

# RESILIENT CHENNAI STRATEGY

## KALEIDOSCOPE

*My city through my eyes*



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*My city through my eyes*

## CHENNAI CITY RESILIENCE STRATEGY 2019

No single image or story captures the city of Chennai. Experiences overlap, refract and reflect to form an ever-changing collage of the city's struggles and triumphs.

Discover the city's many stories through the eyes of its people. Immigrants seeking work, students, industrialists, fisher folk, movie stars and scientists all living side by side. You will find today's Chennai is a kaleidoscope of traditional Madras and modern Chennai.

Classical and Contemporary, Rich and Poor, Acceptance and Aggression, Discipline and Disregard, Floods and Drought, Concrete and Greenery, all come together to give you a city with a history and a future.

This, then, is the path to building resilience in our city. When you plan for one, you plan for the other. When you make room for the river, you recharge ground water. When you resettle the poor, integrate them with the more affluent. When citizens talk of their rights, remind them of their responsibilities. Consolidate when you need to, decentralise where appropriate. Where there is blue, plan for green. Where there are silos, integrate.

As we move into the future, we need a city strategy that considers and respects these many truths, embracing diverse conditions and needs. A strategy that makes our city *enlightened, just, integrated*.



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100

RESILIENT CITIES



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Dear Reader,

I am pleased to present to you Chennai's Resilience Strategy on behalf of the city of Chennai. This comprehensive document is a result of a strong multi-stakeholder consultation process and has generated 86 actions and recommendations for us to collectively address as a society. We are sincerely grateful to all the citizens and experts from academia, the private sector, civil society and government, who have contributed to developing this robust resilience strategy. We have to now work towards the realization of this ambitious strategy.

We appreciate the Chief Resilience Officer Mr. Krishna Mohan Ramachandran and his team for strengthening the understanding of resilience throughout the city. The strategy process began with the Preliminary Resilience Assessment of the city, which my predecessor Dr. D. Karthikeyan, I.A.S. oversaw. He poignantly noted that,

*“The city of Chennai and the people of Chennai have shown remarkable resilience over the years. It is ingrained in the soul of our city.”*

Our people continue to remain some of the most resilient in the world as we collectively face the shocks and stresses posed by nature.

The resilience strategy identifies healthy and planned urbanization, and our water system, as two key priority areas and pillars. Some of our ongoing resilience building efforts such as water bodies restoration and decentralized composting units have been highlighted in this document, and I can assure you that we are making significant progress.

The Greater Chennai Corporation (GCC) has prioritized protecting and strengthening its green and blue assets to ensure that investing in resilience delivers for our future generations. GCC maintains 210 water bodies, and after the 2015 floods, we have taken up office and campus rainwater harvesting, restoration and rejuvenation of our traditional temple tanks, ponds and lakes, in order to recharge groundwater and accommodate flood water.

At present, the restoration work of around 52 water bodies has been taken up at a cost of Rs. 18.20 crores, and Villivakkam Tank (25 acres) is being restored for Rs. 16 crores utilizing funding from Chennai Smart City Ltd. We have signed MoUs with various NGOs and the private sector to restore 28 water bodies at a cost of Rs. 9.78 crores. The restoration and rejuvenation of 94 water bodies will be taken up in 2019-2020 at a cost of Rs. 60 crores. On completion of all the projects, around 1 TMC of water will be available to Chennai, and this will help increase the groundwater table in urban areas, and relieve water stagnation in various neighbourhoods.

In addition, the Honorable Late Chief Minister of Tamil Nadu, on the floor of the assembly during 2014, announced that the government would construct an Integrated Storm Water Drain network in extended areas of GCC under G.O. Ms. No. 1, MAWS dated 02.01.2015, at a cost of Rs. 4034 crores. We have nearly completed the Integrated Storm Water Drain network project covering a length of 405 km at a cost of Rs. 1261.70 crores funded by the World Bank in the Adyar and Coovum basins. GCC is currently raising funds for similar projects in Kosasthalaiyar and Kovalam basins. In addition, Rs. 500 crores have been spent to mitigate floods in the core Chennai city area since 2016. We are proactively taking steps to strengthen resilience in the city.

Related actions, some of which are outlined in the resilience strategy, can succeed if our citizens move from being observers to active citizenry. We are now witnessing a thriving civil society that is willing to partner with government to solve some of our society's greatest challenges such as solid waste management. After the 2015 floods, we have also observed a monumental increase in the number of volunteers who would like to help us with disaster relief efforts. Such partnerships and citizen efforts increase our confidence of a better future for all our citizens.

We recognize there are issues which require a deeper scientific understanding as highlighted in the strategy. For example, the strategy rightly highlights the need to be more sensitive towards climate change related risks as a threat to our city. To address this, we need to develop a better understanding of how global climate change may trigger sea level rise along our coast and how we may proactively minimize the negative implications of these processes to adapt to climate change. Therefore, to address such resilience challenges, I strongly believe there is tremendous potential for science and technology to inform our decision making.

Our goal is to make Chennai the most liveable city in the country and this resilience strategy will help us achieve that goal. We thank 100 Resilient Cities and the Rockefeller Foundation for supporting our city through this incredible journey, and most importantly, for building our understanding of resilience.

Sincerely,

**Commissioner G. Prakash**  
Greater Chennai Corporation



On behalf of the entire 100 Resilient Cities (100RC) organization, I would like to extend my congratulations to the City of Chennai, Commissioner Mr. G. Prakash, Former Commissioner Dr. D. Karthikeyan and Chief Resilience Officer Mr. Krishna Mohan Ramachandran on the release of this great city's first ever Urban Resilience Strategy. This effort is the result of two years of tireless effort of leaders, stakeholders and community members across the city, but particular thanks are due to Deputy Commissioner (Works) Mr. M. Govinda Rao, Chief Engineer (Storm Water Drain, Special Projects and Bus Route Roads Departments) Mr. Nandakumar, and his team at the Control Room of Greater Chennai Corporation for their oversight of the strategy process and for contributing their expertise. At 100RC we always say building resilience requires a team effort and Chennai's CRO Krishna Mohan had a dedicated team working with him to lay the foundation for this progressive work so I would also like to extend my thanks not only to Krish, but his team as well. Thank you, Arjun Bhargava, Dr. Ashwin Mahalingam, Dr. Parama Roy, Akshaya Ayyangar, Tushar Thakkar, and Ashwin Chandrasekharan.

Working to build resilience in a city as complex and as dynamic as Chennai is a daunting challenge. Chennai is an historic city. It is a megacity in the most urbanized state in the world's most rapidly urbanizing country. Chennai is diverse, prone to flooding and droughts, has vast informal settlements and has outgrown much of its critical infrastructure. However, even in the face of these challenges, we have seen a commitment to resilience in Chennai that rivals any city in our network. This strategy is built on the foundation of a robust multi-stakeholder process that identified critical actions not only for government to take, but also for civil society and citizens to ensure that the whole city is working together to build a more resilient future. In Chennai's leadership we have also seen a strong desire to learn from peers and share knowledge around the world. So far, Chennai's resilience journey has included stops in New Delhi, Addis Ababa, New York and Singapore.

This strategy maps a path to healthy and planned urbanization, a water system that serves and protects the whole city, disaster readiness, and inclusion and equity for Chennai's most vulnerable communities. And while the strategy presents a holistic picture of what this great city can be, I would like to call out the work that Krish and his team have done in making sure this strategy reflects the needs of and gives a voice to Chennai's most vulnerable. This Resilience Strategy is world class and I am looking forward to seeing how it evolves in the years to come. This document, however, is just the start; the urgent and important task lies ahead in implementing these actions and I know that Chennai is committed to this change. I invite all of Chennai's citizens to continue to make your voices heard by working together to bring this work to life.

Sincerely,

**Michael Berkowitz**  
President, 100 Resilient Cities

This is a defining moment in Chennai's 400-year-old history. We are the first among all of India's mega cities to have crafted a resilience strategy that puts forward a blue print to help our city adapt, change, nurture and grow, despite the stresses and shocks a thriving, rapidly urbanising city can encounter.

Our journey in Chennai began in 2014 and the process of building a Resilience Strategy gained traction in 2017. This involved deep engagement with over 3000 stakeholders via working group meetings, workshops, one-on-one interviews, online and offline surveys, and with students from 5 universities. Our Resilience Strategy consists of five pillars, 17 goals, and 86 distinct interventions. It is a high level and comprehensive document that addresses a range of resilience issues, with examples from the 100RC member cities and from within our own city that serve as inspiration to mitigate these challenges.

We have a vision of a city that revives our deep historical relationship with water and grows into its water basins and suburbs by protecting and preserving our water bodies as an integral and priceless part of our urban fabric. A city that embraces its vulnerable communities and treats them as key stakeholders in resilience building. A city whose leadership and governance have a 'big picture' view to make informed, coordinated, and more efficient decisions; where learnings are institutionalized and healthy engagement between and within stakeholder groups results in improved outcomes and greater impact. A cleaner, greener Chennai!

I would like to call out four projects that evolved from our strategy process which have the potential to transform our city. First, the Urban Horticulture project initiated with the University of British Columbia will now be scaled-up into a city-wide project and comes with a host of benefits for our city. Second, the Water as Leverage project, led by Mr. Henk Ovink, the Special Envoy for International Water Affairs from the Kingdom of Netherlands, has the potential to reshape our city's ability to absorb, store and manage our water. Third, an initiative to create an in-situ upgradation model for informal settlements close to a waterway in Chitra Nagar will make us a more inclusive city. Finally, the Data Observatory will help our leadership make better informed decisions.

While these and other projects in this Resilient Chennai Strategy have the potential to bring about transformative change in our city, I must end with a message that I have come to believe in more strongly than ever: that in order to bring about positive change and build a more resilient Chennai, we, as a people, must become more resilient ourselves; we need to meaningfully engage with civic issues, to believe that our voices do matter, to have a sense of ownership and responsibility towards our city. We must keep cynicism at bay and take small steps or make giant leaps towards a more resilient future.

Inclusive, environmentally sustainable, economically viable, and culturally vibrant. This is OUR Chennai. **Enlightened. Just. Integrated.**

Sincerely,

**Krishna Mohan**  
Chief Resilience Officer (CRO), Chennai



common city shocks and stresses with concerted and holistic efforts. For example, while the Sustainable Water Security Mission was launched in September 2015, it gained momentum only after the December 2015 floods. The mission aims at leveraging public, private, and civic resources to restore water bodies and meet the city's water demand by prioritizing activities such as recycling and rain water harvesting.

Chennai selected its Chief Resilience Officer, Mr. Krishna Mohan Ramachandran, in 2017, through a Memorandum of Understanding signed between the Greater Chennai Corporation and 100 Resilient Cities in 2017. His team leveraged this rising awareness and interest among city stakeholders to work with over 3,300 Chennai residents, experts, activists and government officials to develop this document, the Resilient Chennai Strategy.

This document offers a pathway for city leaders from government, civic and industrial sectors to collaborate and guide their organizations to ensure the future resilience of Chennai citizens and infrastructure, both natural and man-made, to respond to key shocks and stresses in the city.









The Resilient Strategy is driven by a collectively-defined vision to make Chennai *enlightened, just and integrated* through five missions that address the key challenge areas identified by stakeholders.

Each mission's goals will be achieved through a range of actions and recommendations, some of which are already under way, while some are being planned and others are still ideas inspired by 100RC network cities. With over 80 such interventions across five key thematic areas, the Resilient Chennai Strategy is an ambitious document that presents actionable, tangible and feasible initiatives, along with some relatively challenging, longer-term, transformative efforts to build Chennai's resilience.

With faith in Johann Wolfgang von Goethe's saying,

**“** *What is not started today is never finished tomorrow,*”

the city of Chennai is ready to take the leap towards a resilient future.

|                                |   |  |   |   |   |
|--------------------------------|---|--|---|---|---|
| HEALTHY & PLANNED URBANISATION |  <p><b>MISSION 1</b><br/><i>Urbanising responsibly</i></p>                                | <p><b>GOAL 1.1</b> FOSTER RESILIENCE THINKING WITHIN THE URBAN PLANNING PARADIGM SO THAT AN INTEGRATED APPROACH IS USED TO ADDRESS ENVIRONMENTAL CONCERNS THROUGH POLICY AND DESIGN.</p> | <p><b>GOAL 1.2</b> ADDRESS SOLID WASTE RELATED CHALLENGES MORE EFFECTIVELY.</p>                                   | <p><b>GOAL 1.3</b> ENCOURAGE A MORE MULTI-STAKEHOLDER DRIVEN URBAN PLANNING PROCESS.</p>  | <p><b>GOAL 1.4</b> PROMOTE TRANSIT-ORIENTED DEVELOPMENT TO MAKE CHENNAI A WELL-CONNECTED, PEOPLE AND ENVIRONMENT-FRIENDLY CITY.</p>                                     |
| WATER SYSTEMS                  |  <p><b>MISSION 2</b><br/><i>Carving a resilient future around our water resources</i></p> | <p><b>GOAL 2.1</b> FOSTER RESPONSIBLE WATER USAGE.</p>   |                                | <p><b>GOAL 2.2</b> GIVE PRIMACY TO WATER RELATED CHALLENGES IN URBAN DESIGN EFFORTS.</p>  | <p><b>GOAL 2.3</b> ENSURE BETTER COORDINATED EFFORTS BETWEEN PUBLIC, PRIVATE AND CIVIC AGENCIES TO RESTORE AND PROTECT WATER BODIES (INCLUDING THE SURVIVING ERYS).</p> |
| DISASTER PREPAREDNESS          |  <p><b>MISSION 3</b><br/><i>Making Chennai a prepared city</i></p>                        | <p><b>GOAL 3.1</b> LEVERAGE DATA AND TECHNOLOGY TO COPE WITH DISASTERS MORE EFFICIENTLY.</p>   | <p><b>GOAL 3.2</b> SPECIFICALLY ADDRESS CHALLENGES FACED BY VULNERABLE GROUPS LIVING IN DISASTER PRONE AREAS.</p> | <p><b>GOAL 3.3</b> SUPPORT SMALL AND MEDIUM SCALE BUSINESSES THROUGH A COMBINATION OF ECONOMIC AND NON-ECONOMIC MEASURES TO HELP THEM COPE BETTER WITH DISASTERS.</p> | <p><b>GOAL 3.4</b> BUILD CAPACITY ACROSS GOVERNMENT &amp; COMMUNITY TO BE BETTER PREPARED IN THE EVENT OF DISASTERS.</p>  |
| GOVERNANCE ECOSYSTEM           |  <p><b>MISSION 4</b><br/><i>Together, we lift Chennai</i></p>                           | <p><b>GOAL 4.1</b> IMPROVE EFFICIENCY TO HANDLE RESILIENCE CHALLENGES BY ENABLING KNOWLEDGE TRANSFER ACROSS GOVERNMENT AGENCIES.</p>   | <p><b>GOAL 4.2</b> STRENGTHEN CURRENT PRACTICES OF ENFORCEMENT AND MONITORING.</p>                                | <p><b>GOAL 4.3</b> FOSTER AN ENVIRONMENT WHERE GOVERNMENT, CITIZENS AND MARKET INTERESTS CO-BUILD THE CITY'S RESILIENCE.</p>  |    |
| VULNERABLE COMMUNITIES         |  <p><b>MISSION 5</b><br/><i>Valuing the city's vulnerable</i></p>                       | <p><b>GOAL 5.1</b> BRING DIVERSE VULNERABLE COMMUNITIES INTO MAINSTREAM POLICY MAKING BY IDENTIFYING THE DIFFERENT GROUPS AND THEIR NEEDS.</p>   |                              | <p><b>GOAL 5.2</b> ENSURE THE INTEGRATION OF VULNERABLE GROUPS INTO THE URBAN FABRIC, WHILE MEETING BASIC NEEDS FOR ADEQUATE HOUSING.</p>                             | <p><b>GOAL 5.3</b> ENSURE A MORE HUMANE PROCESS OF PROXIMATE RESETTLEMENT OF INFORMAL SETTLERS WHEN NO OTHER OPTION EXISTS.</p>   |



Left: © Aravindan Ganesan, Fishermen, Marina | Bottom: © Vinoth Chandar - Happy friends, Royapettah

From a cluster of fishing villages in the 16th Century to the fourth largest metropolitan area in India today, Chennai has come a long way. The city's economy boasts a GDP of \$58 billion and a growth rate of 6%. Chennai's economy has diversified substantially over the past two decades. It now includes the automobile and Information Technology industries, the healthcare industry, financial services, post-secondary educational institutions and a manufacturing sector producing various types of hardware. The city is a key player in the state and national economies: it contributes 60% to Tamil Nadu's manufacturing sector and produces 60% of India's automotive exports. Furthermore, as India's 'software as a service' capital and the most preferred destination for medical tourists from within India and abroad, Chennai has achieved important global status.

This trajectory of development and diversification has made the city vibrant and cosmopolitan. However, it has also invited a range of challenges, including uneven development, which has aggravated risks faced by vulnerable communities, rapid and unplanned growth, which has resulted in water body encroachment, waste mismanagement and an increased impact of natural disasters. Compounding all of this is the nature of Chennai's governance system; the system tasked with addressing these myriad and interconnected challenges is characterized by multiple actors with overlapping and sometimes unclear mandates and jurisdictions.

## executive summary

Chennai was selected in 2014 as one of the second cohort of cities for the 100 Resilient Cities (100RC) programme. Pioneered by The Rockefeller Foundation, the 100RC programme

“...help(s) cities around the world become more resilient to the physical, social and economic challenges that are a growing part of the 21st century.”

Chennai's partnership with 100RC has provided the opportunity to start addressing challenges in a holistic manner and incorporating resilience thinking into the city's future development path.

A major flooding event in Chennai in 2015 added momentum to this development. It led to a new recognition among government, civil society and academia about the critical nature and extent of interconnectedness of the city's challenges. There was also a new awareness that crises like floods and droughts were becoming increasingly frequent. Thus, post 2015, Chennai began to actively address

*Resilience thinking in policy and projects help build "the capacity of individuals, communities, institutions, businesses and systems within a city to survive, adapt and grow, no matter what kinds of chronic stresses and acute shocks they experience."*



## Resilient Chennai Vision

*Enlightened. Just. Integrated.*

Our city leaders and citizens will think holistically, ecologically and with foresight, as well as act proactively and smartly to manage and respond to risks and vulnerabilities. We will leverage the linkages between urban, socio-cultural, economic and environmental development. We will be sensitive to the needs of those who are disadvantaged and will think and plan ahead of time to build a cleaner, greener, more liveable and inclusive city.

*Enlightened:* A city that revives our deep historical relationship with water and expands into our water basins and peri-urban areas by protecting and preserving our water bodies as an integral and priceless part of our urban fabric; where citizens take ownership and engage with civic issues to create public spaces that bring joy and pride, strengthening the city's vibrant cultural identity; a city that cultivates champions of change in schools and colleges by teaching our youth to respect the natural world, embrace diversity, live sustainably and believe that their voices can be heard and do matter.

*Just:* A city that embraces its vulnerable peoples and treats them as key stakeholders in resilience building, who contribute and benefit from resilience strategies; where participatory planning protects multiple interests and visions; a city designed to be equitable and inclusive, ensuring that the needs of all sections of society are met.

*Integrated:* A city whose leadership and governance have a 'big picture' view to make better informed, more efficient decisions; where learnings are institutionalized and healthy engagement between and within stakeholder groups results in streamlined, integrated systems leading to improved outcomes with greater impact.

Inclusive, environmentally sustainable, economically viable, and culturally vibrant. This is OUR Chennai...

*Enlightened. Just. Integrated.*

# 68

## Incentives and competitions to induce citizen responsibility

**TIMEFRAME** Short term | **STATUS** New / Proposed

The city can explore various ways of incentivising citizens to engage in and take ownership of their wards and neighbourhoods. Incentives could be in the form of gift vouchers for citizens who, for instance, plant and maintain the largest number of trees in their neighbourhood or for secondary school children who help direct traffic around their school (if the school is in a neighbourhood with less traffic). Competitions could also be conducted in schools, wards and neighbourhoods including for best street art design, cleanest school or ward, most energy/water efficient school/ ward, etc., to encourage citizens to take greater interest and responsibility managing their own surroundings.

### KEY PLAYERS

GCC departments such as SWM and education, RWAs, local NGOs, school authorities

### RESILIENCE LINKAGES

Promotes cohesive and engaged communities;

### RESILIENCE CO-BENEFITS

This project would help monitor and enforce existing laws around solid waste and water and make the city cleaner (Governance Ecosystem - Goal 4.2 & Healthy Urbanisation - Goal 1.2). It will also help foster more responsible water usage and induce water conservation among citizens (Water Systems - Pillar 2).



### CHENNAI INSPIRATION: Eyes on the Canal

The 800 km Buckingham Canal, built in phases between 1800 and 1882, is a manmade, saltwater, navigation canal that runs parallel to the Coromandel Coast, connecting the three rivers (Kosasthalaiyar, Cooum, and Adyar) that flow through Chennai. Although the canal was once an idyllic water body with lush, green edges capable of managing floodwaters. Today it faces severe pollution from untreated sewage and solid waste, and has been severely encroached upon, compromising its width and carrying capacity over long stretches within the CMA.

*Eyes on the Canal*, facilitated by GIZ India and Urban Design Collective, was an exercise in participatory planning to make Buckingham Canal a liveable place for the residents of Chennai. The initiative involved various activities such as awareness walks, community engagement meetings and an open-ideas competition to generate interest and ownership of the canal. From November 2018 to March 2019, the three winners of *Eyes on the Canal's* design competition — *Team Sponge*, *Team Studio POD* and *Team Blank Slate* — developed project proposals through a series of stakeholder engagements. Their concepts have been compiled into three reports, which will inform future efforts to revive 3.5 km of Buckingham Canal.

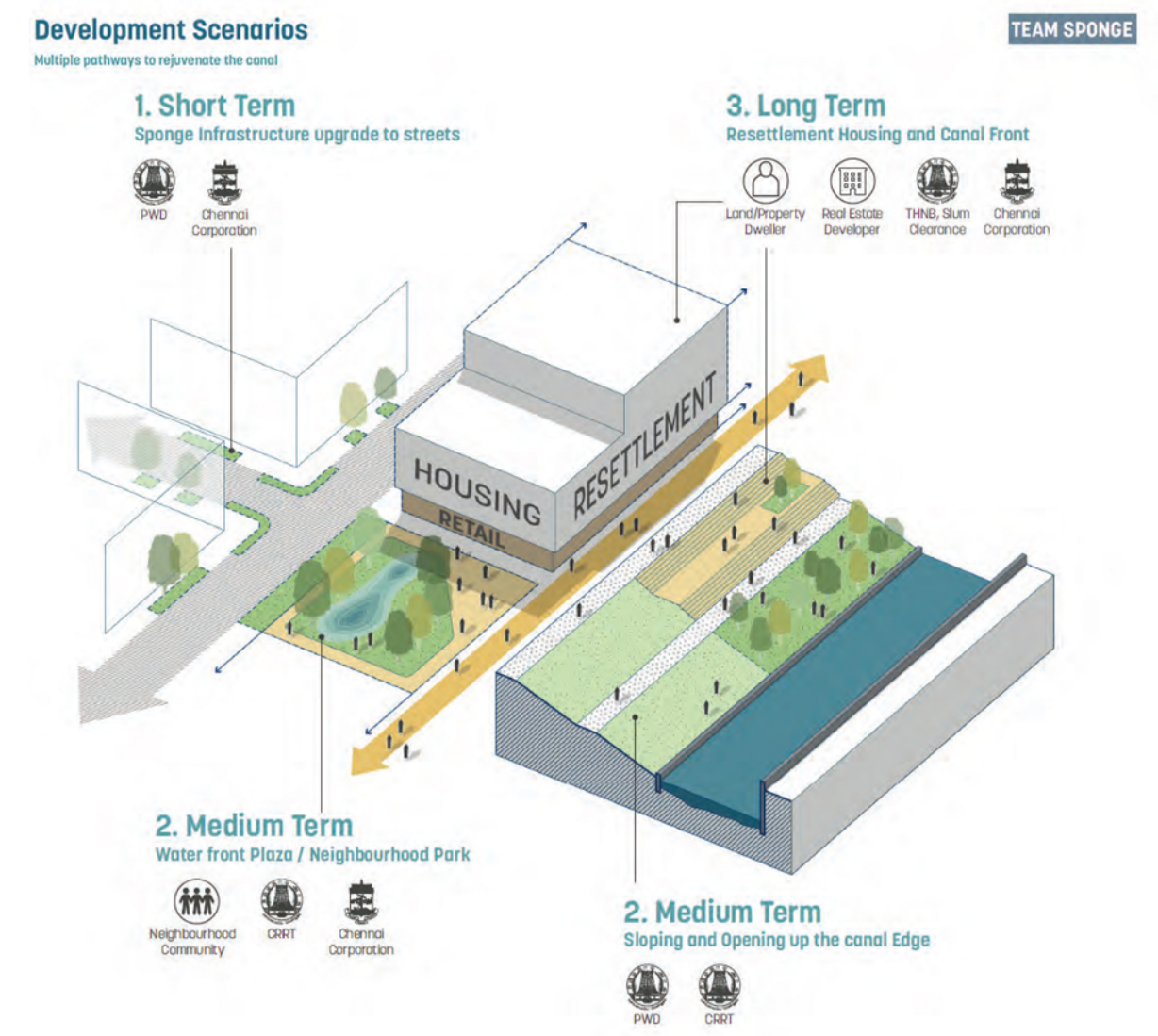


Figure 20: Development scenarios for Buckingham Canal rejuvenation  
Source: Team Sponge | Eyes on the Canal



# 69

## Adoption programme

**TIMEFRAME**  
Short term

**STATUS**  
Pilot  
(Needs scaling-up)

The city will consider instituting an adoption programme which encourages community, private or collective adoption of public spaces such as parks, lakes or roads. This initiative can function like the Vandalur Zoo's "animal adoption" programme, where the interested party pays for operation and maintenance, which in turn is administered by the GCC. Interested parties can also contribute by offering volunteering time, technical skills, equipment, etc.

**KEY PLAYERS**

GCC

**RESILIENCE LINKAGES**

Empowers a broad range of stakeholders;

Promotes cohesive and engaged communities;

**RESILIENCE CO-BENEFITS**

This project would help make the city cleaner (Healthy Urbanisation – Goal 1.2). It will also help to keep water bodies clean (Water Systems – Pillar 2).



### CHENNAI INSPIRATION: Swachh ('Clean') Beach Project, Thiruvanmiyur

*In 2015, New Beach Road, a densely populated area of one sq. km by the Thiruvanmiyur beachfront was chosen by Rialto Enterprises, a Chennai based global business partner of Procter & Gamble Co. for its CSR initiative - the Swachh ('Clean') Beach project. The project aimed to transform the beach front by bringing together the local residents, Greater Chennai Corporation, Ramky Enviro (contracted Municipal Waste Collector), Chennai Traffic Police, Tamil Nadu Electricity Board, CMWSSB and the Forest Department. This project has tackled issues of solid waste management by monitoring waste collection by setting up more bins, and mitigated flooding by redirecting storm and rain water from roads to ground water recharge pits consequently raising the water table. Furthermore, Rialto has, planted hundreds of tree saplings and ornamental shrubs along walk ways, ensured that the area is well-lit by erecting two high-mast lights and replaced LEDs in existing street lamps, and constructed (and currently maintains) two free bio toilets on the beach. At the end of 2015, The Swachh Beach project was recognized by the Prime Minister's Office (PMO) as one of the 'six most dynamic Swachh Bharat citizens' projects'. Further, in 2017, a team from the PMO paid another surprise visit to the area and reported that not only was the project alive, it had grown even more robust since the team's first visit, two years earlier.*



# 70

## Creating awareness around civic issues



**TIMEFRAME**  
Short term

**STATUS**  
Ongoing  
(Needs strengthening)

A city wide awareness campaign will be launched to raise awareness on important civic issues such as rainwater harvesting (RWH), using non-motorised modes of transport, sustainable solid waste management and the ban on plastics. Innovative methods will be used to reach out to and raise interest among a wide audience. These methods will include:

- Developing digital and outdoor public service announcement (PSA) campaigns to increase awareness around water conservation in Chennai. These campaigns will include evocative posters on why water conservation is important, pasted to the back panels of buses and other spaces;
- Leveraging radio and social media to disseminate information to the public, put up ads and understand people's opinions through listener polls;
- Introducing advertisements in Tamil and English on popular TV channels and in cinema halls, including announcements in sign language wherever appropriate;
- Putting up posters in different parts of the city, and especially in prime locations (e.g. beach, signals, malls, temples) on the plastic ban, along with fine amounts;
- Conducting cultural programmes such as 'theru koothu' (street dramas) and music and dance concerts to mobilise people and make them think about how they contribute to and can impact city problems.

### KEY PLAYERS

GCC, Resilient Chennai, Ogilvy, Tinacca Media and Rubecon Communications, CAG

### RESILIENCE LINKAGES

 Empowers a broad range of stakeholders;

 Promotes cohesive and engaged communities;

### RESILIENCE CO-BENEFITS

This action can help make the citizens more responsible for keeping the city clean, reducing their water usage and abiding by rules and regulations (Healthy Urbanisation – Goal 1.2, Water Systems – Pilar 2, Governance Ecosystem – Goal 4.2).



### CHENNAI INSPIRATION: Work by Citizen consumer and civic Action Group (CAG)

CAG is a non-profit, non-political and professional organization that has been “protecting citizens’ rights in consumer and environmental issues and promoting good governance processes including transparency, accountability and participatory decision making” in Chennai, since 1985. Their focus areas are, electricity governance, environment and climate change, water, sanitation and drainage, solid waste management, sustainable transport, informal settlements, consumer protection, and city governance. Some of their early achievements include, cleaning the Adyar river in 1988; creating a Joint Action Forum for Safety on Roads in 1989; and stopping development of the East Coast Road as it involved cutting trees in 1993. While, more recently, they have (among other things), conducted public campaigns to urge vehicle owners to check emissions; conducted environmental impact assessments of thermal power plants; developed draft rules to curb promotional practices of pharma companies under the Drugs and Cosmetics Act and launched a ‘right to the city’ movement. Further, in May 2019, CAG conducted a wide spread door-to-door campaign in three areas of the city –Adyar, Anna Nagar and Royapuram– to convince to residents to segregate their waste, in association with GCC.



# 71

## Introducing community service in school curricula



**TIMEFRAME**  
Short term

**STATUS**  
Ongoing  
(Needs scaling-up)

The city can work with private and government schools to get children more involved in street and community activities. This could include fostering collaborations with local NGOs who can guide children in their activities. Such activities could include campaigning for water conservation or a clean city, conducting blood donation camps, planting trees in neighbourhoods, or street cleaning. These community service activities can be organised by school "interact clubs".

**KEY PLAYERS**

Educational institutions, Rotary and Lions clubs, GCC

**RESILIENCE LINKAGES**

Empowers a broad range of stakeholders;

Promotes cohesive and engaged communities;

**RESILIENCE CO-BENEFITS**

This project can help make the city cleaner (Healthy Urbanisation – Goal 1.2). It can also help foster more responsible water usage and induce water conservation among citizens (Water Systems – Pillar 2).

# 72

## Platform for collective-action best practices



**TIMEFRAME**  
Short term

**STATUS**  
Ongoing  
(Needs strengthening)

A website can be developed to highlight best practices around participatory governance and collaborative efforts around Chennai city civic issues. This website will act as a repository of best practices, categorized according to specific themes such as water, waste, disasters and responsible citizenship. The website will be linked to water sensitive urban design<sup>xxxviii</sup> website and the urban data observatory.

**KEY PLAYERS**

CSR, NGOs/civil society organisations, GCC

**RESILIENCE LINKAGES**

Empowers a broad range of stakeholders;

**RESILIENCE CO-BENEFITS**

This action could potentially encourage more coordination and collaborative governance across sectors such as water, transport and solid waste (Water Systems – Pillar 2, Healthy Urbanisation – Pillar 1).

### CHENNAI ASPIRATION: Chemai Against Plastics Website (CAPS)

The CAPS website was launched in January 2019 to create awareness about the impact of unsustainable solid waste management practices and how citizens can do their bit to contribute to a greener future. However, thus far, it has generated little interest among city residents, as it lacks information on ongoing efforts and how citizens can reduce their solid waste footprint. Therefore, CityWorks (Resilient Chennai's implementation partners) will collaborate with the founders of CAPS to strengthen the existing website. It will do so by not only bridging the gap between citizens who want to make a change in SWM but lack the the knowledge or know-how to do so, but also help citizens realize that resources and knowledge base already exist in the city, and that with the help of these resources, small steps can be easily taken to address the challenge. This project will be facilitated by Resilient Chennai, and is likely to begin soon.



[www.chemaiagainstplastics.com](http://www.chemaiagainstplastics.com)

<sup>xxxviii</sup> Action 35, Goal 2: Giving primacy to water related challenges in urban designing efforts, Resilient Pillar: Water systems.

# 73

## Expand reach of the Joint Secretary Programme to build government capacity

 **TIMEFRAME**  
Long term

 **STATUS**  
New / Proposed

The central government's Joint Secretary Programme allows for the appointment of professionals outside the government as joint secretaries<sup>xxxix</sup>. The aim of the programme is to bring in experts from varied sectors and with different experience to help with decision-making and provide innovative, out-of-the-box ideas for complex governance issues. The city could work with the State Government to introduce this programme for the Chennai Metropolitan Area. These outside experts would represent different fields, such as the corporate sector, and will hold a joint secretary position to Indian Administrative Service officers. The role of joint secretaries would be to assist secretaries in their functions, including advising elected representatives (ministers) on all matters of policy and administration pertaining to their department. The programme would enable creative exchange of ideas while also making experts understand challenges associated with governance.

**KEY PLAYERS**

GCC, HUD, Municipal Administration and Water Supply Department

**RESILIENCE LINKAGES**

 Fosters long term & integrated planning;  
Empowers a broad range of stakeholders;

 Ensures social stability, security and justice;

**RESILIENCE CO-BENEFITS**

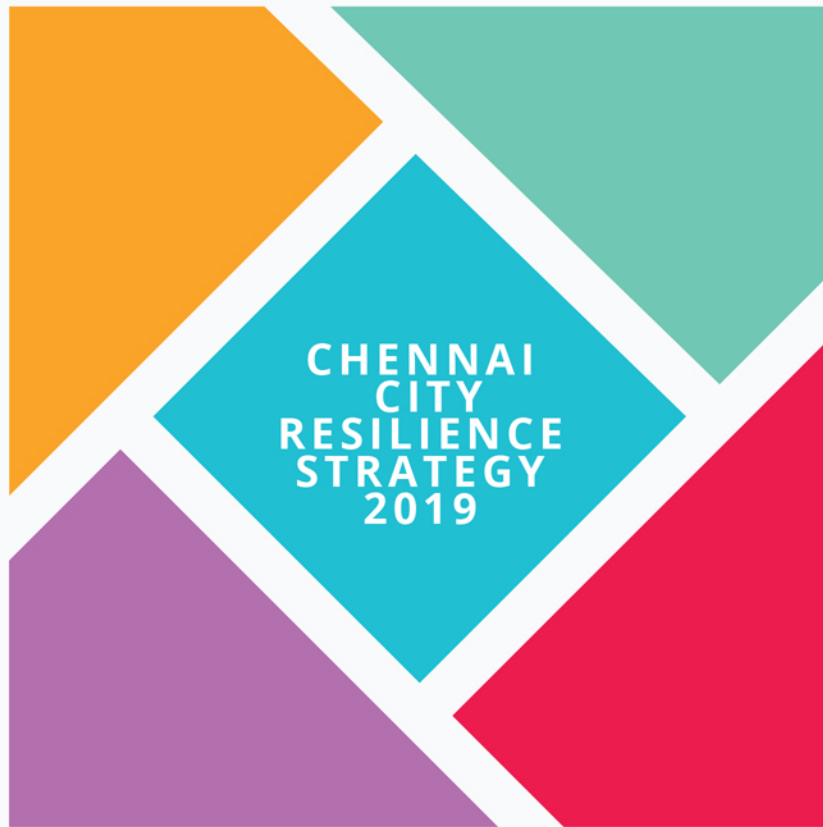


This project could potentially involve different actors from private sector and civil society in the governance process, thereby making it more participatory (Healthy Urbanisation – Goal 1.3).

<sup>xxxix</sup> The central government has appointed 9 professionals from fields including aerospace, energy, agriculture and financial services to join respective ministries on a contractual basis, to bring in a fresh perspective on policy making.



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