Background Note

Research Study on Slum Typology and Grading for Improvement Inputs

1. Introduction

The Rajiv Awas Yojana announced in the Budget of Union Government for FY 2009-10 aims at promoting a slum-free India in five years and would focus on according property rights to slum dwellers. It would provide basic amenities such as water supply, sewerage, drainage, internal and approach roads, street lighting and social infrastructure facilities in slums and low income settlements adopting a ‘whole city’ approach. If these subsidies could be graded according to slum typology, larger coverage of available resources can be achieved and subsidies could be more effectively targeted. People’s own collective resources could be matched with flexible external finance according to slum typology.

Rajiv Awas Yojna also suggests ‘in situ’ development programmes with basic amenities and an enabling strategy for affordable housing in the case of ‘tenable’ slums. However resources could also be generated by using land which is squatted upon as a resource especially in cases where land prices are high. However the land market varies with size of city.

In light of this, the Ministry has awarded a research study to the National Resource Centre of SPA to study various slum typologies in different sizes of cities to understand their differences and how they can be graded according based on their deficiencies and access to resources. The research also focuses on possible approaches required for different sizes of cities.

1.1 Rationale of the Study

In view of the objectives set by the ‘Rajiv Awas Yojna’ for grant of property titles to the slum dwellers provision of basic amenities with adopting the approach of ‘in situ’ development for slums, the present research study aims to supplement RAY towards achieving its above said objectives by suggesting rationalised approach to define and categorise slums. The study will also provide inputs for developing parameters and indicators to identify(define), prioritise and categorise/grade slums based on assessment of deficiencies and resources and their entitlement for improvement packages i.e. provision

\[1 \text{ Refer to the guidelines of Rajiv Awas Yojna for details.}\]
of formal tenure, infrastructure improvement packages and access to formal shelter etc. With the help of the case studies of 7 cities of fours states, the parameters (developed for identification and prioritization of slums areas for improvement inputs) will be tested in terms of their applicability as to what extent they might be useful in grading the slums for improvement packages.

1.2 Need of the Study

It is implicitly or explicitly assumed in poverty studies that slums account for most of the poor in the cities. Indeed, most of India’s urban poor live in over-crowded and unsanitary settlements, commonly known as slums and squatter settlements, and usually do not have access to safe and secure shelter and basic infrastructure and services. They are forced to live in illegal and informal settlements because they cannot afford formal shelter, being excluded out of the housing markets. It is, however, important to realize that slums do not house all the urban poor, nor are all slum dwellers always poor. Income and employment deprivation may go together with deprivations in the area of housing, services (education, health and environment); such that the combination of deprivations makes it very difficult for households to get out of poverty.2 Isa Baud and others have used index of multiple deprivation derived from the data available in the Census 2001 to identify location of urban poor for three Indian cities Delhi, Mumbai and Kolkata and noted that the assumption that poverty is concentrated in slums is not correct and concluded that poverty needs to be recognized as diverse in different locations, requiring differential approach to deal with it.3

UNCHS4 introduced the concept of ‘housing poverty’ which includes individuals and households who lack safe, secure and healthy shelter, with basic infrastructure such as piped water and adequate provision for sanitation, drainage and the removal of household waste. The term ‘slum’, thus has wider connotations implying a wide range of low-income settlements with poor living conditions.

Urban developments being a state subject, governments at the state level/local level have the responsibility of declaring an area as a ‘slum’. There being no standard tangible indicators for notification, there is lot of subjectivity in notification of slums. An area can be designated as a ‘slum’ under the State Slum Clearance/Improvement Act when the Competent Authority is convinced that the area is a source of danger to health safety and convenience, or when buildings are found to be unfit for human habitation due to dilapidation, overcrowding or lack of ventilation, light or sanitation facilities. The definition

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2 Madhura Swaminathan 1995 “Aspects of urban poverty in Bombay” Environment and Urbanization, Vol. 7, No. 1, April
3 Isa Baud, N. Sridharan, K. Pfeffer, “Improving urban governance through poverty mapping in Indian mega-cities, using multi-criteria analysis at the electoral ward level” University of Amsterdam
of ‘slum’ under the Act is quite loose and a liberal application of the law may cover substantial parts of cities as ‘slums’. On the other hand, ‘declared slums’ may not include newer squatter settlements and settlements outside the municipal boundary and therefore may result in underestimation of the slum population.

1.3 Sources of Information & gap on slums

The Census of India 2001 has collect detailed data about slum areas of the country particularly in cities/towns having 50,000 populations or more based on 1991 Census. ‘All the inhabitants of the areas, which have been notified as slums by the State Governments under any legal provisions or even recognized by them, have been accordingly considered as slum population for this purpose’. According to the Census 2001, the slum population of India was 42.6 million. This constitutes 15 percent of the total urban population of the country and 22.6 percent of the 178.4 million urban population in 607 towns reported having slums. The census data does not capture the physical attributes of slums i.e. housing conditions, dilapidation, living areas or tenure.

There has been a significant improvement in the structural condition of dwellings in slum areas in the last decade. According to NSS, in 1993 only 30 percent of slums had pucca houses, which increased to 48 percent in 2002. The percentage of pucca houses is much higher in notified slums (65 percent) and only a small percentage of dwellings are katcha (6 percent). 2002 in water supply as 84 percent of notified slums and 71 percent non-notified slums have tap as a source of drinking water. Since the NSSO data pertains to sample size across cities therefore can not be used in detail for city level action strategy.

mostly encroachments on public and private land (squatters) are notified as ‘slum’. The terms such as slum, Katras, Jhuggis (Delhi), Jhopad-patties, Chawls (Maharashtra), Bustees (Kolkata), Cheris (Chennai) and Katchi Basties (Rajasthan) are considered similar by authorities. Designated slum areas may sometimes include settlements with varying range of legality and degree of deficiency of services. As such, under the broad definition of “slum” as defined in the Slum Acts of various State Governments, apparently physical substandard areas with varying tenure patterns are included.

Type of Slums - Slums / informal housing can also be classified according to the diverse processes of land /housing supply and varying degree of tenure security in the following manner-

a) Freehold land (inner city blighted areas,
b) Urban villages and land owned by village panchayats

c) Chawls/Bustees
d) Encroachments on public/private land (squatters)
e) Government/private leasehold land (resettlement colonies)
f) Slums on the urban periphery
g) Illegal land-subdivisions/unauthorized colonies/revenue layouts/gramthana layouts (where land ownership may be legal or quasi legal but land subdivision is illegal)
h) Refugee Resettlement Colonies
i) Pavement dwellers, although small in percentage, are found in large mega-cities.

The main difference is how the administrative/planning system regulates these settlement types.

These settlements differ substantially from each other not only in terms of environmental deficiencies and shelter conditions but also income and affordability of slum dwellers. There are significant untapped resources with slum dwellers could actually pay for their priorities. Slums could be graded on the basis of these parameters.

Various schemes of the Government have aimed at improving slum conditions by granting capital subsidies. The major programmes started by the Government of India towards inclusive city development, including the provision of basic services and affordable housing to the urban poor, are the Jawaharlal Nehru National Urban Renewal Mission (JNNURM) – Basic Services to the Urban Poor (BSUP) & Integrated Housing & Slum Development Programme (IHSDP) - launched in December 2005, and the 2 schemes entitled Interest Subsidy Scheme for Housing the Urban Poor (ISHUP) No distinction was made to grade them according to the type of slum.

1.4 Concept and Definitions of “Slum”

Slums are a physical and spatial manifestation of urban poverty. People living in slums have little or no access to services such as water, sanitation, and solid waste collection. Most of the housing structures in slums are sub-standard and do not comply with local building codes. Often, slum dwellers lack legal ownership of the dwelling in which they reside or any other form of secure tenure. In addition, slums are often not recognized by public authorities as an integral part of the city. This is one of the reasons why there is so little data on slum settlements in many countries.

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The concept of ‘slums’ and its definition vary from country to country depending upon the Socio-economic conditions of society. The basic characteristics of slums are – “dilapidated and infirm housing structures, poor ventilation, acute over-crowding, faulty alignment of streets, inadequate lighting, paucity of safe drinking water, water logging during rains, absence of toilet facilities and non-availability of basic physical and social services.”

The living conditions in slums are usually unhygienic and contrary to all norms of planned urban growth and are an important factor in accelerating transmission of various air and water borne diseases. The legal definition however differs from State to State.

1.4a Parameters used for defining slums

In India, the Slum Area (Improvement & Clearance) Act, 1956 (under section 3) provides the legal basis for defining or declaring any area as ‘slum’. The Act uses the following criteria for defining slums:

i. area in any respect unfit for human habitation;

ii. area by reason of dilapidation, overcrowding, faulty arrangement and design of such buildings, narrowness or faulty arrangement of streets, lack of ventilation, light, sanitation facilities or any combination of these factors which are detrimental to safety, health and morals.

The Census of India, while conducting the slum census 2001 has adopted the definition of slums specified/declared “slums” through State/UT or local government under any act. In additions it also consider the following area as slum

“A compact area of at least 300 population or about 60-70 households of poorly built congested tenements, in unhygienic environment usually with inadequate infrastructure and lacking in proper sanitary and drinking water facilities”.

The National Sample Survey Organization “NSSO”, 58th Round define slum as - “A compact settlement with a collection of poorly built tenements, mostly of temporary nature, crowded together usually with inadequate sanitary and drinking water facilities in unhygienic conditions. Such an area, for the purpose of this survey, was considered as “non-notified slum” if at least 20 households lived in that area. Areas notified as slums by the respective municipalities, corporations, local bodies or development authorities are treated as “notified slums”.

It is interesting to observe that the criteria used for defining or declaring any area as slum (i.e. dilapidation, overcrowding, faulty arrangement and design of such buildings, narrowness or faulty arrangement of streets, lack of ventilation, light or sanitation) under the ‘Slum Area (Improvement & Clearance) Act, 1956’ is consistent with the criteria used by other organizations.
Clearance Act, 1956) are not supported with the parameters/standards. It is at the discretion of the slum declaring agency to decide randomly based the physical or infrastructural conditions of any area which entitles it to be declared as slums.

According to UNDP, the proportion of urban population living in slums is the proportion of urban population living in slum households. A slum household is defined as a group of individuals living under the same roof lacking one or more1 of the following conditions:

- Access to improved water
- Access to improved sanitation
- Sufficient-living area
- Durability of housing
- Security of tenure

However, since information on secure tenure is not available for most of the countries, only the first four indicators are used to define slum household, and then to estimate the proportion of urban population living in slums.

According to “UN Habitat” - slum household is defined by UN-HABITAT as a group of individuals living under the same roof that lack one or more (in some cities, two or more) of the following conditions: security of tenure, structural quality and durability of dwellings, access to safe water, access to sanitation facilities and sufficient living area.

It is important to mention that the important parameters i.e. tenure status is missed out by The Slum (Improvement & Clearance) Act 1956, Census of India and NSSO while capturing the information on status of slums, though it has been specifically emphasized by UN on its definition on slums. The tenure is important parameters as it enables entitlement of any person to have formal access to government subsidies.
2. AIMS & OBJECTIVES

2.a Aim of the Study

The study precisely aims at studying various typologies of slums exists across cities of different sizes along with type of differences they have i.e. types of tenure, access to basic services and requirements of formal shelter. The study further intends to propose how the slum areas can be classified and graded according to their deficiencies. The research also focuses on possible approaches required for different sizes of cities.

2.b Objectives

- Comparative review of prevailing definitions to “identify/declare” any area as slum, further developing parameters with indicators for more rationalised approach to define slums.

- Assessment of Institutional & Financial Framework for Slum improvement at National, State & Local level.

- Assessment of the conditions/characteristics based on which slum can be classified taking samples from selected cities (case study) from states.

- Developing parameters/indicators to grade slums based on their characteristics (i.e. Age, Location, Land ownership, Tenure/Legal Status, Shelter quality, site conditions, durability of housing, living area, access to basic services land-use and conformity with planning norms etc) and grade them according to levels of deficiencies of tenure, infrastructure and formal shelter.

- Develop methodology to identify (define), categorise and prioritise slums and grade them for improvement subsidies particularly for provision of tenure and infrastructure in view of Rajiv Awas Yojna.

2.1 Outcome of the Study

- Comparative assessment of criteria used for defining/identification of slums for making it more rationalised using parameters/indicators to ‘declare’ any area as slum. Propose rationalize approach to define/declare any area slum using parameters/indicators for regularization / upgradation.

- Assessment of present data sources on slums, information gaps, issues and suggestions for data requirements for slums (minimum and desirable) to prioritise and better targeting of slums for improvement inputs.

- Appraisal of present regulatory framework and improvement packages provided by state and city governments for improvement in different
type of slums. Assessment of the criteria used for providing improvement packages for different type of slums across states.

- Comparative analysis of Institutional and procedural issues for slum improvement in different state.
- Identification of different slum typologies based on their characteristics using parameters & indicators.
- Grading of slums (typologies) for improvement inputs on the basis of deficiencies i.e. grant of property rights, infrastructure services and access to formal shelter.
- Recommendations for rationalised approach/methodology to define slums (using combination of parameters) and assess the level of deficiencies in slum areas. Further, categorisation and prioritization of slums and come up with guiding principles for improvement actions for slum areas.

2.2 Scope & Limitations

a. **Scope:** The precisely focus on studying various typologies of slums exists across cities in India based on their characteristics and deficiencies w.r.t. to infrastructure and tenure. Further, it aims to develop methodology using parameters for identifying, classifying and categorize slums, which can be used for prioritization and grading of slums for improvement subsidies according to their deficiencies and resources. The research also focuses on possible approaches and improvement packages for different type/grade of slums

For the purpose of case study, the cities are selected randomly using the parameters like tenure types, land ownership etc to see the applicability of the parameters used in the study to define and classify different type of slums.

b. **Limitations:** Due to strict time frame, the secondary data would serve the basis for information input for using parameters to define slums and classify slums i.e. NSSO, Slum Census, UN-Habitat, UNDP studies and parameters used for slum areas by MoHUPA under JNNURM and other programmes

Keeping in view the nature of information and its availability, only those cities will be covered which have updated database i.e. Census 2001, Biometric survey, studies and projects undertaken by state governments for improvement for slums, housing projects for urban poor, cities covered under programmes like MPUSP, APUSP and JNNURM (IHSDP & BUSP)
2.3 Coverage

Selection of States & cities for the case study

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<td>4. Indore</td>
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<td>4</td>
<td>Delhi</td>
<td>5. Delhi</td>
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2.3a Criteria of selection of cities for case study

- City where detailed biometric survey has been done under BSUP/IHSDP (JNNURM)/ or latest data-base on slums are available.
- City to represent a typology identified based on type of tenure that exists in city.
- City where slum improvement programme have been undertaken recently.
- APUSP/MPUSP or any other programme taken for slum improvement in a city etc.

2.4 Formation of expert group for review & monitoring

A group of expert has been constituted under the chairmanship of DEAN of Studies, SPA to review the progress and provide necessary inputs during the course of the study in prescribed framework. The details of members of expert group are provided in the Annexure I.
3. Methodology for Study on Slum Typologies & Grading for Improvement

- Urbanisation & slums – profile, growth and magnitude across different size of towns of India
- Defining Slums – Slum Area (Imp. & Clearance Act) 1956, Census of India, NSSO, Planning Commission of India, State legislature, UN-Habitat, UNDP, World Bank etc & local terminologies used
- Poverty & Slums – interrelation & criteria for identification of beneficiaries for improvement inputs.

- State wise analysis of sources of information on slums i.e. Census, NSSO, BPL surveys etc.
- Data gaps on slums & how it effects the targeting of slum areas /beneficiaries
- Discrepancies and issues in defining slum & its consequences in prioritizing and targeting improvement/regularization inputs
- Literature review on how to classify slums based on characteristics & deficiencies i.e. tenure, infrastructure and shelter.
- Rationalised approach to define slums using parameters /indicators.
- Suggestions to improve database on slum for effective targeting

- Review institutional & procedural co-ordination issues in identification & targeting different types of slums for improvement programmes at State Level

- Literate review on developing parameters to define/classify slums – i.e. case studies like APUSP, MPUSP, present methodology/criteria used to grade slums by MoHUPA/State Govts. for different programmes

- Inventory of programmes/initiatives & subsidies provided by govt. for slum improvement – temporal analysis of approaches adopted for different types of slums and their affectivity. The basis of review can be provision of services, grant of tenure, formal shelter, eligibility criteria for regularization/cut off-date, state policy for provision of tenure.

- General City Profile
- Growth, extent and magnitude of slums
- Sources of data on slum & information gaps on slums

- Identification of city level typologies of slums on the basis of tenure (using parameters and indicators)

- City level case studies (Selection of 2 cities from each state)

- Comparative analysis of findings from various cities

- RECOMMENDATIONS

- Information sources on slums – issues for database for better targeting
- Data requirements for slums (minimum and desirable) to prioritise for improvement inputs.
- Rationalize approach to define/declare any area slum using parameters/indicators for regularization / upgradation
- Guidelines for Identifying, Categorization and prioritization of slums, directions for improvement.

To compare and analyze Institutional and procedural issues for slum improvement in different states
## 4. Timeframe & Deliverables

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<th>Deliverables</th>
<th>Contents</th>
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</table>
| **1. Literature Review of Slum typologies, poverty and Regulatory Framework for slum improvement at National & State Level** | • Urbanization, poverty & slums – profile, growth and magnitude across different size of cities in selected state.  
• Defining Slums & criteria used for defining slums at State/City level  
• Literature review of existing typologies of slums in the state with definitions and characteristics  
• Review Legal, Institutional & Financial Framework for Slum improvement at State Level (Maharashtra, Andhra Pradesh, Madhya Pradesh, and Delhi)  
• Inventory of improvement programmes provided through temporal analysis of slum improvement programmes. | After three weeks from the commencement of study |
| **Interim discussion/interaction with the NRC** – The NRC team member will make a visit to the respective states/cities to have discussion with resource persons/field visits/discussion with different agencies concerned. | | |
| **2. State, City and slum settlement level case studies** | • Introduction to the City: Physical characteristics, Urban Economy, Demographic profile, Housing context (supported with maps and datasheets) and quality of shelter.  
• Institutional & governance framework for slum improvement at State/City level  
• Profile and Growth of Slums (Origin & growth of slums (temporal analysis), Prevailing typologies of slums, Extent of growth and magnitude of poverty and slums, Characteristics of slums (settlement, functional, service level), locations of slums (to be supported with Map), Availability of infrastructure i.e. water, sewage, sanitation, electricity, primary health care etc.  
• Review of programmes and improvement packages provided for slum improvement in different types of slums  
• Status of Land Tenure in slums and deficiencies of infrastructure and access to formal shelter. | **Eight weeks of commencement of the study** (tentatively first week of Feb 2010) |
| **3. Submission of Draft Report** | Other than above components, the draft report must comprise the compilation of following components : -  
• Issues and challenges in defining slums, criteria and assessment of deficiencies used for defining/notifying any area as “slum” by the legislature or authority.  
• See whether the subsidies are granted based on assessment of deficiencies in different types of slums.  
• Broad typologies of slums based on the deficiencies of land tenure, housing and infrastructure. | **9 weeks of commencement of the study** (tentatively third week of Feb. 2010) |
| **4. NRC to hold workshop with MoHUPA** | Share the outcomes of the study with MoHUPA in prescribed study framework. | March 2010 |
| **5. Submission of Final Report** | The report should contain detailed processed information as prescribed in the study framework with recommendations, annexure, references etc. (ready to print from) | **Second week of April 2010** |
## Annexure – I: Details of expert group constituted for review & monitoring

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<tr>
<th>Sl. No</th>
<th>Name of Resource Person</th>
<th>Designation</th>
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<tbody>
<tr>
<td>1</td>
<td>Prof. Kavas Kapadia</td>
<td>Professor of Urban Planning &amp; DEAN of Studies</td>
<td>Department of Urban Planning School of Planning &amp; Architecture, 4, Block – B, I.P. Extension, New Delhi -02</td>
</tr>
<tr>
<td>2</td>
<td>Ms. Kiran Wadhva</td>
<td>Executive Director (Training) HUDCO (Retd.)</td>
<td>13-A, Road 47, Punjabi Bagh West, New Delhi-110026, E-mail: <a href="mailto:kiran_wadhva@yahoo.co.in">kiran_wadhva@yahoo.co.in</a></td>
</tr>
<tr>
<td>3</td>
<td>Shri A.N. Krishnamurthy</td>
<td>Chief (Training) HSMI (HUDCO)</td>
<td>Human Settlement Management Institute (HSMI), HUDCO House, Lodhi Road, New Delhi - 110003, Tel: 24699534, 24367834, 24368418, Fax: (011) 24365292 Mob: 9910531010 E-mail: <a href="mailto:ank.krishnamurthy@gmail.com">ank.krishnamurthy@gmail.com</a></td>
</tr>
<tr>
<td>4</td>
<td>Ms. Banashree Banarjee</td>
<td>Urban Development Consultant</td>
<td>Sector-A, Pocket-C, Flat No.- 6, Vasant Kunj, New Delhi-110070, Tele - 011-26124214, Mob – 09868214202 Email: <a href="mailto:banashree_b@hotmail.com">banashree_b@hotmail.com</a></td>
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## Annexure – II: Details of resource persons identified to support the state and city level case studies for study on “Slum Typologies and grading for improvement inputs.”

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<tr>
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<th>Cities</th>
<th>Name of Resource Person</th>
<th>Advisors</th>
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<tbody>
<tr>
<td>1</td>
<td>Andhra Pradesh</td>
<td>Hyderabad &amp; Kakinada</td>
<td>Prof. Ravi Anand K. JNTU School of Planning &amp; Architecture, Hyderabad</td>
<td>Mr. Devender Reddy Senior Town Planner, State Secretariat, Hyderabad</td>
</tr>
<tr>
<td>2</td>
<td>Delhi</td>
<td>Delhi</td>
<td>Dr. Ruchita Gupta Visiting Faculty - School of Architecture and Planning, IP University, Delhi</td>
<td>Mr. Sunil Mehra Director(Planning)- Slum Wing, MCD Delhi</td>
</tr>
<tr>
<td>3</td>
<td>Madhya Pradesh</td>
<td>Indore</td>
<td>Mr. V.P. Kulshrestha City Planner &amp; In-charge, DFID Cell, MPUSP Programme, Indore Municipal Corporation.</td>
<td>Ms. Banashree Banerjee Urban Development Consultant</td>
</tr>
<tr>
<td>4</td>
<td>Maharashtra</td>
<td>Mumbai</td>
<td>Prof. Rajiv Mishra Principal, J.J. College of Architecture, Mumbai Maharashtra.</td>
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