

EASE OF LIVING 2020 Citizen Perception Survey

#MyCityMyPride

The Ease of Living 2020 Citizen Perception Survey was conducted from 16th of January 2020 till 20th of March 2020. A total of 32.2 lakh citizens residing across the 111 cities that participated in the survey gave their considered feedback using various channels. The online channel, which citizens could access through QR codes on printed advertisements or go directly through the designated URL, garnered 31,05,481 feedbacks, which is nearly 2% of the combined projected population of these cities till 2019. The online platform was also run independently through MyGovIndia.in, wherein 18,845 of their subscribers undertook the survey. Finally, feedback was also directly taken through a face-to-face survey conducted by Karvy field personnel, covering a total of 95,933 individual respondents chosen through a quota-based sampling to represent citizens from all walks of life.



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Introduction to the Survey

India is said to be on the brink of an urban revolution with its urban population expected to reach 600 million by 2031. This rapid urbanisation offers and incredible window for transformation & growth, but it also brings with it challenges such as stress on civic infrastructure, overcrowding and urban sprawl, deteriorating air and water quality, inequality, waste management, etc.

In order to tackle these challenges, Ministry of Housing and Urban Affairs, Government of India has launched several initiatives such as the Swachh Bharat Mission (Urban), Smart Cities Mission, AMRUT, PMAY, DAY-NULM, HRIDAY and Urban Transport. These missions collectively seek to improve the quality of life for India's urban citizens through improving urban governance, city planning, and availability and quality of urban infrastructure.

To help assess the progress made in cities through these various initiatives, and empower them to use evidence to plan, implement & monitor their performance, the Ministry has launched two Assessment Frameworks, viz. Ease of Living Index and Municipal Performance Index 2020. Both these indices are designed to assess quality of life of citizens in 100 Smart Cities and 14 other Million Plus Cities, and in the process determine India's most liveable cities.

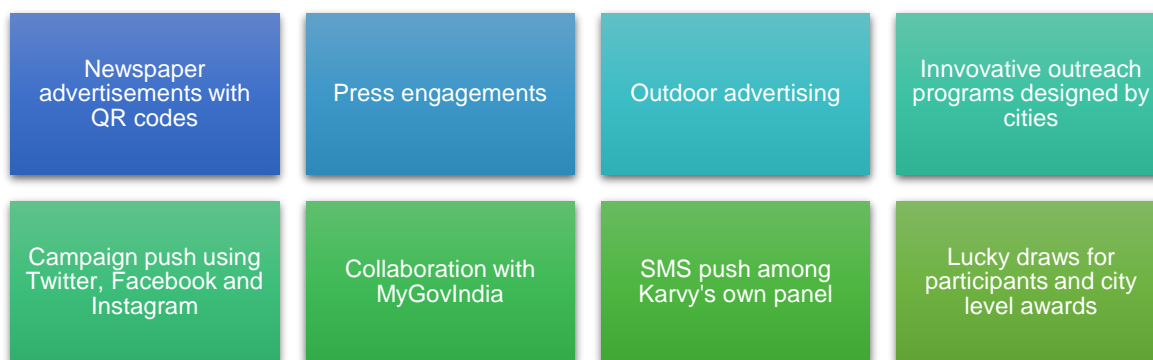
Municipalities are critical units of local governance and their performance is dependent on key strengths which enable them to execute their functions in an efficient and productive manner. These enablers, can be broadly classified as Services, Finance, Policy, Technology, and Governance. With the Municipal Performance Index 2020, the Ministry has sought to facilitate Smart Cities and other million plus population cities in assessment of these five enablers. In its present form, MPI 2020 consists of 5 verticals (services, finance, planning, technology and governance), 20 sectors (including water, SWM, sanitation, infrastructure, human resources, etc.), 100 performance indicators and a total of 151 data points.

Ease of Living Index 2020 is aimed at providing a holistic view of Indian cities. The key objectives of the Ease of Living Index are four-folds, viz. a) generate information to guide evidence-based policy making; b) catalyse action to achieve broader developmental outcomes including the SDG; c) assess and compare the outcomes achieved from various urban policies and schemes; and d) obtain the perception of citizens about their view of the services provided by the city administration. In its present form, the Ease of Living Index 2020, which tethers around three pillars, viz. quality of life, economic ability, and sustainability, consists of 13 categories (including education, health, housing and shelter, WASH and SWM, etc.), 49 outcome indicators and a total of 97 data points.

As part of the Ease of Living Index Assessment, a Citizen Perception Survey (*#MyCityMyPride*) was conducted on behalf of the Ministry (which carries 30% of the marks of the Ease of Living Index). This survey sought to directly capture perception of citizens with respect to quality of life in their cities. This survey, which was administered both online and offline, had commenced from the 16th of January 2020 and continued till the end of February 2020 for the online submission and till 20th of March for the face-to-face survey. The data for the survey was captured both online and offline. The online data came directly from citizens who accessed the survey through the dedicated web portal <http://eol2019.org/Citizenfeedback>, or through the MyGovIndia portal, or responded through a face-to-face survey contact by Karvy's on-ground enumerators.

Promotion of the Survey

A multi-pronged approach was adopted to promote the survey among citizens. This involved the following modes:



Innovations and best practices

City level initiatives to engage with citizens

The city administrations promoted this survey by putting up posters and hoardings in key places across each city, as well as releasing advertisements in newspapers. Citizens of this city were encouraged to wholeheartedly participate in this survey by scanning the QR code in the collaterals and advertisements or simply visit <http://eol2019.org/Citizenfeedback>.

While the Karvy Social Media and Communication teams created a large number of collaterals, for both hoardings as well as print media, cities were also encouraged to create their own collaterals using locally relevant pictures and messaging, while retaining the essential branding and key access and communication features. Most cities, in a bid to promote the survey among its citizens, became very creative with their outdoor collaterals which were designed to not only solicit participation, but also promote the *#MyCityMyPride* ethos.

85 cities had advertised the survey on outdoor billboards and electronic display panels, 78 cities printed posters in bulk and distributed in schools, colleges and institutions and public places, 76 cities had held press meets to promote the survey and 70 of them published editorials in the leading English and vernacular papers. 85 cities also placed quarter page advertisements on weekends in the leading dailies so that their readers could use the QR code to access the online portal and take the survey. Engagement with the leading print media houses was a major reason behind the success of this survey. The engagements, be it through press meets, editorials, or quarter page advertisements, were timed to come out on three successive weekends where readership is usually high.



Innovative citizen engagements undertaken

Participating cities, on their own initiative, had undertaken various innovative steps to reach out to their citizens and get them to participate in the survey. There are many such innovations that can be cited, for instance conducting of IEC campaigns through stalls and outreach activities in different events like the Ease of Living cycle rally in Sagar (1), stalls in the Surat Book Fair (2), or sensitization programme on Ease of Living Index Campaign on International Fair Ground in association with RED FM in Agartala (3) and in BUILDMAT 2020 in Davanagere (4). Cities have also made efforts at focussed/targeted outreach to citizens, like in reaching out to parents through school children who had to get survey filled out by their parents as homework in Hubali (5), or rolling out the campaign in locations with large footfalls, like the AK pharmacy in Davanagere (6), food courts in Gwalior (7), and conducting FGDs in education institutions and slums of Jabalpur (8) and Saharanpur (9). Satna Corporation made an effort to specifically reach out to the elderly and young alike through Yoga centres across the city.

Innovation in improving visibility was noticed everywhere. For instance, in Salem, we saw the rollout of a hydraulic awareness vehicle roaming around major public gathering areas in Salem (10), while in Erode, auto rickshaws and other public transports were used to spread the message. We also saw balloon floats in Ujjain, and human chains in Indore (11). Jabalpur used technology such mobile kiosks and tablets at various places such as railway stations, bus stands, metro stations, and movie theatres.

Media outreach was also a major strategy and several cities leveraged the opportunity to forge partnerships with local media houses. Salem, Thane, and Surat city shot short films on the CPS and publicised on WhatsApp groups, Facebook and showcased in colleges (12), while Mangalore (13) and Bhagalpur (14) had reached out to people through broadcasting on FM Radio about the Survey.

To improve online access of citizens, several cities like Bangalore (15), Kochi (16) and Itanagar (17) deployed hundreds of volunteers to interact with people and administer the survey. There were efforts at merchandising as well, with messages being printed on t-shirts (18), mugs (19), and even customised wedding cards.



Bulk SMS

The survey was also promoted through bulk SMS. Karvy, through its call centre services, already had a large data base of phone numbers of citizens who had participated in the various OBD surveys that Karvy undertakes from time to time; 15 lakh such citizens residing the 111 cities participating in the Liveability assessment exercise were sent bulk SMS containing the following message:

“Rate your city. Share your views, Participate in the East of Living Perception Survey
@<http://eol2019.org/Citizenfeedback>, Min. of Housing and Urban Affairs”

The SMS burst was sent during the last weekend of February and the first weekend of March (7.5 lakhs in each round). It was a conscious decision to delay the SMS burst till after all IEC activities being done at the city level got over.

Collaboration with MyGov.in

The survey was also promoted through a collaboration with MyGov.in, a citizen engagement platform founded by the Government of India to promote the active participation of Indian citizens in their country's governance and development. It is aimed at creating a common platform for Indian citizens to "crowdsource governance ideas from citizens".

MyGov, on their part, extensively used their Twitter, Facebook and Instagram handles as well as in their YouTube page. MyGov's subscriber base was engaged by their creative team for period of 3 weeks in the month of February 2020 through creative tweets, posts, video and audio clips, and radio talk shows. The participants who provided their feedback using the <https://www.mygov.in/mygov-survey/ease-living-2019-20-citizen-perception-survey/> link were also part of a lucky draw exercise with cash prizes and felicitations at the city and national levels.





Role played by the Smart City Mission

In order to promote the Citizen Perception Survey, The Smart City Mission, under the able guidance of the Mission Director and Joint Secretary Shri Kunal Kumar, IAS, had facilitated the following:

Citizen speak - recognition awards for those who participated in the Ease of Living survey

25 citizens from each of the participating 111 cities will be selected through a lucky draw for felicitation. These winners will be awarded Rs.1000 gift voucher and an opportunity to interact with the city Mayor/Commissioner on important issues.

Through another luck draw, one citizen (from 25) will be selected from each city to identify National winners. Out of the selected 111 citizens, 3 National Winners will be identified through a lucky draw. These people will be awarded Rs.25,000 cash prize each, and they will be felicitated during the 4th Apex Conference of Smart Cities to be held in Surat later during the year.

Another directive that had gone out from the Ministry to all participating cities was that the minimum online participation that had to be achieved by each was no less than 1% of the projected 2019 population. To this effect, the Mission had also announced a cash award for cities which showed earnest efforts in not only achieving the said target, but exceeding the same through a groundswell of participation.

Citizen Engagement Award

Given that this award (a cash incentive for cities) was based on effort estimation, care had to be taken to ensure that the process as normative as possible, so as to avoid misinterpretation. The engagement channels considered for this exercise included outdoor advertisements and coverage in social and print media. In addition, as cities has also taken it upon themselves to undertake additional IEC activities that were innovative in their local contexts, the extent of innovation displayed in garnering citizen participation was also considered for scoring.

The distribution of weightage was based on the estimated cost, estimated reach, and the number of innovative strategies undertaken. Stress has been put on innovative strategies where cities where cities have tried to reach local population with less/no cost. This will ensure cities w/o access to Smart City funds get to stand a fair chance in the awards. The following table describes prescribed engagement channels suggested for cities:

1. Outdoor Advertisement - 20% Weightage
<ul style="list-style-type: none">• Bill Boards and Hoardings• Posters and Wall Graffiti
2. Digital Media - 20% Weightage
<ul style="list-style-type: none">• Twitter accounts
3. Print Media - 20% Weightage
<ul style="list-style-type: none">• Press Ads• Press Briefings and editorials
4. Innovative Strategies - 40% Weightage
<ul style="list-style-type: none">• Innovative promotions through broadcasting and collaborations (e.g. Radio Jingles, eateries, movie theatres, etc.)• Stakeholder Coverage through focussed promotion (Senior Citizens, Employees, Women, Slum Dwellers, Shop Keepers, College Students, reaching parents through school children, events, including dovetailing with existing city level events)• Merchandise (EOL caps in tourist places, EOL badges, EOL carry bags, EOL balloons, EOL behind bill receipts, etc.)

Point Scale Distribution: The distribution of points for billboards/hoardings and posters/wall graffiti is dependent on the compliance numbers given to each city based on the population. For other activities, the compliance numbers were consistent for all the cities. If cities have not complied fully, their marks will be deducted based on the compliance percentage, as per the table below.

The final distribution of points was as follows;

1. Billboards/Hoardings – 15 Points
2. Posters/Wall Graffiti – 15 Points
3. Digital Media: Twitter – 15 Points
4. Print Media – 15 Points (5 Points each)
 - Press Ads
 - Press Briefings
 - Editorials
5. Innovative Initiatives – 40 Points

IEC Targets:

Based on the point system, targets have been defined thus;

- **Billboards/Hoardings and Posters/Wall Graffiti (4 weeks):** Distribution of compliance numbers are based on the population of the city to ensure population representativeness. The distribution of compliance numbers is further broken down in terms of the percentage of compliance numbers cities have achieved.
- **Print Media (3 weeks):** Print media is divided into three parts: press ads, editorials and press briefings. Each component carries equal weightage. Since print media should have been done for 3 weeks, the compliance

numbers for each component is 1 per week. Overall, cities have had to conduct 3 press briefs, publish 3 editorials and 3 press ads.

- **Digital Media (4 weeks):** Cities were given overall target of 84 tweets in 4 weeks.
- **Innovative Initiatives (4 weeks):** Based on the IEC forms received so far, cities have not taken up more than 5 innovative initiatives.

Billboards/Hoardings and Posters/Wall Graffiti

Action	Population	Marks	Compliance Numbers	100%	75%-99%	50%-74%	<50%
Billboards and Hoardings	10L+	15	32	>=32	24-31	16-23	<16
	5-10L		21	>=21	16-20	11-15	<11
	<5L		15	>=15	11-14	08-10	<8
Total				15	10	5	0
Posters and Wall Graffiti	10L+	15	1000	>=1000	750-999	500-749	<500
	5-10L		500	>=500	375-499	250-374	<250
	<5L		500	>=500	375-499	250-374	<250
Total				15	10	5	0

Digital Media, Print Media and Innovative Initiatives

Action	Population	Marks	Compliance Numbers	100%	75%-99%	50%-74%	<50%
Print media	Press Ads	15 (5 each)	3	>=3	2	1	0
	Editorials		3	>=3	2	1	0
	Press Briefings		3	>=3	2	1	0
Total				5*3	3*3	1.5*3	0
Digital media	Twitter posts	15	84	>=84	63-83	42-62	<42
Total				15	10	5	0
Innovative Initiatives		40		>=5	2-4	1	0
Total				40	20	10	0

Evidences:

Marks to be allocated based on evidence received of IEC activities undertaken.

- Photographs submitted of outdoor advertisements, print media and innovative activities will be considered.
- Data from the cities reporting out activities per twitter handle will also be considered.

Final integrated scoring

The outreach activities will yield a score ranging from 0 to 100 depending on effort estimation. This will then get added on to the actual outcome score which is based on the actual achievement of sample on ground. The grading of the same is as follows:

Level	Marks
Less than 50% achievement of the 1% target	0
50-75% achievement of the 1% target	25
76-99% achievement of the 1% target	50
100-110% achievement of the 1% target	75
Achievement of > 110% of the 1% target	100

Thus, the total scoring will be on 200 points. The number of categories and awards were yet to be decided at the time this report is being submitted. But the overall ranking (top 10) is as follows:

Rank	State	City	Weighted Scores of IEC initiatives (out of 100)	Achievement score (out of 100)	Final integrated score
1	Madhya Pradesh	Jabalpur	89	100	189
2	Madhya Pradesh	Indore	77	100	177
3	Gujarat	Surat	75	100	175
3	Madhya Pradesh	Ujjain	75	100	175
5	Tamil Nadu	Chennai	69	100	169
6	Rajasthan	Jodhpur	66	100	166

Rank	State	City	Weighted Scores of IEC initiatives (out of 100)	Achievement score (out of 100)	Final integrated score
7	Andhra Pradesh	Visakhapatnam	63	100	163
8	Chhattisgarh	Raipur	59	100	159
9	Madhya Pradesh	Sagar	57	100	157
9	Karnataka	Davanagere	55	100	155

The above scores have been arrived at through analysis of IEC details submitted by cities in prescribed formats on a weekly basis. Cities that might have done work but did not comply with the submission requirements did not manage to garner any scores. There may be a situation where Smart City Mission might provide such cities additional time to make these submission; hence the above scores and positions are subject to change. The analysis behind the scores can be accessed through [IEC Analysis Sheet.xlsx](#). The Mission directorate also held regular video conferences with all cities (7-8 such sessions conducted), but emphasising more on cities who were lagging behind their requisite 1% target.

Presence in the Social Media

As far as social media is concerned, the Ease of Living Campaign adopted a two-pronged strategy featuring organic reach and promotion by the 114 cities and paid push by the Ministry of Housing and Urban Affairs. The main objective of the social media campaign was to increase participation in the online Citizens' Perception Survey hosted at a URL <http://www.eol2019.org/>

Campaign launch

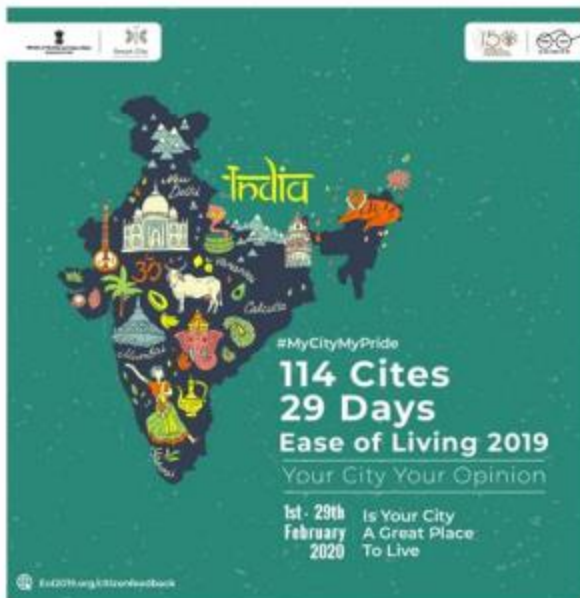
The campaign was launched by initiating a country-wise call for participation;

1. IEC activities were initiated in the first week of Feb featuring hoardings, posters and billboards
2. Social media activity was undertaken principally on Facebook and Twitter with some organic activity by cities on other platforms such as Instagram.

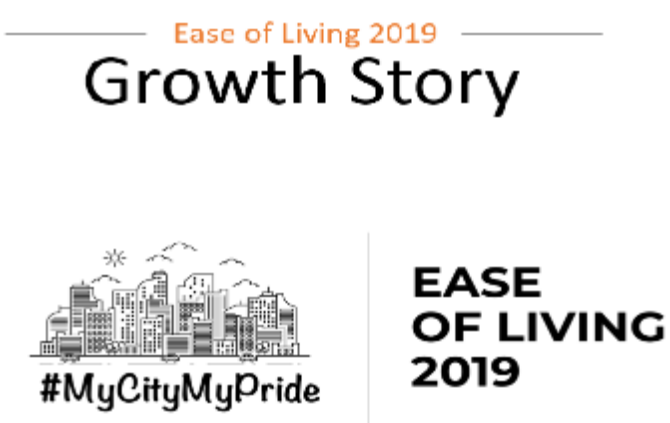
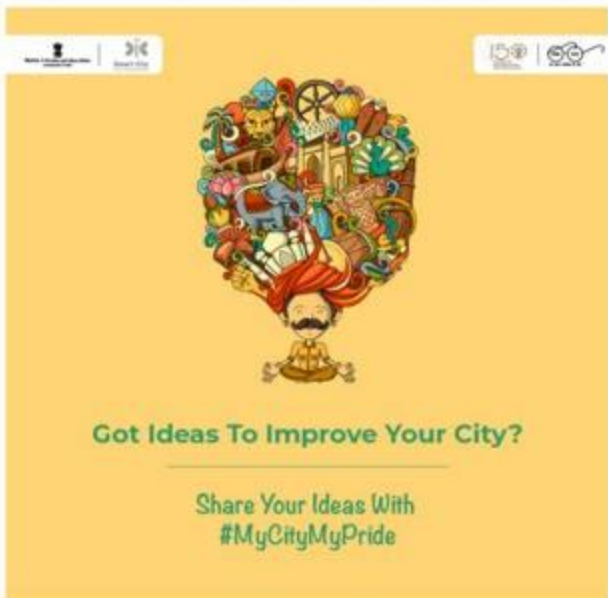
The focus of the launch was to;

- ➔ Invite citizens to participate in rating their city (see picture 1, 3 and 4)
- ➔ Asking for citizens' feedback and the using the rating/questionnaire as a space for suggestions (see picture 2)

Picture 1, 3 ↓



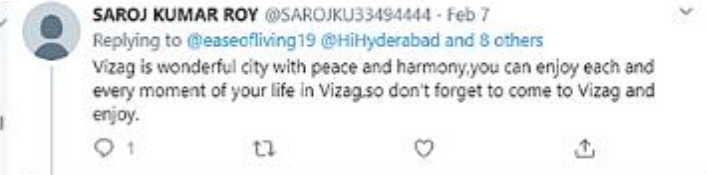
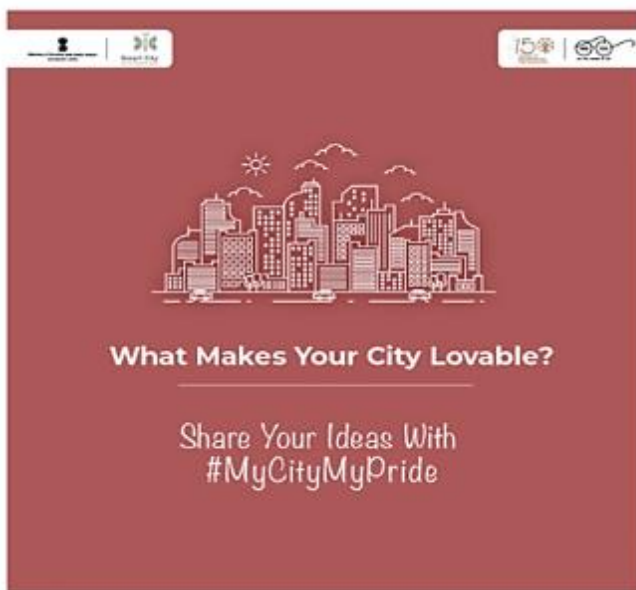
Picture 2, 4 ↓



This was accompanied by a series of collaterals released in social media platforms to promote the survey. These same was also being used (with local adaptations) by cities for their own outdoor campaigning.



The campaign focussed on interactive conversations especially on the Twittersphere; for example this particular call to action asked why a city is lovable; accompanying responses are available on the right and below.



Engagement Types

We folded multiple campaigns into the broad campaign goal of pushing participation. These included the following;

1. **A Contest:** In this campaign, creatives were designed to stimulate conversation based on guessing famous city names, solving riddles as well as drawing attention to historic cities and their features.

#ContestAlert

Get rewarded for your honest opinions
Participate in the #EaseofLiving2019 survey with
#MyCityMyPride

Survey link <http://bit.ly/2U6sjk8>
Stay tuned on the page for the contest!
Tag your friends in the comments.
@easeofliving19

- ➔ Total Impressions- 1,10,790
- ➔ Total Engagement- 4,970

Contest Alert
WIN Cash Prize*
25,000
— Follow the 3 steps below —

- FOLLOW**
@Easeofliving19
- SURVEY**
Participate in the survey by clicking the link
- SHARE**
Nominate your 5 friends in the below comment using #MyCityMyPride

Participate Now

RA + ? = ?
GUESS THE CITY

Scan the QR code for the greater good

EASE OF LIVING 2019
#MyCityMyPride

NA + ? = ?
GUESS THE CITY

Scan the QR code for the greater good

EASE OF LIVING 2019
#MyCityMyPride

Which city is known as City of Seven Islands?

EASE OF LIVING 2019
#MyCityMyPride

Where is the largest sundial located?

#MyCityMyPride

A JAIPUR	B CHENNAI
C GUJARAT	D PATNA

The largest spice market is located in?

#MyCityMyPride

A PUNJAB	B MANIPUR
C DELHI	D MAHARASHTRA

Which city is known as Temple City?

EASE OF LIVING 2019
#MyCityMyPride

2. **Slogan Contest:** The slogan context gave citizens' a platform to engage with their city by coming up with a slogan for their cities.



Campaign Mechanics

The campaign was rolled out based on a comprehensive IEC and social media plan and budget, the same is available here. Based on the plan a detailed docket of guidance was prepared and shared with cities, consisting of **CAMPAIGN TARGETS, TEMPLATES FOR CREATIVES, HASHTAGS AND TAGLINES, AND PRODUCT PLACEMENT SUGGESTIONS**. All materials are hosted and can be found online here; <http://www.eol-iec.gallery> along with city-level IEC materials.

Campaign Outcomes



In terms of post reach and engagement, the paid push was clearly the most effective, with organic impressions going up by nearly 10 times and organic engagement going up by six times.



The most engaging content on the top platform (twitter) was the slogan and city campaign:



Face to Face Citizen Interviews

The face-to-face citizen interviews were conducted by experience field enumerators deployed by Karvy. The minimum sample size to be achieved by city was worked out so that the results could be statistically valid at 95% level of confidence, 7.5% margin of error, and with a design effect of 1.5. To ensure that larger cities got a higher sample than the smaller ones to ensure representation, the following protocol was worked out and cleared with the Smart Cities Mission. The final sample achieved was 95,933, primarily because the 3 cities of West Bengal did not participate in the exercise.

Sample size per zone	City segments/zones	Sample size per ULB	Number of cities participating	Total sample	Number of cities covered	Sample achieved
<1,00,000	Whole (single zone)	260 x 1 = 260	7	1820	6	1060 ^A
1,00,000 to 3,00,000	Two zones (E/W or N/S)	260 x 2 = 520	21	10920	21	10412
3,00,000 to 10,00,000	Three zones (E/W or N/S and central)	260 x 3 = 780	25	19500	25	18684
10,00,001 to 40,00,000	Four zones (E/W/N/S)	260 x 4 = 1040	51	53040	51	56142
>40,00,000	Five zones (E/W/N/S and central)	260 x 5 = 1300	7	9100	7	9636
Total			111	94380	110	95934

^ASurvey could not be completed in Sikkim and Himachal due to total lockdown by police

Survey in Kavaratti could not be done due to travel restrictions imposed

Quality Control Measures for the face-to-face survey

Several steps were taken to ensure representativeness of the survey numbers as well as their authenticity. Recognising the fact that online surveys will always have a much higher representation from the more tech savvy and perhaps a more relative middle to higher income gentry, the F2F survey followed a quota based sampling as follows:

Socio-demographic quota

		Slum/low income colony households	Other Non-slum/non-LIG residential colony households	Intercepts at commercial/institutional areas
Male	18-35 years	10%	7.5%	15%
	> 35 years	10%	7.5%	
Female	18-35 years	10%	7.5%	15%
	> 35 years	10%	7.5%	

The slightly higher emphasis on low income colonies in the face-to-face survey was to compensate for the fact that online will have low representation from this critical segment who have lower presence online.

The reason why we had also included intercepts at commercial/institutional areas was that a pure household survey would have yielded a disproportionately higher non-working female respondents while the working male respondents were more likely to come from the commercial /institutional intercepts.

As far as geographic representation is concerned, we had introduced a concept of zones and starting points.

For the largest cities (> 40 lakhs) , we had considered 5 zones, viz. east, west, north, south and central. These are notional zones based on directions and can be chalked out by looking at a city map and enumerators can be instructed accordingly. For cities sized 10-40 lakhs, we considered 4 zones, viz. east, west, north and south; for cities sized 3-10 lakhs, we will have three zones; for cities sized 1-3 lakhs we considered two zones and for even smaller cities, we did not follow any zonation. The entire city was a single sampling unit.

Within each zone, starting points were selected at random. The number of starting points per zone was fixed at 13 (260 ÷ 20). The location of starting points was left to the enumerator but he/she had to try and cover different colonies that existed within each zone, including slum and non-slum.

The Citizen Perception Survey is built on 3 pillars



Survey Content

21 livability indicators

1. Affordable and quality education
2. Safe commuting
3. Livelihood opportunities
4. Affordable and quality healthcare
5. Adequacy of public transport
6. Sufficiency of income to maintain QoL
7. Affordable housing
8. Affordability of commuting
9. Access to financial services
10. Overall cleanliness
11. Overall safety and security
12. Quality of air
13. Efficacy of garbage collection system
14. Efficiency of emergency services
15. Adequacy of green cover
16. Quality of drinking water supply
17. Women's safety in public places
18. Quality of electricity supply
19. Incidence of water logging
20. Adequacy of recreational facilities
21. Affordable electricity

Quality control of the survey

- The Android based application being used by the software had an auto cut-off after 20 calls are done from any one starting point (based on GPS tracking).
- Any interview below 7 minutes were identified and rejected at the back end.
- In the online version of the survey application, CAPTCHA was introduced to ensure protection against spam

Data cleaning for the online survey

As mentioned earlier, a total of just over 31.05 lakhs people went online and participated in the citizen perception survey. However, upon analysis of daily data download from each of the survey days across the 111 cities we came to the following conclusion:

- There is a huge over-achievement of quota; we expected 15.6 lakhs based on the 1% of population count, we ended by with over 31 lakhs;
- 42 out of the 111 cities that are participating achieved 200% or higher of their allocated target; 29 cities are at 300% or higher of their target; 17 cities are at 500% or higher of their target; 8 cities are over 1000% of their target;
- 36% of the entire month's achievement was done in last 5 days;
- For cities that have achieved in excess of 500% of their target, 52% of the their totals were achieved in last 5 days, indicating that they just kept going to garner numbers chasing some award points that was inadvertently announced;
- There are 22 instances where one city or more have managed to register interviews with > 2% of the total households of the city (in a single day, which we believe is not possible in an organic manner);
- A total of 7 IP addresses were blocked in the last 3 days of polling as they were using bots to spam the survey;

We had adopted the following process for cleaning the online data:

Stage 1: Server Level Cleaning

All data for all cities were first run through an AWS light speed virtual server with a Python based algorithm to check for bot patterns and then passed on for manual data cleaning procedures. Bot IPs were identified and data from those IPs for peak days were deleted. IP Address checks was done by Python/VBA code centrally.

Stage 2: Manual Cleaning

Step 1: We identified cities which have registered at least one day where the survey count achieved was in excess of 2% of the household count of that city;

Step 2: We computed whether the data for these days record a SD of < 5% of the mean, checking both SD counts, one for all respondents against each indicator, and one for average SD count across 21 indicators;

Step 3: For cities where the SD count was <5% for one out of two computations (or for none of them), we treated these as genuine responses. For cities where SD counts were <5% for both computations, then we checked for two things:

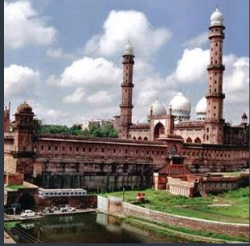
1. Whether the city had achieved >50% of their online survey in last 5 days;
2. Whether the city ended up with >200% of their target

If both conditions are met, we simply deleted these days' records for those cities. Based on these series of logical steps, the revised online data count was reduced by 5,71,911, thus reducing the overall online coverage to 25,34,570 respondents.

Step 4: Once this database is cleaned using the above logic, we then propose to allocate the following weights for the three sources of feedbacks:

Percentage of minimum sample achieved through F2F + MyGov	Online	Face to face + MyGov
100% (94 cities)	0.3	0.7
90 – 100% (4 cities)	0.4	0.6
75 – 89% (3 cities)	0.5	0.5
60-74% (7 cities)	0.7	0.3
< 60% (3 cities)	0.9	0.1

Champion cities with largest online participation



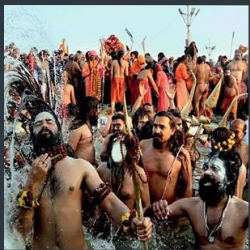
Bhopal



Surat



Bengaluru



Prayagraj



Indore

City level participation numbers

	Face-to-face	MyGov	Online	Total
Agartala	679	43	9997	10719
Agra	1162	219	19612	20993
Ahmedabad	1570	385	97721	99676
Aizawl	486	2	3512	4000
Ajmer	697	76	8761	9534
Aligarh	1161	73	9521	10755
Amravati	777	81	10796	11654
Amritsar	1118	60	12757	13935
Aurangabad	984	124	14148	15256
Bareilly	1162	123	3956	5241
Belagavi/Belgaum	647	63	9403	10113
Bengaluru	1607	814	107900	110321
Bhagalpur	803	72	6201	7076
Bhopal	1340	254	121945	123539
Bhubaneswar	644	246	21511	22400
Biharsharif	686	38	2529	3253
Bilaspur	806	53	9759	10618
Chandigarh	1084	152	20286	21522
Chennai	1609	600	77480	79689
Coimbatore	1129	522	44052	45703
Dahod	331	17	993	1341
Davanagere	613	55	15289	15957
Dehradun	776	239	20797	21812
Delhi	1897	1088	14552	17537
Dhanbad	1369	58	14838	16265
Dharamshala	104	53	501	657
Dindigul	583	36	17165	17784
Diu	179	4	97	280
Erode	484	102	6027	6613
Faridabad	934	138	7481	8553
Gandhinagar	299	78	3696	4073
Gangtok	360	13	916	1289
Ghaziabad	1159	281	18751	20191
Greater Hyderabad	1398	1067	89426	91891
Greater Mumbai	1286	254	60090	61630
Gurgaon	957	166	1793	2916
Guwahati	1239	97	5679	7015
Gwalior	1346	106	31805	33256
Hubballi-Dharwad	886	532	12755	14173
Imphal	487	11	2964	3462
Indore	1347	815	100413	102575
Itanagar	78	14	1850	1942
Jabalpur	1332	155	35772	37259
Jaipur	818	508	73054	74380
Jalandhar	981	67	9088	10136
Jammu	647	65	19819	20531
Jhansi	545	77	18745	19367
Jodhpur	524	224	35315	36063
Kakinada	773	53	5542	6368
Kalyan-Dombivali	1083	149	22516	23748
Kanpur	1167	237	3760	5164
Karimnagar	478	63	3275	3816
Karnal	795	126	4347	5268
Kavaratti	0	1	121	122
Kochi	774	131	7188	8093
Kohima	276	10	2336	2622
Kota	1001	0	14848	15849
Lucknow	1350	93	51945	53388
Ludhiana	872	634	18038	19544
Madurai	1159	138	43683	44980
Mangaluru	771	112	9812	10695
Meerut	1162	125	15992	17279
Moradabad	1163	157	10352	11672
Muzaffarpur	806	74	5978	6858
Nagpur	1347	197	29111	30655
Namchi	0	0	162	162
Nashik	1159	137	28464	29760

The Salient features of IT implementation

Website

- EOL2019.org is an Integrated Portal for Citizen Perception Survey with social media integration
- Secure Communication using SSL and advanced Firewalls configuration
- Online Citizen Feedback capture form with data validations and Captcha (to prevent bots)
- Responsive Website design, compatible to all Platform like mobile/tablet/laptop/desktop.
- Live online reports to show numbers achieved in all the ULBs in real time basis.

Mobile App

- Citizen feedback collected from field with Geotagging and timestamp
- Inbuilt dashboard with offline sync capability and OTP validation

Hosting

- Hosting: Tier 4 Datacentre with Load Balancing, Daily backup and DBA Support team
- Auto Scaling feature with Cloud capabilities to handle 100K concurrent users

	Face-to-face	MyGov	Online	Total
Navi Mumbai	1101	180	16328	17609
Panaji	202	37	743	982
Pasighat	197	1	203	401
Patna	1395	427	20832	22654
Pimpri Chinchwad	1170	108	51874	53152
Port Blair	276	11	838	1125
Prayagraj	1084	309	105534	106927
Puducherry	478	52	3673	4203
Pune	1347	469	54540	56356
Rae Bareli	481	24	989	1494
Raipur	1329	89	24872	26290
Rajkot	882	393	18660	19935
Rampur	691	17	22	730
Ranchi	1346	182	13022	14549
Rourkela	573	31	593	1197
Sagar	486	56	4776	5318
Saharanpur	781	89	10214	11084
Salem	1162	144	51074	52380
Satna	700	68	9125	9893
Shillong	276	10	2826	3112
Shimla	184	76	7525	7785
Shimoga	876	32	11414	12322
Silvassa	316	14	1664	1994
Solapur	995	69	11350	12414
Srinagar	1163	14	4991	6168
Surat	1168	369	112919	114456
Thane	1267	292	96281	97840
Thanjavur	632	45	9928	10605
Thiruvananthapuram	1016	120	9225	10361
Thoothukkudi	483	45	7712	8240
Tiruchirappalli	1195	112	43690	44997
Tirunelveli	834	63	29853	30750
Tirupati	626	151	3489	4266
Tiruppur	512	53	27272	27837
Tumakuru/Tumkur	651	19	6649	7319
Udaipur	780	127	5799	6706
Ujjain	776	81	16706	17563
Vadodara	835	214	20562	21611
Varanasi	860	269	72258	73387
Vasai-Virar	1154	83	26467	27704
Vellore	481	55	5986	6522
Vijayawada	1189	156	22148	23493
Visakhapatnam	1248	216	20951	22415
Warangal	1383	57	60275	61715
	95933	18346	2534570	2648849



Location selection through dropdown menu



CAPTCHA based authentication before submission

Response codes displayed against each question

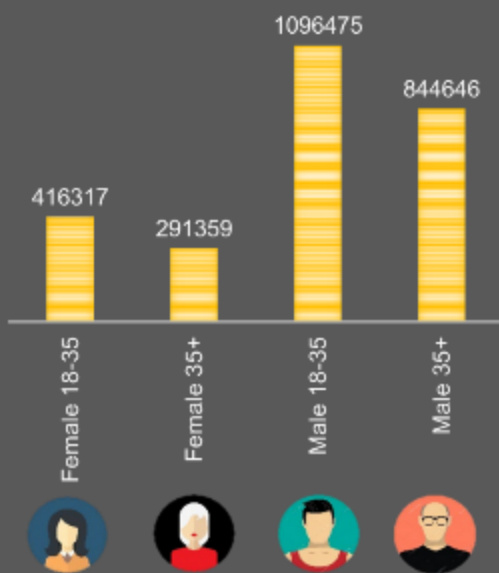


The scoring method

All the questions asked in the survey had a 5 point ordinal rating scale (A1 to A5). In 20 out of the 21 questions, A1 was the best case scenario while A5 was the worst case scenario while for one question, it was the reverse). In order to convert the responses by individual participants into scores, responses A1 to A5 were converted to 5, 4, 3, 2 and 1 (except for the one question where the sequence was reversed). This was done to ensure a higher marks in given for higher levels of satisfaction. Once all responses were converted to numbers, and aggregate of scores against each of the 21 questions divided by 21 gave the final score of every participant.

The average of scores of all participants within a city gave the average score of that city. Since this score was out of 5, the same was scaled up to represent a score out of 100. The survey questionnaire is available in Annexure 1.

Profile of respondents who took the survey



Cutting across gender, age groups, and different walks of life

Occupations	Percentage
Salaried employee (supervisory/managerial/officer grade)	36.6
Salaried employee (non-managerial/non-officer grade)	22.1
Petty business owner with no full time employees	5.4
Business owner with full time employees	4.2
Self-employed service provider plying any vocational trad	3.2
Self-employed professional providing consulting services	3.0
Wage labourer/domestic help	3.4
Home based artisan/piecemeal job worker	2.3
Home maker / housewife	6.6
Student	9.4
Retired/not working due to old age or disability	1.6
Unemployed but looking for work	2.3

Urban Planning and Women: How can cities be better designed for inclusion?

In an effort to encourage women to come forward and participate in large numbers and provide their feedback on the quality of life in their city, Karvy developed a series of collaterals which were pushed through social media as well as print media by the cities.

At an overall level, women constituted around 40% of the total participation, but for online, it was less than 27%. However, some cities did better than others and their efforts at inclusiveness needs to be recognised and lauded.

In relative contribution terms, the three cities that had the largest share of women respondents were Imphal (65.2%), Thanjavur (61.5%), and Karimnagar (49.7%). In absolute terms, the three cities that had the higher number of women participants were Surat (55.8K), Greater Hyderabad (36.6K), and Chennai (30.2K).



The citizens' verdict

Less than Million Cities

Rank	City	Score out of 100
1	Bhubaneswar	94.80
2	Silvassa	93.50
3	Davangere	90.50
4	Imphal	86.80
5	Agartala	86.40
6	Kakinada	85.40
7	Bilaspur	85.30
8	Bhagalpur	84.30
9	Rae Bareli	83.60
10	Puducherry	83.50
11	Shimla	83.30
12	Ajmer	82.70
13	Shivamogga	82.00
14	Sagar	81.90
15	Shillong	81.30
16	Gandhinagar	81.10
17	Jammu	80.70
18	Salem	79.70
19	Thanjavur	79.70
20	Aizawl	78.80
21	Moradabad	78.70
22	Karimnagar	78.30
23	Bihar Sharif	78.20
24	Jhansi	78.10
25	Erode	76.50
26	Mangalore	76.40
27	Kohima	76.30
28	Vellore	76.20
29	Rourkela	75.70
30	Itanagar	75.50
31	Kavaratti	75.50
32	Tiruchirapalli	75.50
33	Dehradun	75.30
34	Tumakuru	75.10
35	Jalandhar	74.70
36	Gangtok	74.60
37	Dahod	74.30
38	Diu	74.30
39	Saharanpur	73.60
40	Tiruvananthapuram	73.60
41	Pasighat	73.20

Rank	City	Score out of 100
42	Ujjain	73.00
43	Toothukudi	72.50
44	Warangal	72.30
45	Karnal	72.20
46	Panaji	72.10
47	Port Blair	71.70
48	Kochi	71.40
49	Satna	70.80
50	Tirunelveli	70.30
51	Gurugram	70.00
52	Udaipur	68.80
53	Dindigul	68.10
54	Muzaffarpur	67.80
55	Dharamshala	67.40
56	Rampur	67.40
57	Amravati	67.30
58	Namchi	66.80
59	Tiruppur	66.10
60	Aligarh	66.00
61	Belagavi	65.20
62	Tirupati	64.30

Million Plus Cities

Rank	City	Score out of 100
1	Solapur	88.80
2	Jodhpur	87.10
3	Chennai	82.60
4	Lucknow	82.40
5	Navi Mumbai	82.40
6	Ahmedabad	82.30
7	Surat	81.40
8	Kanpur	81.20
9	Agra	80.30
10	Coimbatore	80.30
11	Rajkot	79.50
12	Vadodara	79.50
13	Meerut	79.30
14	Dhanbad	78.90
15	Bhopal	78.50
16	Pune	78.20
17	Nagpur	78.10
18	Bengaluru	78.00
19	Kota	78.00

Rank	City	Score out of 100
20	Greater Mumbai	77.90
21	Kalyan Dombivali	77.60
22	Patna	77.50
23	Visakhapatnam	77.20
24	Jaipur	76.90
25	Indore	76.80
26	Madurai	76.40
27	Varanasi	76.40
28	Ludhiana	75.90
29	Raipur	75.30
30	Faridabad	75.20
31	Barielly	74.40
32	Guwahati	74.30
33	Ghaziabad	73.60
34	Gwalior	73.30
35	Chandigarh	72.80
36	Srinagar	72.80
37	Thane	72.80
38	Vasai Virar	72.60
39	Aurangabad	71.30
40	Hubli Dharwad	71.00
41	Hyderabad	70.70
42	Ranchi	70.70
43	Jabalpur	69.50
44	Delhi	69.40
45	Pimpri Chinchwad	68.20
46	Prayagraj	68.00
47	Vijayawada	67.40
48	Nashik	64.20
49	Amritsar	61.70

ANNEXURE 1: SURVEY INSTRUMENT

I. QUALITY OF LIFE		
Q1.	To what extent do you agree/disagree that good quality education for children is affordable in this city?	Scores
	a. Strongly agree	5
	b. Agree	4
	c. Neither agree not disagree	3
	d. Disagree	2
	e. Strongly Disagree	1
Q2.	To what extent do you agree/disagree that is it quite affordable to get a quality healthcare services in this city?	
	a. Strongly agree	5
	b. Agree	4
	c. Neither agree not disagree	3
	d. Disagree	2
	e. Strongly Disagree	1
Q3.	To what extent do you agree that rental/housing is affordable in your city?	
	a. Strongly agree	5
	b. Agree	4
	c. Neither agree not disagree	3
	d. Disagree	2
	e. Strongly Disagree	1
Q4.	How satisfied are you with the state of cleanliness of your municipal ward	
	a. Very Satisfied	5
	b. Satisfied	4
	c. Neither satisfied not dissatisfied	3
	d. Somewhat dissatisfied	2
	e. Extremely dissatisfied	1
Q5.	In your view, how good is the garbage collection system in your neighbourhood?	
	a. Excellent	5
	b. Good	4
	c. Fair	3
	d. Poor	2
	e. Very poor	1
Q6.	How would you rate drinking water supply in your city?	
	a. Adequate and of good quality	5
	b. Adequate and of moderate quality	4
	c. Adequate but of poor quality	3
	d. Inadequate but of good quality	2
	e. Inadequate and of poor quality	1
Q7.	How frequently do you face water logging issues in this city?	
	a. Very Frequently	1
	b. Frequently	2
	c. Sometimes	3
	d. Rarely	4
	e. Never	5
Q8.	To what extent do you agree/disagree that commuting in your city is safe?	
	a. Strongly agree	5
	b. Agree	4
	c. Neither agree not disagree	3
	d. Disagree	2
	e. Strongly Disagree	1
Q9.	How easy do you find it to commute in this city?	
	a. Very Satisfied	5
	b. Satisfied	4
	c. Neither satisfied nor dissatisfied	3
	d. Somewhat dissatisfied	2
	e. Extremely dissatisfied	1

Q10.	How affordable is commuting in this city?	
	a. Very Affordable	5
	b. Moderately affordable	4
	c. Neither affordable nor too expensive	3
	d. Expensive	2
	e. Very Expensive	1
Q11.	To what extent do you agree/disagree that this city is a safe and secure place to live in?	
	a. Strongly agree	5
	b. Agree	4
	c. Neither agree not disagree	3
	d. Disagree	2
	e. Strongly Disagree	1
Q12.	How good would you rate the efficiency of emergency services like fire brigade and ambulance, in this city?	
	a. Excellent	5
	b. Good	4
	c. Fair	3
	d. Poor	2
	e. Very poor	1
Q13.	In your opinion how safe are public places for women in this city?	
	a. Extremely safe	5
	b. Safe	4
	c. Neither safe nor unsafe	3
	d. Somewhat unsafe	2
	e. Extremely Unsafe	1
Q14.	How satisfied are you with the availability of recreational facilities like parks, cinema and theatre halls in this city?	
	a. Very Satisfied	5
	b. Satisfied	4
	c. Neutral	3
	d. Somewhat dissatisfied	2
	e. Extremely dissatisfied	1
II. ECONOMIC ABILITY		
Q15.	To what extent do you agree or disagree with the statement that this city offers huge opportunities for those seeking to earn a livelihood?	
	a. Strongly agree	5
	b. Agree	4
	c. Neither agree not disagree	3
	d. Disagree	2
	e. Strongly Disagree	1
Q16.	Considering the cost of living in this city, in your opinion how far below or above do you feel is your household income from a level that enables a household to have a decent quality of life in this city?	
	a. A lot above	5
	b. A little above	4
	c. About the same	3
	d. A little below	2
	e. A lot below	1
Q17.	How satisfied are you with the ease of access to various financial services like insurance, banking and ATMs, and credit in your city?	
	a. Very Satisfied	5
	b. Satisfied	4
	c. Neither satisfied nor dissatisfied	3
	d. Somewhat dissatisfied	2
	e. Extremely dissatisfied	1
IV. SUSTAINABILITY		
Q18.	In your view how many months in a year do the quality air in this city remains unsatisfactory?	
	a. 0 Months	5
	b. 1-2 months	4
	c. 3-6 months	3
	d. 7-10 months	2
	e. All throughout the year	1
Q19.	How satisfied are you with the extent of green cover in this city?	
	a. Very Satisfied	5
	b. Satisfied	4
	c. Neither satisfied nor dissatisfied	3
	d. Somewhat dissatisfied	2
	e. Extremely dissatisfied	1

Q20.	How satisfied are you with the electricity supply to this city?	
	a. Very Satisfied	5
	b. Satisfied	4
	c. Neither satisfied nor dissatisfied	3
	d. Somewhat dissatisfied	2
	e. Extremely dissatisfied	1
Q21.	To what extent do agree or disagree that this city provides its residents with affordable electricity?	
	a. Strongly agree	5
	b. Agree	4
	c. Neither agree not disagree	3
	d. Disagree	2
	e. Strongly Disagree	1