MASTER PLAN AREA			URBAN AGGLOMERATION AREA		
	NO. OF HH	NO. OF Dus	SHORTAGE	NO. OF HH	NO. OF DUs	SHORTAGE
1971	56346	42850	13496	41318	30713	10605
1981	77737	68747	8990	57056	49685	7371
1991	106076	104855	1221	72069	71189	880
2001	146785	143174	3611	109612	106324	3288
2011*	204170	204170	0	156834	156834	0
2021*	272800	272800	0	217292	217292	0
2025*	315464	315464	0	261444	261444	0

Source: Government of Uttarakhand, 2008
*Projected

Table 5:	Income Group Wise Allocation of Residential Use in Master Plan 2001			
Income Group	Number of HH	Percentage	Total Area Req. (ha)	% of area allotted
HIG	11944	15	477.76	35.19
MIG	23888	30	577.48	42.54
LIG	27870	35	278.70	20.53
EWS	15926	20	63.70	4.69
TOTAL	79628	100	1357.64	100.00

Source: Government of Uttar Pradesh, 1985

The plan also states that most of this development should be located in three satellite towns and a countermagnet to take the pressure off Shimla City. The plan does not however talk about how the proposed residential land will be spread across the satellite towns and how development in the new areas will be phased. The plan proposes redevelopment schemes in crowded areas and remedial action for dangerous development on steep slopes. However, a glaring gap in the plan is that the housing requirement of low income groups, existing or proposed, have not been addressed at all. As also mentioned in the plan, with high land rates in Shimla, the LIG and EWS groups are finding it difficult to buy or rent houses. Yet, the plan does not make any reservation of land or housing units for lower income groups.

Dehradun

Present day Dehradun is said to have been founded in early eighteenth century by the Sikh Guru Ram Rai. In 1816, Dehradun which was earlier part of kingdom of Nepal was annexed with British Empire and became part of Garhwal district. Situated amidst the Siwalik range, the Doon valley is an ecologically sensitive area which

provides unique challenges for development including housing. Its main economic activity is tourism and is also known for its research and educational institutions.

Presently, Dehradun is the administrative centre and the interim capital of the new state of Uttarakhand. The Dehradun urban agglomeration consists of Dehradun municipal area, Forest Research Institute, Adhoiwala outgrowth, Dehradun cantonment, and Clement Town cantonment. The total population of the municipal area is about 5 lakhs and that of the urban agglomeration is about 7 lakhs as per the census 2011.

The Master Plan for Dehradun was first prepared for 2001 by the Town and Country Planning Department under the provisions of the Uttar Pradesh (Regulation of Building Operations Act) 1958. In 2005, it was revised for the perspective of 2025 under the UP Town Planning Act 1963.

a) Overall Objectives and Problem Assessment

The Master Plan of Dehradun provides a more detailed review of the previous plan than Shimla or Ludhiana. According to the review

there has been about 31 percent of the land that has developed not in conformity to the 2001 plan. The detailed change of use in each category has been provided. Most of the industrial land allocation was converted into residential areas. A large part of residential development has happened through illegal conversion from agricultural to residential use. Plan implementation has thus been identified as the main issue in the plan review.

2001 plan for Dehradun perhaps is one of the few plans which provided for detailed residential land allocation according to income categories. However, the plan review chapter is silent on it. It can be seen that the amount of land (about 277 ha) occupied by slums is about the same amount (350 ha) that was allocated for EWS and LIG groups. Thus, an assessment of land developed for LIG and EWS would have been useful.

b) Sectoral Assessment

Assessment of housing shortage is done through census data for both quatitative and qualitative shortage. Over the years, the quantitative housing shortage has reduced significantly. The plan also provides an assessment of standard of housing in terms of availability of services and number of "Malinbastis" (dirty settlements) in the city. The plan provides data on how much land has been "encroached' by these settlements.

The housing shortage has been calculated by subtracting the number of dwelling units from

Table 6:	Prescribed Plot Sizes According to Income Groups in Master Plan 2001

Income Group	Percentage	Plot Size Range (sq. m)	Average Plot size
HIG	15	300-500	400
MIG	30	150-300	225
LIG	35	50-150	100
EWS	20	30-50	40

Source: Government of Uttar Pradesh, 1985

the number of households within the area. This method has not considered the overcrowding and congestion factor, nor has this method included any consideration of the dilapidated structures or the houses below a minimum acceptable standard interms of size.

c) Proposals

Proposals for residential areas provide for provision of total houses by 2025, proposed densities and the total residential land allocation.

The rate of land supply in the developed area is about 346 ha/year from 1983 to 2001 in the planning area and about 227 ha/yr within the urban area. However, a large part (about 40-50 percent) of this development is through illegal conversion of agricultural land. From a total of 2484 ha residential land developed (118 ha/year), the rate of development in the urban area was 66 ha per year (Table 3). In the next 25 years, i.e. from 2001 to 2025 the land is required to be developed at the rate of approximately 199 ha/year.

Table 8:	Existing and Required Rate of Developed Land Per Year			
	DEHRADUN	**SHIMLA**	**LUDHIANA**	**CHANDIGARH**
Total Residential Land allocation in the Master Plan (ha)	5306 (14.7%)	2124 (21.2%)	43395 (33.8%)	4400 (38.6%)
Residential Land allocation for EWS and LIG (ha)	Estimated 12-15 %*	Not specified		Detail area distribution under different typologies is given
Available average current Residential land development rate per year as per master plan (estimated)* Ha/year	118	23	410	NA
Required developed land rate required as per the Master Plan Ha/year	199	61	2394	NA

Source: Computed from Master Plan of Chandigarh, Dehradun, Ludhiana and Shimla

The master plan for 2001 had given a distribution of income groups with the envisaged number of HH, Range of plot size and the total area requirement (Table 4.4).

As per the Master Plan 2001, the LIG and EWS category comprised 55 percent of the population of Dehradun and the percentage of residential land area allocated was about 25 percent(20 percent for LIG and 4.6 percent for EWS respectively).

These provisions have been replaced by FAR and dwelling unit reservations for EWS and LIG. For housing clusters, reservation for EWS should be 10% of built up space or 15% of the DUs and total built up under residential for LIG should be 15% of the total plot area. In case of group housing, 15% of the total built up area is to be reserved for EWS and 25% for LIG, or 10% of the plot size for LIG and EWS housing (Government of Uttarakhand, 2011). It can be seen that while in case of 2001 plan where the land allocation for the EWS and LIG was about 25 percent, land allocation would be about 12-15 percent with the provisions of built space reservation.

Table 7:	Projected Population and Planning Area in Four Cities			
	DEHRADUN	**SHIMLA**	**LUDHIANA**	**CHANDIGARH**
Population Census 2011 (million)	0.54 (0.71)	0.17	1.61	1.05
Decadal Growth Rate (2001 - 2011)	20% (34.7%)	17.2%	16%	17.1%
Municipal Area (ha)	6872 ha	2074 ha	11137.5	11400 ha
Planning Area (ha)	35,867 ha	9949	127122	11400 ha
Projected population (million)	1.53	.32	4.0*	1.5

Source: Census of India: 2011 and Master Plans for Dehradun, Ludhiana, Shimla and Chandigarh.

The master plan for 2001 gave the plot sizes for various income categories and has been detailed in the table below.

The minimum plot size allotted to EWS housing is 30 sq. m and that for LIG is 50 sq. m. In terms of area, the percentage of area shown for EWS category is 5% within the residential areas but no other reservations for EWS and LIG have been made. The draft housing policy of Uttarakhand, has revised these ranges to 30-45 sq. m., 46 -60 sq. m and 61-75 sq. m. for EWS, LIG and Lower MIG. The minimum D.U. size can be reduced to 25 sq. m. The development regulations also make provisions for industrial housing in industrial areas and in-situ rehabilitation of slums which allows certain percentage of the area to be used as commercial.

Chandigarh

The idea of Chandigarh emerged in a turbulent era after independence in 1947. The path towards development and modernity was rife with constraints of poverty, displaced persons movement, low level of literacy, and social divisions within society and colonial system of governance. The state of Punjab faced the onslaught of partition and in the aftermath of partition, Lahore the capital of undivided Punjab became part of Pakistan. A new capital of Punjab in the Indian territory was urgently required. In March 1948, the Government of Punjab in consultation with Government of India approved a plan for 114.59 sq km tract of land at the foot of the Shivalik Hills in Ropar district as the site of the new capital. Planned for a total population of about 5.0 lakhs, Chandigarh today houses about one million persons as per the 2011 census.

Chandigarh provides a unique example of planning and development. Without a town planning or a development authority Act, planning in Chandigarh was based on the initial plans for the city. Recently, the Chandigarh administration has prepared a plan for the City for 2031 because of the High court directions and the same is yet to be notified. Chandigarh plan reflects the strong influence of architecture and design tradition in its approach to planning. It projects a population of 15 lakh for the year 2031.

a) Overall Objectives and Problem Identification

Chandigarh Vision as given in its preamble has all the popular phrases like "housing for all", 'public transport' and heritage etc. The Vision states that "..[It] shall strive to develop as an administrative city. It shall help instill pride and identity to people…" The main issue identified is the peripheral development around the city. The approach for population growth of the city is seen as population dispersion through balanced regional development. The plan thus lays a strong emphasis on planning the city in its regional context. Symptomatic assessment through SWOT analysis identifies presence of unauthorized colonies and unregulated growth in urban villages as one of the weaknesses. Detailed assessment of the situation is done sectorally.

b) Assessment of Existing Housing Situation

Chandigarh has a good quality database and provides information on housing according to each typology like government, private, cooperative housing etc. It then provides a census-based analysis of quantum of housing shortage as well as according to number of rooms along with the upcoming proposals for housing. It identifies "skewed distribution of population density together with a ghettoization of the poor in unauthorized settlements and the rehabilitation colonies in peripheral locations."

c) Proposals

Its approach to housing includes; reutilization of government housing, additional FAR for private housing, reservation of 15 percent FAR in new housing projects, redevelopment/urban renewal of urban villages, structural audit of older housing including rehabilitation colonies. It proposes new housing specifically for the urban poor and improvement of existing rehabilitation colonies. There is also a focus on shelter for cycle rickshaw pullers and it specifies mandatory provision in government housing for 'domestic servants'.

The existing residential land in Chandigarh is 4268.8 ha. (37.8%) out of a total of 11268 ha. The proposed increase in residential land is about 80 ha which from the proposals would accommodate about two lakh population.

POPULATION GROWTH AND REQUIRED RATE OF LAND DEVELOPMENT IN FOUR CITIES

A comparative analysis of the four cities in terms of population and required rate of land developed (Table 6) shows that in all the four cities the population is likely to double within next fifteen to twenty

years and required rate of developed land is almost two to six times the current rate.

*In 2007 existing population of planning area is about 2 m.

#Figures In bracket are the population of planning area

*In many cases average land development per year includes also areas, which have been developed by colonizers and later regularized.

COMPONENTS OF ADEQUATE MASTER PLAN PROVISIONS

From the above, one can begin to identify broad contours of adequate master plan provisions for low-income housing.

Information Base and Plan review – Most of the cities have very poor information base of land development and housing provision. It is thus extremely difficult to undertake a systematic analysis. Thus many a times problem statements are generalized in nature. Chandigarh has been an exception with availability of typology wise data. Most of the cities hadsome data on 'slums'; however, none of the plans provided any information on status of land allocations for low income housing in previous plans which should be an essential part of the plan review process.

Problem Assessment – Most of the master plans provide a symptomatic assessment of problem rather than causal or process diagnosis. Through census data analysis, some assessment of housing shortage is made, but it falls short of identifying the reasons for such a shortage; Was the population growth higher than projected ? Was it skewed supply or slow supply of housing provision

? Was it lack of enforcement or finances or a combination of all these reasons? Without this clear diagnosis, the plans usually make further provision for housing without addressing or at least recognizing the underlying causes of shortage. Assessment of housing shortage needs to include minimum standard of housing as set in the master plan.

Approach to housing provision for the poor - usually is slum rehabilitation and land or built up reservation in housing projects. Entitlements of older settlements and accountability of implementation backlog form no part of the proposals. Proposals in terms of specific land allocations for low-income housing need to form part of the plan proposal. Proposal for land or FAR reservations for newer housing needs to provide a quantum of houses that would be provided through this mechanism. In the absence of specific targets, it is thus very difficult to measure achievements in terms of provision of housing for low-income households.

CONCLUSION

This paper is an attempt to flesh out the meaning of adequate provisions for low income housing in the master plan as stated in the policy and mission documents. A review of master plan for four cities reveal that many a times the proposals have been made without an adequate information base as well as problem diagnosis. Master Plan provisions require more specific targets against which achievements for low income provisions can be measured. Proposals should include required land allocations at city level for low income housing as well as current and required supply rate

for developed land for low income housing.

NOTES

[1] The study of four cities was part of HUDCO Chair activities and funded by HUDCO. It was completed in 2013.

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HOUSING MICRO FINANCE FOR THE URBAN POOR

Challenges and Opportunities

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India's housing shortage in urban area is well documented and debated over a period, the report of the Working Group on Urban Housing for Twelfth Five Year Plan (2012-2017) has estimated shortage of 18.78 million units in the urban areas and the most deprived (95% shortage) are Economically Weaker Section (EWS) and Low Income Group (LIG) categories. KPMG's estimation says that to fulfil the 'Housing for All' goal of the Government by 2022, there is a need to provide 11 crore housing units in both rural and urban areas (approximate ranging between 5-6 crore units in each area).

Key Words : Housing Micro Finance, Formal Financial Institutions, Low Income and Economic Weaker Section Group Micro Finance in India conditions

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The slow growth of rural economy forced rural workforce to migrate into urban areas, resulting in urban congestion and slums. Despite all the efforts of the government to promote institution in the formal sector to address the issues of the poor, these institutions have failed to mingle either culturally or economically with the underserved segments of the population. Consequently, a host of community level institutions emerged to provide the local level solutions to the diverse needs of the people. Micro finance, therefore, took its natural birth as a ray of hope to the poor to find their own way to tackle poverty. In this direction, institutions like NABARD played a key role of the facilitator along with SIDBI and RMK. Housing Micro Finance is an extension of micro finance, catering the shelter needs of the unreached poor population. The purpose of this paper is to present different opportunities for the housing micro finance institutions as an extension of the formal housing institution, which reluctant to enter into the low-income housing market due to their perceived risks associated with the low-income group. The paper has highlighted few realistic challenges faced both demand and supply side to access the support through HMF. The last section of the paper has provided recommendations to address the challenges and evolve possible expansion of housing micro finance in India. The analysis in this paper is based on the reports, papers and data available in the public domain.

After the green revolution, various interventions were designed to cater the financial needs of the poor. As a result, there was a significant increase in the flow of credit from the formal sector institutions. However, these interventions could not be sustained due to various factors such as their inflexible policies and designs for credits, their limited products to suffice the requirements of poor and inflexible approaches adopted by them to monitor the progress etc. This led to a general perception that lending to poor can only be confined to social activity and cannot be a viable economic activity. However, the real situation was different; more than 70% of the rural population and almost equal number of urban poor were searching for the viable alternatives to meet their financial needs. In this environment, Micro Finance institutions (henceforth MFIs) provided a ray of hope to the poor to find their way out of the poverty. 1980-90s can be viewed as a major milestone for the MFIs when National Bank for Agriculture and Rural Development (NABARD) established as a key facilitator for promoting Self Help Groups (SHGs). Almost at the same time, several Non Profit Organizations (NGOs) based model such as Self Employed Women's Association's (SEWA) Cooperatives, Grameen Bank of Bangladesh, Dhan's community banking models and livelihoods model of Professional Assistance for Development Action (PRADAN) and Mysore Resettlement and Development Agency (MYRADA) etc. started their interventions with SHGs and Micro Finance.

Other apex institutions like Small Industrial Development Bank of India (SIDBI) and Rashtriya Mahila Kosh (RMK) were established to provide micro finance products to the poor

Government of India had also launched various programmes like Integrated Rural Development Programme (IRDP) Swarna Jayanti Gram Swarojgar Yojana (SGSY) for the poor women mainly for their livelihoods promotion under their banner of poverty alleviation programmes. However, most of the Government Programmes were subsidy driven and ignored the processes of social participation, and failed to establish the linkages between borrowers and lenders which is necessary for the programmes for self-reliance.

On the other hand, the interventions the NGOs and credit unions received comparatively were more successful due to their close association with their borrowers and more rigorous follow-ups. This movement faced a big setback after the Andhra Pradesh (AP) Crisis, after which Reserve Bank of India (RBI) intervened and created a new category of Non Banking Financial Institutions (NBFCs) - MFI in 2012 and introduced several regulatory guidelines for streamlining the functions of MFIs. The Micro Finance bill was formulated, which is pending in parliament since 2006, if this bill is passed, it will provide MFI, lenders and investors a more stable regulatory framework required for a comprehensive financial service[1]. After the intervention of RBI, greater regulatory clarity and a stable operating environment in

| Box 1: | What is A.P Crisis? |

In 2011, the MFI was growing much faster in the southern state of Andhra Pradesh with the concentration of 17.31 million SHG members and 6.24 million MFI clients. The total microfinance loan stood Rs. 157 billion, the highest among all the states in India. A CGAP study indicates that the average household debt in A.P. was Rs.65,000, compared to a national average of Rs.7,700. This high penetration of both SHGs and MFIs also led to stiff competition for client outreach between the state-government sponsored SHG program known as "Indira Kranthi Patham (Velugu)" and large, privately owned MFIs resulting the wider conflict of interest. To arrest the growth of MFIs and to stem the alleged abusive practises adopted by MFIs, the state government promulgated an ordinance on October 16, 2010. In December 2010, the Ordinance was enacted into "The Andhra Pradesh Microfinance Institutions (Regulation of Money lending) Act, 2010". This claimed to be resulted series of suicide incidences due to abusive practices of MFIs such as high interest rates, coercive collection processes and aggressive lending beyond the repayment capacity of the borrowers. As of January 2011, A.P. MFI repayment rates fell from 99% right before the issuance of the ordinance to less than 2% in rural areas and 0% in urban areas. The stringent regulations set by the state government (such as monthly repayments, all MFI branches to be registered with the government, no door to door collection of repayments etc.) coupled with active encouragement by the local politicians led to the fall in repayment levels. This, along with other reasons, led to what is commonly termed as "the A.P. crisis". The crisis had an impact not only in the state of A.P. but also throughout India as well.

Source: Micro Finance in India –Sector overview, June 2014.

MFIs have enhanced stakeholder confidence in this sector as well. The CRISIL's rating of 25 top MFIs (accounts for 95% of the sector's loan portfolio) in 2014 shows that Micro finance loan asset to cross Rs. 35, 000 crore by March 2015 by their enhanced geographical diversity and venturing into new under penetrated regions[2]. The Government of India has also recognized the role of MFIs in financial inclusion for the inclusive growth in the Eleventh and Twelfth five-year plans. Therefore, efforts should be made to strengthen MFIs by making them more efficiently managed institutions, and equip them to provide adequate products and services to a larger number of households at affordable costs.

HOUSING MICRO FINANCE

Housing Micro Finance (HMF) is gradually emerging as a loan product offered by established MFIs. Traditionally, HMF was designed for low-income people under the slum up gradation or urban development strategy, with construction assistance for basic infrastructure (e.g., sanitation etc.) etc. while the recent trend shows that HMFs are providing loans for renovation or expansion of home, construction of new homes and land acquisition. The demand for HMF is high in low-income group and the data shows that most of the loans of microenterprises are often used for the purpose of home improvement and as a productive

Box 2:	What is Housing Microfinance?

→ Housing microfinance delivers housing finance to low-income people based on mechanisms first developed for the delivery of micro-enterprise loans.

→ Its size varies, but generally 2–4 times larger than average working capital loans (income generation loans tend to be Rs. 3000-10000)

→ Term usually is 2–24 months for home improvements, and 2–5 years for land purchase or construction

→ Interest is same as standard working capital loans or slightly lower (~12-18%)

→ Collateral is mostly unsecured; co-signers often used; real guarantees may be used; formal ownership of dwelling or land may be required; savings sometimes used as a guarantee (may be compulsory)

→ Targeted clientele are low-income salaried workers; micro entrepreneurs primarily in urban areas; poor people. (targeted at people with a monthly income of Rs. 10,000 and below)

→ This sometimes accompanied by land acquisition, land registration, and construction (including self-help building techniques)

Source: Adapted from CGAP Donor Brief No. 20, August 2004 "Helping to Improve Donor Effectiveness in Microfinance".

asset for their livelihood purpose. There is a pressing need to design innovative financing arrangements for down- marketing housing finance to the urban poor belong to EWS/LIG categories and in the informal sector.

The two main public players in housing finance in India are the Housing and Urban Development Corporation (HUDCO) and the National Housing Board (NHB). HUDCO was created with the goal of servicing low and middle-income households by financing infrastructure development and increasing credit options. Accordingly, HUDCO also provides loans to housing micro finance institutions, which are then lent to low-income households[3]. NHB is the regulatory body for housing finance institutions and principally promotes housing finance institutions at regional levels by providing technical assistance and trainings. It also provides refinancing to the financial institutions that provide loans for low-income housing[4]. Apart from regulating the housing finance market. NHB is working with Central and State Governments to develop and implement housing policies, develop new products, schemes, programmes with the aim to mitigate the housing shortage among the "Bottom of the Pyramid"[5]. As a measure of aligning with Housing Micro Finance Institutions, the Bank had started Housing Micro Finance in 2005 and provided financial support, and trainings for housing finance for the low-income families[6]. NHB has also formulated a new refinance scheme for channelizing funds in to urban housing sector. The scheme seeks to improve credit availability for the urban poor. So far NHB has made disbursement of Rs. 54.0 crore under this scheme.[7]

After the formulation of National Urban Housing and Habitat policy in 2007, Government of India has proactively promoted the concept of 'Affordable Housing for the Urban Poor' under their urban poverty alleviation agenda gave priority to this issue in the 11th and 12th five-year plans and subsequently, launched the programmes like Jawaharlal Nehru National Urban Renewal Mission (JNNURM), The Valmiki Ambedkar Awas Yojana (VAMBAY) and Rajiv Awaas Yojana (RAY). This agenda is further promoted by the current government by setting an ambitious target for them to provide Housing for All by 2022. Accordingly a new scheme has been launched 'Pradhan Mantri Awas Yojana (PMAY)' aiming to provide affordable housing especially for the EWS/LIG households. Although, the role of Housing Micro Finance companies is specifically not figuring in the scheme guidelines; however, they are considered vital player to make the scheme successful.

EMERGING OPPORTUNITIES FOR HMF

Housing Shortage & Requirements: India's housing shortage in urban area is well documented and debated over a period. The report of the Working Group on Urban Housing for Twelfth Five Year Plan (2012-2017) has estimated shortage of 18.78 million units in the urban areas and the most deprived (95% shortage) are Economically

Box 3:	How HMF is Different from Housing Finance ?

→ **Absence of Title:** Proper title deeds are absent in most of the cases of low-income finance in both rural and urban areas. In the absence of proper title deeds, alternate documents have to be taken to safe guard the interest of the lender. This is a difficult process. These documents may include possession certificates, tax payment receipts, municipal etc. payments or any other proof indicating the possession of the borrower of the said property. Selection of the document appropriate to the circumstances calls for adequate expertise regarding the local laws, regulations etc.

→ **Irregular Cash Flow:** Most of the borrowers belonging to the informal sector do not have steady income to pay for the housing loan EMIs on a regular basis. It would be necessary to study the cash flow of the borrower groups to understand their income patterns and offer a suitable product to meet their requirements. Formal sector financing have great constraints in developing such products.

→ **Group Guarantee:** MFI lending involves group guarantee, which is driven by the concept of community self help. In most cases, the group guarantee replaces the primary security itself, as the borrowers do not possess any primary security to offer. This is quite different from the individual security offered in the case of normal housing finance. Analysis of group guarantee will involve examination of strength of the group itself, the number of members of availing of housing loan in a group, the history and track record of each group as revealed through the regularity of meetings attended by each member etc. Thus, the appraisal of housing loan is comparatively different from appraisal undertaken on normal housing loans.

→ **Methods of Loan Recovery:** Methods of the loan recovery are also different in the case of HMF. In most cases, recovery is effected on a door-to-door basis, mostly in cash. Generally, there is no regularity in collecting the payments. Money is recovered as and when it is found in the hands of the borrower. Recovery expenses are also very high.

→ **Knowledge of Borrowers:** In the case of HMF, the borrower is a known person already having a track record with MFI. Generally, he would be member of the savings and credit group who has already availed of other microfinance facilities.

Weaker Section (EWS) and Low Income Group (LIG) categories. KPMG's estimation[8] says that to fulfil the 'Housing for All' goal of the Government by 2022, there is a need to provide 11 crore housing units in both rural and urban areas (approximate ranging between 5-6 crore units in each area). It further says , to meet this large demand, investment of over US\$ 2 trillion is required, out of which about 80-90 percent of the total investment is required in the urban areas.

As per the Census 2011 nearly 46 percent households have insubstantial roof and 34% have a makeshift wall (thatch, bamboo, mud, handmade tiles, asbestos sheets etc). More than 40% households have either no exclusive room or one-room units and more than 50 water and latrine within their premises (54 percent lack drinking water and 53 percent latrine in their premises)[9]. All these households need finances for renovation or expansion of their houses and are the potential customer for the primary lending institutions. However, the major challenge is that formal sector institutions are reluctant to deal with the target group due to various reasons; highlighted in the subsequent segment of this report. Under this circumstance, HMF becomes critical to meet the desired requirements of housing.

Contrary to the common perception that the poor cannot afford the houses, the studies show that almost 30 percent of low-income households can afford to construct/purchase the low cost housing with the traditional mortgage. Similarly, there is a huge demand (more than the demand of new construction) to get financing for the home improvements and repair. Reports from MFIs like Centre for Development Orientation and Training (CDOT), SEWA, RGVN, Sambandh, and Shikhar, etc., working in some of the most underdeveloped regions of Bihar, Assam, Orissa, and Uttar Pradesh respectively, informs that there is an increased demand for sanitation and housing unit up gradation loans from their existing women microfinance clients.[10] For many HMF institutions, these loans are 'productive' in nature and provide a loan for renovation and extension of existing houses. Land acquisition is a successful approach since this suits to the lower income and EWS group as they mostly follow the incremental or progressive building

Box 4:	Case Study: SEWA Bank's Housing Micro Finance Programme in India

SEWA Bank is an excellent example of the decision made by an NGO to facilitate finance in a formal manner-both lending and deposit taking – as a crucial adjunct to the other activities carried out by SEWA, and its sister organization. SEWA Bank is a registered bank permitted to make loans, accepts deposits, and perform all normal banking services. SEWA bank was established in 1974 at the initiative of 4000 SEWA members who each contributed Rs. 10.0 as share capital (share capital had grown to Rs. 9.5 million as of 1999) SEWA Bank is financially self sustaining given its large number of depositors, and has not felt pressure to seek outside finance. SEWA Bank provides secured and unsecured loans to women for housing, home repair, micro enterprise, education and health. SEWA Bank puts great emphasis on savings.

Excerpts from Paper on Innovations in Microfinance for Housing in the United States and Emerging Markets: can we Transfer Methodologies by Dr. Sally Roe Marrill.

processes. HMI like Swarna Pagati has already demonstrated this as a successful approach to safeguard the risk of repayment capacities of low-income group.

Supply side: As mentioned, the participation of Formal Financial Institutions is less in comparison, as they perceive that lending to Low Income Group is highly risky in view of the limitations in creation of mortgage[11]. On the other hand, Micro Finance institutions are more comfortable to work with the Low-income group as they understand the financial needs of this group,

their issues and capacities and above all, they already have existing community networks to leverage further support.[12] MFIs, due to their close proximity are more accessible to provide the local level close support and services as well. Similarly, it is observed that the low-income households are also more comfortable with MFIs and are apprehensive to approach the formal financial institutions due to their lack of awareness about their products, their inability to provide documentation required by Financial Institutions.

Box 5:	Case Study: Swarna Pragati, a revolutionary model in affordable housing

Swarna Paagati has innovated housing finance and mortgage system to overcome the hindrance that impact on flow of credit to low income groups in the rural India. They have introduced the concept of 'incremental progressive housing' and financing for the component wise construction of the units by providing short term loans with affordable repayment instalments (EMI) i.e. loan of Rs. 25000-Rs 1.0 lakh with average loan terms of 36-42 months. Borrower completes the construction of their home through series of loans. Self Help Groups and joint liability groups are used as the delivery models. They do not require title to guarantee the loans and accepting less formal type of collaterals – para legal or substitute titles

Excerpts from Paper on A new Approach to Affordable Housing – Swarna Pragati Microfinance Housing loans by A Ramesh Kumar, Chairman and Managing Director of Swarna Pragati Housing Micro Finance Pvt Ltd. and Moin Quzi.

Remarkable growth of MFI sector as more robust institutions in the recent years: IFMR has recently reviewed 48 NBFC/NBFC-MFI and concluded that there is a tremendous growth of the microfinance sector after the AP Crisis of 2012. Their client number has reached to 29 million and the loan portfolio has crossed the mark of Rs. 291 billion during the FY 14-15.[13] Their loan disbursement in the last quarter of FY 14 was 40 percent increased from the FY 13. The key attribution goes to RBI, its positive approaches by bringing the required regulatory clarity in these institutions and subsequent issuing of comprehensive set of guidelines. One of the major outcomes of the guidelines is the involvement of credit bureaus to record and monitor the credit worthiness of the borrowers of micro finance. Arrival of Highmark and Equifax has further streamlined the process of identification of prospective customers, checking their tack records and reduced the risk of multiple lending and overdebtedness of the borrowers.[14] These positive changes have increased the confidence of MFIs as a result, more and more MFIs are now becoming the regulated entities and streamlining their entire management processes. The steps of RBI, such as providing license to Bandhan Micro Finance, and recently granting 'in principle approval' to ten Financial companies to set up the small financial bank will further boost up the confidence of the Housing Micro Finance Companies.

With the Information Technology (IT) revolution, now HMFIs are more tech-savvy. Their use of technical inputs like the internet, cell phones, satellite communication,

biometric recognition, etc. has increased their banking accessibility and outreach capacity without any physical contacts- consequently, reduced their transaction costs, their loan turn around time to reach the 'excluded' groups and provided more opportunities to enhance their client base.

Established niche areas of MFIs and interest of International donors to support them: MFIs are mostly considered as a People's Institutions (like NGOs, Trust, and NGO-MFI) and they have already established the social capital, they have the longer credit history in the areas where they are working through their community development and micro credit programmes and have established grounded institutional mechanisms and processes. Due to their grounded client base and existing social capital, institutions like the international donors (Swedish International Development Corporation Agency, Department for International Development, United States Agency for International Development, etc.), multilateral banks (e.g. World Bank Inter American Development Bank), foundations (Ford foundations, Bill and Melinda Gates Foundation, Grameen Foundation etc.), apex organizations [Women's World Banking, ACCION, Federation of International Community (FINCA)] and technology providers have already invested millions in to microfinance projects, mostly under their poverty reduction agenda. Engagement with these institutions have definitely contributed in the capacity building of the MFIs and enhanced their customer base especially in the unreached areas. Government and its apex institutions can rely on these opportunities and establish

a sustained and productive partnership with these institutions to meet the target of providing the housing for all by 2022.

CHALLENGES

Despite all the above opportunities, supply of low-income finance in India is limited at all level. Currently very few MFIs have ventured into this field due variety of challenges:

Land and Infrastructure: To understand the challenges of land and infrastructure, we need to know the characteristics of EWS/LIG households in the urban locations. These households are mostly segregated into two categories; the first group is those who completely lack the land title and another set of people are those who have title but they cannot provide sufficient proof documents required to obtain mortgage finance. Even if there is a willingness to follow the due process for the legalization of their land, they find it a costly and time-consuming process[15]. Due to lack of proper title documents, commercial banks do not consider them for loan. Many MFIs are providing loans to these borrowers, if they are providing alternative collateral- such as stamp paper, land patta, NOC from local governance etc. However, there is ambiguity amongst the lenders about the specific types of documents to be collected for this purpose, hence; proper guidelines should be issued to overcome this challenge.

Regarding the urban poor without the land title, most of these people are living in unauthorized slums, mostly illegally encroached land from the State. These people survive with the constant threat of eviction. Therefore, even if, they have

finances, they do not want to spend their money to construct or improve their homes and continue to live in temporary structures. There are few examples where Housing Micro Finance institutions have taken lead to facilitate the process of land acquisition through community mobilization and political lobbying. However, the success is very limited due to the complexity of the policy issues and processes and lack of the capacities of the HMF institutions to deal with this situation.

Funding: There are three main avenues sources for the housing micro finance. The first being the private commercial banks who serve specific segments and provide credit at the market interest rates upon the certification of income and on provision of required legal collaterals. Normally, low-income groups are left out as they are unable to provide required collaterals and evidence of steady income.

The second category is the public sector banks through government programmes. They mostly provide subsidized funds to the low and middle-income group. However, the various empirical data shows that despite their different schemes and programmes, these institutions have failed to reach the low-income group because of their faulty implementation processes and their failure to understand the local socio - economic and political dynamics within which the poor operates.[16] The problem of large-scale defaulters is also observed in this category of funding.

MFIs fall under the third category. They are the emerging solution to provide low ticket loans. However, these institutions have their own challenges- they are a new player

in this sector and mostly preferring to operate in a small scale and serve their own 'tested' customers- the customers who demonstrate a successful repayment history. In absence of large level housing interventions, these loans are often perceived as a consumption loan and unable to attract attention of the formal financial institutions to lend them for a big ticket and long duration loans.[17]

If we talk about Housing Micro finance institutions, they are further segregated in to two categories-(1) the HMFs that functions on strictly commercial terms, at market rates and (2) those that are subsidized through various combinations of donations, grants or government funds. The second category of HMF is fully project based, and are not considered as financially sustainable models as they fail to achieve the scale. Whereas the first category has multiple challenges like - limited mortgage finance, poor linkages with commercial banks, mortgage lenders and capital market institutions and above all absence of a conducive regulatory framework to strengthen their profile and enable them to obtain lines of credit.[18]

Capacities of HMFIs- Housing micro finance is relatively new phenomenon having the following impediments:

(a) Policy Environment: Policy reforms on deposits, matters relating to collateral/security especially in the case of housing micro finance needs policy intervention

(b) Product innovation and Development: Absence of improvised and customized products/services to cater to the felt need of the community

(c) Setting Performance Standards: the critical aspects of microfinance is that programmes adopted by MFIs are diverse in nature and lacks bench marking in certain areas including MIS, accounting policy, portfolio management, systems and procedures and financial technology for reducing transaction costs

(d) High Operating Expenses: Most of the MFIs charge very high rates of interest from their borrowers due to very high operational expenditure. In the long run, such programmes become unviable and also attract public criticism

(e) Credit Rating: Very few MFIs have been rated to identify their weak/strong areas for implementing various programmes. It has also retarded the entry of formal sector funds into the sector

(f) Lack of skilled Human Resources and technical capacities: to conduct cash flow analysis, credit assessments, providing technical assessments, monitoring and supervision and proper data management, all these lead to delays, increased cost and design of faulty products

(g) Regulation: Since this sector continues to be unregulated, the programmes and operations are random and continue to function without any broad national framework.[19]

Reaching the Poorest: Most of the HFCs and HMFs are targeting the low-income households with the income level of Rs. 5000-10000 per month and still are unable to reach the households with the income threshold of Rs 5000 or less[20]. These households are ignored because of their unpredictable incomes, their vulnerability to deal with the economic instability and low repayment capacities. Most of them are employed in the informal sector and lack formal land title therefore considered as a most risky group[21]. Micro Finance institutions have attempted to reach some of them especially to their 'star borrowers' with the successful previous repayment records.[22] Still, these attempts are limited to the very small loan size, which is sufficient for only the repair and up gradation of their houses and most of the time not enough to meet their requirements. In the absence of adequate finance, the poor households are forced to take loans from the informal lending sources with a higher rate of interest and make them further vulnerable to multiple borrowing and eventually overindebtness. Another group consists of poorest urban poor, living in squatters on remote or unutilized land and those living in rental housing in overcrowded slum tenements. Lack of proper financial instruments to meet housing needs of these households is the greatest challenge. [23]

RECOMMENDATIONS

Following recommendations are pertinent to address the issue of land title and infrastructure

- Both Central and State Government need to proactively find options for the alternative systems for land tenure to address the issue of 'land title". Government may also revisit eviction –free strategies to enhance investment in housing

Box 6:	Key Success Factor

→ Proper selection of clients is the most important factor for the success of HMF programmes. The clients should be properly scrutinized for various key factors, including attendance of meetings before credit is extended

→ Capacity building of lenders is the key issue for sustainability of microfinance sector. Strong institutions would be able to provide good quality financial services to the poor and increase their outreach significantly.

→ Corporate governance of the MFIs includes transparency of operations and procedures that focus of increasing efficiency, improving client satisfaction, lowering transaction cost would enable the MFI to tackle the problems in sector and increase the credibility

→ Inculcating financial awareness and knowledge among HMF Borrowers

→ Promotion of incremental housing shall also be focused at apart from providing housing loans. The success of HMF programmes shall succeed only if they are customized to suit the needs of the clients.

→ Empowerment of women by making them sole or co- borrowers

→ Increased number of MFIs/delivery mechanism/products

→ Try for innovative security measures for social housing and non –asset back security –community guarantee, community mortgage schemes and insurance schemes for risk mitigation – a small premium (Rs. 15-20 in a month) can be explored

→ Avoid compromise on quality of the portfolio due to the pressure for increase in the quantity.

→ Appropriate cost effective and disaster resistant technology for low income housing in to HMF framework

→ There is an advantage of partnership between NGO based HFI and commercial banks such as the " community based HMF /NGOs can assist for outreach, counselling, underwriting and sometimes origination and servicing and financial institutions can provide structure, guidance, credit, saving facilities, and larger source of sustained funding

→ Learn from the experiences of private sector (Mahindra, Tata Housing, Lafarge, Wave group etc) and explore the possibilities of joint initiatives with them by defining the innovative housing products depending on the local needs

Source: Various articles and reports.

Following are the areas of capacity building of HMF:

- Product design including the aspects like immediate investment is required to design the customized products taking into account different affordability levels of the low-income households by covering aspects like - cash flow, building needs, building processes, rate of interest, repayment tenure, moratorium period etc. This can be done by adopting/adapting the international good practices and engaging the specialized institutions.

- On demonstration of new housing technology relevant to the requirements of low income group and cost effective, better practice of house construction, repair and maintenance and its customization based on the local conditions.

On beneficiary selection, credit risk assessment, especially for those who lacks previous credit history, due diligence processes for credit assessment of the potential beneficiaries especially for those who are in the informal sector, financial management, data management, legality, monitoring & supervision etc.

Reaching to the Poorest: considering the challenges of the sector the following approaches need to be further scaled up with more funding options

- Promoting smaller and short duration " stage wise" multiple loans for incremental or progressive housing rather than one larger, longer term loan

- Encourage loans for the

by poor to mitigate tenure issue as well [24]. State, local governance etc. need to leverage land with the land pooling for the low-income housing.

- Government can direct some of the subsidy funds towards registration of land title. [25]

- As there is lots of ambiguity in the definition of 'clear marketable title', it will be useful for MFIs and HFCs, if regulatory bodies can assist in providing definition of the informal title [26].

- Since availability of land is a major issue in the large cities, therefore the Tier II and Tier III cities as well as in the suburban areas on the peripheries of metros need to be explored

'Productive Housing' i.e. linking housing loan with the income generation activities so that borrower can generate income for repaying the loans, specially promoting home based microenterprises as supplementary income for the families specially women of the households.

- Instead of housing loan, promote 'Habitat approach" i.e. linking loans with developing water supply sources, toilets, drainage, alternative energy sources etc.

- Develop the innovative credit assessment, models for house construction with the cost effective technologies

- Parallely, encourage rental housing which is gaining importance.

CONCLUSION

There exists a vast potential for expanding the portfolio of housing micro-finance in India. The immediate need is to expand the portfolio of housing microfinance which would serve the dual purpose of financial inclusion as well as reduction in the housing shortage. The housing shortage among the urban and rural poor calls for a range of institutional financing mechanisms of which HMF would play an important role. HMF primarily seeks to address the housing needs of the urban and rural BPL segments, which were hitherto unserved, through principles of market related finance.

As mentioned above, in line with a government Agenda for Housing for All by 2022, it becomes vital to partner with the MFI Sector to achieve the overarching objective.

In such a context, suitable safeguards and risk mitigation mechanism may have to be put in place in terms of legal, technical and financial expertise and expertise to undertake monitoring/audit on a continual basis.

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POLICY RESPONSE TO SPATIAL ILLEGALITY, DISPLACEMENT, RESETTLEMENT AND IMPOVERISHMENT OF URBAN POOR

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The intensified evictions of slum dwellers in Indian cities since 1990s emerge from increasing framing of 'illegality' of slums and shelter rights of slum dwellers. Studies have shown that illegality in cities exist in multiple ways i.e. as type of labour, a type of settlement, a type of built environment or a type of building and hence illegal practices are not limited only to poor but are also as evident in the elite residents.

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The onset of economic liberalization and neoliberal agenda in last two decades has led to spatial reconfigurations and contestation between the privileged and the dispossessed in Indian cities. Prime land in the core of cities, occupied by informal settlements is appropriated for beautification and infrastructure projects for creation of 'world class' cities. Till the enactment of Land Acquisition, Rehabilitation and Resettlement Act in 2013, there was no national statute for the same. Rehabilitation of urban project-affected families in informal settlements was either minimised through 'eligibility' criteria or offloaded to subsidized housing programs of the central and state governments originally meant for poor beneficiaries rather than project-affected families. This research addresses the consequences of such off-site resettlement on the poor households displaced by development projects in Pune. The findings indicate that for the poor land or rather its location with respect to opportunities for livelihoods, social networks and amenities is a crucial factor for their wellbeing and resettlement to distant sites has led to multiple forms of impoverishment post-occupancy. This is partly because their needs are limitedly addressed in the policy and practice of subsidised government programs not meant for rehabilitation housing in the first place. The research makes recommendation to the LARR Act 2013 to widen the scope of 'affected' persons by including slum dwellers as their livelihood and social networks are closely linked to land and hence are considered for compensatory rehabilitation and resettlement on eviction under 'public' purpose projects.

The research recommends that LARR Act, 2013 should mandate minimum relocation distance, on which it is silent, to minimize post resettlement impoverishment of displaced households.

INTRODUCTION

Development induced displacements in Indian cities

Globalization and entrepreneurialism in local governance in Indian cities are altering socio-spatial order with increasing contestation between privileged and the dispossessed (Bhan, 2009). Cities, being seen as growth engines, and vying to be 'world class' to attract global capital, are increasingly investing in beautification and infrastructure projects such as waterfront development, mass rapid transport systems, flyovers and new road links, international airports and stadia. Quite often land for such projects is appropriated from informal settlements of urban poor, a trend which has gained prominence in last decade since the National government's flagship investment program for urban infrastructure, Jawaharlal Nehru National Urban Renewal Mission (JNNURM), the largest infusion of public funds to urban local governments for infrastructure development and urban renewal, since 2007 (Patel et al., 2015).

Displacement of urban poor have been witnessed in major cities

including New Delhi, Mumbai, Hyderabad, Chennai, Kolkata, Ahmedabad, Pune and the estimates vary from 75000 families in Delhi under Yamuna riverfront and Commonwealth games development, 12000 families in Hyderabad under Musi riverfront development, 10000 families in Ahmedabad for Sabarmati riverfront development and Bus rapid transit projects (George and Nautiyal, 2006 , Patel et al., 2015, Dupont, 2008). In absence of a national statute for right to compensatory shelter of displaced slum dwellers, their rehabilitation is limited and undertaken in an ad-hoc manner, depending on stance of urban politics towards slum dwellers in the particular context at the particular time. Eventually a marginal few who can prove 'eligibility' get compensatory shelter (Mahadevia et al., 2013, Bhan et al., 2014). 'Eligibility' criteria are based on an arbitrarily prescribed cutoff date prior to which residence in slum has to be proved through state mandated documents for residence address proof, which varies from city to city. In Delhi it has moved from 1990 to 1997 to 2004 to 2007; in Mumbai it has moved from 1995 to now 2000, while Ahmedabad it is 1976 and in specific case 2002 (river front development) and 2010 (slum rehabilitation scheme) are allowed. Evicted families who cannot prove 'eligibility' have no claim to compensatory shelter, are reduced to once again being without shelter and therefore proof of residence. Wherever they squat they have to begin the cycle of residence proofing a new (Bhan et al., 2014).

Rehabilitation to compensatory shelter of the marginal few poses two problems. First, it is foisted on to government's pro-poor housing and basic services programs such as Basic Services for Urban Poor (BSUP) or Valmiki Ambedkar Awas Yojana (VAMBAY) rather than being funded by the self-financing projects which caused the displacement. Thus intended beneficiaries of BSUP and VAMBAY programs are divested of the benefit and the profit-making infrastructure projects are absolved from providing compensatory housing to the project-affected poor families. Second is that, under these programs rehabilitation sites are usually in the periphery of cities, away from work places, social amenities, fair price shops and public transport. Since policy for such pro-poor housing and basic services programs is designed centrally by the National government, participatory spaces for beneficiaries at local level, to negotiate their needs during planning and implementation is absent, leading to lack of understanding of their needs by the state (Patel, 2013, Patel and Mandhyan, 2014). As slum dwellers' livelihood and social networks are closely linked to their habitats, displacement to far-off sites leads to onset of multiple forms of social and economic impoverishment as shown by emerging research in the context of Delhi (Menon-Sen and Bhan, 2008), Indore (Patel and Mandhyan, 2014) and Ahmedabad (Patel et al., 2015). As impoverishment increases on the rehabilitation sites, the displaced often defect and return to old slums or vicinities (Dupont, 2008), leading to low level occupancies in

most BSUP sites across Indian cities (Mahadevia et al., 2013) and higher densities in vicinity of old slum sites. This is perceived as a resettlement failure as per Cernea's(2000) model for Impoverishment Risk and Resettlement(IRR) for Development Induced Displacement and Resettlement (DIDR).

STATE'S FRAMING OF SPATIAL ILLEGALITY OF SLUMS AND CONFLICTING STANCE ON URBAN AND RURAL DISPLACEMENTS UNDER LARR, ACT 2013

The intensified evictions of slum dwellers in Indian cities since 1990s emerge from increasingly framing of 'illegality' of slums and shelter rights of slum dwellers (Ramanathan, 2006, Ghertner, 2008). Studies (Bayat, 2001, Bhan, 2013) have shown that illegality in cities exist in multiple ways i.e. as type of labour, a type of settlement, a type of built environment or a type of building, and hence illegal practices are not limited only to poor but are also as evident in the elite residents. Yet the consequences of illegality are more severe on poor than on the elite residents. Bhan et al (2014) show that though only 25 per cent of Delhi's population lives in 'planned' or 'legal' colonies, it is mainly the poor resident settlements which are increasingly framed as 'illegal' while the elite residences under non-planned areas or unauthorized construction are spared.

This was not always the case with regards to shelter rights of the poor. In 1908s, in few landmark cases pertaining to eviction, such as Olga Tellis Vs Bombay Municipal

Corporation (1985), the Supreme Court had read the right to shelter for slum dwellers in the Article 21 of the Indian Constitution which upholds 'right to life and personal liberty' as a fundamental and hence an enforceable right. As a consequence of judiciary's upholding of right to shelter as right to life and personal liberty, in this phase displaced slum dwellers were viewed sympathetically and given compensatory shelter by the state in most cases. However since the 1990s, judiciary has shown increased reluctance to assert any right that openly contradicts the vision of neoliberal development (Rajagopal, 2007) and has emerged as a significant contributor to the evolving jurisprudence of 'illegality' of slums and shelter rights of urban poor (Baviskar, 2003),{Dupont, 2008 #268}{Ghertner, 2008 #267},{Ramanathan, 2006 #195}

Framing of spatial illegality of slums by the state and judiciary also reflects in the empirics of Slum Census 2011 of India (Office of the Registrar General & Census Commissioner, 2011) which categorises slums as 'notified', 'recognised' and 'identified' with increasing degrees of illegality. The 'notified' slums represent slums which are notified under 'Slum Acts' of different states. Usually these slum dwellers are framed to be 'legal' and 'eligible' for compensatory shelter on eviction. The second category represents slums that an authority in a state recognizes through a survey or in a program or a policy. Such slum dwellers may be 'eligible' for entitlements only under a specific policy or program. The third and the largest category (constitutes 37 per cent at India level), represents

TABLE 1:	Specific indicators to assess wellbeing of families post resettlement
Indicator	**Specific Indicator(measured as)**
a. Access to Livelihood	Permanent loss of job
	Loss of working days due to relocation process
	Increased distance to work
	Modal shift from Non Motorised Transport (NMT) and Public Transport (PT) to Motorised Private Transport and associated transport cost.
	Increase in monthly expenditure on transport as percentage of monthly income vis a vis departure slum
	Increase in debt
b. Access to Education Facilities	Increase in distance to school
	School dropout ratio
	Loss of school attendance days due to relocation process
	Modal shift from NMT and PT to Motorised Private transport and associated transport cost.
	Increase in monthly expenditure on education as percentage of monthly income vis a vis departure slum.
c. Access to Health Facilities	Distance to nearest Primary Health center's (PHC) and government hospital
	Households shifting from Government to private health facility
	Increase in average monthly expenditure on health as percentage of monthly income vis a vis departure slum
d. Access to Infrastructure	Access to basic infrastructure such as water supply, sanitation and Solid Waste Management (SWM) Water supply- Measured in terms of average hours of supply in a day and distance to facility
	Sanitation- Availability of onsite facilities, individual or community toilets compared to previous location and connection to sewerage network.
	Solid waste management system existing, if any, within the site for door to door collection and its efficiency
e. Access to Public Transport	Increase or decrease of distance to nearest bust stop, Frequency of bus service Shift from PT to private transport
f. Type of Dwelling Unit	Size of DU as vis a vis in policy
	Design and Area Standards Access of natural light and ventilation
	Access to emergency facilities and decreased vulnerability vis a vis departure slum
	Presence/absence of Community participation in design during Detailed Project Report (DPR) stage.
g. Ownership and Tenure	Ownership status and security of tenure
	Transfer in ownership and tenancy as percentage of total occupied dwellings

slums which are 'identified' as one but lack either legal notification or recognition by the state. These are vulnerable to eviction and have no claims to compensatory shelter post-eviction or other entitlements.

The increasingly framing of spatial illegality of slums by the state and recognition of small fraction of displacees for rehabilitation entitlement stands in stark contrast to the state's stance on displacements of 'land owning' and 'affected' persons in the rural context under the newly enacted 'The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act (LARR Act 2013). The LARR Act is a paradigm shift in the state's stance on forced land acquisition in two ways. First, that for the first time, it combines both land acquisition and Rehabilitation and Resettlement (R & R) within one law which was not the case in the earlier Land Acquisition Act, 1896 and hence R & R was quite often neglected. Second is that by mandating R & R of both 'owners of the land and other affected families' (Ministry of Law and Justice, 2013) the Act brings all those whose primary livelihood is dependent on the land being acquired such as 'agricultural laborers and tenants, share croppers, fisher folk...etc., (Ministry of Law and Justice, 2013)' under ambit of rehabilitation and resettlement. The laudable rationale thus is that rehabilitation is delinked from land ownership and linked to primary livelihood dependency on the appropriated land. However, the same laudable rationale is not extended in case of expropriation of slum lands. Slum dwellers, whose primary livelihood is mostly linked

to slum location and even though they may not be 'legal' land owners, are not acknowledged as 'affected persons' in LARR Act 2013.

Given this background in urban India, we examine process of displacement of slum households under various development projects and off-site resettlement under VAMBAY and BSUP programs as it occurs in Pune, India. We inquire the extent to which slum dwellers' well-being is linked to the land or rather location of stay and how an off-site resettlement leads to multiple forms of impoverishment, most of which are derivatives of distant location of resettlement site. We seek to validate the dependence of slum dwellers on slum land and on affirmation we seek to propose inclusion of slum dwellers under LARR Act 2013, as 'affected persons' and due for compensatory R & R. The scope of the research is not to compare BSUP and VAMBAY programs which have been implemented at different timeframes but is to assess the extent of post-resettlement impoverishment under the two projects in specific context of Pune independently. Thus the specific questions of the research are:

• What are implications for displaced slum dwellers after off-site resettlement under BSUP and VAMBAY programs?
• What are the gaps in policy claims pertaining to impoverishment risks in R&R and actual practice by local government in BSUP and VAMBAY programs?
• How can R & R policy or more specifically LARR Act, 2013 be amended if failure of R&R of

slum dwellers in future has to be averted?

To assess implications of displacement on urban poor, we combine two frameworks to arrive at an exhaustive framework. The first is Cernea's (2000) IRR framework validated in urban context by lead author in case of slum displacements in Ahmedabad (Patel et al., 2015) and Indore (Patel and Mandhyan, 2014). The second is the framework for standard of living by United Nations committee on Economic Social and Cultural rights (ECOSOC) adopted by Menon-Sen and Bhan (2008) to assess post resettlement implications in Buwana resettlement site in Delhi. The indicators adopted are shown in Table 1.

SLUMS AND IMPLEMENTATION OF VAMBAY AND BSUP PROGRAMS IN PUNE

Pune is the second most populous city of Maharashtra and eighth largest city of India with a population of 2.67 million (Census 2011). The city, a major industrial and educational center of India, represents coexistence of affluence and poverty, both at high levels. Of the total population, 32.5 per cent lives in slums (MASHAL, 2009) which in 2002 stood at 45 per cent (Joshi et al., 2002). In Pune 'legal' slums are those which were notified mostly in 1970s under Maharashtra Slum Improvement Act, 1971 and are eligible for basic improvements including water supply, sanitation, internal streets, street lights or compensatory housing on eviction. Slum improvements in Pune proceed in an ad-hoc manner and

major urban development projects have ignored rehabilitation of slums within ambit of the project (Joshi et al., 2002). The examples being the Light Rail Transit System (LRTS) which had no concrete plans for R & R or the Mutha River Improvement Project, initiated by Pune Municipal Corporation (PMC) which included a riverbed road and leisure facilities such as water sports, recreation and tourism facilities (TNN, 2010) but ignored the residents of six slum settlements located along the river with a combined population of almost 9000 (Shelter Associates and SPARC, 1998). In absence of rehabilitation housing under both the projects, few of the 'eligible' slum dwellers were rehabilitated under the city's VAMBAY and BSUP programs.

VAMBAY was a Government of India's (GoI) subsidized housing and basic services program launched in 2001 with the objective to 'to provide shelter or upgrade the existing shelter for people living below the poverty line in Urban Slums' (Government of India, 2001). The target group was all slum dwellers in urban areas who were Below Poverty Line (BPL) and the financing pattern was 50 per cent subsidy by the Central government, and 50 per cent by the state government and the beneficiary. The 'beneficiaries' were to be 'selected' by the State/ District Urban Development Agency or District of Urban Development Agency in consultation with local authorities and Non-Governmental Organisations (NGOs). The beneficiaries were entitled to a new dwelling unit on a relocation site or an in-situ upgrade of dwelling unit including provision of sanitary

toilet. In-situ upgrade was given a priority and in case of relocation the policy stated that "the convenience of slum dwellers so relocated should be paramount and as far as possible their consent should be taken" (Government of India, 2001). VAMBAY was subsumed under BSUP program when the latter was launched in 2006 under Jawaharlal Nehru National Urban Renewal Mission (JNNURM). In Pune, under VAMBAY 688 dwelling units were constructed on two sites as off-site resettlement projects despite emphasis for on-site upgrade. Despite the fact that the program was meant for general beneficiaries, rehabilitation of project-affected persons was foisted on to VAMBAY program.

BSUP was also GoI's subsidized housing program launched in 2005 under JNNURM for a duration of seven years upto 2012 with the objective of "Provision of basic

services to urban poor including security of tenure at affordable prices, improved housing, water supply, sanitation and ensuring delivery through convergence of other already existing universal services of the Government for education, health and social security" (Government of India, 2009b : 2). There was an emphasis in the policy for in-situ upgrade and in case of relocation the provision was that "care will be taken to see that the urban poor are provided housing near their place of occupation" (Government of India, 2009b: 2). The target group was slum dwellers in the covered cities and financing pattern was 50 per cent subsidy by the central government and 50 per cent by state government, local government and beneficiary, with beneficiary contribution not exceeding 12 per cent of the cost of dwelling unit. Beneficiaries were entitled to a new dwelling unit on a relocation site

Table 2:	Slum households evicted and resettled on BSUP and VAMBAY sites from various slums			
Resettlement site	Name of departure slum	Original No.s of HHs on departure slum	No.s of HHs evicted from departure slum	No.s of Resettled HHs
BSUP (Warje)	Siddhart Nagar	400	400	390
	Dandekar pool	239	195	195
	Paud Phatak	351	100	98
	Laman Tanda pashen	611	98	98
	Sagar Colony	225	195	195
VAMBAY (Hadapsar)	Dandekar pool	80	50	30
	Chamdegalli, Bhavanipet	58	58	30
	Koregaon Park	350	350	50
	Anand nagar	300	100	30
	Kamgar Putla	180	100	100
TOTAL		2794	1646	1216

Source: Data collected by authors from various sources including NGOs, PMC and primary survey.

with basic services and access to health and education amenities or an inside upgrade of a dwelling unit with basic utilities. In Pune, under BSUP 4023 dwelling units were constructed on ten sites in different parts of the city of which 51 per cent units were provided through in-situ upgrade and 49 per cent through off site resettlement. Like in case of VAMBAY, rehabilitation of project-affected persons was foisted on to BSUP rather than being funded by the project that caused displacement.

The in-situ upgrade of slums was undertaken on government lands and off-site relocation sites accommodated dwellers from slums in non-buildable zones. Land for these sites was provided by PMC and dwellings were built as multi storied structures varying in height from ground+4 floors to ground+7 floors. While the off-site resettlement projects were being designed, the communities for whom they were intended were not taken into confidence and so the designs failed to address their needs and aspirations. The process resulted in resistance from target communities in relocating to these sites (Shelter Associates, 2012). Since this paper seeks to explore implications of displacement, the focus is limited to BSUP's off-site resettlement projects.

METHODS

For the research mixed methods were used to collect and analyse primary and secondary data on policy of the two programs and implication on displaced households. To analyse the policy claims under VAMBAY and BSUP programs, guidelines were critically analysed. The claims were corroborated by semi-structured interviews of key stakeholders such as officials in PMC, representatives of NGOs involved in the shelter programs in Pune, displaced community members on resettlement sites and their leaders. To analyse implications of displacement on lives of slum households, random stratified household survey (10 per cent sample size on each site) was undertaken at BSUP site (at Warje) and VAMBAY site (at Hadapsar) from January to March 2015.

The selection of the sites was based on the criteria of minimum one years' time lag post-occupancy, considered as a settling period. The displacees on each site were stratified

Table 3:		Sample framework (for household survey, January to March 2015)					
Resettlement Site	Departure slum site	Dwellings Constructed	Dwellings Allotted	Dwellings Occupied	Distance from Departure slum site to resettlement site (Km)	Sample No.s (@ 10%)	Devel-opment Project
BSUP (Warje)		1,925	1,417	976		98	
	Siddhart Nagar			390	11.5	40	Road widening
	Dandekar Pool			195	6.5	20	Road widening
	Paud Pata			98	5	10	Road widening
	Sagar Colony			195	2.5	20	Road widening
	Laman Tanda Pashen			98	6	10	River Front
VAMBAY (Hadapsar)		240	240	240		24	
	Dandekar Pool			30	15	3	River Front
	Kamgar Putla			100	10	10	River Front
	Koregaon Park			50	6	5	Road widening
	Anand Nagar/ Ram Tekde			30	3	3	Road widening
	Chamdegalli/ Bhavanipet			30	7	3	Fire Accident
Total		2,165	1657	1216		122	

Source: Data collected by authors from various sources including NGOs, PMC and primary survey.

according to their departure slum sites (Table 2 and Table 3 and Figure 1). One house was randomly identified as a starting point for the survey by draw of the lots and thereafter every tenth house in each sub-strata was selected. On VAMBAY site the resettlement was undertaken from 2004 to 2008 whereas on BSUP Warje site from 2013 to 2014. .

The data related to conditions of beneficiaries before and after resettlement was captured quantitatively and qualitatively in the questionnaire from the recall of the residents.

The recall of quantitative data such as distance, income, loss of assets etc. was triangulated through other means. For instance distance to

| Figure 1: | Displacement and resettlement patterns of slum households from various slums to VAMBAY and BSUP sites and sample distribution |
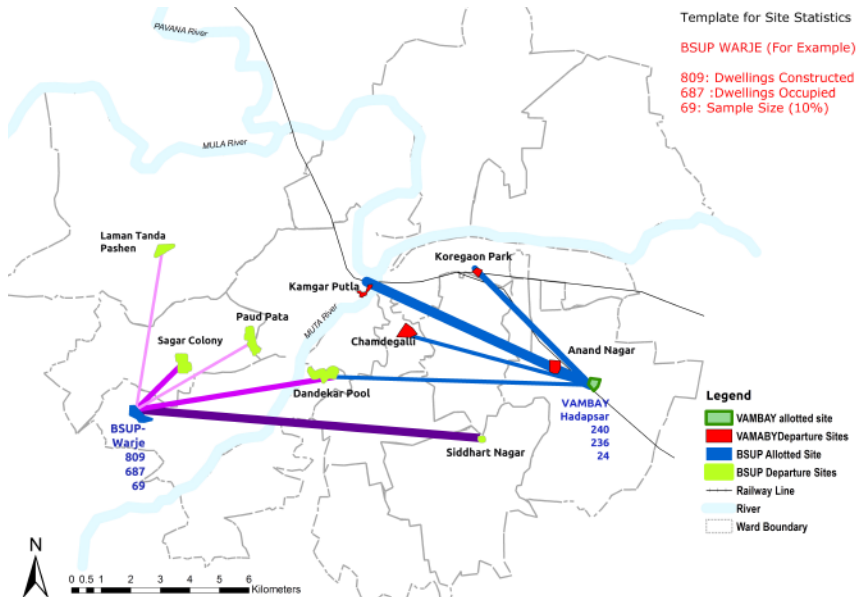
Note: In above figure the colour of a line indicates the displacement path from a slum to BSUP/ VAMBAY site and the thickness indicates the proportion of households displaced from that slum to the relocation site.

| Figure 2: | Mean and median of distance of relocation of slum households from departure slum to BSUP and VAMBAY sites. |
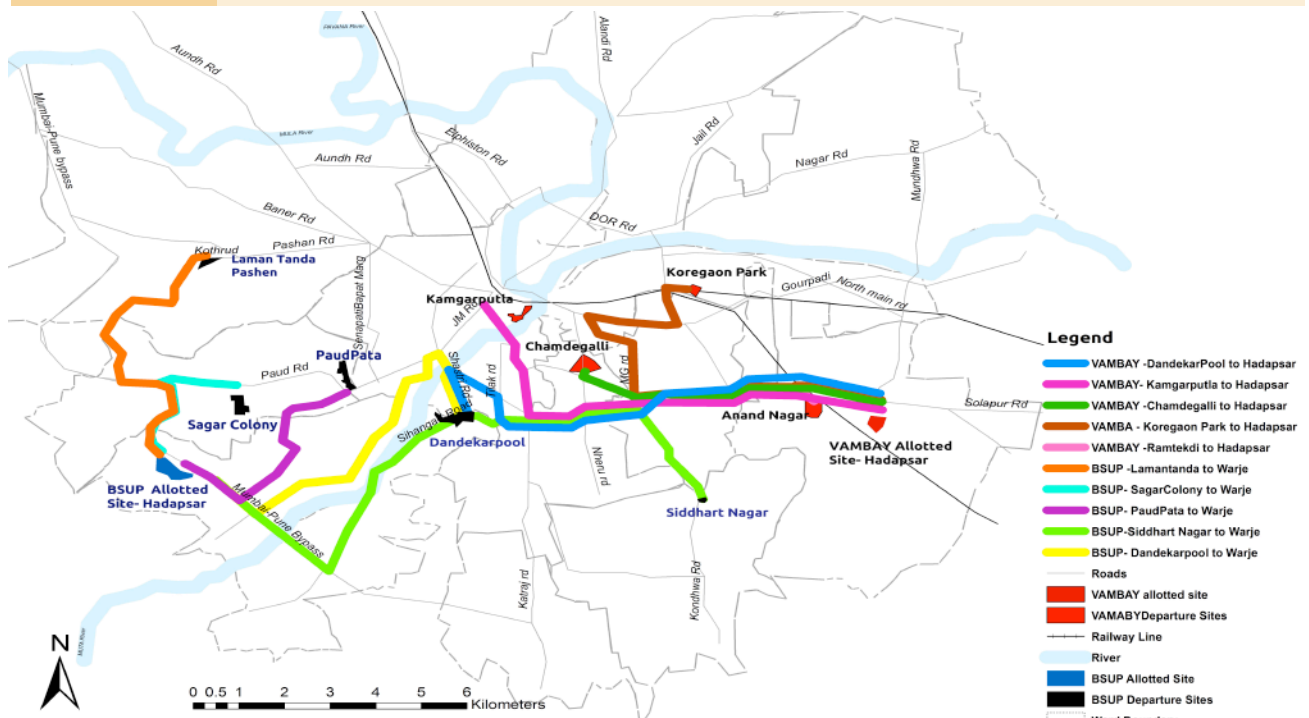
Source: Primary Survey

Figure 3:	Mapping of pattern and distance of relocation of displaced households on BSUP and site

Distance of Displacement from departues Slum

	Mean	Median
BSUP	6.25	5.75
VAMBAY	8.2	7
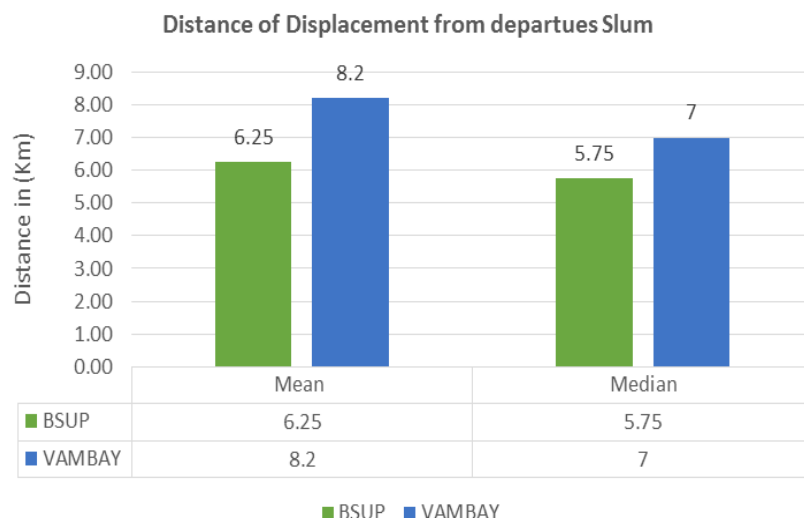
Source: Primary Survey

school in km recalled by a respondent was corroborated by mapping the route between earlier residence and earlier school. The recall of data is solely based on memory and hence has the limitation that the memory structures being recalled may not be directly related or may be decayed or contaminated. This has been accepted as a limitation of recall as a research tool (Gass and Mackey, 2013). To corroborate findings from household survey, semi-structured interviews of civil society actors involved in these projects, focus group discussions with the resettled communities, field observations and documentary analysis of media and academic reports were undertaken.

ANALYSIS

This section discusses our findings related to policy guidelines and actual practice related to impoverishment risks. The discussions for each form of impoverishment are arranged in two parts; first part discusses how

the form has been addressed in guidelines (of BSUP and VAMBAY)

and second part discusses what has been the actual practice by the local government.

In a rural context, land is the principal basis for people's livelihood, commercial activities, social networks and productive systems and its expropriation is a principal form of impoverishment and de-capitalization (Cernea, 2000). In an urban context, land's key characteristic is its location with respect to opportunities for livelihoods, social networks and access to infrastructure and amenities and hence the nature of the location directly affects the wellbeing of the displacees on the resettlement site. One way to minimize post resettlement impoverishment of displacees in an urban context is to minimize the relocation distance.

Figure 4:	Loss of Livelihood and switch to self- employment as coping mechanism on BSUP and VAMBAY sites

Patel et al (2015) have shown that all forms of impoverishment of displacees proposed by Cernea in urban context are derivatives of the relocation distance. To assess these forms in case of Pune, we assess how VAMBAY and BSUP guidelines have addressed the issue of relocation and its distance. In BSUP Detailed Project Report (DPR) Appraisal checklist, there is a token reference to relocation distance which inquires "Is the new site in proximity to the original site/work-place"?(Government of India, 2009a). However 'proximity' is not clearly defined and remedial measures in case of a new site not being in 'proximity' are also not mentioned. A senior PMC official claimed that "in case of relocation the efforts are to resettle the displaced households within the same ward[1]". VAMBAY guidelines on resettlement are silent on the distance criteria. There is a vague reference stating "to ensure that shelter delivery, environment improvement and income upgradation for the urban poor are synergized" without any specification on means to achieve and the distance criteria.

As a consequence of weak guidelines on relocation distance, slum dwellers have endured long distance relocations; no surveyed household was resettled within the same ward and average relocation distance was 6.25 km on BSUP site and 8.2 km on VAMBAY site as shown in Figures 2 and 3.

As a consequence of long distance relocation, multiple forms of impoverishment are set in the displacees. On BSUP site, 35 per cent of resettled workers remained unemployed on the survey date, and others lost an average of 120 income days due to relocation process, 40 per cent students dropped out of school and 32 per cent lost school attendance for average of 117 days. On VAMBAY site, 15 per cent of resettled workers remained unemployed on the survey date, 10 per cent students dropped out of school and others lost school attendance for average of 45 days. The above and other forms of impoverishment and guidelines in BSUP and VAMBAY policy related to them and actual practice on ground are discussed ahead.

a. Access to Livelihood

In urban context the land or rather location of residence with respect to the opportunities for livelihood plays an important role in wellbeing of families. The primary indicator of impoverishment thus is permanent or temporary loss of livelihood (in working days). Other indicators are increase in distance to work and shift from Non-Motorized Transport (NMT) and Public Transport (PT) to motorized and private modes and increased monthly expenditure on transport as percentage of monthly income compared to departure slum.

Policy: The policy for both programs was silent on support to displaced families on livelihoods or capacity and skill building.

Practice: On VAMBAY site as the relocation distance varied from 4 km (Anand Nagar, nearest departure site) to 8.2 km, and none

Figure 5:	School dropouts and lack of access to public transport to school on BSUP site

of the households were resettled in same ward, 15 per cent of workers had lost livelihood till the date of survey. On BSUP site no surveyed household was resettled within the same ward. Mean relocation distance was 6.2 km (figure 2 and figure 3) resulting in permanent loss of livelihood for 35 per cent workers, average loss of income days was 120 days and average debt per household is increased to INR 1,00,000.

On both sites mains workers who did not find alternative employment in the vicinity had to cope by switching to self-employment (figure 5).

b. Access to Education Facilities

Loss of access to education and health facilities leads to deterioration in economic and human wellbeing. This form of impoverishment is measured by school dropout ratio and loss of school attendance days due to relocation process. Other indicators are increase in distance to school, modal shift from NMT and PT to Motorised Private Transport and associated increase in monthly expenditure on education as percentage of monthly income Vis a Vis departure slum.

Policy: VAMBAY guidelines inquire about "Availability of school at the resettled location as mandatory for project sanctioning"(Government of India, 2001). In BSUP guidelines there was no clear mandate on access to education except a perfunctory reference stating that "Convergence of health, education and social security schemes for the urban poor could be an admissible component within BSUP"(Government of India, 2009b). This implies that existing schemes in a city or state

pertaining to these sectors could be converged and supported under BSUP.

Practice: On VAMBAY site, despite the policy mandate, there was no school in the vicinity. Increase in distance to school has resulted in 10 per cent of students having dropped out permanently and an average loss 45 days of school attendance for the others in the relocation process. At BSUP site, about 40 per cent of students have permanently dropped out from schools. The average loss of attendance in relocation process is 117 days. Nearly, 60 per cent of students shifted from NMT and PT modes which have increased the average monthly expenditure for transport, as percentage of monthly income, by 12 per cent.

c. Access to Health Facilities

Loss of access to health facilities leads to deterioration in the economic and human wellbeing. Access to health facilities is interpreted as access to PHCs and public hospitals. Loss of access forces households to shift to private facilities which eventually increases average monthly expenditure on health as percentage of monthly income vis-a-vis on departure slum.

Policy: VAMBAY guidelines state that availability of Primary Health Care (PHC) facility is mandatory for project sanctioning (Government of India, 2001). BSUP guidelines suggest "convergence of health schemes existing in the city/state with the BSUP program"(Government of India, 2009b) and appraisal checklist inquires "whether provisioning for community centre, community primary health care centre, primary

education centre, parks and open spaces has been made in the DPR" (Government of India, 2009a).

Practice: On VAMBAY site the distance to nearest functioning PHC is 3 km and to the nearest government hospital is 20 km. All households have shifted from government to private health facilities for primary and higher order facilities. The shift has increased average monthly expenditure on health as percentage of monthly income by 4 per cent vis-a-vis departure slum site.

At BSUP site, convergence of health schemes was not evident, distance to PHC is 2 km and to government hospital is 16 km. The average monthly expenditure on health care

| Figure 6: | Vacant dwelling unit under VAMBAY and occupied dwelling under BSUP |

as percentage of monthly income had increased by 13 per cent.

d. Access to Infrastructure

Loss of access to basic infrastructure such as water supply, sanitation and SWM leads to worsening of human and social wellbeing. Water supply is measured in terms of average hours of supply in a day and distance to the facility. Sanitation is measured by availability of onsite facilities, individual or community toilets compared to previous location and its connectivity to sewerage network or on site safe sanitation disposal mechanism. For SWM door to door collection and its efficiency is assessed.

Policy: VAMBAY policy states that Urban Local Body (ULB) "will

need to mobilize other resources for provision of water supply, sanitation etc. on site before commencement (of work)" (Government of India, 2001). BSUP guidelines specify that "improved water and sanitation facilities ensuring delivery through other existing universal service" (Government of India, 2009).

Practice: On VAMBAY site, contrary to the policy, drinking water (and electricity) was not provided for two years post-occupancy, as informed by the community. The community depended on irrigation canal as a water source that was 2 km away.
On BSUP site, as the topography was uneven and the reservoir tank was positioned at the lowest elevation, water has to be pumped up to dwellings, resulting in high energy consumption by communities at higher elevation, uneven distribution of bills and discord within the community.

e. Access to Public Transport (PT)

Connectivity to PT is measured as increase or decrease of distance to nearest bus stop, the frequency of bus service and shift from PT to Private and Intermediate Public Transport services (IPT).

Policy: VAMBAY policy mandates transport link by stating that "Urban Local Body will need to mobilize availability of social infrastructure such as schools, hospitals, transport links etc. which are mandatory for sanctioning of VAMBAY projects"(Government of India, 2001). BSUP guidelines remain silent on access to public transport.

Practice: On VAMBAY site our survey shows a drastic shift of 80 per cent of work trips by NMT and PT to private and motorized modes. Nearest bus stop is inaccessible by road. This has increased average monthly expenditure on transport as percentage of monthly income by 12 per cent vis-a-vis departure slum. In case of BSUP resident, on departure slums, 90 per cent work trips were made by NMT and PT which are reduced to 30 per cent on BSUP site. Increase in average monthly expenditure on transport as percentage of monthly income is 12 per cent. Nearest bus stop is one km away and has poor service and frequency of one bus per hour per direction. PMC had agreed to initiate a bus route near to the BSUP site but it was not implemented till the survey date.

f. Type of dwelling unit

Policy: Regarding dwelling unit, VAMBAY guidelines state "No hard and fast type design is prescribed for VAMBAY dwelling units. However plinth area of a new house should normally be not less than 15 sqm. The layout, size and type design of VAMBAY dwelling units would depend on the local conditions and preferences of the beneficiary. Incorporation of disaster resistance features in design units shall be made compulsory" (Government of India, 2001). BSUP's DPR appraisal checklist inquires "Whether the floor area of dwelling unit is equal or more than 25 sq.m? Whether each dwelling unit comprises two rooms, kitchen and a toilet?" (Government of India, 2009a). Thus minimum standards of dwelling size are mandated in the checklist.

Practice: In VAMBAY, though beneficiaries were not consulted for design aspects, most residents expressed satisfaction with one of them stating that "the site layout is well planned in terms of access to natural light, ventilation and emergency evacuation" [1]. However, bathing and washing areas are common and space constrains compel women to use external space for circulation for washing purpose (Figure 7). In case of BSUP, project DPR was prepared by private consultant and the DPR details of unit design and beneficiary list were neither made public nor shared with the beneficiaries. This concern was expressed by a community leader who stated "we were not consulted in terms of design preferences or affordability to pay our contribution[2]". Land allocation issues emerged after the project was sanctioned because of which building heights were increased from groun+5 floors to ground +8 floors without any consultation with communities.

g. Ownership and Title

The ownership of dwelling implies economic wellbeing. The lack of ownership till completion of mortgage period and renting out in this duration because of inability to pay mortgage are indicators of impoverishment.

Policy: VAMBAY policy states that "The title deed should be in the joint name of husband and wife or in the name of wife alone. Till the repayment of loan, if any, the house built with VAMBAY funds along with land shall be mortgaged to the Government / concerned Urban Local Body" (Government of

India, 2001). BSUP policy mandates "A joint ownership or primary in the name of the woman of the household". The ownership lease period is 10 years (Government of India, 2009b).

Practice: On VAMBAY site 85 per cent of households were original allottees and on BSUP site, all households were original allottees and renting out was not witnessed. However 31 percent of allotted dwellings remained unoccupied. A community leader cited "distant location from departure slum and livelihood and other opportunities" for unwillingness of allottees to shift to BSUP site.

CONCLUSION

We confirm that the urban poor in Pune, displaced under various development projects and resettled under BSUP and VAMBAY programs have been further impoverished as proposed by Cernea (2000) and found by lead author in Ahmedabad (Patel et al., 2015) and Indore (Patel and Mandhyan, 2014). This paper validates the findings by researchers that relocation distance is the most significant cause of post-resettlement impoverishment and must be adequately addressed in resettlement and rehabilitation policy guidelines. Similar research on Indore (Patel and Mandhyan, 2014), has demonstrated that residents of in-situ resettlement were substantially less impoverished compared to those of off-site resettlement.

Guidelines of both BSUP and VAMBAY have either token reference or are silent on impoverishment risks. There is an

evident gap between the policy and the practice by the local government which has led to the impoverishment risks becoming a reality. Thus a weak policy rhetoric and even weaker practice of R & R by local government under BSUP and VAMBAY have further impoverished the urban poor in Pune.

As policy guidelines for BSUP and VAMBAY programs were designed by the central government, participatory spaces for urban poor to negotiate their needs during planning and implementation of both the projects were completely absent leading to lack of understanding of their needs by PMC as also shown by Patel (2013). Thus inadequacies of BSUP and VAMBAY programs in Pune are partly attributable to the exclusions of the affected communities from all aspects of planning and implementation.

While R & R of slum dwellers have been inadequately addressed in the policy and practice of these two key pro-poor housing programs of India, they remain so also under LARR Act, 2013. This research has shown that primary livelihood and factors of well-being of slum dwellers are dependent on slum location and appropriation of slum land and relocation to far-off sites lead to further impoverishment. While LARR Act 2013, recognizes those rural households whose livelihood is dependent on the appropriated lands as 'affected' persons and brings them under the R & R compensation net, in the urban context it remains silent about slum dwellers and their right to R & R on eviction. This

research proposes that the LARR Act 2013 should widen the scope of 'affected' persons by including slum dwellers and make them eligible for compensatory rehabilitation and resettlement on eviction under 'public' purpose projects. Secondly LARR Act 2013 should mandate 'same ward' if not 'within walking distance of departure residence' as a relocation criteria, especially for the poor displacees, so that resettlement failure can be averted. If these factors are included in LARR Act 2013, then the imminent large-scale displacement of slum dwellers under neoliberal transformations of Indian cities and their subsequent resettlement and impoverishment can be averted. Housing programs of GoI have so far failed to do so at a significant cost to the exchequer and to the displacees and LARR Act 2013 appear to be the only platform from where it can be ensured.

NOTES

[1] Interviews of Pune Municipal Corporation senior officials in Januray and February 2015.

[2] Semi structured interviews of resettled community members and leaders from January to February 2015.

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HABITAT III ISSUE PAPERS

The process towards Habitat III includes the preparation of 22 Issue Papers and the creation of 10 Policy Units. The Habitat III Issue Papers are summary documents that address one or more research areas, highlight general findings, and identify research needs on topics related to housing and sustainable urban development. The Habitat III Policy Units bring together high-level expertise to explore state-of-the-art research and analysis; identify good practice and lessons learned; and develop independent policy recommendations on particular issues regarding sustainable urban development. The Issue Papers provide in depth review and analysis of specific issues relevant to the discussions of the Conference and are the departing point for the work of the Policy Units.

The Issue Papers are prepared by United Nations Task Team on Habitat III, a task force of UN agencies and programmes, as well as several experts and organizations related to the different topics. The methodology of elaboration of the Issue Papers is in line with the elaboration of the compendium of issues briefs prepared by the United Nations inter-agency Technical Support Team for the United Nations General Assembly Open Working Group on Sustainable Development Goals.

The following five issue papers, prepared by the Urban Services & Technology and Housing Policies Policy units. have been reprinted in this issue of SHELTER with permission from UN-HABITAT. The entire set of 22 issue papers is available at: http://unhabitat.org/issue-papers-and-policy-units/

18 – URBAN INFRASTRUCTURE AND BASIC SERVICES, INCLUDING ENERGY
19 – TRANSPORT AND MOBILITY
20 – HOUSING
21 – SMART CITIES
22 – INFORMAL SETTLEMENTS

NEW YORK, 31 May 2015

(not edited version 2.0)

ISSUE PAPER ON URBAN INFRASTRUCTURE AND BASIC SERVICES, INCLUDING ENERGY

Key Words : *Urban infrastructure, basic services, access, demand, resources, human rights, investment, policy reform, business models, institutional capacity, sustainable infrastructure provision, resilience, technological innovation, infrastructure systems, networks, green infrastructure.*

MAIN CONCEPTS

This paper defines the means by which infrastructure, as the pivotal enabling force and delivery vehicle of a resilient urban environment, can rise to meet both existing and rapidly increasing future challenges presented by urbanization, population growth and climate change, with the aim to support equitable, inclusive and sustainable development.

The Habitat II Agenda[1] refers to basic infrastructure and services to include the delivery of safe water, sanitation, waste management, social welfare, transport and communications facilities, energy, health and emergency services, schools, public safety, and the management of open spaces. However, the prevailing understanding of infrastructure has been typically based upon a limited view of infrastructure as discreet sectors which contain physical structures and facilities. Over the last decade, infrastructure has evolved to a more increasingly system based understanding which consists of networks of assets, knowledge and institutions.

INFRASTRUCTURESYSTEMS: ASSETS, KNOWLEDGE, AND INSTITUTIONS.

Assets

Assets must not be confused as being only the structures and facilities of infrastructure. Assets are systems of infrastructure, which include the physical structures as well as the internal linkages between these physical structures. These linkages are critical to ensure the function of the overall system of infrastructure[2].

Knowledge of infrastructure

The knowledge of infrastructure is defined as not only the human resources who are engaged within the systems of infrastructure (in the planning, design, construction and operation of infrastructure), but also the knowledge within the institutions which provide the enabling environment for infrastructure systems through the provision of the legal and regulatory frameworks. This includes all the planning, policy, legislation, regulations and codes, the overall strategic development plan for the country or region providing the decision making and prioritising guidance on what to invest in and when and where[3].

Institutions related to infrastructure and services
The quality of services provided by urban infrastructure is directly related to the capacity of the institutional frameworks. Institutional frameworks are key to ensuring the financial viability and effective regulation, planning, management and operation of urban infrastructure.

Infrastructure interdependence

The networks of infrastructure: Networks represent the existing interdependencies between the assets (systems) of infrastructure; these interdependencies can be both physical and subtle and non-physical in nature. Network interdependence can most easily be understood as the output from one part of infrastructure becoming the input to another part of infrastructure, by this means again ensuring the overall function and cohesiveness. In terms of the more obvious physical interdependence this could be the reliance of the health system of infrastructure requiring water as a vital input to ensure effective function. In terms of the non- physical subtle interdependence this is exampled by the knowledge required as an input to the regulation of infrastructure within institutions.

Resilience and link to urban infrastructure

The increasing need for cities of the 21st century to manage and

adapt to the effects of climate change and growing urbanization illustrates the concepts explained above. There is a requirement that we move our focus from a reactive one focusing on effective disaster response to a proactive one, through which we develop an understanding of what, when and where infrastructure needs to be put in place and how to address urban infrastructure to prevent or minimise the effects of a natural event. Only by understanding why the cost of disasters is rising can we begin to address the causes. When, for example, the weather interacts with the built environment it may cause damage resulting in financial loss or loss of lives – why did this happen? Was the infrastructure poorly built (asset problem)? Was the infrastructure poorly maintained so it could not perform as designed (capacity problem)? Was the response to the event ineffective? (knowledge and institution problem), was the scale of event bigger than anticipated? (knowledge problem), were the building codes not reflective of the changes in the environment or new technologies (knowledge problem) or were the codes adequate but not effectively regulated and implemented (institution problem)?

Thus, to design, implement and operate sustainable and resilient infrastructure effectively it is necessary to understand how infrastructure systems and their networks function, as well as to simultaneously integrate risk management into the development and operation of infrastructure, across the 3 key component parts of infrastructure systems (assets, knowledge and institutions).

FIGURES AND KEY FACTS

- 1.2 billion people gained access to improved sanitation in urban areas from 1990 to 2012, while those without sanitation in urban areas has increased by 542 million[4].

- Between 1990 and 2012, 1.6 billion people gained access to piped drinking water; whereas 720 million urban residents do not have access to a piped water supply[4].

- Wastewater generation is increasing steadily, while only 2% of the globally collected 165 billion m3 is recycled. Wetlands could substantially lowering costs of sewage treatment by retaining up to 96% of the nitrogen and 97% of the phosphorous in wastewater if preserved[5].

- Cities generate over 2 billion tons of municipal waste; this is predicted to double over the next 15 years[6].

- Over 75 % of total global energy generated is consumed in cities[7]; 2.5 billion people rely on biomass to meet their energy need resulting in deforestation and environmental degradation[8].

- Around one quarter of the world's urban population continues to live in informal settlements[9], lacking basic services and infrastructure.

- The World Bank projects that, in cities in developing countries, the number of people exposed to cyclone and earthquake risks will more than double from 2000 to 2050[10]

- Some 60% of the area expected to be urbanized by 2030 has yet to be built[11]; $57 trillion in global infrastructure investment will be required between 2013-2030[12].

- $1 trillion annual savings from a viable 60 percent improvement in infrastructure productivity[12]

ISSUE SUMMARY

The challenges facing urban infrastructure over the past 20 years have been shaped by a number of factors. These include an increase in the scale of urbanization with growing urban informality, a rising demand for services, the increasing unit costs of infrastructure provision associated with the sub-optimal expansion of cities, a legacy of under-investment in asset replacement and infrastructure extensions, poor operational management and maintenance, high and inefficient consumption of services among middle and high income consumer classes, slow inclusion of a green infrastructure approach, inequitable distribution of services and infrastructure, which continues to exacerbate the spatial and socio-economic segregation in cities. Moreover, the effects of the continuing reliance on outdated and inappropriate policies and business models, have been compounded by the effects of climate change on services such as water supply, wastewater management, hydro-electric power generation, storm-water management and flood protection.

Some of these challenges are not new, but their scope and complexity have been exacerbated by the rapid urbanization of the past 20

years and continuing weaknesses in understanding infrastructure and its associated governance and regulation, resulting in a lack of comprehensive long term demand-based infrastructure planning. The rising demand for infrastructure services is directly related to the increasing population, GDP growth and rising per capita usage of infrastructure services associated with increasing incomes[13]. The gap between demand and supply, and the inaccessibility and unaffordability of services and infrastructure to segments of the population, represents a major weakness in policy, planning approaches and institutional capacity. The sectoral approach to infrastructure planning, investment and management also poses a constraint with increasing problems in achieving effective inter-sectoral coordination and communication aligned with a weak or non-existent understanding of the linkages between infrastructure planning and urban planning at the city level.

The rising demand for urban infrastructure has not been matched with a commensurate improvement in the financial and institutional capacity to manage urban infrastructure services. For example, revenue generation for services such as solid waste management, water and electricity, typically lag behind the cost of service delivery. Thus, there is a need for more innovative and inclusive business models, especially models which can more effectively mobilize finance for investment and which can involve the private sector and community groups in the financing and management of services.

The whole life costs of the systems of infrastructure such as water supply, electricity, drainage and sewerage can be correlated to the pattern of urbanization, with compact cities providing the most cost-effective solutions to infrastructure investments. Inefficient consumption practices in urban areas are indicative of excessive consumption of electricity and water by high income households while many low income households either have no access or are faced with intermittent or unaffordable supplies. These trends call for more rigorous approaches to demand management and the use of policy and economic instruments to discourage waste and promote more balanced investment strategies, including investment at the household, institutional and community level in areas such as renewable energy, water supply, decentralized wastewater treatment and waste management.

KEY DRIVERS FOR ACTION

A truly holistic approach to infrastructure requires stepping away from a silo/sector-based approach and understanding that infrastructure is made up of not just physical things or assets, but consists of three major parts: assets, knowledge and institutions. Embracing this concept provides the clarity required to further understand how infrastructure underpins the function of society and acts as the enabling vehicle for desired societal changes and development outcomes. Seeking appropriate, affordable and accessible services and infrastructure systems requires a

holistic approach to understanding, designing and planning networks of infrastructure and services, as well as solidly linking infrastructure provision and urban planning. This will allow us to then apply a proper risk management process, taking appropriate mitigation measures to reduce vulnerability and strengthen resilience of infrastructure systems.[14;15].

The continuing and increasing pressure of population growth make the efficient consumption of natural resources by infrastructure systems absolutely essential if conflict rooted in the issues surrounding equitable access to and use of natural resources is to be understood and managed. There are also further benefits that can be gained through approaches such as that proposed by McKinsey and Company[16], by understanding and implementing improvements in efficiency and rationalization of existing infrastructure systems.

- Understanding the linkage between availability, accessibility, affordability and adequacy of basic services for the realization of human rights. Basic services are central to the realization of a wide range of human rights, including water, sanitation, housing, health and education. It is therefore crucial to ensure that these services:

    o are available and physically accessible to all;

    o are affordable to all;

    o are culturally adapted to various groups of the populations;

    o do not discriminate in their access or delivery;

o are safe to use for all, including for women and children.

Policies and programmes should be developed with and for urban dwellers, should prioritize the ones the more in need of them, and be mindful of the gender issues surrounding them[17]. .

- Policy reform. In the face of the challenges posed of rising demand for services, the current inequitable distribution of services and infrastructure, the existing spatial and socio-economic segregation and failure to implement future demand based planning, there is a need for a comprehensive reform of urban infrastructure policies to:

  o improve the enabling environment for investment;

  o create more effective incentives for greater efficiencies in supply and consumption, as well as the payment of services;

  o impose more effective methods for infrastructure planning and service delivery by state, regional and municipal governments and public utilities;

  o create stronger model regulatory frameworks;

  o remove institutional rigidities and create space to attract and enable the private sector, NGOs, community groups and households to play a greater role in financing and service provision.

Policy reform further needs to be based on and take guidance from the Sendai Framework for Disaster Risk Reduction 2015-2030 (SFDRR).

- Building viable and well-managed institutions aligned with infrastructure systems knowledge. One of the lessons learnt from the past 20 years is that the quality of services provided by urban infrastructure is directly related to the capacity of the institutional frameworks and knowledge. While some progress has been achieved in the past two decades, much remains to be done in ensuring the financial viability and effective management of the institutions responsible for the regulation, planning and management of urban infrastructure. Some sectors have made little progress in addressing the need for institutional reform and financial sustainability, these include urban sanitation, solid waste management in low and middle income countries, and urban drainage.

- Legal and regulatory frameworks within which development takes place. Understanding that the provision of services and infrastructure does not solve all issues created by poor urban planning or a lack of, for example development in unstable or high-risk areas. Thus, the where and how the assets are created and who decides which assets to create, are as important as the network of assets themselves.

- Developing effective and integrated infrastructure

planning. Urban infrastructure is capital intensive and facilities need to be continuously improved and expanded through balanced programmes of demand-based planning for the extension of services to meet increasing urban populations and needs. Effective infrastructure planning requires a complete mind set change, all forms of infrastructure need to be considered and planned beyond the current limitations of a sector based approach, to provide an 'enabling vehicle' for societal change and development. New planning approaches and technologies will support progress in the need to reduce the unit costs of infrastructure provision, improving efficiency and quality, ensuring that services are aligned with urban plans and to plan for an optimal expansion of infrastructure to support the urbanization process. Infrastructure and services interventions have a strong impact on city form and city development and thus need to be tied to an overall urban planning and city development strategies, shaping a sustainable and equitable future that addresses a wider communities' rights[18].

- Enhancing coordinated implementation of urban infrastructure. Beyond the planning process, there is need to ensure that the infrastructure is developed and implemented through the understanding of the assets, knowledge and institutions of infrastructure. In

addition, the recognition and understanding of the critical interdependence amongst all spheres of governments is needed. This is particularly relevant for metropolitan areas where fragmentation creates missed opportunities for service provision efficiencies; spillovers across jurisdictional boundaries; and regional income and service level inequalities. Coordination mechanisms are emerging: inter-municipal cooperation, legal incentives for cooperation, planning and development agencies, cost sharing arrangements for metro-wide service delivery, metropolitan development funds, coordinated tax agreements, pool financing, improved linkages between national and local governments' programs and policies to ensure efficiency and reduce imbalance..[19]

- Developing new business models and strategic partnerships. Rapid urbanization has increased the scope and complexity of service provision. New business models are now needed to integrate the strengths and capacities of the public sector, private companies, NGOs, and Community-Based Organizations. New approaches are particularly needed in sectors such as urban drainage, sanitation, solid waste, mobility, clean energy provision and in delivering services to the informal settlements. Although governments in developing countries generally provide, own and operate all infrastructure, there are alternative approaches that are effective in the provision

of services and infrastructure. These alternatives address the need for new business models, such as financial returns on land value increase provided by new infrastructure, green infrastructure and investment guarantee schemes. Green infrastructure is a low-cost, and often high-return, investment approach that has been used to great effect in many cities worldwide. Particularly with regard to the private sector, the development and provision of investment guarantee schemes to attract private investment and to enhance the capacity of governments to make the necessary legal and contractual arrangements aligned with a capacity to regulate and manage private sector entities that provide the physical services, provides achievable benefits and opportunities. These approaches have the added advantage of freeing up government capacity to undertake fully integrated networks and systems of infrastructure planning that further ensures that the vital bottom up validation of such planning is implemented.

- Fostering and applying technological innovation. Technological innovation has become a critical driver for action in the light of emerging challenges[20], such as water shortages, the unsustainability of energy systems based on fossil fuels, the need to increase the reuse and recycling of waste, and the increasing frequency and intensity of climate change effects. However, while much

is being done to develop new technologies to address these problems, there is a growing need to create platforms to bring together the researchers, the policy makers, the decision-makers, the infrastructure managers and regulators and the knowledge management agencies to more effectively target research to the problems being encountered and to create platforms for pilot testing, application and dissemination of the innovative technologies. The increasing demand for energy in urban areas, estimated at 8% annually in African cities, could be addressed in part by making use of renewable energy potentials that exist in cities. In fact transforming municipal waste into energy, dual repurposing such as rain and grey water recycling, replacing linear water supply systems with closed circuit systems, exploiting the water-waste-energy nexus are key potentials. Green infrastructure, seen as networks of multifunctional green spaces[21], has been shown to offer a range of ecological, social, and economic benefits that enhance 'grey' urban infrastructure, if strategically planned and managed[22,23]. Green roofs, permeable vegetated surfaces, street trees, public parks, community gardens and urban wetlands can offer 'ecosystem service benefits' as diverse as improving residents' health and wellbeing, providing food, lowering wind speeds, reducing storm-water run-off, modulating ambient temperatures, reducing energy

use and sequestering carbon[24]. Green infrastructure thus holds the potential to cushion cities against many expected climate change impacts[25].

- Adopt inclusive participatory processes, and increased access to information for all residents: In addition to improving transparency as well as the access and diffusion of information, public participation has contributed to improved planning outcomes in the formulation and implementation of plans by addressing the distinct needs of various groups, especially marginalized populations.

PLATFORMS AND PROJECTS

Infrastructure Transitions Research Consortium;

Global Water Operators Partnership (GWOPA)

Sustainable Sanitation Alliance (SuSanA)

The Infrastructure Consortium for Africa (hosted by the African Development Bank)

Global Expanded Monitoring Initiative for the Water SDGs (hosted by UN-Water)

UNESCWA-UNOPS National Agenda for the Future of Syria;

UNOPS-McKinsey Diagnostic – Occupied Palestinian Territories, Costa Rica

UNOPS Infrastructure Assessment Methodology

EU-funded joint programme on support to District development programme (EU-SDDP) in Sri Lanka

Rural Water and Sanitation initiative of the African Development Bank

UN-Habitat Water for Cities Programme

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ISSUE PAPER ON TRANSPORT AND MOBILITY

Key Words : *Accessibility, land-use planning, Transit orientated Development, National Urban Policy, Freight, Inter- modal integration,*

MAIN CONCEPTS

Sustainable Urban Mobility: The goal of all transportation is to create universal access to safe, clean and affordable transport for all that in turn may provide access to opportunities, services, goods and amenities. Accessibility and sustainable mobility is to do with the quality and efficiency of reaching destinations whose distances are reduced rather than the hardware associated with transport. Accordingly, sustainable urban mobility is determined by the degree to which the city as a whole is accessible to all its residents, including the poor, the elderly, the young, people with disabilities, women and children.

Non-motorised Transport: refers to the transportation of passengers through human or animal powered means. It includes, bicycles, rickshaws, pedicabs, animal drawn carts, push –carts and trolleys and walking.

Public Transport: Formal Public Transport services are those available to the public for payment, run on specified routes, to timetables with set fares and (for

the purposes of this paper) in urban areas. They may be operated by public or private organisations and covers a wide range of modes like, bus, light rail (tramways, streetcars), metros, suburban rail, cable-cars and waterborne transport (e.g. ferries and boats)[1].

Compact cities' or 'smart growth' describe urban development that is compact, resource-efficient and less dependent on the use of private cars. The term 'smart growth' is most commonly used in North America, while in Europe and Australia the term 'compact city' is used more often to connote similar concepts. As an antidote to sprawl, these terms aim to reduce the municipal fiscal burden of accommodating new growth, while at the same time promoting walking and cycling, historical preservation, mixed-income housing that helps reduce social and class segregation and diversity of housing and mobility choices that appeal to a range of lifestyle preferences. Ten accepted principles that define such developments are: (1) mixed-land uses (2) compact building design (3) a range of housing opportunities and choices as part of the mixed housing (4) walkable neighborhoods (5) distinctive, attractive communities with a strong sense of place (6) preservation of open space, farmland, natural beauty and critical environmental

areas (7) development directed towards existing communities (8) a variety of transportation choices (9) development decisions that are predictable, fair and cost effective and (10) community and stakeholder collaboration in development decisions[2].

Transport Demand Management (TDM): Urban planning and design that has a strong relationship with travel demand management can be a cost-effective alternative to increasing capacity. A demand management approach to transport through better urban planning has the potential to deliver better environmental outcomes, improved public health, stronger communities, and more prosperous cities. TDM has to be part of the comprehensive strategy and complex set of technological measures and policies for the management of urban transport.

FIGURES AND KEY FACTS

Transport, in 2010, was responsible for approximately 23% of total energy-related CO_2 emissions. Greenhouse Gas Emissions from the transport sector have more than doubled since 1970 - increasing at a faster rate than any other energy end-use - to reach 7.0 Gt CO2eq in 2010. The final energy consumption for transport reached 27.4 % of total end-use energy,

of which a large share was urban. In a business as usual scenario, transport emissions could increase at a faster rate than emissions from other energy end-use sectors and reach about 12 Gt CO2 a year by 2050[3]. This trend endangers the goal of limiting the increase in global temperatures to two degrees Celsius above pre-industrial levels. However, increasing mobility and connectivity in cities brings enormous benefits to society and also provides the essential means by which a city can function effectively.

Outdoor air pollution, which is partly caused by transport, was estimated to cause 3.7 million premature deaths worldwide in 2012; predominantly, 88% of these deaths were in low and middle-income countries[4]. Transport also contributes to soil and water pollution.

Traffic congestion, not only increases local air pollution but also causes heavy economic losses due to time and fuel wastage and increased emissions. For example, in the United States, time lost in traffic amounted to 0.7% of GDP, in the UK to 1.2 % of GDP, 3.4% in Dakar, Senegal; 4% in Manila, Philippines, 3.3% to 5.3% in Beijing, China ; 1% to 6% in Bangkok, Thailand and up to 10% in Lima, Peru where people on average spend around four hours in daily travel[5].

Annually, 1.24 million people are killed in road traffic accidents which occur predominantly (92%) in low and middle income countries. Africa, which has only 2% of the world's vehicles and 12% of the population, has 16% of the fatalities[6].

The growth of motorisation is a worldwide phenomenon. In 2010 there were 1 billion motor vehicles worldwide (excluding two wheelers). Data from 2005 indicates that almost half of all trips in cities were made by private motorised modes. This proportion continues to increase. By 2035, the number of light duty motor vehicles (cars, sports utility vehicles, light trucks and minivans) are expected to reach 1.6 billion and by 2050 this number will exceed 2.1 billion. Most of the increase will be found in Asian Countries, especially China and India. Globally, the number of new cars sold annually increased from 39 million in the 1990s to 63 million in 2012. Some countries, notably in Asia and also in Africa, are seeing a huge increase of motorised two wheelers on their roads. Trends also indicate that private vehicle ownership grows slowly in countries with lower per-capita incomes, faster at middle income levels, reaching saturation at highest levels of income. For example, vehicle kilometers travelled per capita appears to have stabilized in a number of high income countries such as USA, Japan, Australia, UK, France and Germany.

Non-motorised transport made up about 37% of urban trips worldwide in 2005. For very short trips walking is the main mode of transport. In African cities it accounts for 30-35% of all trips.[7] Despite the high proportion of people relying on non-motorised transport, a divergence is seen between modal use, infrastructure allocation and modal funding in many cities. For example, in Dhaka, Bangladesh, almost 80% of trips are by walking, bus or informal motorised transport, yet 70% of road space is dedicated primarily to private vehicles. Similarly, in some East African cities, walking accounts for more than half of all trips but less than 1 percent of total costs, while accommodating private vehicles accounts for 50% of the total system costs.

The twenty-first century city is a city of intense flow of people, material and information. Goods transport accounts for 10 to 15 percent of vehicle equivalent kilometres travelled in urban areas and have been linked to the externalities of congestion and air and noise pollution. Evidence indicates that a high-income city in Europe generates about 300 to 400 truck trips per 1000 people per day and 30 to 50 tons of goods per person per year. Freight movement is largely driven by diesel powered cargo vessels, trucks, and trains and while diesel engines are more energy efficient as compared with petrol, they contribute significantly to GHGs and other short-lived climate pollutants particularly black carbon, impacting therefore also on public health. Despite the significance of goods transport in the urban environment, it has received relatively less attention from policy makers and planners.

ISSUE SUMMARY

While transport is an enabler of economic activity and social connectivity, a bias towards planning for individual motorised transport rather than accessibility has led to increasing passenger kilometers travelled per capita and a vicious cycle where in an effort to address congestion, the

increasing numbers of private motorised vehicles are sought to be accommodated by building more and more roads and infrastructure such as flyovers, which in turn are soon overwhelmed by the rise in the numbers of vehicles. The objective should rather be to curb sprawl, create compact, walkable neighborhoods and reduce the vehicle kilometers travelled per capita. Urban form is a key determinant of transport systems and in turn is heavily influenced by transport systems. A compact city form enables people, particularly the poor to access jobs, educational and health services more easily, reduces fuel consumption and provides more opportunities for social interaction. Figure 1 below illustrates the relationship between urban density and energy consumption.

In many developing countries, over the past few decades, formal public transport has deteriorated, as governments held down fare levels without increasing subsidies. This led to the decline in the quality of services. In many countries in Africa, informal transport now dominates service provision. The informal sector is characterised by individual entrepreneurs operating minibuses, midi buses, shared taxis and, in some countries, motorcycle taxis. The 'matatu' minibuses and midi-buses in Nairobi are reported to have the highest per capita use of informal transport in the world with 662 trips per inhabitant per year, three quarters of public transport trips and 36% of traffic volumes.

Women and men in urban areas have different travel patterns. Women tend to make more trips, but over shorter distances. Issues related to sexual harassment, safety and security have arisen with regard to women taking public transport or walking. High costs for public transport can make it prohibitive for women. A study in Kampala, Uganda shows that women spend as much as 29% of their income on public transport. A number of challenges also confront people with disabilities.

KEY DRIVERS FOR ACTION

Focus on Demand

A reversal of the paradigm, where people rather than vehicles are at the centre of planning, is necessary. This paradigm takes a rights-based approach and considers accessibility as the ultimate objective of all transportation; i.e. physical access to places and opportunities, to jobs and services and to goods and amenities. The focus in the new paradigm shifts from managing the "supply" side of mobility to managing the "demand side". By promoting mixed-land use planning and more compact cities, trip-lengths can be shortened and transport activity reduced. However, even with the

Figure 1:	Influence of urban densities on transport related energy consumption in 32 cities (1989)

(Source : Newman and Kenworthy 1989 cited in lefevere 2009/ GRHS 2013)

focus on accessibility as the goal, the means of transport, remains a vital element. The "Avoid-Shift-Improve framework[8] promotes a demand based approach with the objective of reducing emissions and congestion and making cities more livable. "Avoid" stresses better land use planning and travel demand management, reducing trip lengths. "Shift" refers to the move to more sustainable means of transport – non-motorised transport and public transport and finally "Improve" looks at vehicle and fuel efficiency. A sustainable urban transport system builds on an efficient modal structure consisting of walking, cycling and public transport. Better design of streets and public spaces, and Transit Oriented Design can not only meet the accessibility needs of people but also contribute to the urban economy.

Enabling Policy Environment and Institutional Coordination

An integrated approach to land use and transport planning is essential. Such integration needs to be promoted at the highest level through national urban policies and National Urban Transport Policies which are developed as statutory instruments that provide a vision for sustainable urban development while also defining the roles, responsibilities and relationships amongst different sectors, agencies and stakeholders, guiding action across regional, metropolitan and neighbourhood levels. Such policy guidelines can also encourage the development of "Sustainable Urban Mobility Plans" as an innovative, integrated and inclusive transport and land use planning processes which are being applied in a number of cities worldwide.

A related dimension is the amalgamation of institutional responsibilities under one agency which has jurisdiction over transport, land-use and investment planning, road construction and maintenance, traffic management, licensing, enforcement and operations. This is particularly relevant for large metropolitan cities. Such policies can also support a regional vision for coordinated land-use and transport (e.g. service integration of public transport in a metropolitan region). Some good examples indicate the way forward. In Stockholm, Sweden, to deal with urban growth, the Storstockholms Lokaltrafic was created as a single regional transport body to take over the responsibilities that had been earlier shared amongst different municipalities[9]. In another example, encouraged by potential investments in transport infrastructure, the five "county governments" that make up the Greater Nairobi Metropolitan Area have agreed on a collaborative framework for transport planning and operations by signing a "Memorandum of Understanding" as a precursor to the establishment of the proposed "Nairobi Metropolitan Transport Authority" to oversee transport development in the Greater Nairobi Metropolitan Area.

Intermodal Integration and Transit Orientated Development

Modal integration of public transport with non-motorised transport increases the reach and accessibility of public transport. It is important to consider the complementary roles of freeways

and railway systems. For example in the suburbs of Munich, Germany, motorways and suburban trains are physically integrated to allow for motorists to switch to trains. Similarly, better pedestrian and cycling paths feeding into suburban railway stations, bike sharing and rental schemes where such stations function as a node can improve accessibility in the wider metropolitan regions and should be prioritised in large urban agglomerations.

Curitiba, Brazil provides a good example of Transit Oriented Development, where a lower cost option bus rapid transport system was introduced in conjunction with a land-use policy that promoted increasing intensity of land-use progressively with proximity to the BRT corridor demonstrating a planning for people approach.

Good examples of modal integration have emerged in Asian and Latin American Cities as well. In Guangzhou, China, the BRT system which serves 800,000 passengers daily is integrated with the city's bicycle lanes and bike share systems, thereby ensuring access to public transport and extending the reach of public transport. Sao Paolo and Curitiba in Brazil, Bogota in Colombia and Santiago in Chile have also taken measures towards such integration.

Urban Freight Management

With growing urban congestion crippling many cities and draining the economy, the concept of "green freight" has emerged in recent years. It involves policy makers, business leaders and civil society working voluntarily together to improve

the energy and environmental efficiency of freight movement. This approach reduces costs and can make businesses more competitive, while also reducing emissions and benefiting public health. Transport strategies in the increasingly contested urban landscape have not received adequate attention and it is essential that the close interactions between urban land-use and goods transport is considered in framing policies and strategies that can ensure the economic benefits of efficient goods transport while reducing its environmental, health and social impacts.

Some good practices have emerged on freight distribution in urban areas. These include rationalization of delivery and consideration of "reverse logistics" (i.e. removal of waste and modal adaptation), but much more focused research is required on integrating freight distribution as an integral part of sustainable urban mobility. Challenges of (transfer) terminals and logistics centres might be reduced, if they move away from road dependency and towards intermodal terminals with rail access. Freight logistics and intermodal options require more attention from policy and decision makers; especially regarding decision making for terminal location and integration.

Financing

Policies need to be promoted that make car travel less appealing while facilitating a modal shift towards public transport and NMT. Financial incentives and integrated tariff systems can be provided to ensure convenience, affordability and uptake of these alternative modes.

In addition, based on the "polluter pays principle, policies on parking, congestion charging or tolling can reduce private automobiles use and promote the use of public transport and NMT. The additional revenues generated from road/congestion pricing measures can be used as a source for financing investments in public transport improvements. Innovations such as car-sharing can reduce car ownership, but still represent a win-win situation for the car industry and cities, serving to meet the un-met demand for mobility amongst city residents, while reducing demands on parking space. Employers can also contribute to reducing congestion by incentivising car-pooling amongst employees.

Financial sustainability of transportation systems is key to ensure sustainable mobility. With growing urbanization and increasing travel, it is necessary that appropriate levels of financing are available. Solid financing mechanisms for sustainable transport – mobility funds/programs, sustained and higher budgetary allocations according to priorities defined in National Urban Transport Policies and Sustainable Urban Mobility Plans ensuring the realization of identified measures are required. Broadly, experience indicates that operating costs for public transport should be linked to fares, but capital costs should be supported by broader sources of revenues. The New York Metropolitan Transportation Authority (MTA) provides an example where a single agency is able to consolidate revenues from different sources for providing a multi-modal regional transport

system. The agency combines revenues from federal, state, local governments and earmarked transportation taxes as well as from tolls from roads and bridges. This allows for the easy distribution of costs and revenues across different modes –illustrating a potentially easily used policy tool.[10]

Public Private Partnerships and Value Sharing models also have great potential in bridging the financing gap for investments in public transport. To illustrate in Hong Kong, the Government makes land around future stations available to Mass Transit Railway Corporation (MTRC) on long-term lease at pre-transport to private developers who create shopping malls and houses. The difference between the prices pays for the capital cost of the transport infrastructure.

Use of ICTs

Modern communication and ticketing technology has the potential to greatly facilitate integration of different modes of transport. Reliable demand modelling and forecasting data should be the basis of any transport intervention. Good examples based on diffusion of ICT are emerging in this area. For instance, the absence of origin-destination data in East African cities made it difficult to plan BRT operations. But by using information on informal transit routes captured on smart phones, it was possible to map the mobility patterns of people using informal public transport. Since BRT services are expected to reflect current informal transit patterns, this data was used for operational plans for the BRT systems. Such innovative use of technologies and instruments

can be strengthened and facilitated to improve accessibility and reduce accidents, pollution and GHG emissions. Application of ICT and Intelligent Transport Systems (ITS) also play a key role to increase the operational efficiency of urban transport and improve services to the benefit of users of sustainable transport (e.g. public transport acceleration, traffic control centres and adaptive traffic management, E-Ticketing, integrated information, real-time-data, multimodal mobility applications and navigation) – enormous potential for innovation.

Knowledge of successfully implemented urban mobility solutions can be shared amongst local and national governments to boost the uptake of these strategies. Knowledge also needs to be expanded on how the new paradigm can be implemented in practice. This calls for engagement of cities, civil society, industry and financial institutions in collaborative and operational partnerships in the form of projects and concurrently for capacity building on operation and maintenance aspects. National Urban Policies together with National Urban Transport Policies articulated with the new paradigm of accessibility can provide guidance through sample legislation, e.g. on compact city planning and incentives for clean transport.

Some of the other key drivers for action for sustainable urban transport may also include (i) Formulation of coherent National Urban Transport Policies for consolidating overarching policy goals with action on local levels, including legal frameworks for sustainable transport governance,

funding programs and strong cooperation of national, provincial and local authorities (ii) Innovative, integrated and inclusive transport and land use planning processes (iii) Human and institutional capacity-building to enable policy-makers and planners to implement policies and successfully realise measures on urban transport and (iv) Strengthening of international cooperation on sustainable transport to improve the access to technologies, experiences and concrete solutions as well as to ensure mutual learning and improvement of solutions.

PLATFORMS AND PROJECTS

- The Urban Electric Mobility Vehicles Initiative (UEMI) (http://unhabitat.org/action-platform-on-urban-electric-mobility-initiative-uemi/) launched at the UN Climate Summit on 23 September 2014 with the goal of reducing emissions from transport while simultaneously improving access and mobility through the widespread uptake of Electric Vehicles, such that EVs make up 30% of total urban travel by 2030. The initiative will be implemented in the overall context of a transition to cleaner sources of energy and better urban planning and calls for complementary actions by "supply" and "demand" side actors such as Industry and cities respectively. International organisations including UN-Habitat, other UN agencies, the International Energy Agency, other knowledge and research organisations and the UN Global Compact will play a facilitating role through

knowledge sharing, capacity building and support through demonstration initiatives.

- The Partnership on Sustainable Low Carbon Transport (SloCaT) (www.slocat.net)

- Bridging the Gap – a multistakeholder partnership to promote sustainable transport in the international climate debate (www.transport2020. org)

- ICLEI's EcoMobility Initiative (http://www.ecomobility.org/)

- The HUB, a capacity-building platform by Embarq India/WRI

NOTES

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ISSUE PAPER ON HOUSING

Key Words : *urbanization; housing needs; slums and informal settlements; commodification; speculation; spatial segregation; vulnerable groups; right to adequate housing; 'housing at the centre'; housing policy; housing finance; financial inclusion; affordability; subsidies; urban planning; housing and livelihood; incremental housing; rental housing;*

MAIN CONCEPTS

Adequate Housing: Adequate housing was recognized as part of the right to an adequate standard of living in international instruments including the 1948 Universal Declaration of Human Rights and in the 1966 International Covenant on Economic, Social and Cultural Rights.[1] Adequate housing must provide more than four walls and a roof. A number of conditions must be met before particular forms of shelter can be considered to constitute "adequate housing." These elements are:

- Security of tenure: housing is not adequate if its occupants do not have a degree of tenure security which guarantees legal protection against forced evictions, harassment and other threats.[2]

- Availability of services, materials, facilities and infrastructure: housing is not adequate if its occupants do not have safe drinking water, adequate sanitation, energy for cooking, heating, lighting, food storage or refuse disposal.

- **Affordability:** housing is not adequate if its cost threatens or compromises the occupants' enjoyment of other human rights.

- **Habitability:** housing is not adequate if it does not guarantee physical safety or provide adequate space, as well as protection against the cold, damp, heat, rain, wind, other threats to health and structural hazards.

- **Accessibility:** housing is not adequate if the specific needs of disadvantaged and marginalized groups are not taken into account.

- **Location:** housing is not adequate if it is cut off from employment opportunities, health-care services, schools, childcare centres and other social facilities, or if located in polluted or dangerous areas.

- **Cultural adequacy:** housing is not adequate if it does not respect and take into account the expression of cultural identity.

FIGURES AND KEY FACTS

- Access to adequate housing is a global challenge growing fast with urbanization. Around one quarter of the world's urban population continues to live in slums and informal settlements.[3] An increasing number of urban dwellers, especially the most poor and vulnerable groups (women, migrants, persons with disabilities and HIV, elder, youth and LGBT) are living in precarious conditions, addressing their housing needs informally, lacking access to basic services and living space, isolated from livelihood opportunities and vulnerable to forced evictions or homelessness. Every day, as people are born in or move to urban centres in search of opportunities, the demand for housing grows. Globally, a billion new houses are needed by 2025 to accommodate 50 million new urban dwellers per year; costs are estimated at USD 9 to USD 11 trillion by 2025.[4]

- Affordable housing is inadequate and adequate housing is unaffordable. One of the more daunting challenges of urbanization has been the provision of adequate housing that people can afford. In 2011, 2.2 billion people still survived on less than US$2 a day,[5] a grossly inadequate income to afford living and housing. From slum residents to middle-income households, it is estimated that currently 330 million households are financially stretched by housing costs and this number could grow to 440 million by 2025 (Fig.1).[6]

Figure 1: The housing affordability gap for approximately 2,400 cities
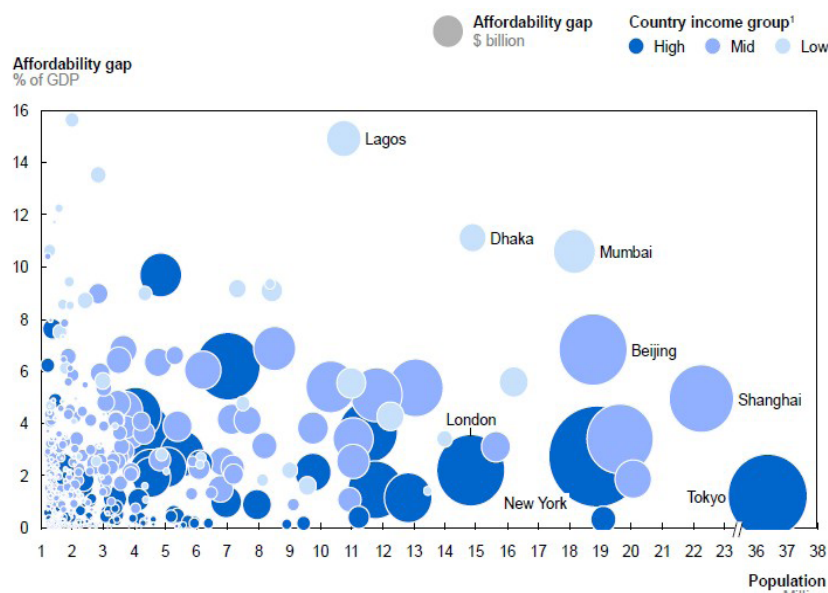
1 As defined by World Bank.

SOURCE: World Bank; UBS Prices and Earnings Report 2012; Numbeo; CEIC; Deposits.org; Global Banking Pool; Royal Bank of Scotland; Zillow; Metroscubicos; Exame; Notaires Paris Ile de France; Jones Lang LaSalle; McKinsey Global Institute Cityscope database; US Census Bureau; national statistics offices; McKinsey Global Institute analysis

- Housing lending moved away from the most poor. The World Bank, the main lender to support improvement in housing conditions, has evolved to embrace the private sector more fully, but moved away from the poverty orientation that was for many years the core focus. A much smaller share of the Bank's lending has gone to support low-income housing (10 percent of total shelter lending since the mid-1990s, versus more than 90 percent from the mid-1970s to the mid-1980s) and a much smaller share has gone to low-income countries (20 percent, down from about 40 percent from the mid-1970s to the mid-1980s).[7]

- Housing issues are a litmus test of urban development and well-

planned cities. Housing has not been appropriately integrated into urban policies in spite of residential land use occupying between 65 and 75percent of the surface of a city. Clearly, the way in which housing is developed, and especially where it is physically provided, has had important implications for the reproduction of informality, inequalities and exclusion in cities. Deficient urban planning and weak regulations have also left little room for governments to manoeuvre against speculation over land, urban sprawl and the spatial segregation of housing.

- Enabling housing finance through mortgages has been quite well responded to by governments but has often only been feasible for the middle - and high-income groups rather than the most needy 60 to 80% of the population. Subsidies on residential mortgages have encouraged people to borrow but they are flowing to the 40-20% richest income groups, that is, those who need last.

Figure 2: Total Outstanding Mortgage Loans Relative to GDP -2013
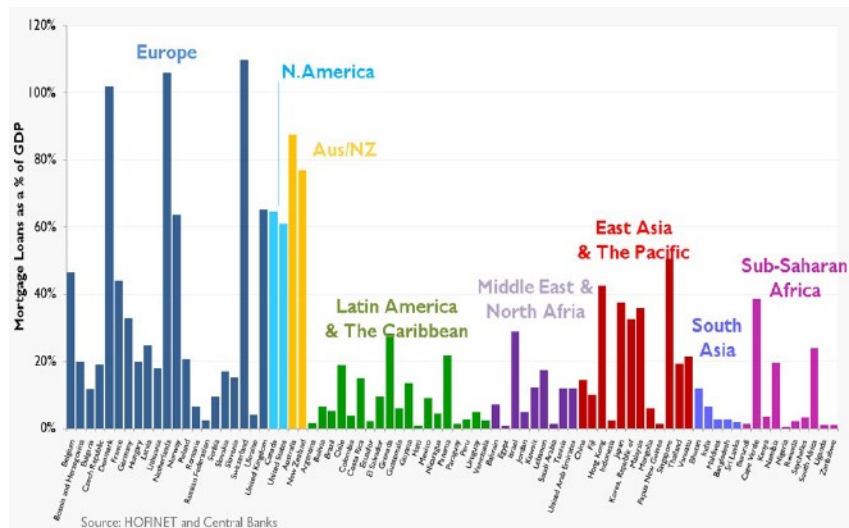
Source: HOFINET and Central Banks

Mortgages are still much more common in Europe and North America than in Asia, Africa or LAC (Fig.2).

- The housing sector accounts for significant energy consumption and impacts on the sustainability of urban development. Households account for about 19percent of total worldwide energy consumption.[8] The overall building stock which is composed mainly of residences is responsible for more than 40percent of global energy use[9] and represents the single largest contributor to greenhouse gas emissions[10]. Environmental degradation stemming from housing construction materials extraction and low-density suburban development further threatens the sustainability of cities. The use of local materials and techniques is still limited in spite of their potential to reduce energy consumption and promote local economic development.

- In spite of increased recognition of the right to adequate housing[11] policies and programmes continue infringing many criteria of housing adequacy, especially the protection from forced evictions. Every year, millions of people around the world are evicted from their homes and land, against their will and without consultation or equitable compensation. Between 1998 and 2008, forced evictions affected at least 18.59 million people[12], despite the fact that international law explicitly recognises the right to security of tenure and has repeatedly declared the practice of forced eviction to be a gross and systematic violation of human

rights. A growing number of urban migrants and Internally Displaced People (IDPs) also confront insecure tenure and the resulting threat of further displacement, not only as a result of natural hazards and renewed conflict, but also as an increase in forced evictions.[13]

- Inadequate housing has contributed to health inequality and risk exposure. House is a major environment of exposure to hazards and health threatening factors due to lack of habitability, overcrowding, inadequate services, among others. Crowding is among the most serious threats as it enhances the transmission of diseases among the household members, especially children, elder and those with a disability as they spend more of their time at home.[14] In addition, many environmental risks are associated with the poor quality of housing structures and its location.

ISSUE SUMMARY

- Nearly three decades have passed since the 'enabling approach' to housing provision was introduced. Significant shifts in policies and approaches were observed in this period and a wide range of practical applications of the enabling principles took place in different countries with mixed results. But overall the majority of national and local governments are still struggling to meet the housing needs of their respective populations. The poorest and vulnerable households are the most affected as they have been untouched by the housing market and limitedly benefited

from housing policies and regulations. Efforts to improve access to adequate housing for women, migrants, refugees, people with disabilities, indigenous and minorities have made little progress so far.

- Government interference in the housing sector has been minimal and many have almost withdrawn from housing provision, land supply, procurement, servicing and even regulation. There has been a broad shift from conceptualizing housing in terms of its social function towards housing as a commodity across various scales. Housing has had a low priority in the allocation of national resources and almost all public and corporation houses were sold. Subsidies have been reduced and, where they remain, they are usually poorly targeted and unsustainable. To a great extent, the advent of housing policy frameworks more in line with liberalization and less state intervention has mainly resulted in fewer or no formal housing opportunities for low- and some tiers of middle-income households.

- Private sector engagement has been weak and markets have been ineffective in serving the lower-end. Governments, in their role of facilitators, have faced challenges to induce private entrepreneurs and finance institutions to invest in, construct and lend for the poor and community-based initiatives. Developers have focused on the high-end housing. Banks are averse to risking loans for people that cannot be classified as conventionally good risk. Housing finance has been essentially promoted through

mortgages, restricted to those with formal titles, and access to finance for the poor majority is limited and expensive. Community- based financial institutions such as financial cooperatives, credit unions and micro-finance institutions have not reached scale and may not be capable of so doing.

- People continue addressing their housing needs by themselves, incrementally and often informally. Almost all housing is generated through an incremental process over relatively long periods of time. Only a minute segment of any society— that is, the very wealthy—has the resources to lend, purchase outright or construct their dwellings as a one-off event. Incremental housing processes have been one of the most effective means of allowing households to have what they can afford, although it has often resulted in low quality and inadequate stock because of the lack of means and capacity.

- Access to land and dysfunctional urban land markets remain one of the most pervasive binding constraints on the provision of adequate housing. A new series of challenges related to the access to well-located land is emerging with the development of large-scale pro-poor strategies. The most common problem is that new low-income housing areas are located too far away from the means of livelihood of the local population with the high cost of transportation being prohibitive for the affected families. A number of countries have postponed or abandoned structural reforms to the legal and regulatory environment of the land and housing markets

and policy makers still neglect the importance of land as a major input into the provision of housing services.

- Property rights, and especially land titling programmes, remain too narrow and have not led to the social and economic outcomes sought. While there is considerable evidence of increased tenure security, investment in housing, access to formal credit and municipal revenue do not seem to have increased with the promotion of titles more than they did under other tenure regimes. To date, there is no clear evidence of poverty levels being reduced owing to the access to formal titles either.[15,16]

- Most governments have sought to encourage owner-occupation to the detriment of other types of housing tenure, especially rental housing. Tenants have increased at least in line with urban population growth. The 'rent generation' is rising as owning a home is out of reach for many more households. Across the world, evidence shows that rental housing contributes to enhance residential mobility, improve labour market and livelihood opportunities, can accommodate gender, cultural and disability concerns, and strengthens social and economic networks. However, few governments have formulated any kind of policy to help develop or regulate this form of housing.

- The emphasis on 'enabling the poor to help themselves' has contributed to the acknowledgement of local initiatives and innovations led by organizations formed and run by

the urban poor or inadequately housed. Their responses have been more focused on local needs and problems, taking account of local ideas and based on local understanding, such as incremental approaches to housing, community planning and savings, microfinance and informal property markets. However, the challenge remains in moving from small- scale local experimental operations to whole structural urban and housing sector changes without losing the focus on the most poor and vulnerable.

- Knowledge has improved on the ways housing, poverty and livelihood interact. A wealth of empirical evidence has contributed the understanding of how low-income people mobilize resources and organize themselves to access land and housing often drawing on the informal sector and networks of social capital. Housing provides increased security, a potential source of income-generating activities and, if well serviced and appropriately located, it allows for inclusion, better living conditions and access to livelihood opportunities.

- Accurate forecasts on housing needs are lacking and quantifying these estimates has not been straightforward. Information on demographic changes, socio-economic conditions and cultural preferences is either scant or poorly acknowledged by policies. Further difficulties are related to assessing the inadequate, derelict and obsolete housing stock, that is, the qualitative deficit. The gaps on information are significantly jeopardizing housing policy design and implementation.

KEY DRIVERS FOR ACTION

- Recognition that housing issues are closely related to human rights and targeting the most poor and vulnerable groups is crucial if the situation is not to deteriorate. The solution of housing challenges cannot depart from addressing the root causes that violate the principles of non-discrimination and equality in the access to housing, not only on the basis of gender and geography, but also on the basis of race, culture, religion, age, disability and social and economic status. Technical, legislative and financial efforts shall be focused to progressively realizing the right to adequate housing for all and especially the most poor, vulnerable and minority groups, while also addressing aspects of participation, non-discrimination, security of tenure, transparency and accountability.

- Housing positioned at the centre[17] of national development through systemic reforms and long-term policy and finance. A simultaneous twin-track approach with curative (slum upgrading) and preventive (new provision) housing policies should be promoted as well as concerted, participatory and coordinated efforts of governments, development finance institutions, private sector and civil society in the design, finance and implementation of responses. The housing sector accounts for a significant share of wealth and resources and when managed effectively, it can be an important source of economic growth, stability and resiliency, as well as a major component of the social development agenda of a country.

- Strengthened role of governments beyond enabling to continuing or reassuming, as appropriate, a leadership part in responding to the housing needs, especially of the most poor and vulnerable, strengthening policy and regulatory frameworks, encouraging pro-poor performance of the markets, and providing of last resort, including safety nets and subsidies that target the affordability of housing and urban services.

- Greater care and transparency over subsidy in all its forms reforming, increasing and moving government assistance down the income scale to those in most need. Improving the effectiveness of government expenditures for the poor with instruments for redistribution, value capturing and cross-subsidies between various income categories and different land uses. Increase subsidies and incentives on the supply side as well as various forms of possible demand-driven subsidies without shifting the focus from the most poor and vulnerable groups.

- Encourage innovative and more inclusive housing finance systems including through incentives to housing finance providers who lend to low-income groups and alternative financial institutions for low-cost housing. Strengthening the provision of institutional incentives to the private housing finance sector and stimulate efficient lending without exposing the state to excessive risk. Promote new approaches to tenure, collateralization and guarantee mechanisms. Encourage housing microfinance and promote community- finance and various incremental loans adapted to gradual building processes.

- Stronger nexus between housing and urban planning practice in particular through improving the linkages between housing, accessibility and livelihood in cities. A continuous, participatory and inclusive urban planning process should be the starting point and framework for improving access to adequate housing. Mixed land-use, planned city extensions or urban in-fills combined with better transport infrastructure should be promoted to improve access to housing in well-located areas and livelihood opportunities for low-income groups, as well as to mitigating urban hazards and health risks.

- Housing tenure types other than freehold ownership should be encouraged, reflecting the various needs and preferences of different groups, including leaseholds, condominiums, cooperatives, shared leaseholds and especially various forms of rental housing. A continuum of tenure types should be available all providing adequate security of tenure in order to guarantee the welfare of households and stimulate housing incremental improvements and expansion.

- The incremental nature of housing should be translated into policy. Subdivision regulations and building codes need to be sufficiently flexible and appropriate to local conditions, acknowledge and allow the

incremental nature of housing development and should preferably be performance-based and not prescriptive. Assisted self-construction and sites-and-services are some of the practices that should be promoted as well as innovative sustainable and locally-based construction techniques.

- More inclusive and context-based building regulations adapted to the reality of housing provision in lower-income countries, encouraging sustainable building design and the substitution of imported by locally produced constructions inputs, maximizing the use of local materials and components while striving for climatic appropriateness, energy-efficiency, lower carbon emissions and environmental friendliness of the production processes of materials.

PLATFORMS AND PROJECTS

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UN-Habitat Participatory Slum Upgrading Programme (PSUP) http://www.mypsup.org/login

United Nations Housing Rights Programme http://ww2.unhabitat. org/programmes/housingrights/

UN Inter-agency Housing and Urban Rehabilitation in Haiti https://www.unops.org/english/ where-we-work/latin- america/ Pages/Haiti.aspx

World Health Organization Housing and Health platform http:// www.who.int/hia/housing/en/

NOTES

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17 In its resolution HSP/GC/25/L.6, the 25th Session of the Governing Council of UN-Habitat "Takes note of the "housing at the centre approach", which positions housing at the centre of national urban policies and of cities, and encourages the United Nations Human Settlements Programme and member States to consider the implementation of the Global Housing Strategy, as appropriate, including through the design of tools and mechanisms to promote inclusive housing finance at the national and local levels to bridge the housing gap and to contribute to the progressive realization of the right to adequate housing for all"

ISSUE PAPER ON SMART CITIES

Key Words : *"e-"(-government, -services, -waste), green growth, green buildings, "smart_" (_government, _grids _urbanization, _urban model), resource efficiency, information and communication technologies (ICTs), quality of life, rights, social inclusion, urban resilience.*

MAIN CONCEPTS

- **Smart city:** Many definitions of "smart city" exist, and "smart" approaches have been understood differently by different people and sectors. Some definitions note that smart cities are those cities with "smart (intelligent) physical, social, institutional and economic infrastructure while ensuring centrality of citizens in a sustainable environment;"[1] refer to key characteristics defined by distinct factors (e.g., smart economy, smart mobility, smart people, smart environment, smart living, smart governance); [2] and focus on the strategic use of new technology and innovative approaches to enhance the efficiencies and competitiveness of cities.[3] A definition by the International Telecommunication Union (ITU)'s Focus Group on Smart Sustainable Cities (FG-SSC) reads: "A smart sustainable city is an innovative city that uses ICTs and other means to improve the quality of life, efficiency of urban operation and services, and competitiveness, while ensuring that it meets the needs of present and future generations with respect to economic, social and environmental aspects." The UK Department of Business, Innovation and Skills considers smart cities a process rather than as a static outcome, through which citizen engagement, hard infrastructure, social capital and digital technologies "make cities more livable and resilient and, hence, able to respond quicker to new challenges."[4] Accenture defines smart city as a city that delivers services to citizen and businesses in an integrated and resource efficient way and enables innovative collaborations to improve inhabitants' quality of life and support the growth of the local and national economy.[5]

- **Smart City Planning and Design:** An approach leveraging new knowledge and tools to promote urban planning and design that address evolving needs and challenges of urbanization.

- **"Smart"/"e"-approaches:** Often used to refer to efforts that are innovative and/or utilize technology, particularly information and communications technologies (ICTs) to enhance the efficiencies of urban systems, increase the quality and effective delivery of services, empower citizens, address environmental challenges and disaster risks (e.g., smart grids, smart transport, smart energy, e-participation, e-services, e-government, etc.).

FIGURES AND KEY FACTS

- Urbanization since 1996 when Habitat II was convened had been rapid. More people now live in cities, and global urban population at 54% in 2014 is projected to rise to 70% by 2050. Also, new cities have emerged, and hundreds are expected to be built in coming years. These upward trends are expected to be significant particularly in developing countries, where 90% of the additional 2.5 billion urban inhabitants and where much of the growth of secondary and tertiary cities by 2050 are projected.[6]

- Cities are engines of economic growth, accounting for 80% of the global GDP. But they also consume around 75% of global primary energy and responsible for 70% of the global greenhouse gas (GHG) emissions.[7] All sectors associated with urbanization (transport, building construction and maintenance, housing, waste management, energy, etc.) are registering trends that raise sustainability issues.

- Rapid and unplanned urbanization has led to growth

of slums, sprawl, housing and infrastructure shortages, social segregation, and exclusion. Accompanied by motorization, it has caused congestion and hazardous air pollution. Cities are where inequalities are most acute (one-third of urban dwellers in the developing world, for example, live in slums), where threats to culture and heritage are rising, and where the heavy concentration of people and assets poses high level of challenges and disaster risks (please see Issue Papers on urban planning, urban land, housing, municipal finance, and urban governance).

- Urbanization trends pose a need for strategic and innovative approaches to urban design, planning, management and governance. The accompanying trends in ICTs play a significant role in 21st Century urbanization as ICTs increasingly support business functions, city logistics and grids, transport, delivery of basic services, environmental management systems, government operations, data-driven industries like finance, and people-to-people interactions.[8]

- Today, there are more than 7 billion mobile subscriptions worldwide, up from 738 million in 2000. Globally, 3.2 billion people are using the Internet, of which two billion live in developing countries. Mobile broadband penetration globally is close to 47 per cent in 2015, a value that increased 12-fold since 2007. In 2015, 69 per cent of the global population

will be covered by 3G mobile broadband, up from 45 per cent in 2011[9].

- Most aspects relevant to the new urban agenda reference the role and potential of ICTs to advance goals and address challenges (please see all Issue Papers for Habitat III), presenting new opportunities and smart approaches for the global community to make cities inclusive, safe, resilient, and sustainable.

ISSUE SUMMARY

- The role of ICTs in networked urbanization and the dynamism of cities in the 21st century is becoming increasingly understood. ICTs have ushered significant and irrevocable changes in the way people live, boosted social prosperity, and had significant impact on the growth and competitiveness of economies and cities.[10] There is also growing recognition of ICTs' potential to achieve desired outcomes in urban development: high-quality public spaces, well-connected grids, well-designed density, increased resource efficiency, improved quality of life, growth with reduced carbon emissions, and knowledge creation and management that address emerging needs and risks --- the contours of cities that are smart and sustainable.

Smart Citie s : A viable option for the future

- ICTs in 21st Century urbanization enable digital platforms that support the

creation of information and knowledge networks. These networks make aggregation of information and data possible, not only for the purpose of data analysis but also to enhance understanding of how cities function (e.g., resource consumption, service delivery, mobility patterns, etc.) as well as help inform policy and decision-making processes.

- The multiple infrastructure systems in cities are in fact a "system of systems," or a network of systems that support interlocking operations or functions. They have become more integrated using ICTs, leading to the "Internet of things" (IoT)[11] and enabling integrated management of operations. Harnessing the potential of these networks for sustainable urbanization is a crucial feature of a smart city.[12] There are various viewpoints on what a smart city is.

Table 1 below gives a summary of the various attributes, themes and infrastructure requirements assigned to the concept:

- Smart City approach requires a combination of smart efforts to improve inhabitants' quality of life, promote economic growth, and protect the environment from degradation. Key systems of smart and sustainable cities include: smart energy, smart buildings, smart transportation, smart water, smart waste, smart physical safety and security, smart health care, and smart education. ICT based concepts such as big data,

Table 1:	Influence of urban densities on transport related energy consumption in 32 cities (1989)
Attributes	• Sustainability : Related to city infrastructure and governance, energy and climate change, pollution, waste, and social, economics and health .
	• Quality of life (QoL) : Improving QoL in terms of emotional and financial well - being.
	• Urban aspects : Includes technology and infrastructure, sustainability, governance and economics .
	• Intelligence or smartness : Commonly quoted aspects of smartness include smart economy, smart people, smart governance, smart mobility, smart living and smart environment
Themes	• Society : The city is for it sinhabitants.
	• Economy : The city must be able to thrive – jobs, economic growth and finance, etc.
	• Environment : The city must be sustainable in its functioning for the present as well as future generations.
	• Go vernance : The city mustberobus tinits ability for administrating policies.
Infrastructure	• Physical infrastructure includes buildings, train tracks, roads, electriclines, gas pipelines, water, factories, etc.
	• The ICT infrastructure acts as the "glue" which integrates all the other elements of the smartness of the city acting as a foundational platform. ICT infrastructure functions as the nerve centre, or chestrating all the different interactions between the various core elements.[13]

open data, Internet of Things (IoT), data accessibility and management, data security, mobile broadband, ubiquitous sensor networks are essential in smart and sustainable cities and are predicated on an ICT infrastructure to improve QoL and promote overall sustainability.[14]

Need for new model of urban planning and design

• One aspect of a smart city is the way it approaches spatial management, particularly in the context of rapid urbanization and leaning on lessons learned from urbanization since 1996 when Habitat II convened. During the 20th Century, prevalent models of urban development turned cities and neighborhoods into fragmented zones with low density sprawl and high density disconnected residential areas. As a result of urban sprawl, public transportation and

service delivery were inefficient. All this had strong social impact in terms of livability, cultural diversity, adaptability of the urban pattern, and housing options.

• There emerged in the 21st century the need to promote compactness through mixed land use, maximize land efficiency, as well as to promote sustainable, diversified, socially equal and thriving communities which should focus on following key areas:

1. High quality streets and public spaces. Well-planned streets and public spaces that shape the urban structure help support local economy, connectivity, culture, creativity, and future developments. A good street network works well for vehicles and public transport as well as for pedestrians and cyclists. At least 50% of the land to be used for public space; 30% to be

allocated to streets for building well connected grid and 20% to squares, parks and open spaces.

2. Proper and well-designed density. To meet the challenge of rapid urbanization and benefit from the economies of scale and to promote sustainable urban extension, it is important to have proper and well designed density of at least 150 people/ha.

3. Mixed Urban Uses and limited land-use specialization: Mixed land-use planning helps create local jobs, promote the local economy, reduce car dependency and commute, encourage pedestrian, cyclist and other non-motorised transport, reduce landscape fragmentation and green-house gas emissions, provide closer public services, support mixed communities and local economies, promote safer communities and create attractive neighborhoods.

Figure 1: Influence of urban densities on transport related energy consumption in 32 cities (1989)
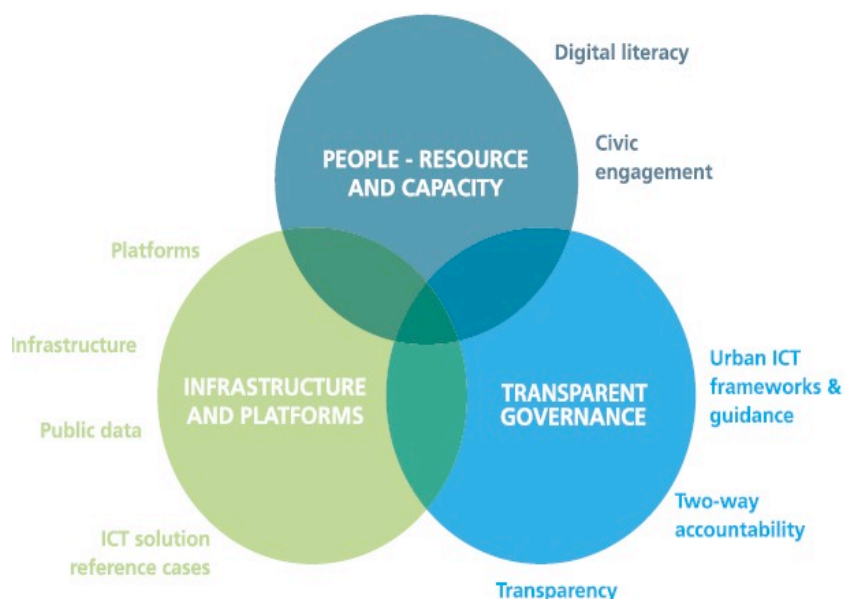
SMART CITY GOVERNANCE

- "Smart" efforts are expected not only to enhance the efficiencies of complex urban systems but also to increase the quality and efficient delivery of basic services through a variety of e-solutions; empower citizens through access to knowledge and opportunities; and, to address environmental challenges and disaster risks through measures enabled by new technology. In this context, "smart" approaches can help achieve the Sustainable Development Goals (SDGs) on making cities and humans settlements inclusive, safe, resilient and sustainable. These efforts focus on elements depicted in Figure 1 (please see Annex for examples).

- Many experts however call attention to the immediate and prevailing focus on cutting-edge technology in smart city approaches, and caution against the view that investments in this area will automatically translate to outcomes associated with smartness (often seen as quick pathway to economic growth) and sustainability.

- There is also a need for 21st century urban models that fit the unique needs of developing countries where urbanization is projected to be at its most rapid pace in the coming decades. Many have inadequate infrastructure that will require enormous investments to retrofit to standards. New cities require huge investments that developing countries need to balance with other priorities. Already facing increasing pressures to deliver more and

4. Connectivity: The purpose of increasing connectivity is to create access to jobs and services for all and to boost l o c a l economies. This encourages walking, public transport, and ICT-accessibility.

5. Mixed social structure: This principle aims to promote cohesion and interaction between different social classes in the same neighbourhood and ensuring accessibility to equitable urban opportunities by providing different types of housing.

6. Urban resilience: Resilience requires policies, disaster preparedness strategies, frameworks, plans and designs that promote both, the adaptation to climate change and mitigation of GHG emissions.

7. Energy and Resource Efficiency:

This requires managing growth addressing consumption and resource exhaustion, through strategic planning, policies and measures focused on buildings, appliances, transport and agricultural, industrial and services industries. By using resources in a sustainable manner, assisted by smart technologies cities can minimize impacts on the environment and be responsive to the needs of the poor and vulnerable.

8. Practical and enforceable norms and rules: to cope up with the rapid urban growth that cities are experiencing, it is critical to provide policies, plans, norms and rules that respond to the current needs of municipalities. The norms and rules should be developed with a participatory approach based on the principles of equity and social cohesion.

better basic services to a growing urban population, countries will need support in exploring approaches that fit local contexts. Models responsive to their needs will contribute significantly to the sustainable urban agenda. Emerging now are needs to ensure that ICT based city investments do not neglect, among others, the following:

- Preservation of cultural authenticity and the protection of vibrancy of the informal sector: The standardized planning and design privileged by smart city approaches need to be attuned to local cultural dimensions. One way to ensure the accommodation of local identities and protection of vulnerable populations is to enable public engagement.

- Balance between public needs and economic considerations: Governments around the world are under increasing pressure to deliver more and better services and to be responsive and accountable to citizens who are more able to mobilize and demand action using ICTs, while ensuring economic growth through cities' competitiveness.

- The changing environment that governments face, in governing in the age of new media and increasing connectedness: ICT-assisted approaches can support and strengthen government in part by enhancing transparency through open data and by improving citizens' access to services through online platforms. Governments' use of technology however, including smart cities that lean on

e-solutions, need to be mindful of the risks and challenges of digital divides that can be exacerbated by approaches.

- Need for integrated planning: A 21st century urban model harnessing the potential of ICTs is understood as able to plan its development trajectory in a way that minimizes its carbon footprint, put in place systems and mechanisms that address increasing disaster risks and potential climate impact, enhance quality of life and strengthen local economies.

- To be inclusive, smart city approaches need to be anchored in Human Rights Based Approach to Development Cooperation (HRBA). Use of new technology to enhance public participation, advance accountability, and enable development of performance indicators - including human rights indicators - to monitor progress in the realization of inhabitants' rights should be

considered in the development of every city.

- Smart cities do not exist in a vacuum; they depend on smart territories that recognize the complementary assets of urban and rural areas, ensure integration between them, and advances effective rural-urban partnerships to ensure positive socio-economic outcomes throughout the rural-urban continuum. There is a need for greater understanding of smart cities also as a vision of cities where, through the strategic use of new or old ICTs, the voices of the marginalized and the poor are heard, the wellbeing of the informal sector and the vibrancy of informal activities are recognized, and the needs of women, youth and the elderly receive attention. It is after all on the social fabric, not only on economic competitiveness and cutting-edge infrastructure, that resilient and sustainable cities are built.

Figure 3:		Shaping your city journey			
Set the vision for the city venture:	**Identify the targets:**	**Achieve political commitment**	**Build the city you want**	**Measure the city's progress**	**Ensure accountability and responsibility**
Identifying -- a city vision that is in line with the city's identity and long-term development strategy; relevant stakeholders and mechanisms for multi- stakeholder involvement; the existing governance and organizational mechanisms for city solutions.	Developing city infrastructure (e.g.; Internet of Things); Identifying and developing smart and sustainable city services.	Local governments should obtain the necessary political approval and backing to ensure that the strategic programme is pursued. This includes the adoption of the programme/ targets through consensus.	The existing traditional infrastructure may be improved on by integrating ICT applications or a new infrastructure must be built from scratch; developing an action plan; establish Public Private Partnerships programmes; ensuring long- term services via good operation and maintenance.	Consists of monitoring and evaluating a work programme required to achieve the targets. Internationally approved KPIs can be utilized to help city administrators map their city's progress.	Involves evaluating, reporting and learning from city process and related experiences. The reflective process of evaluation will feed into a process of continuous learning, which in turn will influence and inform the development of the future vision and strategy for smart and sustainable cities.

KEY DRIVERS FOR ACTION

- Strategic policies, legislations, rules and regulations: Smart and sustainable cities have to be planned, designed, implemented, and managed effectively. Also, the benefits of smart cities are not automatic. These require strategic policies and innovative thinking about 21st century technological advancements in the sustainable urbanization agenda. More, it is important that the development of a smart city is understood not as the final aim of city administrators, but as a way to reduce costs of public services, enhance access to and quality of these services, enhance regulatory compliance, and help enhance the transparency and accountability of public agencies. All these require smart governance that recognize complementary assets and linkages of urban and rural areas, advance partnerships and bottom up approaches inclusive of stakeholders.

- Innovative, responsive urban planning and design: Planning and design from the planned city extension perspective focuses on: public space layout that minimizes transport needs and service delivery costs while optimizing the use of land; street patterns that enhance mobility and space for civic and economic activities; open spaces that provide areas for recreation and social interaction enhancing quality of life; and, block typology that facilitates private investment in defined and serviced areas. There is a need to re-evaluate existing approaches and instruments, identify good practices suited to local contexts, ensure alignment with international standards, and promote integrated approaches across government ministries and sectors (transportation and communication networks, green buildings, inclusive and efficient human settlements and service delivery systems, improved air and water quality, disaster preparedness and response toward urban resilience).

- Robust financial planning: Smart city approaches require robust financial planning and investments, thus need to be informed by knowledge anchored in local context. This requires inclusive governance marked by stakeholder engagement -- harmonizing public and private sector priorities and ensuring civil society participation, including marginalized and vulnerable groups, in local public decision-making processes. Financial models also need to be well designed, focused on cost-effective and sustainable solutions and conducive to foreign investment. This aspect focuses on developing a realistic and implementable financial plan that is crucial to the successful implementation

of planned city extensions and infill (PCE/I).

- Coherence: There is need for international consensus on what "smart and sustainable city" means, and deeper understanding of how approaches labeled as "smart" advance the new urban agenda. The assumption that the application of ICTs in planning, design and management of

urbanization and cities will automatically result in improved outcomes needs to be addressed. This is a long term process and cannot be achieved overnight. Transitioning or building a city into a smarter, more resilient, more sustainable city is a journey and every city is likely to have different pathways. This is a long term process of actions that would not only allow for comparability but

would also promote sustainable development along with each city being able to quantify improvements. Cities are accountable for continuous improvement to strengthen its effectiveness for the future. Therefore the process should be able to adapt to the dynamic, evolving and complex nature of cities and be able to continuously update the vision as required.[15]

| Table 1: | Smart approaches to Targets of Sustainable Development Goal 11 (From UN Habitat: The role of ICT in the proposed urban Sustainable Development Goal and the new urban agenda) |

Proposed SDG 11 Targets	ICT-enabled approaches
11.1 on adequate, safe and affordable housing and basic services	e-government solutions help reduce administration costs, increase access and improve coordination: smart water systems that measure water flow and pressure, systems to capture and track maintenance requests and actions
11.2 on safe, affordable, accessible and sustainable transport systems for all	Smart urban transportation enabled by innovative applications of broadband, mobility and cloud services: smart vehicles and infrastructure, multimodal transportation, redefined city spaces
11.3 on inclusive and sustainable urbanization and capacities for participatory ... planning and management	ICT transforms society and has potential to transform urban planning and management: e- petitioning and e-panels to enhance community participation
11.4: on protecting and safeguarding the world's cultural and natural heritage	Digitation can help preserve local heritage. Information services and open communication platforms help increase knowledge, engagement and collaboration on heritage preservation
11.5: on impact of disasters	ICT-enabled monitoring of water flows, early warning systems; ICT-assisted humanitarian response for fast deployable mobile solutions; enhance access to information to assist disaster risk management, promote adaptation decision making
11.6: on environmental impact (air quality, municipal and other waste management)	ICTs can help reduce global carbon emissions by 16% by 2020; ICTs can help make buildings more energy efficient through smart metering and smart building control; make grids more efficient, reduce losses and increase speed; ICT-assisted waste management including collection, transport, processing, disposal, and monitoring
11.7: on safe, inclusive and accessible green and public spaces	ICTs enhance security and agreed monitoring systems, access to public safety information, and enrich cultural and urban experience
11.a: on urban-rural links	ICTs assist development planning; broadband enable connection to green power sources, high-definition video links enable remote medical diagnoses
11.b: on resource efficiency, mitigation and adaptation to climate change	Building knowledge base on risk and disaster risk management, hazard monitoring and early wanting systems, access to information on risks, coordination of emergency response and operations
11.c: on assistance to LDCs	smart buildings can reduce energy consumption and CO2 emissions, micro-grids to increase resilience

PLATFORMS AND PROJECTS

- The European Innovation Partnership for Smart Cities (https://eu-smartcities.eu/)

- ICLEI The Global Cities Network (http://www.iclei.org/)

- ITU-T Focus Group on Smart Sustainable Cities (FG-SSC) acts as an open platform for smart city stakeholders including municipalities, academic and research institutes, non-governmental organizations (NGOs), and ICT sector, industry forums and consortia to exchange knowledge in the interests of identifying the standardized frameworks needed to support the integration of ICT services in smart sustainable cities. It has developed an internationally agreed definition for smart sustainable cities (see Coherence section above) and established a series of KPIs for smart sustainable cities for city leaders. (http://www.itu.int/en/ITU- T/focusgroups/ssc/Pages/default.aspx)

- ITU-T Study Group 5 on Environment and Climate Change (http://www.itu.int/net/ITU- T/lists/rgmdetails.aspx?id=1009&Group=5)

- UNECE-United Smart Cities (http://www.unece.org/housing/smartcities.html), the project portal www.unitedsmartcities.com (to be opened end of May 2015)

- UN-Habitat (www.unhabitat.org)

- Urban Patterns for a Green Economy: Optimizing Infrastructure- UN-Habitat

- Urban Patterns for a Green Economy: Working with Nature - UN-Habitat

- Urban Patterns for a Green Economy: Leveraging Density - UN-Habitat

- Urban Patterns for a Green Economy: Clustering for Competitiveness

- Promoting Local Economic Development through Strategic Planning: Local Economic Development (LED) series Volume 1

- Urban Solutions. United Nations Human Settlements Programme, Nairobi 2015

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NOTES

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REVISED_AND_LATEST_.pdf

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[8] ITU ICT Facts and Figures 2014

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[10] See The Conference Board 2011 Report, The Linked World: How ICT Is Transforming Societies, Cultures, and Economies and the World Economic Forum, Global Information Technology Report 2014. Various other reports have noted and projected the positive impact of ICTs on the economy, in society, and in efforts to achieve development goals, as well as framed the challenges and potential risks they pose: The Human Development Report 2001, the first HDR released after the Millennium Development Goals were adopted in 2000, focused on the potential of ICTs for development; the World Bank has released a series focused on the range of issues in this area, as have other UN agencies and international organizations (UNCTAD, including the ECOSOC Report on the subject, ITU, UNESCO, the World Economic Forum; the Broadband Commission; and UNDP). All have relevance to issues around cities and urbanization.

[11] All of these systems comprise of sub--systems, components and devices, which have nodes, end points and behave like a network in terms of their end use characteristics and interactivity with other nodes.

[12] ITU--T Focus Group on Smart Sustainable Cities: An Overview of Smart Sustainable Cities and the Role of Information and Communication Technologies (ICTs)

[13] ITU--FG--SSC 2014. Technical Report on Smart sustainable cities: An analysis of definitions

[14] ITU--TFG--SSC 2014. An overview of smart sustainable cities and the role of information and communication technologies.

[15] ITU--T FG--SSC 2015. Smart Sustainable Cities: A Guide for City Leaders.

ISSUE PAPER ON INFORMAL SETTLEMENTS

Key Words : Urban poverty, slums, slum dwellers, vulnerable and marginalized groups, socio-spatial exclusion, governance, equity and equality, environmental justice, participatory planning, right to adequate housing, security of tenure, slum upgrading and prevention, inclusive finance, informal economy

MAIN CONCEPTS

Informal settlements – are residential areas where 1) inhabitants have no security of tenure vis-à-vis the land or dwellings they inhabit, with modalities ranging from squatting to informal rental housing, 2) the neighbourhoods usually lack, or are cut off from, basic services and city infrastructure and 3) the housing may not comply with current planning and building regulations, and is often situated in geographically and environmentally hazardous areas[1] In addition, informal settlements can be a form of real estate speculation for all income levels of urban residents, affluent and poor. Slums are the most deprived and excluded form of informal settlements characterized by poverty and large agglomerations of dilapidated housing often located in the most hazardous urban land. In addition to tenure insecurity, slum dwellers lack formal supply of basic infrastructure and services, public space and green areas, and are constantly exposed to eviction, disease and violence.[2]

Socio-spatial exclusion – refers to the processes that contribute to the geographic marginalization of particular individuals and groups because of where they live and who they are. It is characterized by their inability to access or effectively use a whole range of facilities and resources which improve well-being and position people to take advantage of available opportunities. Particular groups and individuals often suffer a disproportionate 'disadvantage' because of their identity, which is physically represented in urban contexts by the presence of informal settlements.[3]

Environmental justice – refers to the dynamic relationship between poverty, ecosystem services and pollution that sees vulnerable and poor urban dwellers suffer disproportionately from environmental impacts. Environmental justice aims at curbing abuses of power in relation to natural resources and calls for the legal and social empowerment of the poor and new approaches to sustainability to secure future generations' quality of life.[4]

Participatory slum upgrading – is a methodological approach that aims to address urban development imbalances represented by slum dwellers' living. It engages and puts all key urban stakeholders – all levels of government, community representatives, civil society, non-government organizations, academia, private sector and, especially, slum dwellers – at the heart of the process to improve slums' living standards. This multi-stakeholder platform is considered more likely to promote the necessary partnerships, governance arrangements, institutional structures and financing options which result in inclusive planning and sustainable outcomes. Slum dwellers, in particular, have important knowledge, skills and capacity to contribute, direct and own the upgrading process, and an inclusive approach towards the improvement of their living conditions brings fundamental socio-cultural changes towards a rights-based society.[5]

FIGURES AND KEY FACTS

- Informal settlements, slums and other poor residential neighbourhoods are a global urban phenomenon.[6] They exist in urban contexts all over the world, in various forms and typologies, dimensions, locations and by a range of names (squatter settlements, favelas, poblaciones, shacks, barrios bajos, bidonvilles). While urban informality is more present in cities of the global south, housing informality and substandard living conditions can also be found in developed countries.

- Informal settlements and slums are caused by a range of interrelated factors, including population growth and rural-urban migration, lack of affordable housing for the urban poor, weak governance (particularly in the areas of policy, planning, land and urban management resulting in land speculation and grabbing), economic vulnerability and underpaid work, discrimination and marginalization, and displacement caused by conflict, natural disasters and climate change.[7]

- Compared to other urban dwellers, people living in informal settlements, particularly in slums, suffer more spatial, social and economic exclusion from the benefits and opportunities of the broader urban environment. They experience constant discrimination and an extreme disadvantage characterized by geographical marginalization, basic service deficits, poor governance frameworks, limited access to land and property, precarious livelihoods and, due to informal settlements' location, high vulnerability to the adverse impacts of poor and exposed environments, climate change and natural disasters.

- In what refers in particular to slum dwellers, since 2003 UN Member States have agreed to define a slum household as a group of individuals living under the same roof lacking one or more of the following five conditions: 1) access to improved water, 2) access to improved sanitation facilities, 3) sufficient living area – not overcrowded, 4) structural quality/durability of dwellings, and 5) security of tenure.

These '5 Deprivations' affect the lives of slum dwellers and, since their agreement, have enabled the measuring and tracking of slum demographics [8] though a significant data gap exists in relation to the more broadly defined informal settlements.

- Over the past 10 years, the proportion of the developing countries' urban population living in slums has declined from 39% (2000) to 32% (2010).[9] In fact, UN MDG reports estimate that between 2000 and 2010, a total 227 million urban slum dwellers in developing countries experienced significant improvements in their living conditions, thus implying that Target 11 of Millennium Development Goal 7 has been exceeded by double.[10]

- Policy and programmatic responses by national and municipal governments, international development partners and non-governmental and community based organizations have also improved slum dwellers' living conditions. For example, the enactment of progressive and implementable urban development, affordable housing, slum upgrading and land policies has provided important impetus for programmatic responses such as direct infrastructure provision, pro-poor financing options and innovative partnerships for affordable housing solutions, informal settlements regularization and slum upgrading programmes.

- Despite these gains, however, around one quarter of the world's urban population continues to live in slums. Since1990, 213 million slum dwellers have been added to the global population.[11]

- Over 90% of urban growth is occurring in the developing world and an estimated 70 million new residents are added to urban areas of developing countries each year. Over the next two decades, the urban population of the world's two poorest regions — South Asia and Sub-Saharan Africa — is expected to double,[12] suggesting that the absolute numbers of informal settlement and slum dwellers in these regions will dramatically grow.[13]

- In Africa, over half of the urban population (61.7%) lives in slums and by 2050, Africa's urban dwellers are projected to have increased from 400 million to 1.2 billion.[14]

- In Asia, home to half of the urban population of the world, 30% of the urban population resides in slums. However, Asia was at the forefront of successful efforts to reach the MDG Target 11 Goal 7, with governments improving the lives of an estimated 172 million slum-dwellers.[15]

- In the Latin America and Caribbean region, where regularization of informal housing has historically contributed to providing housing solutions, informal settlements continue to be a significant feature of urban areas with at least 24% of the region's urban population still residing in slums, in spite of a 9% decrease in recent years.[16]

- In the Arab region, the proportion of sub-standard housing varies from country to country. In some countries, informal settlement and slum dwellings form isolated, marginalized pockets, while in others from 67 to 94% of urban residents live under one or more

housing deprivations. In some Gulf countries, for instance, housing conditions of low-income migrant workers are often very poor compared to the rest of the urban population.[17]

- Urban areas of developed regions are not immune to urban disparities among the living conditions of their citizens. Europe, for example, has experienced a rise of urban dwellers who cannot afford to pay rent, with housing costs rising particularly rapidly in the more prosperous large cities. This is especially the case for the Southern and Eastern parts of the region, while Western European countries are said to have more than 6% of their urban dwellers living in extremely precarious conditions. Trends in other developed regions (North America, Australia and New Zealand) suggest that there are significant proportions of people who could be classified as living in contextually poor neighbourhoods.[18]

- The capacity of new slum dwellers to move out of these degraded environments remains limited. For example, of the 10 million more people added to the urban population of Sub-Saharan Africa each year, two-thirds (7 million) live in informal settlements or slums and only 2 million can expect to move out from there.[19]

- There is a relationship between the growth of informal settlement and slums and the lack of adequate housing and land. While private sector investment in housing has been steady over the years, this investment has not translated into pro-poor, affordable housing. Some studies suggest that the affordable

housing gap now stands at $650 billion a year and is expected to grow.[20]

- At the household level, the 'five deprivations' continue to reflect the harsh living conditions of slums dwellers. For example, most slum dwellers still have no security of tenure and live under the constant threat of eviction,[21] while their dwellings are continuously considered highly precarious, with almost three quarters of them in this condition in Sub-Saharan Africa.[22] Sanitation is limited, like in Kenya's larger slum Kibera, in Nairobi, where open sewer lines empty effluent in front of people's houses and there are only 1,000 public toilets to serve the entire slum population of more than 180,000 people.[23]

- The conditions in slums are a risk to inhabitants' health and make them more vulnerable to communicable disease outbreaks, and this has dramatic effects in slum dwellers' life expectancy. While the poorest 20% in cities struggles to reach 55 years of age, the richest 40% goes well beyond 70 years. Similarly, among the poorest 20% of the world's urban dwellers, the under-five mortality rate more than doubles that of the wealthier urban quintiles.[24]

- Slums affect the prosperity of cities and their sustainability. While on the one hand these areas are acknowledged as providing much-needed mixed land use to cities and as having an active informal economy[25] that, in many countries, provides the majority of jobs, on the other hand, these informal jobs are unskilled, very-low-paid, and insecure livelihood options, part of a 'subsistence economy' that allows

inhabitants to survive but not to progress sufficiently to change their living conditions nor to realize the full potential contribution to urban productivity. Urban areas with a high incidence of slums pay a real economic, environmental and social 'cost' represented by a 'lopsided prosperity'.[26]

ISSUE SUMMARY

- Although some governments acknowledge the existence of slums and informal settlements, many do not. This lack of recognition and subsequent response directly undermines city-wide sustainable development and prosperity to the detriment of millions of urban dwellers, and also results in forced evictions.

- Informal settlements and slums continue to be spatially disengaged from broader urban systems and remain excluded from mainstream urban opportunities, their nature yet to be further understood despite evidence suggesting an inextricable link between location and the persistence of intergenerational poverty and economic inequality.[27]

- While research shows a link between access to land, supply of affordable housing and the prevalence of informal settlements and slums, the stock of affordable housing worldwide is declining.[28] Furthermore, governments are increasingly disengaging from a direct role in the provision of affordable housing, posing major implications for the urban poor as the housing sector is susceptible to speculative forces that tend to end up benefiting more affluent urban residents.

- Funding for large scale affordable housing and for expanding housing finance options for the urban poor has remained limited. Either private sector interests prevail or the financing arrangements do not meet the housing demand. There is often an absence of functioning municipal taxation systems and effective financial tools which capture land-value increases. Community-based finance options are also weak and disconnected from main stream financial institutions, despite the critical role they play for poor urban dwellers to engage in savings and loans.

- Accurate, localized, standardized and available qualitative and quantitative data on informal settlement and slums and associated learning platforms remain limited. Data is often ad hoc and not connected to robust city-wide monitoring and evaluation processes so the dimensions of inhabitants' lives remain unknown to policy and planning responses. The absence of local, national and global learning platforms also limits effective knowledge and capacity building of urban stakeholders.[29]

- Integrated development policies at both the national and local levels, especially linking urban planning, financing and legal components related to informal settlements and slums, are not prioritized and 'no forced eviction' policies still need to be institutionalized. Policies, legislation and regulations therefore continue to have major exclusionary effects on marginalized groups.

- Efforts to improve land management practice and adopt different conceptions of tenure security remain limited despite being acknowledged as fundamental to adequate housing provision and the eradication of poverty. Peri- urban areas are a particular governance challenge as they often fall outside formal 'city/town' boundaries.

- The lack of government response to and support for livelihoods in slums and informal settlements, combined with their lack of integration into the broader urban environment, perpetuates long term inequality and inter-generational disadvantage, especially women and youth.

- Many upgrading approaches continue to inappropriately import solutions from other places without adapting operations to the local context. They are therefore unable to neither take full advantage of local knowledge nor develop city-wide /'at-scale' responses.

- Informal settlements and slums are often located in the most environmentally and geographically hazardous urban areas – e.g. riverbanks; sandy and degraded soils, near industries and dump sites, in swamps, flood-prone zones, steep slopes. The impact of living in these areas, whose vulnerability is often exacerbated by climate change, is continually life threatening as no alternatives are provided.[30]

- Specific groups are significantly affected by living in informal environments and their inequality is reinforced simply by who they are – increasing their level of marginalization. Women are more likely to have lower education levels and face high rates of teen pregnancies, children are constantly exposed to a whole range of impacts, unskilled youth are excluded from economic and employment opportunities, people with disabilities suffer with slums' dilapidated infrastructure and migrants, refugees and internally displaced persons affected by conflict and economic crisis also face additional levels of vulnerability and marginalization through their uncertain status and lack of resources.

KEY DRIVERS FOR ACTION

- **Recognition of the informal settlement and slum challenge and the mainstreaming of human rights.** Urban authorities that address the needs and rights of people living in informal settlements and slums through rights-based policy and integrated governance create more prosperous and sustainable urban contexts than those that take no action. The urban poor need to be treated as equal as other urban dwellers and their contribution – work, livelihood creation and taxes – recognized, just as their rights to infrastructure, basic services and adequate housing.[31]

- **Government Leadership.** National governments must play a leading role in recognizing informal settlement/slum challenges. They can provide the enabling environment to develop and implement the appropriate policies and plans to trigger change and improvement for, and in partnership with, poor urban dwellers. Actively working with regional and municipal governments is also fundamental because they have the capacity to convene and connect key stakeholders, harness local knowledge, enact policies

and plans and manage incremental infrastructure development.

- **Systemic and city-wide/'at scale' approaches.** Conceiving and implementing policy, planning, financing and regulations that strengthen the capacity of urban areas to operationalize programmes at a city-wide or 'at scale' level are more likely to improve the lives of slum and informal settlement dwellers. This includes efforts to 1) capitalize on the broader city and regional agglomeration economies , 2) utilize innovative financing options and taxes, 3) ensure equitable land management approaches, 4) recognize the multiple forms (formal and informal) of livelihood and employment generation activities and facilitate their development especially for marginalized groups, 5) improve and reintegrate informal settlements with trunk infrastructure and basic services via integrative planning and design, 6) clarify the administrative responsibility of peri-urban areas, and 7) address the impact of conflict and undertaking risk-sensitive land use planning to avoid exposing the urban poor to environmental hazards. All tiers of government are critical to systematic and 'at scale' slum upgrading programmes.

- **Integration of people and systems.** Integrated approaches must be part of all systems, institutions and programmes. In relation to slum and informal settlement upgrading, all levels of government concerned must develop and coordinate broader integrated policy and planning frameworks that are 1) underpinned by urban planning, legislation and

finance arrangements 2) supported by inter-connected institutional arrangements and 3) ensure the inclusion of marginalized groups and slum dwellers alongside other key urban stakeholders. A participatory approach for both process and a sustainable outcome must be at the heart of an integrated methodology, ensuring 1) a more complete understanding of the inhabitants and the existing community dynamics (including economic and social support networks) and 2) implementing practical changes that ultimately result in the regularization of informal settlement regularization and slums upgraded and linked into the broader urban environment.

- **Housing at the centre.** Strategic and integrated approaches to urban development must put housing at the centre of policy and urban contexts. Affordable housing mechanisms that fulfil the right to adequate housing for all income levels – including in situ upgrading and avoidance of unjustified forced evictions as per international guidelines,[32] incremental auto-construction, security of tenure combined with livelihood and employment generation – play a major role in triggering people and cities' prosperity.

- **Appropriate long term financial investment and inclusive financing options.** Appropriate and sustained levels of domestic investment in affordable housing and slum upgrading programmes are critical. This includes encouraging major financing institutions to provide pro-poor housing plans for vulnerable groups and financing support for all tiers

of government. Investment in microfinance housing programmes for incremental auto-construction, provision of credit enhancement support and increasing incentives for private investment in pro-poor housing and infrastructure - are also vital.

- **Developing participatory, robust, standardized and computerized data collection processes.** Localized qualitative and quantitative data collection and analysis systems to better and understand local urban contexts in a more timely and accessible manner should be adopted. In particular, slum dwellers should be engaged and lead innovative solutions to gather local data to address the challenges of slums. Data collected at community level must be standardized so it can be linked to broader city, regional, national and global comparative indicators, and must aim at identifying the social, cultural and economic dynamics of informal settlement communities, including tenure relations, means of livelihood and social support networks. Data collection must also be embedded in monitoring and evaluation processes, to show the long term inclusive outcome of slum upgrading projects.

- **Creating peer learning platforms.** Platforms that draw on the knowledge of stakeholders involved in the improvement of slums, especially slum dwellers themselves, must be prioritized in order to facilitate information and experience exchange as well as peer learning opportunities. These platforms may include a range of communication strategies and multi-media mechanisms.

PLATFORMS AND PROJECTS

Participatory Slum Upgrading Programme (PSUP – UN-Habitat) Reference: http://unhabitat.org/initiatives-programmes/participatory-slum-upgrading/ Global Housing Strategy (UN-Habitat)

Reference: http://mirror.unhabitat.org/downloads/docs/11991_1_594827.pdf

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Guiding Principles on security of tenure for the urban poor, A/HRC/25/54, available here:

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Cities Alliance

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INDIA'S PARTICIPATION IN THE THIRD SESSION OF PREPCOM3 FOR THE HABITAT-III AT SURABAYA, INDONESIA

The Third Session of Preparatory Committee (PrepCom3) for the Habitat-III was held from 25th – 27th July, 2016 at Surabaya, Republic of Indonesia. In addition, the 3rd Meeting of the 5th Bureau of APMCHUD was also held at the same venue on 26th July, 2016. The Delegation of Republic of India was led by Shri. Rajiv Ranjan Mishra, Joint Secretary (Housing), Ministry of Housing and Urban Poverty Alleviation, Government of India.

The United Nations Conference on Housing and Sustainable Urban Development (Habitat III) will take place in Quito, Ecuador from 17th – 20th October, 2016. This is a bi-decennial event, and the UN General Assembly has decided to convene the Habitat III Conference to reinvigorate the global commitment to sustainable urbanization, to focus on the implementation of a New Urban Agenda, building on the Habitat Agenda of Istanbul in 1996. The United Nations had already organized two Preparatory Committee Meetings (PrepComs) in preparation for Habitat III – the PrepCom1 was held in New York, USA (in September 2014), and the PrepCom2 was held in Nairobi, Kenya (in April, 2015).

As part of the effort for preparing the New Urban Agenda by United Nations, the PrepCom3 has been an opportunity for governments, United Nations System, and other stakeholders to share their perspectives on the current and emerging urban

development and solutions that should be reflected in the New Urban Agenda.

The Asia Pacific Ministerial Conference on Housing and Urban Development (APMCHUD) is an inter-governmental mechanism for collaboration and experience sharing in the field of housing and urban development among the Asia Pacific countries. APMCHUD is represented by the Hon'ble Ministers of Housing and Urban Development of the Asia Pacific countries. The permanent secretariat of APMCHUD is hosted by India. Ministry of Housing and Urban Poverty Alleviation (MoHUPA), Government of India is the nodal Ministry and Housing and Urban Development Corporation Ltd. (HUDCO) is the nodal institution on behalf of the MoHUPA. The activities of APMCHUD are governed by a Bureau consisting of 9 Bureau Member countries represented by their respective Hon'ble Ministers of Housing and Urban Development. Currently, the 5th Bureau of APMCHUD comprises of Republic of Korea – Chair, Hashemite Kingdom of Jordan, Republic of India, Republic of Indonesia, Islamic Republic of Iran, Republic of Iraq,

Inauguration of Exhibition by H.E. Dr. M.Basuki Hadimuljono, Hon'ble Minister for Public Works and Housing, Republic of Indonesia along with Leader of Delegation of India for PrepCom3

H.E. Dr. M.Basuki Hadimuljono, Hon'ble Minister for Public Works and Housing, Republic of Indonesia writing on the "Likes Board"

Republic of Maldives, Democratic Socialist Republic of Sri Lanka and Independent State of Samoa. The 4th meeting of the 5th Bureau of APMCHUD was held in Surabaya in conjunction with the PrepCom3 meeting of UN-Habitat.

A major exhibition was organised by UN-PrepCom secretariat at the same venue. About 80 exhibitors had participated in the event. India had put up an impressive stall with a variety of exhibits covering the urban growth scenario and the various missions of India for a sustainable and inclusive housing and urban development. The exhibition was inaugurated by the H.E. Dr. M.Basuki Hadimuljono, Hon'ble Minister for Public Works and Housing, Republic of Indonesia along with Leader of Delegation of India for PrepCom3.

The models for houses based upon emerging sustainable technologies were also displayed. The exhibits also covered other major missions of India such as Skill India, Make in India, etc. Various audio-visual materials on different Missions were also used. Innovative and creative ideas to involve the visitors to the stall such as 'Likes board,' postcards, work books, pen drive in a gift box were used.

The contents, coverage and mode of display were well appreciated and the exhibition was visited by a large number of participants. Several senior delegates including Ministers from other countries also visited the stall. The Hon'ble Minister of the Republic of Indonesia, after inauguration of the stall, wrote his comments on the 'Likes Board' - 'The beauty of togetherness for better planning of city'.

Indian Pavillion at the Exhibition

IBSA (India, Brazil and South Africa) is a trilateral agreement between India, Brazil and South Africa to promote South-South Cooperation and exchange on several mutually agreed areas of interest. Emanating from the Brasilia Declaration and formed in 2003, the IBSA cooperates on three fronts: first, as a forum seeking reforms in global institutions of political and economic governance; second, trilateral collaboration through working groups and People-to-People Forums for the common benefit of three countries; and third, assisting other developing countries by taking up projects through the IBSA Fund.

At the Fourth Meeting of the Trilateral Commission of the IBSA Dialogue Forum held in Delhi in July 2007, Human Settlement Development was identified as an area of cooperation for IBSA partners. Accordingly, a Working Group on Human Settlement (WGHS) was established and subsequently a Memorandum of Understanding (MoU) on Cooperation in the area of human settlement development was signed at the 3rd IBSA Summit held in October 2008 at New Delhi. The MoU serves as the formal platform for trilateral engagement amongst the three countries and intends to achieve the following:

- Development of common conceptualization and approach between parties in the areas of human settlements development
- Collaboration in defining fundamentals of housing and human settlements development for a shared understanding

- Enhance existing cooperation and multilateral cooperation through video conferences, workshops, regional conferences etc.
- Promotion of cooperation in training and skills development, exchange of scientific knowledge, dissemination of cost effective building materials, development of policy framework

In order to realise the MoU targets, IBSA-HS came out with a framework and strategy document with realisable outcomes which specifies areas of common concern that merit deeper investigation, sharing of ideas and mutual learning. The expected outcomes are fourfold. Firstly, development of common conceptualisation and approach between parties in the areas of human settlements development, particularly slums upgrading and housing for the poor. Secondly, enhance existing cooperation in exchange of experience and information and multilateral cooperation through participation in workshops, regional positions, etc. Thirdly, collaboration in defining fundamentals of housing and human settlements development for a shared understanding, and fourthly, promotion of cooperation in training and skills development, exchange of scientific knowledge, dissemination of cost effective building materials, development of policy framework and implementation as well as strengthening partnerships of non-governmental organisations active in human settlements.

The Ministry of Housing and Urban Poverty Alleviation (MoHUPA), Govt. of India has nominated HUDCO's Human

Settlement Management Institute (HSMI), New Delhi, as the 'Anchor Institute' for providing support to the MoHUPA in carrying out various activities under IBSA Human Settlement by providing professional inputs. The major activities taken up include (i) IBSA Workshop held at Pretoria, South Africa 11-13 October, 2011, wherein MoU on cooperation in the area of human settlements development was signed and priority topics for deliberations were also identified (ii) thematic exchange on various themes through video conferences supported by Cities Alliance and World Bank Institute covering aspects of 'Scaling up Capacity Development in National Slum Upgrading Programs', `Context and sharing of documents/conceptual guidelines for Involuntary Resettlements', 'Methodologies, Indicators, Monitoring and Evaluation methods developed or under development by the Central Government and their multiplication to local government', `Financing options for Slum Upgrading for Affordable Housing', and `Citywide Slum Upgrading: Community-led Slum Upgrading Plans'.

In their efforts to crystallize areas for cooperation, the 3 partner countries identified three pillars for areas of cooperation i.e. Policy Dialogues, Technical Cooperation and Joint Research. It was decided that India would work on strategic Policy Pillar, Brazil on Capacity Pillar and South Africa to work on Research Pillar. An International Conference was also organised by IBSA WGHS on `Cities, Human Settlements and Development: Towards an Agenda for Applied Research and Policy-making in

emerging countries' in Sao Paulo, Brazil during 12-14 March, 2014.

As part of the continuing efforts to strengthen the cooperation in the Human Settlements sector, a tri-lateral discussion was held by India, Brazil and South Africa at Surabaya on 27th July, 2016 in conjunction with the 3rd session of the PrepCom held as a preparatory for the Habitat-III. The meeting was attended by H.E Ms. Zoliswa Kota-Fredericks, Hon'ble Deputy Minister, Human Settlements, South Africa, Mr Rajiv Ranjan Mishra, Joint Secretary (Housing), Ministry of Housing and Urban Poverty Alleviation, Government of India, and Mr. Nicola Speranza, Head of International Affairs, Ministry of Cities, Brazil.

Recognizing the mutual advantage for all the 3 partners in this collaborative effort particularly in the context of the Global New Urban Agenda under evolution by UN-Habitat, the meeting decided to hold a tri-lateral parallel event during the HABITAT-III in Quito during October 17-20, 2016, which may focus on the status of collaborative activities as of now, the way forward, and the method of formalizing the way forward.

REJUVENATION AND REDEVELOPMENT OF RABINDRA SAROBAR BY KOLKATA IMPROVEMENT TRUST

BACKGROUND

Rabindra Sarobar Lake is a manmade lake located at the posh Southern Avenue area of Kolkata. The Lake Area is surrounded by Southern Avenue, Sarat Chatterjee Avenue and Dhakuria. Along its southern periphery runs a railway track. The lake is divided in Eastern Part & Western Part and consists of informal playgrounds, seating, pathways, informal food stalls, toilets etc.

The total area of the lake area in Kolkata is 192 acre out of which 73 acres is occupied by the Rabindra Sarobar Lake. The lake was dug in 1920's to obtain earth for many of Kolkata's major roads and in 2002, the Ministry of Environment and Forests (MoEF) Government of India, declared it as a National Lake. The Rabindra Sarobar Lake is not only a beautiful natural setting within the urban space but is also an important cultural and activity hub which includes all spectrum of social life such as sports, wellness, art, entertainment etc.

ESTABLISHMENT OF PRIORITIES

Rabindra Sarobar has been neglected for some time and as a result, the quality of environment and ecosystem of the area deteriorated gradually. Even though it has been a cultural hotspot and maintains a very important place in the heart of the residents, the vacant lands of Rabindra Sarobar became a place for open defecation, garbage dumping and other activities.

Due to lack of protection at the boundary, the lake was used for cleaning, bathing, and washing, which worked as a catalyst for degradation of the water quality. Since the lake is the biggest controller of the eco-system, poor lake water eventually affected the total balance of flora & fauna of the surrounding area. Water pollution was on the rise, due to increase in the unauthorized habitation around the lake. The lake's water was so polluted that hyacinth was visible throughout the year. Regular visit of birds stopped and there were many incidents of dog bites in the lake area.

With the environmental degradation, came deterioration in social atmosphere and darkness of the evening that attracted many anti-social activities. The major problems identified during various surveys were lack of boundary protection, discontinuity in walkable pathway, lack of light during night etc.

MOBILIZATION OF RESOURCES

In view of the situation mentioned above, the Kolkata Improvement Trust (KIT) and their consultant, Bengal Urban Infrastructure Development Limited (BUIDL), took up a project for comprehensive redevelopment & rejuvenation plan for the area.

The active participation and sensitization of KIT led the

Map of Kolkata showing Rabindra Sarobar

Rabindra Sarobar after redevelopment.

Committee) have been extremely helpful.

The main components conceptualized for the rejuvenation are boundary fencing of the total lake area and complete Lake Bank promenade with sufficient light. These two features have completely changed the whole get up of the surrounding.

The promenade has been created by relaying attractive looking paver blocks and placing heavy bollards with light along the bank. The bank has now been turned into a jogger's paradise. The high fencing has stopped unnecessary trespassing and theft of assets.

The blank wall in front of the main entrance has been converted into a graffiti wall with beautiful painting. The Existing steam roller of last century which was degrading slowly is now repainted and the area around it has been beautified.

The soil of the tree roots which was eroding with rainwater is now guarded with tree beds and converted into beautiful seating areas. The pathways are relayed with colorful tiles and the whole appearance of the lake area has now improved.

The lights of the lake bank bollards are so placed that no light can fall on the water and disturb the fish. The wattage is also kept below the standards so that the birds do not get disturbed. This is a unique method of improving human environment in harmony with nature.

SUCCESS ACHIEVED

A Master plan was prepared keeping in mind the feelings of the people and their needs. The existing infrastructure was remodeled and rejuvenated to increase its effectiveness and efficiency. However, preservation and improvement of the environment

Government to sanction a fund for comprehensive rejuvenation and redevelopment of the lake. The technical support was given by Kolkata Improvement Trust (KIT) and Kolkata Metropolitan Development Authority (KMDA). The master plan as well as DPR was prepared by BUIDL and the

complete project was funded by Urban Development Department of Government of West Bengal (GoWB). The locals and regular users provided moral support and two groups of the users, viz., PUBLIC (People United for Better Living in Calcutta) & RSMC (Rabindra Sarobar Monitoring

and the natural setting was given highest importance.

The area has a strong emotional connection with most of the local population. Each day the park gets flanked by the morning walkers, joggers, laughing club members and aged people. Throughout the day, the lake area remains crowded by people of all social and cultural background. This phenomenon was the prime guiding factor guideline in the implementation process and therefore KIT officials involved the local users in all aspects. A Rs. 20 cr project has given this 200 acres of area, a complete new look.

The change could be seen immediately, within a year of the commencement of the rejuvenation work. The park now attracts new species of birds and death of fish & other water species has also stopped. The social, cultural and academic activities, which had moved away from Rabindra Sarobar have returned back, bringing more people to the lake. The development program has also brought back many species of birds and animals which were not visible in recent past.

The initial stage was full of tussles and a lot of time was spent to convince the local activists that all the development was not about cutting trees. Actual development is something that creates equitable space for man and nature. Not a single tree has been cut or transplanted during the total project implementation. Even the actual green cover has not been reduced by a single square meter. It can be concluded that convincing people and guiding them towards development of a project is crucial for its success.

Contributed by: Shri Surendra Kumar, Fellow, HUDCO's Human Settlement Management Institute, New Delhi.

BEFORE

Rabindra Sarobar Before and After Rejuvenation.

AFTER

AFTER

6th Asia Pacific Ministerial Conference on Housing and Urban Development (APMCHUD)
Vigyan Bhawan, New Delhi, INDIA
14th – 16th December, 2016
on the Theme of
"EMERGING URBAN FORMS - POLICY RESPONSES AND GOVERNANCE STRUCTURE"

The Asia Pacific Ministerial Conference on Housing and Urban Development (APMCHUD) is an inter-governmental mechanism for collaboration and cooperation in the field of housing and urban development among the Asia Pacific countries. Established under the aegis and support of UN-Habitat, APMCHUD is a consultative mechanism for the promotion of sustainable development of housing and urban development in the Asia-Pacific Region. APMCHUD is composed of the Biennial Ministerial Conference, the Bureau and the Secretariat. APMCHUD is represented by the Hon'ble Ministers of Housing and Urban Development of the Asia Pacific countries. The Bureau of APMCHUD elected by the Biennial Conference of Ministers responsible for Housing and Urban development, holds office until the next Conference. The 5th Bureau (Current) of APMCHUD is represented by 9 countries namely the Republic of Korea (Chair), Hashemite Kingdom of Jordan, Republic of India, Republic of Indonesia, Islamic Republic of Iran, Republic of Iraq, Republic of Maldives, Independent State of Samoa, and Democratic Socialist Republic of Sri Lanka. The permanent Secretariat of APMCHUD is hosted by India in New Delhi. Ministry of Housing and Urban Poverty Alleviation (MoHUPA), is the nodal Ministry and HUDCO is the nodal institution on behalf of the MoHUPA.

The Asia Pacific region is experiencing a rapid urbanization process. The cities are expanding fast in their peripheries leading to a situation of un-organised and unplanned development in the peripheral areas. Further, the transport corridors attract activities all-along and thereby lead to linear spatial corridor development radiating from the cities. Such developments beyond the city boundaries are administered and planned by alternate authorities. Towards ensuring sustainable development, it is necessary to develop the city and the periphery in an integrated manner.

The principles of rural-urban continuum need to be applied for integrated development and to strengthen the complementarity of the city and its peripheral region for mutual advantage.

Keeping in view the relevance and importance of the issue for the entire Asia Pacific region, the 6th Asia Pacific Conference on Housing and Urban Development, scheduled to be held in New Delhi during 14 – 16th December 2016, would focus on the policy responses to new forms of urbanization such as urbanization beyond municipal boundaries, urban corridors etc., and what kind of governance structure should be put in place for these new urban forms to promote integrated and comprehensive development. The main theme of the conference is `Emerging Urban Forms – Policy Responses and Governance Structure'.

To have a focussed attention on developmental issues under a structured broader framework, APMCHUD has constituted 5 Working Groups on critical themes, which are led by member countries voluntarily. Under the overall ambit of the 6th Conference theme, each of the Working Groups would focus on sub-themes relevant to the current Conference theme. The details of the Working Groups, Lead Countries, and the sub-themes that would be focussed for detailed deliberations during the 6th Conference are indicated below:

The Conference would extensively deliberate on the aspects relating to identified theme of the conference and discuss the approaches to address the emerging issues in the Asia Pacific region. Experience and experiments of countries of Asia Pacific region would be shared to enable a larger understanding of issues involved towards promoting integrated and comprehensive development of the cities and their regions.

Working Group and the Lead Country	Sub-themes for the Working Groups, in line with the main theme of the 6th Conference
I. Urban and Rural Planning and Management (Lead country - Republic of India)	Integrated Planning, Management and Governance Structure Imperatives
II. Slum Upgradation aspects (Lead country - Islamic Republic of Iran)	Un-organised Growth in Peripheral Areas and Slum Upgradation Aspects
III. Basic services (Jointly led by Democratic Socialist Republic Sri Lanka and Republic of Maldives)	Ensuring Basic Services including Mobility for Integrated Development
IV. Housing Finance aspects (Lead country Republic of Korea)	Ensuring Access to Housing and Housing Finance in the Urban-Rural Continuum
V. Urban Development with a focus on Natural and Climate Change related disasters (Lead country - Republic of Indonesia)	Ensuring Sustainable and Natural Disaster Resilient Urban Development including Climate Change

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HUDCO was set up in 1970 by the Government of India to accelerate the pace of housing and urban development in the country. Since then, it has established itself as India's premier techno-financing company. A Mini-Ratna Company with the mandate of 'Profitability with Social Justice', HUDCO lays considerable emphasis on the housing needs of Economically Weaker Sections (EWS) and Low-Income Groups (LIG).

- Financed every 16th house in India
- Total Housing Projects sanctioned : 14862
- Percentage of EWS Housing : 94.5%
- Total Infrastructure Projects : 2149
- Cumulative Sanctions : Rs. 161871 crore
- Cumulative Disbursements : Rs. 109438 crore.

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