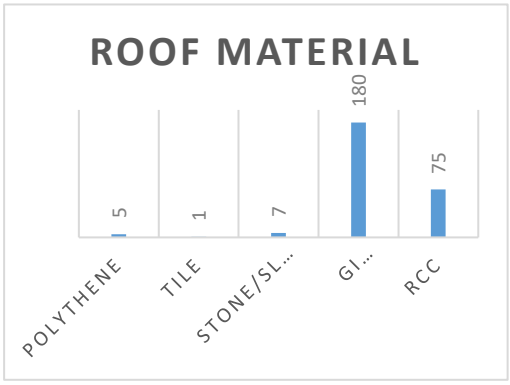
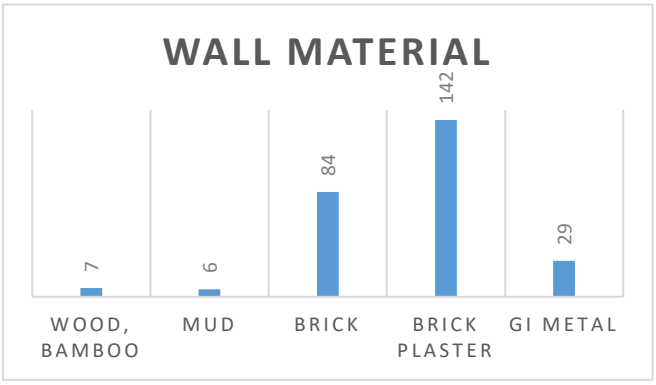
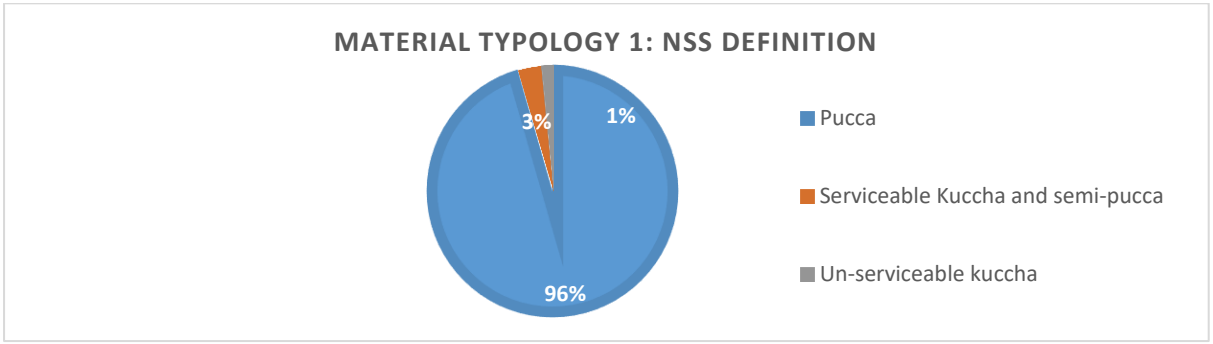
**ANNEXURE 6**

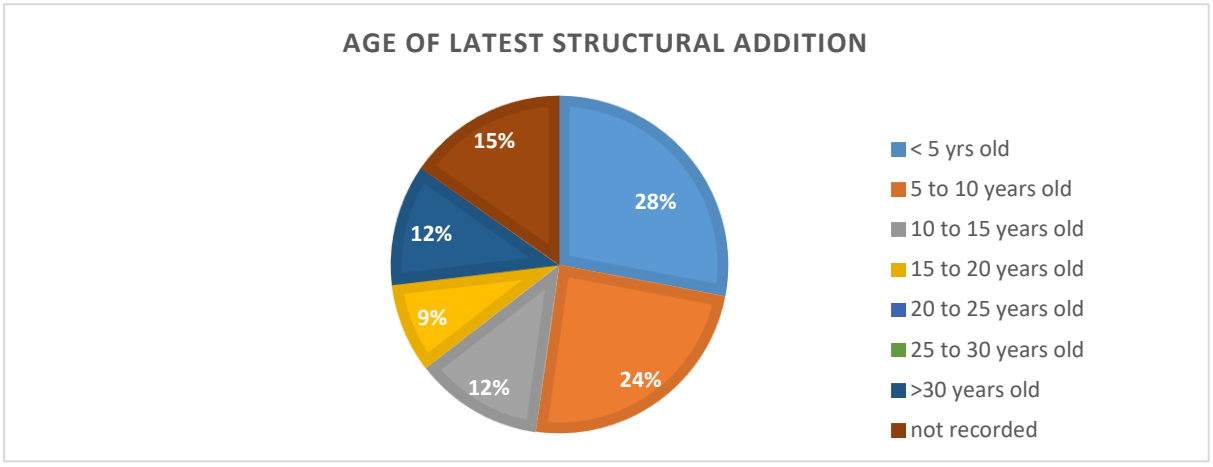
Each indicator, its sub-indicators, their score and weight ranges, and comparative baselines have been described below:

| Indicator I – Structural adequacy | | | | |
|---|---|---|---|---|
| Building level | | Rank | score | No. |
| Sub-indicator I: Building typology w.r.t material (def: Census and NSS) | Pucca | 1 | 3 | 256 |
| | Serviceable Kuccha and semi pucca | 2 | 2 | 8 |
| | Un-serviceable kuccha | 3 | 1 | 4 |
| | Range | 3 to 1 | | |
| | | | | |
| Sub-indicator II: Age of latest structural addition (range decided based on range of responses in data collected) | <= 05 yrs old | 1 | 7 | 75 |
| | >05 to <=10 years old | 2 | 6 | 65 |
| | >10 to <=15 years old | 3 | 5 | 33 |
| | >15 to <=20 years old | 4 | 4 | 23 |
| | >20 to <=25 years old | 5 | 3 | 0 |
| | >25 to <=30 years old | 6 | 2 | 0 |
| | >30 years old | 7 | 1 | 31 |
| | Not recorded | 8 | x | 41 |
| | Range | 7 to 1 | | |
| Structural Adequacy Sub-indicator I + II | | Score Range [(3 to 1) + (7 to 1)] = 10 to 2 | | |

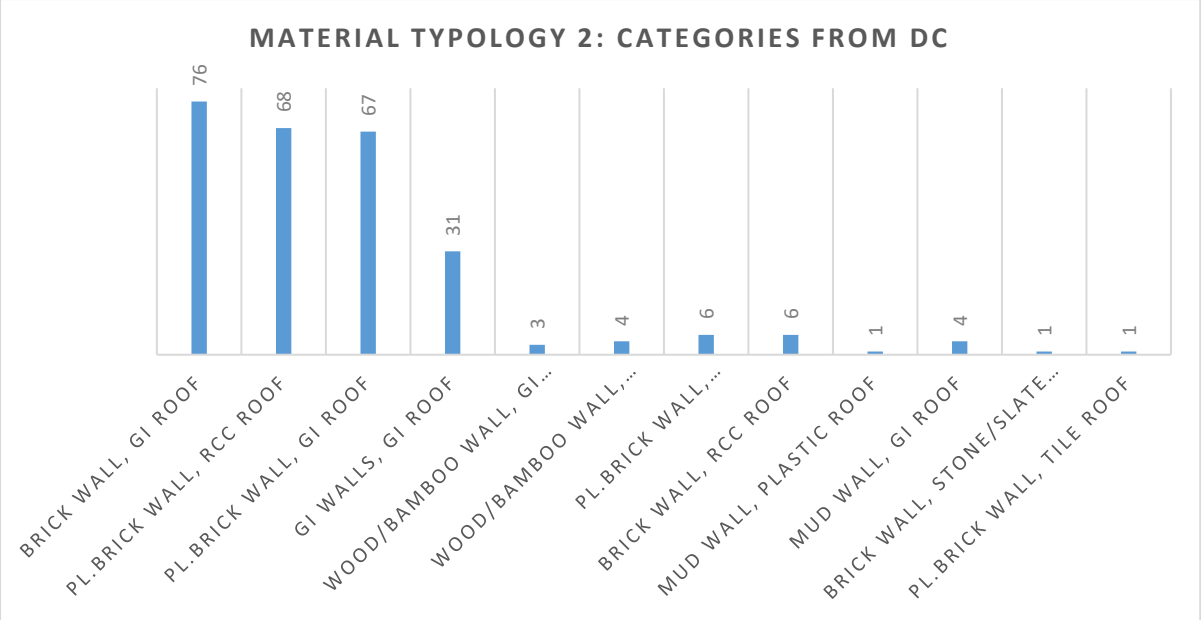


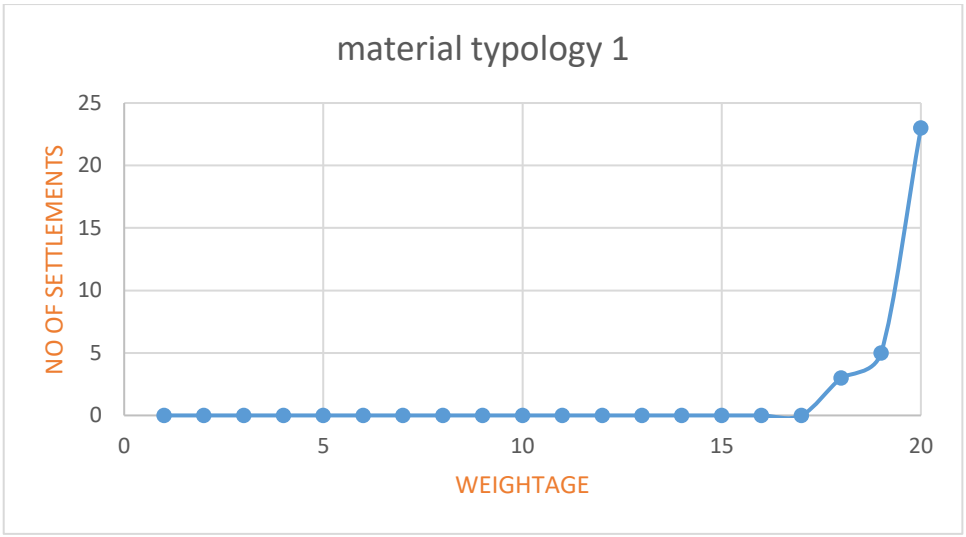



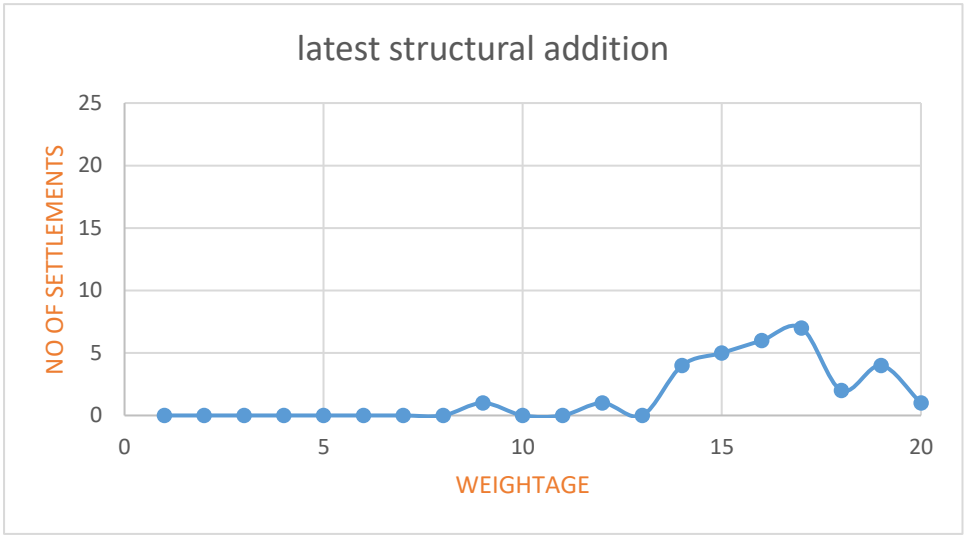

The above graphs show the distribution of 269 households across scores within each of the two sub-indicators. They show that while 96% of the structures fall under the *pucca* category of material typology, the age of latest structural addition varies substantially, however, with 73% of structures having reported a structural addition in the last 20 years.

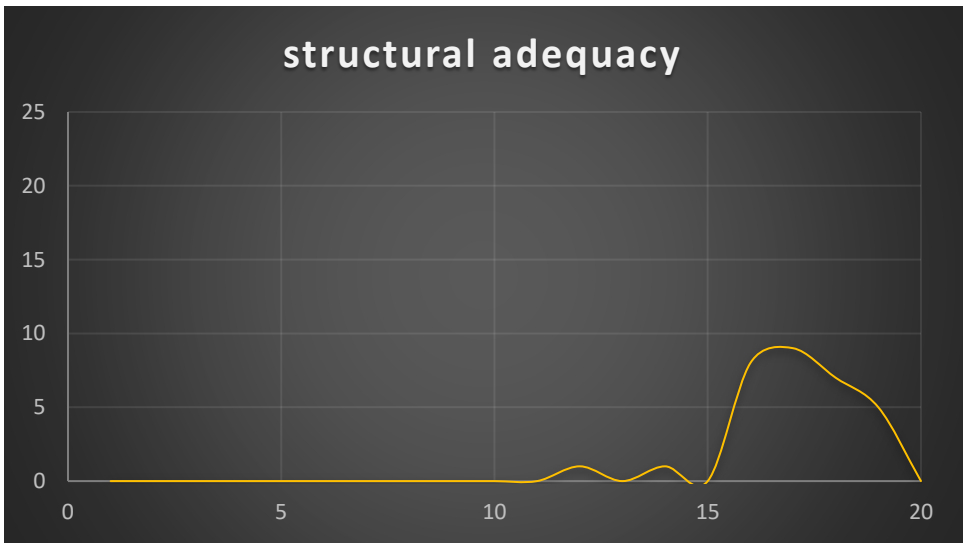



The above data representation of Material Typology 2 shows the distribution of structures across material constituencies broken down beyond the pucca, kuccha and semi-pucca categories to understand the variation. Material typology 2, thus substantiated, shows that there are 12 different combinations of roof and wall materials in the data collected.

The above graphs show the distribution of settlements across different weights in the range of 1-20 for structural adequacy and its sub-indicators.



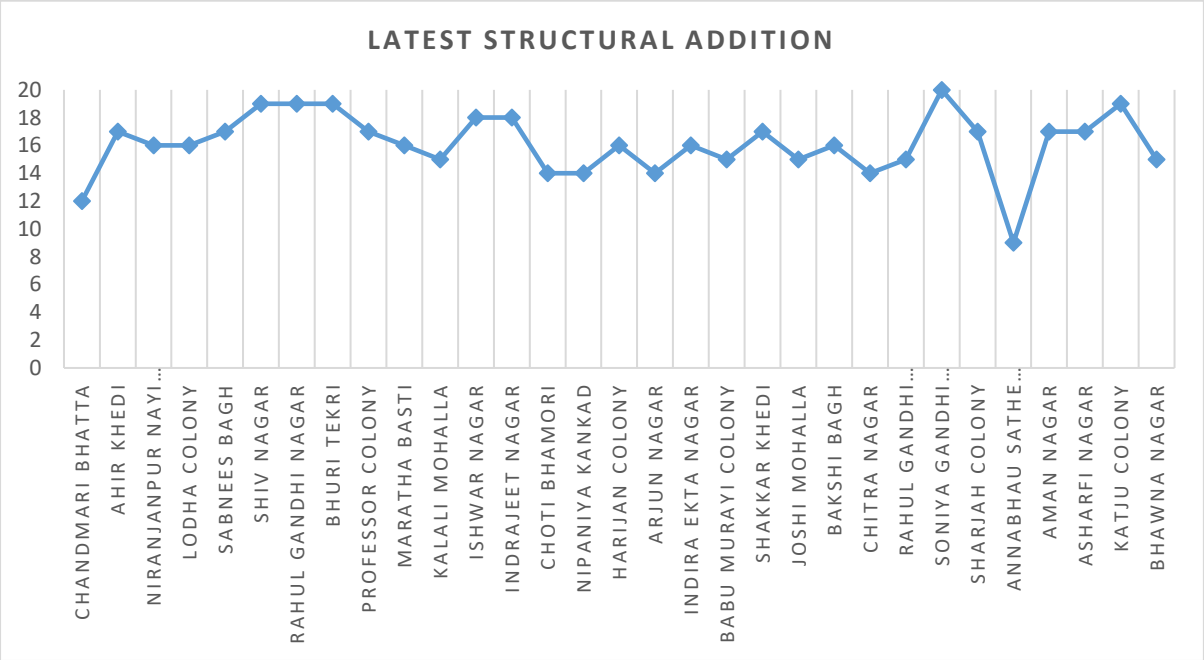



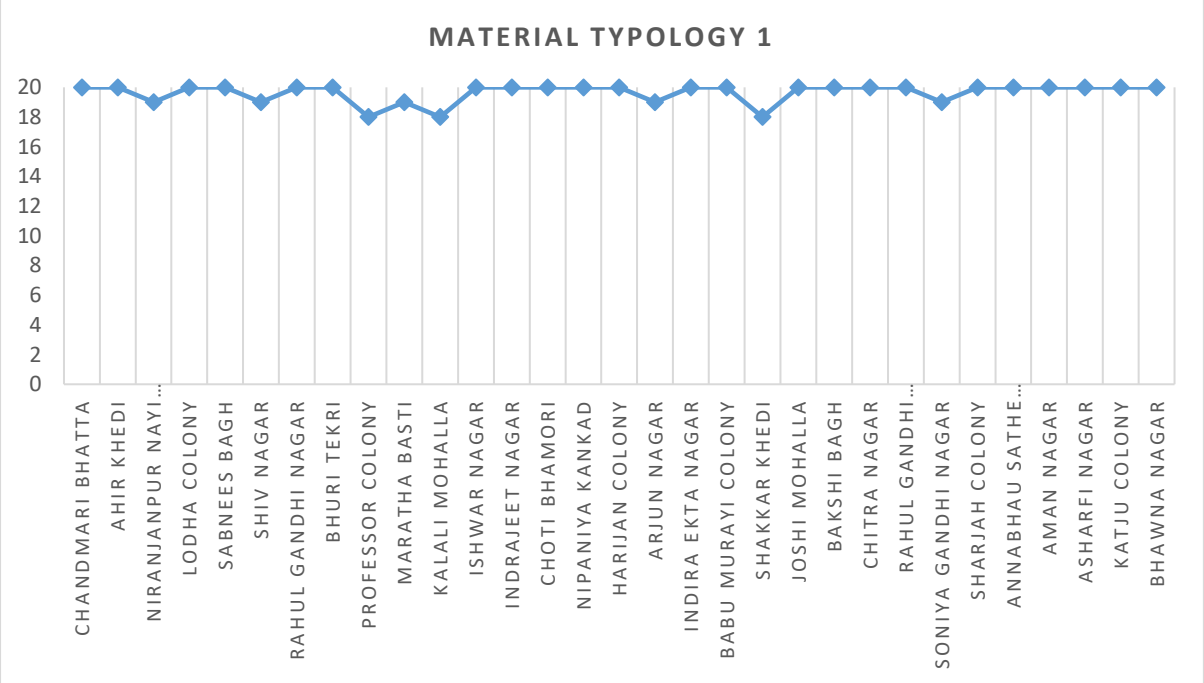



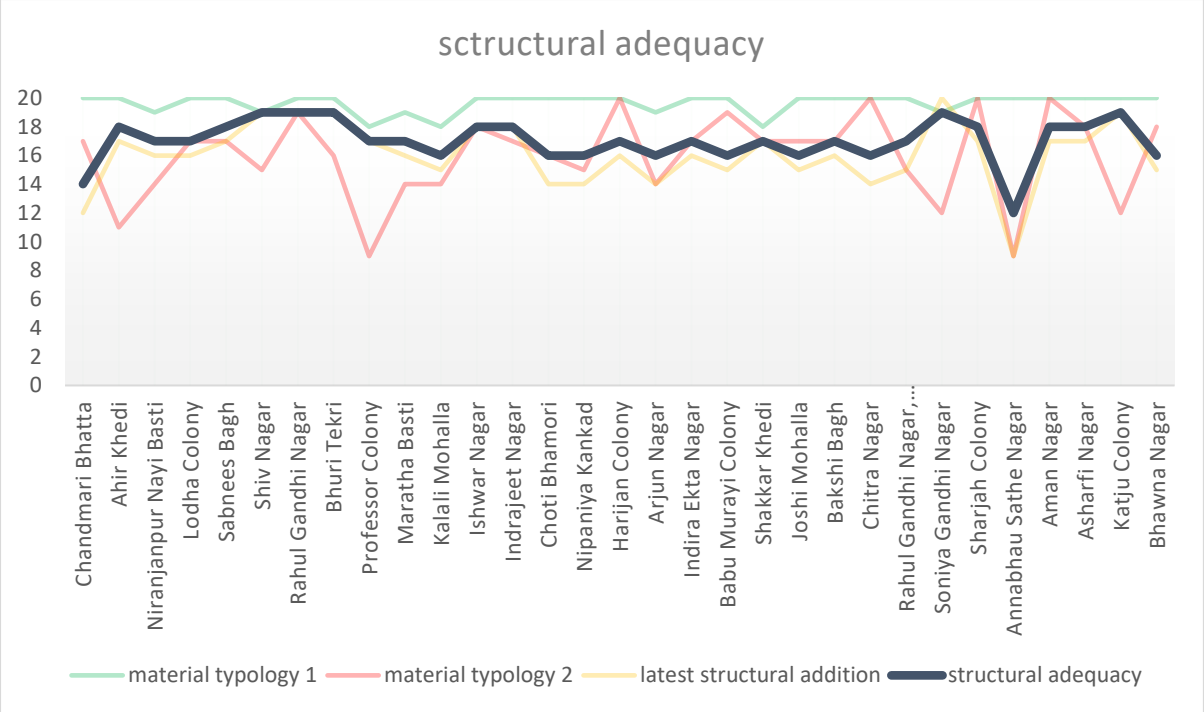

From the above it can be seen that

- 28 settlements are plotted at 19 and above in material typology with the highest concentration of 23 at 20.
- 25 settlements are plotted at 15 and above in latest structural addition with the highest concentration of 8 at 17.
- 29 settlements are plotted at 16 and above in structural adequacy with the highest concentration of 9 at 17.

The first two charts below plot each of the 31 settlements on a scale of 1-20 for each sub indicator. The third graph plots the sub-indicators and indicators together.






From the above representations it can be seen that there is no direct relationship between material typology (as categorized here) and the age of latest structural addition.

Annabhau Sathe Nagar, Professor Colony and Ahir Khedi score lowest in age of latest structural addition (i.e. longer ages of latest structural addition), whereas all these settlements, other than Professor Colony, are seen to have predominantly pucca structures.

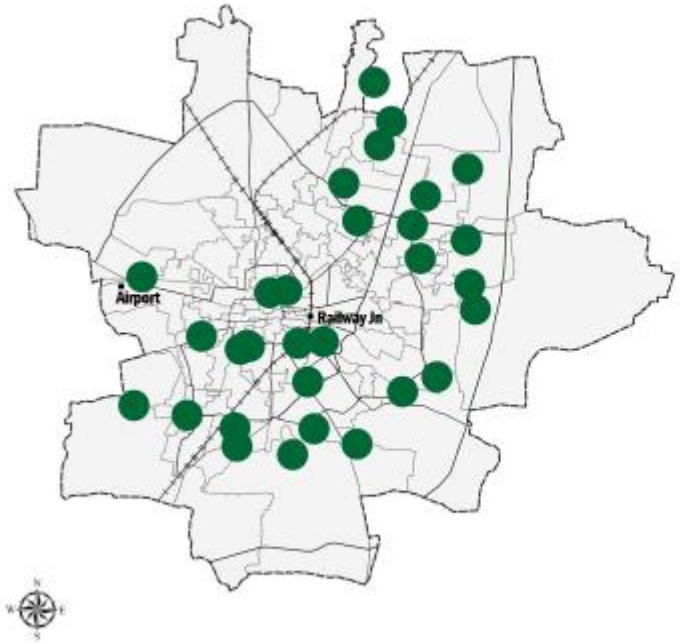
According to material typology 2 categories, these are the only settlements where half or more structures out of the sample have GI sheet for both wall and roof. Whether this implies a higher durability of this material or the income status of the families (noting the lower cost of GI sheet compared to brick and RCC) cannot be inferred from the data collected.

A few more observations related to material typology 2 are as follows:

- 53% of 269 structures are built of brick walls and GI sheet roof
- 25% structures are built of brick walls and RCC roof.

The following maps show the spatial distribution of settlements marked according to their respective structural adequacy indicator weights divided into 5 increments.

## Indore
## Material Typology

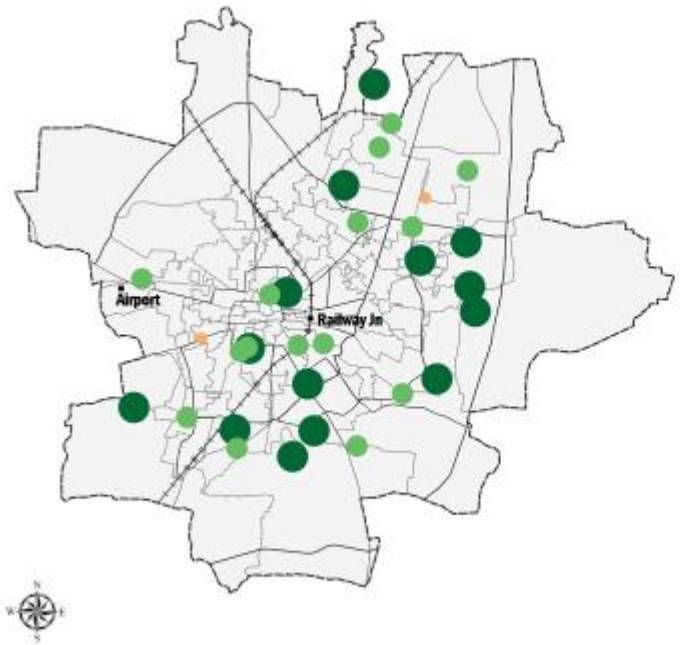



Legend
- Roads
- Railway Line
- Ward boundary
- Municipal Corporation Boundary

Index
- 1
- 2
- 3
- 4
- 5

Map not to scale
Source(s): IMC,2015;OSM,2019; Census,2011; YUVA-IIHS Analysis, 2018

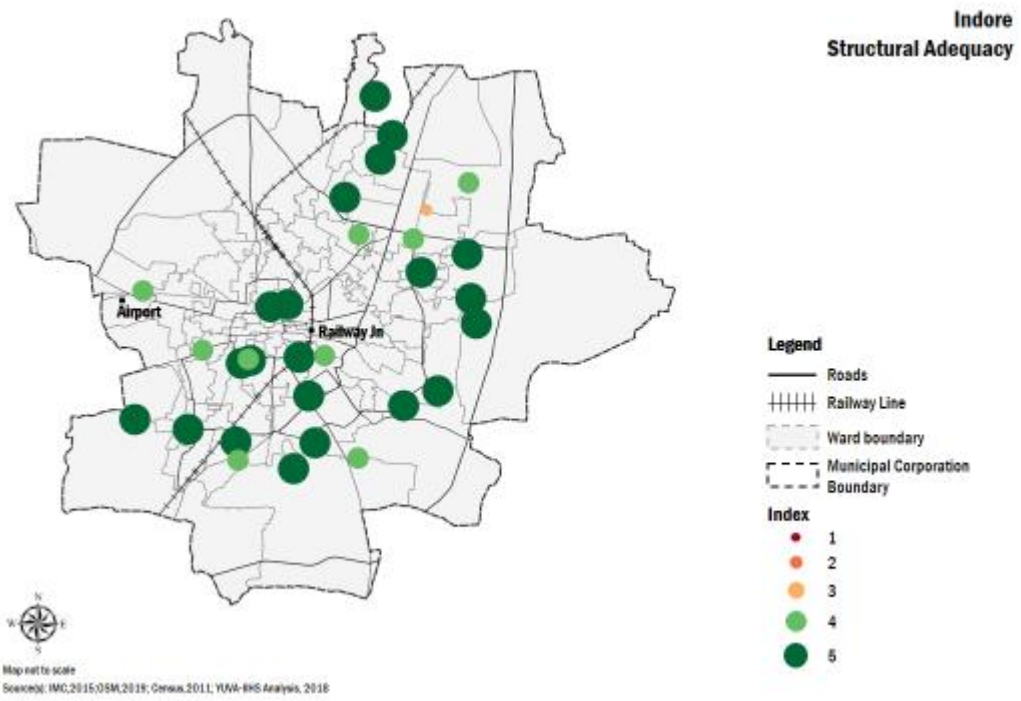
## Indore
## Latest Addition




Legend
- Roads
- Railway Line
- Ward boundary
- Municipal Corporation Boundary

Index
- 1
- 2
- 3
- 4
- 5

Map not to scale
Source(s): IMC,2015;OSM,2019; Census,2011; YUVA-IIHS Analysis, 2018




Notes:

Structural adequacy has been measured using two sub-indicators – material typology and age of latest structural addition.

The range for material typology has been referred from the typologies categorized under the 69th round of the National Sample Survey (NSS). The range for age of latest structural addition has been fixed between the lowest and highest values from data collected.

The data shows that while 96% of the structures fall under the *pucca* category of material typology, the age of latest structural addition varies substantially, however, with 73% of structures having reported a structural addition in the last 20 years.

Additional scope:

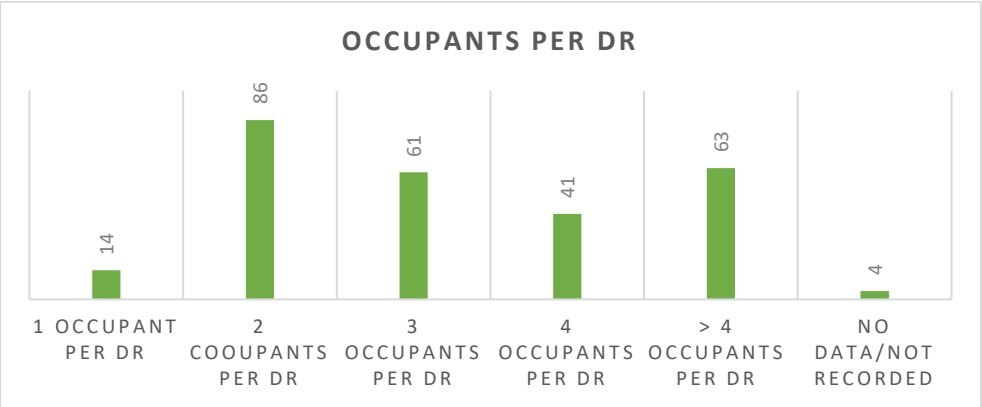
These typologies can further be understood in terms of cost of material, life-cycle of material and weather resistance.

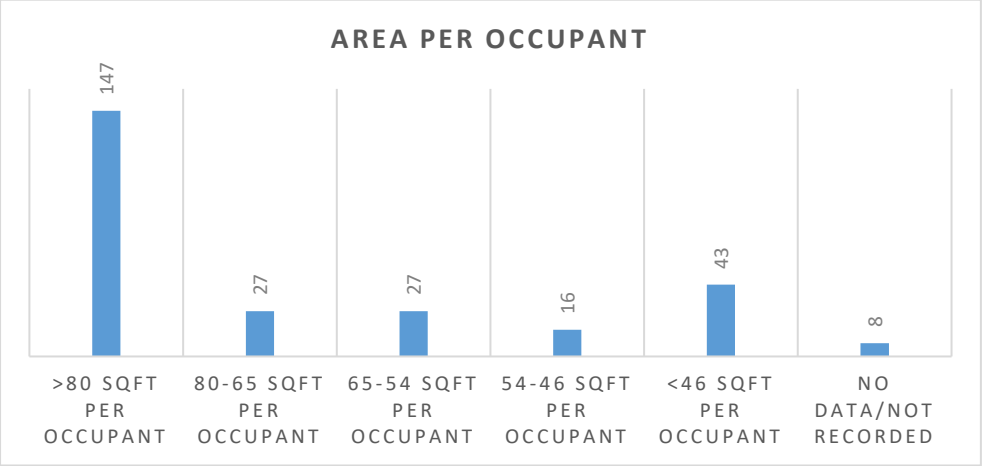
Limitations:

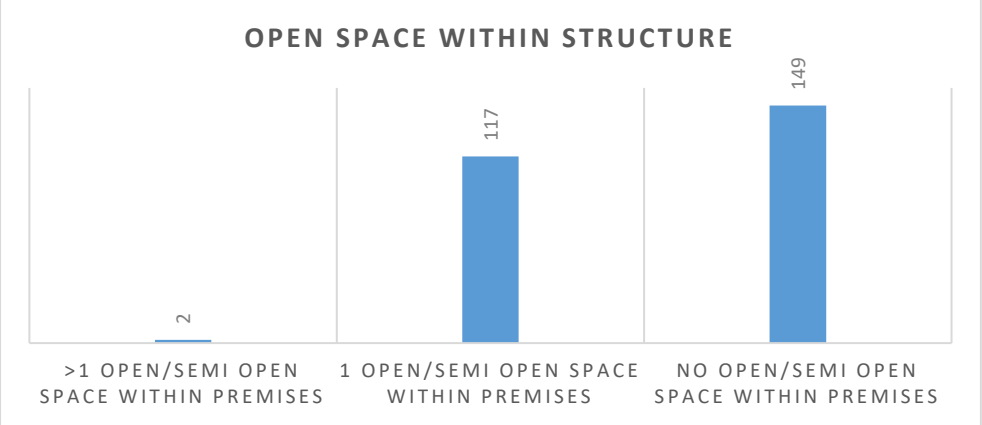
Data does not include the timeline of construction in terms of change of material, structural and utility additions in its lifetime, and repair. This information may add to structural adequacy and the reading of variation of age of structural addition across settlements.

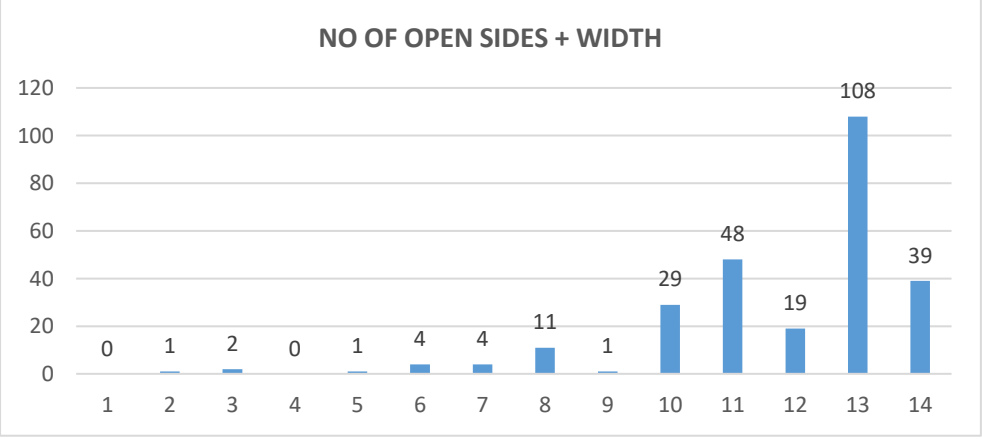
| INDICATOR II - Spatial adequacy | | | | |
|---|---|---|---|---|
| Building level | | Ranking | Wtg | |
| Indicator I: Occupants per Dwelling Room (DR) Range decided by taking HH size as 4 | 1 occupant per DR | 1 | 5 | 14 |
| | 2 cooupants per DR | 2 | 4 | 86 |
| | 3 occupants per DR | 3 | 3 | 61 |
| | 4 occupants per DR | 4 | 2 | 41 |
| | > 4 occupants per DR | 5 | 1 | 63 |
| | No Data/not recorded | 6 | X | 4 |
| | Range | 5 to 1 | | |
| | | | | |
| Indicator II: Floor area per occupant (sqft) Range: Considering 320sqft per HH and HH size as 4 | >80 sqft per occupant | 1 | 5 | 147 |
| | 80-65 sqft per occupant | 2 | 4 | 27 |
| | 65-54 sqft per occupant | 3 | 3 | 27 |
| | 54-46 sqft per occupant | 4 | 2 | 16 |
| | <46 sqft per occupant | 5 | 1 | 43 |
| | No Data/not recorded | 6 | X | 8 |
| | Range | 5 to 1 | | |
| | | | | |
| Indicator III: Open/semi open space within premises Range – proposed by study | >1 open/semi open space within premises | 1 | 3 | 2 |
| | 1 open/semi open space within premises | 2 | 2 | 117 |
| | No open/semi open space within premises | 3 | 1 | 149 |
| | Range | 3 to 1 | | |
| | | | | |
| Indicator IV: Open side + width Range – proposed by study | > 2 open sides of >6ft width | 1 | 4 | 7 |
| | 2 open sides of >6ft width | 2 | 3 | 35 |
| | 1 open side of >6ft width | 3 | 2 | 167 |
| | No open side of >6ft width | 4 | 1 | 59 |
| | Range | 4 to 1 | | |
| Settlement level | | | | |
| Indicator V: settlement density Range: URDPFI guidelines for density of low income housing | <=65 structures per hectare | 1 | 3 | 7 |
| | >65 to <=120 structures per hectare | 2 | 2 | 5 |
| | >120 structures per hectare | 3 | 1 | 19 |
| | Range | 3 to 1 | | |
| Spatial adequacy sub-indicator I+II+III+IV+V | | Range: [(5 to 1)+(5 to 1)+(3 to 1)+(4 to 1)+(3 to 1)] = 20 to 5 | | |

The data representation below shows distribution of 269 households across scores within sub-indicators I to IV

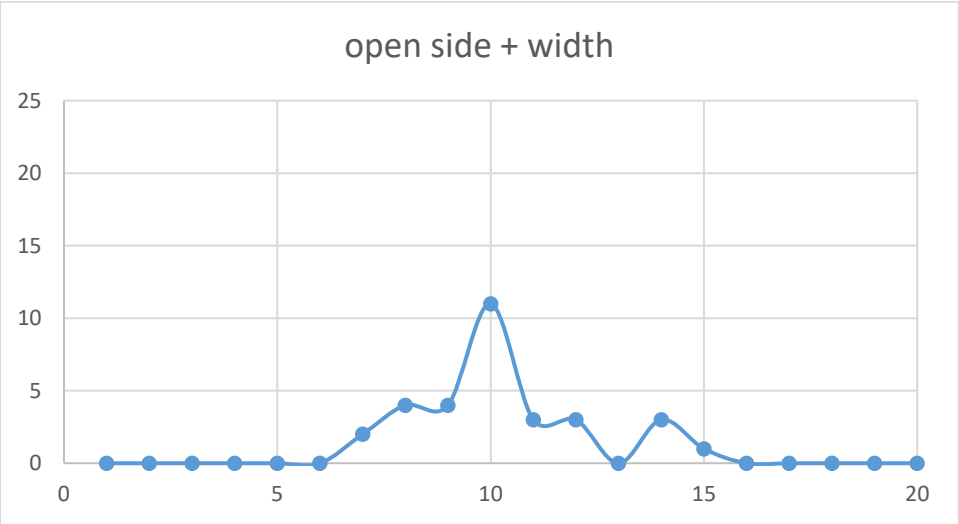


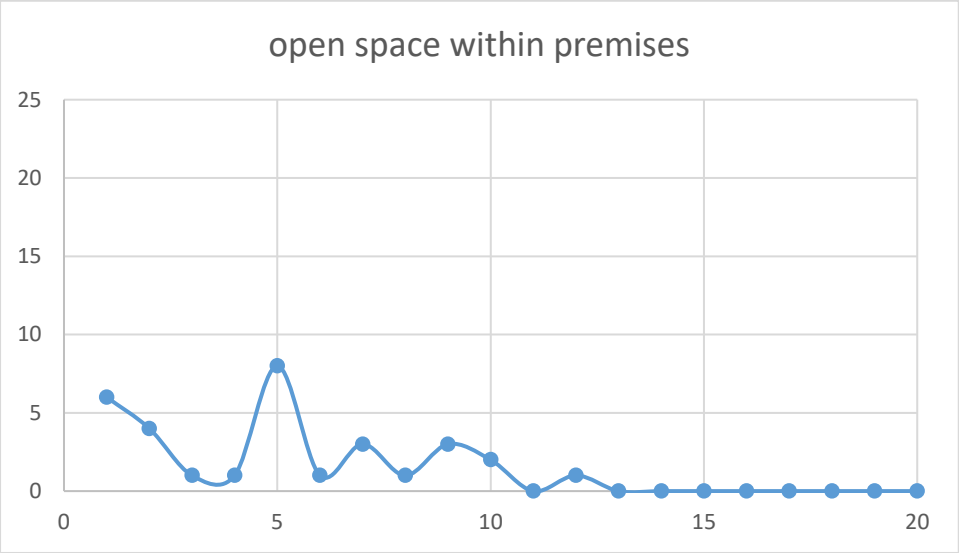



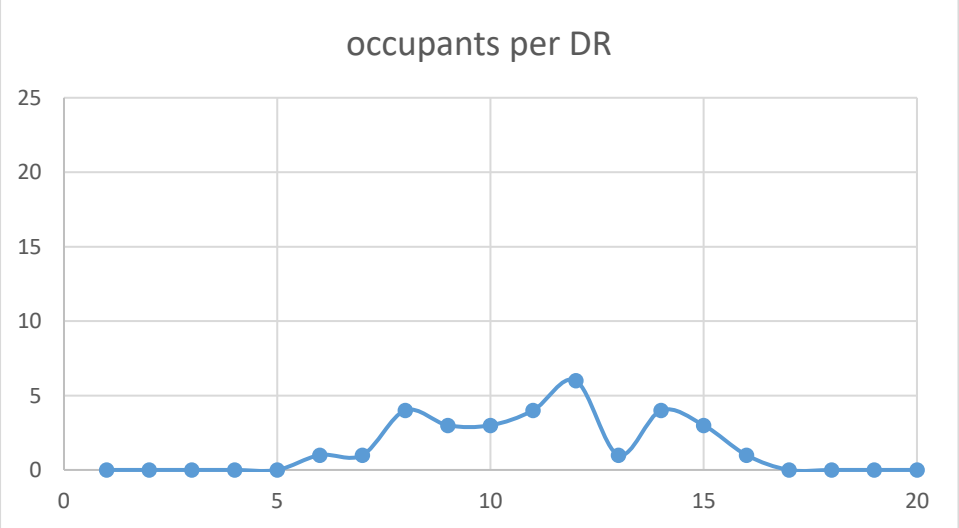



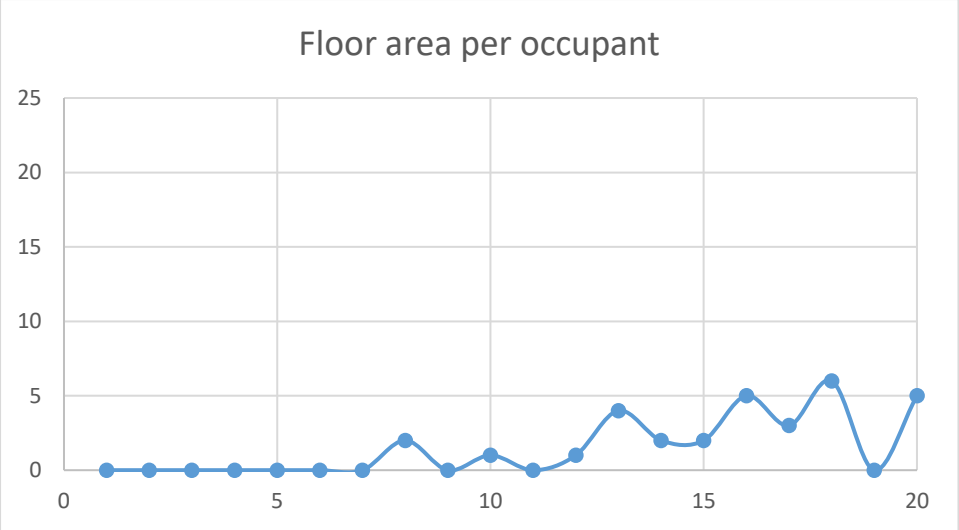



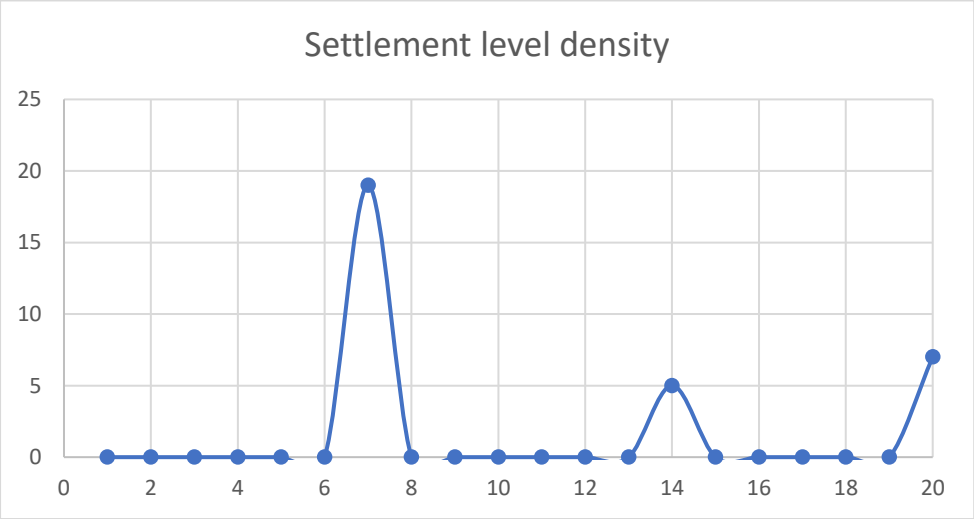
The following graphs show the distribution of settlements across different weights in the range of 1-20 for spatial adequacy and its sub-indicators.

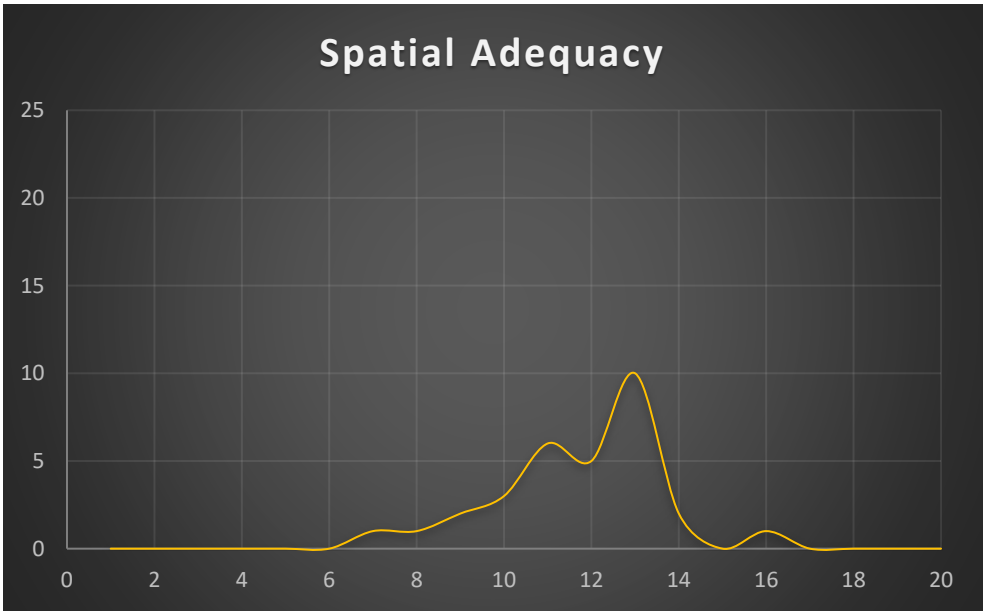


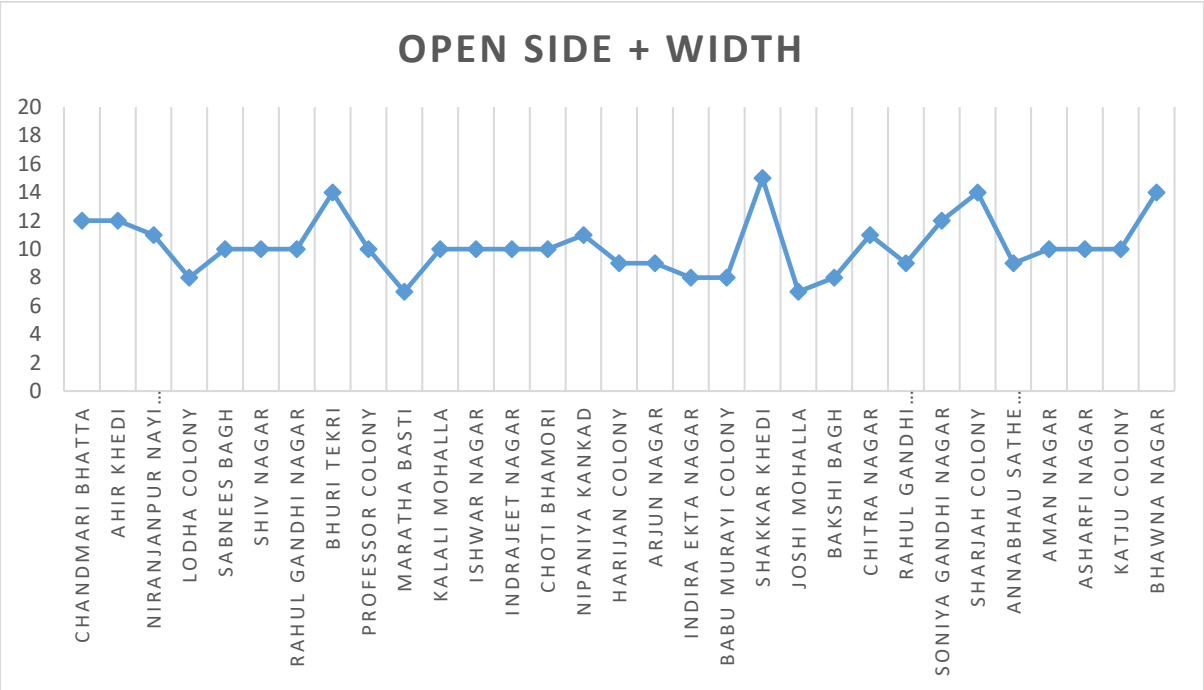



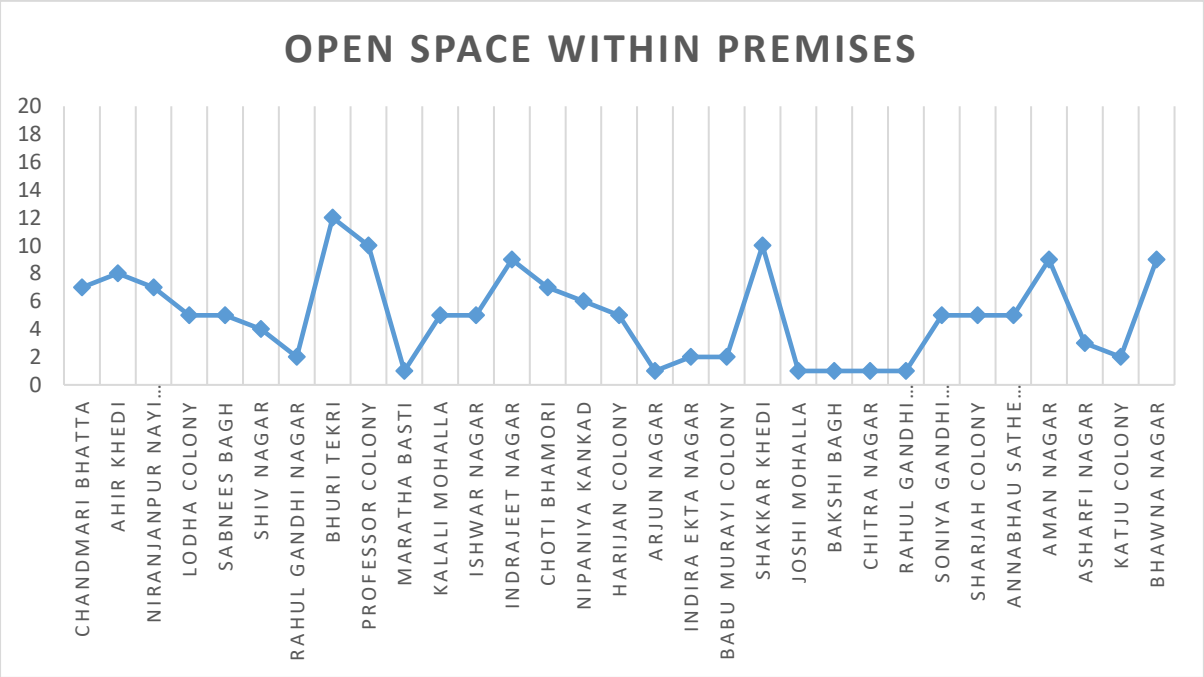

Floor area per occupant
25
20
15
10
5
0
0
5
10
15
20

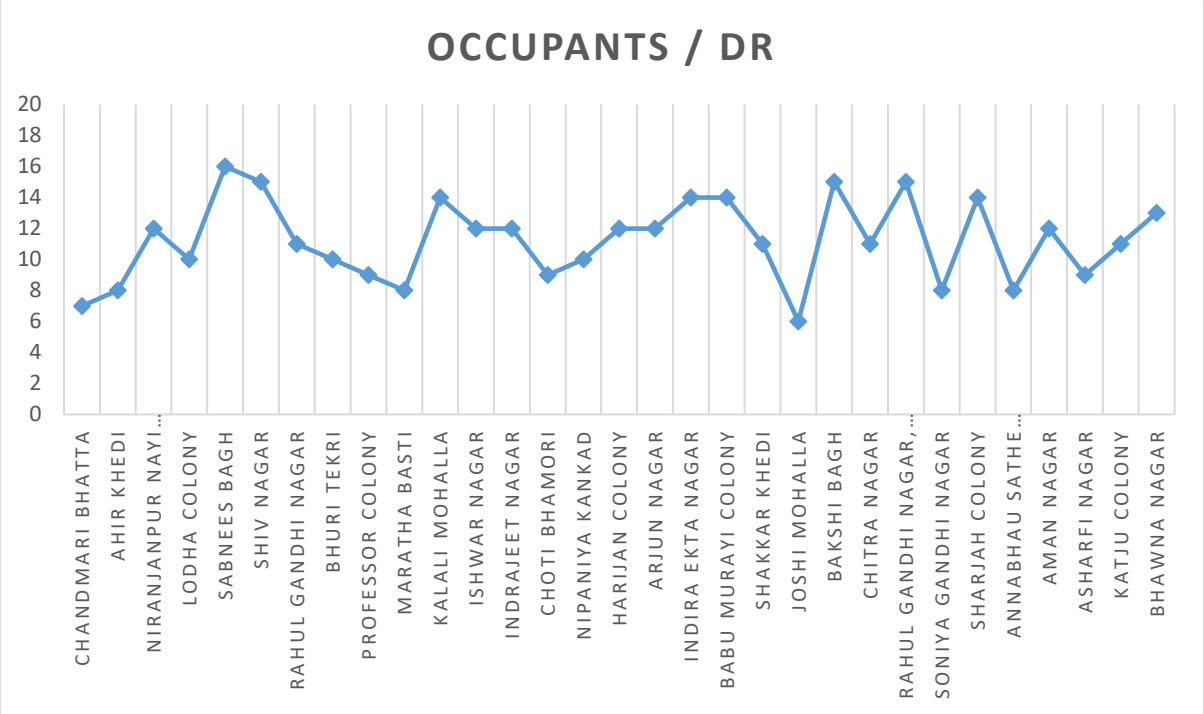

Settlement level density
25
20
15
10
5
0
0
2
4
6
8
10
12
14
16
18
20

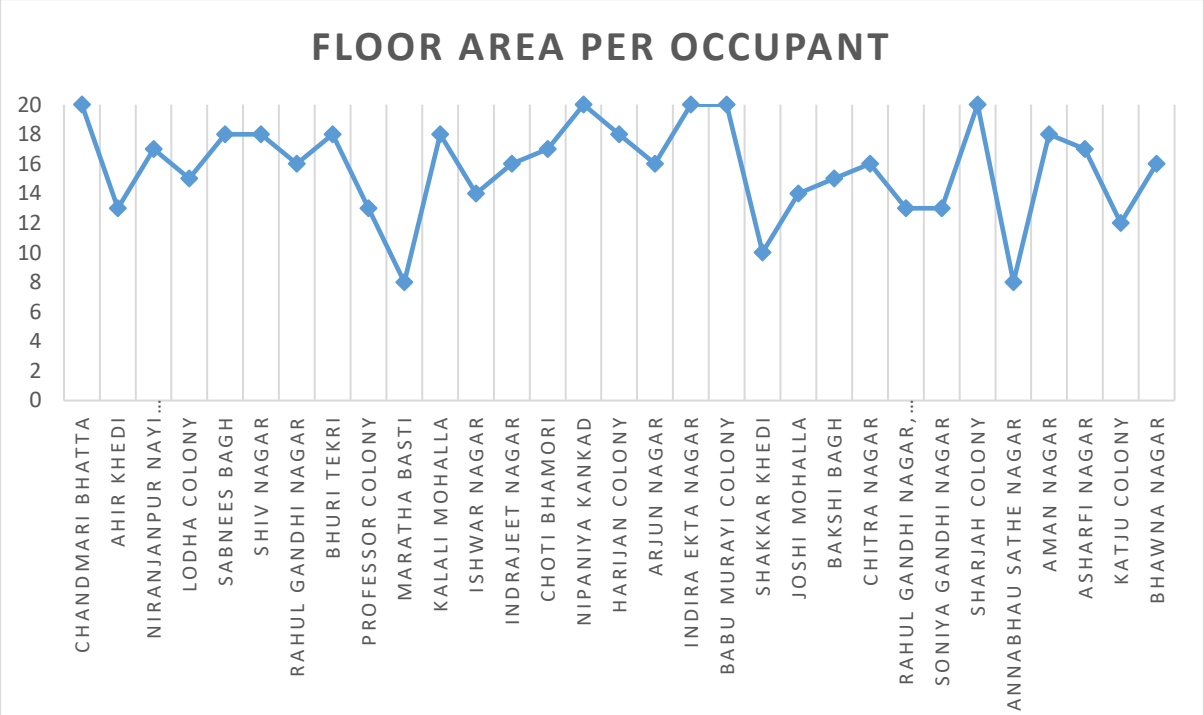

Spatial Adequacy
25
20
15
10
5
0
0
2
4
6
8
10
12
14
16
18
20

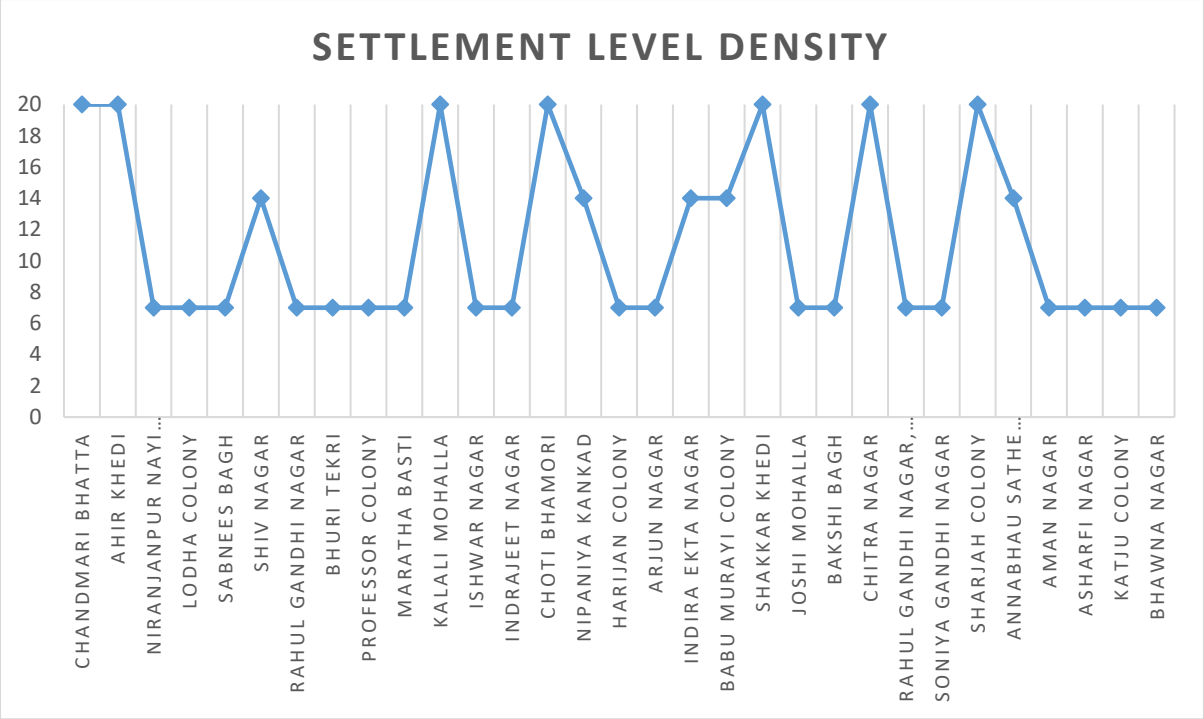
The first five charts plot each of the 31 settlements on a scale of 1-20 for each sub indicator of spatial adequacy. The third graph plots the sub-indicators and indicator together.




OCCUPANTS / DR
20
18
16
14
12
10
8
6
4
2
0
CHANDMARI BHATTA
AHIR KHEDI
NIRANJANPUR NAYI...
LODHA COLONY
SABNEES BAGH
SHIV NAGAR
RAHUL GANDHI NAGAR
BHURI TEKRI
PROFESSOR COLONY
MARATHA BASTI
KALALI MOHALLA
ISHWAR NAGAR
INDRAJEET NAGAR
CHOTI BHAMORI
NIPANIYA KANKAD
HARIJAN COLONY
ARJUN NAGAR
INDIRA EKTA NAGAR
BABU MURAYI COLONY
SHAKKAR KHEDI
JOSHI MOHALLA
BAKSHI BAGH
CHITRA NAGAR
RAHUL GANDHI NAGAR, ...
SONIYA GANDHI NAGAR
SHARJAH COLONY
ANNABHAU SATHE...
AMAN NAGAR
ASHARFI NAGAR
KATJU COLONY
BHAWNA NAGAR


FLOOR AREA PER OCCUPANT
20
18
16
14
12
10
8
6
4
2
0
CHANDMARI BHATTA
AHIR KHEDI
NIRANJANPUR NAYI...
LODHA COLONY
SABNEES BAGH
SHIV NAGAR
RAHUL GANDHI NAGAR
BHURI TEKRI
PROFESSOR COLONY
MARATHA BASTI
KALALI MOHALLA
ISHWAR NAGAR
INDRAJEET NAGAR
CHOTI BHAMORI
NIPANIYA KANKAD
HARIJAN COLONY
ARJUN NAGAR
INDIRA EKTA NAGAR
BABU MURAYI COLONY
SHAKKAR KHEDI
JOSHI MOHALLA
BAKSHI BAGH
CHITRA NAGAR
RAHUL GANDHI NAGAR, ...
SONIYA GANDHI NAGAR
SHARJAH COLONY
ANNABHAU SATHE NAGAR
AMAN NAGAR
ASHARFI NAGAR
KATJU COLONY
BHAWNA NAGAR


SETTLEMENT LEVEL DENSITY
20
18
16
14
12
10
8
6
4
2
0
CHANDMARI BHATTA
AHIR KHEDI
NIRANJANPUR NAYI...
LODHA COLONY
SABNEES BAGH
SHIV NAGAR
RAHUL GANDHI NAGAR
BHURI TEKRI
PROFESSOR COLONY
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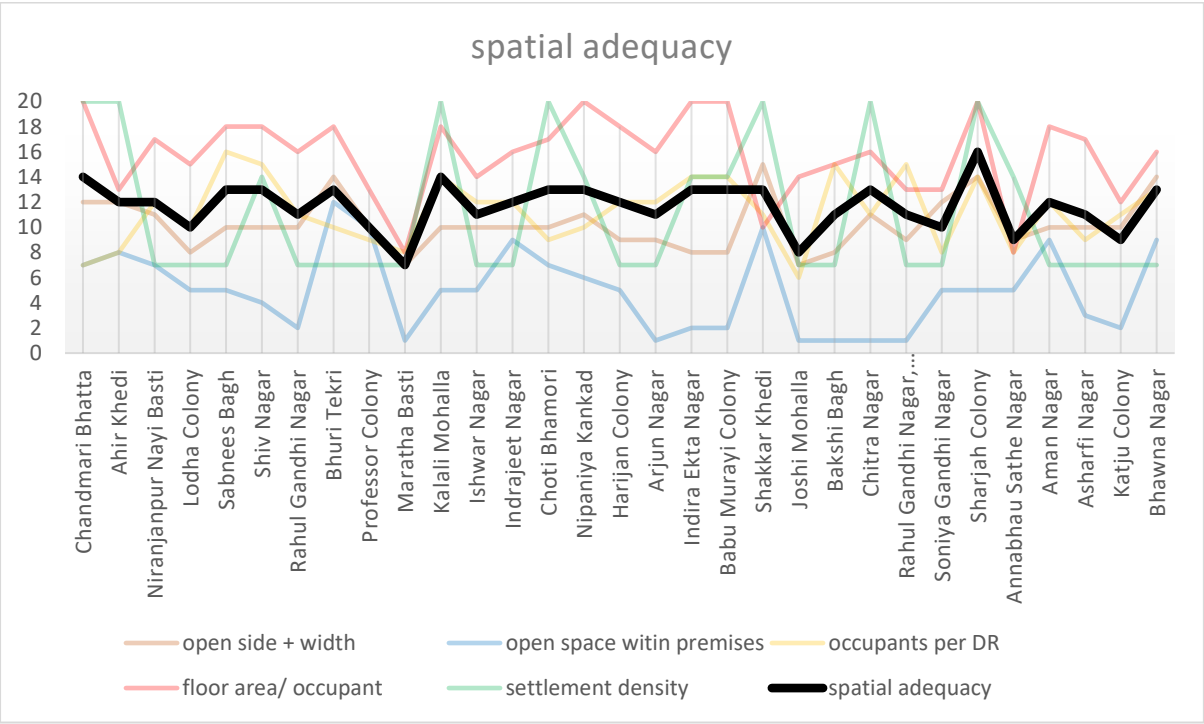
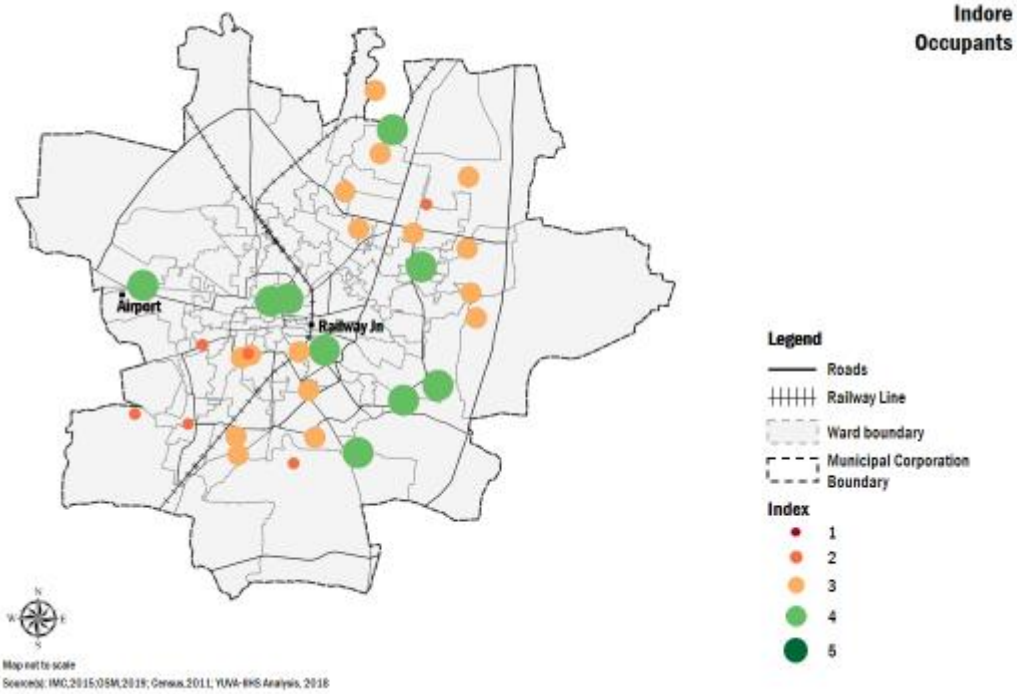
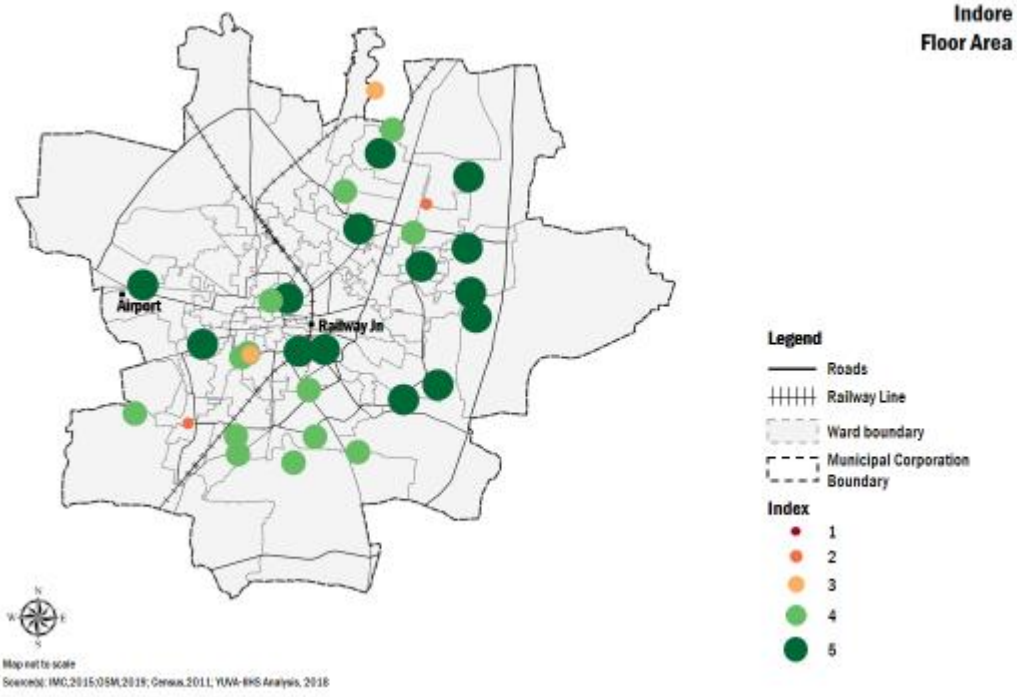
INDRAJEET NAGAR
CHOTI BHAMORI
NIPANIYA KANKAD
HARIJAN COLONY
ARJUN NAGAR
INDIRA EKTA NAGAR
BABU MURAYI COLONY
SHAKKAR KHEDI
JOSHI MOHALLA
BAKSHI BAGH
CHITRA NAGAR
RAHUL GANDHI NAGAR,...
SONIYA GANDHI NAGAR
SHARJAH COLONY
ANNABHAU SATHE...
AMAN NAGAR
ASHARFI NAGAR
KATJU COLONY
BHAWNA NAGAR

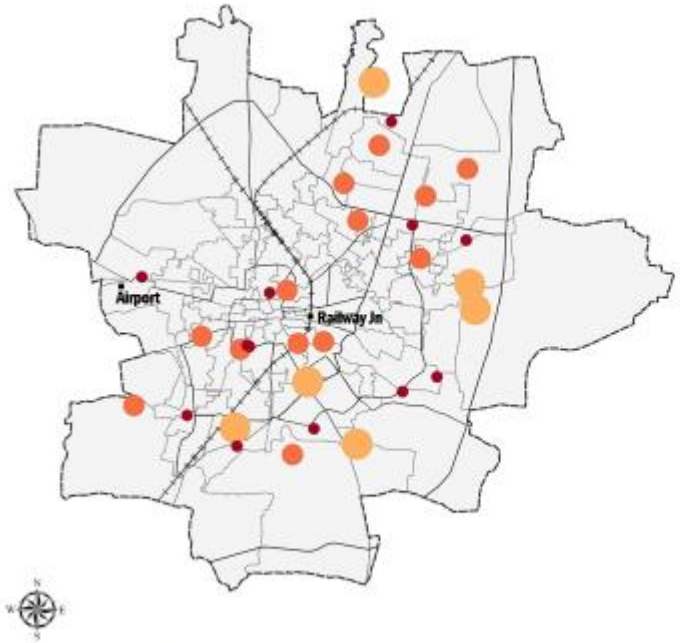

spatial adequacy
20
18
16
14
12
10
8
6
4
2
0
Chandmari Bhatta
Ahir Khedi
Niranjanpur Nayi Basti
Lodha Colony
Sabnees Bagh
Shiv Nagar
Rahul Gandhi Nagar
Bhuri Tekri
Professor Colony
Maratha Basti
Kalali Mohalla
Ishwar Nagar
Indrajeet Nagar
Choti Bhamori
Nipaniya Kankad
Harijan Colony
Arjun Nagar
Indira Ekta Nagar
Babu Murayi Colony
Shakkar Khedi
Joshi Mohalla
Bakshi Bagh
Chitra Nagar
Rahul Gandhi Nagar,...
Soniya Gandhi Nagar
Sharjah Colony
Annabhau Sathe Nagar
Aman Nagar
Asharfi Nagar
Katju Colony
Bhawna Nagar
open side + width
open space witin premises
occupants per DR
floor area/ occupant
settlement density
spatial adequacy

The following maps show the spatial distribution of settlements marked according to their respective spatial adequacy indicator weights divided into 5 increments.



**Indore**
**Open Space Within Premises**




**Legend**

- Roads
- Railway Line
- Ward boundary
- Municipal Corporation Boundary

**Index**

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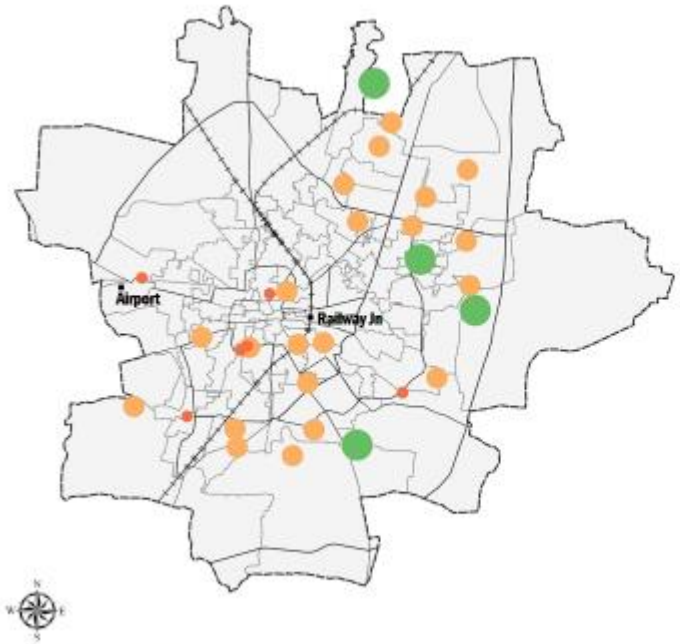
2
3
4
5

Map not to scale
Source(s): IMC,2015;OSM,2019; Census,2011; YUVA-IIHS Analysis, 2018

**Indore**
**Open sides**



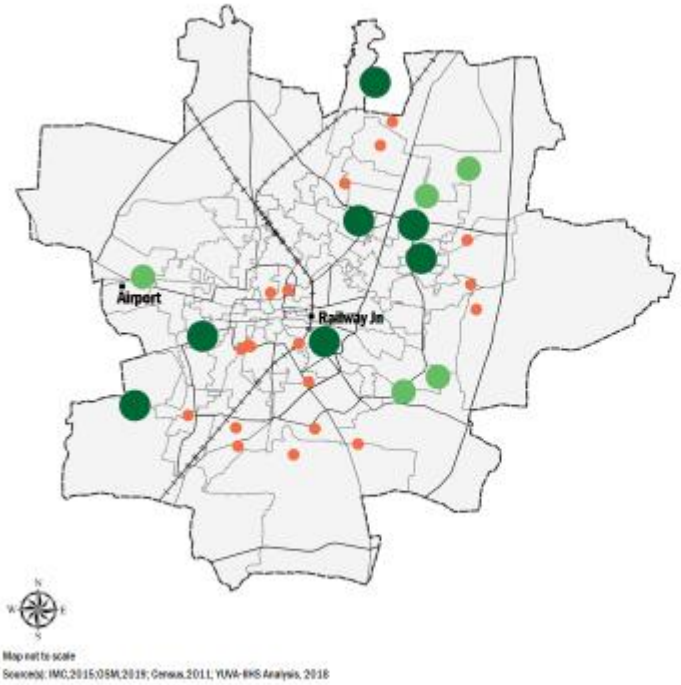

**Legend**

- Roads
- Railway Line
- Ward boundary
- Municipal Corporation Boundary

**Index**

1
2
3
4
5

Map not to scale
Source(s): IMC,2015;OSM,2019; Census,2011; YUVA-IIHS Analysis, 2018

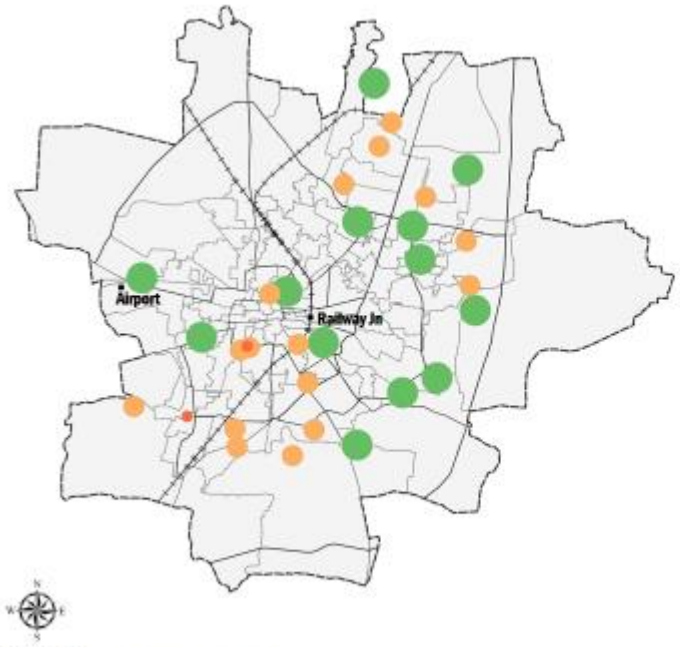



**Indore**
**Settlement Level Density**

**Legend**
- Roads
- Railway Line
- Ward boundary
- Municipal Corporation Boundary

**Index**
- 1
- 2
- 3
- 4
- 5

Map not to scale
Source(s): IMC,2015;OSM,2019; Census,2011; YUVA-WHS Analysis, 2018




**Indore**
**Spatial Adequacy**

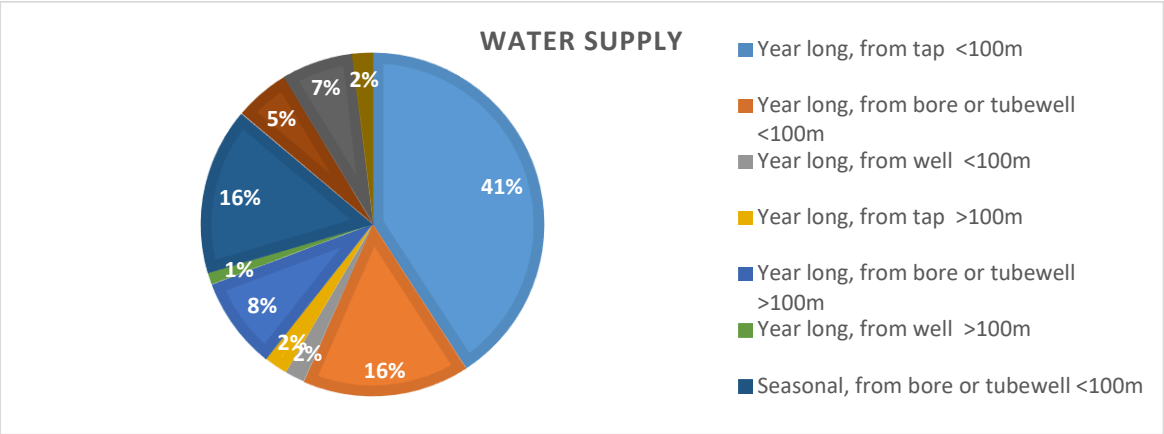
**Legend**
- Roads
- Railway Line
- Ward boundary
- Municipal Corporation Boundary

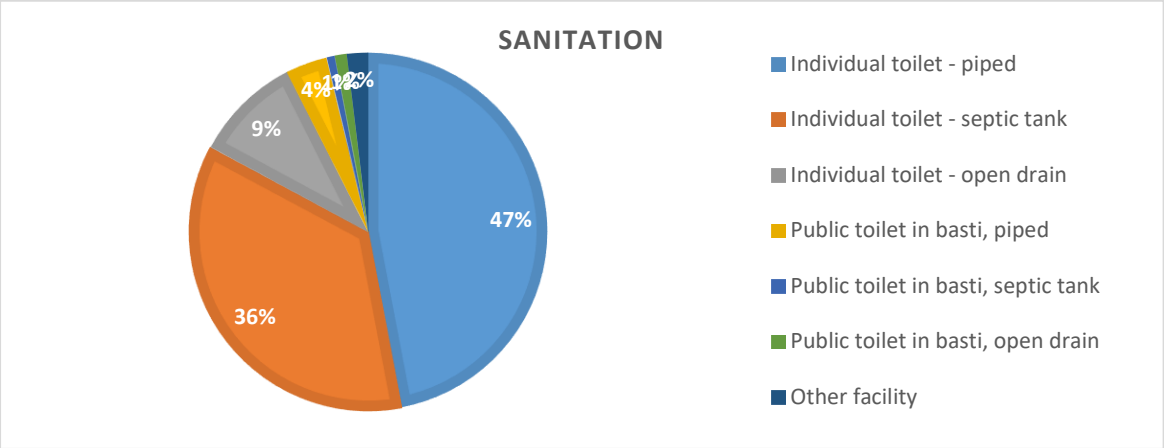
**Index**
- 1
- 2
- 3
- 4
- 5

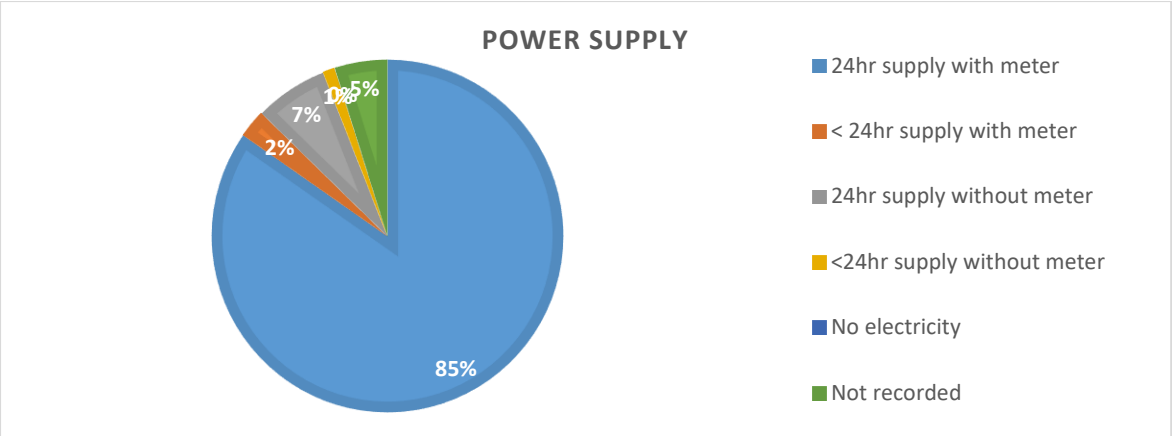
Map not to scale
Source(s): IMC,2015;OSM,2019; Census,2011; YUVA-WHS Analysis, 2018

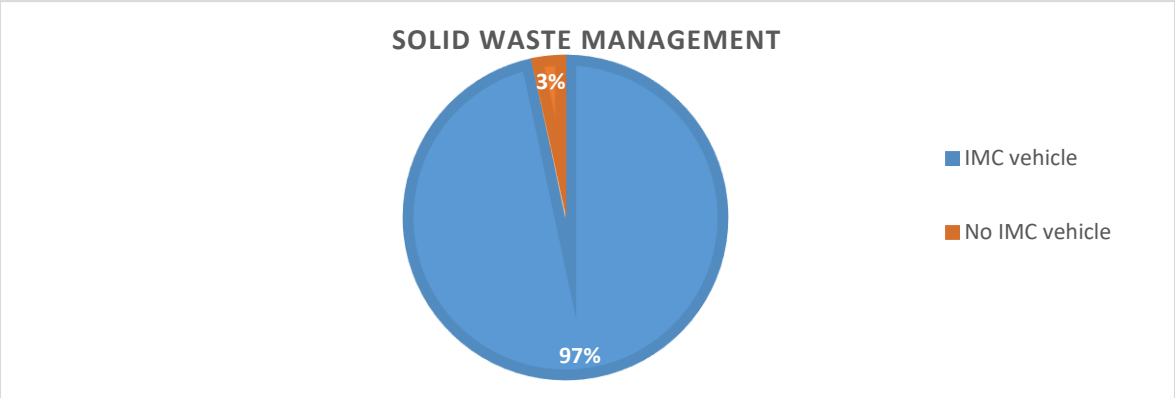
| INDICATOR III - Access to basic services | | | | |
|---|---|---|---|---|
| Building level | | Rank | score | No. |
| Indicator I: Access to water supply | Year long, from tap <100m | 1 | 14 | 109 |
| | Year long, from bore or tubewell <100m | 2 | 13 | 42 |
| | Year long, from well <100m | 3 | 12 | 5 |
| | Year long, from tap >100m | 4 | 11 | 6 |
| | Year long, from bore or tubewell >100m | 5 | 10 | 23 |
| | Year long, from well >100m | 6 | 9 | 3 |
| | Seasonal, from tap <100m | 7 | 8 | 0 |
| | Seasonal, from bore or tubewell <100m | 8 | 7 | 42 |
| | Seasonal, from well <100m | 9 | 6 | 0 |
| | Seasonal, from tap >100m | 10 | 5 | 0 |
| | Seasonal, from bore or tubewell >100m | 11 | 4 | 14 |
| | Seasonal, from well >100m | 12 | 3 | 0 |
| | IMC tanker year long | 13 | 2 | 18 |
| | IMC tanker occasional + other private source | 14 | 1 | 0 |
| | Only other private source | 15 | 0 | 5 |
| | Range | 14 to 0 | | |
| | | | | |
| Indicator II: Access to sanitation | Individual toilet - piped | 1 | 7 | 126 |
| | Individual toilet - septic tank | 2 | 6 | 96 |
| | Individual toilet - open drain | 3 | 5 | 26 |
| | Public toilet in basti, piped | 4 | 4 | 10 |
| | Public toilet in basti, septic tank | 5 | 3 | 2 |
| | Public toilet in basti, open drain | 6 | 2 | 3 |
| | Other facility | 7 | 1 | 5 |
| | Open defecation | 8 | 0 | 0 |
| | Range | 7 to 0 | | |
| | | | | |
| Indicator III: Electricity | 24hr supply with meter | 1 | 4 | 227 |
| | < 24hr supply with meter | 2 | 3 | 7 |
| | 24hr supply without meter | 3 | 2 | 18 |
| | <24hr supply without meter | 4 | 1 | 3 |
| | No electricity | 5 | 0 | 0 |
| | Not recorded | 6 | X | 13 |
| | Range | 4 to 0 | | |
| | | | | |
| Indicator IV: Disposal of waste | IMC vehicle | 1 | 1 | 259 |
| | No IMC vehicle | 2 | 0 | 9 |
| | Range | 1 to 0 | | |
| Access to basic services – sub-indicator I+II+III+IV | | Range: [(14 to 0)+(7 to 0)+(4 to 0)+(1 to 0)] = 26 to 0 | | |

The data representation below shows distribution of 269 households across scores within sub-indicators I to IV

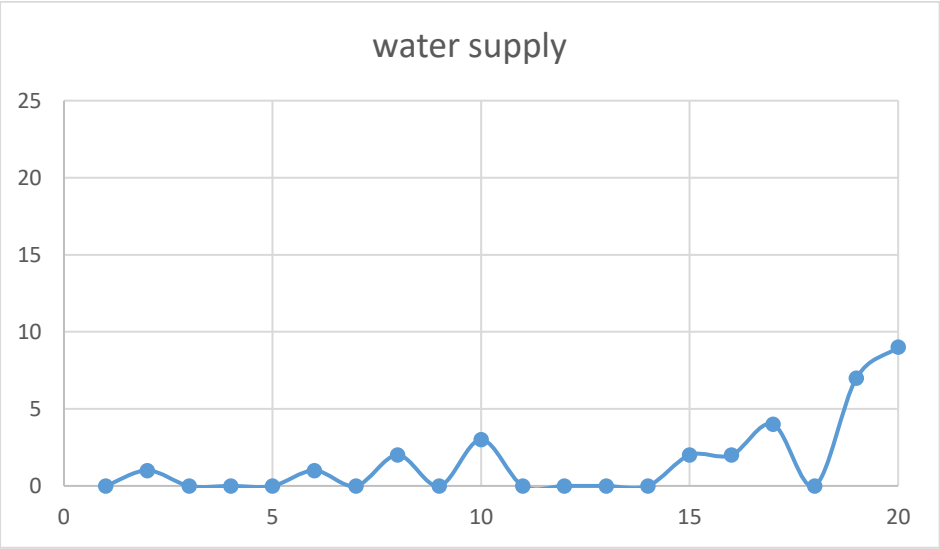


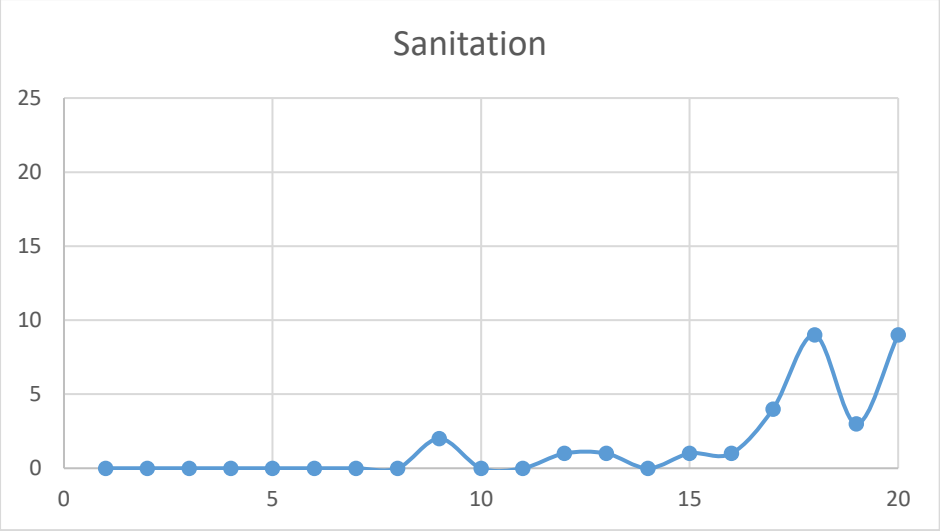



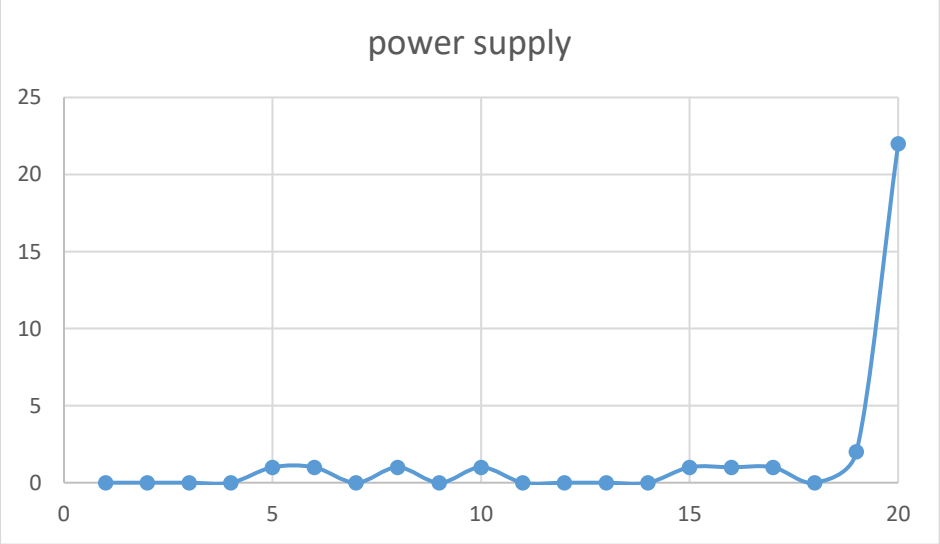



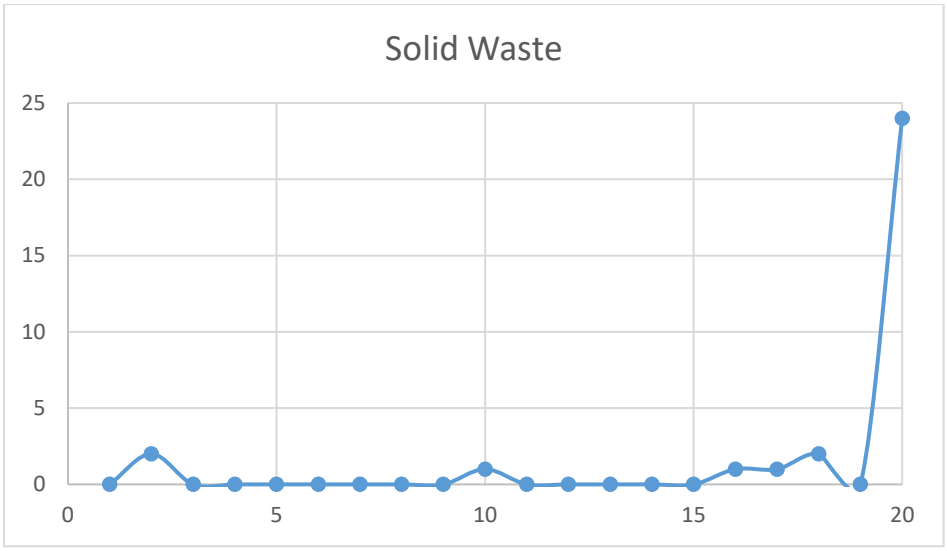



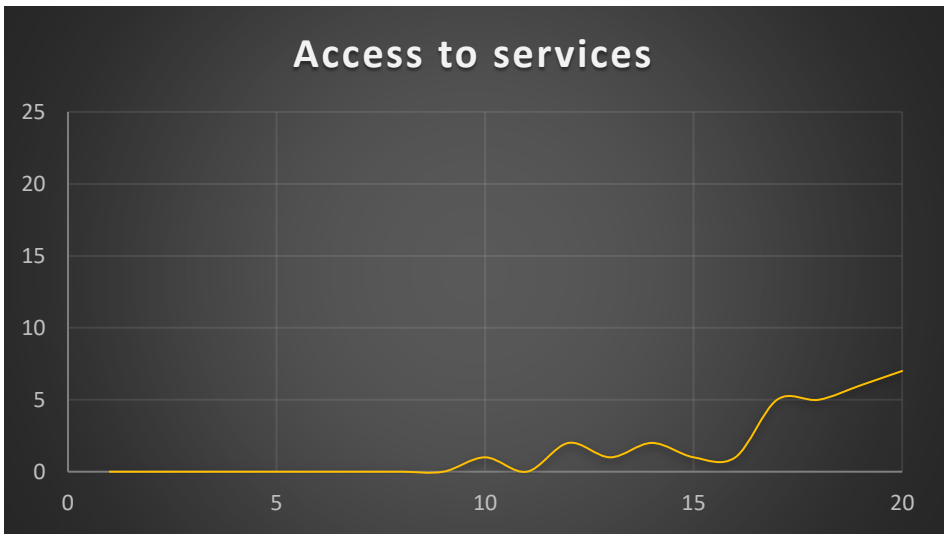
The following graphs show the distribution of settlements across different weights in the range of 1-20 for access to basic services and its sub-indicators.



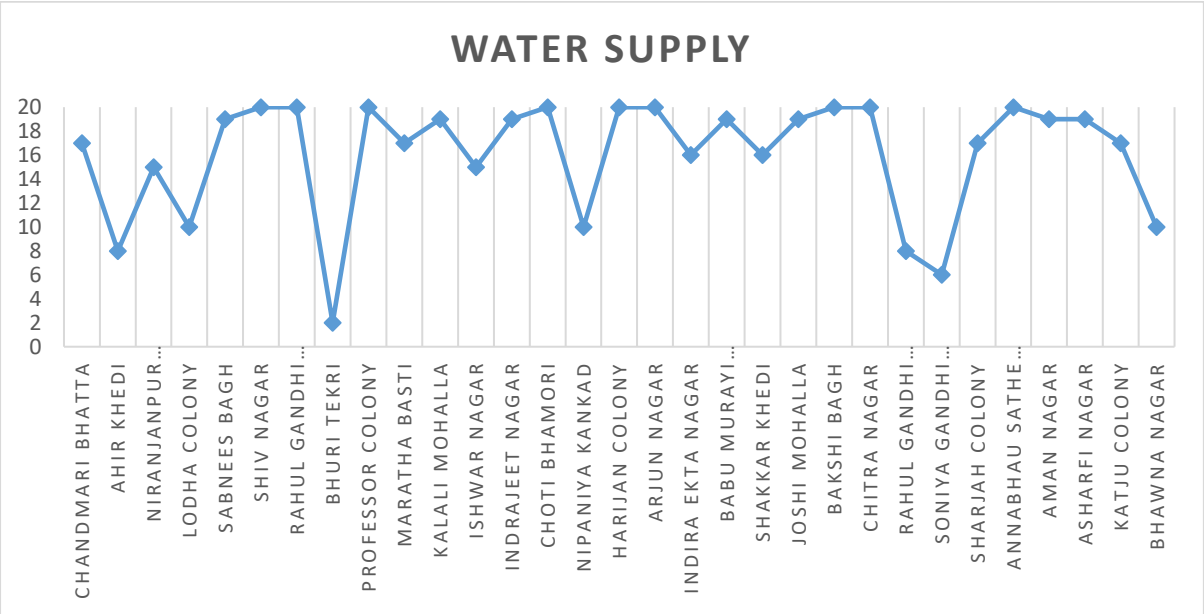



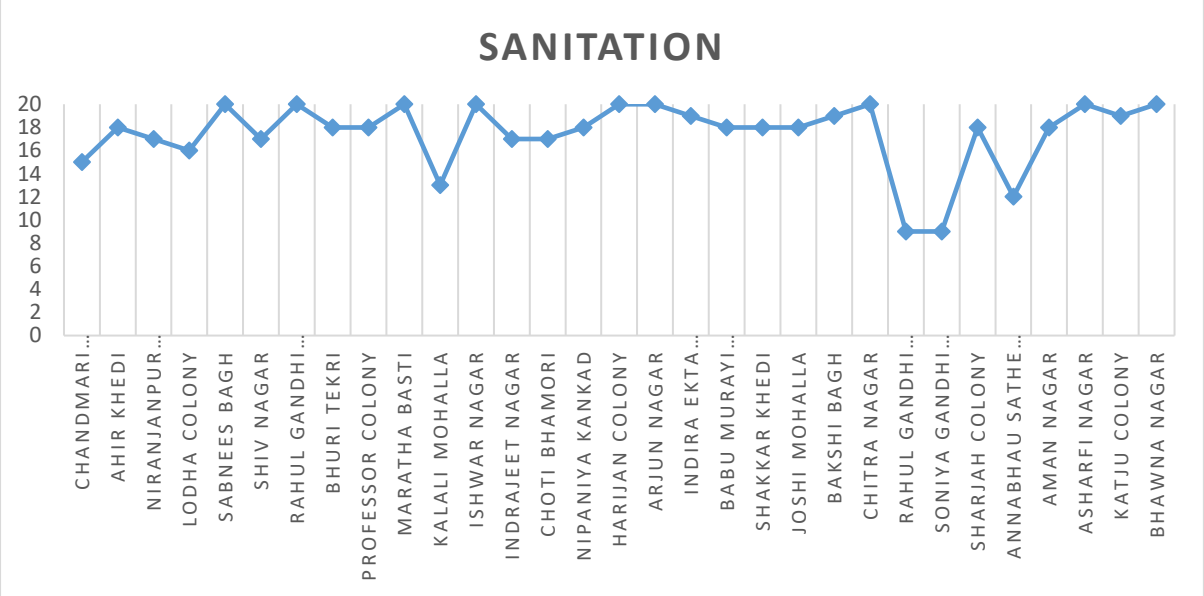



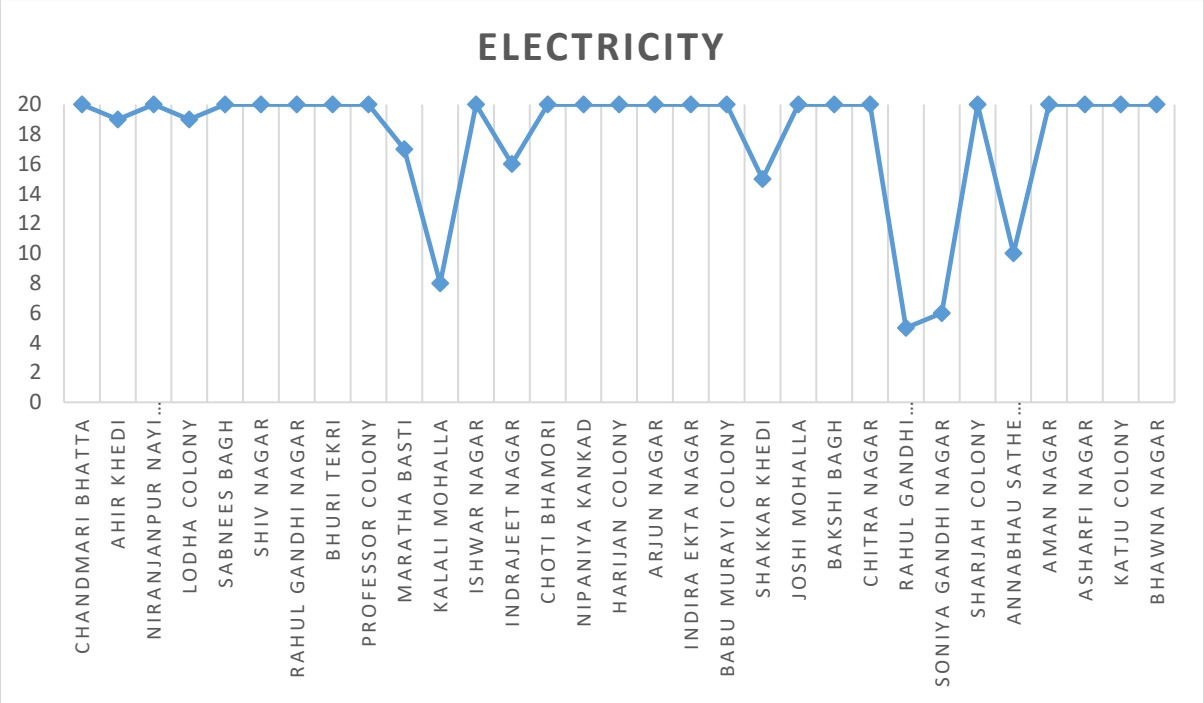

Solid Waste
25
20
15
10
5
0
0
5
10
15
20

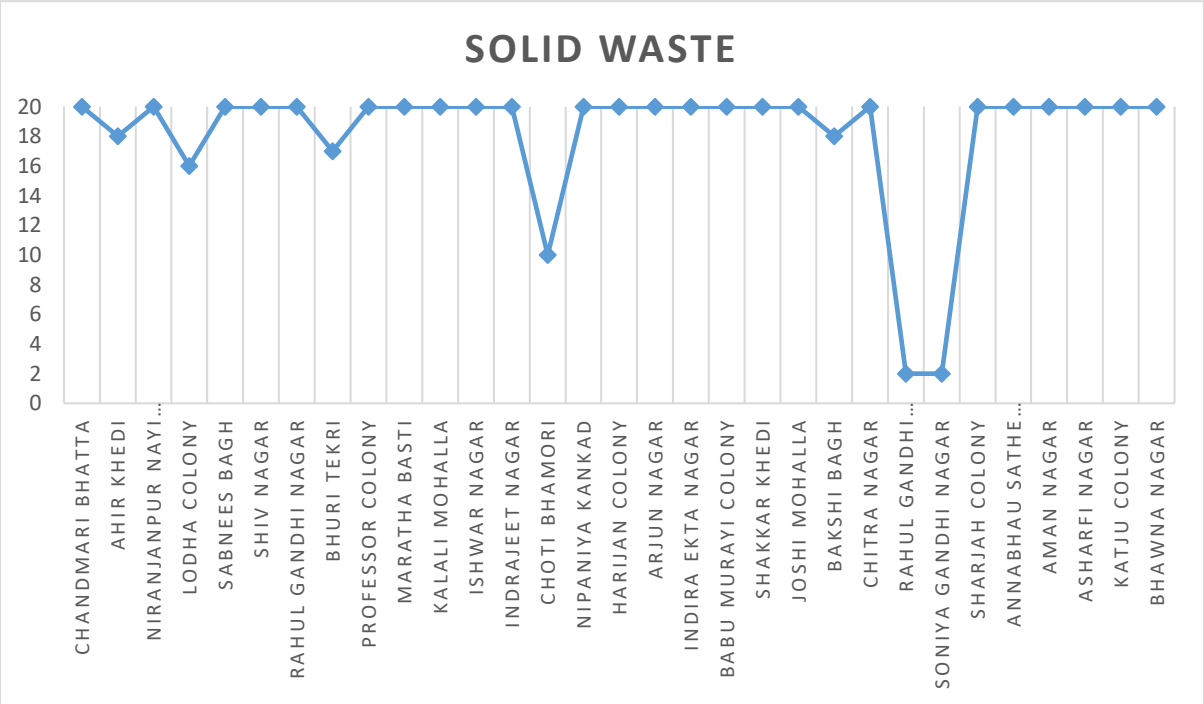

Access to services
25
20
15
10
5
0
0
5
10
15
20

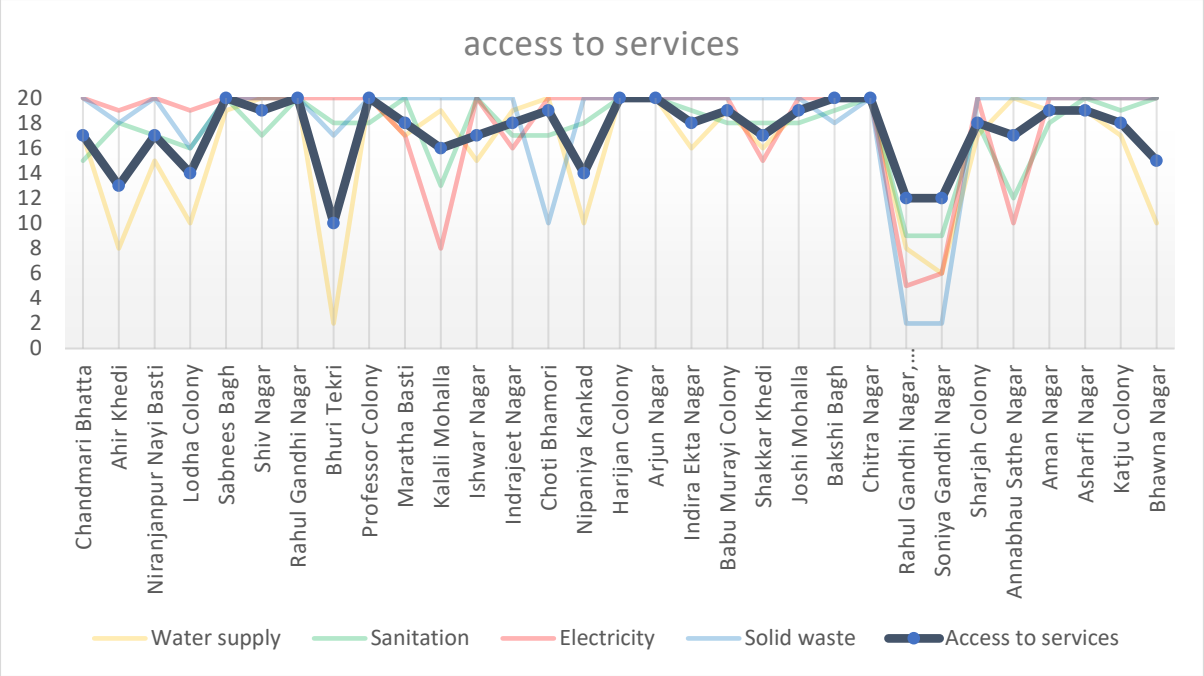
The first four charts plot each of the 31 settlements on a scale of 1-20 for each sub indicator of spatial adequacy. The fifth graph plots the sub-indicators and indicator together.



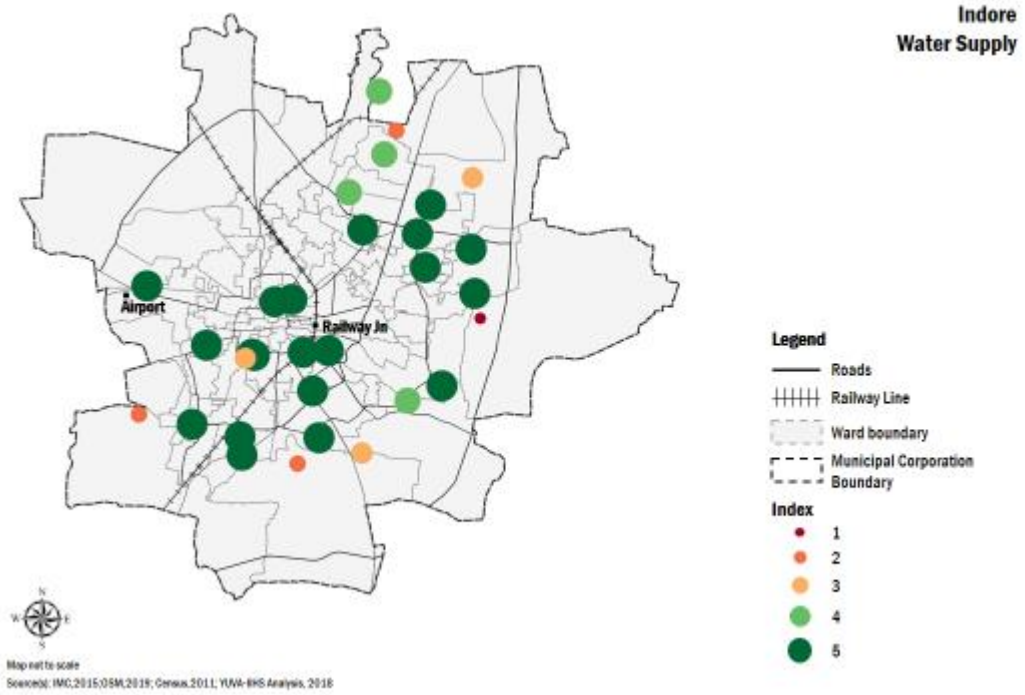




ELECTRICITY
20
18
16
14
12
10
8
6
4
2
0
CHANDMARI BHATTA
AHIR KHEDI
NIRANJANPUR NAYI...
LODHA COLONY
SABNEES BAGH
SHIV NAGAR
RAHUL GANDHI NAGAR
BHURI TEKRI
PROFESSOR COLONY
MARATHA BASTI
KALALI MOHALLA
ISHWAR NAGAR
INDRAJEET NAGAR
CHOTI BHAMORI
NIPANIYA KANKAD
HARIJAN COLONY
ARJUN NAGAR
INDIRA EKTA NAGAR
BABU MURAYI COLONY
SHAKKAR KHEDI
JOSHI MOHALLA
BAKSHI BAGH
CHITRA NAGAR
RAHUL GANDHI...
SONIYA GANDHI NAGAR
SHARJAH COLONY
ANNABHAU SATHE...
AMAN NAGAR
ASHARFI NAGAR
KATJU COLONY
BHAWNA NAGAR

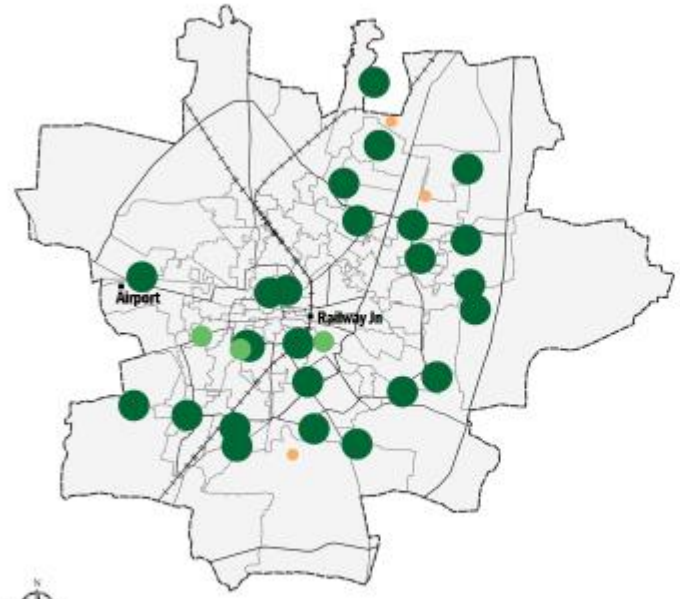

SOLID WASTE
20
18
16
14
12
10
8
6
4
2
0
CHANDMARI BHATTA
AHIR KHEDI
NIRANJANPUR NAYI...
LODHA COLONY
SABNEES BAGH
SHIV NAGAR
RAHUL GANDHI NAGAR
BHURI TEKRI
PROFESSOR COLONY
MARATHA BASTI
KALALI MOHALLA
ISHWAR NAGAR
INDRAJEET NAGAR
CHOTI BHAMORI
NIPANIYA KANKAD
HARIJAN COLONY
ARJUN NAGAR
INDIRA EKTA NAGAR
BABU MURAYI COLONY
SHAKKAR KHEDI
JOSHI MOHALLA
BAKSHI BAGH
CHITRA NAGAR
RAHUL GANDHI...
SONIYA GANDHI NAGAR
SHARJAH COLONY
ANNABHAU SATHE...
AMAN NAGAR
ASHARFI NAGAR
KATJU COLONY
BHAWNA NAGAR




The following maps show the spatial distribution of settlements marked according to their respective access to basic services indicator weights divided into 5 increments.



**Indore**
**Sanitation**




**Legend**

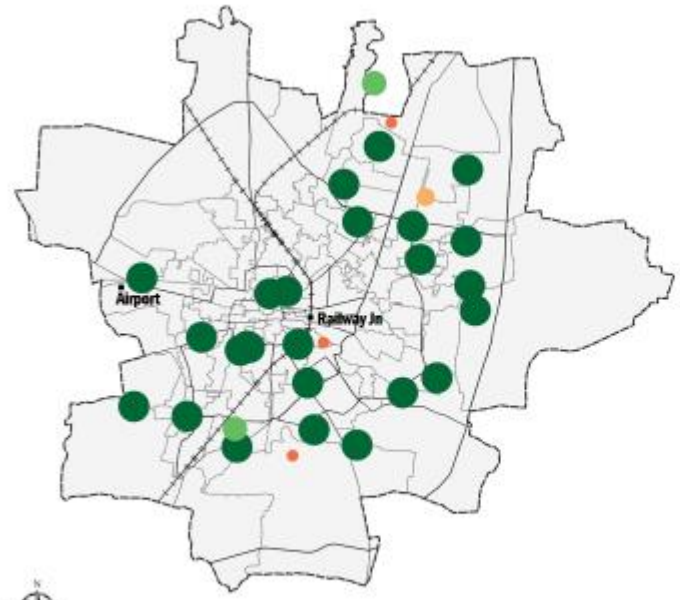
- Roads
- Railway Line
- Ward boundary
- Municipal Corporation Boundary

**Index**

1
2
3
4
5

Map not to scale
Source(s): IMC,2015;OSM,2019; Census,2011; YUVA-IIHS Analysis, 2018

**Indore**
**Power Supply**




**Legend**

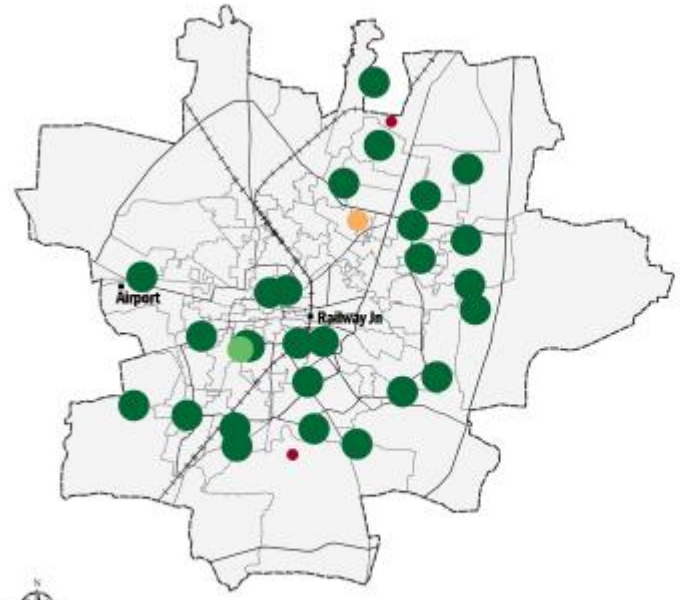
- Roads
- Railway Line
- Ward boundary
- Municipal Corporation Boundary

**Index**

1
2
3
4
5

Map not to scale
Source(s): IMC,2015;OSM,2019; Census,2011; YUVA-IIHS Analysis, 2018

**Indore**
**Solid Waste**




**Legend**

- Roads
- Railway Line
- Ward boundary
- Municipal Corporation Boundary

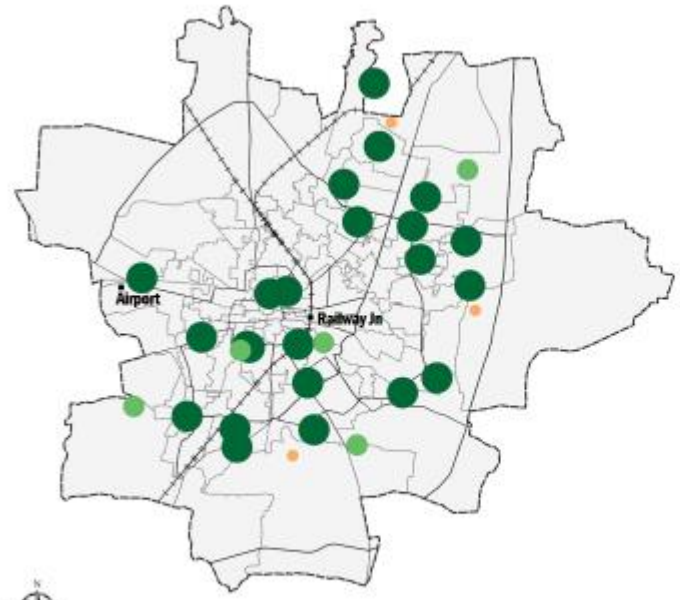
**Index**

- 1
- 2
- 3
- 4
- 5

Map not to scale

Source(s): IMC,2015;OSM,2019; Census,2011; YUVA-BHS Analysis, 2018

**Indore**
**Access to Basic Needs**




**Legend**

- Roads
- Railway Line
- Ward boundary
- Municipal Corporation Boundary

**Index**

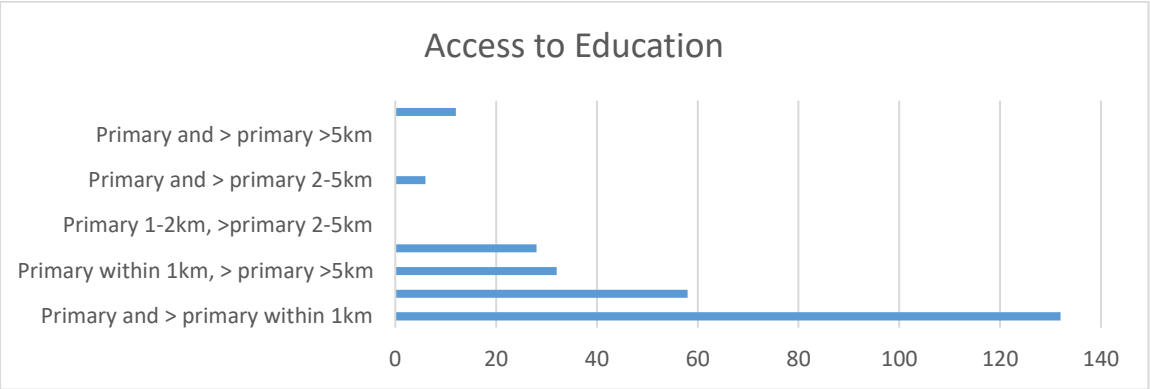
- 1
- 2
- 3
- 4
- 5

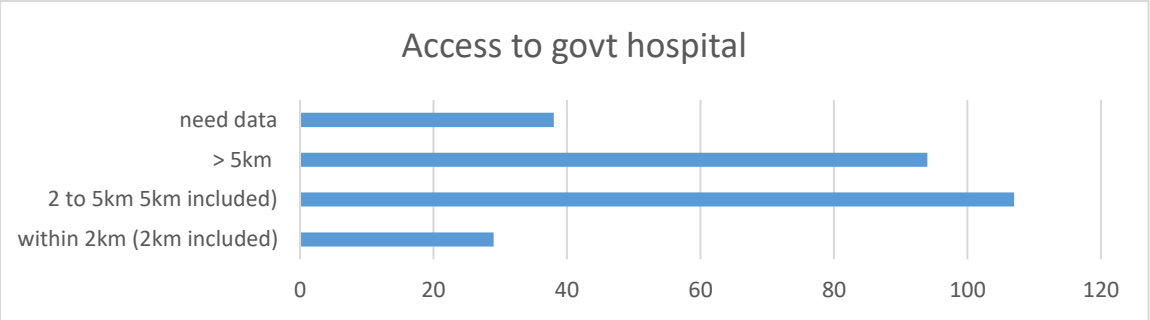
Map not to scale

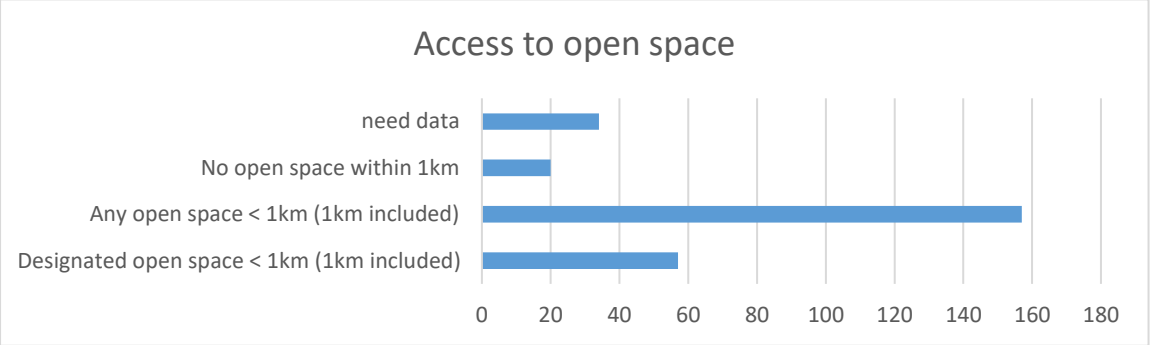
Source(s): IMC,2015;OSM,2019; Census,2011; YUVA-BHS Analysis, 2018

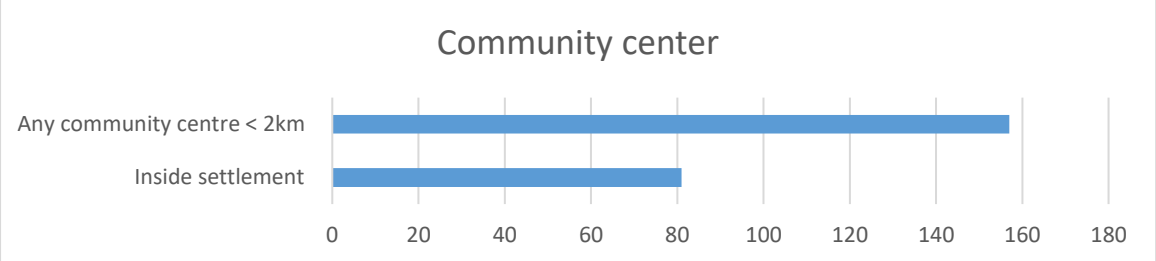
| Indicator IV: Access to Social Amenities | | | | |
|---|---|---|---|---|
| Settlement level | | Rank | Score | No. |
| Indicator I: Access to school | Primary and > primary within 1km | 1 | 8 | 132 |
| | Primary within 1km, >primary 1-5km | 2 | 7 | 58 |
| | Primary within 1km, > primary >5km | 3 | 6 | 32 |
| | Primary and > primary within 1-2km | 4 | 5 | 28 |
| | Primary 1-2km, >primary 2-5km | 5 | 4 | 0 |
| | Primary 1-2km, >primary >5km | 6 | 3 | 0 |
| | Primary and > primary 2-5km | 7 | 2 | 6 |
| | Primary 2-5km, >primary >5km | 8 | 1 | 0 |
| | Primary and > primary >5km | 9 | 0 | 0 |
| | need data | 0 | X | 12 |
| | Range | 8 to 0 | | |
| | | | | |
| Indicator II: Access to a govt. hospital | within 2km (2km included) | 1 | 2 | 29 |
| | 2 to 5km 5km included) | 2 | 1 | 107 |
| | > 5km | 3 | 0 | 94 |
| | need data | 0 | X | 38 |
| | Range | 2 to 0 | | |
| | | | | |
| Indicator III: Access to open space | Designated open space < 1km (1km included) | 1 | 2 | 57 |
| | Any open space < 1km (1km included) | 2 | 1 | 157 |
| | No open space within 1km | 3 | 0 | 20 |
| | need data | 0 | X | 34 |
| | Range | 2 to 0 | | |
| | | | | |
| Indicator IV: Access to community centre | Inside settlement | 1 | 2 | 81 |
| | Any community centre < 2km | 2 | 1 | 157 |
| | No accessible community centre within 2km | 3 | 0 | 0 |
| | Range | 2 to 0 | | |
| | | | | |
| Indicator V: Access to Anganwadi | Anganwadi in the settlement | 1 | 1 | 216 |
| | No Anganwadi in the settlement | 0 | 0 | 24 |
| | Need data | X | X | 28 |
| | Range | 1 to 0 | | |
| Range for access to social amenities | | Range: [(8 to 0)+(2 to 0)+(2 to 0)+(2 to 0)+(2 to 0)+(1 to 0)] = 17 to 0 | | |

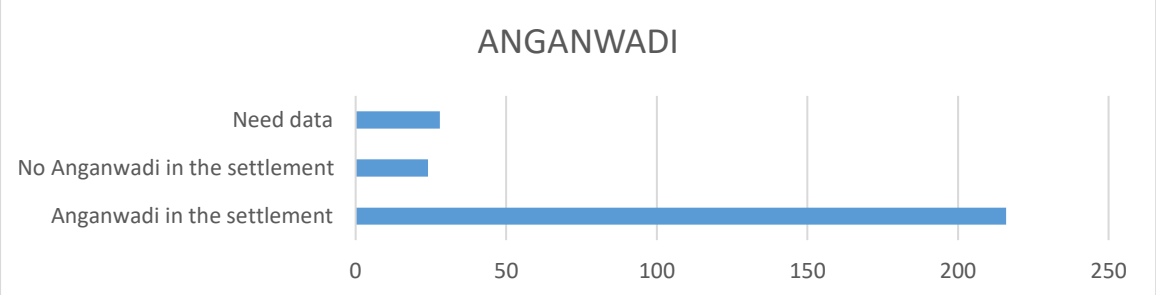
The data representation below shows distribution of 269 households across scores within sub-indicators I to V



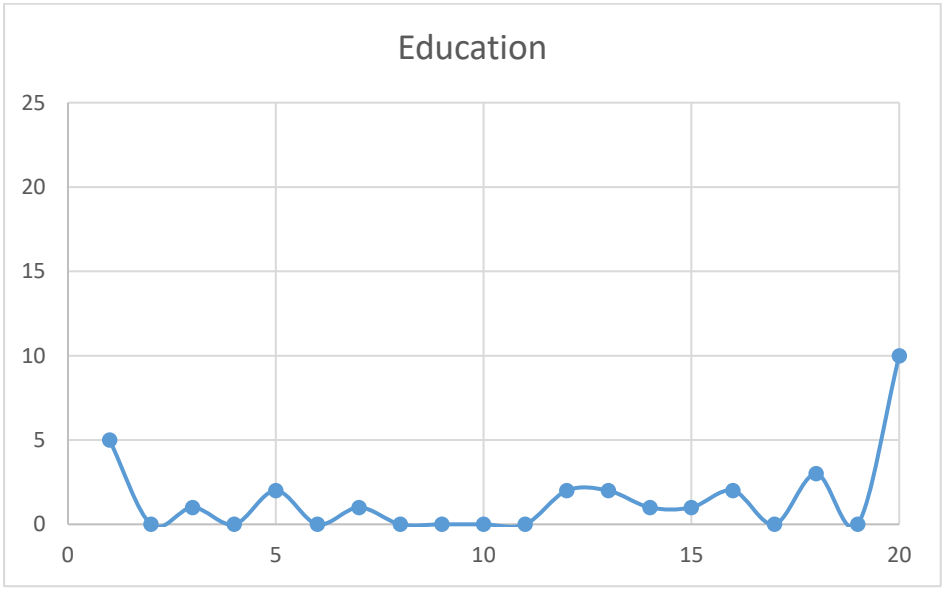



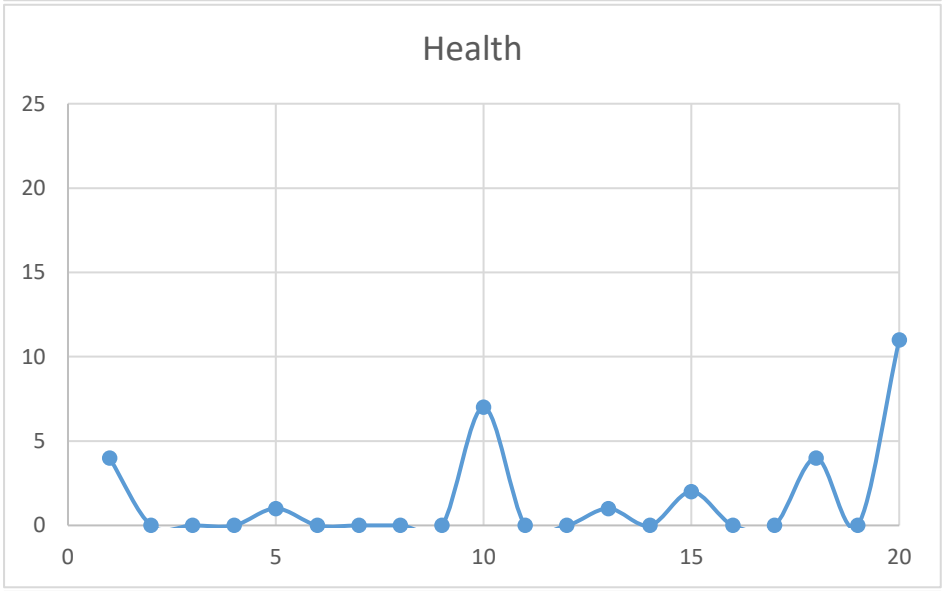



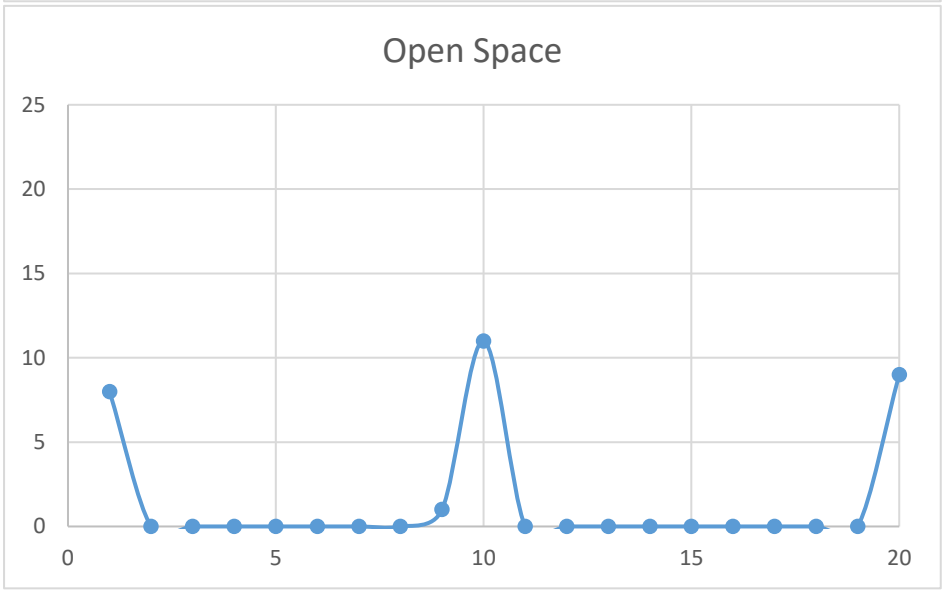



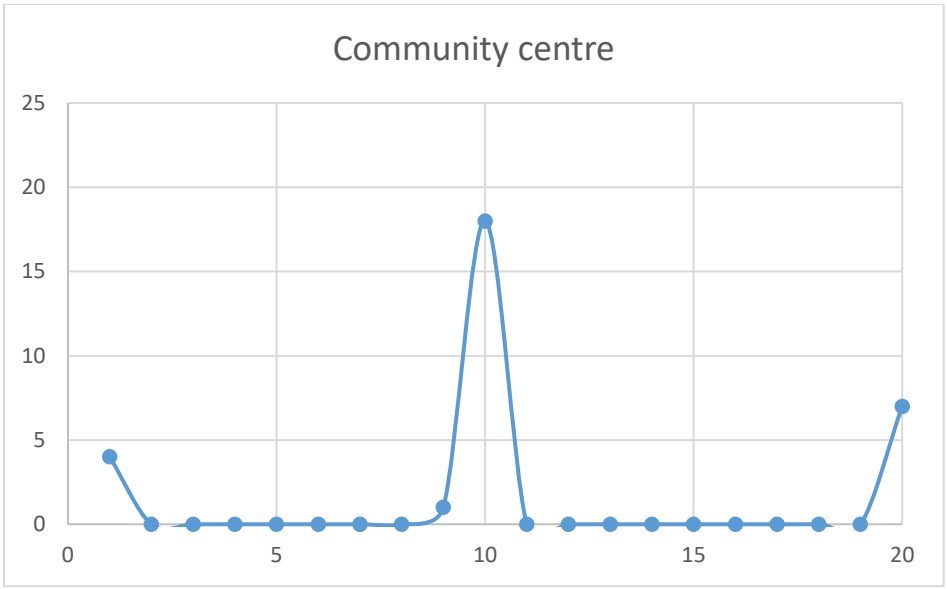



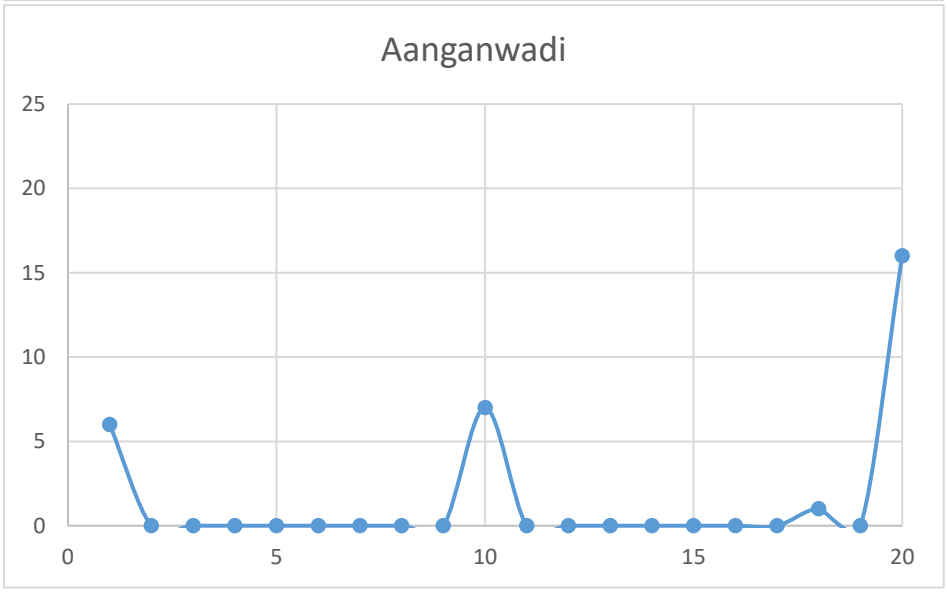
The following graphs show the distribution of settlements across different weights in the range of 1-20 for access to social amenities and its sub-indicators.

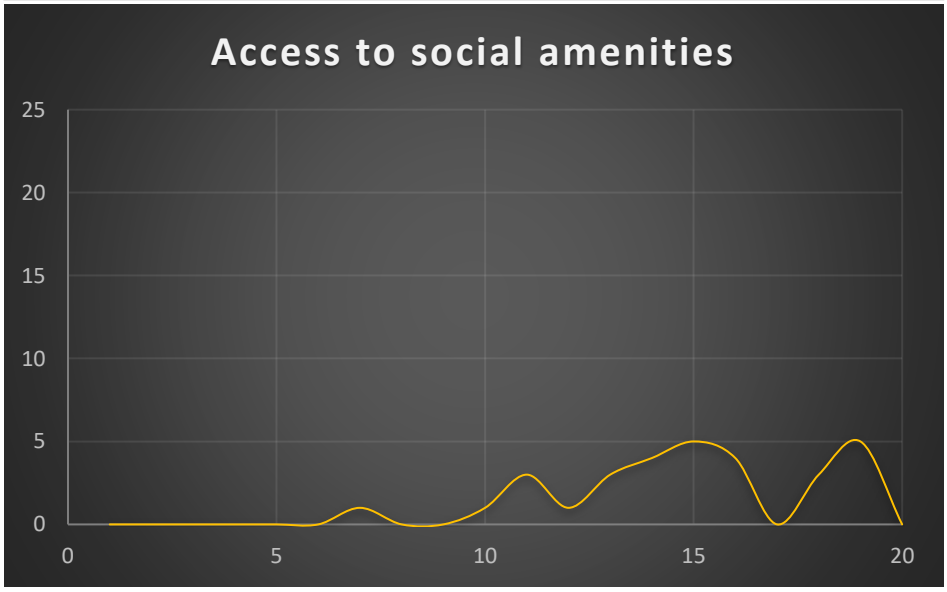


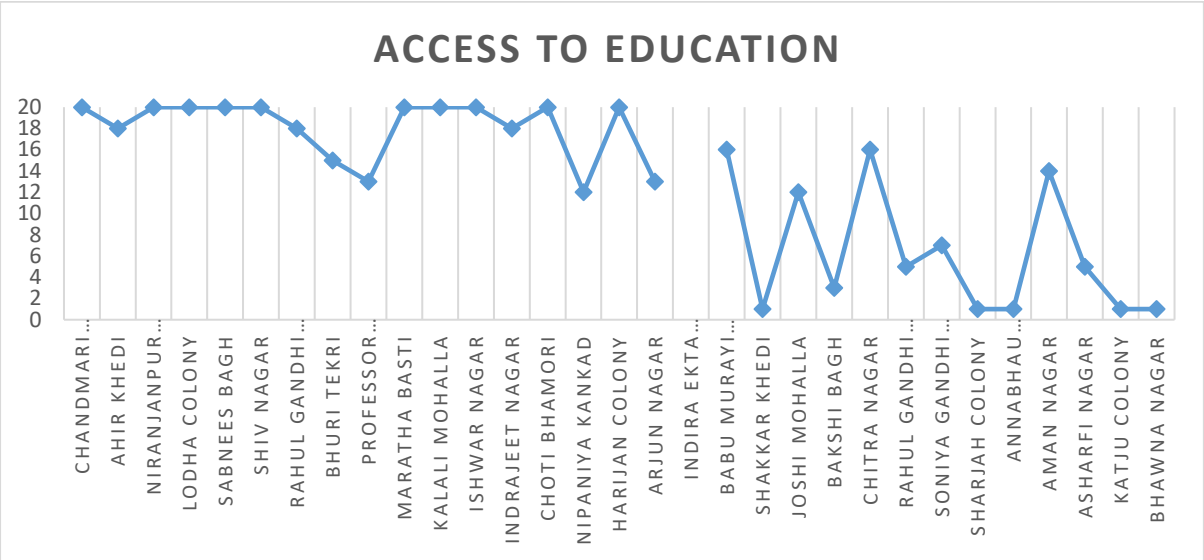



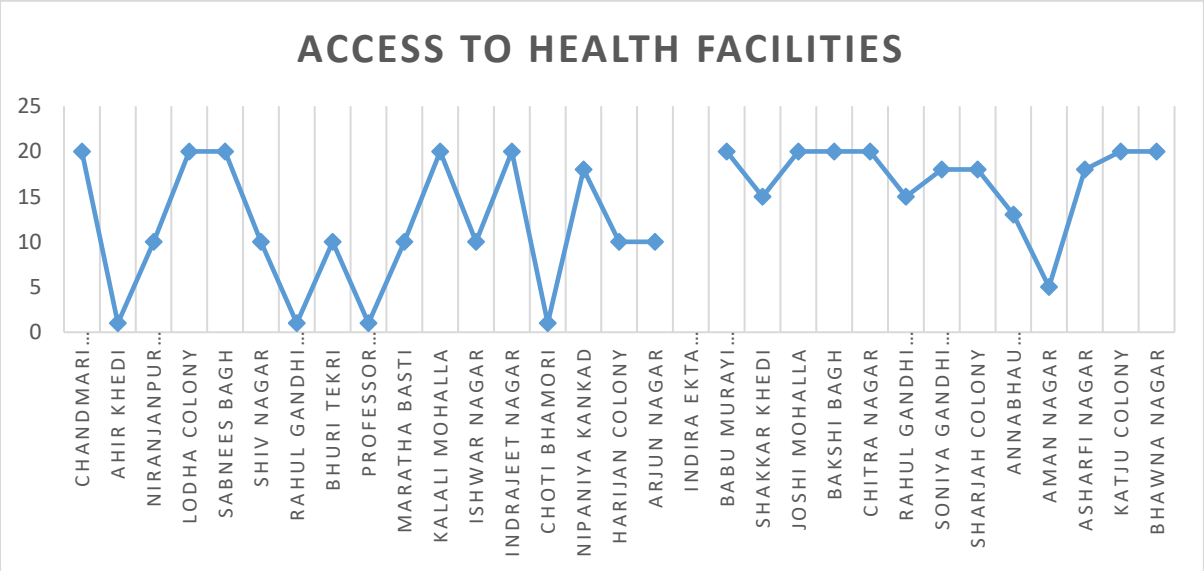

Community centre
25
20
15
10
5
0
0
5
10
15
20

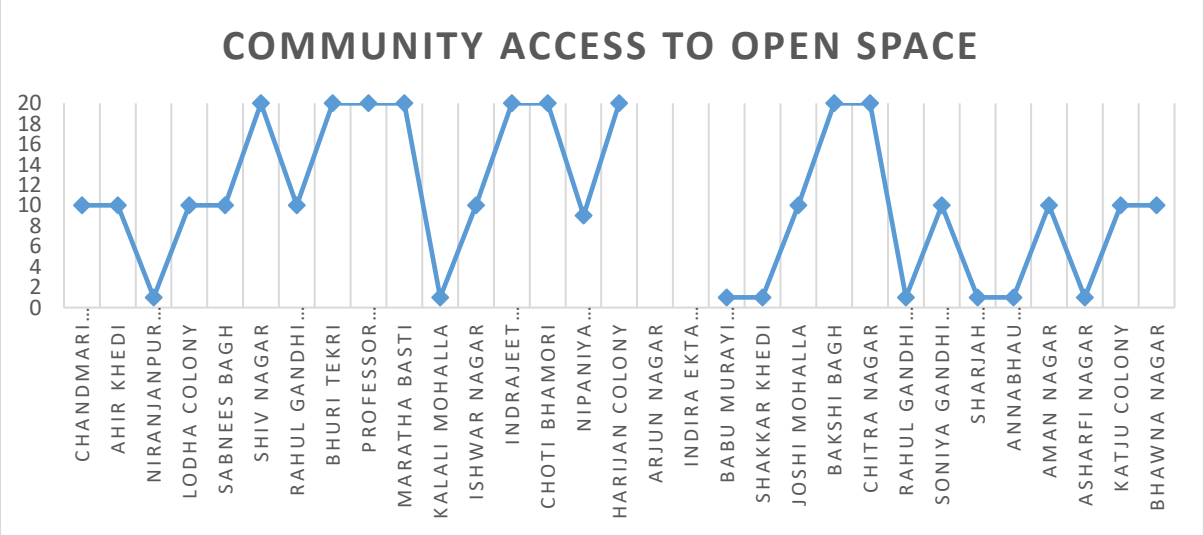

Aanganwadi
25
20
15
10
5
0
0
5
10
15
20

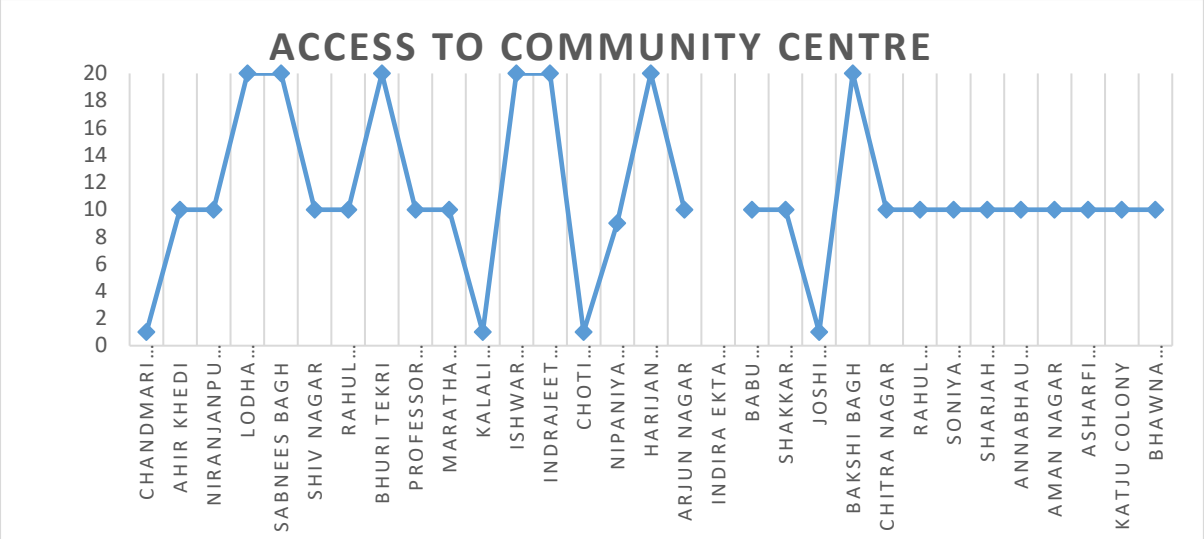

Access to social amenities
25
20
15
10
5
0
0
5
10
15
20

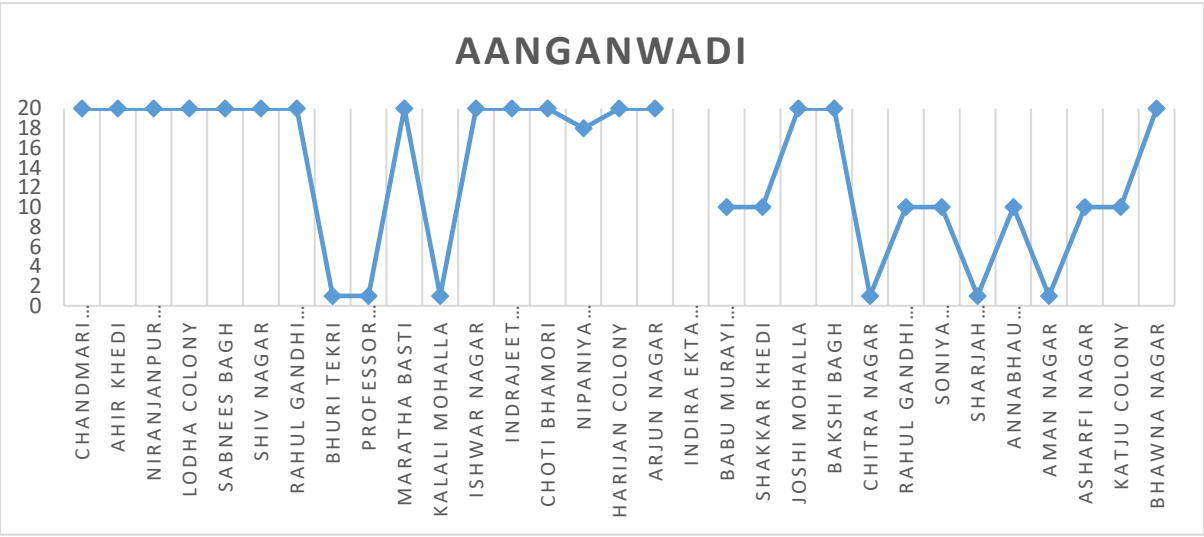
The first five charts plot each of the 31 settlements on a scale of 1-20 for each sub indicator of access to social amenities. The sixth graph plots the sub-indicators and indicator together.

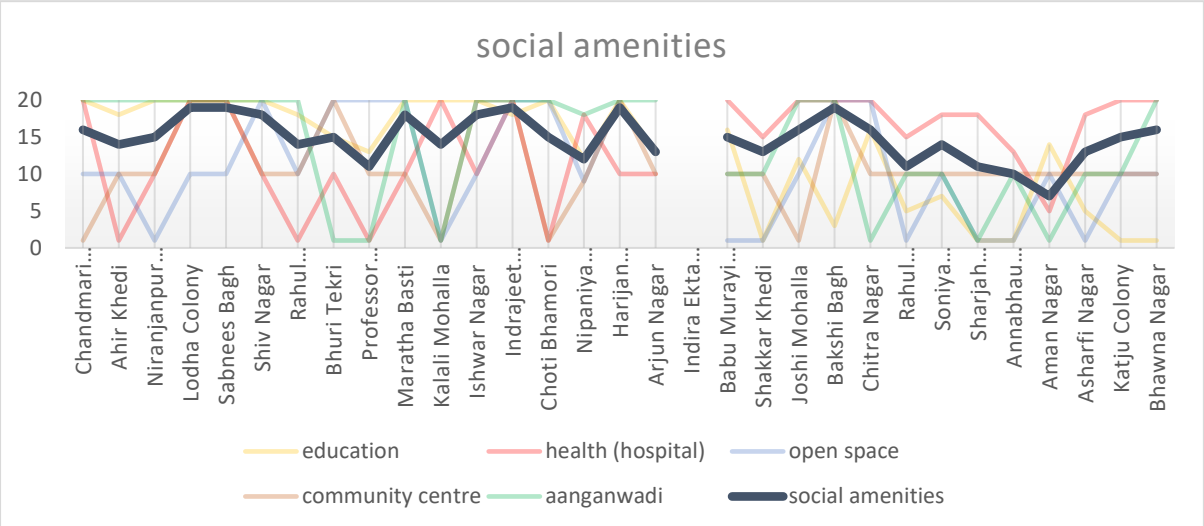


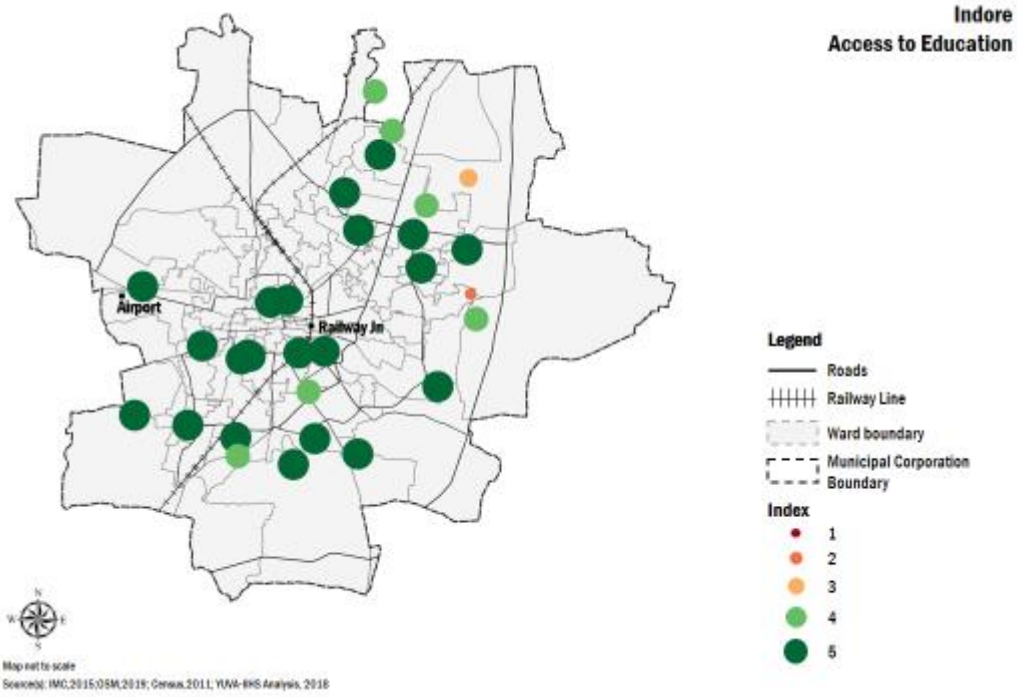



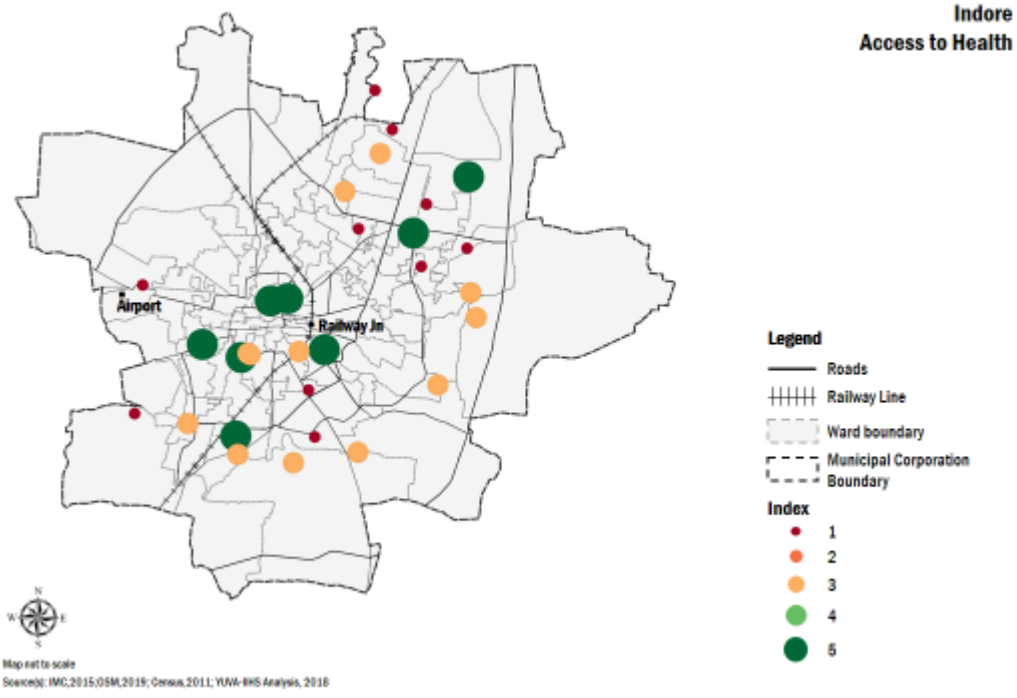

ACCESS TO COMMUNITY CENTRE
20
18
16
14
12
10
8
6
4
2
0
CHANDMARI...
AHIR KHEDI
NIRANJANPU...
LODHA...
SABNEES BAGH
SHIV NAGAR
RAHUL...
BHURI TEKRI
PROFESSOR...
MARATHA...
KALALI...
ISHWAR...
INDRAJEET...
CHOTI...
NIPANIYA...
HARIJAN...
ARJUN NAGAR
INDIRA EKTA...
BABU...
SHAKKAR...
JOSHI...
BAKSHI BAGH
CHITRA NAGAR
RAHUL...
SONIYA...
SHARJAH...
ANNABHAU...
AMAN NAGAR
ASHARFI...
KATJU COLONY
BHAWNA...

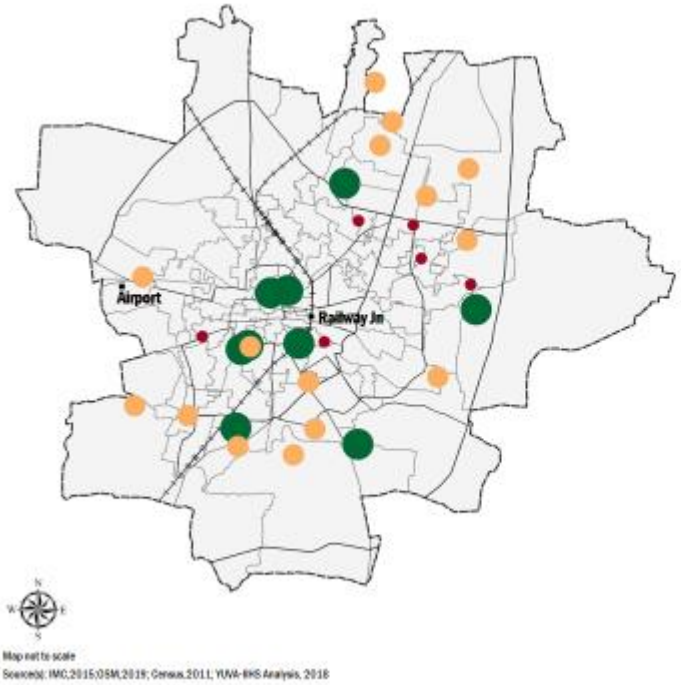

AANGANWADI
20
18
16
14
12
10
8
6
4
2
0
CHANDMARI...
AHIR KHEDI
NIRANJANPUR...
LODHA COLONY
SABNEES BAGH
SHIV NAGAR
RAHUL GANDHI...
BHURI TEKRI
PROFESSOR...
MARATHA BASTI
KALALI MOHALLA
ISHWAR NAGAR
INDRAJEET...
CHOTI BHAMORI
NIPANIYA...
HARIJAN COLONY
ARJUN NAGAR
INDIRA EKTA...
BABU MURAYI...
SHAKKAR KHEDI
JOSHI MOHALLA
BAKSHI BAGH
CHITRA NAGAR
RAHUL GANDHI...
SONIYA...
SHARJAH...
ANNABHAU...
AMAN NAGAR
ASHARFI NAGAR
KATJU COLONY
BHAWNA NAGAR


social amenities
20
15
10
5
0
Chandmari...
Ahir Khedi
Niranjanpur...
Lodha Colony
Sabnees Bagh
Shiv Nagar
Rahul...
Bhuri Tekri
Professor...
Maratha Basti
Kalali Mohalla
Ishwar Nagar
Indrajeet...
Choti Bhamori
Nipaniya...
Harijan...
Arjun Nagar
Indira Ekta...
Babu Murayi...
Shakkar Khedi
Joshi Mohalla
Bakshi Bagh
Chitra Nagar
Rahul...
Soniya...
Sharjah...
Annabhau...
Aman Nagar
Asharfi Nagar
Katju Colony
Bhawna Nagar
education
health (hospital)
open space
community centre
aanganwadi
social amenities

The following maps show the spatial distribution of settlements marked according to their respective access to social amenities indicator weights divided into 5 increments.



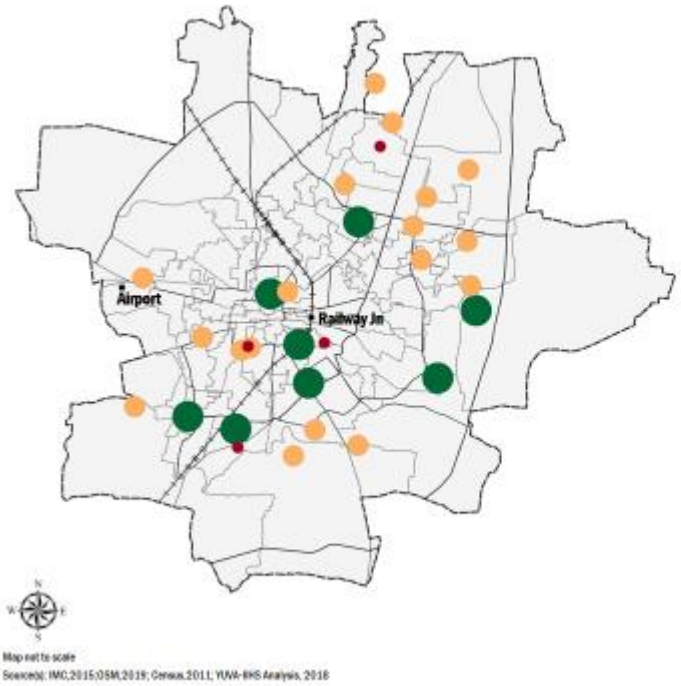



**Indore**
**Access to Community Centre**

**Legend**
- Roads
- Railway Line
- Ward boundary
- Municipal Corporation Boundary

**Index**
- 1
- 2
- 3
- 4
- 5

Map not to scale
Source(s): IMC,2015;OSM,2019; Census,2011; YUVA-IIHS Analysis, 2018



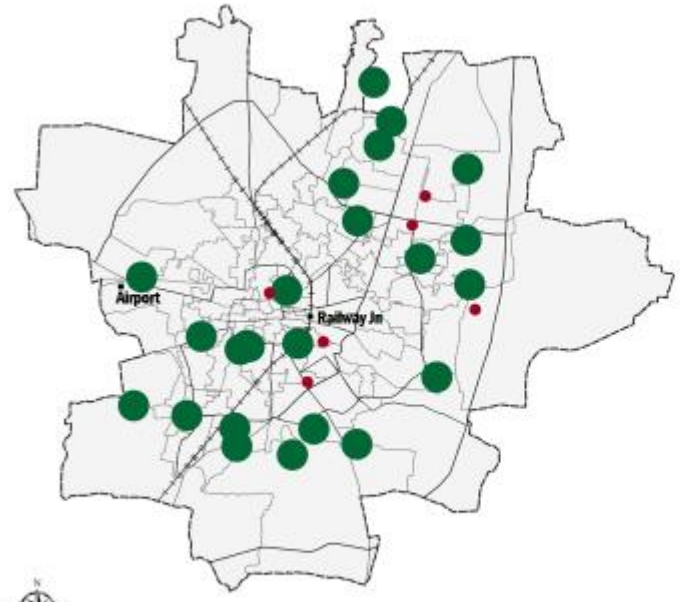

**Indore**
**Access to Open Spaces**

**Legend**
- Roads
- Railway Line
- Ward boundary
- Municipal Corporation Boundary

**Index**
- 1
- 2
- 3
- 4
- 5

Map not to scale
Source(s): IMC,2015;OSM,2019; Census,2011; YUVA-IIHS Analysis, 2018

**Indore**
**Access to Anganwadi**




**Legend**

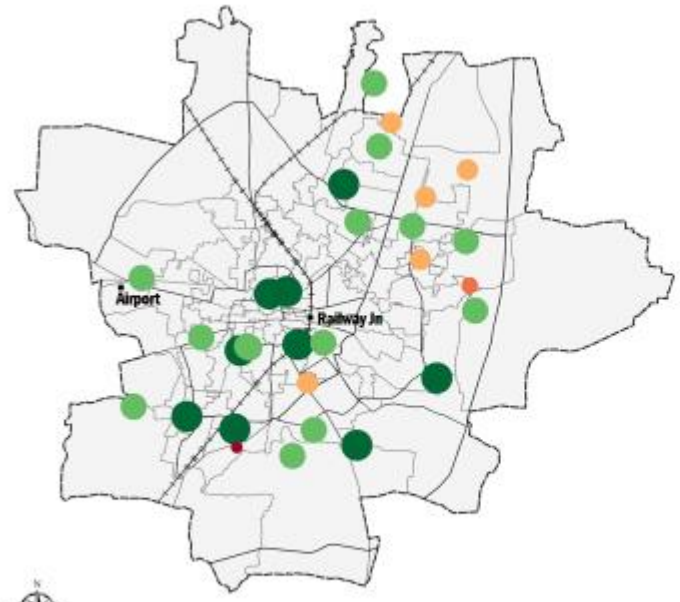
- Roads
- Railway Line
- Ward boundary
- Municipal Corporation Boundary

**Index**

1
2
3
4
5

Map not to scale
Source(s): IMC,2015;OSM,2019; Census,2011; YUVA-IIHS Analysis, 2018

**Indore**
**Social Amenities**




**Legend**

- Roads
- Railway Line
- Ward boundary
- Municipal Corporation Boundary

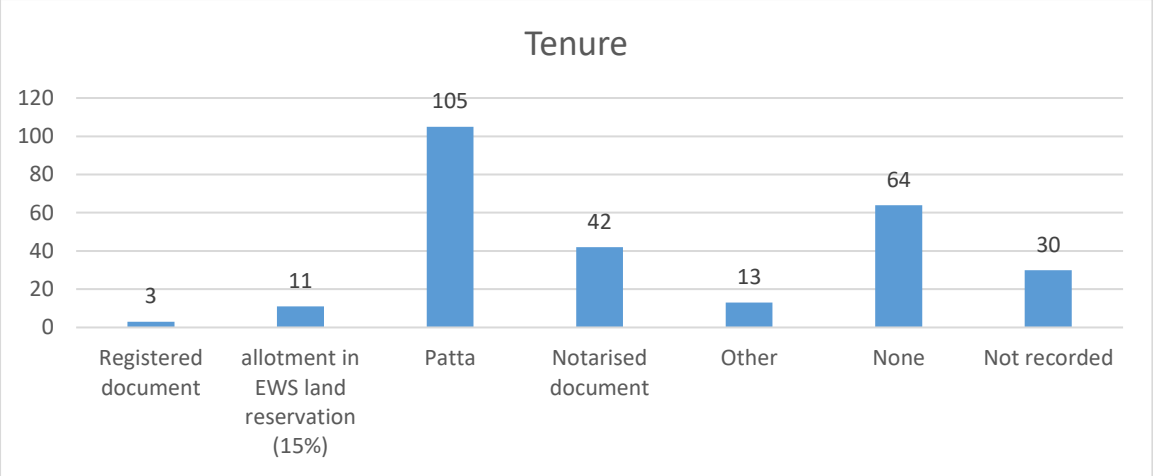
**Index**

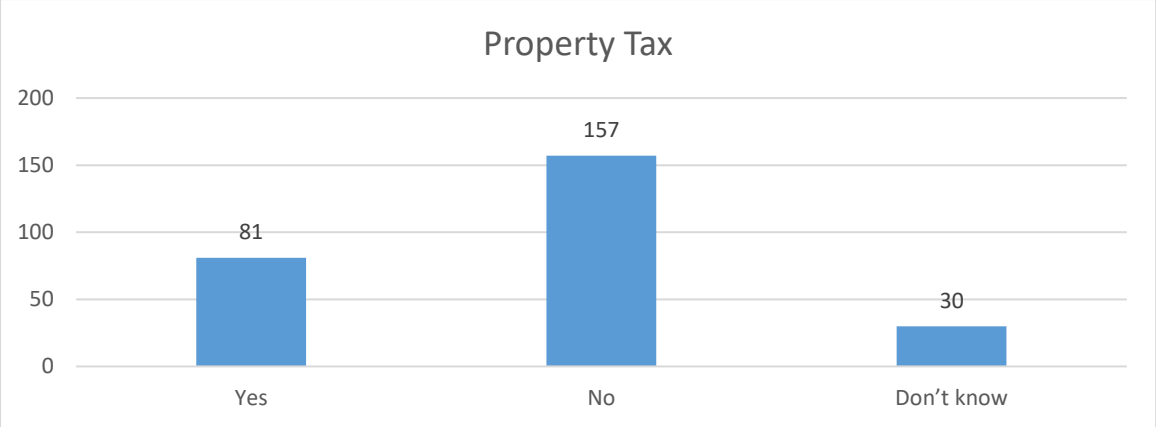
1
2
3
4
5

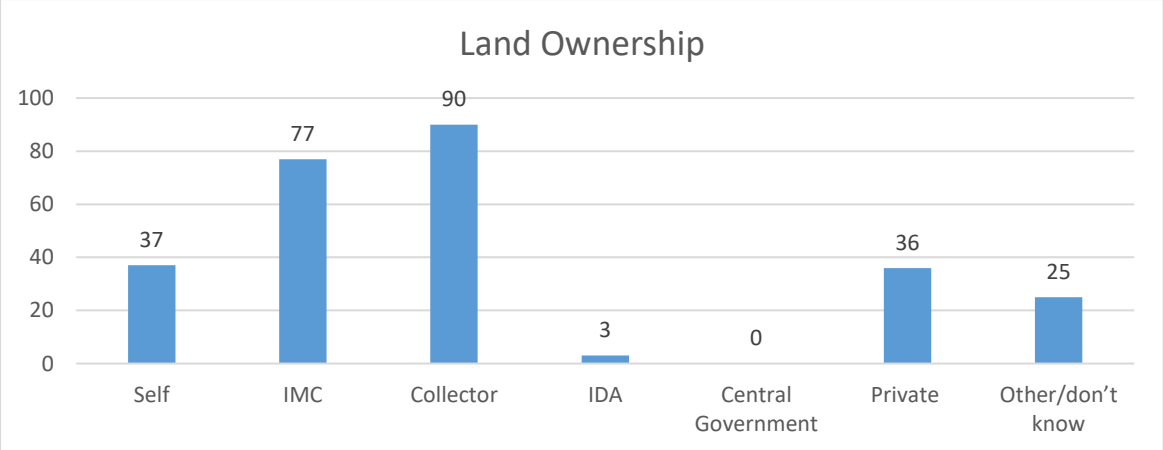
Map not to scale
Source(s): IMC,2015;OSM,2019; Census,2011; YUVA-IIHS Analysis, 2018

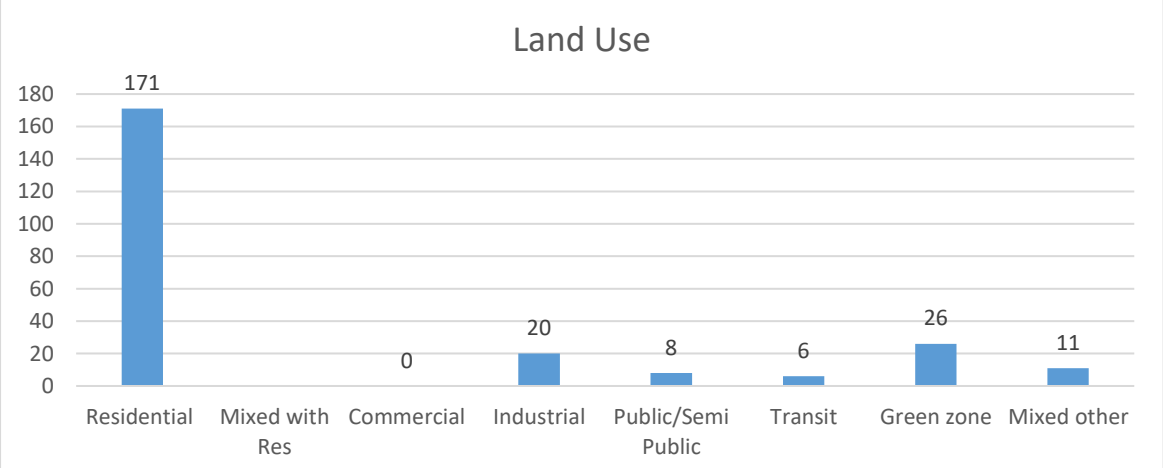
| INDICATOR V: Tenure security | | | | |
|---|---|---|---|---|
| Settlement level | | Ranking | Wtg | |
| Indicator I: Proof of tenure | Registered document | 1 | 5 | 3 |
| | allotment in EWS land reservation (15%) | 2 | 4 | 11 |
| | Patta | 3 | 3 | 105 |
| | Notarised document | 4 | 2 | 42 |
| | Other | 5 | 1 | 13 |
| | None | 6 | 0 | 64 |
| | Not recorded | 7 | X | 30 |
| | Range | 5 to 0 | | |
| | | | | |
| Indicator II: Propertu Tax payment | Yes | 1 | 1 | 81 |
| | No | 2 | 0 | 157 |
| | Don't know | 3 | X | 30 |
| | Range | 1 to 0 | | |
| | | | | |
| Indicator III: Ownership of land | Self | 1 | 6 | 37 |
| | IMC | 2 | 5 | 77 |
| | Collector | 3 | 4 | 90 |
| | IDA | 4 | 3 | 3 |
| | Central Government | 5 | 2 | 0 |
| | Private | 6 | 1 | 36 |
| | Other/don't know | 0 | X | 25 |
| | Range | 6 to 1 | | |
| | | | | |
| Indicator IV: Land Use | Residential | 1 | 8 | 171 |
| | Mixed with Res | 2 | 7 | 0 |
| | Commercial | 3 | 6 | 0 |
| | Industrial | 4 | 5 | 20 |
| | Public/Semi Public | 5 | 4 | 8 |
| | Transit | 6 | 3 | 6 |
| | Green zone | 7 | 2 | 26 |
| | Mixed other | 8 | 1 | 11 |
| | Range | 8 to 1 | | |
| Overall range for tenure security | | 20 to 2 | | |

The following graphs show the distribution of 269 HH data across scores within sub-indicators I to IV

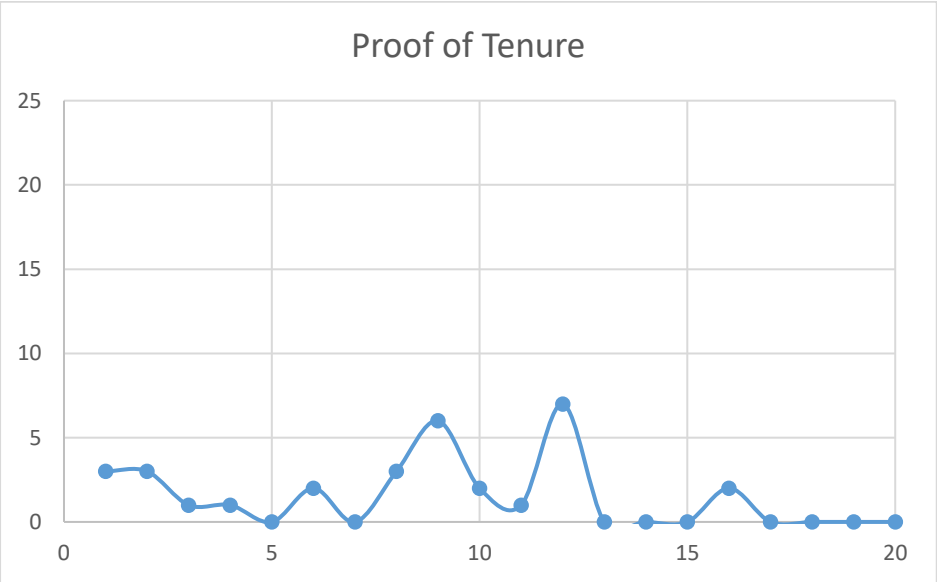

Tenure
120
100
80
60
40
20
0
3
11
105
42
13
64
30
Registered document
allotment in EWS land reservation (15%)
Patta
Notarised document
Other
None
Not recorded

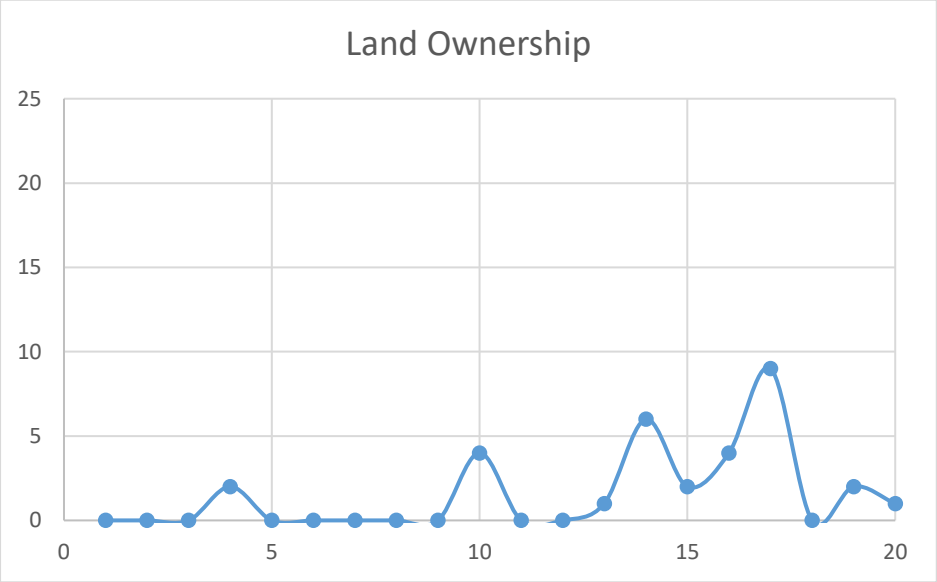

Property Tax
200
150
100
50
0
81
157
30
Yes
No
Don't know

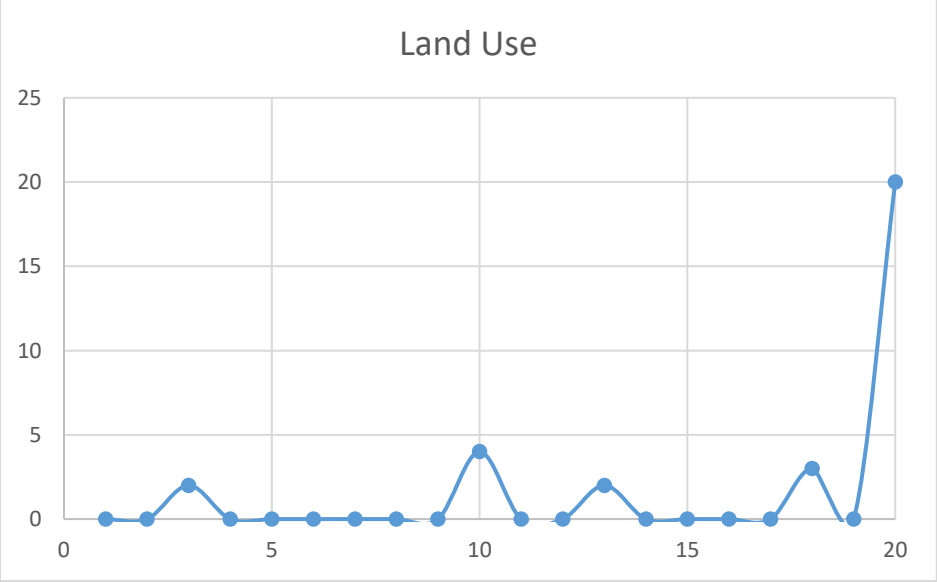

Land Ownership
100
80
60
40
20
0
37
77
90
3
0
36
25
Self
IMC
Collector
IDA
Central Government
Private
Other/don't know

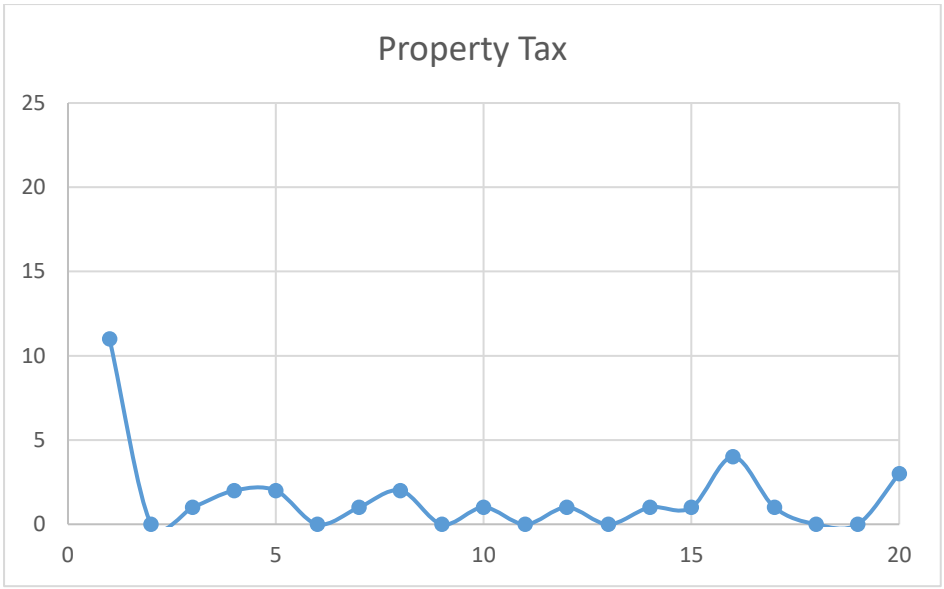

Land Use
180
160
140
120
100
80
60
40
20
0
171
0
20
8
6
26
11
Residential
Mixed with Res
Commercial
Industrial
Public/Semi Public
Transit
Green zone
Mixed other

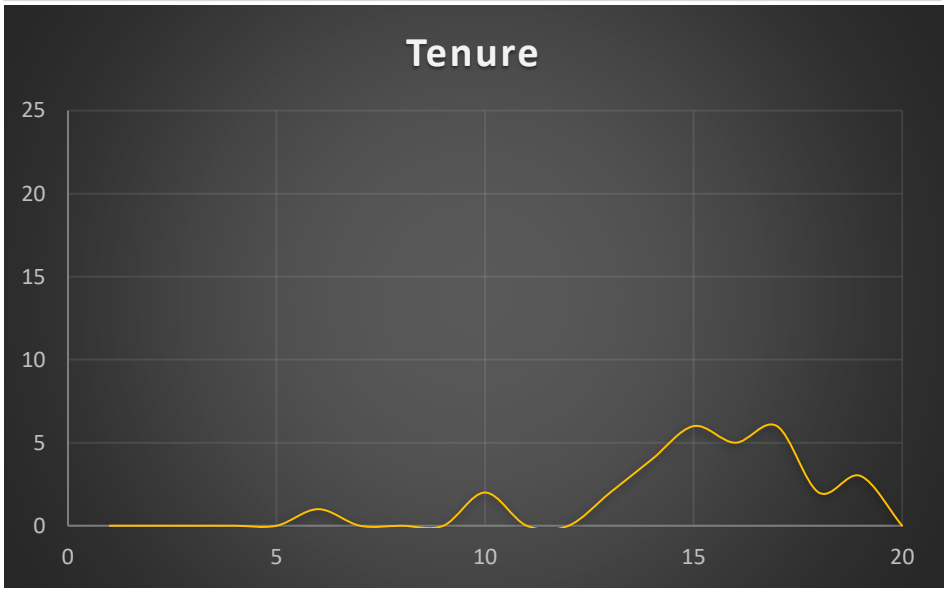
The following graphs show the distribution of settlements across different weights in the range of 1-20 for tenure security and its indicator.



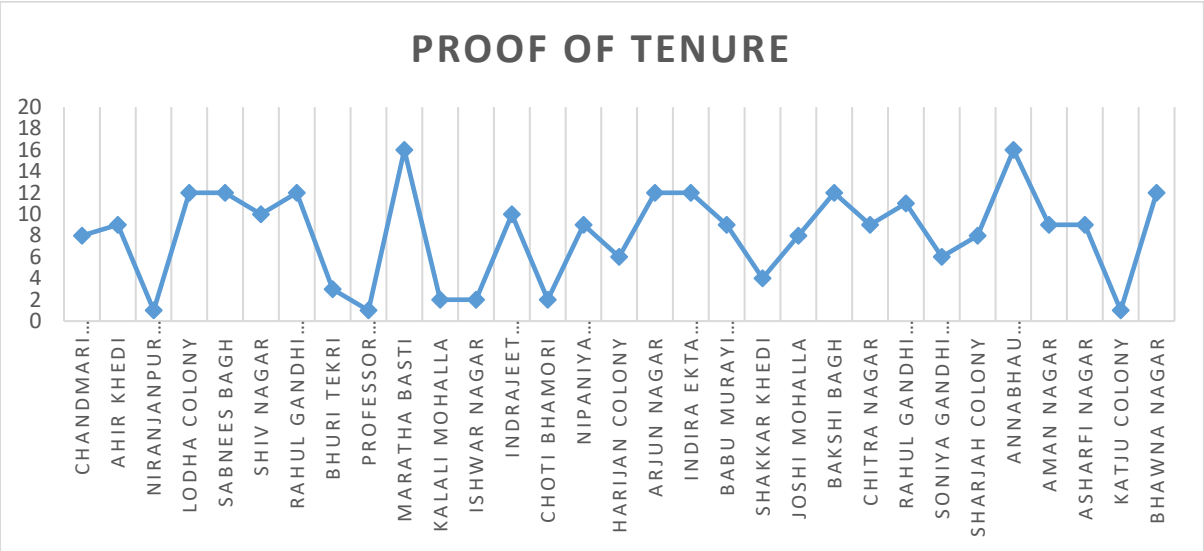



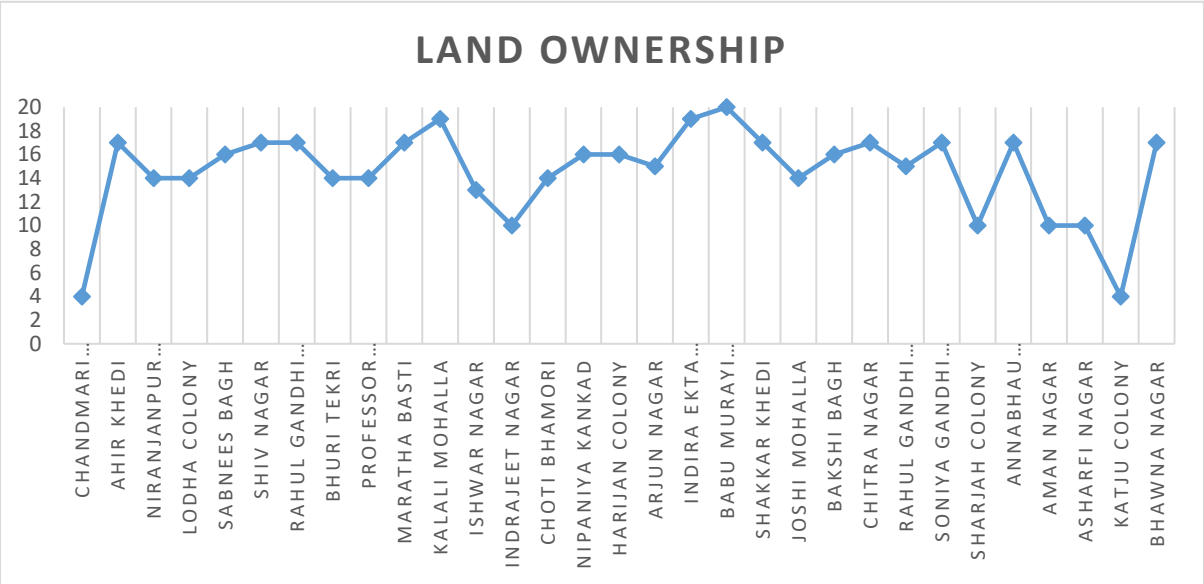



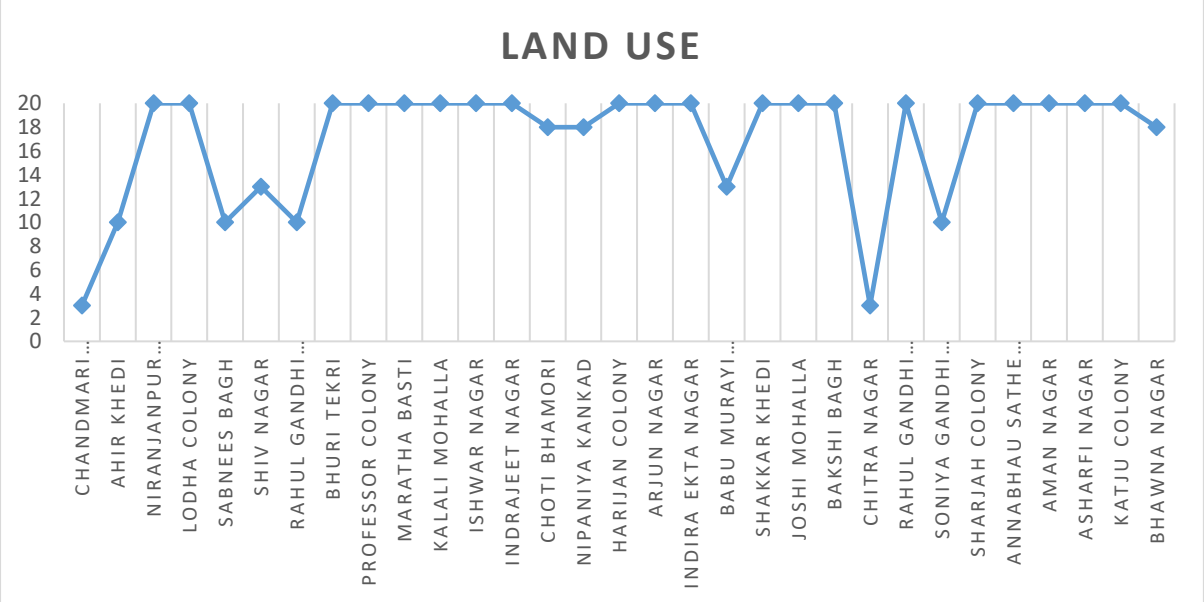

Property Tax
25
20
15
10
5
0
0
5
10
15
20

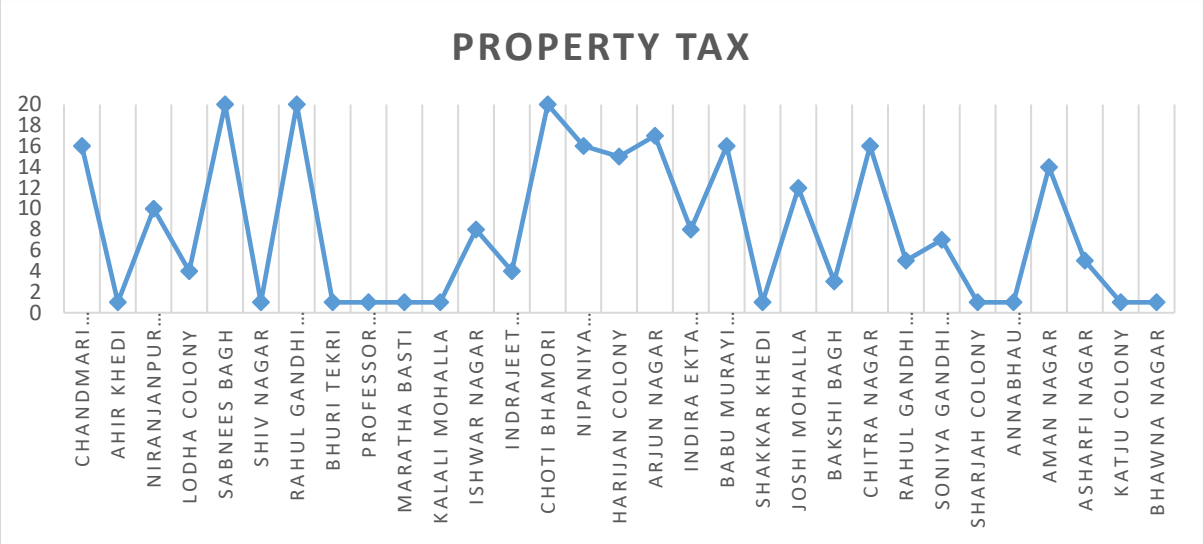

Tenure
25
20
15
10
5
0
0
5
10
15
20

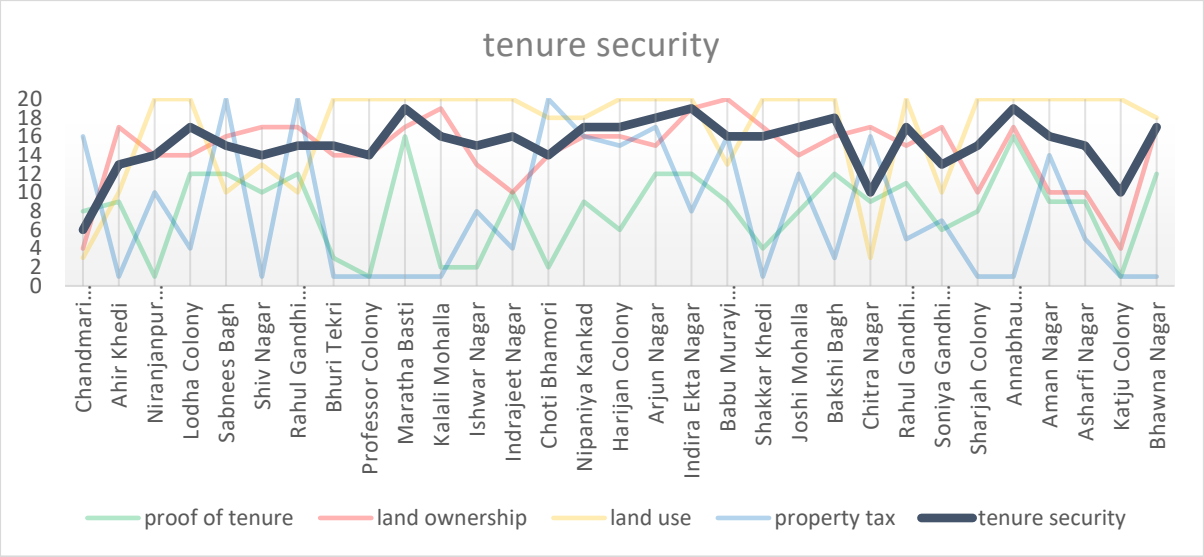
The first five charts plot each of the 31 settlements on a scale of 1-20 for each sub indicator of tenure security. The sixth graph plots the sub-indicators and indicator together.



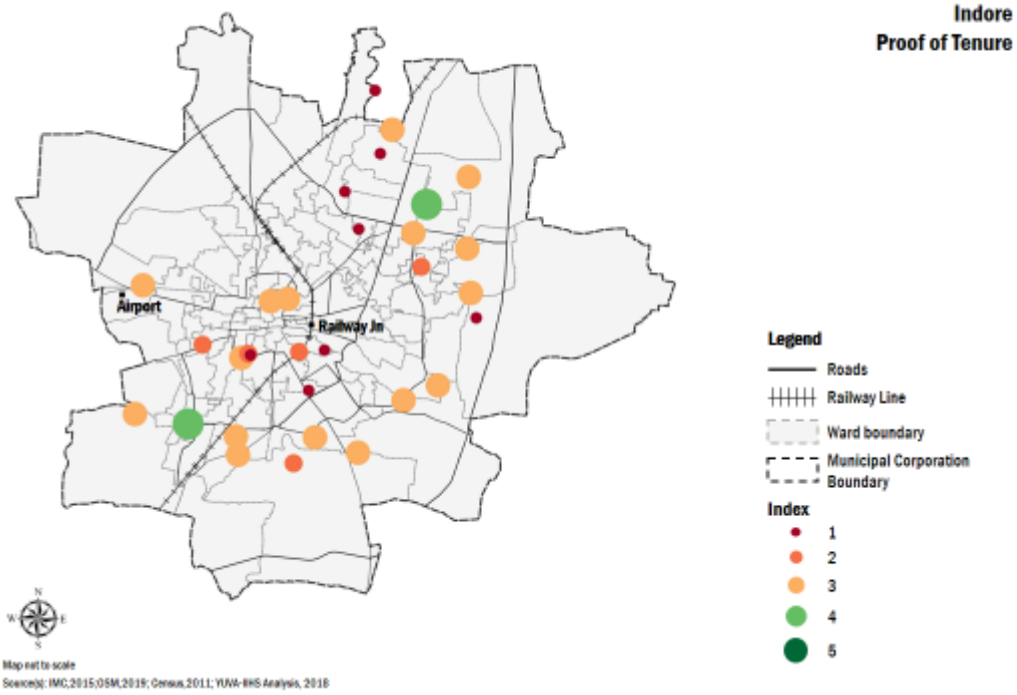



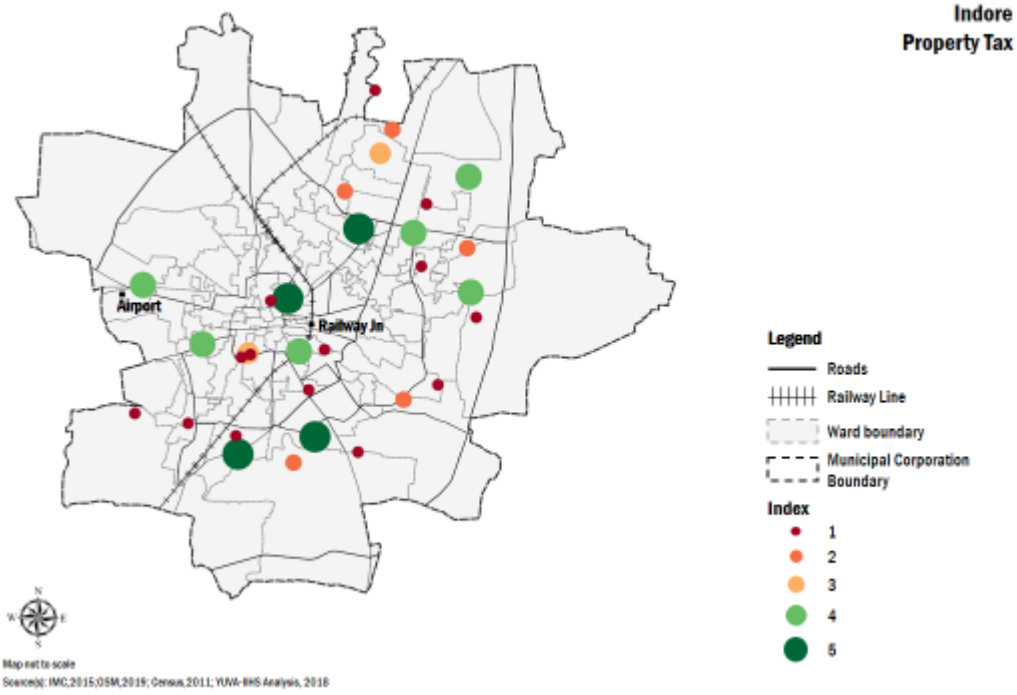




PROPERTY TAX
20
18
16
14
12
10
8
6
4
2
0
CHANDMARI...
AHIR KHEDI
NIRANJANPUR...
LODHA COLONY
SABNEES BAGH
SHIV NAGAR
RAHUL GANDHI...
BHURI TEKRI
PROFESSOR...
MARATHA BASTI
KALALI MOHALLA
ISHWAR NAGAR
INDRAJEET...
CHOTI BHAMORI
NIPANIYA...
HARIJAN COLONY
ARJUN NAGAR
INDIRA EKTA...
BABU MURAYI...
SHAKKAR KHEDI
JOSHI MOHALLA
BAKSHI BAGH
CHITRA NAGAR
RAHUL GANDHI...
SONIYA GANDHI...
SHARJAH COLONY
ANNABHAU...
AMAN NAGAR
ASHARFI NAGAR
KATJU COLONY
BHAWNA NAGAR

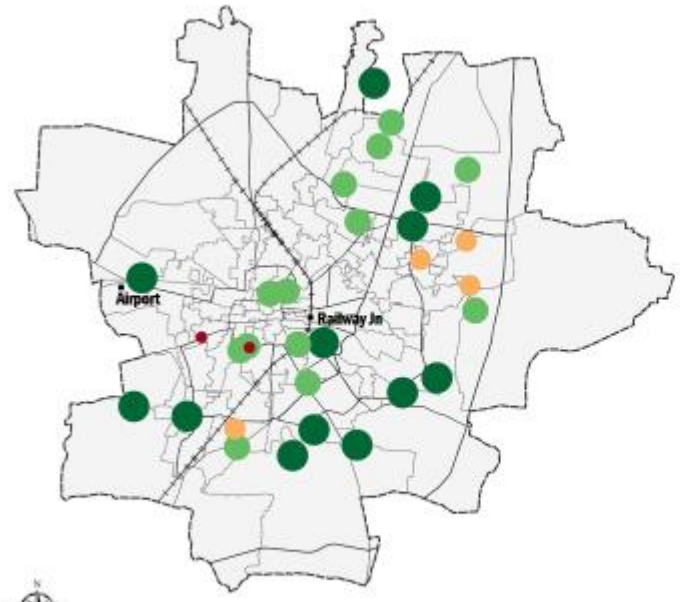

tenure security
20
18
16
14
12
10
8
6
4
2
0
Chandmari...
Ahir Khedi
Niranjanpur...
Lodha Colony
Sabnees Bagh
Shiv Nagar
Rahul Gandhi...
Bhuri Tekri
Professor Colony
Maratha Basti
Kalali Mohalla
Ishwar Nagar
Indrajeet Nagar
Choti Bhamori
Nipaniya Kankad
Harijan Colony
Arjun Nagar
Indira Ekta Nagar
Babu Murayi...
Shakkar Khedi
Joshi Mohalla
Bakshi Bagh
Chitra Nagar
Rahul Gandhi...
Soniya Gandhi...
Sharjah Colony
Annabhau...
Aman Nagar
Asharfi Nagar
Katju Colony
Bhawna Nagar
proof of tenure
land ownership
land use
property tax
tenure security

The following maps show the spatial distribution of settlements marked according to their respective tenure security indicator weights divided into 5 increments.



## Indore
## Land ownership




**Legend**

- Roads
- Railway Line
- Ward boundary
- Municipal Corporation Boundary

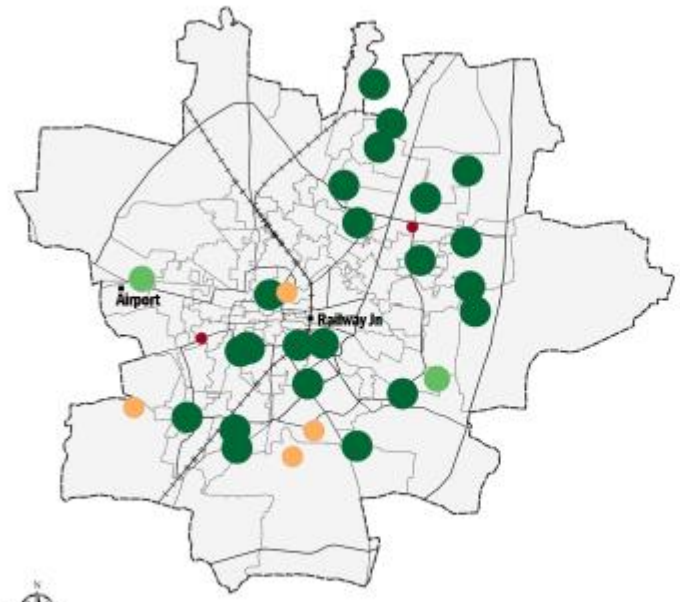
**Index**

- 1
- 2
- 3
- 4
- 5

Map not to scale

Source(s): IMC,2015;OSM,2019; Census,2011; YUVA-IIHS Analysis, 2018

## Indore
## Land use




**Legend**

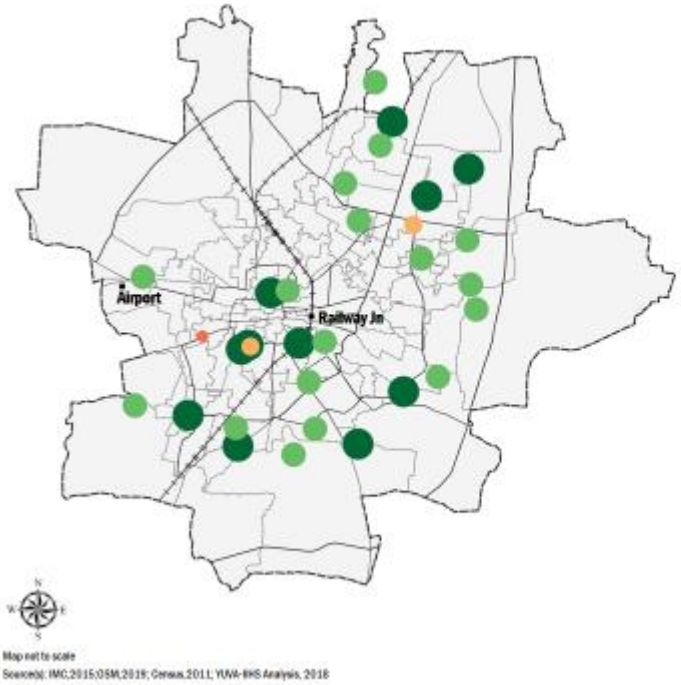
- Roads
- Railway Line
- Ward boundary
- Municipal Corporation Boundary

**Index**

- 1
- 2
- 3
- 4
- 5

Map not to scale

Source(s): IMC,2015;OSM,2019; Census,2011; YUVA-IIHS Analysis, 2018




**Indore**
**Tenure Security**

**Legend**

- Roads
- Railway Line
- Ward boundary
- Municipal Corporation Boundary

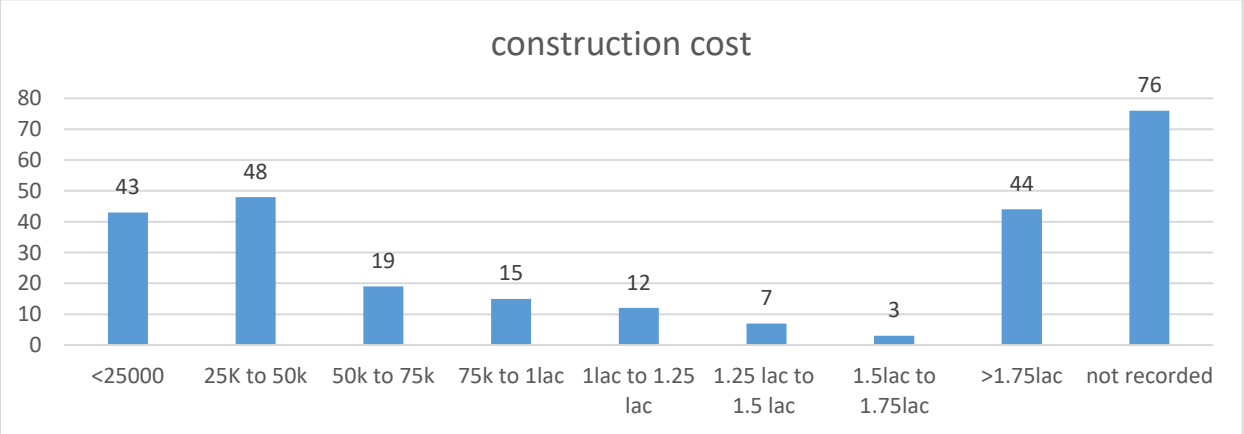
**Index**

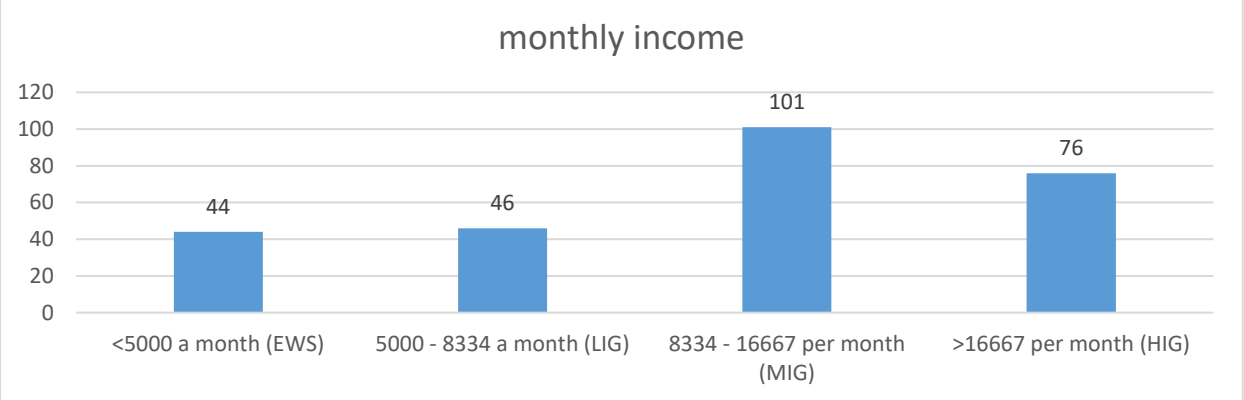
- 1
- 2
- 3
- 4
- 5

Map not to scale
Source(s): IMC,2015;OSM,2019; Census,2011; YUVA-IIHS Analysis, 2018

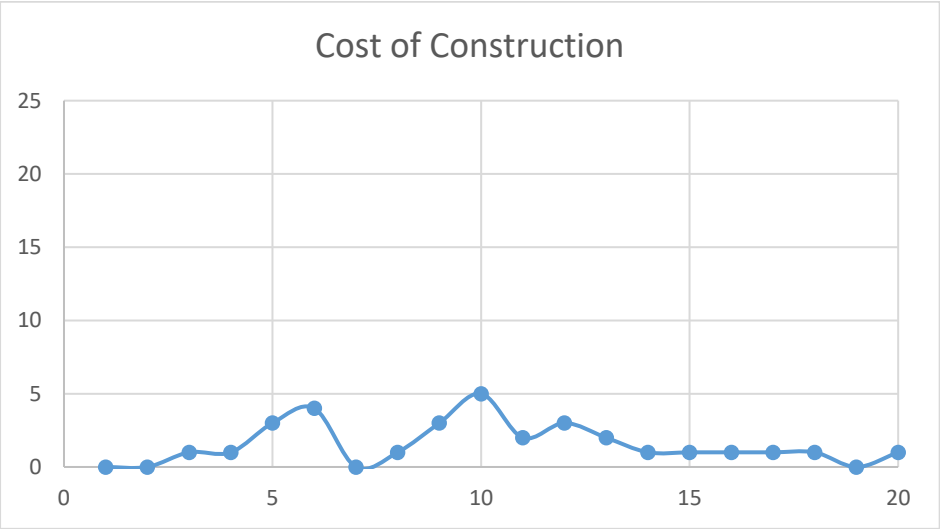
| INDICATOR VI: INVESTMENT | | | | |
|---|---|---|---|---|
| Building level | | Rank | Score | No |
| Sub- Indicator I: Cost of construction of house | <25000 | 1 | 1 | 43 |
| | 25K to 50k | 2 | 2 | 48 |
| | 50k to 75k | 3 | 3 | 19 |
| | 75k to 1lac | 4 | 4 | 15 |
| | 1lac to 1.25 lac | 5 | 5 | 12 |
| | 1.25 lac to 1.5 lac | 6 | 6 | 7 |
| | 1.5lac to 1.75lac | 7 | 7 | 3 |
| | >1.75lac | 8 | 8 | 44 |
| | not recorded | x | x | 76 |
| | Range | 8 to 1 | | |
| | | | | |
| Sub-Indicator II: Household Income | <5000 a month (EWS) | | 4 | 44 |
| | 5000 - 8334 a month (LIG) | | 3 | 46 |
| | 8334 - 16667 per month (MIG) | | 2 | 101 |
| | >16667 per month (HIG) | | 1 | 76 |
| | Range | 4 to 1 | | |
| Range for Investment: Sub-indicator I+II | | Range: [(8 to 1)+(4 to 1)] = 12 to 2 | | |

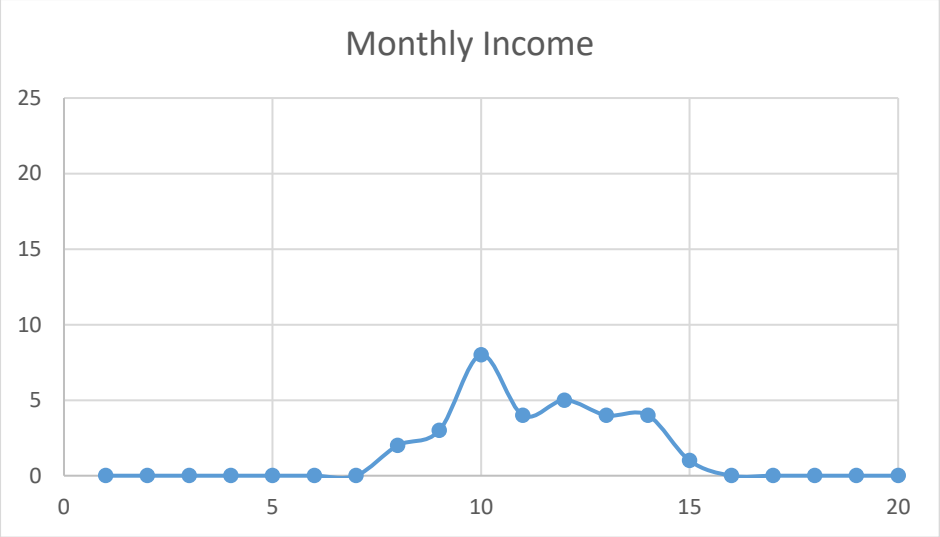
The data below shows distribution of 269 households across scores within sub-indicators I & II

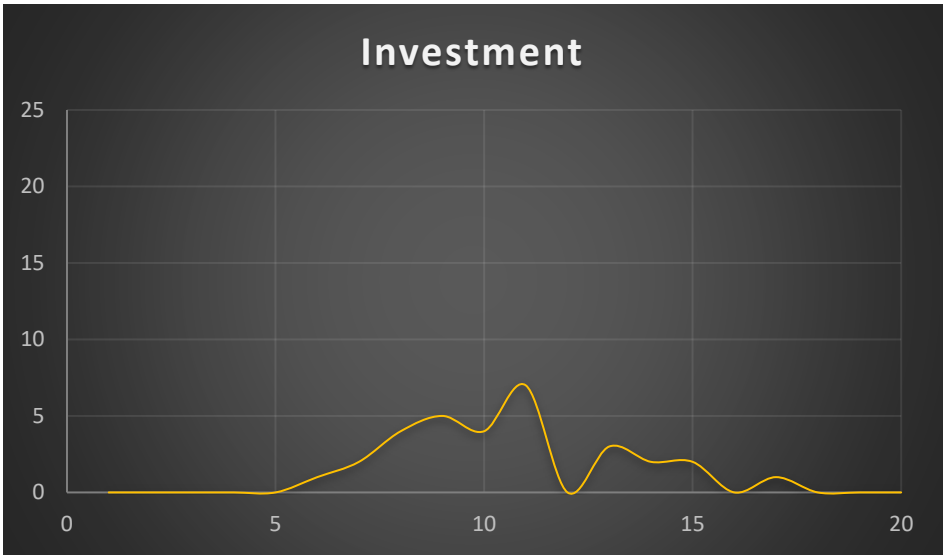


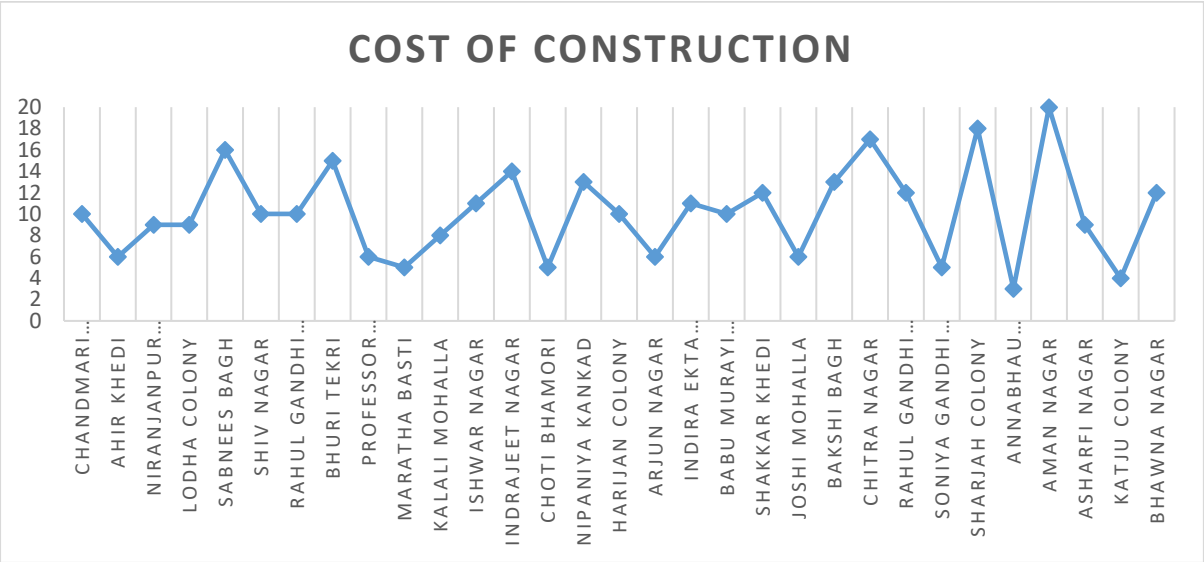
The following graphs show the distribution of settlements across different weights in the range of 1-20 for investment and its sub-indicators.

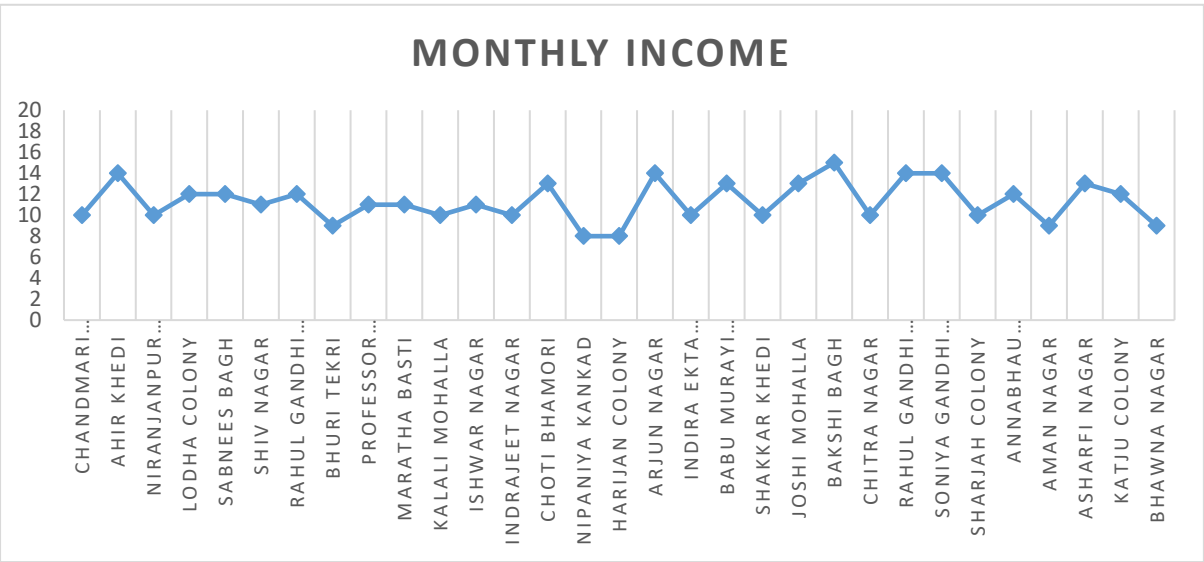


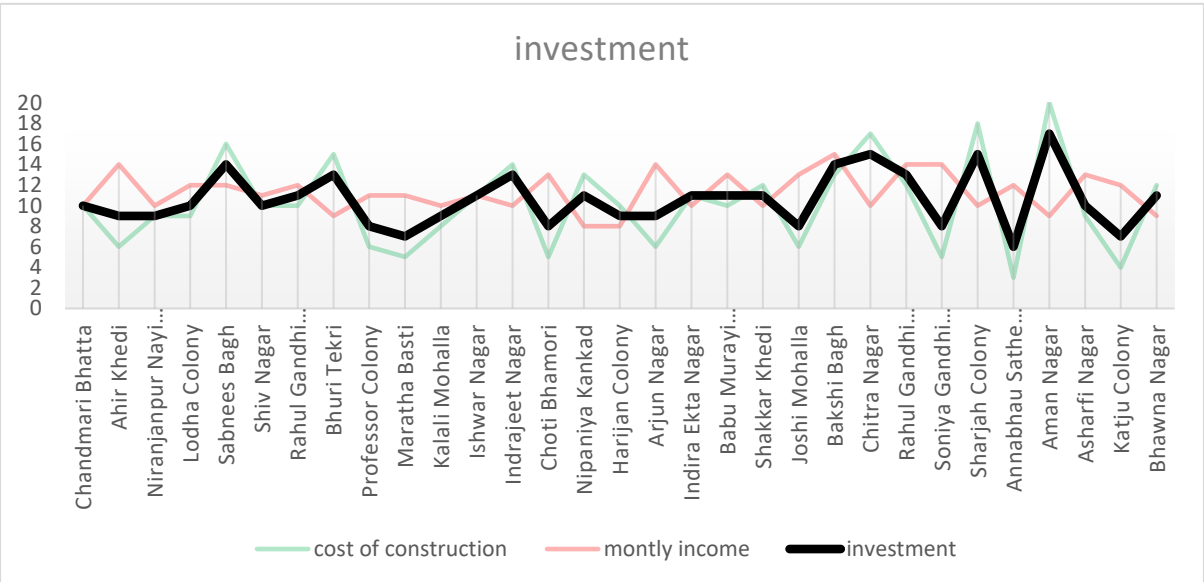



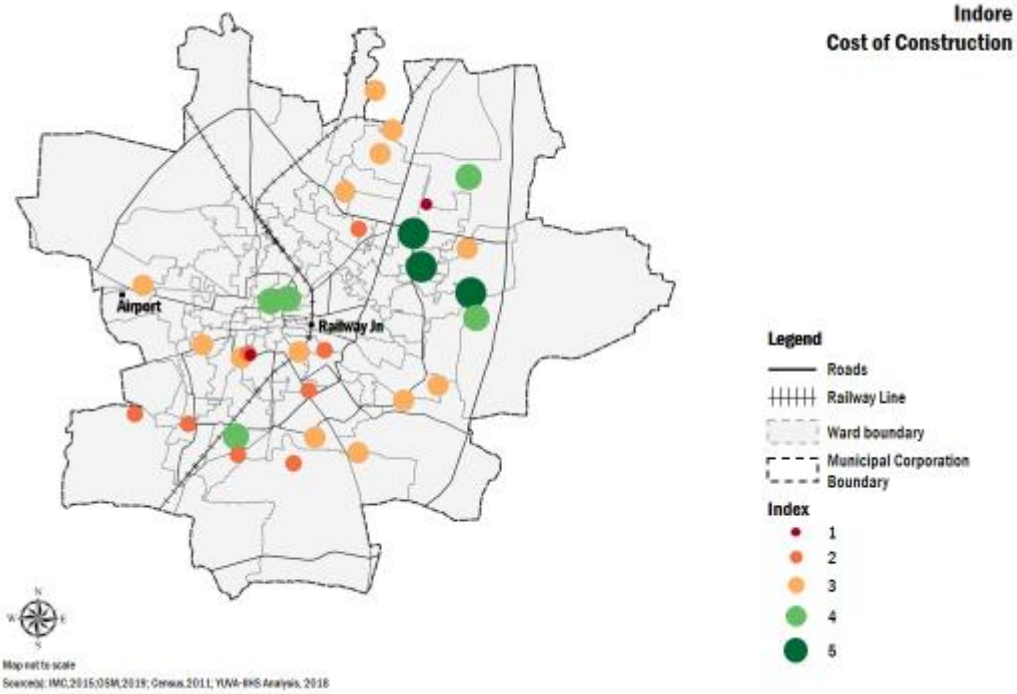
The first two charts plot each of the 31 settlements on a scale of 1-20 for each sub indicator of investment. The third graph plots the sub-indicators and indicator together.

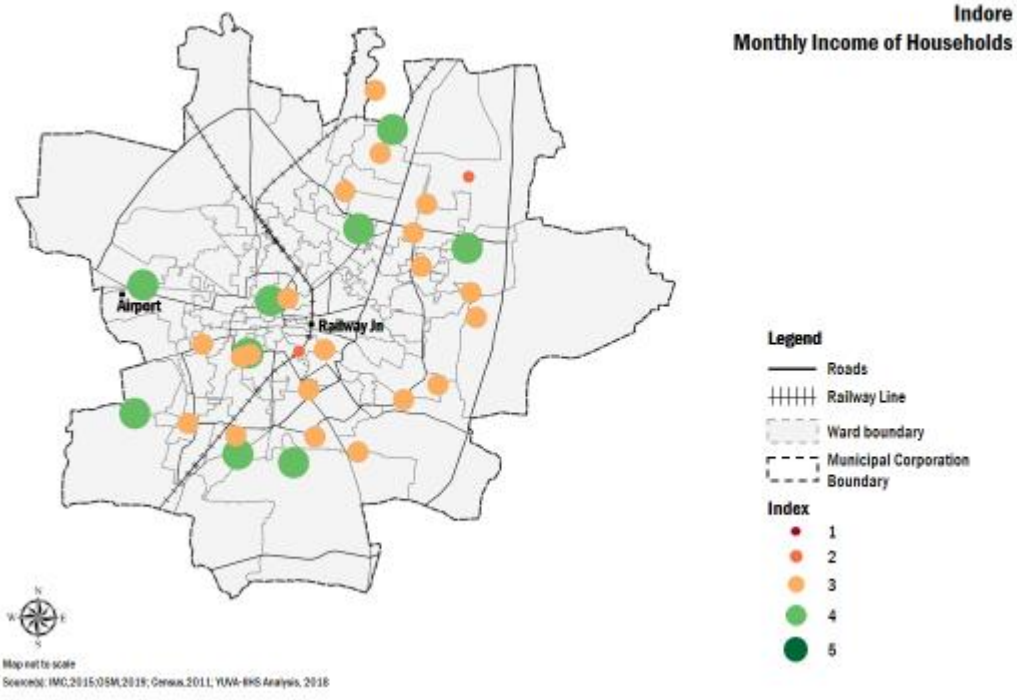


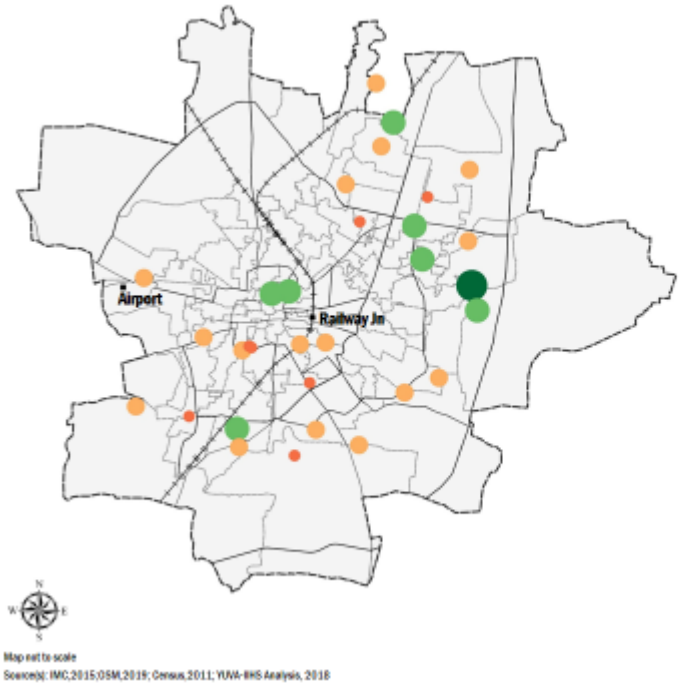



The following maps show the spatial distribution of settlements marked according to their respective investment indicator weights divided into 5 increments.






Map not to scale

Source(s): IMC,2015;OSM,2019; Census,2011; YUVA-IIHS Analysis, 2018

## Indore
## Investment

**Legend**

- Roads
- Railway Line
- Ward boundary
- Municipal Corporation Boundary

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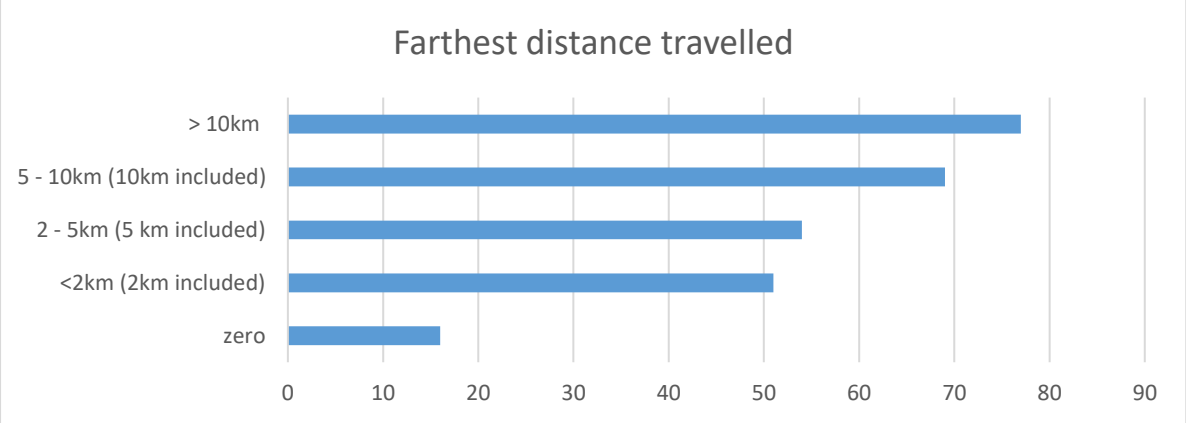
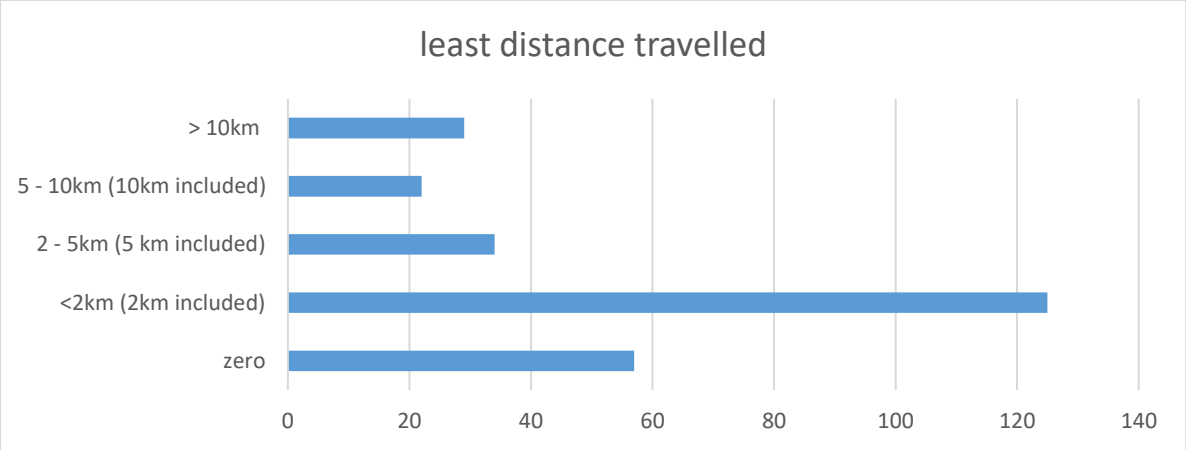
- 4
- 5

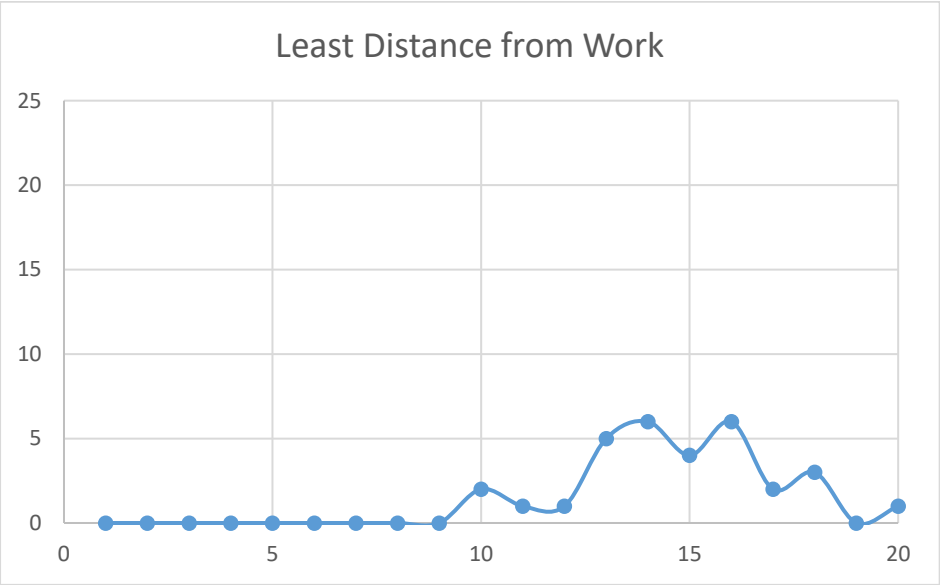
| INDICATOR VII: DISTANCE FROM WORK | | | | |
|---|---|---|---|---|
| Settlement and household level | | Ranking | Wtg | No. |
| Sub-Indicator II: Farthest distance travelled by family for work | zero | 1 | 5 | 16 |
| | <2km (2km included) | 2 | 4 | 51 |
| | 2 - 5km (5 km included) | 3 | 3 | 54 |
| | 5 - 10km (10km included) | 4 | 2 | 69 |
| | > 10km | 5 | 1 | 77 |
| | Range | 5 to 1 | | |
| | | | | |
| Sub-Indicator II: least distance travelled by family for work | zero | 1 | 5 | 57 |
| | <2km (2km included) | 2 | 4 | 125 |
| | 2 - 5km (5 km included) | 3 | 3 | 34 |
| | 5 - 10km (10km included) | 4 | 2 | 22 |
| | > 10km | 5 | 1 | 29 |
| | Range | 5 to 1 | | |

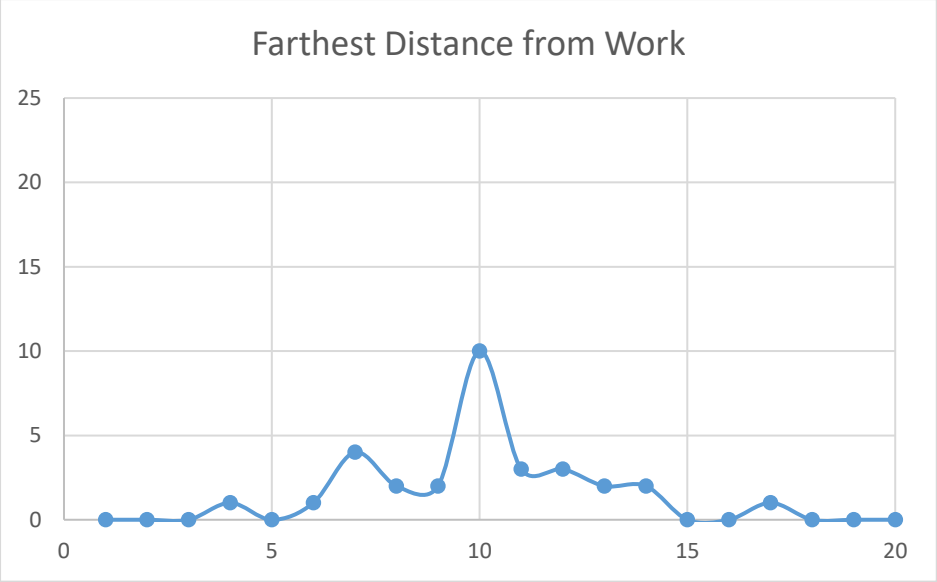
The following graphs show the distribution of 269 HH data across scores within sub-indicators I & II



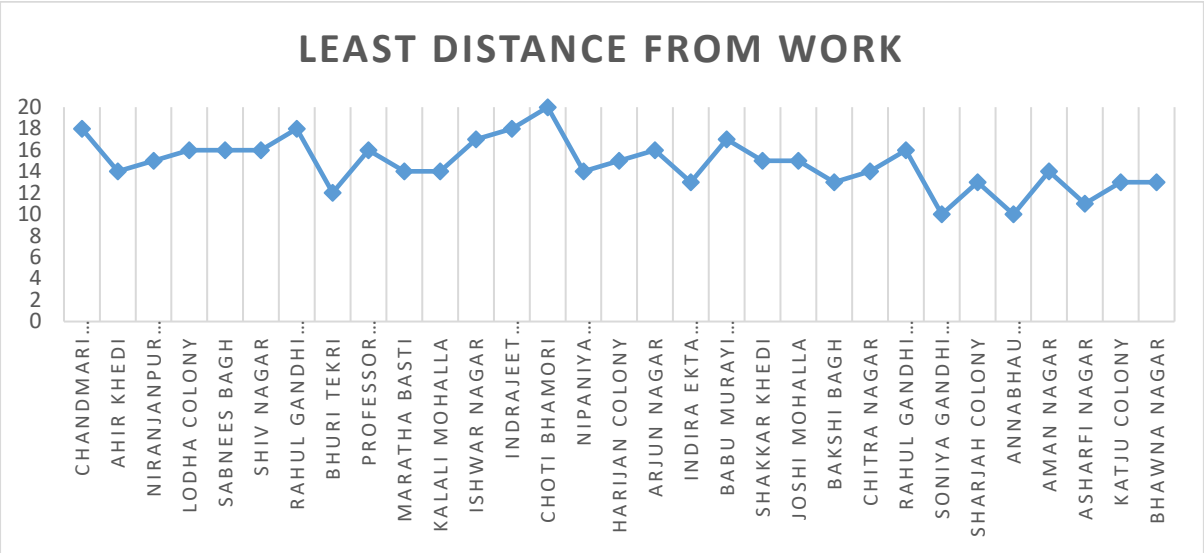



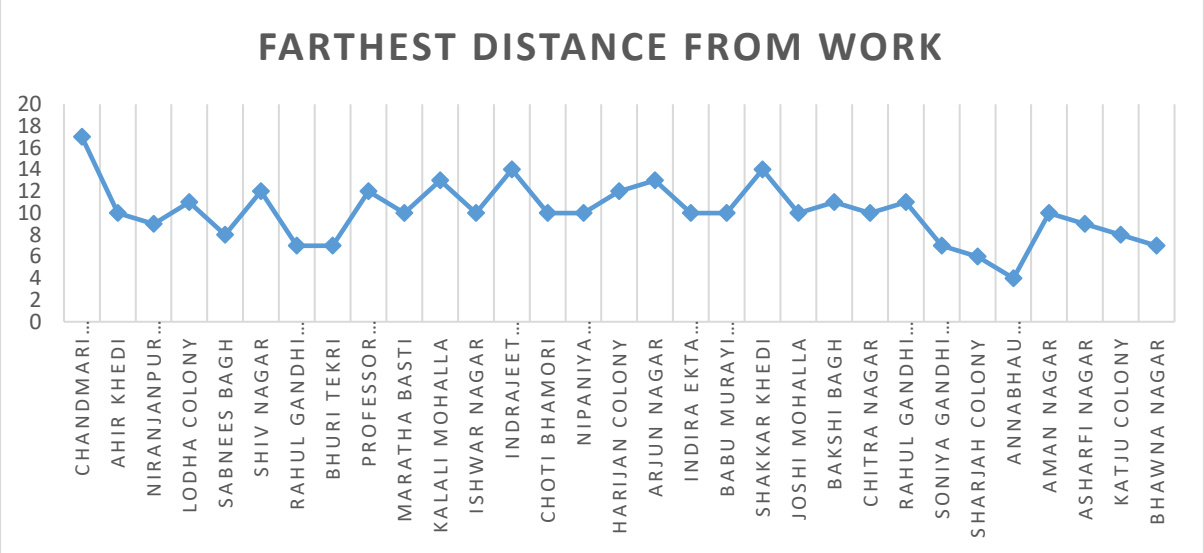
The following graphs show the distribution of settlements across different weights in the range of 1-20 for least and farthest distance from work.



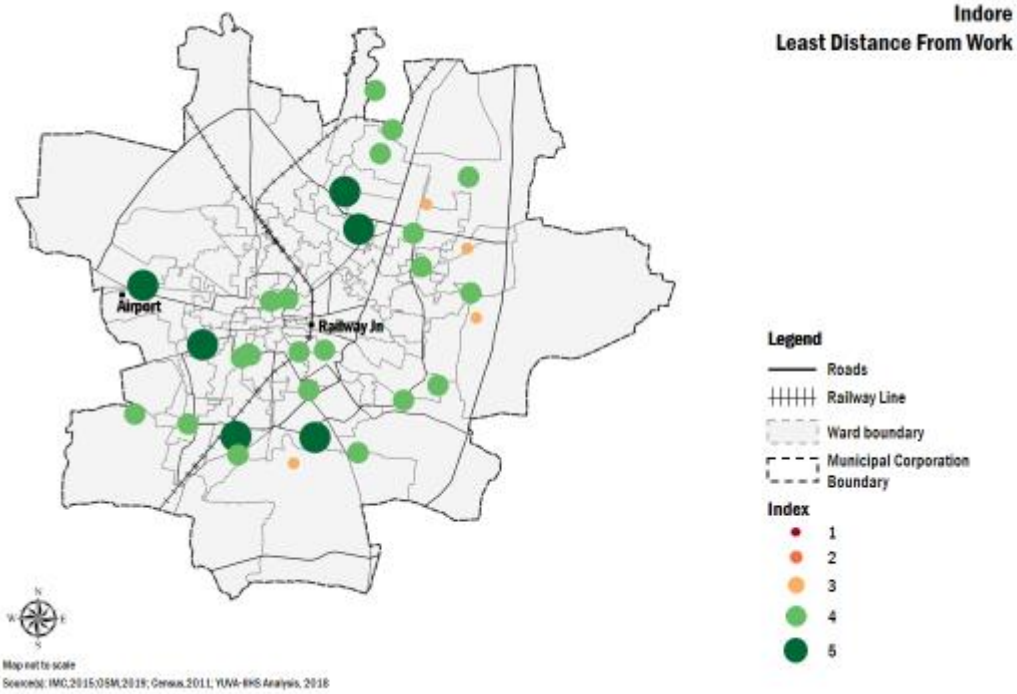



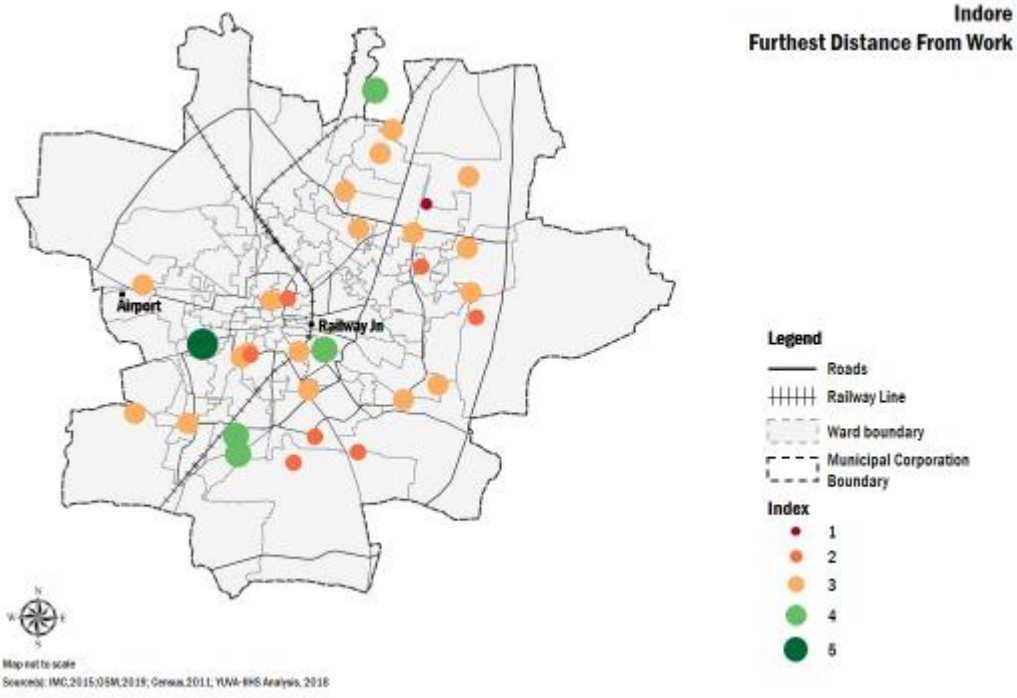
The first five charts plot each of the 31 settlements on a scale of 1-20 for least and farthest distance from work.



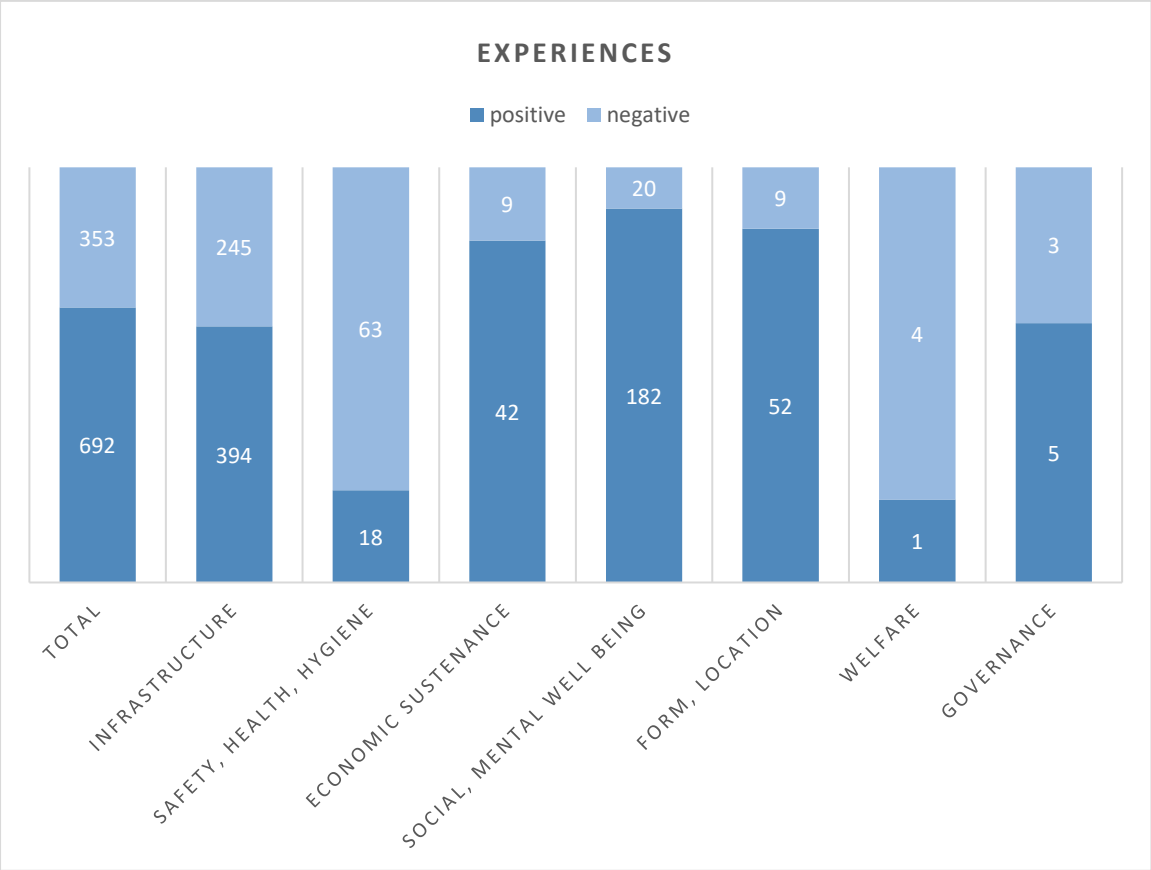
The following maps show the spatial distribution of settlements marked according to their respective weights for least and farthest distance from work divided into 5 increments.

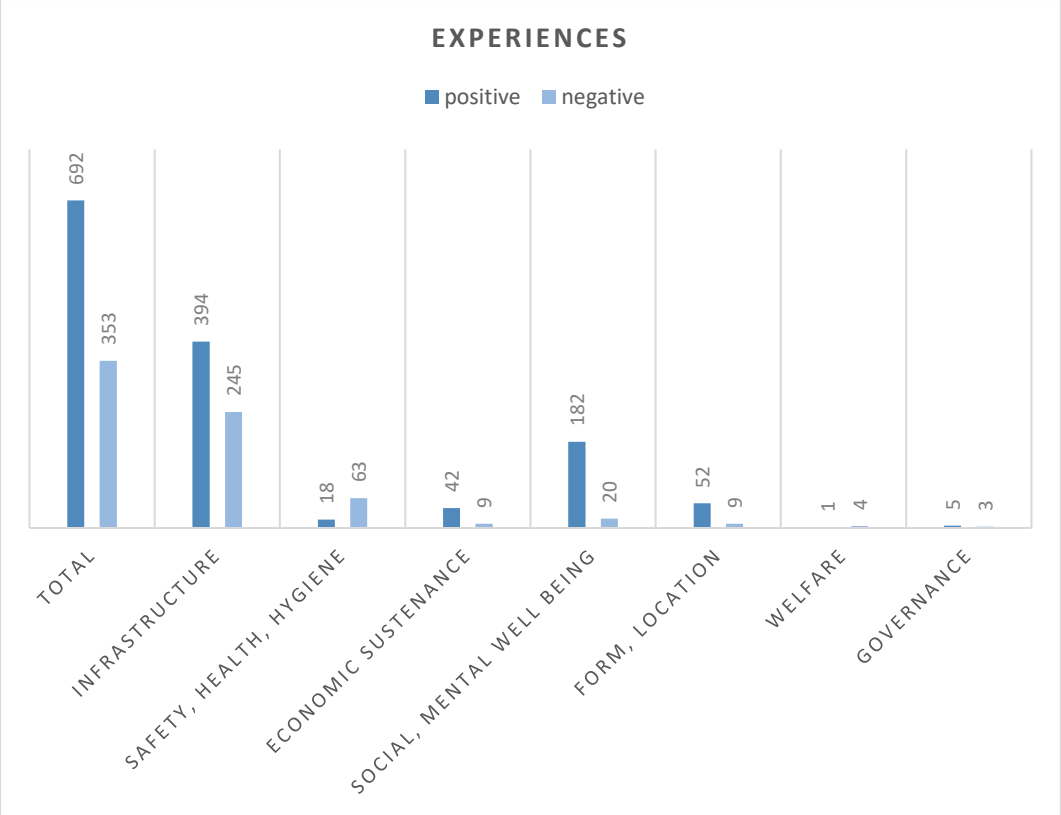


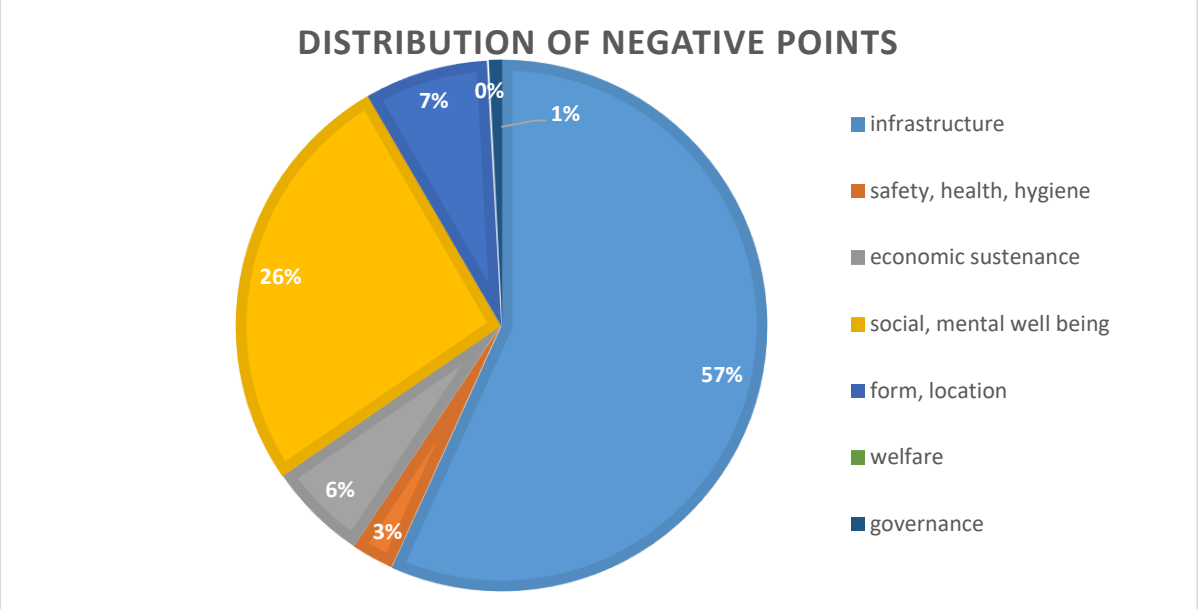



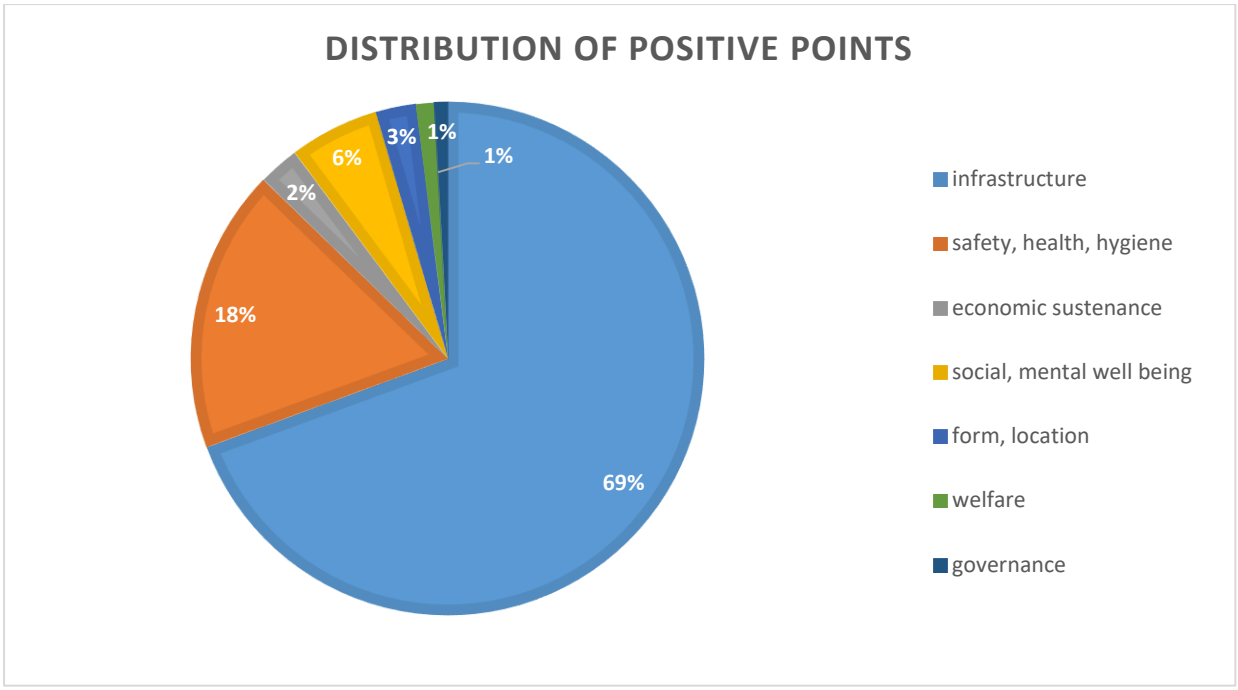
| INDICATOR VIII: Future Construction Plans<br>INDICATOR IX: Experience of living in settlement | | | | |
|---|---|---|---|---|
| Building level | | Rank | Score | No. |
| Indicator VII: Future construction plans | Structural | 1 | 4 | 67 |
| | Home extension | 2 | 3 | 7 |
| | Finishing | 3 | 2 | 7 |
| | Repairs | 4 | 1 | 22 |
| | None | 5 | 0 | 165 |
| | Range | 5 to 1 | | |
| Settlement level | | | | |
| Indicator IX: Experience of living in the settlement | Positive | NA | | |
| | Negative | NA | | |
| | Positive and negative experiences were added across 7 segments and then totalled. | | | |

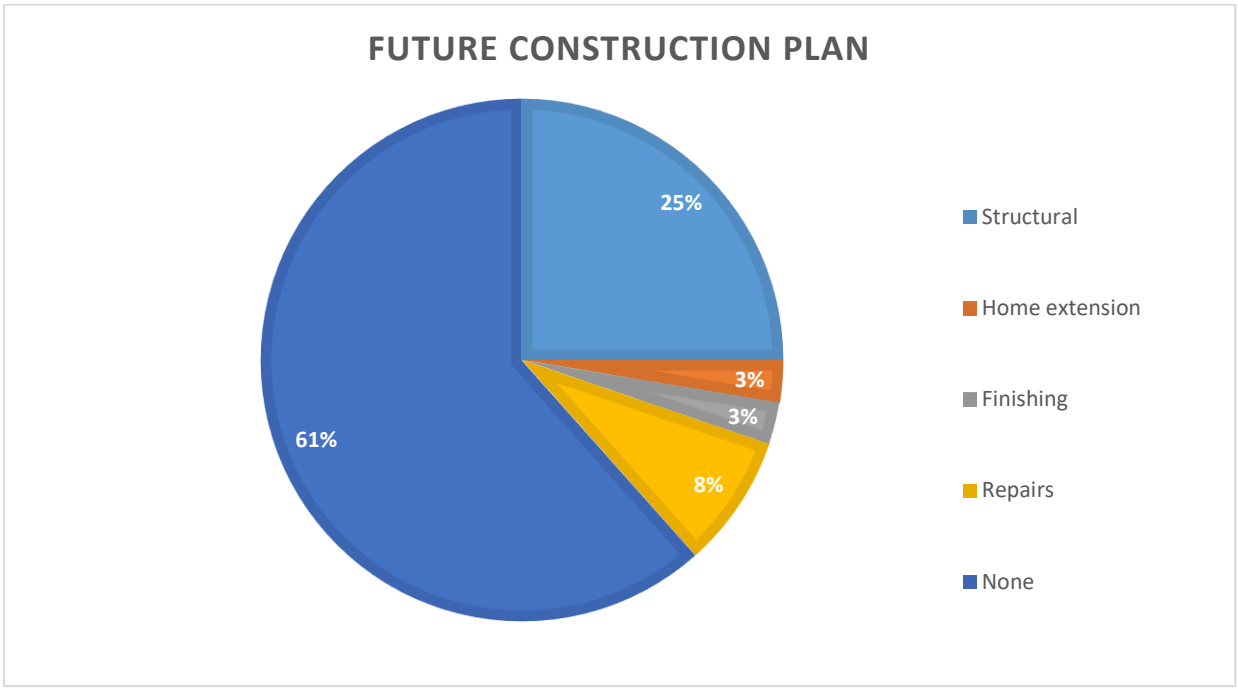
The following graphs show the distribution of 269 HH data across scores within future construction plans and experience of living in settlement.



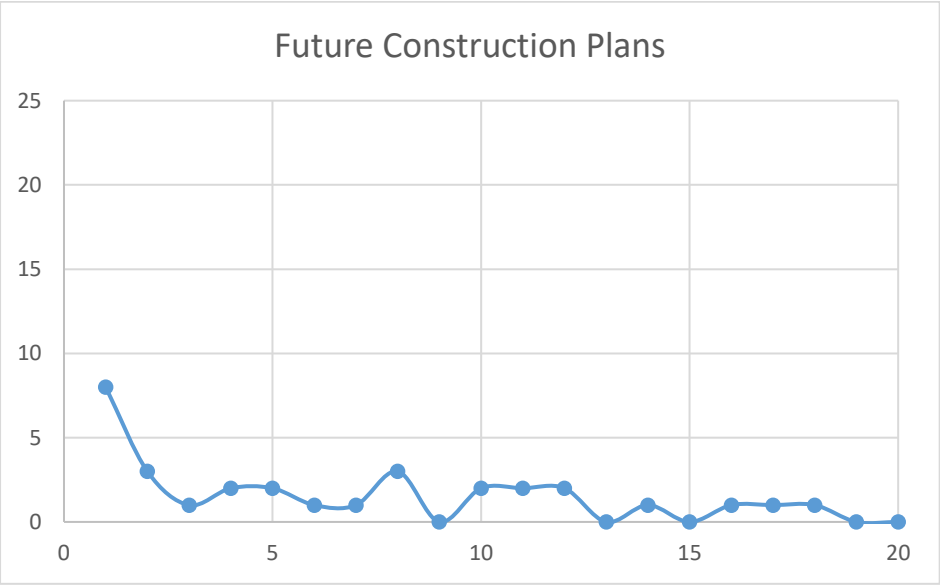

EXPERIENCES
positive
negative
692
353
394
245
18
63
42
9
182
20
52
9
1
4
5
3
TOTAL
INFRASTRUCTURE
SAFETY, HEALTH, HYGIENE
ECONOMIC SUSTENANCE
SOCIAL, MENTAL WELL BEING
FORM, LOCATION
WELFARE
GOVERNANCE

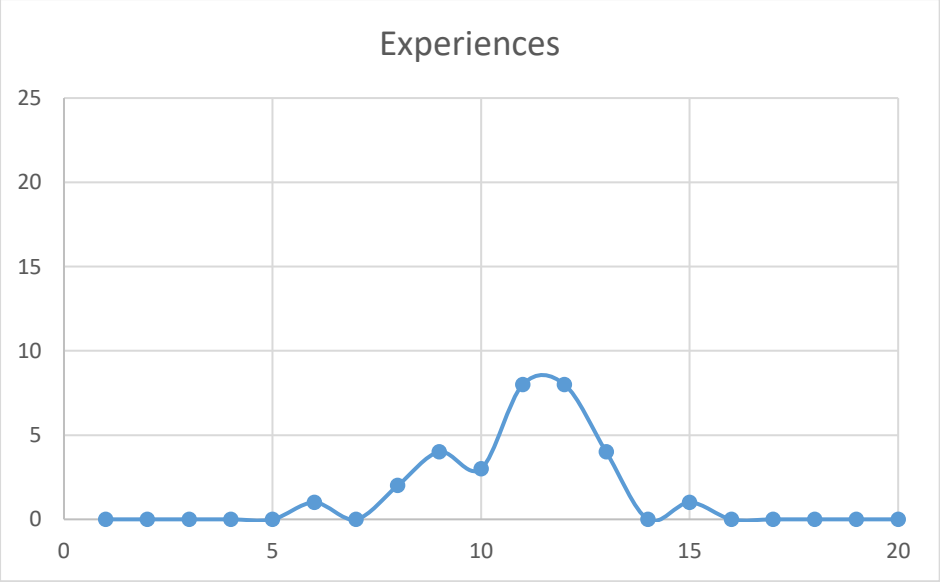

DISTRIBUTION OF NEGATIVE POINTS
57%
3%
6%
26%
7%
0%
1%
infrastructure
safety, health, hygiene
economic sustenance
social, mental well being
form, location
welfare
governance


DISTRIBUTION OF POSITIVE POINTS
69%
18%
2%
6%
3%
1%
1%
infrastructure
safety, health, hygiene
economic sustenance
social, mental well being
form, location
welfare
governance

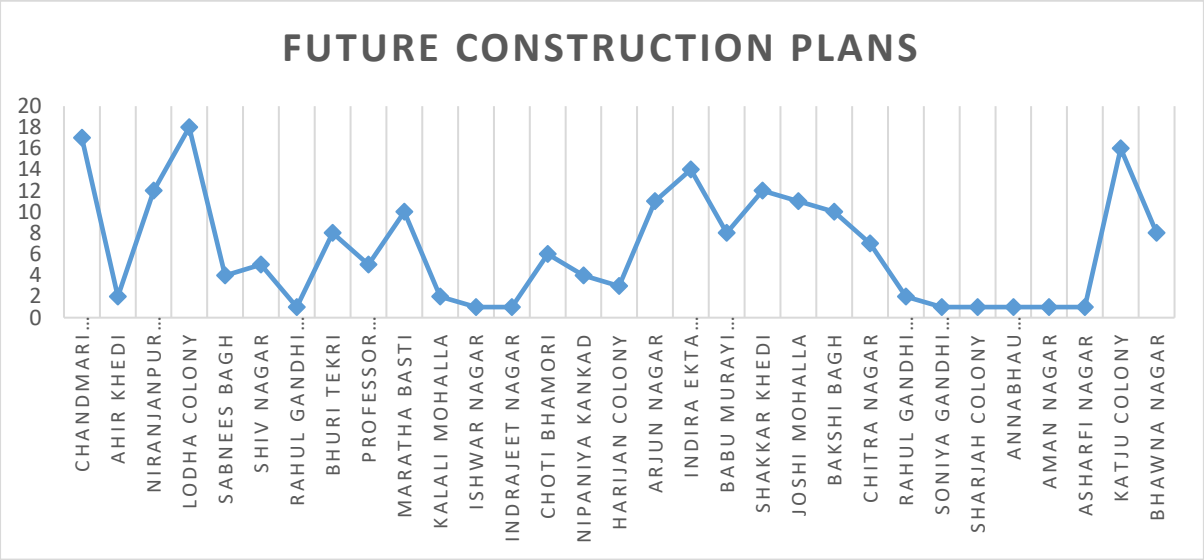

FUTURE CONSTRUCTION PLAN
25%
3%
3%
8%
61%
Structural
Home extension
Finishing
Repairs
None

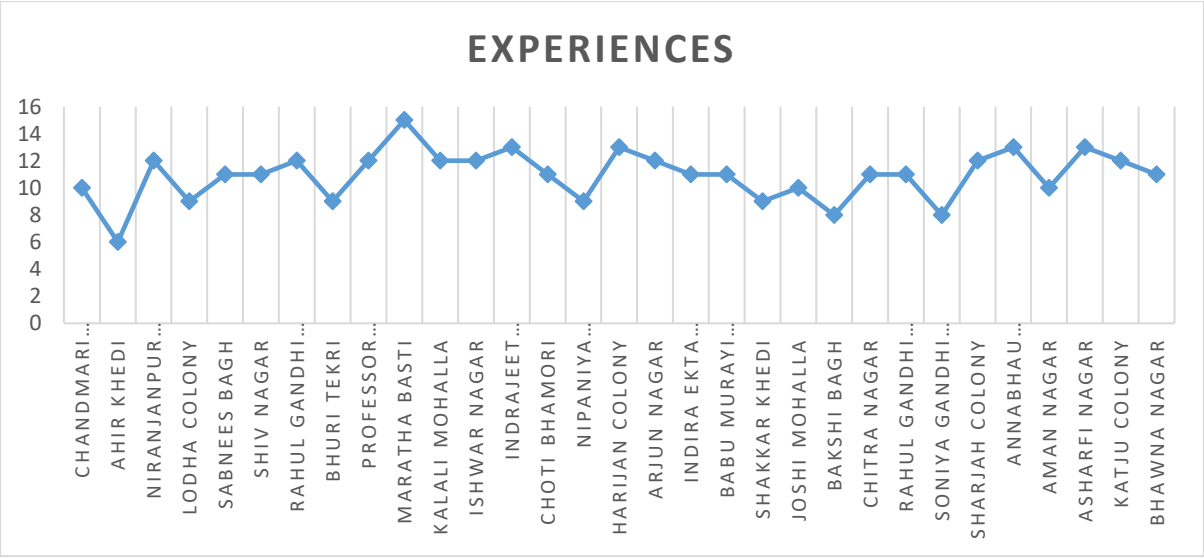
The following graphs show the distribution of settlements across different weights in the range of 1-20 for future construction plans and experience of living in settlement.



The two charts plot each of the 31 settlements on a scale of 1-20 for future construction plans and experience of living in settlement.



The following maps show the spatial distribution of settlements marked according to their future construction plans and experience of living in settlement weights divided into 5 increments.