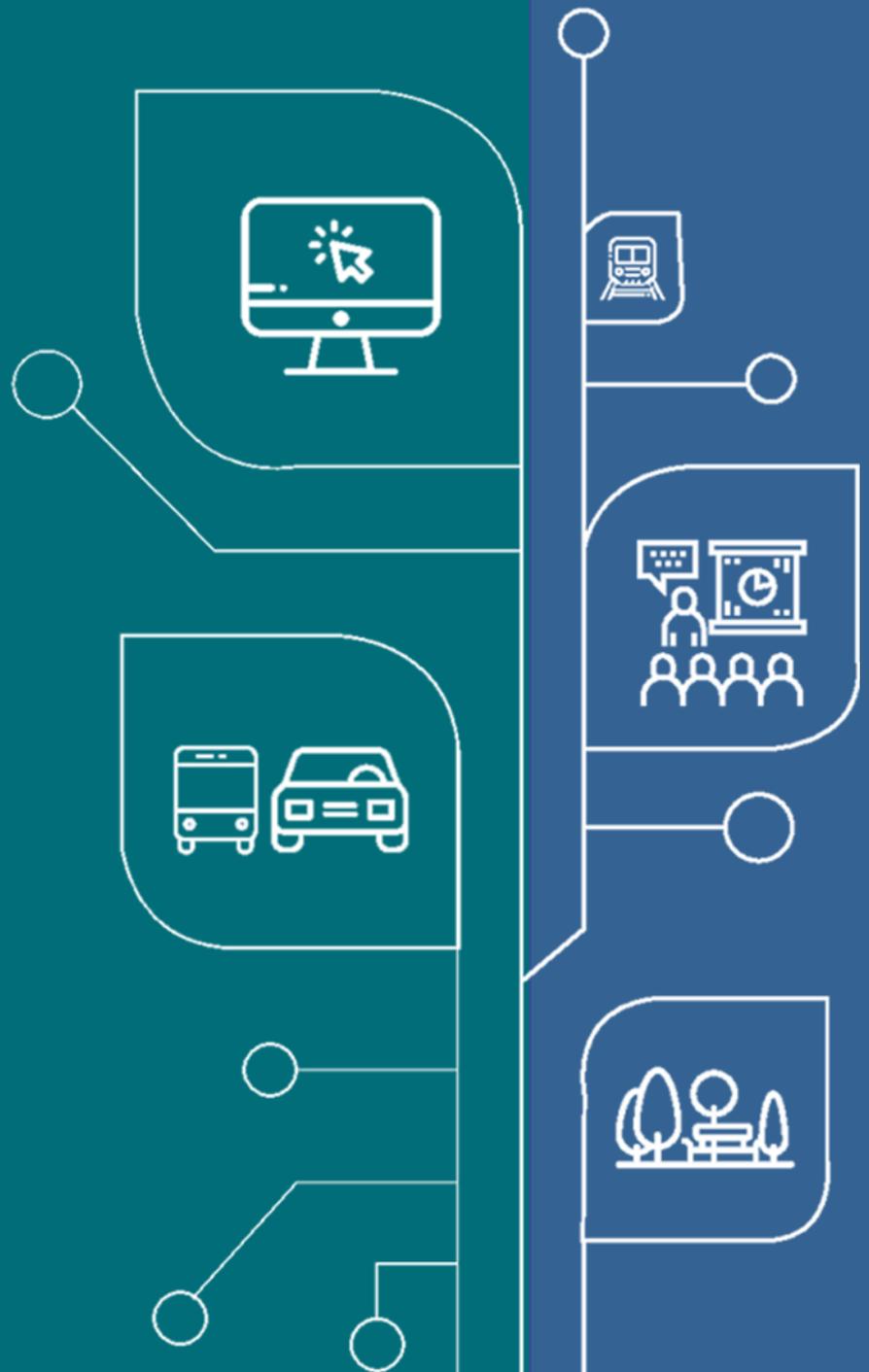
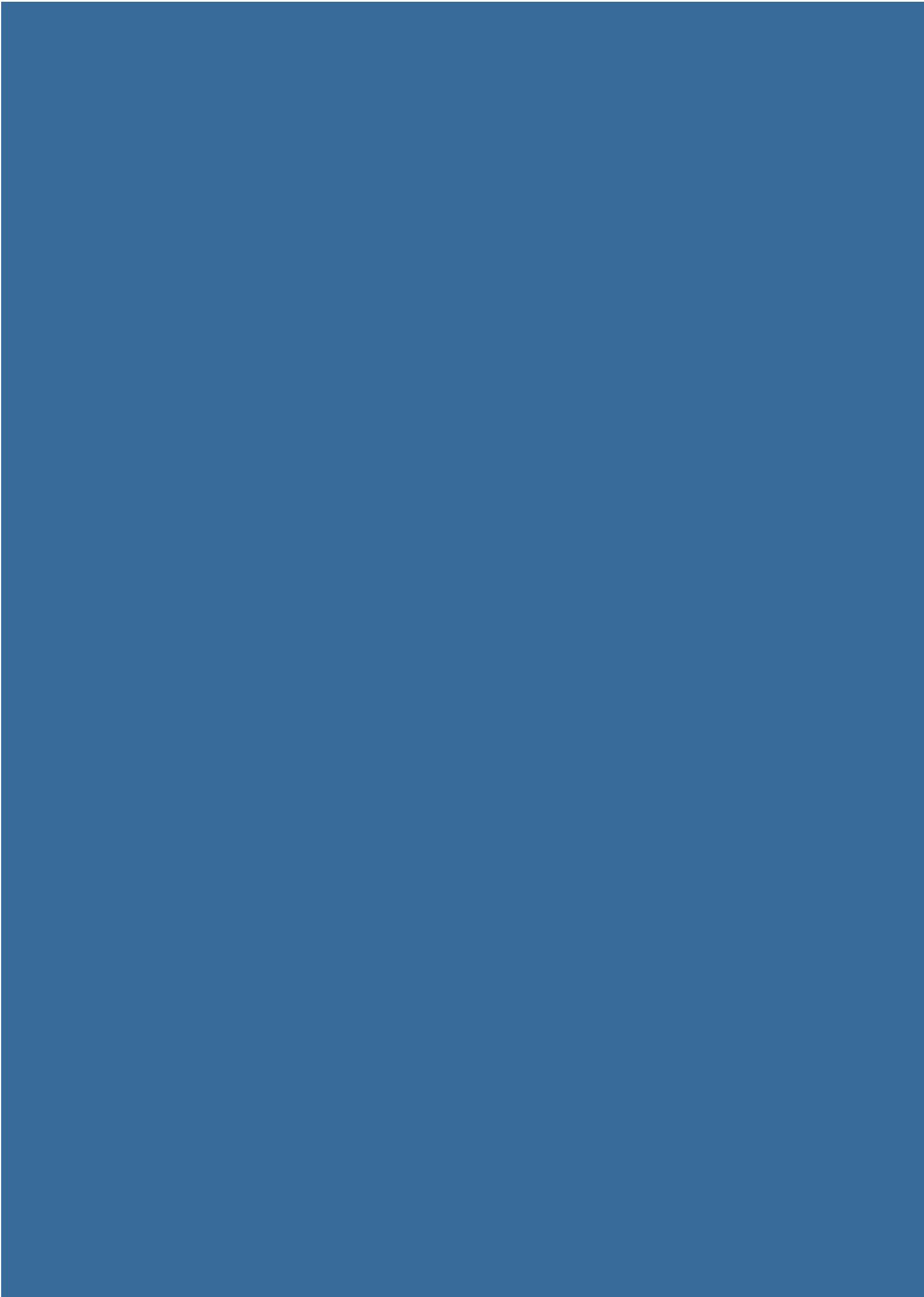


Case Studies Compendium 2018

A Reference Material for
CITIIS Challenge Aspirants

CITIIS
City Investments To Innovate, Integrate and Sustain





Documentation Purpose

The purpose of this documentation is to help the Smart Cities interested in participating in the CITIIS Challenge, National Institute of Urban Affairs as the implementation agency of the 'Program to fund Smart City projects through a Challenge Process, and Project Management Unit for CITIIS, organised a preparatory workshop in New Delhi on 25th – 26th September 2018 with support from MoHUA, AFD and EU.

The preparatory workshop aimed to bring together 100 smart cities along with global and national experts to interact about ideas and approaches to develop suitable proposals for the competition.

This handholding workshop also an opportunity for exploring partnerships between relevant organisations and cities as the mission moves forward.

With the support of partner organisations relevant to four thematic areas of CITIIS Challenge, a pool of facilitator was available for group and one-on-one sessions during the two-day event.

The workshop also facilitated project experience and knowledge sharing by partner organisations through dissemination of one implemented project that conforms to the CITIIS guidelines.

This document is compiles 20 such project case studies shared by partner organisations.

INTRODUCTION

City Investments To Innovate, Integrate, and Sustain (CITIIS) is the main component of the 'Program to fund Smart City projects through a Challenge Process,' launched by the Ministry of Housing and Urban Affairs (MoHUA) on 9th July 2018.

Adapting a unique competitive approach, the CITIIS program aims to foster sustainable, innovative, relevant and participatory approaches to build projects in line with the Smart Cities Mission through a challenge process to ensure the emergence of innovative and participatory projects answering the needs of the citizens.

Under this CITIIS challenge, cities are encouraged to propose projects under four thematic areas that emerged through public consultations during the Smart City Mission:

- I. Sustainable Mobility;
- II. Public Open Spaces;
- III. Urban E-Governance and ICT
- IV. Social and Organizational Innovation in Low-income Settlements

The two-day participatory workshop organised prior to CITIIS application portal launch at the India Habitat Centre on 25th and 26th September 2018. The event had participation of representatives from 52 SPVs including 40 CEOs. Around 50 international and Indian experts were present to provide guidance to the Smart Cities on preparing their proposals.

Following this workshop, the cities' SPVs (Special Purpose Vehicles) were invited to submit their project proposals on the SmartNet portal. The application process was made live on 1st October 2018. Thereafter, an independent jury composed of members of the Ministry of Housing and Urban Affairs (MoHUA) and NIUA, international and national experts will thoroughly assess all project applications

The Smart City Special Purpose Vehicles (SPV) chosen through this challenge process will receive financial assistance in the form of a grant and tailor-made mentorship in the form of expertise for a period of three years. The total project cost of the projects will be financed collaboratively by the Government of India, the State Governments and the Smart City SPVs.

The program is financed by the French Development Agency (AFD) and supported by the European Union (EU) through a €100 million loan and €6 million grant. The program is coordinated and managed by the Program Management Unit (PMU) set up at National Institute of Urban Affairs (NIUA), New Delhi.

CASE STUDIES

1. Conversion of Ordinary Bus Routes to AC Bus Routes

Center for Study of Science, Technology & Policy (CSTEP)

2. Pune's Complete Street

Institute for Transportation & Development Policy (ITDP)

3. Revitalisation & Rejuvenation of Drain Along with Urban Design, Mobility, Landscape & Environmental Plan

Center for Green Mobility

4. Urban Mobility Lab : Pune

Rocky Mountain Institute (RMI)

5. Improve Mobility & Accessibility to the Walled City Area

Shakti Sustainable Energy Foundation

6. Redevelopment & Regeneration Project of Nehru Place District Centre, New Delhi

United Traffic & Transportation Infrastructure (Planning & Engineering) Center (UTTIPEC)

7. Kakinada Lakefront Development

HCP Design, Planning & Management

8. University of Allahabad

Neev Architects Urban Design

9. Redefining Ludhiana's Streetscapes

Neev Architects Urban Design

10. Jamia Hamdard University

Neev Architects Urban Design

11. Street Design: The Simple & Smart Way

Prasanna Desai Architects

12. Gaothans Project

Royal Institute of Chartered Surveyors (RICS)

13. Enhancing Community Engagement & Demand Generation for Water, Hygiene & Sanitation

Center for Advocacy & Research (CFAR)

14. Slum Networking: Connecting the Disconnected to Enable Household Toilets in Slums

Centre for Regional & Urban Excellence (CURE)

15. Affordable in SITU Housing

SELCO Foundation

16. Migrant Housing

SELCO Foundation

17. Mumbai: Resettlement of Low-income People

Society for the Promotion of Area Resource Centers (SPARC)

18. DIGIT'S – Andhra Pradesh

e-Governance Foundation

19. Kakinada Smart City Project

National Institute for Smart Governance

20. Spotter App

Bangalore Political Action Committee (B.PAC)

1. Conversion of Ordinary Bus Routes to AC Bus Routes

Partner Organisation: Center for Study of Science, Technology & Policy (CSTEP)

Background

Bengaluru Metropolitan Transport Corporation (BMTc) is one of the largest public transport utilities in India. In 2006, BMTc introduced high-end AC bus services along the Information Technology (IT) corridors to cater to the IT sector employees.

The aim was to reduce the use of private vehicles and provide comfortable public transport to this segment of commuters. Currently, BMTc operates around 800 AC buses and would like to expand the service.

The study carried out by CSTEP was to assess the possibility of converting ordinary BMTc bus routes to AC bus routes. The study involved the identification of potential corridors where these AC bus services could be introduced/expanded.

CSTEP carried out a comprehensive city-wide primary passenger opinion survey at eight locations with a sample size of close to 7000 respondents. The study suggested certain corridors where BMTc could introduce new AC bus services.

Project Features

The study assessed the potential for introduction of new AC bus services along major corridors in Bengaluru. This involved capturing the commuters' willingness to shift from their current mode to the proposed new AC bus service.

Respondents interviewed for this study involved private vehicle users (cars, two-wheelers), ordinary bus users, private bus users, cab/taxi and auto rickshaw users.

Two scenarios based on varying travel costs were designed to understand the respondents' preferences towards the new mode of transport.

Benefits & Outcomes

- Potential commuters for new AC bus services are from autos and two-wheelers.
- Potential for the introduction of new AC buses in upcoming residential and commercial areas.

Theme: Sustainable Mobility

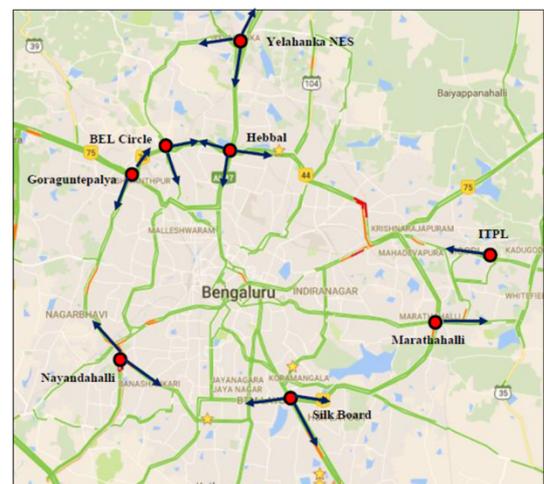
City: Bengaluru

Cost: INR 70 lakhs

Period of Implementation: 2017 – 2018

Date of Completion: September 2019

Status: The project has been completed; BMTc is in the process of introducing AC buses services on corridors that have shown potential, on a trial basis.



Survey Locations
8 survey locations with emphasis on select directions~7000 sample size. Stated and Revealed Preference Survey

2. Pune's Complete Street

Partner Organisation: Institute for Transportation and Development Policy (ITDP)

Background

Taking inspiration from the Comprehensive Mobility Plan for Pune City (2008), the city officials have embarked upon multiple projects and policies focusing on the Planning for People approach. To set the vision, the city adopted the Pedestrian Policy in 2016, which provides consistent, high-quality pedestrian infrastructure with an equitable allocation of road space.

The Urban Street Design Guidelines (USDG), which the city published in 2016, provides a mandate for engineers and planners for designing and executing streets to meet all local needs, avoiding the one-size-fits-all approach.

It does so by solutions oriented towards citizen participation, ICT-enabled provision of government services, promotion of economic activity & employment, upgradation of public spaces in low-income settlements, and a dedicated knowledge & design centre.

Under the Pune Bicycle Plan, the city is undertaking a comprehensive approach to promote bicycles and increase the modal share of cycling to 25% by 2031. Presently, a 94-km cycle track is in existence and work is underway to develop more than 800 cycle-friendly streets in the next three financial years. To promote cycling for first- and last-mile connectivity, the city has launched a Public Bicycle Share with 4,000 cycles under operation in its first phase and the trip rate is estimated to be four trips per cycle per day.

While promoting walking and cycling, Pune is also taking active measures to control personal motor vehicle usage. The city aims to achieve this through travel-demand measures such as on-street parking, with changes based on parking demand as well as congestion charging. In 2018, the city approved for a progressive Parking Policy. Also recently, Pune demarcated a Transit-Oriented Development zone in its Development Plan. Clearly, the city is progressively working to harbour a more sustainable and ecological tomorrow.

Theme: Sustainable Mobility

City: Pune

Cost: INR 12 crore per km approx.
Total estimated for 1.7 km is INR 22 crores

Date of Completion:

Phase – I : June 2017

Phase – II : June 2018

Status: Ongoing



The design integrates fun elements for children such as snake and ladder board to keep them entertained and engaged.

Project Features:

A network of 27 km of major roads was identified to be converted into “Complete Streets”. The project reimagines one of Pune’s major roads — DP Road — as a “complete street”, taking into account the comfort, convenience, and safety of all street users. The new designs include wide-shaded continuous footpaths, cycle tracks and stands, vibrant public spaces with seating and street vending, bus stops, uniform carriageway, and organised on-street parking.

With a clear focus on environmental protection, the design integrates and accommodates existing trees. For universal accessibility, tactile paving is provided. Further, the footpaths are continuous along property entrances and side streets with space for wheelchairs between bollards. To ensure gender inclusivity, the street is well lit with new street and pedestrian lights. Existing underground utilities were realigned in ducts and reinforced to meet future demands.

The street design process involved the selection of experienced urban designers through a stringent process of tendering. An Urban Design Cell with urban designers was created in Pune Municipal Corporation (first time in the country) to review the designs, as well as design neighbourhood streets.

Community participation through tactical urbanism: a seven-day trial run of the proposed design led to an innovative public-private collaboration between the shopkeepers and the public agency. After public consultations and negotiations, the private owners/shopkeepers in some sections readily gave their front margins for public use, creating a wide pedestrian plaza on either side of the street without any acquisition.



A wide pedestrian plaza created by merging private front setbacks to the footpath.

Benefits & Outcomes:

Safety of all road users: the street is designed for lower speeds, so as to reduce fatal accidents. Dedicated spaces for different road users reduce conflict between motorised and non-motorised users.

Socially sustainable: The design adopts an inclusive and equitable approach towards street vendors and all street users creating a vibrant and active street.

Gender inclusive: With active edges and no dark spots due to uniform lighting, the street is safe for women.

Environmentally sustainable: The project promotes low-carbon modes of transport—walking, cycling, and public transport use. Increase in green cover on the street since no existing trees were cut during implementation and new trees were planted where required.

Economically sustainable: Noticeable increase in footfalls in shops. Increase the property values of the neighbourhoods. Organised parking on street is expected to generate revenue for the city over the years.

Institutionally sustainable: Being the first of its kind project in the city, its success has given confidence to the city authority to execute similar projects.



The footpath runs continue with raised crossings across minor intersections. Cyclists are offered great respite with painted cycle lanes on both sides of the street and cycle stands. The design integrates with the city's bicycle sharing system.

3. Revitalisation & Rejuvenation of Drain along with Urban Design, Mobility, Landscape & Environmental Plan

Partner Organisation: Center for Green Mobility

BACKGROUND

The drain connects parks, residences, commercial properties, etc, and therefore is an important connector, although in a decaying condition. Nallahs can be vibrant public spaces if planned appropriately. The project is a convergence of Urban Design, Urban Planning, Transport Planning, Transport Design, Landscape Design, Hydrological Planning and Environmental Planning. Being close to a Metro station, it also has great transit connectivity along with many other arterial streets that cross the drain channel. Water BOD values being very high, a gravity-based environmentally sound water treatment was visualized that also doubled up as public space and play areas.

Adapting parks and gardens and derelict lands, in basements of buildings were utilized for the treatment of water. The planning of edges responds to the surrounding land use – from being play places and strolling areas to being high-end promenades with cafes and amenities.

PROJECT SCOPE

Walking-friendly streets with cycle tracks and slow moving streets tie the public spaces and parks together. The arterial streets passing through the site also are redesigned to have walking and cycling friendly infrastructure with amenities like toilets, cycle parking, rickshaw parking, benches, tree lines, street lighting, all integrated with street design.

Parks were visualized as separate projects with urban design guidelines so that the clear walking spaces and walking streets are not obstructed through the parks. The project promises a vibrant public space, clear enjoyable water, new actionable commercial space, short pedestrian-oriented connection, cycle tracks, promenades and wastewater recycling.

Theme: Sustainable Mobility

Client:
Delhi Development Authority (DDA)

Length of Drain: 2.5 km

Estimated Project Cost: INR 1200 crore

Commercial Space Generated:
12, 000 sqm

Status of Project: On-going



4. Urban Mobility Lab: Pune

Partner Organisation: Rocky Mountain Institute (RMI)

BACKGROUND

Pune has been selected as the first Lighthouse City¹ as part of the Urban Mobility Lab, a program initiated by the NITI Aayog and developed by the Rocky Mountain Institute (RMI) to inform India's national mobility transition by supporting mobility transitions in Indian cities through identifying, integrating, implementing, and scaling mobility studies and pilot projects.

The Urban Mobility Lab is a platform that supports a replicable process for identifying, supporting, integrating, and implementing mobility solutions in leading geographies, called Lighthouse Cities—a concept conceived by 75 business, civil society, and government leaders at a 2017 workshop hosted by the NITI Aayog and RMI².

The Urban Mobility Lab works with the Lighthouse Cities to adapt solutions to local needs and support implementation. As part of the Urban Mobility Lab, Pune will host a multiday Solutions Workshop in October 2018, bringing together selected project teams, government officials, and subject-matter experts with the goals of gathering a common awareness and understanding of the city's mobility ecosystem, supporting the development and implementation of a portfolio of mobility studies and pilot projects, and exploring opportunities for integration between projects and organizations.

PROJECT FEATURES

- Conducts a needs assessment to understand a city's transportation system
- Recruits and selects project teams to offer solutions to support the city's mobility objectives
- Facilitates a Solutions Workshop to collaboratively support the design, implementation, and integration of project teams' solutions
- Supports monitoring, evaluation, learning, and scaling of projects

¹ <https://rmi.org/wp-content/uploads/2018/07/Lighthouse-City-announcement-Pune.pdf>

² https://rmi.org/wp-content/uploads/2017/05/NITI_RMI_India_Mobility_Report_2017.pdf

Theme: Sustainable Mobility

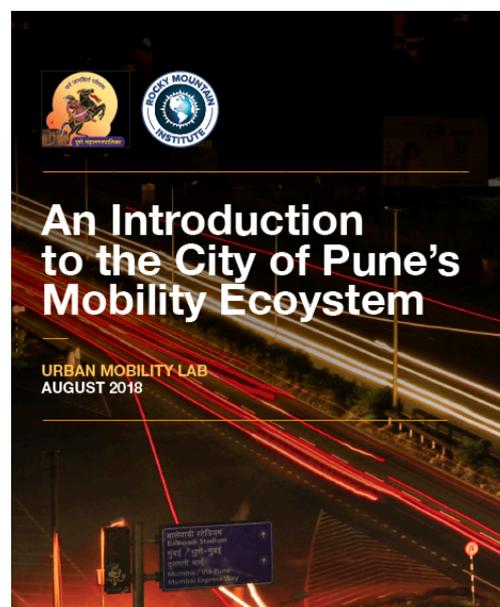
City: Pune

Period of Implementation:
June 2018 to June 2020

Status of Project: On-going;
Solutions Workshop will be
organised in October (15-17), 2018

BENEFITS & OUTCOMES

1. Knowledge Building: Through an interactive online forum and city handbook
2. City Analysis: Through a needs assessment and user-friendly evaluation tool
3. Solutions Development: Through team recruitment and Solutions workshop
4. Implementation and Evaluation: through implementation support and follow up convening
5. Learning and scaling



5. Improve Mobility & Accessibility To The Walled City Area

Partner Organisation: Shakti Sustainable Energy Foundation

BACKGROUND

Shakti Sustainable Energy Foundation (Shakti) seeks to facilitate India’s transition to a cleaner energy future by aiding the design and implementation of policies that promote clean power, energy efficiency, sustainable urban mobility and climate action. Working collaboratively with policymakers, civil society, industry, think tanks and academia, Shakti seeks to catalyse transformative solutions to meet India’s energy needs in clean and sustainable ways.

PROJECT FEATURES / DETAILED SCOPE

To improve the mobility and accessibility to the walled city area of Udaipur City, the city desired to resolve traffic issues at three major junctions - Suraj Pole, Hathi Pole and Delhi Gate, along with the streets connecting them.

Presently, these junctions witness considerable traffic demand which results in long queues and traffic jams, especially during peak hours. These areas are also plagued by on-street parking and reducing space for clear movement.

The mentioned junctions selected for redevelopment in Udaipur are similar in character, typology and nature. This is because each of them encloses a heritage structure, is an important activity node and has similar physical as well as mobility-related issues. This is the design intervention for Suraj Pole.

BENEFITS & OUTCOMES

- Efficient traffic movement through the twin intersections with minimal conflicts and delays
- Safe and comfortable pedestrian and cyclist environment. This shall include a wide comfortable and landscaped pedestrian plaza
- Defined spaces for vending outside the pedestrian and vehicular movement lines
- Defined space for IPT and private vehicle parking as per existing demand
- Provision of required pavement marking and signage
- Provision of adequate lighting
- Integration of services such as stormwater drainage

Theme: Sustainable Mobility

City: Udaipur

Scale: Street Junction

Period of Implementation: 2015 onwards

Status of Project: In Progress



Existing junction



Proposed Junction

6. Redevelopment & Regeneration Project of Nehru Place District Centre, New Delhi

Partner Organisation: United Traffic & Transportation Infrastructure (Planning & Engineering) Center (UTTIPEC)

BACKGROUND

Nehru Place was planned to be the biggest business district Centre in Delhi. The development of the space, in reality, diverged radically from the original plan and has today resulted in a seedy labyrinth of shops and offices. With various management issues plaguing it during the day time, the entire plaza area is gloomy and dead at night, also attracting illegal and criminal activities.

In January 2012, various commercial associations involved with the Nehru Place district centre such as the Nehru Place Improvement and Welfare Association (NIWA) collectively submitted a plea in writing to the Lieutenant Governor of Delhi. The plea, which was supported by over 25,000 occupants of the area, urged the authorities to take action against the deteriorating situation in Nehru Place and improve conditions to make it a pleasant experience for visitors, including addressing of improved mobility and access aspects.

The strategic location of Nehru Place on the upcoming new metro line will make it a transit hub in the near future. Due to the improved metro connectivity and its location on the proposed Transit Oriented Development (TOD) corridor by the UTTIPEC will drastically change the profile of Nehru Place district centre. Along with this upcoming commercial real estate, that would almost double the size of the existing district centre, come the associated problems of increased footfalls, congestion, parking requirements, challenges of maintenance, and others.

PROJECT FEATURES

The ‘Redevelopment and Regeneration Project of Nehru Place District Centre’ was initiated by the Unified Traffic and Transportation Infrastructure (Planning and Engineering) Centre (UTTIPEC) of the Delhi Development Authority in 2013. With a focus to develop strategies to improve and revitalize the bustling yet congested and decaying Nehru Place District Centre in New Delhi, a commercial centre with multiple uses, the initiative was supported by the Shakti Sustainable Energy Foundation.

Theme: Sustainable Mobility

City: Delhi (South)

Scale: District Centre wide (38 hectares)

Phases: Project Design Phase, Implementation Phase, Phase -1 complete

Cost: INR 1190 Crores approx.

Status/Progress: Project design competed, Project area handed over to SDMC during 2014. Implementation pending.

Date of Completion: Phase - 1 completed in May 2013

Initiated by UTTIPEC, the focus of the study was ascertained to be on public space improvement through improving access and connectivity of the area within the city, parking management and area management. The redevelopment and regeneration project of Nehru Place district centre is undertaken and implemented as a holistic, comprehensive eco-mobility project.

BENEFITS & OUTCOMES

With the primary objective to develop a time-bound action plan for a 2 km zone around Nehru Place, the project hopes to achieve the following long-term outcomes:

- Good accessibility and multimodal connectivity (including universal accessibility)
- Dense and vibrant economic activities
- Cleanliness, safety and security
- Pedestrian-oriented public activities and usable and enjoyable public space
- Potential of replicability

7. Kankaria Lakefront Development

Partner Organisation: HCP Design, Planning & Management

BACKGROUND

Kankaria Lake is a significant urban icon for Ahmedabad. It was built in 1451 during the reign of Sultan Qutb-ud-Din Ahmad Shah II and has been an inseparable part of its identity since then. Earlier it was a part of the water system of the city and it went on to become a recreational space for the city. Prior to its redevelopment in the 90s it was a place where hundreds of visitors gathered. The zoo, museum, balvatika, waterpark, swimming pool, picnic areas, eateries, theatre, hill garden, a football ground and a vyayamshala were all clustered in this area. It was also marked by chaotic traffic, disorganized eateries, unclean ghats, dilapidated historic elements, littered solid waste, lack of public amenities and congestion. Vehicle parking along the periphery walls often blocked the view, and visitors had a hard time amidst the noise, traffic and resultant chaos. Kankaria had also gained notoriety as a suicide point. In short, a city level public space with high potential for being a high quality recreational /entertainment space has deteriorated. In the late 90s, the first attempt was made to redevelop the lakefront by the AMC. By 2005 the area was in an utter state of disrepair. In 2005 a second attempt was made by AMC to redevelop the area.

HCPDPM were appointed as consultants to undertake the redevelopment. The redevelopment began in 2005 and, was completed in 2009. The area was completely transformed and now has become a major attraction for citizens as well as an asset for the city adding to its attraction and liveability.

PROJECT FEATURES / DETAILED SCOPE

The redevelopment plan focused on:

1. Providing unobstructed sidewalks
2. Organizing informal activities
3. Providing adequate parking
4. Improving access to water/ghats
5. Increasing tree cover
6. Organizing traffic movement
7. Providing public amenities
8. Improve the quality of lighting
9. Providing comfortable street furniture
10. Providing consistent street signage
11. Upgrading finishes – durable and long lasting

Apart from intervening within the project area, the surrounding street network was examined and a road around the lake was strengthened in a way to reduce the traffic movement in the immediate vicinity.

Theme: Public Open Spaces

City: Ahmedabad, Gujarat

Scale: City Level Open Space

Cost: INR 3.6 Crores

Period of Implementation: 2005 - 2009

Date of Completion: 2009

This also made it possible to pedestrianize a major portion of the lake front. A unique feature is the installation of a mini / toy train specially brought in from the UK that goes around the lake and has become a huge hit with the children.

BENEFITS / OUTCOMES

- Continuous pedestrian promenades of about 2 km
- Bicycle track of about 2 km
- Three pedestrian plazas
- Two handicraft markets
- 3 food courts & organised food stalls
- 2 parks
- Boating facilities
- 4 sets of public toilets



8. University of Allahabad

Partner Organisation: Neev Architects Urban Design

BACKGROUND

The University of Allahabad is a Central University with real estate assets of 346 acres. Several trusts own land parcels and buildings within the precincts of the campus. The Campus Redevelopment plan has attempted to integrate of all the campuses with the precincts, restructuring internal spaces and the overall spatial structure with the aim of redeveloping all of the university's ten campuses.

PROJECT FEATURES

The redevelopment plan represents a consensus around the qualities and values central to campus and city life. The emphasis for the redevelopment is structured around a Strategic Framework.

The significant themes are its magnificent heritage buildings which are landmarks in the campus integrated into the patterns of circulation and use. The views of the heritage buildings should be an integral part of the design of the campus. Many different academic disciplines and activities should be bound together within a coherent and dignified system of public open spaces and circulation.

The CMP design of buildings should contribute to the coherence of the campus in form, typology, scale and expression. The hierarchy of open spaces has been created to scale large public spaces and small courtyard spaces within the cluster of buildings. The structure plan has attempted to visually and physically connect these spaces to generate a variety of experiences for the user. Each has a treatment of hard and soft landscape. The streets have been developed as boulevards.

The Campus Plan attempts to establish the public and private realm and a pattern of common open space where individual building projects can be developed. The regulating lines that define the public spaces are required to be respected as part of the Development Controls. The buildings serve as a means of creating public spaces as well as containers for academic functions.

Theme: Public Open Spaces

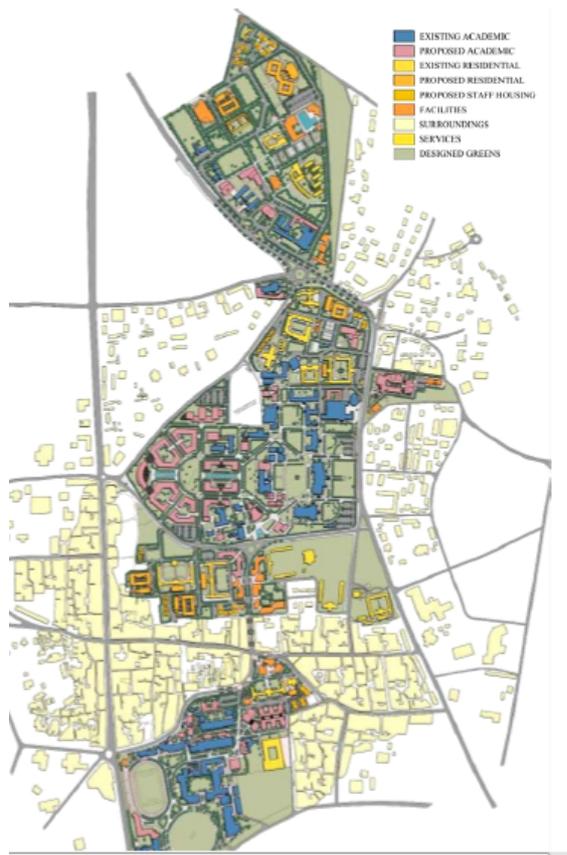
Category: Integration of University Precincts

City: Allahabad, Uttar Pradesh

Scale: City Level

Cost: INR 1500 Crores

State: On going (Since 2008)



9. Redefining Ludhiana's Streetscapes

Partner Organisation: Neev Architects Urban Design

BACKGROUND

Ludhiana's future is looking bright thanks to efforts such as the implementation of metro, and revised masterplan development scheme. It is identified as one of the most rapidly growing tier 3 cities in India. The city and its people aspire to redefine its image by revitalizing its precincts and districts. A city that adores market streets, the initiative to redefine on its streetscapes is a landmark in creating better urban infrastructure, public amenities, social infrastructure, thereby enhancing the image of the city.

The Ferozpur road is a National Highway and the development around it is characterized mainly by residential, commercial and institutional districts. This homogeneous functional aspect has been diversified by different morphological characters. The available open spaces along with the street act as a transition space between the major corridor and neighbourhood. The scale of the street is transforming with increasing commercial development and it is emerging as a major commercial district in the city of Ludhiana. The streetscape is qualified with a lower degree of enclosure on account of the space-to-form ratio along the highway. In the absence of trees along the road, its the edges flow with a variation in the scale of spaces available and differential treatment being given to them.

PROJECT FEATURES

The aspirations of the city should reflect on its streets like the arteries of any urban agglomeration. Ludhiana, its culture, tradition, history and life should be depicted and celebrated. The city, through its streetscapes, should proclaim how it is embracing new technology, without losing its inherent, loud, and vibrant charisma.



Theme: Public Open Spaces

Category: Public Space Design Integral to Urban Mobility

City: Ludhiana, Punjab

Scale: City Level

Cost: INR 25 Crores

Phases: Phase – 1 & Phase - 2

State: Partially Completed

(Year - 2013)

BENEFITS & OUTCOMES

The promoters and consultants have developed a “civic vision” for the revitalization of Ferozpur road in Ludhiana. The plan re-establishes the downtown as the civic, cultural, shopping, employment and residential hub of Ludhiana. The proposal provides a strategy for the public realm through the integration of activities and corresponding public spaces design. The proposal establishes synergy between various activities along the street and the adjoining neighbourhood. The integration of multimodal transport system along with urban transport, pedestrian improvements key to design intent.



11. Street Design: The Simple & Smart Way

Partner Organisation: Prasanna Desai Architects

PROJECT FEATURES

Healthy Aundh in Pune, is a project conceived as part of the Smart City Mission (executed by PSCDCL and PMC) to create a Neighbourhood upgradation program. This program is based on Walkability, Universal Accessibility, and a Cycle-Friendly approach. It develops a 3S CONCEPT, which the citizens to move SAFELY, under the natural SHADE of trees while creating a Neighborhood which is SOCIALLY Vibrant.

Using the Universal Accessibility Act, all the footpaths in the proposed nine streets will be designed at one level. This will enable people to walk with pull along baggage, trolleys, etc. throughout the neighborhood with ease and help citizens to carry their day to day heavy household purchases like grocery, vegetables etc. This will automatically lead to a reduction in the use of vehicles for short trips and the need for parking spaces within the neighbourhood.

All the trees along the road have been saved & provided with grating. The stonework around the trees acts as seating and gives a unique historic character to the street. In addition to this, the street also has lighting, music, sculptures, and games thus creating a 'vehicle free' shopping experience in a natural environment – an “urban mall under the tree canopy”.

BENEFITS

The street completed a stretch in June 2017 and has been functioning perfectly ever since. It has received many positive reactions and comments from the eminent personalities, architects and most importantly from the citizens and the end users. “Grandparents and grandchildren are walking and playing safely, while parents sit in the shade enjoying their me-time,” said Mrs. Shirode.

A resident of Aundh. Dr. Paul Barter, World renowned parking management expert commented, “Let us seize the chance for parking success without excess!” Shreya Gadepalli, Director ITDP, Chennai in one of her Facebook posts, described an image of youngsters socializing on the street as, “Deep in Conversation! Great footpaths are wonderful places to meet, to socialize and to be happy”.

Theme: Public Open Spaces

Location: Aundh D.P.Road

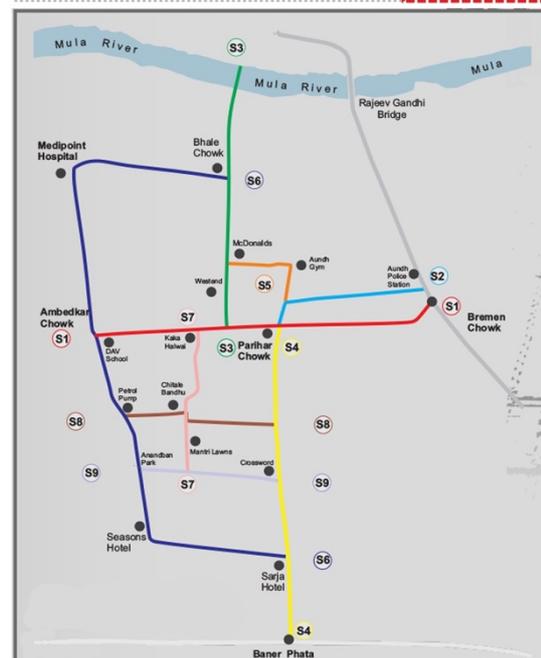
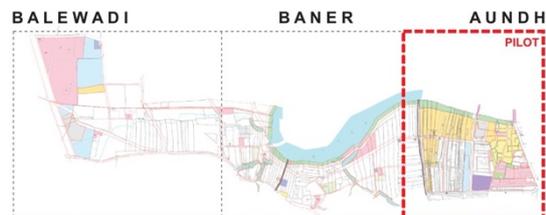
City: Pune, Maharashtra

Scale: Neighbourhood Level Length of the Street (1 k.m.)

Cost: INR 14 Crores (Inclusive of shifting cost for all the utilities)

Start Date: April 2016

Duration : June 2016 to June 2018



12. Gaothans Project

Partner Organisation: Royal Institution of Chartered Surveyors (RICS)

BACKGROUND

The objective of the study was to conduct an impact assessment for the development within and around Gaothans of Navi Mumbai.

Based on the criteria of location, intensity and nature of transformation, ten Gaothans, were identified. Although, each Gaothan presented a unique infrastructure challenge, some key concerns across all included: poor vehicular access to the Gaothan's core; unplanned surface water drainage and sewerage, uncontrolled haphazard growth leading to poorly built environment, construction on amalgamated plots, low maintenance of water bodies and open spaces, and faulty protection of natural resources.

PROJECT FEATURES

1. Study of existing services, utilities, infrastructure etc.
2. Assessment of demand-supply gaps for the identified project sites.
3. Fiscal assessment and requirement.
4. Suggestions for measures to increase the general level of services.
5. Preparation of a realistic financial operating plan (FOP) based on the availability of resources.
6. Impact of urban renewal schemes with respect to Infrastructure, Environment, Social Development in the CIDCO Navi Mumbai Notified area
7. Gap analysis in service delivery (Urban services, Urban poverty, Slum improvement)
8. Reform Action Plan



Theme: Public Open Spaces

City: Gaothan, Navi Mumbai

Scale: Regional Area

Cost: INR 17.81 Lakhs

Phase: Two

Period of Implementation : Ongoing,
assignment ended in 2016

BENEFITS & OUTCOMES

1. Once the norms of localized STP are applied and water conserving fixtures and fittings are used, the net discharge from the Gaothans in the nodal sewage manholes will be within its designed carrying capacity and hence no change/enhancement in existing city sewerage network of piping and STP capacities will be needed.
2. By adopting rainwater harvesting, water conservation measures and planned use of rainwater for landscape purposes, the net impact on the existing city nodes due to the increase in FSI of 4 at Gaothans w.r.t. storm water can be nil.
3. Against the existing average FAR of 1.5, the expected increase of FAR 4.0 shall lead to a substantial increase in electricity demand for residential development, amenities, utilities as well as street lighting.

13. Enhancing Community Engagement & Demand Generation for Water, Hygiene & Sanitation

Partner Organisation: Centre for Advocacy & Research (CFAR)

BACKGROUND

The project addresses the extensive problems faced by women, men and children in underserved urban settlements and habitats in cities of Delhi, Kolkata, Jaipur, Kota and Jodhpur. It aims to catalyze substantive changes, both at the institutional and behavioural levels. On a scale, CFAR capacitates community-based organizations; creates spaces in the community (community platforms), key institutions and media on issues related to social development. This experience led to the development of Community Engagement Guidelines under Swachh Bharat Mission-Urban in 2017.

PROJECT FEATURES

The strategies and tools facilitated the creation of community platforms in all three cities to build participatory and purposeful community engagement with local Urban Local Bodies. The platforms have given women voice, agency and ownership, recognition as Swachta Grihis or Prahis? and a sense of achievement for improving their community's well-being. The government officials recognise and institutionalise the platforms and their work, enabling greater collaboration.

Institutionalized Community Engagement:

Formalized collaboration between Service-Provider, Administration and Community Management Committee (CMC), MoU, GOs and Directives, accreditation of community representatives by the Municipal Corporation.

Capacitated community platforms led by Community Management Committees (CMC) and supported by Male and Young People's Forum, Grassroots Communicators and Peer Educators who manage Single Window.

Peer-led behaviour change with a focus on Best Practices such as hand washing, hygienic childcare, and menstrual hygiene management.

Theme: Social & Organisation
Innovation In Low-income Settlements

City: Delhi, Jaipur, Kolkata, Jodhpur, Kota

Scale: 80 wards, 300 settlements in 5 cities

Cost Phase 1 – INR 4,19,10,000

Phase 2 – INR 97,94, 400

Phase: Phase 1- Pilot Phase in 3 cities
(June 2012 – March 2017)

Phase 2 – Scale up Phase in 5 cities
(November 2015 - March 2019)

Period of Implementation : Current
Phase (November 2015 - March
2019) / Date of completion: 2009

OUTCOMES

1. Across all cities, 236 community representatives designated as Swachhta Prahari or lead persons by ULBs
2. Improvement of different sanitation services across 300 settlements in 80 wards of 5 cities.
3. In Rajasthan, 1256 Individual Household Latrines (IHHL) have been constructed, in Jaipur 1059, Kota 50, Jodhpur 147.
4. In 28 wards of Delhi, 133 Community Toilets with 4088 seats jointly managed by 100 Community Management Committees and the Urban Local Body or related agency.
5. In Jaipur 6800 households have been linked to sanitation services directly and 10,200 households indirectly across 7 wards.
6. Across all cities, 454 local Lead Managers identified by Community Management Committees are tracking daily the services in 107 settlements to strengthen the consistency of supply and use of services.

14. Slum Networking: Connecting the Disconnected to Enable Household Toilets in Slums

Partner Organisation: Centre for Regional & Urban Excellence (CURE)

BACKGROUND

Safeda Basti is a 35 year old illegal slum in East Delhi. It has 574 households. Residents of Safeda Basti were deeply concerned over the security of girls in their settlement during open defecation. The private toilets were discharging into the open surface drains, creating unsanitary and unhealthy living conditions for all in the slums.

It was envisaged that a simple sewer network that could connect to Delhi Jal Board's (DJB) sewer network would make a sustainable solution. DJB engineers inspected the site and capacity of the network, agreed on its viability and granted permission to pilot a simple sewer line in one-street with 88 households. This has enabled 60 families to make toilets at home and upgrade their homes.

The project was implemented in partnership with the people of Safeda Basti, the Delhi Urban Shelter Improvement Board (DUSIB), and with permission from the Delhi Jal Board (DJB) and East Delhi Municipal Corporation (EDMC). The project was funded by WaterAid India and a small contribution from a private sector housing finance agency – Shubham, that provided grants to households to build their toilets.

PROJECT FEATURES

1. *Slum networking*: an innovative, sustainable, low-cost and scalable sanitation solution.
2. *Community participation at all stages*; planning, implementation, monitoring of the sewer.
3. *Re-engineered technical design*: simplification of the design adapted to narrow lanes, kutcha and low technical expertise. Use of PVC pipes, shallow digging and provision of pipes for future connections made the solution quick and cost effective.
4. *The financial contribution by the community (10%)*: Households have invested nearly Rs 90,000 to upgrade their homes.
5. *Access to flexible credit*: Toilet Revolving Fund (TRF) helped households to get no-interest credit to pay their share of the contribution.

Theme: Social & Organisation Innovation
In Low-income Settlements

City: Delhi

Scale: 88 slum households

Phase: 2

Cost : INR 14 Lakhs

Period of Implementation : 2014-15

Date of completion: March 2015

BENEFITS & OUTCOMES

1. Access to safe sanitation option to 60 households.
2. The sewer line has been used by DUSIB to connect the slum community toilet to bypass the septic tank.
3. The improved housing is fetching higher rents, enhancing family incomes and reducing poverty.
4. Women have been able to go back to work, supplementing family incomes.
5. A healthier life, saving money on health care.



15. Affordable in SITU Housing

Partner Organisation: SELCO Foundation

BACKGROUND

The total housing shortage in India is estimated to be approximately 20 million units, with the majority in the low-income sector. Moreover, a total of 40 million units need to be improved. Census data shows that the slum population has tripled in the last three decades. But in addition to the growing gap in habitat at the bottom of the pyramid, the communities are also the worst hit by the effects of climate change. Climate change and heat, are recognized by many as the next big inequality issue.

Last year, Hawaiian researchers projected that the share of the world's population exposed to deadly heat for at least 20 days a year will increase from 30% now to 74% by 2100 if greenhouse gas emissions are allowed to grow. Further, for the poor in the informal sector, their house is also their workplace, storehouse, godown etc. Thus, lack of housing burdens the poor with economic losses, increased health risks, safety, loss of productive working hours etc.

The Sustainable Habitat Program delivers sustainable, energy efficient spaces, through effective use of materials and efficient planning of layouts for low-income communities. Understanding and defining habitat as an energy solution- a place with a function - a building model which not only looks at filling the housing gap but also accommodates for energy burden forecasts making households invest in an asset which is also climate-smart.

PROJECT FEATURES

- High Construction Quality
- Energy efficient housing increasing resilience to heat stress
- Accommodating incremental and future extension
- Durability (minimum 50 Year Lifespan)
- Building period of less than 2 months
- Financial Linkages for houses under Programmatic Pilots

Theme: Public Open Spaces & Social & Organisation Innovation In Low-income Settlements

City: Ahmedabad, Bangalore, Bidar and Davangere

Scale: Slum / City Level

Status: 50 houses constructed & 100 in pipeline

Period of Implementation : April 2017 onwards

Date of completion: March 2019

BENEFITS & OUTCOMES

- Better Thermal comfort, natural lighting, and ventilation
- Improved productivity and health
- Safety and longevity of tenure in houses
- Durable, resilient structures that withstand climatic changes
- Long term financial credit provision
- Models proving financial inclusion and credit lending mechanics for individuals lacking land tenure



16. Migrant Housing

Partner Organisation: SELCO Foundation

BACKGROUND

Thousands migrate to cities every year in search of jobs, often taking up daily wage work as the only option available for livelihood for many. While our cities grow, a significant number of population that makes the city have no housing option, settling down in blue sheet temporary settlements.

Approximately 800 to 1000 workers live in temporary shelters that make a labour colony. With growing construction, the number of these labour colonies are on the rise. Depending on the kind of workforce the planning for the structure changes from dormitories, portacabins, row housing to single units for families. The average term period for each colony also changes starting from 5 years. The Built Environment vertical at SELCO Foundation works on designing sustainable, energy efficient spaces, through effective use of efficient planning for low-income communities. For the provision of this project, SELCO Foundation partnered with a Developers. The project aims to intervene to make housing portable and recognises that there is a need for a more economical & efficient energy source that shall cater to the provision of improved well-being.

PROJECT FEATURES

The project aims at decentralisation, portable housing and energy solutions for formal labour colonies. The project follows best practices from United Nations High Commissioner for Refugees (UNHCR) that states the basic requirements should meet for shelter, fire, energy, waste management, water, sanitation and lightning as benchmarks for the project proposal. The aim of the project has been to keep in mind the adequate provision of natural lighting and ventilation (NLV) and thermal comfort. The structural design needs to be highly portable, keeping in mind their employment needs. Through this project, we are aiming to lay importance for the provision of public space gatherings, education facilities etc.



Theme: Public Open Spaces & Social & Organisation Innovation In Low-income Settlements

City: Bangalore, and Belgaum

Scale: Slum / City Level (200 units)

Cost: INR 3 Crore

Status: Project 1 – Urban-DPR submitted in September 2018; Semi-urban - 50 houses built in 2017

Period of Implementation : 4 months

Date of completion: March 2019

BENEFITS & OUTCOMES

The project aims to ensure a better standard of living and increased retention of employees. The provision of basic facilities would lead to better productivity. More migrant workers would choose and adapt to work in a formalised environment. This could also lead to institutionalising the labour colonies and make it more humane. There would be an influx of such labourers and opportunities which would have a tremendous impact on such migrant workers who enter the seasonal labour market.



17. Mumbai: Resettlement of Low-income People

Partner Organisation: Society for the Promotion of Area Resource Centers (SPARC)

BACKGROUND

The project being discussed is the resettlement of low-income people from beside the railway tracks in Mumbai to allow a faster, more regular rail service. This resettlement scheme was unusual on three counts. First, it did not impoverish those who moved (as is generally the case when poor groups are moved to make way for infrastructure development). Second, the actual move was voluntary and needed neither police nor municipal force to enforce it. And third, the resettled people were involved in designing, planning and implementing the resettlement programme and in managing the settlements to which they moved. This resettlement programme was underpinned by strong levels of community organization among the population that was to be relocated.

Long before this project to improve the railways and resettle people from along the tracks was developed, the Railway Slum Dwellers Federation had collected data about the settlements along the tracks, mapped them, set up women's savings and credit groups and supported the formation of housing cooperative societies. This was not just to collect data but also as a means of community mobilization. The federation also encouraged the residents to think of the kind of housing they would like to build.

PROJECT FEATURES

The essential features of the project are:

1. Community organization prior to actual project implementation: Households and their communities were able to engage in the development of their resettlement and relocation plans (including location) and to have a major role in determining the actual logistics of the move.
2. The flexibility of key institutions and individuals: Both the World Bank and the MMRDA adapted their guidelines and procedures. The World Bank's clear policy on resettlement and rehabilitation compelled the railway authorities to abide by these guidelines as a condition for obtaining the loan they needed to modernize and upgrade their system.

Theme: Social & Organisation Innovation
In Low-income Settlements

City: Mumbai

Scale: Approx. 2000 families in the first
phase of MUTP

Phases (if any): Relocation &
Resettlement

Period of Implementation : 1998 - 2002

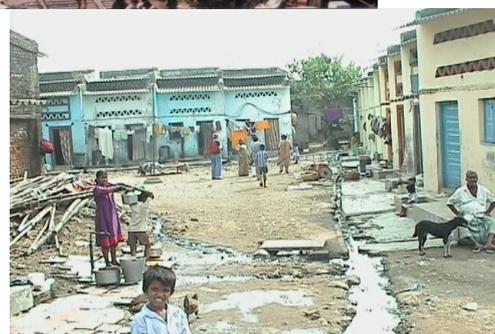
Date of completion: March 2002

BENEFITS & OUTCOMES

1. The project demonstrated that dialogue between slum dwellers and governments can produce solutions that work for all, the city in general.
2. It sets the process of relocation, from community organizations, identification and the actual movement.
3. It demonstrated how resident slum dwellers be involved in designing of the relocation process.



Old
settlement



New housing
post-demolition

18. DIGIT'S – Andhra Pradesh

Partner Organisation: e-Governments Foundation

BACKGROUND

e-Gov has developed a scalable digital platform to help ULBs manage their operations and finances and provide efficient municipal services. The platform, known as DIGIT (Digital Infrastructure for Governance Impact & Transformation), acts as a digital operating system for a city. DIGIT enables ULBs to be more effective and accountable—and to make better, data-driven decisions. Its open-source software ensures both interoperability among ULBs and rapid development of new modules by a wide array of software partners. As a result, DIGIT acts as a common platform to bring the various stakeholders in a city - including citizens, local, state and central government agencies, and business – to interact, transact and exchange data digitally. Beginning in 2015, e-Gov installed DIGIT's full suite of tools across the Andhra Pradesh's 110 ULBs within a year.

PROJECT FEATURES

DIGIT in Andhra Pradesh answers to the following objectives:

- Standardization of municipal governance processes across all 110 ULBs
- Improved service delivery to citizens through technology
- Data-driven municipal governance that leveraged real-time transaction level data
- Improved employee tracking and accountability across ULBs

Driving Citizen Centric Governance: 24x7 access to municipal services (public grievance redressal, property tax and water through multiple channels), DIGIT routes citizens' requests and applications to the appropriate employee, status update notifications via SMS and email.

Unlocking the Potential of Municipal Employees: by streamlining the employees' tasks and autogenerating the required paperwork.

Theme: Urban E-governance & ICT

City & Scale: 110 ULBs across Andhra Pradesh

Period of Implementation: 18 months

Real-Time Decision Support for City Leaders: KPI dashboards, dashboards to monitor the operations across departments in real time, monitor the performance of ULBs across the state.

Making all 110 ULBS in Andhra Pradesh Smart Cities: digital infrastructure (use of drones, door to door digital numbering, GIS-based property tax surveys and online building plan approval systems).

Empowering and Enabling the Urban Ecosystem: Andhra Pradesh is able to leverage best in class solutions that have been built using principles of affordable excellence and data-driven governance and innovation.

BENEFITS & OUTCOMES

- Over Rs. 330 crores increase in Property tax collections
- About 45% jump in Water charges collected
- Over 450 crores of ROI for the state over the last 2 years (from early collections, Municipal employee time saved, cash incentives etc.)
- Integrated bills result in collection of Property Tax, Water and Sewerage charges at the same time, instead of additional collection drives

19. Kakinada Smart City Project

Partner Organisation National Institute for Smart Governance (NISG)

BACKGROUND

Kakinada is Andhra Pradesh's one of the fastest growing cities. It has two seaports. It is also a popular tourist destination. The city is an industrial hub, Kakinada is a multi-faceted city located in south-east India. It has a civic body as Kakinada Municipal Corporation (KMC) consisting of 50 municipal wards. The city of Kakinada, Andhra Pradesh participated in the Smart City Challenge (Phase 1) and is one of the 20 first shortlisted cities by MoHUA for implementing Smart City projects. A Special Purpose Vehicle (SPV) was incorporated with the name "Kakinada Smart City Corporation Limited" on 7th March 2016.

The smart city proposal of Kakinada includes several Pan City and Area Based Development initiatives with a focus on both infrastructure and ICT advancements across the city and at strategic locations.

It envisages the deployment of the following components:

- Deployment of various sensors (cameras, traffic violation, environment and weather sensors).
- Development of a robust ERP system to optimize internal operations and enhance citizen delivery.
- Development of an integration platform which will facilitate exchange and aggregation of data irrespective of the underlying technology platform of application.
- Development of command and control centre for improved visualization of an ambient situation in the city and facilitation of data-driven decision making.

BENEFITS & OUTCOMES

- An "end to end" solution for safeguarding and securing people and assets for the purpose of preserving operational continuity.
- A comprehensive system for planning, optimizing resources and response.
- Regulation and enforcement of traffic with various law enforcement services.
- Integration of various applications/modules into one functional system and are accessible by the operators and concerned agencies with necessary login credentials.

Theme: Urban E-governance & ICT

City: Kakinada, Andhra Pradesh

Scale: Pan City

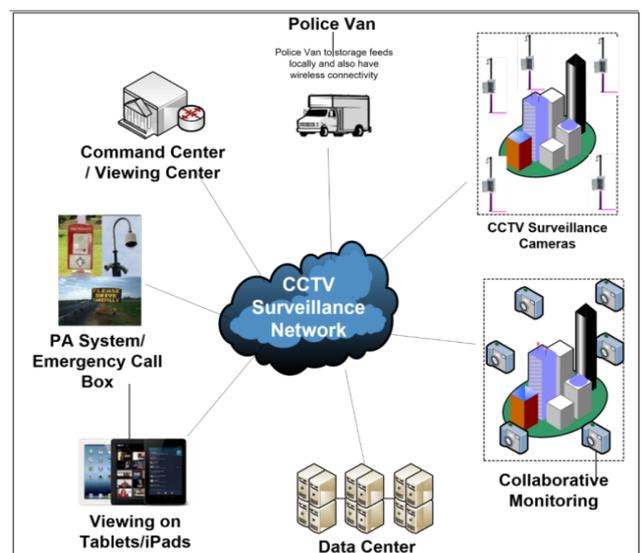
Period of Implementation:
Vendor is implementing the solution and is expected to maintain the centre for a period of 5 years.

Cost: The cost pertaining to command control centre is around INR 200 Crores

PROJECT FEATURES

Protecting citizens and ensuring public safety is one of the topmost priorities for any Government agency. It requires advanced security solutions to effectively fight threats from activities of terrorism, organized crime, vandalism, burglary, random acts of violence, and all other forms of crime. CCTV based video surveillance is a security enabler to ensure public safety.

Command control centre includes:



20. Spotter App

Partner Organisation: Bangalore Political Action Committee (B.PAC)

BACKGROUND

The Spotter is a B.PAC initiative that can help citizens (in Bangalore) quickly and efficiently report issues and concerns in their neighbourhood. Citizens can file their observations, grievances and suggestions for action by various govt. and municipal departments like BBMP (Corporation), BESCOM (Electric Supply), BWSSB (Water Supply) etc.

The Spotter grievance management solution comprises of two Smartphone Apps. The client App will facilitate the general public to quickly capture the picture and other details of the complaint and through us. A back-end App will work towards reaching the complaints to respective officers (ward-wise) in respective govt. departments.

Spotter is a crowd-sourcing initiative to gather crucial information about various aspects of safety, traffic, cleanliness, mobility etc. and prevail upon the Civic agencies to change.

PROJECT FEATURES

The App helps to raise complaint very quickly and to track the status of complaints. Each complaint will necessarily have to be identified within categories and sub-categories (roads, hoardings, animal control, solid waste management, forest, lakes and many more) mapped to specific departments within BBMP and other similar organizations. This ensures the complaint being directed to the right department and right person role within the department. The user can add comments, pictures of the spot the complaint is being reported, and GPS location is mandatorily captured in the system to help BBMP officer or the call-center folks locate the position of the complaint. Spotter App provides this automatically through an integration with Google location facility. If the user does not have a data connection, an offline mode allows them to save the information and send them once within the WiFi internet range.

Theme: Urban E-governance & ICT

City / Scale: Bengaluru, City level (within Bruhat Bengaluru Mahanagar Palike limits, 198 wards)

Phase: Phase 1 for Android, Phase 2 for IOS version & correcting minor bugs

Period of Implementation:
Approximately 6 months

Date of completion: October, 2016

Cost: Basic cost INR 5 Lakhs (approx.), excluding annual maintenance costs

Status/Progress: As on now the Spotter is fully integrated with the BBMP complaints management system (Sahaaya) & will soon be integrated with BWSSB and others

BENEFITS & OUTCOMES

- Any complaint can be directly reached to the mobile phone of the Corporation staff in a particular department and in a particular ward in real time.
- The staff can directly take up the problem and attend to it without waiting for a formal message from the call centre.
- The complaint is transferred to the right department/ward by the respective staff if the complaint has not reached the right place.
- Consolidate summary updates for higher management incorporation divisions is another feature being added soon.

Contact Details of Partner Organisations

<p>Bangalore Political Action Committee (B.PAC)</p> <p>Address: No.4/6, Ground Floor, Millers Road, Bengaluru-52 E-mail: forbangalore@bpac.in Website: https://bpac.in</p>	<p>Center For Advocacy & Research (CFAR)</p> <p>Address: H - 16A, 2nd & 3rd Floor, Kalkaji, Delhi -110019 E-mail: contact@cfar.org.in Website: www.cfar.org.in</p>
<p>Center for Green Mobility</p> <p>Address: 401-402, Ushadeep Complex, Navrangpura, Ahmedabad, Gujarat 380009 Email: anuj@greenmobility.in Website: www.cgm.org.in</p>	<p>Center for Study of Science Technology & Policy (CSTEP)</p> <p>Address: Sector 127, Noida, Uttar Pradesh 201313 Email: cpc@cstep.in Website: https://www.cstep.in</p>
<p>Centre for Regional & Urban Excellence (CURE)</p> <p>Address: Zamrudpur Commercial Complex, Building No- 4, 2nd Floor, Greater Kailash, New Delhi - 110048 Email: info@cureindia.org Website: www.cureindia.org</p>	<p>e-Governance Foundation</p> <p>Address: 147/J, 1st floor, 10th Cross, 3rd Block, Koramangala, Bangalore 560034 Email: https://www.egovernments.org/ Website: https://www.egovernments.org</p>
<p>HCP Design, Planning & Management</p> <p>Address: Paritosh Building, 101, Usmanpura, Ahmedabad, Email: info@cureindia.org Website: www.cureindia.org</p>	<p>Institute for Transportation & Development Policy (ITDP)</p> <p>Address: 2nd floor, H/6B, Hauz Khas, New Delhi - 110016 Email: india@itdp.org Website: www.itdp.in</p>
<p>National Institute for Smart Governance</p> <p>Address: 5th & 6th floor, Mahanagar Door Sanchar Sadan, 9, CGO Complex, Pragati Vihar, MTNL Building, Delhi Website: https://www.nisg.org</p>	<p>Neev Architects Urban Design</p> <p>Address: 1F-CS-10, Ansal Plaza, Vaishali, Ghaziabad, Uttar Pradesh - 201010 Phone: 0120 412 5350</p>
<p>Prasanna Desai Architects</p> <p>Address: 13, Praniti Apartments, Baner Road, Aundh, Pune, Maharashtra 411007 Email: pdapuneindia@gmail.com Website: http://prasannadesaiarchitects.com/</p>	<p>Rocky Mountain Institute (RMI)</p> <p>Address: 22830 Two Rivers Road, Basalt, CO 81621 Email: outreach@rmi.org / execmgmt@rmi.org Website: https://rmi.org</p>
<p>Royal Institute of Chartered Surveyors (RICS)</p> <p>Address: 12 Great George Street, London, SW1P 3AD Email: contactrics@rics.org Website: https://www.rics.org</p>	<p>SELCO Foundation</p> <p>Address: #690, 15th Cross, JP Nagar, Phase-2, Bangalore -78 Email: info@selcofoundation.org Website: https://www.selcofoundation.org</p>
<p>Shakti Sustainable Energy Foundation</p> <p>Address: Capital Court, 104 B/2, Munirka, New Delhi -67 Email: aditi@shaktifoundation.in Website: https://shaktifoundation.in</p>	<p>Society for the Promotion of Area Resource Centers (SPARC)</p> <p>Address: #690, 15th Cross, JP Nagar, Phase-2, Bangalore Email: www.sparcIndia.org Website: www.sparcIndia.org</p>
<p>United Traffic & Transportation Infrastructure (Planning Engineering) Center (UTTIPEC)</p> <p>Address: #690, 15th Cross, JP Nagar, Phase-2, Bangalore Email: commr.plg@gmail.com Website: www.uttipeec.nic.in/</p>	

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