

RANKING ON VULNERABILITY INDEX: AN ASSESSMENT OF URBAN SQUATTER SETTLEMENTS

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Slums (squatter settlements) are the best emblems and representatives of poverty in urban areas. Though the broad pattern of living conditions may appear to be same for all the slum colonies, yet the extent of deprivation in each slum may differ. Therefore, a vulnerability index, based on a weightage scale of the poverty indicators was designed to rank all the 209 slum localities in Ludhiana, which is the largest city in Punjab both in terms of area and population. The main aim of the present study is to identify the most vulnerable and deprived slums in Ludhiana city, so as to help the government in policy planning. It will on one hand help the Administration in according priority to the slum localities which require immediate improvement strategies and on the other will streamline their improvement efforts as per the needs of the slum dwellers.

Introduction

Poverty is the non-fulfilment of the human right to a range of basic capabilities, e.g. nourishment, shelter, education, security, justice, earning a livelihood. In other words, poverty can no longer be defined uni-dimensionally as lack of adequate income, but poverty is multidimensional. The minimum bare requirements needed for a liveable life include the accessibility to basic needs i.e. food, clothing and shelter (*roti, kapra aur makan*). They are the fundamental requirements of every human being. In terms of all these needs, the poor are disadvantaged and marginalized. Poverty is infact manifestation of deprivation. It is the non-fulfilment of basic requirements fundamentally considered to be valuable for minimal human dignity.

The present study has identified the poor in relation to slum dwellers as they have been denied their basic right to shelter due to inadequacy of housing. Unauthorised colonies are the best emblems of poverty in urban areas. Industrialization and rapid growth of urbanization in India have resulted in proliferation of slum population. The haphazard growth of urban morphology and interstate and intra-state migration have exacerbated the scenario. Today, slums and squatter settlements are the major housing challenges that confront India.

As per the latest NSSO survey reports, there are over 80 million poor people living in the cities and towns of India. The slum population is also increasing and as per Town and Country Planning Organization (TCPO) estimates in the year 2001, over 61.80 million people were living in slums. In other words, 21.7 per cent of the urban population lives in slums in India.

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According to NSSO (National Sample Survey Organization), one out of every seven urban households in India lives in slums. About eight million households live in slums now—two million more than those who lived there a decade ago.

In spite of housing being so important, according to data provided by the National Buildings Organization, aggregate housing shortage in India has increased by 134 per cent during the last six years from 10.56 million units in 2001 to 24.71 million units in 2007.

If lack in terms of access to basic amenities in urban areas is assessed, then according to the Census of India, 2001, there is 9 per cent deficiency in drinking water, 26 per cent in latrines and 23 per cent in drainage in India. This is the situation inspite the fact that Committee on Economic, Social and Cultural Rights (CESCR) stresses that right to housing should not be interpreted in a narrow or restricted manner, but a holistic understanding of housing should be evolved. Habitat II too didn't mention shelter for all, but *adequate* shelter for all, stressing that housing does not simply mean having a roof over one's head; it also signifies that all the people enjoy adequate space, basic infrastructure and facilities in terms of water supply, sanitation, waste management facility, an inhabitable environment free of health hazards etc. In fact, India has both international as well as domestic legal obligations to promote and protect right to holistic housing.

The present paper stresses that right to housing means much more than a mere roof over one's head. Although all slums/squatter settlements may appear same in terms of inadequacy due to lack of a proper roof, however in reality they may differ in terms of their deprivation.

Objective of the Study

The main aim of the present study is to identify the most vulnerable slums/squatter settlements in Ludhiana city so that it helps the government in prioritizing the slums requiring utmost attention during policy planning. Though the broad pattern of slum life and living conditions may appear to be the same for all the slum colonies yet these differ in availability and reach of various civic amenities to the slum dwellers.

There are number of single indicators that can be used to measure the extent to which the inhabitants of a particular place experience poverty, they however focus only on one area. Since this study is on the slums in Ludhiana comprising 209 slums/squatter settlements, analyzing the deprivation status would have been a herculean task, therefore the main objective of the present study was to design a vulnerability index based on a weightage scale of the poverty indicators and then to rank all the slum localities in Ludhiana city to identify the most deprived ones. This would allow several indicators to be scored and then aggregated together to give a measure of poverty and living standards, which would adequately help in assessing the relative extent of deprivation of each slum. This on one hand will

help the administration in according priority to the slum localities which require immediate improvement strategies and on the other will streamline their improvement efforts as per the needs of the slum dwellers.

Slum Profile in Ludhiana (Punjab)

The present study focuses on the poor in the industrial city of Ludhiana, which is the largest city in Punjab both in terms of area and population. The city is spread over an area of 159.37 sq.km and accommodates approximately 14.00 lakh population (Census, 2001), out of which 314,904 people lives in slums. On one hand, Ludhiana is one of the key industrial and educational centres of northern India and commonly recognized as the “Manchester of India”, the “hub of the Indian Hosiery Industry” and also as Industrial Capital of small scales industry in the country. On the other end, poverty can easily be seen in some Ludhiana slums. The CDP Ludhiana confirms that around 14% of its population lived in the slums/squatter settlements in the year 2001.

Ludhiana city is divided into 70 municipal wards out of which 31 municipal wards reported slums. The enormous industrialization of Ludhiana city is responsible for the surfacing of several slum colonies in and around the city. There is no formal housing for industrial workers, because of which many slums have cropped up near the industrial areas. Slum population constitutes 23 per cent of the total urban population in Ludhiana. According to the Ludhiana CDP, 2006, the Municipal Corporation has identified a total of 209 slums/squatter settlements in Ludhiana City, which have been picked up for study purpose representing the poor in the city.

INDICATORS (Why they are Important to Assess)

The following are the broad parameters under whose umbrella the various indicators have been evaluated:

1. Parameters related to Housing.
2. Parameters related to Basic services/facilities.
3. Parameters related to location of slum in Hazardous area.
4. Percentage of Below Poverty line population

I. Housing

Percent of Kutch House

The snap shot survey of 209 slums exhibited that 67% structures were *Pucca* houses, i.e., built with bricks and cement, 22% were *Semi-Pucca* and more than 11% were *Kutch* structures in the form of *Jhuggis* made of either plastic or asbestos sheet covering or mud walls depriving the slum dwellers their right to adequate housing. Since the quality of life lived by people is strongly dependent on the type of housing, hence this parameter was considered of utmost importance to assess vulnerability.

II. Accessibility and Availability of Basic Amenities and Facilities

Sewerage/Drains

Lack of proper system of sewerage system deteriorates the already dilapidated conditions in which slum dwellers live. 57% of the slum households in Ludhiana had connection to the sewerage line. In few slums/squatter settlements, individual households make their own soak pits for discharging wastewater into the soil; however 43% of the slum households are without any sewerage connection. Lack of sewerage increases the risk of flooding and disease. Hence this parameter is of utmost importance and status of each slum on this indicator is given in Table 5.

Garbage Collection

Garbage collection is an important environmental issue. However there is no government initiative on the provision of door-to-door collection of garbage in Ludhiana slums/squatter settlements. In 56% slums there is a facility of collection of garbage, though not door-to-door but in the remaining 22% slums, there is nearly no provision of collection of garbage. People either throw the garbage in open or in *nalah* or even the canal. Irregularity of garbage collection can be a major health hazards. Hence studying the position of each slum on this indicator becomes very important.

Individual Toilets

Although a large number of individual toilets have been reported in the slums of Ludhiana (87%) but very few were connected to sewerage line. People in 10% of the total households go for open defecation. Only about 3% of the slum population use community toilets. Open defecation highlights lack of privacy especially among women and girls, additional work and triggering of health and environmental problems. Further, the major areas used for open defecation being railway tracks, open grounds and canal banks, slum dwellers are vulnerable to accidents as cases of people being run over by trains, pelted by stones and drowning in canals were reported. So it is important to rank each slum on this parameter.

Water Facility

The empirical data revealed that although 97% of the people in slums/squatter settlements did consume tap water, however, the remaining population depended on bore well or water tankers, highlighting that 100% access to safe drinking water to all has not been achieved.

Lack of water source add to the miseries of slum dwellers especially women and children who have to stand in queues for hours each day to fetch water resulting in frequent quarrels. In some cases, minors had to miss their school for this purpose. So it is pertinent to study ranking of each slum on this indicator.

Approach Road

In Ludhiana, 169 slums have pucca roads, 12 slums have semi pucca, which are bricked paved, and the remaining 28 slums have kutchra roads. People in the slums/squatter settlements connected with kutchra roads suffer inconvenience and proness to accidents especially during rainy season. Hence ranking each slum on this indicator is important.

Street lighting

Slums in total darkness at nights are a major threat to people's life and property and safety of women. In 56 Ludhiana slums, there were no streetlights. Individual ranking of each slum on this parameter is given in Table 5.

Storm Water Drainage (SWD)

Disease and destruction are caused due to stagnation of water during the rainy seasons. However, only 11 percent of the entire Ludhiana city area is covered with SWD. Municipal Corporation, Ludhiana has reported that only three slums and that too only 350 households are connected to the SWDs. In the absence of storm water system, the rainwater is discharged into the domestic sewer lines, which in many cases are narrow. This results in heavy loading of sewerage network, ultimately leading to choking of pipes and backflow of sewerage water. Therefore, it is also one of the imperative indicators of poverty.

III. Location of Slum in Hazardous Areas

Out of 209 slums/squatter settlements, there are 18 slums in low-lying area, 48 slums are located in industrial area or within one km of the industrial area. This picture seems very true in case of this industrial city where industries have the second highest count as an environmental hazard to these slum localities. 13 slums are near *Budha nalah* and 4 each near railway tracks and canal or riverbeds making a total of 90 slums which are in sensitive areas. If we consider even the slums falling within a distance of 2 kms. of the Industrial area as hazardous, the number would be much higher, as there are another 63 slums falling in this category, making a total of 111 slums in near vicinity of the industrial area causing health concerns as some of the industries in Ludhiana are quite polluting.

Budha Nalah, which carries the sewerage and the industrial waste of the entire city, has 13 slums located along its course. Due to annual silting of *Budha Nalah*, flooding of these slums during heavy rain is caused, which further aggravates the situation in these areas. Railway tracks and the Sidhwan Canal that passes through many parts of the city also act hazardous as there have been few incidences of people having been drowned in the canal or run over by the trains. The slums located in these vulnerable areas are at a constant threat to health and life of its inhabitants. So this indicator was considered to be of immense significance to rank each slum.

Water Logging/stagnation

During the last five years, 78 slums in Ludhiana reported water logging/stagnation. The major causes were their location in low-lying area, near the canal/river, lack of drainage or SWDs. Frequency of water logging is an important indicator as stagnant water not only causes accidents but becomes a breeding ground for water borne diseases like malaria, dengue etc.

IV. Percentage of Below Poverty Line Population

There is no consensus on the definition of urban poverty in India between different agencies like the NSSO and Planning Commission etc. For assessing the vulnerability matrix, the proportion of slum dwellers in BPL category (families having per capita per month income of below Rs. 454.11) were considered and weightage was given accordingly to each slum.

ANALYSIS

For identifying the vulnerable slums/squatter settlements, weightage was given to each indicator. For scoring following steps were followed:

- (1) 14 indicators related to four basic parameters i.e. housing, basic facilities, slums in hazardous areas and percentage of below poverty line population in slum were short-listed.
- (2) Each indicator was given weightage score ranging between 1 to 5.
- (3) Score 1 signified most deprived & score 5 represented least deprived extent of each indicator.
- (4) Each colony was given a weightage on all indicators.
- (5) Total aggregated deprivation score for each slum was calculated on the basis of the all-14 parameters. The squatter settlements indicating the minimum score were the most deprived slums.
- (6) Minimum and maximum range was worked out on the basis of the aggregated score and the slums were divided into four categories accordingly.

WEIGHTAGE (SCORE)***Housing Conditions***

Deprivation in terms of housing was worked out on the basis of percentage of the people living in *kutcha* houses in each slum. If such percentage ranged between 75% - 100% it was given the score of 1, which indicated them as the most deprived. On the other hand, if 0% of the people were living in *kutcha* housing, then that slum was given a score of 5 indicating it to be the least deprived.

Minimum value - 1

Maximum value – 5

TABLE 1: POVERTY INDICATOR RELATED TO HOUSING

| <i>Percentage of Kutcha Houses</i> | <i>Weightage</i> |
|------------------------------------|------------------|
| 0% | 5 |
| 1-25% | 4 |
| 26-50% | 3 |
| 51-75% | 2 |
| 76-100% | 1 |

Basic Services

The aggregated basic services score was calculated on the basis of 10 indicators namely provision of electricity, sewerage, proportion of individual taps and toilets, percentage of population resorting to open defecation, street lights, frequency of garbage collection, access to storm water drainage, type of approach road and duration of water supply. The slums/squatter settlements with aggregated score based on 10 indicators was considered as most deprived in terms of provision of basic services.

Minimum value - 10

Maximum value - 50

TABLE 2: POVERTY INDICATORS RELATED TO BASIC SERVICES/FACILITIES

| <i>Approach Road</i> | <i>Weightage</i> |
|----------------------|------------------|
| <i>Kutcha</i> | 1 |
| Semi pucca | 3 |
| Pucca | 5 |
| Street Lighting | |
| Yes | 5 |
| No | 1 |
| Individual Toilets | |
| 0% | 1 |
| 1-25% | 2 |
| 26-50% | 3 |
| 50-75% | 4 |
| 76-100% | 5 |
| Open defecation | |
| 0% | 5 |
| 1-25% | 4 |
| 26-50% | 3 |
| 51-75% | 2 |
| 76-100% | 1 |

contd. table 2

| | |
|------------------------|----------|
| Individual Tap | |
| 0% | 1 |
| 1-25% | 2 |
| 26-50% | 3 |
| 51-75% | 4 |
| 76-100% | 5 |
| Sewerage | |
| Yes | 5 |
| Partial | 3 |
| No | 1 |
| Electricity | |
| Yes | 5 |
| No | 1 |
| Garbage Collection | |
| Everyday | 5 |
| Alternate day | 4 |
| Twice or thrice a week | 3 |
| Weekly | 2 |
| Never | 1 |
| Storm Water Drainage | |
| Yes | 5 |
| No | 1 |
| Hours of Water supply | |
| Nil | 1 |
| 10-12 hrs | 5 |

Hazardous Indicators

Deprivation in terms of hazardous area was worked out on the basis of two indicators i.e. location of slums in sensitive area and the number of times water logging has occurred in last one year.

| | |
|---------------|------|
| Minimum value | - 2 |
| Maximum value | - 10 |

TABLE 3: POVERTY INDICATORS RELATED TO ENVIRONMENTAL HAZARDS

| <i>Sensitive area</i> | <i>Weightage</i> |
|------------------------------|------------------|
| Yes | 1 |
| No | 5 |
| Water logging (No. of times) | |
| 0 | 5 |
| 1-2 | 4 |
| 3-4 | 3 |
| 5-6 | 2 |
| 6+ | 1 |

Demographic-percentage of Below Poverty Line Population

| | | |
|---------------|---|---|
| Minimum value | - | 1 |
| Maximum value | - | 5 |

TABLE 4: BELOW POVERTY LINE POPULATION

| BPL | Weightage |
|---------|-----------|
| 0% | 5 |
| 1-25% | 4 |
| 26-50% | 3 |
| 51-75% | 2 |
| 76-100% | 1 |

Table 5 given below highlights the vulnerability Index

TABLE 5: VULNERABILITY INDEX

| Name Of the sum Colony | BPL | Envir- omental hazard | Electr- city | Sew- erage | Water logg- ing | Indi- dual- taps | Open defeca- tion | Indi- vidual toilets | Street lights | Garb- age collec- tion | SWD | App- roach road housing | % age of supply | Water Aggre. score |
|-----------------------------|-----|-----------------------------|-----------------|---------------|-----------------------|------------------------|-------------------------|----------------------------|------------------|---------------------------------|-----|----------------------------------|-----------------------|--------------------------|
| Jamuna Colony | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 5 | 1 | 18 |
| Kichlu Nagar | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 5 | 1 | 19 |
| Labour Colony (jamalpur) | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 1 | 5 | 1 | 20 |
| Jhugi Rockman | 2 | 1 | 1 | 1 | 3 | 1 | 1 | 1 | 1 | 2 | 1 | 5 | 1 | 22 |
| Jhugi Sarabha Nagar | 1 | 5 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 5 | 1 | 22 |
| Longowal Colony | 2 | 1 | 5 | 1 | 4 | 1 | 1 | 1 | 1 | 5 | 1 | 1 | 1 | 26 |
| Love Kush Colony | 2 | 5 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 2 | 1 | 5 | 3 | 27 |
| Jhugi Muskin | 2 | 5 | 1 | 1 | 5 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 28 |
| Suneet Nagar | 1 | 5 | 1 | 1 | 3 | 1 | 1 | 1 | 1 | 1 | 1 | 5 | 1 | 28 |
| Rishi Nagar | 1 | 5 | 1 | 1 | 2 | 1 | 2 | 4 | 1 | 1 | 1 | 1 | 3 | 29 |
| Jhuggi Jassian | 1 | 5 | 1 | 1 | 5 | 1 | 1 | 4 | 1 | 1 | 1 | 5 | 1 | 29 |
| Bihari Colony Ind. Area | 1 | 1 | 1 | 1 | 3 | 2 | 4 | 1 | 1 | 1 | 1 | 5 | 4 | 31 |
| Sigligarh | 2 | 5 | 1 | 1 | 3 | 1 | 1 | 1 | 1 | 1 | 1 | 5 | 3 | 31 |
| Mata Dhud Kursi | 1 | 5 | 1 | 3 | 5 | 1 | 2 | 2 | 1 | 1 | 1 | 5 | 3 | 32 |
| Ghora Colony | 2 | 1 | 5 | 1 | 3 | 3 | 1 | 1 | 5 | 1 | 1 | 5 | 3 | 33 |
| Guru Har Rai Nagar | 4 | 5 | 1 | 1 | 5 | 1 | 1 | 1 | 1 | 1 | 1 | 5 | 1 | 33 |
| Indra Colony | 1 | 1 | 5 | 1 | 4 | 1 | 1 | 1 | 5 | 1 | 1 | 5 | 5 | 33 |
| Ravidass Pura | 1 | 5 | 5 | 1 | 1 | 1 | 1 | 2 | 5 | 5 | 1 | 1 | 3 | 33 |
| Bazigar Basti | 1 | 1 | 1 | 3 | 5 | 2 | 1 | 2 | 1 | 2 | 1 | 5 | 4 | 34 |
| Luxmi Nagar | 3 | 5 | 1 | 1 | 5 | 1 | 1 | 1 | 1 | 1 | 1 | 5 | 3 | 34 |
| Salem Tabri | 2 | 1 | 5 | 1 | 4 | 1 | 1 | 1 | 5 | 1 | 1 | 5 | 1 | 34 |
| Transport Nagar | 2 | 1 | 5 | 1 | 4 | 1 | 1 | 2 | 5 | 5 | 1 | 5 | 1 | 35 |

contd. table

| Name Of the slum Colony | BPL | Envir- omental hazard | Electr- city | Sew- erage | Water logg- ing | Indi- dual- taps | Open defeca- tion | Indi- vidual toilets | Street lights | Garb- age collec- tion | SWD | App- roach road housing | % age of supply | Water Aggre. score | |
|-----------------------------|-----|-----------------------------|-----------------|---------------|-----------------------|------------------------|-------------------------|----------------------------|------------------|---------------------------------|-----|----------------------------------|--------------------|--------------------------|----|
| Banda Bahadur Nagar | 3 | 1 | 1 | 1 | 3 | 5 | 4 | 5 | 1 | 1 | 1 | 1 | 4 | 5 | 36 |
| Shaheed Karnail Singh Nagar | 3 | 5 | 1 | 1 | 1 | 5 | 4 | 1 | 1 | 5 | 1 | 3 | 4 | 1 | 36 |
| Bazigar Dera | 1 | 5 | 1 | 1 | 3 | 1 | 3 | 4 | 1 | 1 | 1 | 5 | 5 | 5 | 37 |
| Jamalpur Awana | 1 | 5 | 5 | 1 | 4 | 1 | 1 | 1 | 5 | 5 | 1 | 5 | 1 | 1 | 37 |
| NewDana Mandi | 4 | 5 | 5 | 1 | 1 | 1 | 1 | 1 | 5 | 1 | 1 | 5 | 1 | 5 | 37 |
| Dairy Complex | 2 | 5 | 5 | 1 | 4 | 1 | 1 | 1 | 5 | 1 | 1 | 5 | 1 | 5 | 38 |
| Dana Mandi | 1 | 5 | 5 | 1 | 5 | 1 | 1 | 1 | 5 | 1 | 1 | 5 | 1 | 5 | 38 |
| KWD Colony | 4 | 1 | 5 | 3 | 5 | 1 | 2 | 3 | 1 | 2 | 1 | 5 | 1 | 5 | 39 |
| Lavkush Nagar | 4 | 1 | 1 | 1 | 5 | 2 | 1 | 2 | 5 | 2 | 1 | 5 | 4 | 5 | 39 |
| New Partap Nagar | 2 | 5 | 1 | 1 | 3 | 5 | 4 | 5 | 1 | 2 | 1 | 3 | 5 | 1 | 39 |
| Valmiki Colony | 2 | 5 | 1 | 3 | 5 | 1 | 2 | 2 | 1 | 5 | 1 | 5 | 5 | 1 | 39 |
| Amrit Colony | 3 | 5 | 1 | 1 | 3 | 5 | 4 | 5 | 1 | 1 | 1 | 5 | 4 | 1 | 40 |
| Gulabi Bagh | 3 | 1 | 1 | 3 | 3 | 3 | 4 | 5 | 1 | 2 | 1 | 3 | 5 | 5 | 40 |
| Ishar Ngar | 1 | 5 | 5 | 1 | 1 | 1 | 5 | 5 | 5 | 1 | 1 | 3 | 5 | 1 | 40 |
| Islam Ganj | 3 | 5 | 5 | 1 | 4 | 2 | 1 | 1 | 5 | 4 | 1 | 1 | 1 | 5 | 39 |
| New Kirti Nagar | 2 | 5 | 5 | 1 | 1 | 1 | 1 | 2 | 5 | 1 | 1 | 5 | 5 | 5 | 40 |
| Prem Vihar | 1 | 5 | 5 | 3 | 3 | 1 | 2 | 3 | 1 | 1 | 1 | 5 | 5 | 5 | 41 |
| Dhakka Colony (Jamalpur) | 1 | 5 | 1 | 1 | 4 | 1 | 3 | 4 | 1 | 5 | 1 | 5 | 5 | 5 | 42 |
| Grewal Colony | 1 | 1 | 5 | 1 | 1 | 5 | 5 | 5 | 5 | 1 | 1 | 1 | 5 | 5 | 42 |
| Bhola Colony | 2 | 1 | 1 | 1 | 4 | 5 | 5 | 5 | 1 | 2 | 1 | 5 | 5 | 5 | 43 |
| Mata Karam Kaur Colony | 2 | 1 | 1 | 1 | 5 | 5 | 5 | 5 | 1 | 1 | 1 | 5 | 5 | 5 | 43 |
| Nanakpura | 4 | 5 | 5 | 1 | 3 | 1 | 1 | 1 | 5 | 1 | 1 | 5 | 5 | 5 | 43 |
| Rajiv Gandhi | 2 | 5 | 5 | 1 | 5 | 1 | 4 | 5 | 1 | 2 | 1 | 5 | 2 | 5 | 44 |
| Chet Singh Nagar (new) | 1 | 5 | 5 | 3 | 5 | 1 | 3 | 4 | 5 | 1 | 1 | 5 | 5 | 1 | 45 |
| Namdev Colony | 1 | 1 | 1 | 1 | 5 | 5 | 5 | 5 | 1 | 5 | 1 | 5 | 5 | 5 | 46 |
| New Lohara Colony | 4 | 5 | 1 | 5 | 4 | 5 | 5 | 5 | 1 | 3 | 1 | 5 | 1 | 1 | 46 |
| Preet Vihar | 3 | 5 | 5 | 3 | 4 | 1 | 1 | 2 | 5 | 1 | 1 | 5 | 5 | 5 | 46 |
| Raju Colony | 1 | 5 | 5 | 1 | 3 | 5 | 3 | 4 | 5 | 1 | 1 | 3 | 4 | 5 | 46 |
| Sanjay Gandhi Colony | 2 | 5 | 1 | 3 | 3 | 5 | 2 | 3 | 5 | 3 | 1 | 5 | 3 | 5 | 46 |
| Shaheed Bhagat Singh Nagar | 1 | 5 | 5 | 1 | 3 | 5 | 5 | 5 | 5 | 3 | 1 | 5 | 1 | 1 | 46 |
| Sukhdev Nagar | 1 | 5 | 5 | 1 | 4 | 5 | 4 | 5 | 5 | 1 | 1 | 3 | 5 | 1 | 46 |
| Jawand Vihar | 4 | 5 | 1 | 1 | 4 | 5 | 4 | 5 | 1 | 5 | 1 | 1 | 5 | 5 | 47 |

contd. table

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| Name Of the slum Colony | BPL | Envir- omental hazard | Electr- city | Sew- erage | Water logg- ing | Indi- dual- taps | Open defeca- tion | Indi- vidual toilets | Street lights | Garb- age collec- tion | SWD | App- roach road | % age of kutch housing | Water supply | Aggre. score |
|-------------------------------|-----|-----------------------------|-----------------|---------------|-----------------------|------------------------|-------------------------|----------------------------|------------------|---------------------------------|-----|-----------------------|---------------------------------|-----------------|-----------------|
| Rishi Nagar G (Y) | 3 | 1 | 5 | 1 | 2 | 5 | 5 | 5 | 5 | 1 | 1 | 5 | 3 | 5 | 47 |
| Killa Mohalla | 2 | 5 | 1 | 3 | 4 | 3 | 3 | 3 | 5 | 3 | 1 | 5 | 5 | 5 | 48 |
| Choudhary Colony | 1 | 5 | 1 | 5 | 4 | 5 | 5 | 5 | 1 | 1 | 1 | 5 | 5 | 5 | 49 |
| Preet Nagar | 1 | 5 | 5 | 1 | 5 | 5 | 4 | 5 | 5 | 1 | 1 | 5 | 5 | 1 | 49 |
| Adarsh Nagar | 1 | 1 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 2 | 1 | 1 | 4 | 5 | 50 |
| Baba Jeewan Singh Nagar | 1 | 1 | 5 | 1 | 4 | 5 | 5 | 5 | 5 | 3 | 1 | 5 | 4 | 5 | 50 |
| Chambal Ghati | 4 | 5 | 1 | 1 | 2 | 5 | 5 | 5 | 5 | 5 | 1 | 5 | 5 | 1 | 50 |
| Chowni Mohalla | 2 | 5 | 5 | 3 | 5 | 3 | 2 | 3 | 5 | 3 | 1 | 5 | 3 | 5 | 50 |
| Company Bagh | 2 | 5 | 5 | 3 | 5 | 5 | 5 | 5 | 1 | 2 | 1 | 5 | 5 | 1 | 50 |
| Dhandari Kalan | 4 | 1 | 5 | 1 | 5 | 4 | 3 | 3 | 5 | 3 | 1 | 5 | 5 | 5 | 50 |
| Dr. Ambedkar Nagar | 4 | 1 | 5 | 3 | 2 | 5 | 3 | 5 | 5 | 2 | 1 | 5 | 4 | 5 | 50 |
| Gobind Nagar | 4 | 5 | 1 | 1 | 5 | 5 | 5 | 5 | 5 | 3 | 1 | 5 | 4 | 1 | 50 |
| Gurmeet Nagar | 4 | 5 | 5 | 1 | 2 | 5 | 5 | 5 | 5 | 1 | 1 | 5 | 5 | 1 | 50 |
| Kangan Wall | 4 | 1 | 5 | 1 | 3 | 4 | 5 | 5 | 5 | 5 | 1 | 5 | 5 | 1 | 50 |
| Preet Nagar | 1 | 5 | 5 | 1 | 5 | 2 | 2 | 3 | 5 | 5 | 1 | 5 | 5 | 5 | 50 |
| Ramesh Nagar | 4 | 5 | 5 | 1 | 2 | 1 | 5 | 5 | 5 | 5 | 1 | 1 | 5 | 5 | 50 |
| Swatanter Nagar | 2 | 5 | 5 | 1 | 4 | 5 | 4 | 5 | 5 | 2 | 1 | 5 | 5 | 1 | 50 |
| Thappar | 4 | 5 | 5 | 1 | 3 | 5 | 4 | 5 | 5 | 1 | 1 | 5 | 5 | 1 | 50 |
| Navneet Nagar | 4 | 1 | 1 | 5 | 3 | 5 | 5 | 5 | 1 | 5 | 1 | 5 | 5 | 5 | 51 |
| Railway Colony | 4 | 5 | 5 | 1 | 3 | 3 | 2 | 2 | 5 | 5 | 1 | 5 | 5 | 5 | 51 |
| Ramesh Nagar | 2 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 1 | 1 | 1 | 5 | 5 | 1 | 51 |
| Sahibzada Ajit Singh Nagar | 1 | 5 | 1 | 5 | 4 | 5 | 5 | 5 | 1 | 3 | 1 | 5 | 5 | 5 | 51 |
| Manoj Colony | 1 | 1 | 5 | 3 | 2 | 5 | 4 | 5 | 5 | 5 | 1 | 5 | 5 | 5 | 52 |
| Pakhar Colony | 4 | 5 | 5 | 1 | 3 | 5 | 5 | 5 | 5 | 3 | 1 | 5 | 4 | 1 | 52 |
| Vardhman Colony | 1 | 1 | 5 | 3 | 5 | 5 | 5 | 5 | 5 | 5 | 1 | 5 | 5 | 1 | 52 |
| Bharpoor Nagar | 1 | 1 | 5 | 1 | 5 | 5 | 4 | 5 | 5 | 5 | 1 | 5 | 5 | 5 | 53 |
| Daba Colony-58 | 4 | 5 | 5 | 1 | 4 | 5 | 5 | 5 | 5 | 2 | 1 | 5 | 5 | 1 | 53 |
| Deep Singh Nagar | 4 | 5 | 1 | 5 | 5 | 5 | 5 | 5 | 1 | 5 | 1 | 5 | 5 | 1 | 53 |
| Gagan Nagar | 4 | 5 | 5 | 1 | 2 | 5 | 5 | 5 | 5 | 5 | 1 | 5 | 4 | 1 | 53 |
| Gopal Nagar | 3 | 5 | 5 | 1 | 4 | 5 | 5 | 5 | 5 | 1 | 1 | 3 | 5 | 5 | 53 |
| Grewal Colony | 3 | 5 | 5 | 3 | 3 | 3 | 2 | 3 | 5 | 5 | 1 | 5 | 5 | 5 | 53 |
| Gurnam Nagar | 2 | 1 | 5 | 5 | 2 | 5 | 5 | 5 | 5 | 2 | 1 | 5 | 5 | 5 | 53 |
| Saint Colony | 4 | 1 | 1 | 5 | 5 | 5 | 5 | 5 | 1 | 5 | 1 | 5 | 5 | 5 | 53 |
| Shanti Nagar | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 1 | 5 | 1 | 1 | 5 | 1 | 53 |
| Heera Vihar | 1 | 1 | 5 | 1 | 5 | 5 | 5 | 5 | 5 | 5 | 1 | 5 | 5 | 5 | 54 |
| Moti Bagh | 1 | 5 | 1 | 5 | 5 | 5 | 5 | 5 | 1 | 5 | 1 | 5 | 5 | 5 | 54 |

contd. table

| Name Of the slum Colony | BPL | Envir- omental hazard | Electr- city | Sew- erage | Water logg- ing | Indi- dual- taps | Open defeca- tion | Indi- vidual toilets | Street lights | Garb- age collec- tion | SWD | App- roach road housing | % age of supply | Water Aggre. score |
|----------------------------|-----|-----------------------------|-----------------|---------------|-----------------------|------------------------|-------------------------|----------------------------|------------------|---------------------------------|-----|----------------------------------|--------------------|--------------------------|
| Namdev Colony | 4 | 5 | 1 | 1 | 5 | 5 | 5 | 5 | 5 | 2 | 1 | 5 | 5 | 54 |
| Tilak Nagar | 1 | 1 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 1 | 5 | 5 | 54 |
| Valmiki Colony | 1 | 5 | 1 | 3 | 5 | 5 | 5 | 3 | 5 | 5 | 1 | 5 | 5 | 54 |
| Vill. Jugiana | 4 | 5 | 5 | 1 | 2 | 5 | 5 | 5 | 5 | 5 | 1 | 5 | 5 | 54 |
| Ashok Nagar (C) | 1 | 1 | 5 | 3 | 5 | 5 | 5 | 5 | 5 | 5 | 1 | 5 | 4 | 55 |
| Gita Colony | 1 | 5 | 5 | 1 | 5 | 5 | 5 | 5 | 5 | 4 | 1 | 3 | 5 | 55 |
| Indra Colony-22 | 4 | 5 | 5 | 1 | 4 | 4 | 4 | 5 | 5 | 2 | 1 | 5 | 5 | 55 |
| Karamsar Colony | 3 | 5 | 5 | 3 | 5 | 5 | 5 | 5 | 5 | 2 | 1 | 5 | 5 | 55 |
| Labour Colony (KC Gias) | 2 | 1 | 5 | 3 | 5 | 5 | 4 | 5 | 5 | 4 | 1 | 5 | 5 | 55 |
| Laxman Nagar | 4 | 5 | 5 | 1 | 5 | 5 | 5 | 5 | 5 | 5 | 1 | 3 | 5 | 55 |
| Lohara Colony | 4 | 5 | 5 | 1 | 3 | 5 | 5 | 5 | 5 | 5 | 1 | 5 | 5 | 55 |
| Surjit Nagar | 4 | 5 | 5 | 5 | 3 | 5 | 3 | 4 | 5 | 5 | 1 | 5 | 4 | 55 |
| Adarsh Nagar | 4 | 5 | 5 | 1 | 2 | 5 | 5 | 5 | 5 | 4 | 1 | 5 | 4 | 56 |
| Ajit Nagar | 3 | 5 | 1 | 5 | 5 | 5 | 5 | 5 | 1 | 5 | 1 | 5 | 5 | 56 |
| Amar Nagar | 4 | 5 | 1 | 5 | 5 | 5 | 5 | 5 | 5 | 4 | 1 | 5 | 5 | 56 |
| Daba | 2 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 2 | 1 | 5 | 5 | 56 |
| Indira Colony | 1 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 1 | 5 | 3 | 56 |
| Industrial Area | 4 | 5 | 5 | 5 | 3 | 5 | 4 | 5 | 5 | 1 | 1 | 5 | 3 | 56 |
| Moti Nagar | 3 | 1 | 5 | 5 | 4 | 5 | 5 | 5 | 5 | 2 | 1 | 5 | 5 | 56 |
| Murad Pura | 4 | 1 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 4 | 1 | 5 | 5 | 56 |
| New Janta Nagar | 3 | 1 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 1 | 5 | 5 | 56 |
| New Punit Nagar | 3 | 1 | 5 | 1 | 5 | 5 | 5 | 5 | 5 | 5 | 1 | 5 | 5 | 56 |
| Punjabi Bagh | 1 | 5 | 5 | 3 | 5 | 5 | 5 | 5 | 5 | 5 | 1 | 1 | 5 | 56 |
| Amar Puri | 4 | 1 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 1 | 5 | 5 | 57 |
| Chander Lok Colony | 4 | 1 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 1 | 5 | 5 | 57 |
| Chander Nagar | 3 | 1 | 5 | 3 | 5 | 5 | 4 | 5 | 5 | 5 | 1 | 5 | 5 | 57 |
| Dhilon Colony | 2 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 3 | 1 | 5 | 5 | 57 |
| Guru Nanak Colony | 4 | 5 | 5 | 1 | 5 | 5 | 5 | 5 | 5 | 5 | 1 | 5 | 5 | 57 |
| Hargobind Nagar | 4 | 5 | 1 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 1 | 5 | 5 | 57 |
| Kundan Puri | 1 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 1 | 1 | 5 | 4 | 57 |
| Maan Nagar | 4 | 1 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 1 | 5 | 5 | 57 |
| Manohar Nagar | 4 | 5 | 5 | 1 | 4 | 5 | 5 | 5 | 5 | 2 | 1 | 5 | 5 | 57 |
| Mohindra Colony | 4 | 1 | 1 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 1 | 5 | 5 | 57 |
| New Bhagwan Nagar | 1 | 5 | 5 | 5 | 5 | 5 | 5 | 1 | 5 | 5 | 1 | 5 | 4 | 57 |
| Sant Nagar | 4 | 5 | 5 | 1 | 2 | 5 | 5 | 5 | 5 | 5 | 1 | 5 | 4 | 57 |

contd. table

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| Name Of the slum Colony | BPL | Envir- omental hazard | Electr- city | Sew- erage | Water logg- ing | Indi- dual- taps | Open defeca- tion | Indi- vidual toilets | Street lights | Garb- age collec- tion | SWD | App- roach road | % age of kutch housing | Water supply | Aggre. score |
|----------------------------|-----|-----------------------------|-----------------|---------------|-----------------------|------------------------|-------------------------|----------------------------|------------------|---------------------------------|-----|-----------------------|---------------------------------|-----------------|-----------------|
| Shera Colony | 2 | 5 | 5 | 1 | 5 | 5 | 5 | 5 | 5 | 5 | 1 | 3 | 5 | 5 | 57 |
| Ashok Nagar (B) | 1 | 1 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 1 | 5 | 5 | 5 | 58 |
| Azad Nagar | 2 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 4 | 1 | 5 | 5 | 1 | 58 |
| Baba Deep Singh Nagar | 1 | 1 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 1 | 5 | 5 | 5 | 58 |
| Basant Nagar | 2 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 4 | 1 | 5 | 5 | 1 | 58 |
| Durga Nagar | 1 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 1 | 5 | 5 | 1 | 58 |
| Hargobind Nagar | 4 | 5 | 1 | 5 | 4 | 5 | 5 | 5 | 5 | 4 | 1 | 5 | 4 | 5 | 58 |
| Kishore Nagar | 4 | 1 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 2 | 1 | 5 | 5 | 5 | 58 |
| L.I.G. Dugri | 2 | 5 | 5 | 5 | 5 | 5 | 5 | 4 | 5 | 1 | 1 | 5 | 5 | 5 | 58 |
| Maha Singh Nagar | 4 | 5 | 5 | 3 | 3 | 5 | 5 | 5 | 5 | 4 | 1 | 5 | 3 | 5 | 58 |
| Mauji Colony | 1 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 1 | 5 | 5 | 1 | 58 |
| Naginder Nagar | 1 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 1 | 1 | 5 | 5 | 5 | 58 |
| New Angad Colony | 1 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 1 | 5 | 5 | 1 | 58 |
| New Shakti Nagar | 2 | 5 | 5 | 5 | 5 | 4 | 5 | 5 | 5 | 5 | 1 | 1 | 5 | 5 | 58 |
| Satguru Nagar | 1 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 1 | 5 | 5 | 1 | 58 |
| Village Kulliewal | 4 | 1 | 5 | 5 | 2 | 5 | 5 | 5 | 5 | 5 | 1 | 5 | 5 | 5 | 58 |
| Jujhar Nagar | 4 | 5 | 5 | 3 | 5 | 5 | 5 | 5 | 5 | 5 | 1 | 5 | 5 | 1 | 59 |
| Santokh Nagar | 4 | 5 | 5 | 3 | 5 | 5 | 4 | 5 | 5 | 2 | 1 | 5 | 5 | 5 | 59 |
| Gurpal Nagar | 2 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 1 | 5 | 5 | 1 | 59 |
| Guru Gobind | 2 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 1 | 5 | 5 | 1 | 59 |
| Harkishan Nagar | 3 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 4 | 1 | 5 | 5 | 1 | 59 |
| Karol Bagh | 2 | 1 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 1 | 5 | 5 | 5 | 59 |
| Muslim Colony | 4 | 1 | 5 | 3 | 5 | 5 | 5 | 5 | 5 | 5 | 1 | 5 | 5 | 5 | 59 |
| Nanaksar | 2 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 1 | 5 | 5 | 1 | 59 |
| New Krishna Nagar | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 1 | 3 | 5 | 1 | 59 |
| Puneet Nagar | 2 | 5 | 5 | 1 | 5 | 5 | 5 | 5 | 5 | 5 | 1 | 5 | 5 | 5 | 59 |
| Ravindra Nagar | 2 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 1 | 5 | 5 | 1 | 59 |
| Satkar Nagar | 2 | 1 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 1 | 5 | 5 | 5 | 59 |
| Suraj Nagar | 2 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 1 | 5 | 5 | 1 | 59 |
| Gobindsar | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 1 | 5 | 4 | 1 | 60 |
| Ashok Nagar (A) | 3 | 1 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 1 | 5 | 5 | 5 | 60 |
| Hargobind Nagar | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 1 | 1 | 4 | 5 | 60 |
| Indra Puri | 2 | 5 | 5 | 5 | 5 | 5 | 4 | 5 | 5 | 5 | 1 | 5 | 3 | 5 | 60 |
| Janta Colony | 3 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 1 | 5 | 1 | 5 | 5 | 5 | 60 |
| Maha Partap Singh Nagar | 3 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 1 | 1 | 5 | 5 | 5 | 60 |

contd. table

| Name Of the slum Colony | BPL | Envir- omental hazard | Electr- city | Sew- erage | Water logg- ing | Indi- dual- taps | Open defeca- tion | Indi- vidual lights | Street | Garb- age collec- tion | SWD | App- roach road | % age of kutch housing | Water supply | Aggre. score |
|----------------------------|-----|-----------------------------|-----------------|---------------|-----------------------|------------------------|-------------------------|---------------------------|--------|---------------------------------|-----|-----------------------|---------------------------------|-----------------|-----------------|
| Mair Colony | 3 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 1 | 5 | 5 | 1 | 60 |
| Manjit Nagar | 3 | 1 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 1 | 5 | 5 | 5 | 60 |
| Shimla Puri (1) | 3 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 1 | 5 | 5 | 1 | 60 |
| Shimla Puri (2) | 3 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 1 | 5 | 5 | 1 | 60 |
| Arjun Nagar | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 1 | 5 | 5 | 1 | 61 |
| Baba Mukand Nagar | 4 | 1 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 1 | 5 | 5 | 5 | 61 |
| Bhatha Bhagat Singh | 4 | 1 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 1 | 5 | 5 | 5 | 61 |
| Bhoura Village | 4 | 1 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 1 | 5 | 5 | 5 | 61 |
| Chander Nagar | 4 | 1 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 1 | 5 | 5 | 5 | 61 |
| Fauji Colony | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 3 | 1 | 3 | 5 | 5 | 61 |
| Friends Colony | 1 | 5 | 5 | 5 | 4 | 5 | 5 | 5 | 5 | 5 | 1 | 5 | 5 | 5 | 61 |
| Gurmail Park | 2 | 5 | 5 | 3 | 5 | 5 | 5 | 5 | 5 | 5 | 1 | 5 | 5 | 5 | 61 |
| Kirti Nagar | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 1 | 1 | 5 | 5 | 5 | 61 |
| New Kailash Nagar | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 1 | 1 | 5 | 5 | 5 | 61 |
| New Subash Nagar | 1 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 1 | 5 | 4 | 5 | 61 |
| Prem Nagar | 4 | 1 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 1 | 5 | 5 | 5 | 61 |
| Ramdit Nagar | 4 | 5 | 5 | 1 | 5 | 5 | 5 | 5 | 5 | 5 | 1 | 5 | 5 | 5 | 61 |
| Rishi Nagar F (Y) | 4 | 5 | 5 | 1 | 5 | 5 | 5 | 5 | 5 | 5 | 1 | 5 | 5 | 5 | 61 |
| Sant Fateh Singh Nagar | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 1 | 5 | 5 | 1 | 61 |
| Guru Gobind Singh Nagar | 1 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 1 | 5 | 5 | 5 | 62 |
| Kartar Nagar | 1 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 1 | 5 | 5 | 5 | 62 |
| Krishan Vihar | 1 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 1 | 5 | 5 | 5 | 62 |
| Nirankari Mohalla | 2 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 4 | 5 | 5 | 5 | 1 | 62 |
| Ram Nagar | 1 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 1 | 5 | 5 | 5 | 62 |
| Subash Ngar | 1 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 1 | 5 | 5 | 5 | 62 |
| Azad Nagar | 4 | 5 | 5 | 3 | 5 | 5 | 5 | 5 | 5 | 5 | 1 | 5 | 5 | 5 | 63 |
| Dashemesh Nagar | 3 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 4 | 1 | 63 |
| Fateh Garh Mohalla | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 3 | 1 | 5 | 5 | 5 | 63 |
| Guru Amar Dass | 4 | 5 | 5 | 5 | 4 | 5 | 5 | 5 | 5 | 5 | 1 | 5 | 4 | 5 | 63 |
| Hargobind Nagar | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 3 | 1 | 5 | 5 | 5 | 63 |
| New Manjit Nagar | 3 | 5 | 5 | 5 | 4 | 5 | 5 | 5 | 5 | 5 | 1 | 5 | 5 | 5 | 63 |
| Sarwan Park | 2 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 1 | 5 | 5 | 5 | 63 |

contd. table

| Name Of the slum Colony | BPL | Envir- omental hazard | Electr- city | Sew- erage | Water logg- ing | Indi- dual taps | Open defeca- tion | Indi- vidual toilets | Street lights | Garb- age collec- tion | SWD | App- roach road housing | % age of supply kutchra | Water Aggre. score |
|-------------------------|-----|-----------------------------|-----------------|---------------|-----------------------|-----------------------|-------------------------|----------------------------|------------------|---------------------------------|-----|----------------------------------|-------------------------------|--------------------------|
| Atal Nagar | 3 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 1 | 5 | 5 | 64 |
| E.W.S Colony | 4 | 5 | 5 | 5 | 5 | 5 | 4 | 5 | 5 | 5 | 1 | 5 | 5 | 64 |
| Habib Nagar | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 1 | 5 | 4 | 64 |
| Jawahar Nagar | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 1 | 5 | 4 | 64 |
| Makkar Colony | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 1 | 5 | 4 | 64 |
| Sant Pura | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 1 | 5 | 4 | 64 |
| Anand Puri | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 1 | 5 | 5 | 65 |
| Fauji Mohalla | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 1 | 5 | 5 | 65 |
| Iqbal Nagar | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 1 | 5 | 5 | 65 |
| Jamalpur L.I.G | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 1 | 5 | 5 | 65 |
| Jammu Colony | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 1 | 5 | 5 | 65 |
| Kabir Basti | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 1 | 5 | 5 | 65 |
| Pavitar Nagar | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 1 | 5 | 5 | 65 |
| Pritam Nagar | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 1 | 5 | 5 | 65 |
| Red Quarter | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 1 | 5 | 5 | 65 |
| Vishkarma Town | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 1 | 5 | 5 | 65 |
| White Quarter | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 1 | 5 | 5 | 65 |

TABLE 6: DISTRIBUTION OF SLUMS/SQUATTER SETTLEMENTS ACCORDING TO THEIR DEGREE OF VULNERABILITY BASED ON TOTAL AGGREGATED SCORES

| Degree of Vulnerability | No. of slums | Per cent |
|---------------------------|--------------|----------|
| Extreme vulnerability* | 11 | 5.3 |
| High vulnerability** | 45 | 21.5 |
| Moderate vulnerability*** | 57 | 27.3 |
| Low vulnerability**** | 96 | 45.9 |
| Total | 209 | 100.0 |

Note:

- * Slums falling in the category of Extreme Deprivation/Vulnerability indicate the colonies falling in the lowest range with the aggregated score between 15 to 30.
- ** Slums falling in the category of High Deprivation/Vulnerability indicate the colonies falling in the range with the aggregated score between 31 to 48.
- *** Slums falling in the category of Moderate Deprivation/Vulnerability indicate the colonies falling in the range with the aggregated score between 49-56.
- **** Slums falling in the category of low Deprivation are the least vulnerable colonies falling above the aggregated score of 56.

The table given above (Table 6) distributes 209 slums into four categories on the basis of their deprivation which has been arrived at by their aggregated score on the vulnerability matrix (based on housing, basic services, percentage of BPL households and hazardous location). It revealed that 11 slum colonies emerged as

extremely vulnerable and 45 as highly vulnerable. The remaining 57 and 96 slums/squatter settlements were moderate or low on vulnerability.

Table 7 reveals the names of 11 extremely deprived and 45 highly vulnerable slums on the Vulnerability Matrix. In the first phase, government should accord priority to these 56 slum colonies.

TABLE 7: LIST OF EXTREMELY VULNERABLE AND HIGHLY VULNERABLE SLUMS/SQUATTER SETTLEMENTS

| <i>Extremely Vulnerable Slums</i> | | <i>Highly Vulnerable Slums</i> | | | |
|-----------------------------------|--------------------------|--------------------------------|-----------------------------|---------------|----------------------------|
| <i>Sr No.</i> | <i>Colony name</i> | <i>Sr No.</i> | <i>Colony name</i> | <i>Sr No.</i> | <i>Colony name</i> |
| 1. | Jamuna Colony | 1. | Bihari Colony Ind. Area | 24 | Gulabi Bagh |
| 2. | Kichlu Nagar | 2. | Sigligarh | 25 | Ishar Ngar |
| 3. | Labour Colony (jamalpur) | 3. | Mata Dhud Kursi | 26 | Islam Ganj |
| 4. | Jhugi Rockman | 4. | Ghora Colony | 27 | New Kirti Nagar |
| 5. | Jhugi Sarabha Nagar | 5. | Guru Har Rai Nagar | 28 | Prem Vihar |
| 6. | Longowal Colony | 6. | Indra Colony | 29 | Dhakka Colony (Jamalpur) |
| 7. | Love Kush Colony | 7. | Ravidass Pura | 30 | Grewal Colony |
| 8. | Jhugi Muskin | 8. | Bazigar Basti | 31 | Bhola Colony |
| 9. | Suneet Nagar | 9. | Luxmi Nagar | 32 | Mata Karam Kaur Colony |
| 10. | Rishi Nagar | 10. | Salem Tabri | 33 | Nanakpura |
| 11. | <i>Jhuggi Jassian</i> | 11. | Transport Nagar | 34 | Rajiv Gandhi |
| | | 12. | Banda Bahadur Nagar | 35 | Chet Singh Nagar (new) |
| | | 13. | Shaheed Karnail Singh Nagar | 36 | Namdev Colony |
| | | 14. | Bazigar Dera | 37 | New Lohara Colony |
| | | 15. | Jamalpur Awana | 38 | Preet Vihar |
| | | 16. | NewDana Mandi | 39 | Raju Colony |
| | | 17. | Dairy Complex | 40 | Sanjay Gandhi Colony |
| | | 18. | Dana Mandi | 41 | Shaheed Bhagat Singh Nagar |
| | | 19. | KWD Colony | 42 | Sukhdev Nagar |
| | | 20. | Lavkush Nagar | 43 | Jawand Vihar |
| | | 21. | New Partap Nagar | 44 | Rishi Nagar G (Y) |
| | | 22. | Valmiki Colony | 45 | Killa Mohalla |
| | | 23. | Amrit Colony | | |

Concluding Discussion: Future Directions

In spite of the international and the national promises made by the Government to safeguard the various rights of people, the existing system in the spheres of prevention and protection are not adequately geared towards solving the problem of adequate housing in a holistic and rights-based manner. Much remains to be done. The need of the hour is therefore to universalize affordable shelter and to begin with, the most vulnerable squatter settlements should be given priority. There

is a need to reinforce the policy framework to facilitate the process of slum improvement/upgradation or rehabilitation on a sustainable basis, by prioritizing the most vulnerable slums.

While planning for the proposed affordable housing, an integrated approach should be adopted with the convergence of various sectoral and departmental schemes on housing, poverty alleviation, education, health and sanitation, because they are all interrelated and interdependent. There is also a need to extend provisions for skill training and provide access to micro credit facilities to expand livelihood options, so that slum dwellers are no longer below the poverty line.

It is vital that everyone enjoys housing with access to essential civic amenities like, toilets, bathrooms, waste water outlets, etc. in addition to safe drinking water in conformity to the BSUP (Basic Services to the Urban Poor under JNNURM) norms. The government needs to focus on slums ranking high or extremely high on vulnerability scale, on priority.

Participation of several stakeholders such as ULBs, NGOs, CBOs and the community is fundamental for sustainable urban development. Providing security of land tenure and reviewing affordability of services for communities is vital. It is important to initiate low-cost and cost-effective service schemes and levy reasonable user charges after rationalization, for sustainability of sanitation programmes. It is also pertinent to promote sanitation awareness drives and community and household-level hygiene practices which should accompany investments in sanitation infrastructure, with special emphasis on the vulnerable slums.

It is important to ascertain effective linkages between asset creation and asset management so that the assets created are maintained efficiently and also become self-sustaining over time, which is one of JNNURM's targets. The mere creation of physical infrastructure will not result in usage by all, unless led by awareness campaigns on the importance of using toilets and other apposite hygiene practices. Sensitization on personal hygiene and the dangers of un-hygienic practices like open-field defecation, littering inside the municipal limits, etc. is pertinent. It is also vital to organize local clean-up days on a regular basis. Educating slum dwellers on issues like water, sanitation, clean environment and waste management is also a key step required to be taken.

There has to be participatory involvement of would-be users in the process of planning goals and strategies so that the schemes are user-friendly and need-based.

Capacity building of the poor must be an ongoing activity. Building individual and institutional capacities at the slum level is crucial to sustain the programme goals and free the people from total dependence on the government.

Thus poverty needs to be attacked through "empowerment" by strengthening the capability of the poor to take decisions, thereby guaranteeing the protection of their rights against unsafe habitats, illiteracy and disease.

Note

The present article is based on Task 11 report entitled 'Snapshot of slums in Ludhiana city' written by the author for the Project 'Urban Poverty Reduction Strategy' sponsored by GOI-UNDP entrusted to CRRID in 2007. The empirical data was collected through a snapshot survey of slums by CRRID team. The author acknowledges and thanks the Research Assistants who helped in the collection of data, especially Sh. Hans Lal and Sh. Kuldip Singh.

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