Rangpur Poverty Reduction Strategy
Ward Prioritization

Rangpur City Corporation
Rangpur

September 2021

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Executive Summary

Given how widespread urban poverty is Bangladesh, and how complex and difficult for local governments to tackle its causes and symptoms, a strategic approach to poverty reduction is useful. A Poverty Reduction Strategy can help to provide orientation as to where a local government can begin or to prioritize their activities and investments, how to coordinate actions between government agencies, and provide a clear message to citizens that the government has the intention and plan to improve the conditions of the poor. For this reason, NUPRP is supporting municipal governments to map, quantify, and organize information about urban poor settlements in maps and tables, so as to help identify areas of greatest need and how poverty is distributed across cities. This process involves citizens and elected officials to discuss and understand the context of urban poverty in each city, and to define priority issues that need urgent attention.

In this document, the 'Rangpur Poverty Reduction Strategy – Ward Prioritization' NUPRP has documented the results of this process. Through its local government and stakeholders met for a series of participatory workshops to develop this poverty reduction strategy. The process includes: (i) a participatory city-wide poverty mapping activity; (ii) the sharing and validation of poverty mapping data in each of the city's wards and at the city-level; and (iii) the prioritization of city-level poverty indicators. A diverse range of stakeholders were involved throughout, they include the Mayor, counselors, key city officials, representatives of local community organizations (Community Development Committee-CDC, CDC Clusters, and CDC Town Federation), and local community surveyors. The result was the creation of a City Poverty Index that categorizes poverty levels of each of the wards into four categories, based on the relative poverty conditions. This Index visualizes varying concentrations of poverty across the city.

The categorization of the Poverty Index is based on four levels of priority, and is given by calculating the different aggregated scores of poor settlements in each ward, and also by combining important influences on poverty conditions, such as the number of urban poor, and the population density of poor settlements. The weighting of these scores is a result of a consultative process in which stakeholders prioritized the issues that define poverty in their city. For specific grants that target infrastructure and livelihoods, a separate unique index, that is narrowly focused, was created. For each of the indices, the wards of Rangpur city are categorized into (i) 1st priority - Q1 – critical development, (ii) 2nd priority - Q2 – very low development, (iii) 3rd priority – Q3 – low development, and (iv) 4th priority – Q4 – relatively high development. Based on this categorization, percentage of resources is then allocated in the following manner:

Priority Wards	Proposed resource allocation (%)	Agreed proportion of resource allocation ('20)
1st Priority Wards (Critical Development)	50%	
2nd Priority Wards (Very low development)	30%	
3rd Priority Wards (Low development)	15%	
4th Priority Wards (Relatively high development)	5%	
Total	**100%**	**100%**

The following table presents the priority ward lists derived through Rangpur's Poverty Reduction Strategy process.

Priority wards of Rangpur City Corporation

Sector	Priority Wards for Rangpur			
	Critical Dev (1st priority)	Very Low Dev (2nd priority)	Low Dev (3rd priority)	Relatively High Dev (4th priority)
Infrastructure (SIF)	2, 3, 8, 10, 14, 30	1, 4, 7, 11, 13, 19, 20, 23, 29, 31, 32, 33	5, 9, 12, 15, 17, 18, 26, 27	6, 16, 21, 22, 24, 25, 28
Livelihood (SEF)	2, 8, 10, 14, 19, 26, 27, 30	1, 3, 5, 20, 22, 23, 28, 29, 33	4, 9, 12, 13, 16, 17, 31, 32	6, 7, 11, 15, 18, 21, 24, 25
Land Tenure and Housing	16, 18, 20, 23, 25, 26, 27, 30	4, 5, 8, 10, 19, 21, 24, 28, 29	2, 7, 13, 14, 15, 22, 31, 33	1, 3, 6, 9, 11, 12, 17, 32
Overall Poverty	2, 8, 18, 20, 23, 26, 27, 30	1, 3, 10, 14, 16, 19, 28, 29, 33	4, 12, 13, 15, 17, 22, 25, 31, 32	5, 6, 7, 9, 11, 21, 24

The decision about the proportion of resource allocation to the different categories of priority wards was decided upon with the Rangpur City Authority; the decision was based on understanding of the local urban context provided by the Poverty Index, as well as considering the community's demand for the specific grants, and the readiness of community organizations to manage those grants. The comparative allocations are still aligned with the priority levels so wards with the highest priority are still set to receive the highest percentage of resources.

1   Introduction

National Urban Poverty Reduction Programme (NUPRP) aims at improving lives and livelihoods of 6 million Urban Poor in up to 35 cities of Bangladesh. NUPRP is working directly through the local government where concerned local government will be in the driving seat and NUPRP will be supporting them to reduce poverty in their cities. In order to cover this huge population with this significant number of cities, a well-defined poverty reduction strategy is necessary to be in place to better targeting the beneficiaries and identifying the poverty hotspots for quick and fruitful actions. As a part of poverty reduction strategy, NUPRP already completed few assessments in Rangpur city that includes (i) Participatory Mahalla and Resources Mapping, (ii) Participatory Urban Poor Settlement Mapping, (iii) Assessment of Coordination and Standing Committees, (iv) Community Development Committee (CDC) Assessment, (v) CDC Town Federation Assessment etc.

Both Mahalla and Urban Poor Settlement Mapping jointly termed as 'Poverty Mapping' were accomplished by following some rigorous participatory process where trained community people were mainly collecting the data from their respective wards and Ward Councillors were extensively involved with them throughout the process and at the end of the day when councillors were satisfied with the mapping and data collection, they endorsed the ward level maps and data which was later presented before the audiences at a city level result sharing workshop and mayor endorsed the city level poverty map and data.

Using the poverty mapping data, prioritization of wards of Rangpur has been done for rationale and data-informed decision making with a view to targeting the neediest first and investing more resources in the poverty hotspots for a greater impact. The prioritization of wards is a part of Rangpur Poverty Reduction Strategy.

2   Poverty Indicators

Data of 16 poverty indicators were collected for every single urban poor settlement during poverty mapping. The data presented here are the aggregate result of the settlements. Therefore, poverty mapping data do not represent the household level data. The indictors in a broad head covers infrastructure, livelihoods, and land tenure and housing. These 16 indicators are as follows:

Infrastructure Indicators (7 indicators):	Livelihood Indicators (4 indicators):	Land Tenure and Housing Indicators (5 indicators):
▪ Roads ▪ Drains ▪ Solid waste ▪ Sanitation ▪ Electricity ▪ Water supply ▪ Street lighting	▪ Employment ▪ Income ▪ Education (School attendance) ▪ Social problems	▪ Housing ▪ Land tenure ▪ Eviction ▪ Land Ownership ▪ Occupancy

3 Priority Poverty Indicators

Every city has its own sets of priorities to address city poverty. Some cities might have priority for solid waste while another city might have top priority for water supply based on the city's development needs, conditions of poor settlements, geographic location of the city and so on. Therefore, it is necessary to know the priorities for the cities that will fit while developing the poverty reduction strategy for the city.

In Rangpur City Corporation, priority poverty indicators were determined in a session of the City Context Workshop. The main purpose of the city contexts workshop was to build consensus understanding about the city and fill in the gaps with supplementary knowledge about the city from the stakeholders. One of the sessions of this workshop was dedicated to defining the city-level priority poverty indicators.

Photo: Result Sharing Workshop of Participatory Poverty Mapping in Rangpur

16 poverty indicators are divided into three categories of priority as mentioned below:

       (i)   High priority indicators,

       (ii)   Medium priority indicators and

       (iii)   Low priority indicators.

Each of 16 poverty indicators are shown to the participants and based on the opinion of maximum people in that workshop, the indicator is put in any one of the three categories. Same process is followed for all 16 indicators and finally a list of indicators with three priority levels has been found.

City level Priority Poverty Indicators of Rangpur City Corporation

	Top priority indicators	Medium priority indicators	Low priority indicators
Infrastructure Indicators	▪ Roads ▪ Drains ▪ Solid waste ▪	▪ Street lighting ▪ Sanitation ▪	▪ Electricity ▪ Water supply
Livelihood Indicators	▪ Education ▪ Income	▪ Employment	▪ Social problems
Land Tenure and Housing Indicators	▪ Land tenure ▪ Housing	▪ Land tenure ▪ Occupancy ▪ Eviction ▪ Land Ownership	

4   Assigning weights and generate ward level index maps and data

Assigning weights

According to the poverty mapping scores, the settlements with the lowest scores are the poorest settlements meaning that high priority shall be given to the settlements with low scores. Therefore, when assigning the weight to the indicators, top priority indicators are assigned with lower weight and low priority indicators are assigned with higher weight. Following table presents the weight that is used for different indicators based on the priority level.

Priority	Assigned Weight
Top Priority	0.24
Medium Priority	0.31
Low Priority	0.45
Total	**1.00**

Creating index data sets

In order to create the index, 16 indicators are divided into three major categories if indices as mentioned below:

- **Infrastructure Index**
- **Livelihood Index**
- **Land Tenure and Housing Index**

For each of the indices, population and population density are also considered and they are also scored on a scale of 1 to 4 and these two indicators are weighted with low priority indicators. Following table shows the indicators for respective indices.

Indicators for Weighted Indices

Infrastructure Index	Livelihood Index	Land Tenure and Housing Index	Aggregate Poverty Index
- Roads - Drains - Solid waste - Sanitation - Electricity - Water supply - Street lighting - Population - Density	- Employment - Income - Education - Social problems - Population - Density	- Housing - Land tenure - Eviction - Land Ownership - Occupancy - Population - Density	16 indicators - Population - Density

Generating ward level aggregate datasets

After assigning weight to each indicator of a single settlement, the weighted score is found for that specific settlement. Then, to generate the ward level aggregate data, the average weighted value of all the settlements under a ward is calculated. This operation has been run for all 16 indicators as well as population and density data to get the weighted value of them.

Calculating the aggregate index

The ward level aggregate weighted data of the indicators then summed up to get specific index value. For example, to get the infrastructure index of a ward, values of 7 infrastructure indictors (roads, drains, solid waste, sanitation, electricity, water supply, and street lighting) and values of population and density parameters are summed up. Same process is applied for livelihood index, land tenure and housing index as well.

> **Formula used for Calculating Index**
>
> **Aggregate Poverty Index** = sum of weighted score of 16 indicators + weighted score of population + weighted score of pop. Density
>
> **Aggregate Infrastructure Index** = sum of weighted score of 7infrastructure indicators (Roads, Drains, Solid waste, Sanitation, Electricity, Water supply, and Street light) + weighted score of population + weighted score of pop. density
>
> **Aggregate Livelihood Index** = sum of weighted score of 4 indicators (Employment, Income, Education, and Social problems) + weighted score of population + weighted score of pop. Density
>
> **Aggregate Land Tenure and Housing Index** = sum of weighted score of 4 indicators (Employment, Income, Education, and Social problems) + weighted score of population + weighted score of pop. Density

5   Aggregate Poverty Index maps and data

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Aggregate Poverty Index

- Q1 - Critical Dev
- Q2 - Very Low Dev
- Q3 - Low Dev
- Q4 - Relatively High Dev

Aggregate Poverty Index, Rangpur City Corporation

Legend: Q1 - Critical Dev | Q2 - Very Low Dev | Q3 - Low Dev | Q4 - Relatively High Dev | Average Line
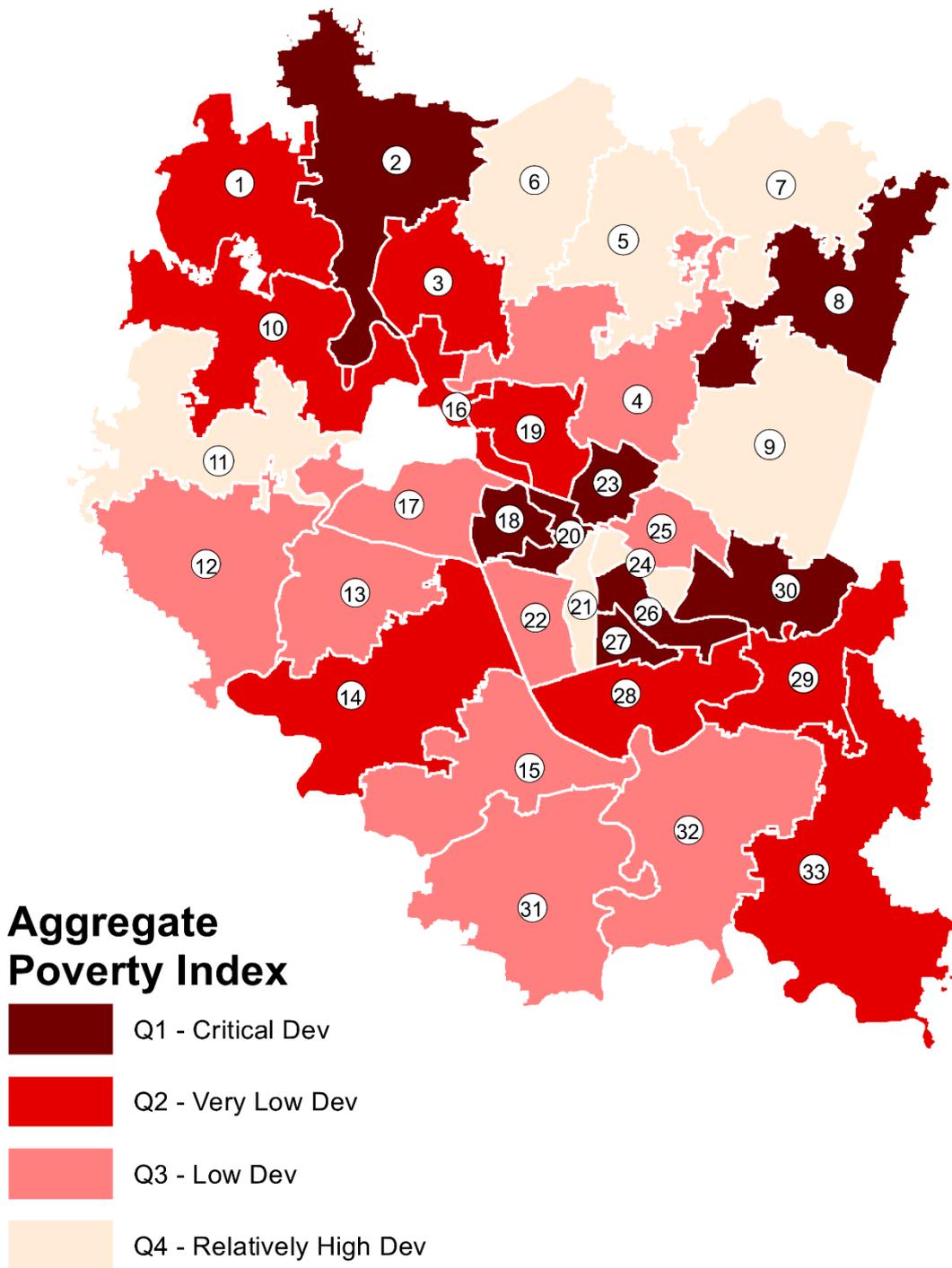
Table 01: Distribution of settlements by Ward and Weighted Poverty Index, Rangpur

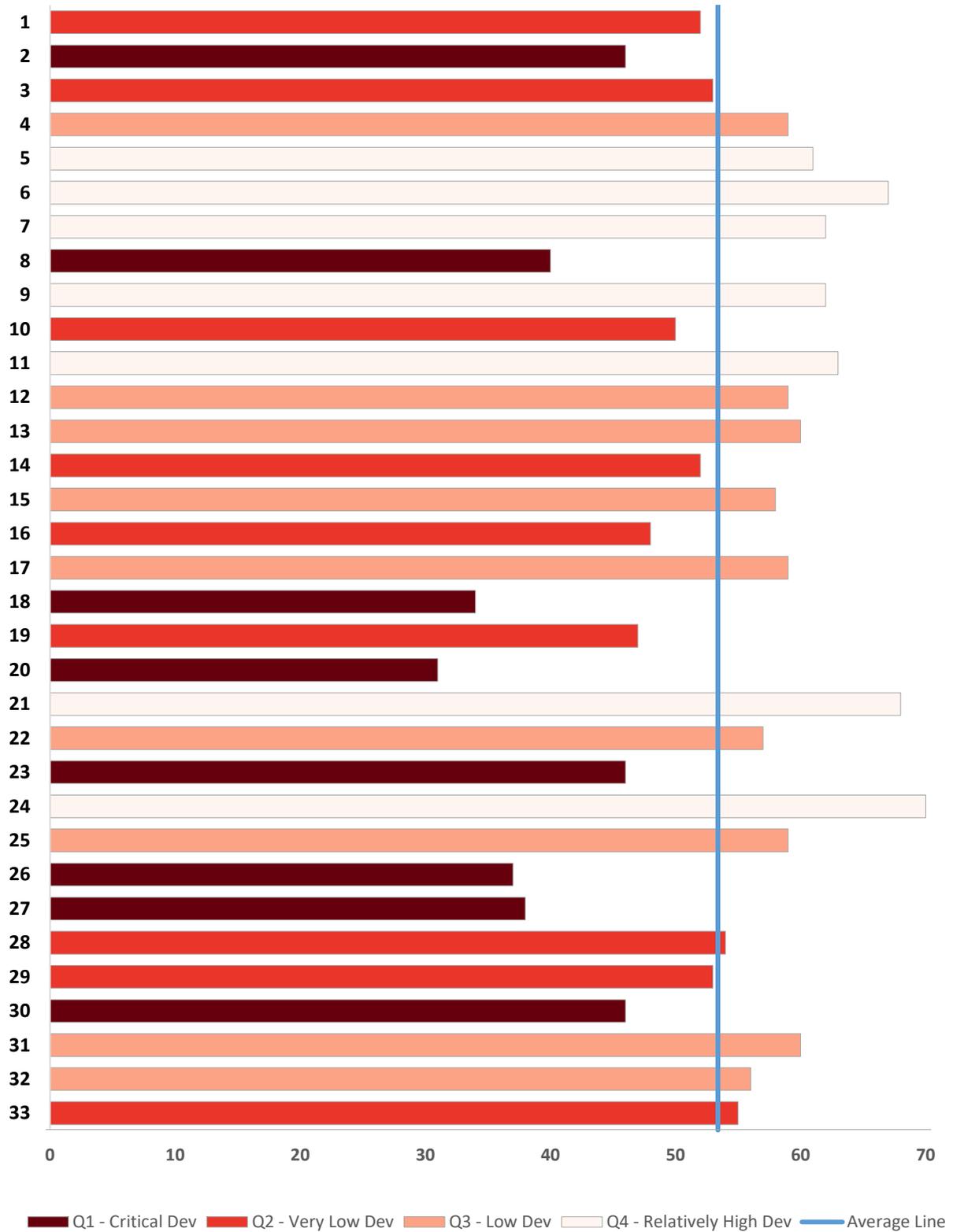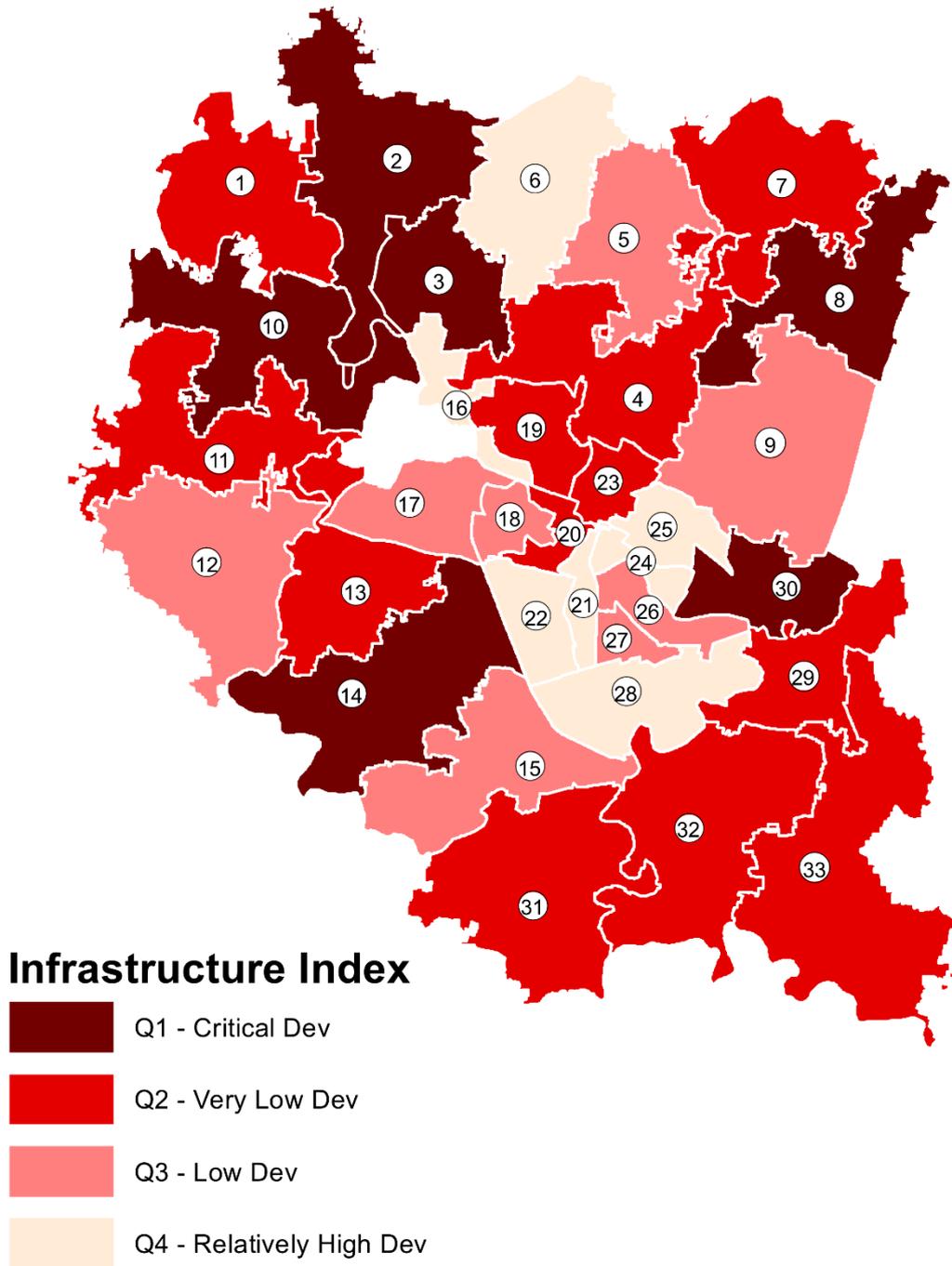| Ward	Agg. Pov. Index and Quartile		Q1 - Critical Dev				Q2 - Very Low Dev				Q3 - Low Dev				Q4 - Relatively High Dev				Total			
	pov_indx_w	pov_Q_w	# Settl	# HHs	% HHs	# Popn	# Settl	# HHs	% HHs	# Popn	# Settl	# HHs	% HHs	# Popn	# Settl	# HHs	% HHs	# Popn	# Settl	# HHs	% HHs	# Popn
1	52	Q2 - Very Low Dev	15	610	3%	2977	11	516	2%	2398	16	414	2%	1962	7	126	1%	524	49	1666	2%	7861
2	46	Q1 - Critical Dev	7	1191	5%	5164	13	1382	6%	6018	6	255	1%	1091	0	0	0%	0	26	2828	4%	12273
3	53	Q2 - Very Low Dev	5	166	1%	717	20	1289	6%	5552	16	1028	6%	3812	3	58	1%	235	44	2541	3%	10316
4	59	Q3 - Low Dev	4	190	1%	930	7	405	2%	1990	14	653	4%	3001	9	553	6%	2313	34	1801	2%	8234
5	61	Q4 - Relatively High Dev	3	227	1%	1198	2	177	1%	843	12	1609	9%	6288	11	892	9%	3236	28	2905	4%	11565
6	67	Q4 - Relatively High Dev	0	0	0%	0	0	0	0%	0	10	447	2%	2059	34	445	4%	2025	44	892	1%	4084
7	62	Q4 - Relatively High Dev	4	239	1%	796	2	61	0%	218	4	160	1%	565	16	515	5%	1816	26	975	1%	3395
8	40	Q1 - Critical Dev	28	2448	10%	11383	9	394	2%	1729	0	0	0%	0	0	0	0%	0	37	2842	4%	13112
9	62	Q4 - Relatively High Dev	1	25	0%	110	10	560	3%	2278	13	455	3%	1874	22	677	7%	2920	46	1717	2%	7182
10	50	Q2 - Very Low Dev	1	150	1%	937	23	2293	11%	9264	4	631	4%	3142	0	0	0%	0	28	3074	4%	13343
11	63	Q4 - Relatively High Dev	1	100	0%	450	2	85	0%	380	16	727	4%	3250	16	400	4%	1790	35	1312	2%	5870
12	59	Q3 - Low Dev	2	101	0%	475	18	1125	5%	4917	31	1460	8%	5592	17	222	2%	1015	68	2908	4%	11999
13	60	Q3 - Low Dev	1	10	0%	45	12	1335	6%	5960	14	1030	6%	4120	13	346	3%	1545	40	2721	4%	11670
14	52	Q2 - Very Low Dev	3	205	1%	975	27	1910	9%	7145	13	452	3%	1902	0	0	0%	0	43	2567	4%	10022
15	58	Q3 - Low Dev	5	329	1%	1322	6	572	3%	2745	7	418	2%	1479	12	233	2%	1111	30	1552	2%	6657
16	48	Q2 - Very Low Dev	12	444	2%	2162	6	117	1%	550	4	67	0%	296	4	64	1%	288	26	692	1%	3296
17	59	Q3 - Low Dev	9	1254	5%	4187	3	85	0%	325	21	1336	7%	4423	20	540	5%	2301	53	3215	4%	11236
18	34	Q1 - Critical Dev	27	394	2%	1646	3	22	0%	74	1	16	0%	64	1	10	0%	35	32	442	1%	1819
19	47	Q2 - Very Low Dev	11	1208	5%	4417	14	1211	6%	4864	4	255	1%	1020	3	97	1%	398	32	2771	4%	10699
20	31	Q1 - Critical Dev	31	436	2%	2086	5	43	0%	210	3	29	0%	133	1	5	0%	25	40	513	1%	2454
21	68	Q4 - Relatively High Dev	2	96	0%	566	4	44	0%	209	4	56	0%	232	15	177	2%	923	25	373	1%	1930
22	57	Q3 - Low Dev	2	28	0%	114	4	105	0%	487	9	491	3%	2130	4	197	2%	850	19	821	1%	3581
23	46	Q1 - Critical Dev	11	1120	5%	5224	0	0	0%	0	6	276	2%	1395	7	295	3%	1304	24	1691	2%	7923
24	70	Q4 - Relatively High Dev	4	353	1%	1682	3	27	0%	111	3	26	0%	138	23	682	7%	2836	33	1088	1%	4767
25	59	Q3 - Low Dev	4	104	0%	569	4	55	0%	213	3	1120	6%	3837	10	262	3%	959	21	1541	2%	5578
26	37	Q1 - Critical Dev	36	5356	22%	21628	6	315	1%	1405	2	64	0%	235	8	274	3%	1203	52	6009	8%	24471
27	38	Q1 - Critical Dev	33	721	3%	3276	10	196	1%	899	8	176	1%	789	2	37	0%	125	53	1130	2%	5089
28	54	Q2 - Very Low Dev	8	973	4%	4285	22	903	4%	4415	11	418	2%	1973	13	408	4%	2033	54	2702	4%	12706
29	53	Q2 - Very Low Dev	21	2744	11%	10921	19	2506	12%	10988	10	370	2%	1775	20	1150	12%	5516	70	6770	9%	29200
30	46	Q1 - Critical Dev	16	1657	7%	6502	5	518	2%	2047	0	0	0%	0	9	324	3%	1112	30	2499	3%	9661
31	60	Q3 - Low Dev	1	10	0%	40	10	700	3%	3025	28	2285	13%	9550	11	437	4%	1814	50	3432	5%	14429
32	56	Q3 - Low Dev	0	0	0%	0	17	688	3%	3081	20	453	3%	1934	3	42	0%	170	40	1183	2%	5185
33	55	Q2 - Very Low Dev	9	1055	4%	4801	21	1815	8%	8298	18	833	5%	3812	12	455	5%	2010	60	4158	6%	18921

6   Aggregate Infrastructure Index maps and data

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Infrastructure Index

⬛	Q1 - Critical Dev
🟥	Q2 - Very Low Dev
🟥	Q3 - Low Dev
⬜	Q4 - Relatively High Dev

Aggregate Infrastructure Index, Rangpur City Corporation

Q1 - Critical Dev   Q2 - Very Low Dev   Q3 - Low Dev   Q4 - Relatively High Dev   Average Line
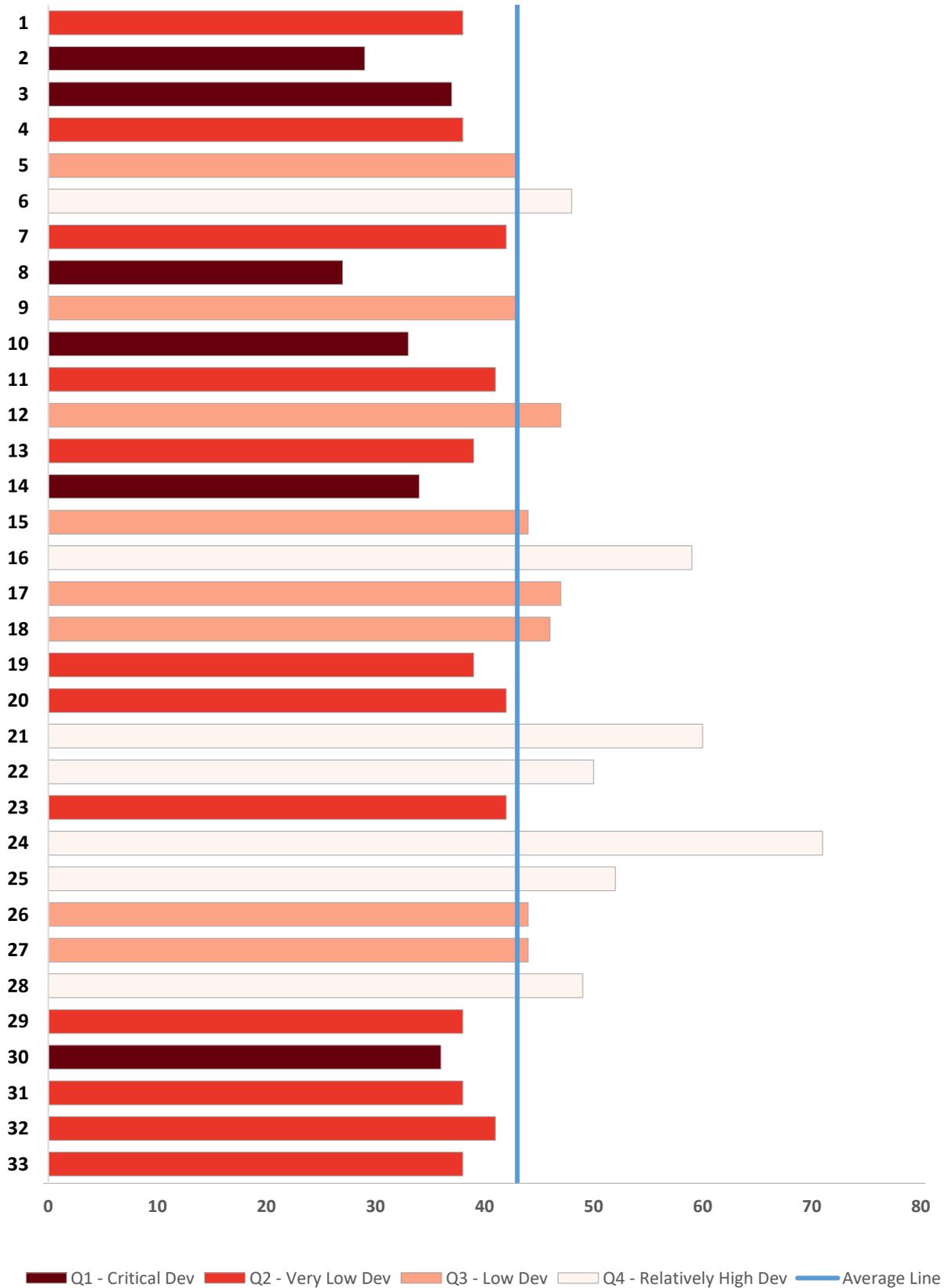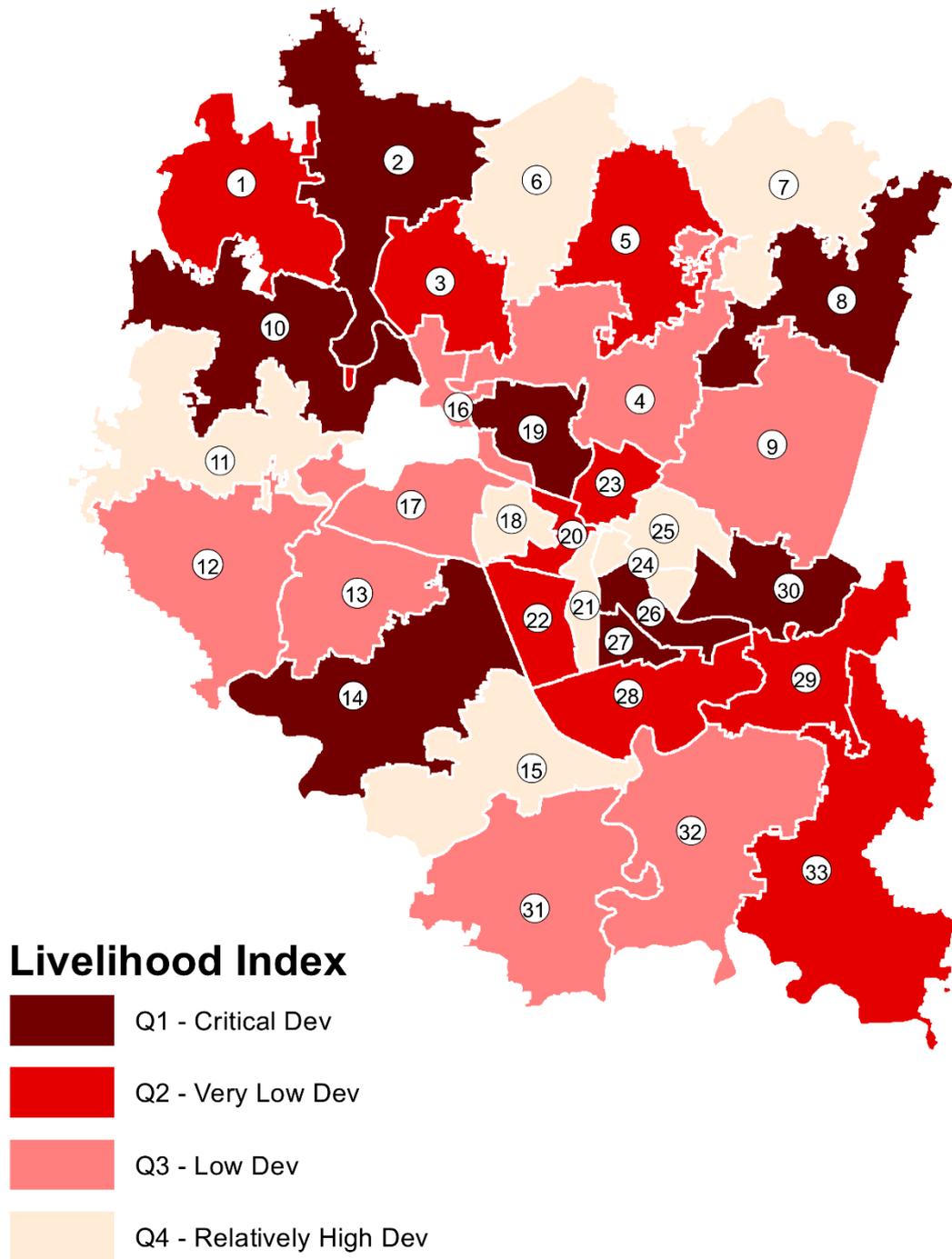
Table 02: Distribution of settlements by Ward and Weighted Infrastructure Index, Rangpur

Ward	Agg. Infra. Index and Quartile		Q1 - Critical Dev				Q2 - Very Low Dev				Q3 - Low Dev				Q4 - Relatively High Dev				Total			
	Infra_indx_w	Infra_Q_w	# Settl	# HHs	% HHs	# Popn	# Settl	# HHs	% HHs	# Popn	# Settl	# HHs	% HHs	# Popn	# Settl	# HHs	% HHs	# Popn	# Settl	# HHs	% HHs	# Popn
1	38	Q2 - Very Low Dev	16	889	3%	4297	15	492	3%	2303	13	204	2%	883	5	81	1%	378	49	1666	2%	7861
2	29	Q1 - Critical Dev	15	2496	7%	10980	7	261	1%	993	3	65	1%	281	1	6	0%	19	26	2828	4%	12273
3	37	Q1 - Critical Dev	19	1761	5%	7174	11	442	2%	1909	9	268	2%	985	5	70	1%	248	44	2541	3%	10316
4	38	Q2 - Very Low Dev	12	698	2%	3340	10	480	2%	2111	6	233	2%	1056	6	390	5%	1727	34	1801	2%	8234
5	43	Q3 - Low Dev	5	588	2%	2685	4	341	2%	1596	15	1814	14%	6662	4	162	2%	622	28	2905	4%	11565
6	48	Q4 - Relatively High Dev	4	323	1%	1475	9	208	1%	970	15	189	1%	881	16	172	2%	758	44	892	1%	4084
7	42	Q2 - Very Low Dev	7	437	1%	1471	7	218	1%	822	6	136	1%	447	6	184	3%	655	26	975	1%	3395
8	27	Q1 - Critical Dev	30	2585	8%	11992	5	187	1%	871	2	70	1%	249	0	0	0%	0	37	2842	4%	13112
9	43	Q3 - Low Dev	7	450	1%	1834	12	590	3%	2524	16	447	3%	1814	11	230	3%	1010	46	1717	2%	7182
10	33	Q1 - Critical Dev	17	1813	5%	8156	6	1080	5%	4240	1	50	0%	250	4	131	2%	697	28	3074	4%	13343
11	41	Q2 - Very Low Dev	7	530	2%	2365	9	385	2%	1770	15	340	3%	1482	4	57	1%	253	35	1312	2%	5870
12	47	Q3 - Low Dev	3	166	0%	717	19	1801	9%	7428	21	573	4%	2347	25	368	5%	1507	68	2908	4%	11999
13	39	Q2 - Very Low Dev	9	925	3%	4120	20	1533	8%	6385	7	178	1%	780	4	85	1%	385	40	2721	4%	11670
14	34	Q1 - Critical Dev	25	1967	6%	7505	11	455	2%	1905	7	145	1%	612	0	0	0%	0	43	2567	4%	10022
15	44	Q3 - Low Dev	8	1117	3%	4530	3	50	0%	247	10	222	2%	1128	9	163	2%	752	30	1552	2%	6657
16	59	Q4 - Relatively High Dev	1	67	0%	335	2	73	0%	337	4	126	1%	558	19	426	6%	2066	26	692	1%	3296
17	47	Q3 - Low Dev	5	277	1%	1049	11	1026	5%	3368	16	1360	10%	4473	21	552	8%	2346	53	3215	4%	11236
18	46	Q3 - Low Dev	5	34	0%	134	9	176	1%	741	9	116	1%	494	9	116	2%	450	32	442	1%	1819
19	39	Q2 - Very Low Dev	9	1240	4%	4949	12	982	5%	3553	5	370	3%	1471	6	179	2%	726	32	2771	4%	10699
20	42	Q2 - Very Low Dev	11	216	1%	1053	12	137	1%	672	6	56	0%	244	11	104	1%	485	40	513	1%	2454
21	60	Q4 - Relatively High Dev	1	80	0%	470	3	57	0%	342	4	34	0%	168	17	202	3%	950	25	373	1%	1930
22	50	Q4 - Relatively High Dev	2	100	0%	475	5	258	1%	1082	4	210	2%	962	8	253	4%	1062	19	821	1%	3581
23	42	Q2 - Very Low Dev	4	571	2%	2644	9	658	3%	3186	7	371	3%	1775	4	91	1%	318	24	1691	2%	7923
24	71	Q4 - Relatively High Dev	2	325	1%	1534	3	33	0%	179	1	7	0%	41	27	723	10%	3013	33	1088	1%	4767
25	52	Q4 - Relatively High Dev	1	60	0%	305	3	98	0%	428	8	1255	10%	4349	9	128	2%	496	21	1541	2%	5578
26	44	Q3 - Low Dev	11	3282	10%	12183	13	1536	8%	7246	11	634	5%	2535	17	557	8%	2507	52	6009	8%	24471
27	44	Q3 - Low Dev	8	255	1%	1148	14	355	2%	1639	17	330	3%	1502	14	190	3%	800	53	1130	2%	5089
28	49	Q4 - Relatively High Dev	5	833	2%	3481	10	568	3%	2716	15	713	6%	3644	24	588	8%	2865	54	2702	4%	12706
29	38	Q2 - Very Low Dev	28	4331	13%	17149	15	1092	6%	5491	14	848	7%	4225	13	499	7%	2335	70	6770	9%	29200
30	36	Q1 - Critical Dev	15	1454	4%	5824	5	655	3%	2500	3	161	1%	505	7	229	3%	832	30	2499	3%	9661
31	38	Q2 - Very Low Dev	12	1220	4%	5340	22	1515	8%	6285	13	625	5%	2500	3	72	1%	304	50	3432	5%	14429
32	41	Q2 - Very Low Dev	8	405	1%	1783	12	405	2%	1768	14	299	2%	1323	6	74	1%	311	40	1183	2%	5185
33	38	Q2 - Very Low Dev	17	1985	6%	9001	21	1520	8%	6973	17	513	4%	2322	5	140	2%	625	60	4158	6%	18921

7 Aggregate Livelihoods Index maps and data

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Livelihood Index

- ■ Q1 - Critical Dev
- ■ Q2 - Very Low Dev
- ■ Q3 - Low Dev
- ■ Q4 - Relatively High Dev

Aggregate Livelihood Index, Rangpur City Corporation

Q1 - Critical Dev   Q2 - Very Low Dev   Q3 - Low Dev   Q4 - Relatively High Dev   Average Line
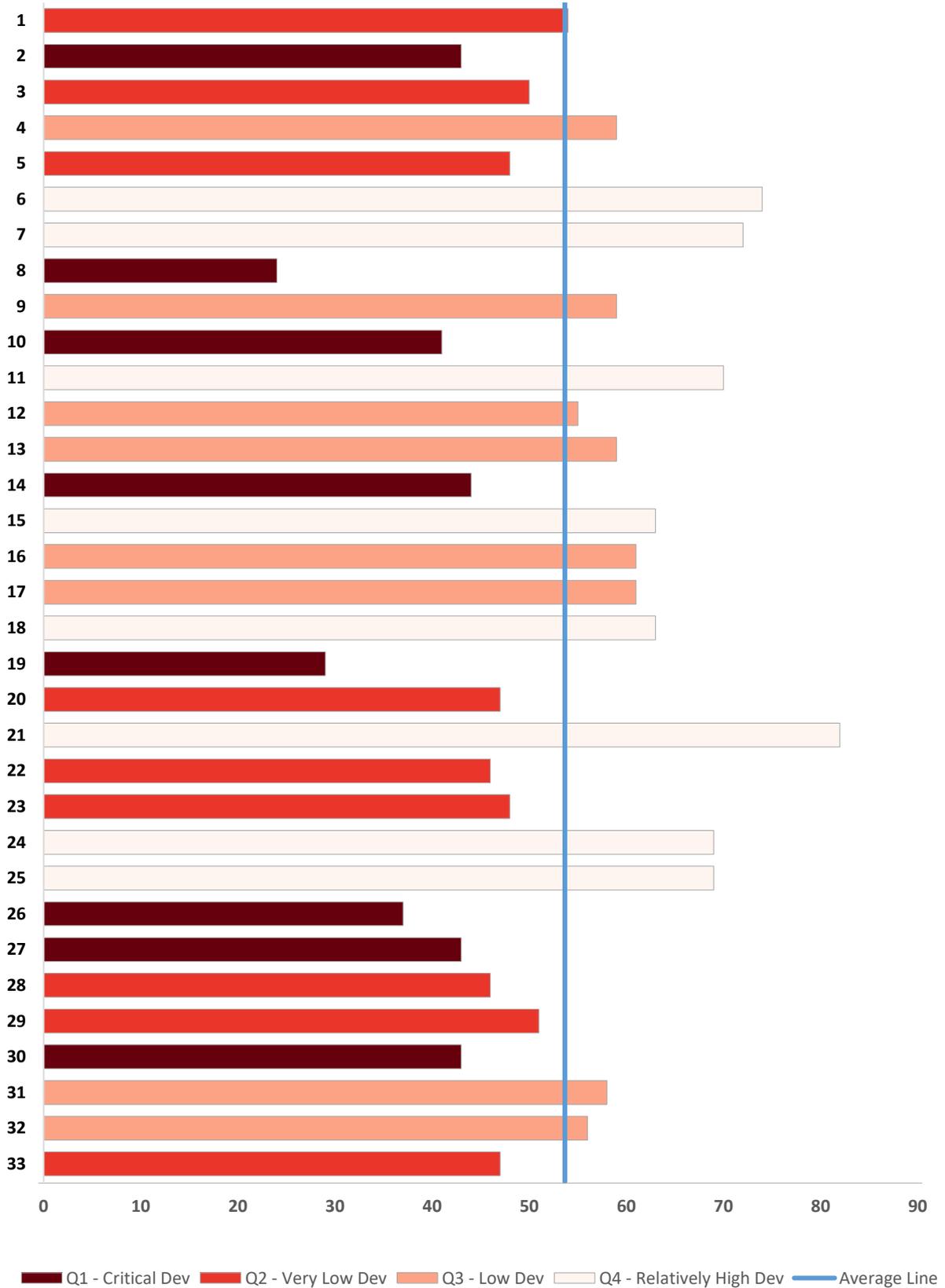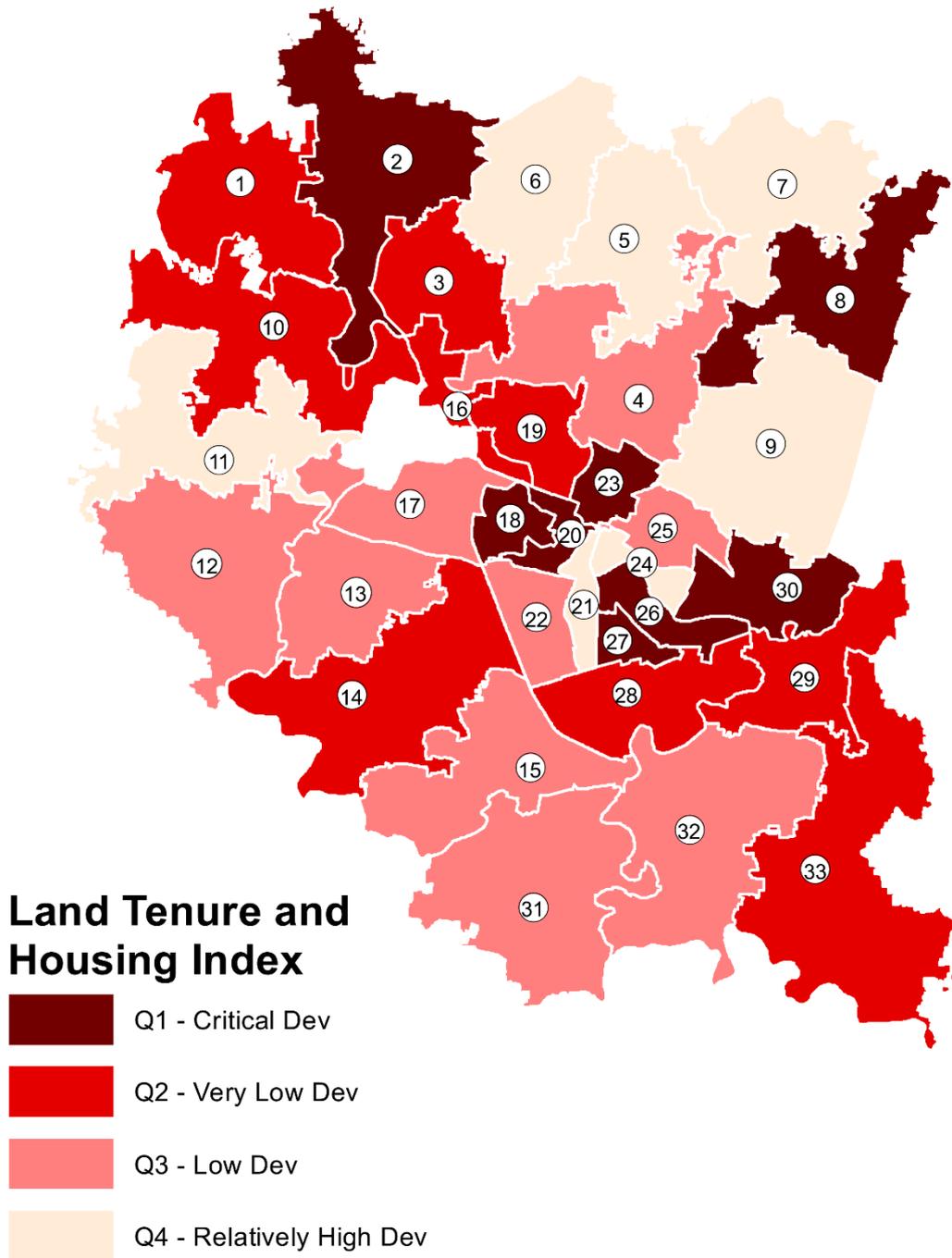
Table 03: Distribution of settlements by Ward and Weighted Livelihood Index, Rangpur

Ward	Agg. Liv. Index and Quartile		Q1 - Critical Dev				Q2 - Very Low Dev				Q3 - Low Dev				Q4 - Relatively High Dev				Total			
	Live_indx_w	Live_Q_w	# Settl	# HHs	% HHs	# Popn	# Settl	# HHs	% HHs	# Popn	# Settl	# HHs	% HHs	# Popn	# Settl	# HHs	% HHs	# Popn	# Settl	# HHs	% HHs	# Popn
1	54	Q2 - Very Low Dev	13	611	2%	2955	10	411	2%	1923	12	408	3%	1911	14	236	4%	1072	49	1666	2%	7861
2	43	Q1 - Critical Dev	11	2120	6%	9380	10	567	3%	2258	4	116	1%	510	1	25	0%	125	26	2828	4%	12273
3	50	Q2 - Very Low Dev	11	703	2%	3140	17	1081	6%	4446	11	647	5%	2396	5	110	2%	334	44	2541	3%	10316
4	59	Q3 - Low Dev	5	330	1%	1555	6	300	2%	1510	12	607	5%	2780	11	564	9%	2389	34	1801	2%	8234
5	48	Q2 - Very Low Dev	5	715	2%	3086	16	1949	10%	7471	6	224	2%	896	1	17	0%	112	28	2905	4%	11565
6	74	Q4 - Relatively High Dev	0	0	0%	0	2	198	1%	901	8	254	2%	1195	34	440	7%	1988	44	892	1%	4084
7	72	Q4 - Relatively High Dev	0	0	0%	0	2	114	1%	496	5	313	2%	971	19	548	9%	1928	26	975	1%	3395
8	24	Q1 - Critical Dev	34	2704	8%	12592	3	138	1%	520	0	0	0%	0	0	0	0%	0	37	2842	4%	13112
9	59	Q3 - Low Dev	4	370	1%	1475	14	470	2%	2002	15	595	5%	2500	13	282	5%	1205	46	1717	2%	7182
10	41	Q1 - Critical Dev	13	1863	5%	7854	12	1125	6%	5052	3	86	1%	437	0	0	0%	0	28	3074	4%	13343
11	70	Q4 - Relatively High Dev	1	100	0%	450	0	0	0%	0	14	749	6%	3355	20	463	7%	2065	35	1312	2%	5870
12	55	Q3 - Low Dev	9	762	2%	3335	22	1008	5%	4725	24	1006	8%	3329	13	132	2%	610	68	2908	4%	11999
13	59	Q3 - Low Dev	5	720	2%	3240	9	855	4%	3845	18	968	7%	3775	8	178	3%	810	40	2721	4%	11670
14	44	Q1 - Critical Dev	19	1802	5%	6680	15	525	3%	2330	8	225	2%	945	1	15	0%	67	43	2567	4%	10022
15	63	Q4 - Relatively High Dev	4	406	1%	1605	4	163	1%	732	9	760	6%	3232	13	223	4%	1088	30	1552	2%	6657
16	61	Q3 - Low Dev	0	0	0%	0	7	450	2%	2174	12	183	1%	857	7	59	1%	265	26	692	1%	3296
17	61	Q3 - Low Dev	6	1026	3%	3540	15	1560	8%	5364	10	280	2%	1118	22	349	6%	1214	53	3215	4%	11236
18	63	Q4 - Relatively High Dev	3	61	0%	245	8	124	1%	556	8	89	1%	361	13	168	3%	657	32	442	1%	1819
19	29	Q1 - Critical Dev	25	2581	7%	9943	5	168	1%	668	2	22	0%	88	0	0	0%	0	32	2771	4%	10699
20	47	Q2 - Very Low Dev	6	189	1%	946	23	229	1%	1072	9	75	1%	346	2	20	0%	90	40	513	1%	2454
21	82	Q4 - Relatively High Dev	0	0	0%	0	1	19	0%	96	2	96	1%	566	22	258	4%	1268	25	373	1%	1930
22	46	Q2 - Very Low Dev	6	550	2%	2380	11	251	1%	1106	2	20	0%	95	0	0	0%	0	19	821	1%	3581
23	48	Q2 - Very Low Dev	7	1023	3%	4732	7	291	2%	1472	10	377	3%	1719	0	0	0%	0	24	1691	2%	7923
24	69	Q4 - Relatively High Dev	1	102	0%	509	1	223	1%	1025	8	537	4%	2297	23	226	4%	936	33	1088	1%	4767
25	69	Q4 - Relatively High Dev	1	270	1%	1080	3	930	5%	3074	2	85	1%	412	15	256	4%	1012	21	1541	2%	5578
26	37	Q1 - Critical Dev	31	5284	15%	21289	12	432	2%	1999	4	100	1%	415	5	193	3%	768	52	6009	8%	24471
27	43	Q1 - Critical Dev	20	581	2%	2640	27	474	2%	2159	6	75	1%	290	0	0	0%	0	53	1130	2%	5089
28	46	Q2 - Very Low Dev	19	1676	5%	7744	13	505	3%	2513	20	501	4%	2357	2	20	0%	92	54	2702	4%	12706
29	51	Q2 - Very Low Dev	25	4183	12%	16848	12	1077	6%	5273	19	1122	9%	5256	14	388	6%	1823	70	6770	9%	29200
30	43	Q1 - Critical Dev	15	1722	5%	6721	5	450	2%	1827	4	192	1%	645	6	135	2%	468	30	2499	3%	9661
31	58	Q3 - Low Dev	1	40	0%	170	17	1505	8%	6345	21	1540	12%	6460	11	347	6%	1454	50	3432	5%	14429
32	56	Q3 - Low Dev	5	312	1%	1409	13	416	2%	1838	14	314	2%	1384	8	141	2%	554	40	1183	2%	5185
33	47	Q2 - Very Low Dev	22	2260	6%	10334	16	1000	5%	4580	13	508	4%	2310	9	390	6%	1697	60	4158	6%	18921

8 Aggregate Land Tenure and Housing Index maps and data

RANGPUR

Land Tenure and Housing Index

■	Q1 - Critical Dev
■	Q2 - Very Low Dev
■	Q3 - Low Dev
■	Q4 - Relatively High Dev

Aggregate Land Tenure and Housing Index, Rangpur City Corporation

Q1 - Critical Dev   Q2 - Very Low Dev   Q3 - Low Dev   Q4 - Relatively High Dev   Average Line
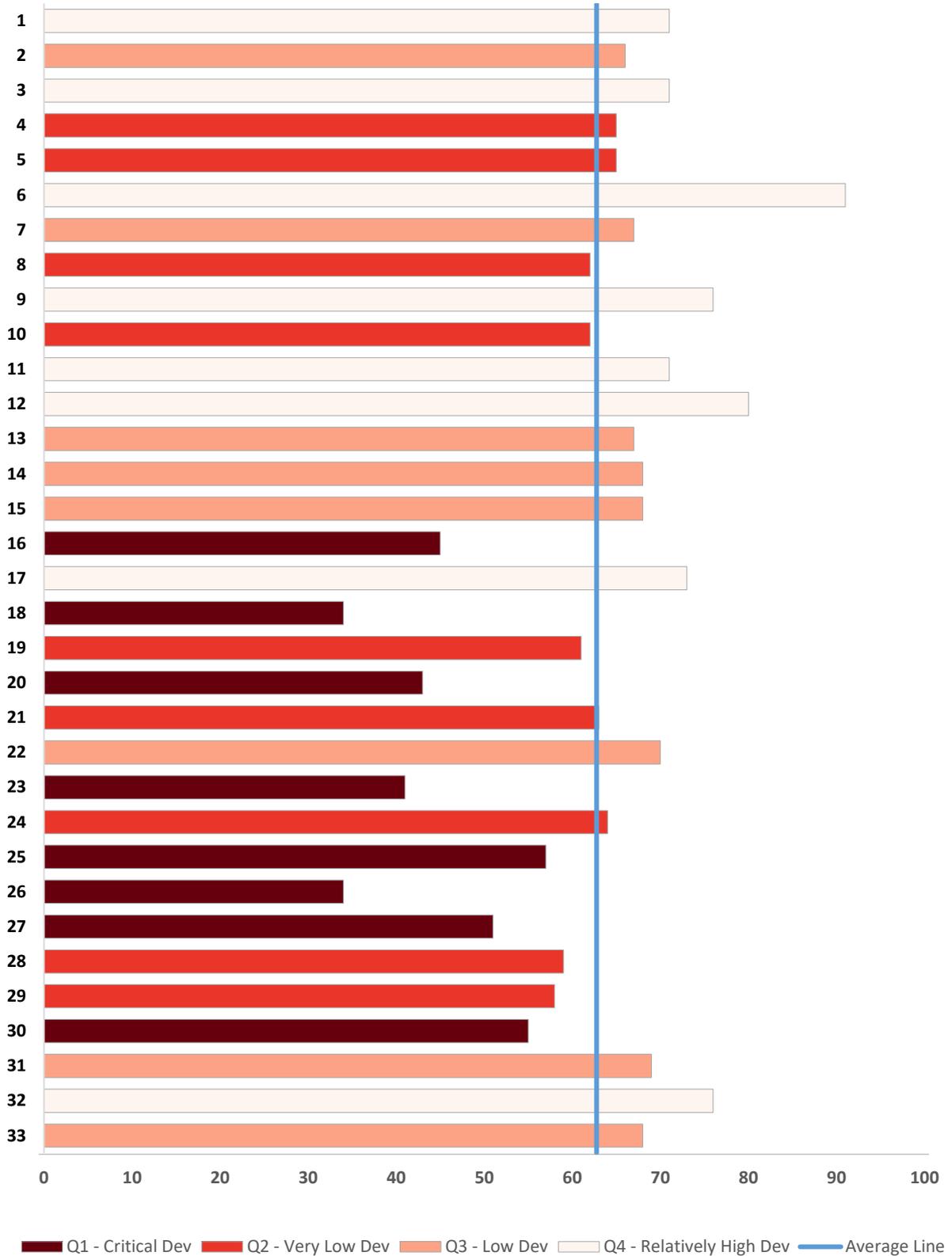
Table 04: Distribution of settlements by Ward and Weighted Land Tenure and Housing Index, Rangpur

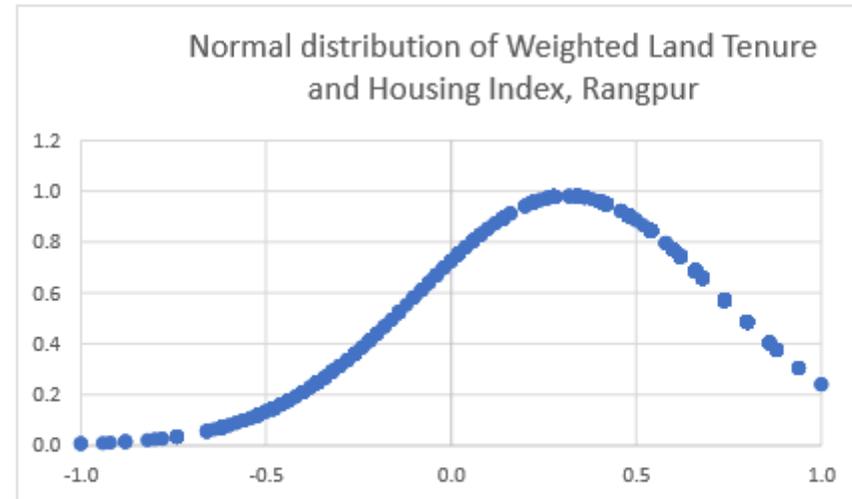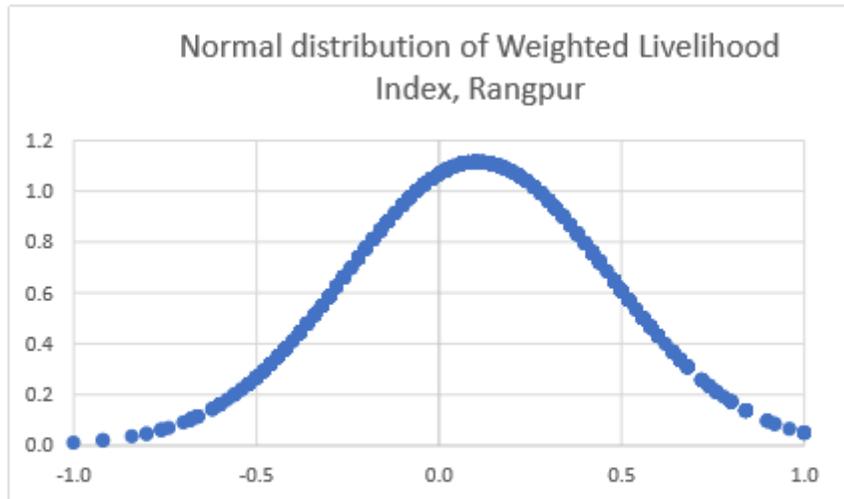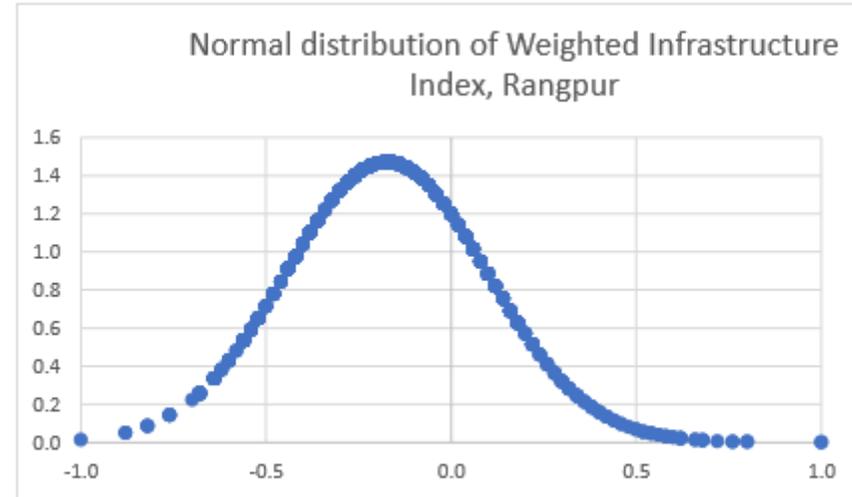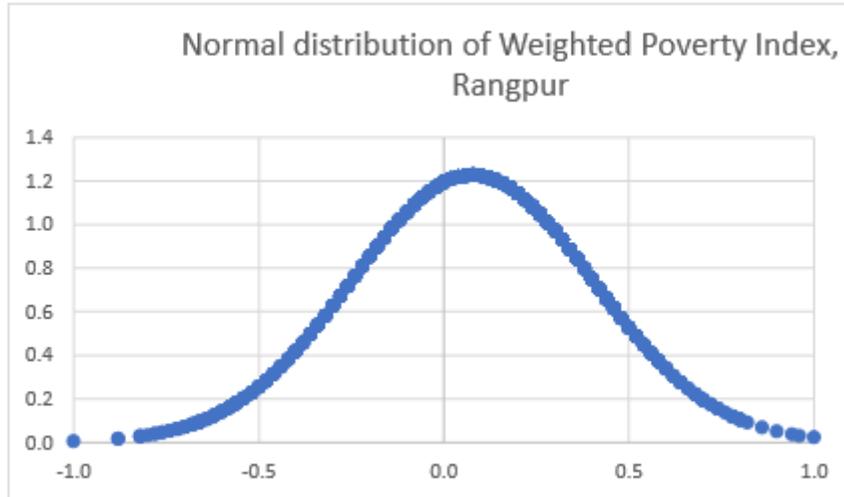	Ward	Agg. Land-tenure and Housing Index and Quartile		Q1 - Critical Dev				Q2 - Very Low Dev				Q3 - Low Dev				Q4 - Relatively High Dev				Total			
	LH_indx_w	LH_Q_w	# Settl	# HHs	% HHs	# Popn	# Settl	# HHs	% HHs	# Popn	# Settl	# HHs	% HHs	# Popn	# Settl	# HHs	% HHs	# Popn	# Settl	# HHs	% HHs	# Popn
1	71	Q4 - Relatively High Dev	4	84	0%	434	15	884	2%	4219	11	339	3%	1599	19	359	6%	1609	49	1666	2%	7861
2	66	Q3 - Low Dev	3	221	1%	784	14	2301	6%	10225	1	120	1%	500	8	186	3%	764	26	2828	4%	12273
3	71	Q4 - Relatively High Dev	3	59	0%	265	13	1521	4%	6077	14	565	4%	2439	14	396	7%	1535	44	2541	3%	10316
4	65	Q2 - Very Low Dev	2	70	0%	330	17	1162	3%	5425	11	466	4%	2046	4	103	2%	433	34	1801	2%	8234
5	65	Q2 - Very Low Dev	2	140	1%	700	15	2053	6%	8289	9	645	5%	2307	2	67	1%	269	28	2905	4%	11565
6	91	Q4 - Relatively High Dev	0	0	0%	0	0	0	0%	0	4	323	2%	1475	40	569	10%	2609	44	892	1%	4084
7	67	Q3 - Low Dev	6	268	1%	908	3	161	0%	566	8	350	3%	1267	9	196	3%	654	26	975	1%	3395
8	62	Q2 - Very Low Dev	5	335	2%	1446	22	1815	5%	8538	10	692	5%	3128	0	0	0%	0	37	2842	4%	13112
9	76	Q4 - Relatively High Dev	1	25	0%	110	8	630	2%	2590	16	570	4%	2472	21	492	8%	2010	46	1717	2%	7182
10	62	Q2 - Very Low Dev	1	50	0%	250	23	2878	8%	12483	4	146	1%	610	0	0	0%	0	28	3074	4%	13343
11	71	Q4 - Relatively High Dev	0	0	0%	0	14	860	2%	3870	14	373	3%	1662	7	79	1%	338	35	1312	2%	5870
12	80	Q4 - Relatively High Dev	1	76	0%	365	12	1712	5%	6890	14	493	4%	2188	41	627	11%	2556	68	2908	4%	11999
13	67	Q3 - Low Dev	1	10	0%	45	21	2195	6%	9420	16	493	4%	2095	2	23	0%	110	40	2721	4%	11670
14	68	Q3 - Low Dev	1	300	2%	1000	21	1493	4%	5850	17	704	5%	2845	4	70	1%	327	43	2567	4%	10022
15	68	Q3 - Low Dev	4	264	1%	1112	8	952	3%	3905	6	158	1%	777	12	178	3%	863	30	1552	2%	6657
16	45	Q1 - Critical Dev	17	526	3%	2555	3	67	0%	290	1	43	0%	200	5	56	1%	251	26	692	1%	3296
17	73	Q4 - Relatively High Dev	9	1239	7%	4142	8	1197	3%	4167	5	215	2%	828	31	564	9%	2099	53	3215	4%	11236
18	34	Q1 - Critical Dev	31	432	2%	1784	0	0	0%	0	0	0	0%	0	1	10	0%	35	32	442	1%	1819
19	61	Q2 - Very Low Dev	6	338	2%	948	12	1776	5%	7104	13	650	5%	2619	1	7	0%	28	32	2771	4%	10699
20	43	Q1 - Critical Dev	32	444	2%	2131	1	15	0%	65	1	5	0%	25	6	49	1%	233	40	513	1%	2454
21	63	Q2 - Very Low Dev	10	200	1%	1039	0	0	0%	0	5	96	1%	534	10	77	1%	357	25	373	1%	1930
22	70	Q3 - Low Dev	2	28	0%	114	2	165	0%	750	9	559	4%	2435	6	69	1%	282	19	821	1%	3581
23	41	Q1 - Critical Dev	11	1120	6%	5224	6	316	1%	1560	6	235	2%	1086	1	20	0%	53	24	1691	2%	7923
24	64	Q2 - Very Low Dev	9	393	2%	1844	3	400	1%	1720	2	91	1%	357	19	204	3%	846	33	1088	1%	4767
25	57	Q1 - Critical Dev	8	179	1%	867	3	1100	3%	3752	4	197	2%	697	6	65	1%	262	21	1541	2%	5578
26	34	Q1 - Critical Dev	37	5381	30%	21723	2	91	0%	475	6	429	3%	1760	7	108	2%	513	52	6009	8%	24471
27	51	Q1 - Critical Dev	31	676	4%	3076	3	35	0%	155	10	282	2%	1237	9	137	2%	621	53	1130	2%	5089
28	59	Q2 - Very Low Dev	15	1099	6%	4890	14	828	2%	4105	19	648	5%	3101	6	127	2%	610	54	2702	4%	12706
29	58	Q2 - Very Low Dev	20	2462	14%	10058	24	3212	9%	14543	17	957	7%	3962	9	139	2%	637	70	6770	9%	29200
30	55	Q1 - Critical Dev	9	944	5%	3685	10	920	3%	3647	6	490	4%	1903	5	145	2%	426	30	2499	3%	9661
31	69	Q3 - Low Dev	2	210	1%	740	24	2170	6%	9135	17	875	7%	3810	7	177	3%	744	50	3432	5%	14429
32	76	Q4 - Relatively High Dev	0	0	0%	0	11	567	2%	2517	12	311	2%	1387	17	305	5%	1281	40	1183	2%	5185
33	68	Q3 - Low Dev	5	570	3%	2666	27	2670	7%	12088	15	575	4%	2620	13	343	6%	1547	60	4158	6%	18921

Normal Distribution Charts

Normal distribution of Weighted Poverty Index, Rangpur

Normal distribution of Weighted Infrastructure Index, Rangpur

Normal distribution of Weighted Livelihood Index, Rangpur

Normal distribution of Weighted Land Tenure and Housing Index, Rangpur

9 Summary Tables for Priority Wards for Infrastructure and Livelihoods interventions

Priority Wards for infrastructure and livelihoods interventions for 2020

Area/Sector	Priority Wards for Rangpur City Corporation			
	Critical Dev (1st priority)	Very Low Dev (2nd priority)	Low Dev (3rd priority)	Relatively High Dev (4th priority)
Infrastructure (SIF)	2, 3, 8, 10, 14, 30	1, 4, 7, 11, 13, 19, 20, 23, 29, 31, 32, 33	5, 9, 12, 15, 17, 18, 26, 27	6, 16, 21, 22, 24, 25, 28
Livelihood (SEF)	2, 8, 10, 14, 19, 26, 27, 30	1, 3, 5, 20, 22, 23, 28, 29, 33	4, 9, 12, 13, 16, 17, 31, 32	6, 7, 11, 15, 18, 21, 24, 25
Land Tenure and Housing	16, 18, 20, 23, 25, 26, 27, 30	4, 5, 8, 10, 19, 21, 24, 28, 29	2, 7, 13, 14, 15, 22, 31, 33	1, 3, 6, 9, 11, 12, 17, 32
Overall Poverty	2, 8, 18, 20, 23, 26, 27, 30	1, 3, 10, 14, 16, 19, 28, 29, 33	4, 12, 13, 15, 17, 22, 25, 31, 32	5, 6, 7, 9, 11, 21, 24

Table 05: Aggregate Score of indicators by Wards (Urban Poor Settlement Mapping), Rangpur City Corporation

Ward	Poor HHs	Poor Popn	# Settlme	Settl_age	Road	Drain	Electricity	Waste	Education	Water	Toilet	Land Tenure	Housing	Eviction	Employment	Income	Social Problem	Street Light	Land Ownership	Occupancy	Total Score
1	1666	7861	49	96	1.63	1.00	3.88	1.02	3.18	1.00	1.22	3.78	1.24	3.76	2.61	1.98	2.14	1.00	3.73	3.76	36.94
2	2828	12273	26	78	2.00	1.00	3.23	1.00	2.77	1.00	1.23	3.69	1.92	3.65	2.62	2.04	1.92	1.00	3.73	3.65	36.46
3	2541	10316	44	51	1.48	1.05	3.84	1.00	3.07	1.00	1.45	3.77	1.91	3.77	2.77	2.05	1.95	1.32	3.80	3.77	38.00
4	1801	8234	34	46	1.88	1.26	3.74	1.00	3.62	1.09	1.71	3.85	1.29	3.85	3.56	3.32	2.12	1.59	3.88	3.82	41.59
5	2905	11565	28	89	1.86	1.54	4.00	1.00	3.11	1.00	1.71	3.89	2.14	3.89	2.64	1.04	3.57	3.00	3.89	3.93	42.21
6	892	4084	44	51	1.32	1.00	4.00	1.00	3.84	1.09	1.20	3.93	3.20	4.00	3.05	1.55	2.84	1.36	4.00	4.00	41.39
7	975	3395	26	68	1.81	1.23	3.69	1.00	3.88	1.12	1.42	3.54	2.27	3.42	3.50	1.35	3.85	1.85	3.50	3.46	40.88
8	2842	13112	37	50	1.08	1.00	4.00	1.08	3.73	1.03	1.14	3.76	1.49	3.84	1.59	1.16	1.14	1.03	3.84	3.84	34.73
9	1717	7182	46	48	2.04	1.04	3.78	1.00	2.85	1.00	1.74	3.78	2.65	3.93	3.04	2.83	2.57	1.83	3.96	3.93	41.98
10	3074	13343	28	60	2.18	1.00	4.00	1.00	3.82	1.00	1.57	3.57	1.04	4.00	2.57	3.04	1.14	1.04	4.00	4.00	38.96
11	1312	5870	35	66	1.89	1.00	3.89	1.00	3.80	1.00	1.00	4.00	1.09	4.00	3.54	3.03	2.83	2.14	4.00	4.00	42.20
12	2908	11999	68	60	2.01	1.10	3.57	1.00	3.07	1.00	1.50	3.99	1.90	3.99	2.56	2.22	1.93	2.18	3.99	3.99	39.99
13	2721	11670	40	58	2.00	1.18	3.73	1.00	3.05	1.00	2.28	3.93	1.40	3.93	2.88	2.93	3.08	1.30	3.95	3.93	41.53
14	2567	10022	43	83	1.93	1.00	4.00	1.00	3.74	1.00	1.37	3.88	1.49	4.00	2.49	1.35	2.14	1.00	4.00	4.00	38.40
15	1552	6657	30	90	1.67	1.13	3.90	1.00	3.63	1.00	2.03	3.70	1.17	3.67	2.60	2.40	2.73	1.23	3.63	3.67	39.17
16	692	3296	26	26	2.35	1.96	4.00	1.38	3.92	1.12	1.04	2.27	1.38	2.19	2.38	3.69	1.00	2.58	1.88	2.19	35.35
17	3215	11236	53	25	1.87	1.64	3.51	1.19	3.25	1.15	1.83	3.55	2.36	3.57	2.91	2.47	2.19	1.51	3.58	3.62	40.19
18	442	1819	32	27	1.44	1.06	3.47	1.06	3.47	1.03	1.19	1.56	1.03	1.59	2.41	1.09	2.63	1.72	1.22	1.69	27.66
19	2771	10699	32	39	1.78	1.47	3.75	1.16	2.63	1.16	1.47	3.41	2.53	3.50	2.28	1.88	1.09	2.13	3.53	3.47	37.22
20	513	2454	40	37	1.53	1.33	3.13	1.08	3.78	1.00	1.00	1.93	1.38	1.88	1.68	1.00	1.28	1.60	2.03	2.10	27.68
21	373	1930	25	63	2.04	1.84	3.76	1.84	3.60	1.04	2.24	3.00	2.08	3.12	3.52	3.20	3.44	2.52	3.04	2.96	43.24
22	821	3581	19	59	2.26	1.37	4.00	1.11	3.63	1.16	1.16	3.68	1.84	3.68	3.32	1.26	1.21	2.74	3.79	3.68	39.89
23	1691	7923	24	53	1.96	1.04	3.83	1.50	3.46	1.08	1.13	2.63	1.50	2.58	3.00	3.08	1.58	2.92	2.71	2.63	36.63
24	1088	4767	33	28	2.52	1.91	3.70	2.58	3.91	2.42	1.24	3.18	1.61	3.30	3.15	3.82	1.88	2.97	3.18	3.21	44.58
25	1541	5578	21	24	2.00	1.52	3.95	1.00	3.76	1.00	1.38	3.05	1.43	2.95	3.29	1.14	3.52	2.95	3.05	3.05	39.05
26	6009	24471	52	31	2.31	1.62	3.79	1.08	3.13	1.25	1.52	2.19	1.83	2.13	2.10	1.73	1.65	2.04	2.08	2.19	32.63
27	1130	5089	53	56	2.06	1.21	3.11	1.00	2.43	1.06	1.75	2.30	1.72	2.57	2.85	1.30	1.08	1.68	2.64	2.43	31.19
28	2702	12706	54	34	2.24	1.69	3.94	1.07	3.31	1.00	1.02	3.24	1.74	3.20	3.06	3.06	1.06	3.39	3.44	3.54	40.00
29	6770	29200	70	71	1.54	1.17	3.60	1.01	3.66	1.14	2.07	3.39	1.87	3.36	3.11	2.70	1.99	1.93	3.43	3.49	39.46
30	2499	9661	30	45	1.67	1.10	3.50	1.00	3.23	1.00	1.43	3.13	1.77	3.07	2.83	1.10	2.20	2.23	3.50	3.23	36.00
31	3432	14429	50	77	1.76	1.02	3.86	1.02	2.72	1.02	1.58	3.88	1.74	3.92	2.94	3.00	3.00	1.90	3.96	3.94	41.26
32	1183	5185	40	85	1.73	1.05	3.98	1.00	3.58	1.00	1.05	4.00	1.03	4.00	2.88	1.00	2.30	1.40	4.00	4.00	37.98
33	4158	18921	60	94	2.02	1.05	3.97	1.00	3.32	1.00	1.77	3.92	1.43	3.92	2.62	1.72	2.45	1.43	4.00	3.95	39.55
Total	73331	310528	1292	57	1.87	1.26	3.76	1.13	3.39	1.09	1.47	3.37	1.71	3.40	2.80	2.14	2.17	1.89	3.42	3.43	38.30