Government of Maharashtra

RESEARCH BRIEF

Number 01 March 2020

COMMUNITY AND HOUSEHOLD WELL-BEING IN THE MUNICIPAL CORPORATIONS OF MAHARASHTRA

Multidimensional Poverty in Urban Maharashtra

Introduction

Increasing urbanization is a global, national and regional trend. Majority of the world population is now living in urban areas and nearly 11 percent of the world's urban population lives in India. Maharashtra is home to the largest number of urban inhabitants in the country. According to the Census of India 2011, the urban population of Maharashtra was 51 million accounting for 13.5 percent of India's urban population. During 2001-11, the decadal growth rate of urban population in Maharashtra was 23.7 percent compared to 10.3 percent of rural population.

The share of urban population in Maharashtra has increased from 29 percent in 1951 to 39 percent in 1991 and 45 percent in 2011. By 2026, 81 million population, accounting for about 61 percent of the state's population will be residing in urban areas (Office of the Registrar General and Census Commissioner, 2006). Natural increase accounts 51% growth of urban population followed by net migration to urban areas and extension of boundaries (31%) and reclassification of rural localities into urban areas (18%) (Bhagat 2019). In the composite index of human development, the state ranked 4th among 19 states of India (Suryanarayana et al. 2016). Despite high level of urbanisation, fast economic growth and improvement in human development, the level of poverty, inequality and regional disparities have remained large in the state.

The demographic transformation of urban population in the state poses several challenges to the planners, policy makers, the state government and urban local bodies. Some of the key challenges arise are the widening gap between demand for and supply of basic services such as water, energy, affordable housing, education, sanitation and health. Provisioning of basic services to the urban poor (a relatively high share of slum population) and vulnerable should be the priority agenda of a welfare government. Thus, the role of local, state and central governments is crucial to improving the lives of the urban poor. Goal 11 of the Sustainable Development Goals (SDGs) aims to make cities and human settlements inclusive, safe, resilient, and sustainable (UNDP, 2017). In this research brief, we present the state of community and household well-being in 27 Municipal Corporations of Maharashtra.

Data and Methods

The analyses for the 27 Municipal Corporations of Maharashtra have been carried out using the data from the Census of India, 2011. The Census of India is the only data source that provides information on certain key indicators for smaller urban localities such as urban wards. These wards can be aggregated at town, council and corporation levels. A master data file has been prepared using variables from the Primary Census Abstract (PCA) and household amenities and assets files. The PCA provides data on key indicators such as population size, sex ratio, child population of 0-6 years, scheduled caste and scheduled tribe population, literacy, and working population by sex. Similarly, the household amenities and assets files provide information on percentage of households with no room, rented house, water by source, lighting by source, type of cooking fuel, type of toilet facility, open defecation, households having no drainage for waste water management, and percentage of households with none of the specified assets[1]. The variables from PCA and household amenities and assets files have been merged and a consolidated data file of 27 Municipal Corporations has been prepared. A set of eight indicators has been created for analyses. According to the Census of India, there were 23 Municipal Corporations in 2011. This study provides estimates on 27 Municipal Corporations including the Municipal Corporations of Chandrapur, Panvel, Parbhani, and Latur that were recently reclassified from Municipal Councils.

Household Well-being Index (HWI) and Community Well-being Index (CWI)

Two set of composite indices, namely, the Household Well Being Index (HWI) and Community Well Being Index (CWI) has been computed. For computing the HWI, four variables were used. These are; percentage of female literate, percentage of households with no room, percentage of households with no specified assets, and percentage of households using unimproved source of cooking fuel [2]. Each variable was normalised using the observed lower and upper limits among 27 Municipal Corporations. Similarly, to compute the CWI, four variables were used. These are; percentage of households using open defecation, percentage of households having no drainage facility for waste water management, percentage of households using unimproved source of light [3], and percentage of households using unimproved source of water [4]. All variables except female literacy were converted to index using the formula.

$$\frac{X_{max} - X_i}{X_{max} - X_{min}} \text{ ---------- (1)}$$

The female literacy was standardised using the formula

1. Assets includes computer, computer with internet, car/jeep, bicycle, motor cycle, telephone, mobile, TV, and radio.
2. Unimproved Cooking Fuel includes kerosene, charcoal, residuals, wood, dung and others.
3. Unimproved source of light includes kerosene, oil, other and no light.
4. Unimproved source of water consists of tap untreated, covered well, uncovered well, hand pipe, tube well, tank, spring, river and others.

$$\frac{X_i - X_{min}}{X_{max} - X_{min}} \text{ ---------- (2)}$$

Where X_i= Observed value of the variable for the i^{th} Municipal Corporation

X_{min} = Minimum value of the variable among the Municipal Corporations

X_{max} = Maximum value of the variable among the Municipal Corporations

HWI= ¼ (Index of households with no room + Index of households with no assets + Index of households using unimproved cooking fuel+ Index of female literacy) ---------- (3)

CWI= ¼ (Index of open defecation +Index of households having no drainage facility + Index of households having unimproved source of light + Index of households using unimproved source of water) ---------- (4)

Results

Figure 1 shows the percentage of urban population by type of urban localities in Maharashtra. Among 534 urban localities, 27 Municipal Corporations accounted for 71 percent of urban population followed by 217 municipal councils that accounted for 20 percent of the urban population and 278 census towns that accounted for 8 percent of the total urban population. The share of Cantonment Boards and Nagar Panchayats together was less than 1 percent of the total urban population in the state. Figure 2 presents the percentage distribution of population by Municipal Corporations in Maharashtra. The Brihanmumbai Municipal Corporation (BMC) accounted for 34.3 percent of the total Municipal Corporation population followed by Pune (8.6%) and Nagpur (6.6%). Panvel (0.5%), Parbhani (0.8%), and Chandrapur (0.9%) had the lowest share of population among all the Municipal Corporations.

Fig 1: Percent Distribution of Urban Population by type of Urban Locality in Maharashtra, 2011

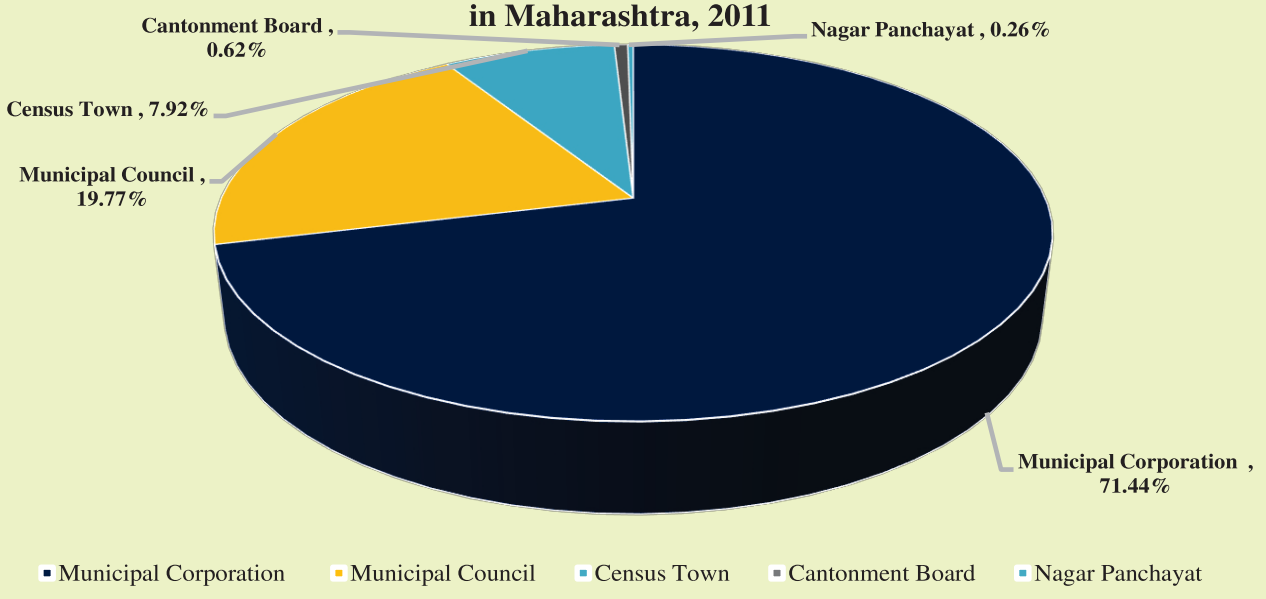

Fig2: Percent Distribution of Population in Municipal Corporation of Maharashtra, 2011

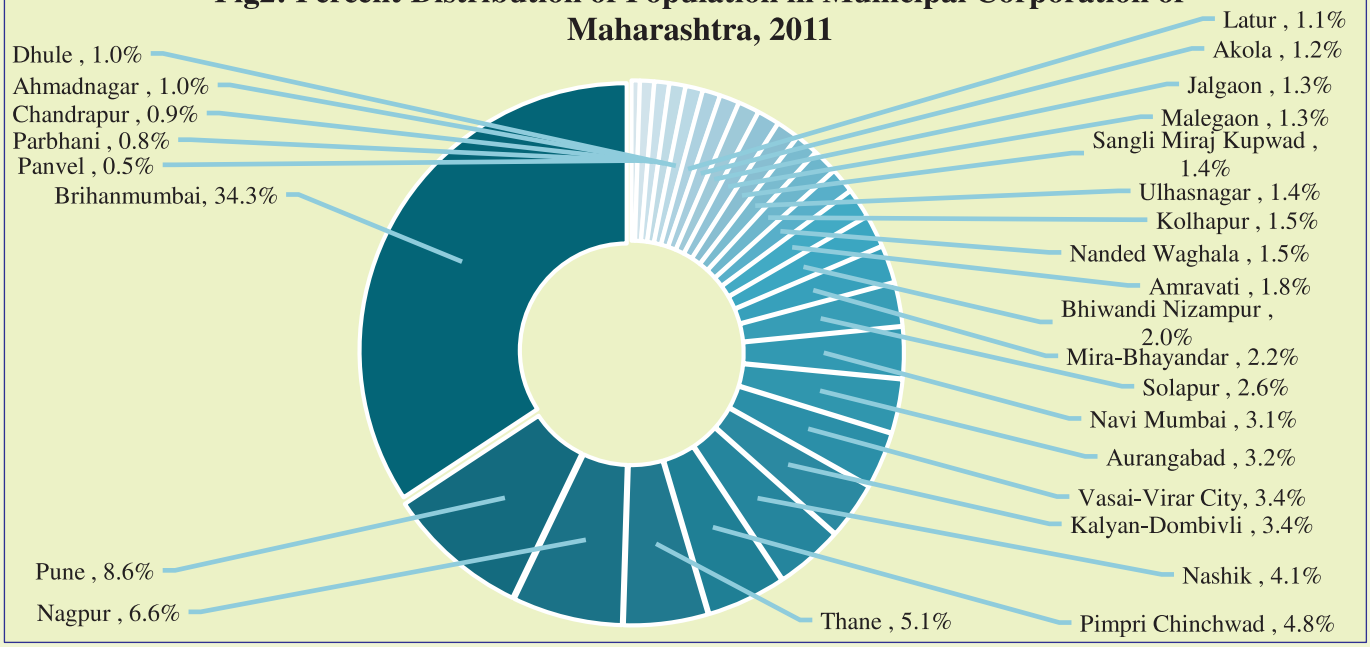

Table 1 presents selected indicators, HWI and CWI by Municipal Corporations in Maharashtra. The average household size varies from 4.04 in Pimpri Chinchwad to 5.98 in Malegaon. The weighted mean of household size in all Municipal Corporations was 4.50. The sex ratio (number of females per 1000 male) varies from 709 in Bhiwandi Nizampur to 982 in Sangli Miraj Kupwad. The child sex ratio varies from 812 in Bhiwandi-Nizampur to 945 in Malegaon. The low child sex ratio in some of the Municipal Corporations is possibly the reflection of practice of sex selective abortion. The percentage of Schedule Caste population was the lowest in Bhiwandi-Nizampur (3.07%) and the highest in Aurangabad (19.51%). Similarly, the percentage of Schedule Tribe population varies from 0.54 percent in Kolhapur to 8.05 percent in Chandrapur. Among all Municipal Corporations, literacy rate was highest in Panvel (93.89%), followed by Amravati (92.07%), Nagpur (91.92%), and Akola (91.91%). However, female literacy varies from 75.71 percent in Bhiwandi-Nizampur Municipal Corporation to 91.71 percent in Panvel Municipal Corporation. The weighted mean for female literacy for all Municipal corporation was 85.69 percent.

Of the 27 Municipal Corporations, the distribution of households having no specified assets was maximum in Malegaon (18%), followed by Bhiwandi-Nizampur (15.5%), Akola (11.4%), and Nanded Waghala (10.9%). Mira-Bhayandar Municipal Corporation has the lowest percentage (2%) of households with no specified assets, followed by Brihanmumbai and Panvel (2.2%), Pune (2.3%), and Kalyan-Dombivli (2.4%). The weighted mean of households with no room was 4.16, with a minimum of 1 percent in Parbhani to a maximum of 11 percent in Bhiwandi-Nizampur. The percentage of households using unimproved cooking fuel varies from 10.1 percent in Panvel to 66 percent in Malegaon. Open defecation varies from 1 percent in Kolhapur to 24 percent in Parbhani Municipal Corporation. Sangli Miraj Kupwad Municipal Corporation has the highest percentage (26.5%) of households with no drainage facility, followed by Dhule (26%), Ahmadnagar (21.6%), and Malegaon (19.7%). Among all 27 Municipal Corporations, Parbhani had the highest percentage of households using unimproved source of light (6.5%). The percentage of households using unimproved water sources was the highest in Chandrapur Municipal Corporation (40.1%), followed by Akola (31.9%), Nanded Waghala (30.3%), and Vasai-Virar city (29.1%).

Table 1: Selected indicators, Household Well-being Index (HWI), Community Well-being Index (CWI) by Municipal Corporations of Maharashtra, 2011

Municipal Corporation	Population	House hold size	Sex Ratio	Child Sex Ratio (0-6 years)	C hild popula tion in 0-6 years (%)	Schedule caste populati on (%)	Schedule tribe populati on (%)	Literate populati on (%)	Literate female populati on (%)	Househol ds with no assets (%)	Househo ld with no room (%)	Househol d using unimprov ed cooking fuel (%)	Househo ld Well-being Index	Househo ld practicin g open defecatio n (%)	Househol ds with no drainage facility (%)	Househol d using unimprov ed source of light (%)	Househol d using un improv ed source of water (%)	Communi ty Well-being Index
Ahmadnagar	350859	4.62	961	887	10.96	13.08	1.16	89.79	86.32	3.90	3.20	19.40	0.79	6.60	21.60	2.00	6.90	0.68
Akola	425817	4.95	959	904	11.11	15.52	2.05	91.91	89.03	11.40	6.10	34.50	0.57	12.20	6.40	6.00	31.90	0.46
Amravati	647057	4.73	961	921	10.10	17.22	2.47	92.07	89.84	9.10	2.80	28.70	0.73	6.50	8.30	4.70	23.10	0.6
Aurangabad	1175116	4.97	929	871	13.51	19.51	1.30	87.49	82.5	6.20	5.30	32.10	0.58	5.30	7.10	2.00	16.90	0.79
Bhiwandi Nizampur	709665	5.07	709	944	12.94	3.07	1.15	79.48	75.71	15.50	11.00	64.70	0.05	4.40	4.90	3.40	13.60	0.77
Chandrapur	320379	4.31	953	914	9.78	19.09	8.05	89.73	85.21	6.80	1.30	23.40	0.76	19.10	15.30	5.40	40.10	0.28
Dhule	375559	5.21	941	886	11.94	7.79	4.06	89.42	84.3	7.50	3.60	32.80	0.63	6.80	26.00	4.60	7.20	0.51
Brihanmumbai	12442373	4.48	853	913	9.67	6.46	1.04	87.86	86.39	2.20	7.72	21.50	0.69	2.18	2.38	2.73	5.73	0.89
Jalgaon	460228	4.63	913	812	11.53	7.22	5.28	87.28	83.37	8.70	7.20	18.10	0.57	10.20	9.10	3.20	7.10	0.71
Kalyan - Dombivli	1247327	4.12	920	902	9.71	9.77	2.96	91.37	88.81	2.40	2.90	15.30	0.88	1.60	2.40	1.10	3.60	0.98
Kolhapur	549236	4.42	959	845	9.52	13.11	0.54	90.61	87.18	3.80	2.70	12.40	0.85	1.00	5.90	1.90	4.10	0.92
Latur	382940	5.14	937	873	12.49	17.62	1.45	84.22	79.2	8.70	3.10	33.90	0.54	11.00	10.90	3.20	16.10	0.63
Malegaon	481228	5.98	972	945	16.20	3.99	1.66	87.44	84.57	18.00	5.70	66.10	0.27	14.40	19.70	6.30	17.40	0.36
Mira - Bhayandar	809378	4.33	886	898	10.87	3.74	1.56	90.98	88.59	2.00	3.80	11.20	0.88	2.40	2.90	1.20	3.70	0.96
Nagpur	2405665	4.56	963	926	10.27	19.76	7.70	91.92	89.31	2.90	2.00	18.60	0.89	4.00	7.40	2.20	17.00	0.79
Nanded Waghala	550439	5.34	928	882	12.92	18.65	2.31	85.93	80.95	10.90	1.80	38.10	0.55	11.90	19.50	4.40	30.30	0.41
Nashik	1486053	4.42	899	865	11.74	14.44	7.23	89.85	85.92	4.70	5.00	18.60	0.73	3.60	4.80	3.20	4.60	0.84
Navi Mumbai	1120547	4.10	837	902	11.56	8.93	1.69	89.62	86.03	3.10	3.40	21.30	0.78	2.20	2.20	1.70	2.60	0.96
Panvel	180020	4.18	946	904	10.25	8.03	2.39	93.89	91.71	2.20	2.10	10.10	0.97	2.70	2.40	1.90	3.40	0.94
Parbhani	307170	5.43	962	913	13.37	12.26	1.18	81.62	76	10.50	1.00	48.60	0.45	24.00	16.00	6.50	51.60	0.11
Pimpri Chinchwad	1727692	4.04	833	875	12.83	15.85	2.11	89.22	85.37	3.90	5.70	22.40	0.7	2.80	5.20	1.90	3.20	0.91
Pune	3124458	4.21	948	908	10.79	13.42	1.09	89.56	86.67	2.30	5.00	13.30	0.8	2.20	2.00	1.60	2.50	0.96
Sangli Miraj Kupwad	502793	4.57	982	901	10.70	14.53	0.70	85.91	81.77	6.20	3.30	28.40	0.64	7.40	26.50	3.80	11.30	0.51
Solapur	951558	5.05	978	919	11.49	14.51	1.89	82.80	75.88	9.50	5.00	35.50	0.42	13.30	8.50	6.30	10.40	0.52
Thane	1841488	4.23	888	908	11.40	6.84	2.32	89.41	86.33	3.00	4.20	20.50	0.77	2.80	2.70	1.70	5.00	0.93
Ulhasnagar	506098	4.53	881	906	10.13	17.13	1.30	87.49	83.4	5.30	3.90	26.60	0.67	2.70	2.60	1.40	3.60	0.96
Vasai -Virar City	1222390	4.20	886	911	12.03	4.17	4.70	88.57	85.22	4.70	4.20	16.40	0.75	5.80	9.20	2.40	29.10	0.68
Population Weighted Mean	NA	4.50	893	904	11.58	12.21	2.64	88.14	85.69	6.14	4.16	26.67	0.70	6.30	10.86	3.81	22.25	0.82

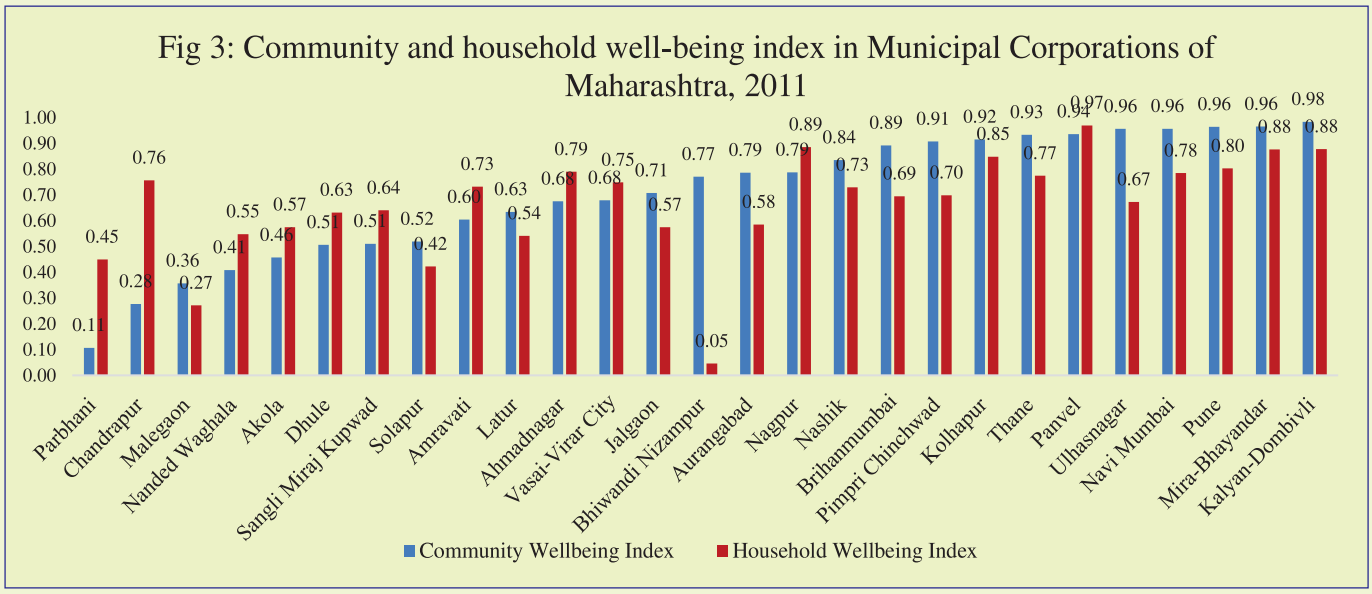

Figure 3 presents Household Well-being Index (HWI) and Community Well-being Index (CWI) for all 27 Municipal Corporations of Maharashtra. In general, we found varying pattern of HWI and CWI. A higher value of HWI indicates a higher level of household well-being. The HWI value varies from a minimum of 0.05 in Bhiwandi-Nizampur Municipal Corporation to a maximum of 0.97 in Panvel Municipal Corporation. The low HWI values are observed in the Municipal Corporation of Malegaon (0.27), Solapur (0.42), and Parbhani (0.45). The most developed Municipal Corporation in terms of CWI was Kalyan-Dombivli (0.98) followed by Mira-Bhayandar and Pune (0.96). Municipal Corporations having less than 0.50 value in CWI are Chandrapur (0.28), Malegaon (0.36), Nanded-Waghala (0.41), and Akola (0.46).

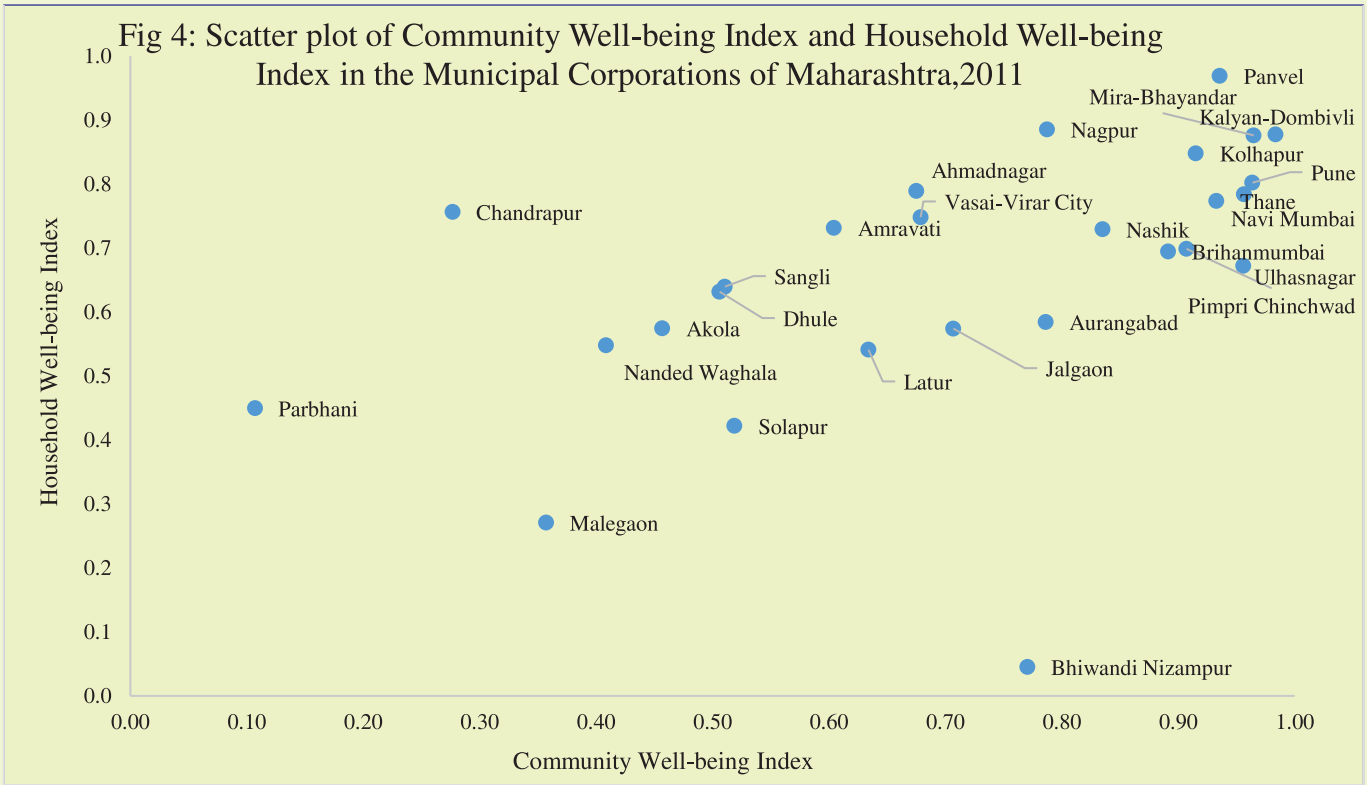

Figure 4 presents the scatter plot of CWI and HWI for all Municipal Corporations of Maharashtra. Indices are categorized into three groups, namely, low (0-0.45),

medium (0.46-0.95) and high (0.95 & above) well-being. We observe four patterns on the scatter plot; Malegaon, Solapur, Nanded-Waghala, Akola Municipal Corporations are deprived at both community as well as household levels. Bhiwandi-Nizampur Municipal Corporation was more developed at the community rather than at the household level. But in the case of Chandrapur, Parbhani Municipal Corporations, nature of well-being was just the opposite, showing better off at the household level than at the community level. There are some Municipal Corporations where both CWI and HWI were high, such as Panvel, Kalyan-Dombivli, Mira-Bhayandar, Kolhapur, Navi Mumbai and Thane.

Conclusion

The level of household and community well-being varies enormously across the Municipal Corporations in Maharashtra. In the Community Well-being Index, Parbhani ranks the least followed by Chandrapur, Malegaon, and Nanded Waghala. Municipal Corporations where the Community Well-being Index is high are Kalyan-Dombivli, Mira-Bhayandar, Pune and Navi Mumbai. Brihanmumbai Municipal Corporation (BMC) accounts for about one-third of the total population of all the Municipal Corporations in Maharashtra, and ranks 10th out of 27 Municipal Corporations with a Community Well-being Index value of 0.89. With respect to Household Well-being Index, it has been observed that Bhiwandi-Nizampur scores the lowest value of 0.05, followed by Malegaon, Solapur and Parbhani. The analyses showed varying patterns of Household and Community Well-being Index in the Municipal Corporations of Maharashtra. Some Municipal Corporations have a higher Community Well-being Index as well as a higher Household Well-being Index (Panvel, Kalyan Domvibli, Mira Bhayandar, Nagpur, Pune); whereas, Bhiwandi Nizampur is the only Municipal Corporation with a higher Community Well-being Index but a lower Household Well-being Index. Further, a few Municipal Corporations have a lower Community Well-being Index but a higher Household Well-being Index (Parbhani, Chandrapur). Provisioning of services varies to a large extent in the Municipal Corporations. Hence, we suggest improving community services in all those Municipal Corporations with a lower score in well-being index.

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Research Team: Sanjay K Mohanty, Anuradha Nair, Devika Deshmukh, Ram B Bhagat, L. K. Dwivedi, Joemet Jose and Rajeshwari Chandrasekhar

Acknowledgment

We thank Mr. Debashish Chakraborty, Additional Chief Secretary, Department of Planning, I.A Kundan, Secretary, Department of Women and Child Development, Government of Maharashtra and Mr. R.R. Shinge, Director, Directorate of Economics and Statistics, Government of Maharashtra for their valuable suggestions. We thank Mr. Kanchan Dyuti Maiti, Prof Abhay Pethe, Prof Udaya S Mishra, Prof Sumati Kulkarni, Prof F.Ram and Prof M. H Suryanarayana for review and their valuable insight in earlier draft of research brief.

For further information, Contact: Prof Sanjay K. Mohanty, IIPS, Mumbai.

Email: sanjayiips@yahoo.co.in, sanjay@iips.net