

Emergence of huge number of cities in India and China: Issues of degradation of quality of living

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Agenda:

To highlight the emergence of huge number of cities in India and China. These cities, that were till now only considered as third-tier cities or big townships, are experiencing rapid increase in per city per capita GDP. And the resulting serious deficiencies in the quality of living in these cities because of failure of city-planners to keep pace with the demands. Also, a discussion on few political challenges obstructing the improvement of living conditions in these cities.

The enormity of challenges to monitor, regulate and implement practices that promote ordered development in newly emerging metropolitan areas is substantial. Hundreds of cities need to be considered in detail and their unique problems need to be addressed individually. As part of the effort, demography of each of these cities is being studied and mapped. A hypothetical system of banding is devised to categorize these cities and the problems of the cities falling in each band are discussed.

To achieve good living conditions in these cities, the territorial significance of each of them needs to be considered. Many conflicting interests have emerged and a consensual approach needs to be adopted. Absence of well-devised territorial entities has resulted in treatment of these new areas of urban development to be treated on par with general human settlements. This is posing unusual constraints to the free and ordered community improvement practices. We will look at few interesting constraints obstructing the improvement of living conditions in these cities. As the concerns raised are applicable to many developing and transitional economies, we will try to seek generalized solutions.

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Appendix

1. Understanding the uniqueness of the phenomenon:

Urbanization is a continuing trend for a long time now. Evolution of new mega cities is also not a new phenomenon. Spreading of existing urban agglomerations in Asia, Latin America and Africa has been happening for quite sometime. These are being studied and attempts are at least being made to address the problems faced.

Now the world is witnessing an interesting phenomenon it never experienced before. And sadly this has not yet attracted the attention it deserves. Due to long overdue economic growth in vast high-density areas of India and China, a huge number of new "high-consumption" cities are emerging. These urban localities with high-density population have been in existence all along. But they never were a concern because per-capita energy consumption in these cities was very low. They never had a huge appetite for resources. Now with increasing spending power of people, these cities are now becoming full-fledged fast. Some might argue that, all through history, this had been the case in regions which witnessed economic growth. But the scale that we are witnessing now, as I will demonstrate to you, is alarming and no way comparable to what we have already seen. This, I reiterate again, is because the economic growth is now happening in vast thickly populated regions.

It can be argued that the developed world and few south-east Asian countries faced similar maturing of second-tier and third-tier cities. But the number of cities was comparatively fewer and the jurisdiction of these cities was spread amongst different countries. This enabled them to be better administered and their growth to be better managed. But the sudden emergence of huge number of full-fledged cities concentrated in only two countries India and China, each beset by its own peculiar problems, poses a new challenge.

One of the oft-used parameters to compare cities is population. While doing so, it has always been assumed that similarly populated cities in different regions of the world should not be compared per se. For example, till now, we could not compare a European capital city to a second-tier Indian city even though their populations were comparable. This was because per capita GDP of a large European capital city calculated at parity was many times more than that of second-tier Indian city. Now with growing prosperity in India and China, the situation is changing.

Below is a typical world map showing the population density. We must have seen similar maps several times. Though it shows that large swathes of India and China are burdened with high population density, it does not reveal the gravity of deplorable urban scenario that is emerging.

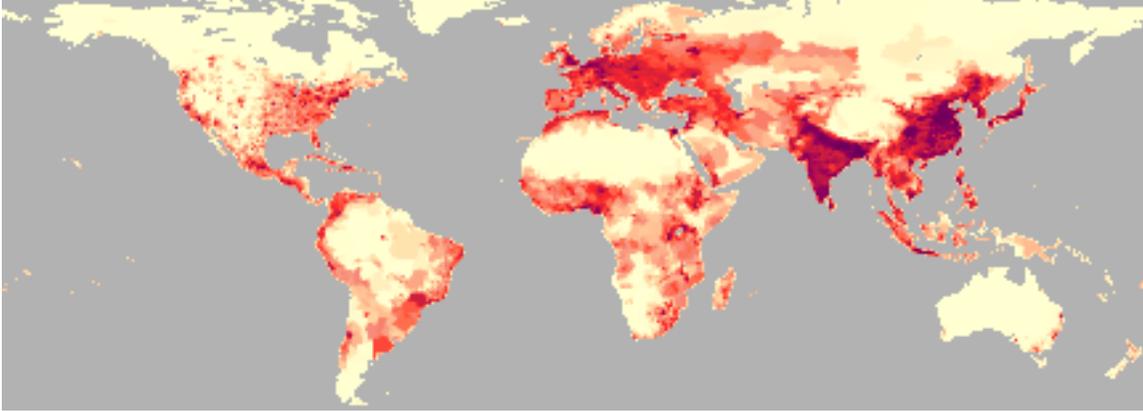


Figure 1: Source: [CIESIN](#) gridded population of the world. Open copyright.

We can instead look at the number of concentrated urban communities that are evolving as full-blown cities that were never really a matter of concern sometime back.

2. Highlighting the enormity of the problem:

I have classified the cities in India and China, based on population, into five different bands. The population bands are not arbitrary. I have traveled extensively all over India for years and also had the opportunity to travel across China for 6 months. The bands are such that there is a qualitative difference amongst cities across these bands. The structure is as given below:

	Population in millions	Legend
1st band	Greater than 3	Red
2nd band	Between 2 and 3	Yellow
3rd band	Between 1 and 2	Blue
4th band	Between 0.5 and 1	Green
5th band	Between 0.25 and 0.5	Magenta

Table 1: Banding of cities based on population

1st band consists of well-known big cities. Decent administrative mechanism is already in place in these cities. Their problems are well articulated and issues related to these cities are promptly taken up by local media. These places include major business nerve-centers and important political capitals and hence, get utmost attention. Some cities in this band also encompass adjoining urban areas which can be termed as independent cities. I have not considered them separately because for all practical purposes, these areas are part of the mega urban districts and hence they too enjoy the perks of big cities.



Figure 2: Indian cities in band 1

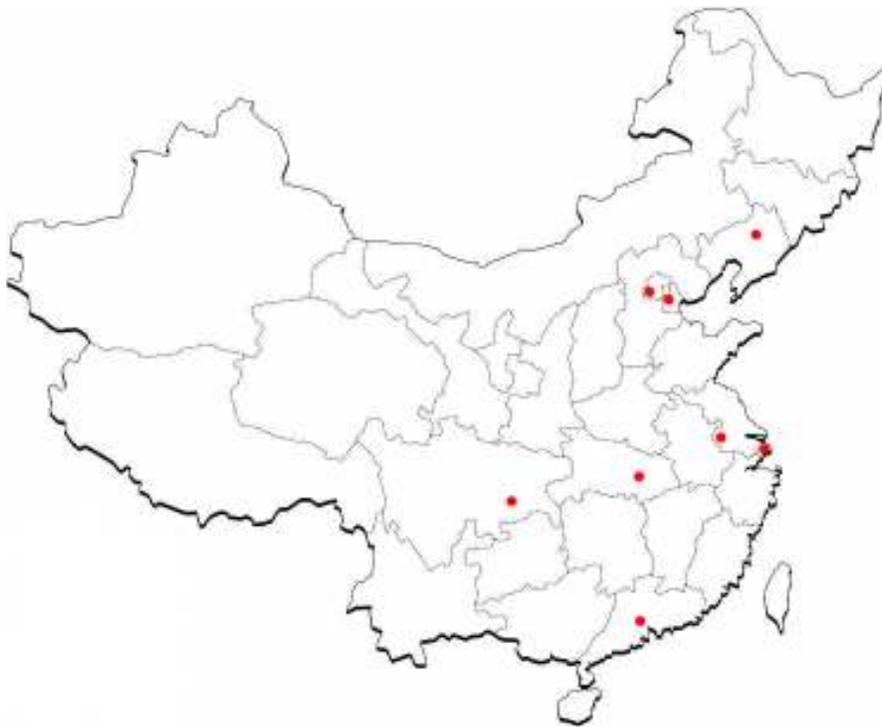


Figure 3: Chinese cities in band 1

Cities falling in 2nd band are no different from those in first band. They too manage to grab attention. Many NGOs and community associations work for various causes in cities that fall in 1st and 2nd bands. In India, many slum-dweller welfare programs are in place in these cities. In China, policies that deal with slums are followed. My emphasis is on cities falling in subsequent bands.

Adding cities falling in 2nd band, we get the following map of India:

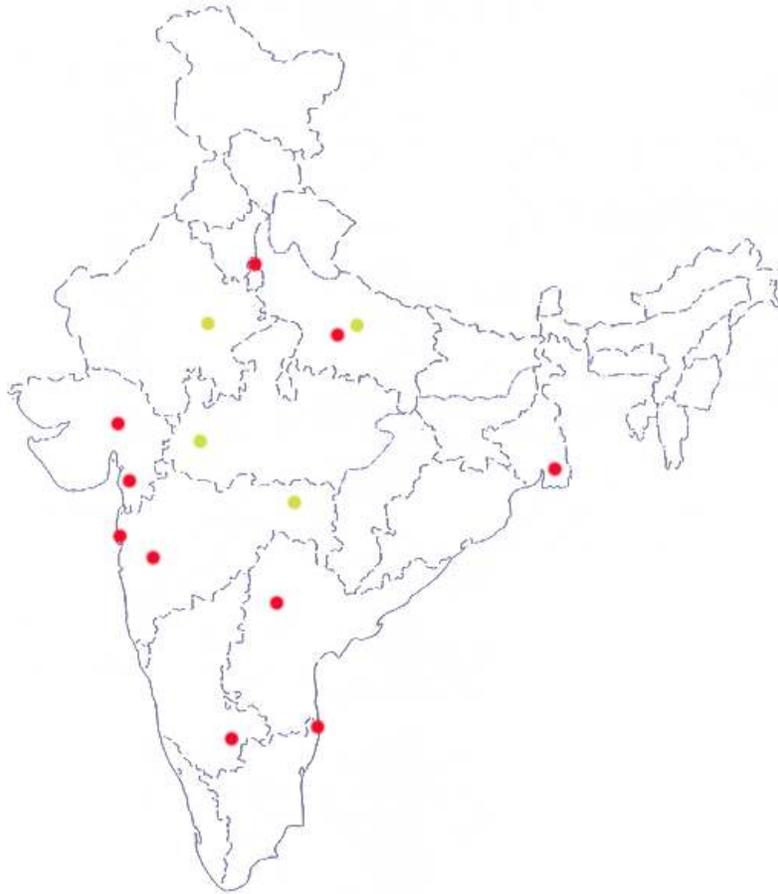


Figure 4: Indian cities in bands 1 and 2

Cities falling in 2nd band are added to the map of China as follows:

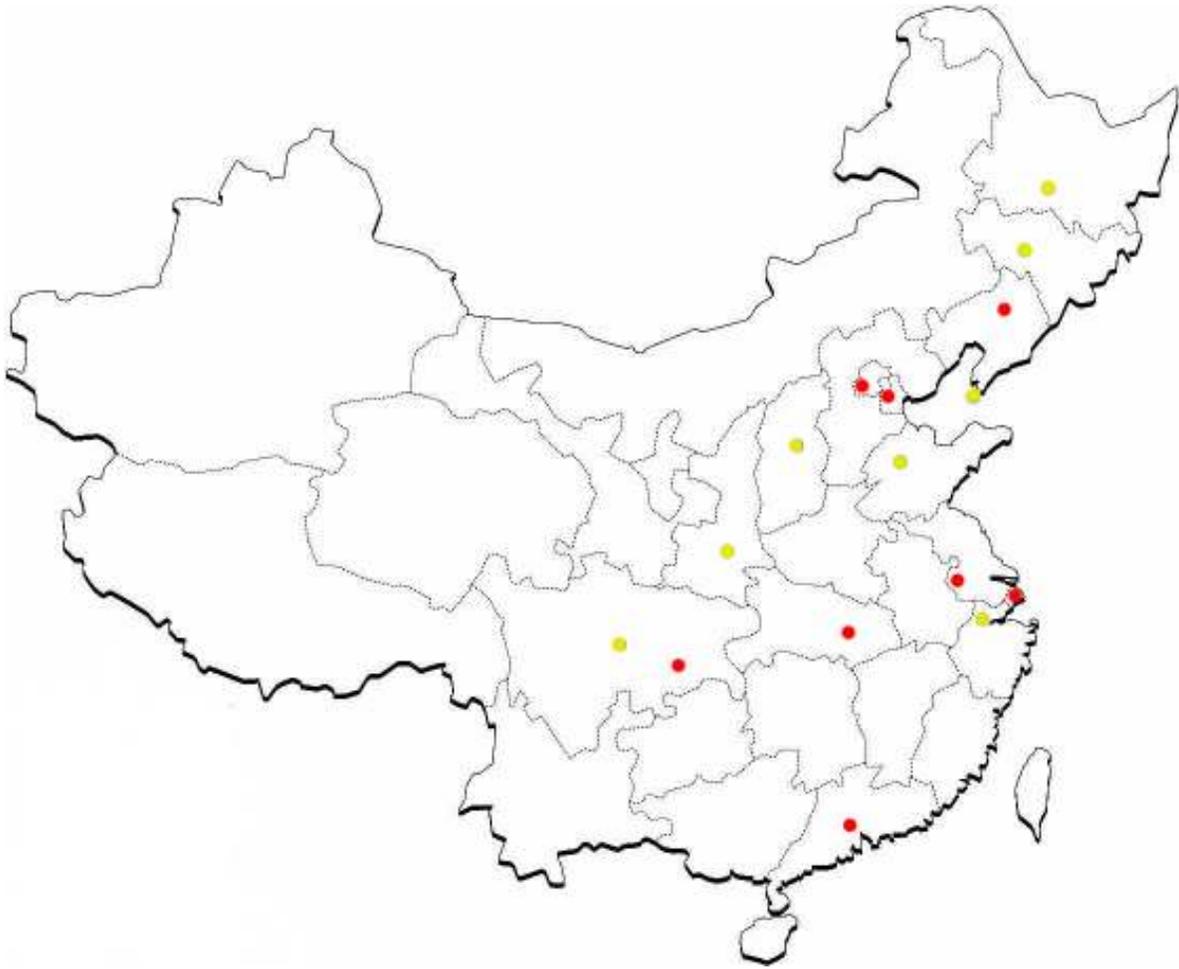


Figure 5: Chinese cities in bands 1 and 2

Cities falling in 3rd band are a matter of concern. They are high in number and most of them have grown very much due to current economic growth. They too are a victim of large-scale migrant population from rural areas.

In India, like in most of developing and transitional economies, the civic authorities in these cities have a task which is beyond their capabilities to address. Most of the planning is done on ad-hoc basis. The quality of life in these areas takes a hit even as the population density in these cities increases alarmingly. Improvement of living conditions is not a priority for the authorities at national level. Construction norms are openly flouted and civic necessities are inadequate. New slums housing thousands of people are emerging. In many places, the quality of water supplied is alarming and the sewage facilities are deplorable. Unscientific waste disposal is practiced and adequate sewage discharge treating plants are absent. New industrial enterprises are being started all over these cities as no definite residential and industrial zones are determined.

Adding cities falling in 3rd band, we get the following map of India. The immensity of the problem can be seen now:

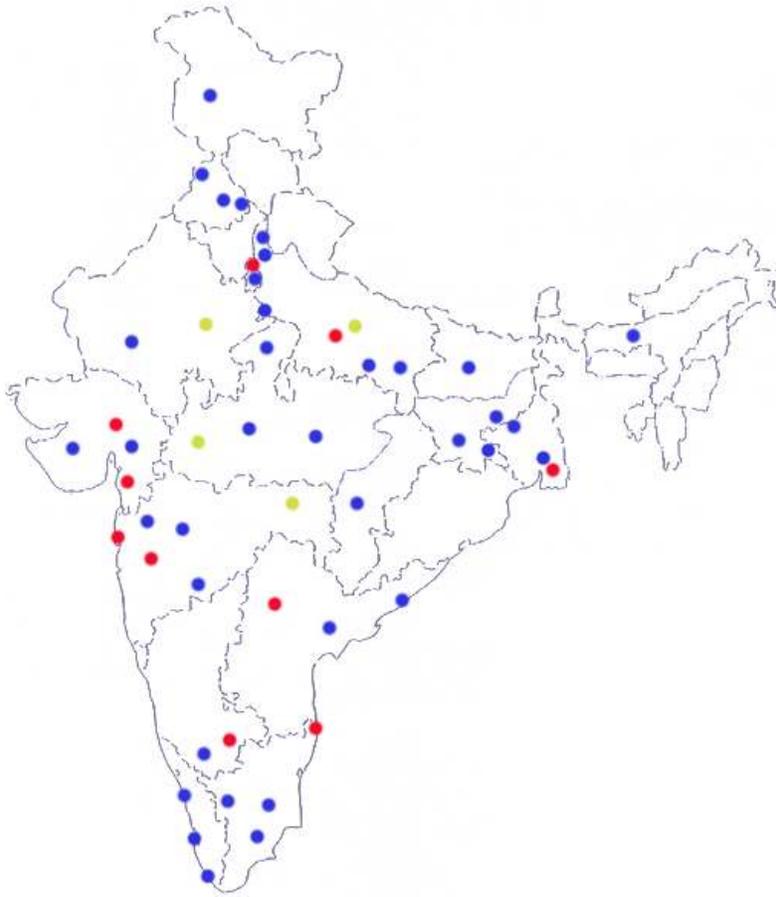


Figure 6: Indian cities in bands 1, 2 and 3

Cities falling in 3rd band are added to the map of China as follows:

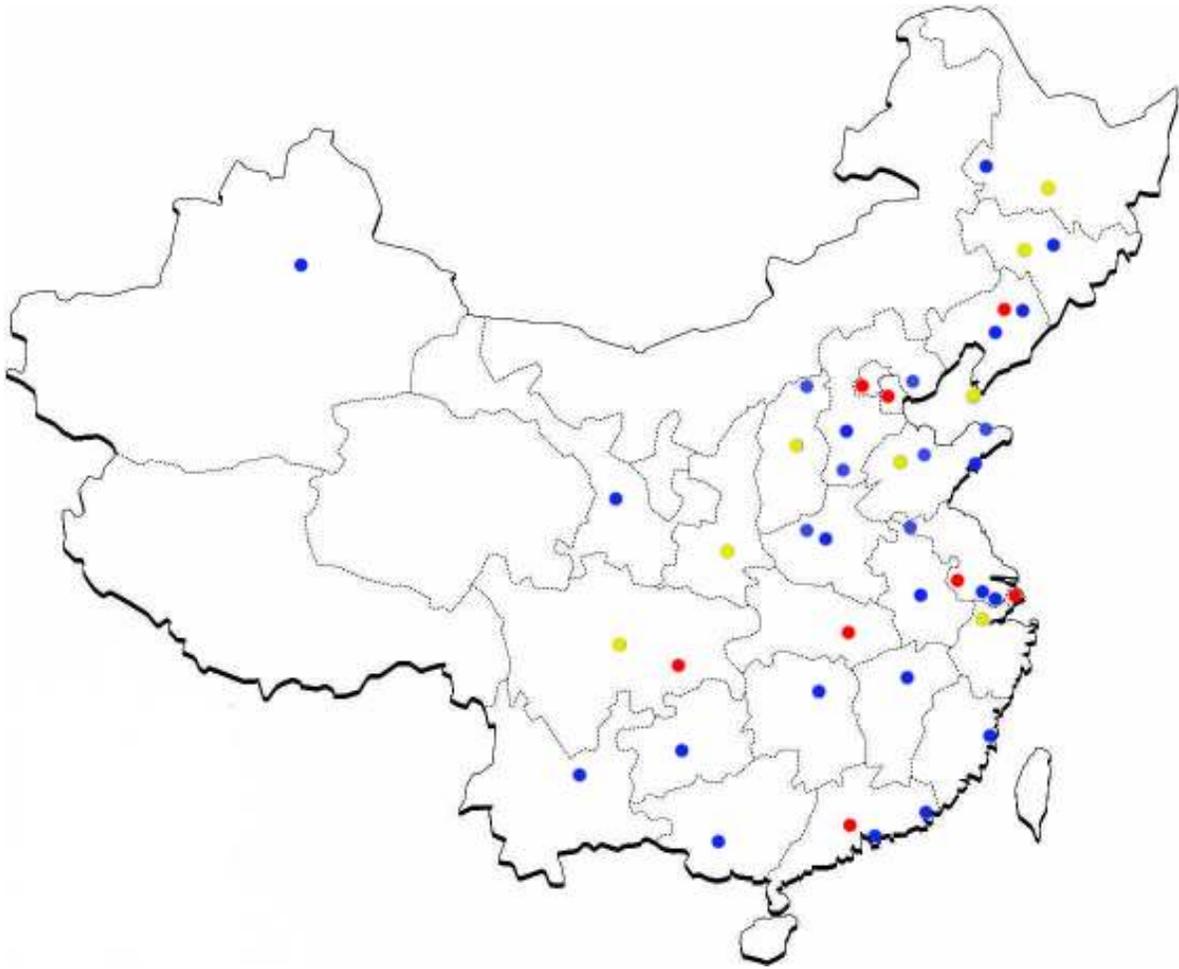


Figure 7: Chinese cities in bands 1, 2 and 3

Now, let us consider the cities falling in 4th band. Many of them were big townships sometime back. Even though they house more than half a million people each, one needs a detailed map to locate some of them. They almost do not exist in the radar of those who follow the trends of urban development. These places now desperately need the attention they deserve. The condition of these cities is much worse than that of those cities falling in 3rd band. Serious environmental problems are being faced the adjoining areas, as they cater to the needs of these cities. The expertise of local city-level governing bodies is completely inadequate.

Adding cities falling in 4th band, we get the following map of India. One can visualize the enormity of the numbers involved here:

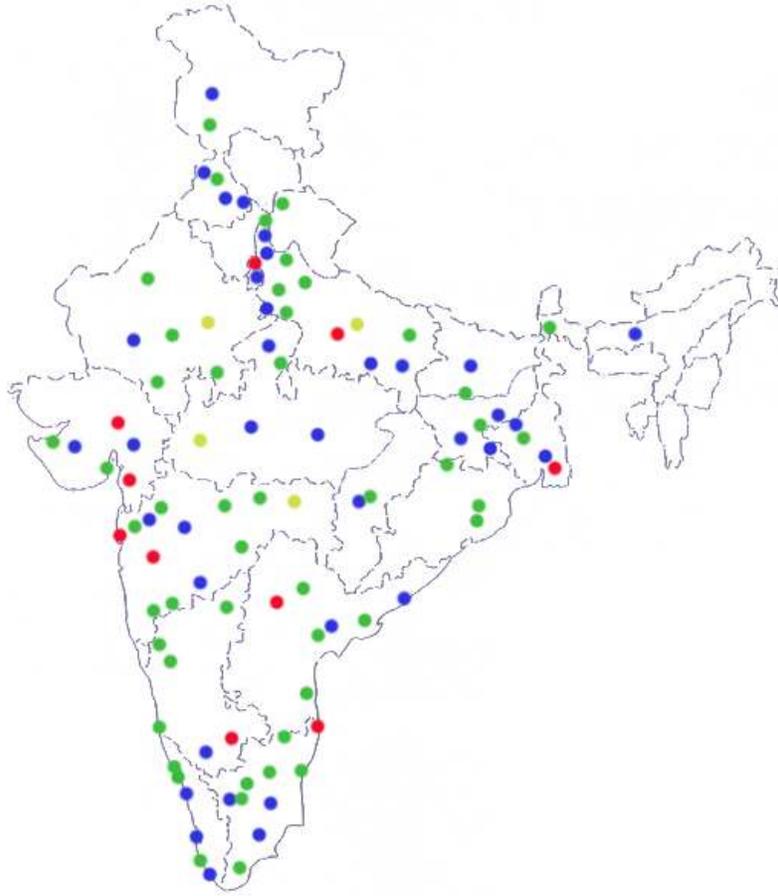


Figure 8: Indian cities in bands 1, 2, 3 and 4

Cities falling in 4th band are added to the map of China as follows:

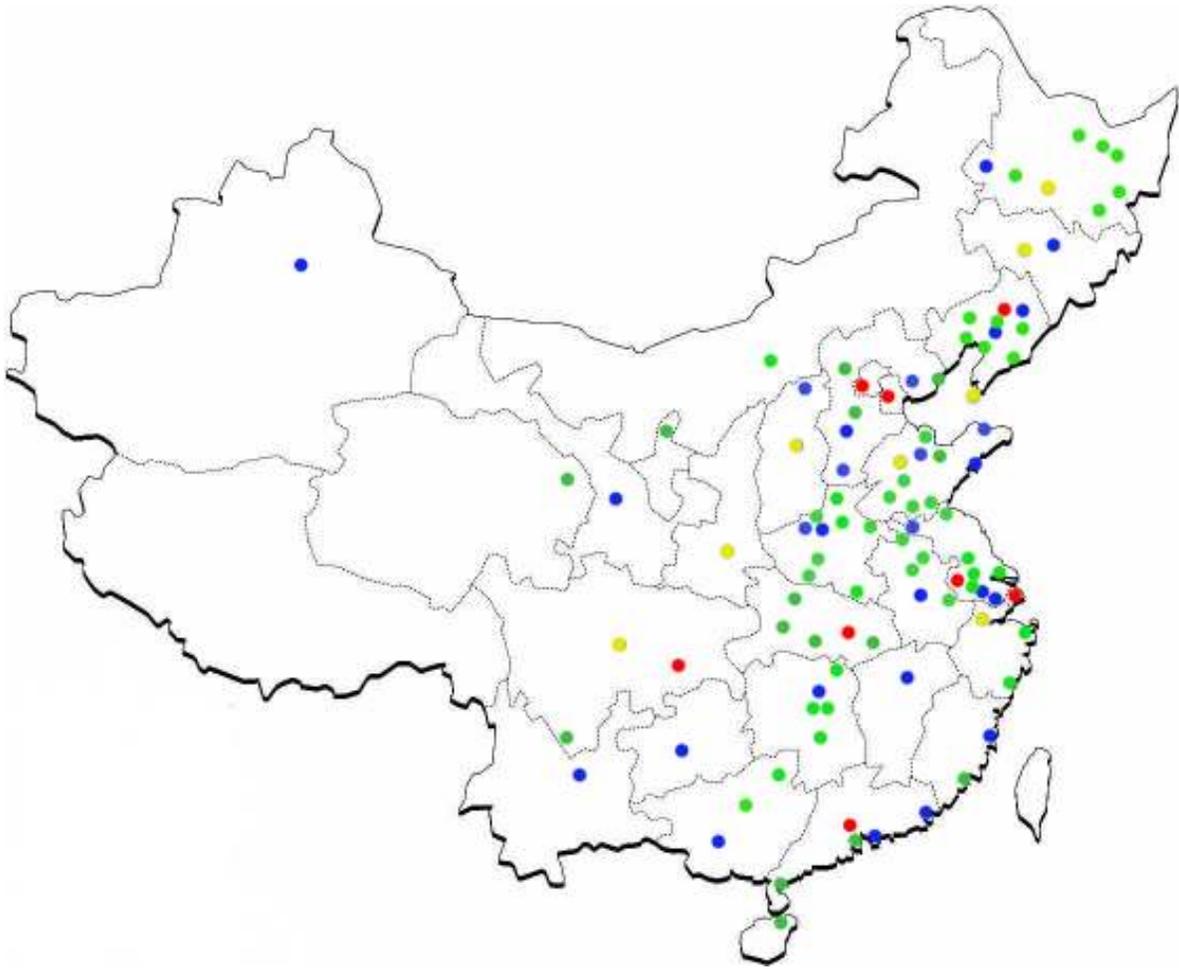


Figure 9: Chinese cities in bands 1, 2, 3 and 4

78 Indian cities fall in band 5. It will not take long before these cities graduate to band 4. Per city per capita GDP calculated at parity of 3rd, 4th and 5th band cities, signifying the affluence of people, is increasing. But the attention and resources earmarked for these cities is inadequate.

We will now compare the data with that of Brazil and US to understand the numbers better.

	Population in millions	India	China	Brazil	US
1 st band	Greater than 3	10	8	2	2
2 nd band	Between 2 and 3	4	8	4	2
3 rd band	Between 1 and 2	36	28	10	5
4 th band	Between 0.5 and 1	49	57	21	23
5 th band	Between 0.25 and 0.5	78	NA	57	38

Table 2: Comparison of cities across bands

No other nation experienced this kind of numbers before. We can see the magnitude of task ahead for India and China.

3. Study of few constraints:

India and China are beset with somewhat different constraints, due to different political environment, which come in the way of addressing the needs of these cities. As these constraints are pretty common across nations, understanding them will be helpful in formulating a generalized approach.

India, though a vibrant democracy, is yet to address the challenge of rapid urban growth effectively. I would like to point out two, out of several, interesting reasons:

a. The new economy enterprises, the growth engines of the country, increasingly require skilled manpower. This has resulted in wealth not properly percolating to rural areas. Even though the overall economy is healthy, the relative difference between urban and rural economies is increasing. This growing economic imbalance between urban and rural communities is proving to be a cause for concern. One of the immediate effects is large-scale migration of people from rural areas to cities. So there is growing demand that even rural areas should get their due attention. But instead of addressing the needs of rural areas by solving their genuine problems, a dangerous but easy approach is being followed by the elected leaders. I will explain the compulsions faced by the elected political leaders below.

The electoral constituencies were created without giving due importance to territorial significance of urban areas. Cities were treated only as regions with high population density. So in a typical region comprising of a city and vast lands of surrounding countryside, the city is carved into couple of electoral constituencies but the rural areas surrounding the city became eligible for around a dozen electoral constituencies. For example, in the state of Karnataka in India, there are 224 electoral constituencies out of which only 28 are within the limits of above listed emerging cities. So the electoral importance of urban communities gets diminished. This might be the norm in many places in the world. But this diminished electoral importance should be compensated by evolved urban governance entities. This ensures that cities can retain their territorial significance and hence, can command their due attention. But in India, and in fact in many countries, the structure of independent urban policy-making authority is not given due importance. Even though elected bodies govern cities, their authority is subordinate and inconsequential to the larger policy making at the national and federal levels. Digressing, as I mentioned earlier, the big cities (falling in 1st and 2nd bands) which act as capitals to federal states and which act as economic nerve-centers escape the neglect. But the other cities (falling in other bands) bear much of the brunt of the apathy.

Hence, the political parties are compelled to act according to rural sentiments, as they can reap greater electoral benefits. Ideally, urban-rural divide should be addressed and needs of rural communities should be catered to, along with concentrating on all urban communities. But instead, the easier way of neglecting long due necessities of smaller cities is being adopted.

b. India still has a long way to go in building institutions for urban policy-making. Almost all elected city-governing bodies do not have the will, capability and the means to fully take care of their cities. Local governing bodies need to include experts, environmentalists and notable figures. But the necessary political independence has not been granted to these elected bodies. Offices of the Mayor practically remain as ceremonial entities and never participate as driving force of debate and change. A change of attitude, both among the people and the establishment, is crucial to recognize this problem.

China, with its centralized developmental planning, has not properly addressed the local concerns. When I was in China, I could not even get much material to analyze. But while traveling, I encountered first-hand many issues regarding quality of living in cities falling in 3rd and subsequent bands. Lack of information can act as a drawback while trying to access any situation which comes in the way of formulating effective solutions.

4. Exploring the possibility of arriving at territorial suggestive upper limits of output:

With the lifting of controls, the potential target market for any community suddenly increases to global proportions. This acts as an incentive to adopt “degenerative” development policies. Authorities interested in long-term health of any region should explore new possibilities. One interesting suggestion that can be debated is to devise scientific suggestive upper limits for production, processing and export of all kinds of output for each territorial entity. The size and means of these upper limits can be decided by considering the capacity that can be supported almost independently by the territorial entities. This might slow down development temporarily and give more strength to rhetoric that advocates rapid elimination of world poverty. But a visionary approach is needed.

5. Towards formulation of a generalized solution:

Since the problems discussed are being experienced across many nations, though to a lesser extent, it is prudent to arrive at a generalized solution.

1. Devolution of more powers to city-governing bodies
2. Building city-wise institutions for urban planning that help create effective territorial entities
3. Framing of rules to ensure better administrative accountability
4. Creating means for lasting coordination between all administrative establishments across all cities
5. Marginal de-politicizing of urban administration by giving administrative role to urban experts
6. Creating professional regulation bodies and watchdog agencies
7. City administration should be made accountable not only for the administration of the city, but also for the environmental well-being of the suburbs

8. Open all practices of administration to public scrutiny and debate

6. Conclusion:

Awareness about this new trend needs to be better understood first to address the challenge. Unfortunately, this issue is not being given due attention. Present rapid urbanization needs to be given due thought and a framework of measures needs to be adopted to realize better quality of living in these cities.

Because these problems are being experienced across many nations, though by varying degrees, it is prudent to make concerted attempts to regulate at macro-level by arriving at a framework of measures and creating means for lasting coordination between all administrative establishments across all cities. The efforts should be streamlined and coordinated. This will be a logistical nightmare because of the huge number of cities involved. Nevertheless, all the stakeholders should rise up to the challenge.

References:

- * Data of Census of India, 2001
- * Data of Census of China
- * <http://www.citypopulation.de/>

APPENDIX

List of cities considered in the study

1. India:

	City	Band
1	Mumbai	Red
2	Kolkata	
3	Delhi	
4	Chennai	
5	Hyderabad	
6	Bangalore	
7	Ahmadabad	
8	Pune	
9	Kanpur	
10	Surat	
11	Jaipur	Yellow
12	Lucknow	
13	Nagpur	
14	Indore	
15	Patna	Blue
16	Vadodara	
17	Bhopal	
18	Coimbatore	
19	Visakhapatnam	
20	Kochi	
21	Ludhiana	
22	Agra	
23	Madurai	
24	Varanasi	
25	Haora	
26	Vijayawada	
27	Guwahati	
28	Chandigarh	
29	Durg-Bhilainagar	
30	Rajkot	
31	Faridabad	
32	Srinagar	
33	Dhanbad	
34	Ranchi	
35	Jamshedpur	
36	Mysore	

37	Kozhikode	
38	Trivandrum	
39	Gwalior	
40	Jabalpur	
41	Aurangabad	
42	Nashik	
43	Solapur	
44	Amritsar	
45	Jodhpur	
46	Tiruchirappalli	
47	Ghaziabad	
48	Meerut	
49	Allahabad	
50	Asansol	
51	Warangal	
52	Guntur	
53	Raipur	
54	Jamnagar	
55	Bhavnagar	
56	Jammu	
57	Belgaum	
58	Hubli-Dharwad	
59	Mangalore	
60	Amravati	
61	Bhiwandi	
62	Kolhapur	
63	Cuttack	
64	Bhubaneswar	
65	Pondicherry	
66	Jalandhar	
67	Bikaner	
68	Kota	
69	Salem	
70	Tiruppur	
71	Dehradun	
72	Moradabad	
73	Aligarh	
74	Bareilly	
75	Gorakhpur	
76	Thalassery	
77	Rajahmundry	
78	Nellore	
79	Gaya	
80	Bokaro Steel City	
81	Gulbarga	
82	Kannur	
83	Kollam	
84	Ujjain	

85	Akola	
86	Nanded-Waghala	
87	Malegaon	
88	Sangli	
89	Raurkela	
90	Ajmer	
91	Udaipur	
92	Erode	
93	Vellore	
94	Tirunelveli	
95	Saharanpur	
96	Firozabad	
97	Jhansi	
98	Siliguri	
99	Durgapur	
100	Nizamabad	
101	Karimnagar	
102	Ramagundam	
103	Kakinada	
104	Eluru	
105	Cuddapah	
106	Kurnool	
107	Anantapur	
108	Tirupati	
109	Arrah	
110	Bhagalpur	
111	Bihar	
112	Darbhanga	
113	Muzaffarpur	
114	Purnia	
115	Korba	
116	Bilaspur	
117	Wadhwan	
118	Junagadh	
119	Anand	
120	Navsari	
121	Yamunanagar	
122	Karnal	
123	Panipat	
124	Sonipat	
125	Hisar	
126	Rohtak	
127	Gurgaon	
128	Bijapur	
129	Raichur	
130	Bellary	
131	Davanagere	
132	Shimoga	

133	Tumkur
134	Thrissur
135	Alappuzha
136	Sagar
137	Satna
138	Ratlam
139	Dewas
140	Dhule
141	Jalgaon
142	Chandrapur
143	Parbhani
144	Jalna
145	Ahmadnagar
146	Latur
147	Ichalkaranji
148	Imphal
149	Shillong
150	Aizawl
151	Sambalpur
152	Brahmapur
153	Bathinda
154	Patiala
155	Ganganagar
156	Alwar
157	Bharatpur
158	Bhilwara
159	Thanjavur
160	Thoothukkudi
161	Nagercoil
162	Hardwar
163	Muzaffarnagar
164	Rampur
165	Hapur
166	Noida
167	Mathura
168	Shahjahanpur
169	Farrukhabad- cum-Fatehgarh
170	Etawah
171	Faizabad
172	Maunath Bhanjan
173	Mirzapur-cum- Vindhyachal
174	English Bazar
175	Barddhaman
176	Habra
177	Kharagpur

2. China:

	City	Band
1	Shanghai	Red
2	Beijing	
3	Tianjin [Tientsin]	
4	Wuhan	
5	Guangzhou [Canton]	
6	Shenyang	
7	Chongqing [Chungking]	
8	Nanjing [Nanking]	
9	Harbin	Yellow
10	Xi'an [Sian]	
11	Chengdu [Chengtu]	
12	Changchun	
13	Dalian [Dairen]	
14	Hangzhou [Hangchou]	
15	Jinan	
16	Taiyuan	Blue
17	Qingdao [Tsingtao]	
18	Zhengzhou	
19	Shijiazhuang	
20	Kunming	
21	Lanzhou	
22	Zibo	
23	Changsha	
24	Nanchang	
25	Urumqi (Wulumuqi)	
26	Guiyang	
27	Anshan	
28	Tangshan	
29	Wuxi	
30	Jilin	
31	Fushun	
32	Fuzhou	
33	Suzhou	
34	Baotou	
35	Qiqihar	
36	Xuzhou	
37	Hefei [Hofei]	
38	Handan	
39	Shenzhen	
40	Luoyang	
41	Nanning	
42	Datong	
43	Shantou	
44	Yantai	

45	Huainan	
46	Daqing	
47	Benxi	
48	Changzhou	
49	Hengyang	
50	Hohhot (Huhehaote) [Huhehot]	
51	Liuzhou	
52	Ningbo	
53	Yichun	
54	Zaozhuang	
55	Shangqiu	
56	Jixi	
57	Xiamen	
58	Fuxin	
59	Jinzhou	
60	Weifang	
61	Zhangjiakou	
62	Mudanjiang	
63	Pingdingshan	
64	Yichang	
65	Xining	
66	Zhanjiang	
67	Baoding	
68	Xiangfan	
69	Xinxiang	
70	Tai'an	
71	Huaibei	
72	Jingzhou (Jiangling)	
73	Dandong	
74	Linyi	
75	Hegang	
76	Huangshi	
77	Jiamusi	
78	Kaifeng	
79	Liaoyang	
80	Jiaozuo	
81	Zhuzhou	
82	Wenzhou	
83	Anyang	
84	Wuhu	
85	Xiangtan	
86	Bengbu	
87	Nantong	
88	Yangzhou	
89	Zhuhai	
90	Zhenjiang	
91	Nanyang	

92	Lianyungang	
93	Qinhuangdao	
94	Dongying	
95	Yinchuan	
96	Yingkou	
97	Guilin	
98	Haikou	
99	Yueyang	
100	Jining	
101	Panzhuhua (Dukou)	

3. Brazil:

	City	Band
1	São Paulo [Sao Paulo]	
2	Rio de Janeiro	
3	Salvador	
4	Belo Horizonte	
5	Fortaleza	
6	Brasília	
7	Curitiba	
8	Manaus	
9	Recife	
10	Belém [Belem]	
11	Porto Alegre	
12	Guarulhos	
13	Goiânia [Goiania]	
14	Campinas	
15	São Gonçalo	
16	São Luís [Sao Luis]	
17	Maceió [Maceio]	
18	Duque de Caxias	
19	Nova Iguaçu	
20	Natal	
21	São Bernardo do Campo	
22	Teresina	
23	Campo Grande	
24	Osasco	
25	Santo André	
26	João Pessoa [Joao Pessoa]	
27	Jaboatão (dos Guararapes)	
28	São José dos Campos	
29	Contagem	
30	Uberlândia	
31	Sorocaba	
32	Ribeirão Preto	

33	Cuiabá	
34	Aracaju	
35	Juiz de Fora	
36	Ananindeua	
37	Belford Roxo	
38	Niterói	
39	Feira de Santana	
40	Londrina	
41	Joinville	
42	São João de Meriti	
43	Aparecida de Goiânia	
44	Santos	
45	Mauá	
46	Vila Velha	
47	Diadema	
48	Florianópolis [Florianopolis]	
49	Carapicuíba	
50	São José do Rio Preto	
51	Campos dos Goytacazes	
52	Serra	
53	Betim	
54	Olinda	
55	Caxias do Sul	
56	Campina Grande	
57	Piracicaba	
58	Bauru	
59	Cariacica	
60	Itaquaquecetuba	
61	Macapá	
62	Mogi das Cruzes (Moji das Cruzes)	
63	Canoas	
64	São Vicente	
65	Montes Claros	
66	Jundiaí	
67	Pelotas	
68	Franca	
69	Maringá	
70	Vitória [Vitoria]	
71	Ribeirão das Neves	
72	Porto Velho	
73	Anápolis	
74	Foz do Iguaçu	
75	Guarujá	
76	Paulista	
77	Ponta Grossa	
78	Petrópolis	
79	Caucaia	

80	Rio Branco	
81	Uberaba	
82	Blumenau	
83	Suzano (Susano)	
84	Limeira	
85	Cascavel	
86	Barueri	
87	Volta Redonda	
88	Santa Maria	
89	Taubaté	
90	Novo Hamburgo	
91	Governador Valadares	
92	Vitória da Conquista	
93	Várzea Grande	
94	Gravataí	

4. United States of America:

	City	Band
1	New York	
2	Los Angeles	
3	Chicago	
4	Houston	
5	Philadelphia	
6	Phoenix	
7	San Diego	
8	San Antonio	
9	Dallas	
10	Detroit	
11	San Jose	
12	Indianapolis	
13	Jacksonville	
14	San Francisco	
15	Columbus	
16	Louisville	
17	Austin	
18	Memphis	
19	Baltimore	
20	Milwaukee	
21	Fort Worth	
22	Charlotte	
23	El Paso	
24	Boston	
25	Seattle	
26	Washington	
27	Denver	
28	Nashville (-Davidson)	

29	Portland	
30	Oklahoma City	
31	Las Vegas	
32	Tucson	
33	Long Beach	
34	Albuquerque	
35	New Orleans	
36	Cleveland	
37	Fresno	
38	Sacramento	
39	Kansas City	
40	Virginia Beach	
41	Mesa	
42	Atlanta	
43	Omaha	
44	Oakland	
45	Tulsa	
46	Honolulu	
47	Miami	
48	Minneapolis	
49	Colorado Springs	
50	Arlington	
51	Wichita	
52	Santa Ana	
53	Anaheim	
54	St. Louis	
55	Pittsburgh	
56	Tampa	
57	Cincinnati	
58	Raleigh	
59	Toledo	
60	Aurora	
61	Buffalo	
62	Riverside	
63	St. Paul	
64	Corpus Christi	
65	Newark	
66	Stockton	
67	Bakersfield	
68	Anchorage	
69	Lexington (-Fayette)	
70	St. Petersburg	