

URBAN *Innovations*

TRANSFORMATION OF SURAT From Plague to Second Cleanest City in India

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TRANSFORMATION OF SURAT

From Plague to Second Cleanest City in India

H.M. Shivanand Swamy¹, Anjana Vyas², Shipra Narang³

The city of Surat has achieved a remarkable transformation as one of the cleanest cities in India in less than two years after the plague of December 1994. This transformation was largely due to improved municipal management, which was brought about by a strong leadership. Its initial success led to a widespread support among the local population and provided motivation for the municipal staff and the elected representatives to make further improvements in the city. The Surat experience has demonstrated that urban local governments in the developing countries have the capacity to face the challenges of rapid urbanization and improve the quality of life of all the residents. This publication describes the various initiatives taken by the Surat Municipal Corporation in the last two years.

Under the activities of the Urban Management Programme for Asia and the Pacific, stakeholders' consultations are being held in Surat. It is expected that the present efforts of the city government will be further consolidated through concerted efforts of all the stakeholders.

The city of Surat in Gujarat, India is known for its textile trade, diamond cutting and polishing industries and, since 1994, for the Plague. The outbreak of pneumonic plague in Surat during September 1994 created worldwide panic and severely affected the city as well as the entire nation's economy. About 60% of the population fled the city and the industry suffered an estimated loss of Rs. 12 Billion. Though the disease was controlled within a week, it raised many serious issues of public health and the capacity of the local government to manage the city.

Subsequent to the Plague of 1994, the city authorities undertook one of the most massive clean-up operations in recent times and also revamped the entire administration of the city. Within two years, Surat had been transformed from the one of the filthiest cities to the second cleanest city in the country. What made this transformation possible? What are the steps that the local government has taken to improve its own performance efficiency? How was a system for more responsive urban governance developed? Most importantly, what are the measures required to sustain these changes over a longer period of time? This paper attempts to answer these questions and more. While the current efforts of Surat Municipal Corporation are laudable, the critical issue is definitely the sustainability of these efforts. In most

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Indian cities, the driving force behind any major changes is the local government, and there does not exist a framework that provides for participation of people. The present paper draws from the Surat experience to suggest ways and means to involve the people in urban governance.

Urban Growth and Development

Surat is situated in south Gujarat, 250 Kms north of Bombay, on the banks of river Tapi. Historically flourishing businesses centre, the city's prosperity declined in the early 19th Century due to the growth of Bombay. In the post-second World War period, however, after a considerable period of stagnancy, Surat started to regain much of its former importance as a major centre of industry and trade in Western India. Since early 1960s, it is one of the fastest growing cities in the country. Its population has increased more than four times in the last three decades, from 3.17 lakhs in 1961 to nearly 1.5 million in 1991 (Table 1). It is expected to be about 2.6 million in the year 2001.

Table 1: Population Growth of Surat, 1951-97

Year	Population (millions)	Average Annual Growth Rate (%)
1951	0.223	-
1961	0.288	2.9
1971	0.471	6.5
1981	0.776	6.5
1991	1.498	9.3
1997	1.800	3.4

Source: SMC Draft Report on Feasibility Study for Water supply and Sewerage Project, Price Waterhouse, 1997

Much of the city's rapid population growth has been caused by in-migration of industrial workers attracted by the city's economic development, particularly the rise of the small-scale industry sector. Within this, the power-loom industry has the maximum number of migrant workers from other states of India, while the workers in diamond industries are mostly from within the state. As a consequence of growing in-migration, the local population has been reduced to a minority, constituting only 40 percent of the city's total population. In the slums, 80 percent people are immigrants, mainly from the adjoining state of Maharashtra.

City Profile

Area	: 111.55 Sq. Km.
Population	: 1.8 Million
Decadal Growth Rate (1981-91)	: 93%
Occupational Structure	: Primary – 1.87%, Secondary – 61.38%, Tertiary – 36.75%
Main Industries	: Power Looms, Dyeing & Printing Mills, Diamond Units, Zari (Brocade) units
Access to Piped Water Supply	: 34.6% area, 66% population
Access to Underground Drainage System	: 29.16% area, 61% population
Percentage solid waste collected	: 40% (before '95), 97% (after '95)
Percentage population living in Slums	: 40% (Approx.)
No. of Slum Pockets	: 360

In addition to natural growth and in-migration, the city's population has also increased due to expansion of the city's limits. From 21.93 sq. km in 1963, the city limit has now expanded to 112.27 sq. km. In 1966, when the Surat municipality was accorded the status of a Corporation, its boundaries were extended to include the surrounding villages such as Athwa, Adajan, Rander and Katargam. In the 1980s, city limits were further extended to include areas such as Udhna and Pandesara, which are important industrial pockets today, and some more areas.

Table 2: Expansion of City Limits, 1963-1994

Year	Area (sq. Kms.)	Times Increased (Base 1963)
1963	21.93	1.00
1971	33.78	1.54
1975	55.56	2.53
1986	111.16	5.07
1994	112.27	5.12

Source: SMC Draft Report on Feasibility Study for Water supply and Sewerage Project, Price Waterhouse, 1997

For administrative purposes, the city is divided into six zones. More than one-fourth of the city's population resides in the Central Zone, which mainly consists of the old city. The southwestern zone is the most thinly populated. The average density of population in the city is 13,483 persons per sq. km. The central zone is the most densely populated with nearly 52,000 persons per sq. km.

The Industrial Boom

Surat is an industrial boomtown with most of its working population mainly engaged in the small-scale industry sector. The silver and gold brocade (*zari*) industry, embroidery, and weaving of textiles in Surat have a 300-year old history. After an initial setback in the early nineteenth century due to the influx of Japanese and European goods, the *zari* industry was revived in the early years of the present century. Since the 1980s, the industry has flourished again due to growing exports.

Textiles: The mainstay of the city's economy

The traditional handloom weaving industry, however, has given way to power-looms, printing, and dyeing of textiles. The Government of India's policy since 1956 of providing incentives and protection to the small-scale industry sector boosted the power-loom industry in Surat. Weavers began to take advantage of the incentives and converted their handlooms into power-looms. The number of looms has increased rapidly since the 1960s (Table 3). The establishment of industrial estates on the city's periphery provided the necessary infrastructural facilities to small entrepreneurs and gave an impetus to the power-loom industry. The prolonged textile strike in Bombay in the early 1980s further boosted the industry in Surat. The growth rate of looms was 21 percent in the 1970s and 33 percent in the 1980s. In 1993, there were about 2.5 lakh looms in the city. Today, the city is one of the largest centres in the world for production of synthetic fiber fabrics, mainly nylon and polyester. In fact, the most distinctive feature of the city's industrial structure is its near-total dependence on the synthetic textile sector, which accounts for 41 percent of the total factories and 47 percent of the industrial workforce in the city.

Table 3: Growth of the Power-loom industry in Surat, 1950-1990

Year	No. of Looms
1950	2,282
1960	8,105
1970	19,025
1980	25,488
1990	2,00,000

Source: Ghanshyam Shah (1997)

Diamond cutting and polishing

Surat is also one of the largest diamond cutting and polishing centres in the country, which is yet another important small-scale sector industry. Under the Import Replenishment Scheme introduced by the Government of India in 1958, diamond traders were allowed to import roughs from DTC (Diamond Trading Corporation, London) and other sources abroad, against the export of cut and polished diamonds. Added support came from the across-the-board encouragement being given to all small-scale industries during this time. By the late 1950s, about 100 diamond cutting and polishing units had been set up. With the setting up of the Gems and Jewelry Export Promotion Council in 1966, diamond exports received a further impetus and consequently, the number of cutting and polishing units also increased. In the early 1970s, there were about 1,200 units, employing 20,000 workers. In the early 1990s, the number of units was estimated at 13,000, providing employment to more than 100,000 workers.

Large-scale industries: Recent industrial development in and around Surat

Significant development of large-scale industries has also taken place within and around the Surat metropolitan area in recent years, and a number of units manufacturing chemicals and plastics have come up. Some of the major industries that have come up in and around Surat such as a major port at Hazira, petro-chemical refinery, natural gas, cement, steel plant etc., with a total investment of about Rs. 1,00,000 million. Since they are capital-intensive industries, however, their potential for employment is limited. These industries are together estimated to employ only about 5,500 persons. However, the ancillary industries and other related activities are likely to exacerbate further pressure on the infrastructure and services in Surat.

Services and Infrastructure

The rapid population growth in Surat has caused several management problems for the city government. The Surat Municipal Corporation is responsible for provision and maintenance of the entire range of civic infrastructure and services in the city, including water supply systems, sanitation and drainage facilities, solid waste collection, and disposal. The development of the city and its infrastructure has not kept pace with the increase in population and inadequate planning has resulted in haphazard growth in the fringe areas. Less than 35% of the city's population has access to piped water supply, and the amount of water supplied per capita is only about 75 litres per day. The covered drainage system introduced in 1957 was meant to

serve a population of only 3 lakhs. With expansion of the city, in 1991 it served only 33% of the city's population. The sewerage network covers less than 30% of the city's area. Only two zones out of six have treatment facilities, and the remaining sewage flows untreated into the disposal site.

Surat's Success Story of Urban Management Innovation

Historically, Surat City was known for its filthiness, a city "floating on sewage water". Over forty percent of its population lives in slums, most of which have no drainage system whatsoever. The dirty water flows and stagnates around the houses, particularly in the monsoon when low-lying areas are prone to waterlogging. Consequently, the city has always been a fertile ground for epidemics of water-related and water-borne diseases such as malaria, gastro-enteritis, cholera, dengue and hepatitis. Malaria is widespread in the city every year during monsoon and summer and since the last ten years or so, cases of *falciparum* – a more dangerous form of malaria – are on the rise. The other widespread disease in all seasons is gastro-enteritis.

The plague of 1994 broke out in the outskirts of Surat, which has recently become a part of the city. While the condition of the entire city with regard to basic amenities is quite poor, it is the fringe areas, which are the worst off in terms of access to water supply, sewerage, and drainage and solid waste management facilities. However, given the solid waste situation all over the city, the disease was bound to spread and assume epidemic proportions. Just prior to the plague, three months of constant rain followed by flooding caused waterlogging in many parts of the city. Slums and squatter settlements in low-lying areas with no access to proper drainage were the most affected, both by the flooding and, consequently, by the plague.

The plague jolted the city authorities in Surat into realising that theirs was one of the dirtiest cities in the country. While it did make the city government launch a clean-up drive, this was a one-time event. The disease hit the city in December 1994, but by January 1995, the residents' century-old habits returned and the city was filthy as ever.

Since May 1995, however, a remarkable turnaround in state of affairs has been observed, as a result of a series of initiatives taken by the elected council and the civic administration. Since the plague was a manifestation of the incapacity of the civic authority to manage the basic services, the government undertook a massive clean-up as well as administrative reform exercise. The administrative setup for solid waste

management was modified and the six zones were sub-divided into 52 sanitary districts for better waste collection efficiency. A daily monitoring system was introduced. Private contractors were engaged to collect and transport waste to the disposal site, as well as to sweep and scrape all major streets. Slum improvement operations were undertaken with the assistance of NGOs. At the macro-level, the entire administrative and financial management system of Surat Municipal Corporation was revamped. Policy decisions were taken for making the government more responsive. The drive that was launched was thus aimed at transforming not only the city but also the attitudes of the people as well as officials.

Operation Clean-up

Sporadic cleaning-up activities were undertaken by the Municipal Corporation and the residents of the city in their own localities during the plague but no major initiative was launched to clean up the entire city till almost six months later. Only in May 1995, with a new elected government in place and a new Chief Executive Officer in-charge, a major drive was launched for slum improvement and solid waste management in the city. Simultaneously, the city administration was totally revamped, staff and equipment was redistributed, and contracting for solid waste collection and street cleaning was initiated.

Administrative revamping

For improving solid waste management, the six zones of the city were further sub-divided into 52 sanitary wards, each having one sanitary inspector, two sanitary sub-inspectors, and three *mukadams* (supervisors). Micro-level planning was introduced in order to ensure equitable distribution of all resources – manpower, machinery, and finance – among the 52 wards. Sweepers were posted round the clock at nuisance spots, and such locations were invariably cleaned at least twice a day.

Public-private partnerships for solid waste management

Contracting of various sanitary activities was also initiated in Surat in order to improve the waste collection efficiency as well as street cleaning. Solid waste collection and transportation has been contracted out in two zones. The waste collection and transportation contracts in Central and West Zones require the contractors to deploy their own vehicles and labour, and they are paid per MT of waste transported. This amount varies from Rs.70 to Rs.90 per MT. The Corporation and private contractors handle (collect and transport) MSW in a 60:40 ratio. In the

other zones, contractors hire vehicles from the Government and only labour charges need to be paid to the contractor for transporting waste to the disposal site.

As part of the street-sweeping and scraping contracts, all major roads are now cleaned twice – once by the contractor’s staff at night and then again by the Corporation sweepers during the day. Streets adjoining the vegetable market, too, are cleaned at night by contractors, and payment is made on basis of area cleaned (@ Rs. 0.70-0.95/Sq.m.).

Solid waste management monitoring system

A format for reporting the daily activities for solid waste management as well as other public health engineering related activities has been prepared and adopted to monitor the daily work progress. The Daily Activity Report documents each action taken and the resources deployed on an everyday basis, including:

- Number of vehicles deployed (departmental, contractor’s and total)
- Total nuisance spots attended and containers lifted
- Total tonnage of solid waste lifted
- Complaints received and disposed with respect to drainage overflow (gully-traps, sewer main-lines, manholes)
- Total complaints received and disposed off with regard to cesspools
- Spraying of insecticides and fogging
- Disposal of dead animals
- Cleaning of public latrines
- Repair of leakage
- Collection and testing of water samples (by ward offices as well as departmental)
- Road scraping and cleaning
- Attendance of staff, both sanitary workers and supervisory staff

Enforcement of the new system

Stringent enforcement held the key to the success of the clean-up operations. The Surat Municipal Corporation started to enforce strict hygiene and sanitation standards in eating houses, sweetshops, fruit, and vegetable shops. Levy of fines for littering of the public places was instituted. Though the existing legislation did not empower the SMC to levy a fine, it was collected as an “administrative charge” from the offender. This is the charge that the SMC was empowered to collect for removal of obstructions and nuisance. This charge is now levied on all establishments, whether big or small,

which fail to adhere to the new system and standards of public health. Rubble and construction material found on the streets is lifted and billed to the respective contractors or owners of the site.

Slum improvement

It is estimated that nearly 40 percent of Surat's population lives in slums, with little or no access to safe drinking water and sanitation facilities. There are around 360 slum pockets in the city, more than 85% percent of which are located on municipal or private land in a 50:50 ratio. The living conditions in slums are extremely poor and unhygienic, with less than one-fifth of the slum households having no access to latrine, and only about 40% of all slums having any kind of drainage facility. Slum improvement and solid waste management was therefore tackled on a war footing. Streets were paved with Kota stone to facilitate cleaning and public toilets were constructed with the assistance of two NGOs – Sulabh and Paryavaran. In majority of the slum pockets, residents voluntarily donated a part of their dwelling for widening of main streets to a minimum of eight feet. Paved surface drains were also constructed and community water hydrants provided.

Results

Prior to 1995, the waste collection to generation ratio in Surat was less than 40%. With the introduction of the multidimensional changes, including administrative re-organisation, and consequently a much-improved distribution of resources; involvement of the private sector; along with stricter monitoring and enforcement, the percentage of waste collected every day by the Municipal Corporation and contractors together has now increased to almost 97 percent. Three-fourths of the slums are now paved and 41 toilet complexes had been constructed. The success of these reforms also inspired the city government to undertake such a revamp at the macro-level as well.

The national press highlighted the transformation of Surat from a filthy city to the second cleanest city and this prompted many local governments to visit Surat and learn from its experience. Many local governments have now introduced the levy of administrative charges and reorganised their solid waste management system based on Surat's experience. Many Indian cities that have adopted the Surat experience are now cleaner than before. Within the city of Surat as well, the cleaning-up of Surat was appreciated by the local population and citizens cooperated whole-heartedly in

maintaining cleanliness. The success of clean-up operation prompted a series of reforms in municipal administration and management.

Administrative Transformation of Surat Municipal Corporation

Administrative set-up of SMC

The SMC is governed by the Bombay Provincial Municipal Corporation (BPMC) Act of 1949. Accordingly, it has three main components – the general body, the Standing Committee, and the Municipal Commissioner. The general council, comprising of 99 elected representatives, elects the Mayor and Deputy Mayor. Under the BPMC Act, the Mayor ‘s role is visualized as a chairperson of the council. All decisions regarding the city are taken in the standing committee. The general body from amongst its members elects the members of the Standing Committee and a Chairman heads the committee. The Municipal Commissioner is the chief executive officer (CEO) of the municipal corporation and is appointed by the state government. S/He enjoys a wide range of powers as all executive powers are vested with the CEO, including the formulation of budget and proposals, subject to the approval of the General Council, for various projects. The elected representatives in the standing committee, the Mayor, and the chief executive officer have to work in close cooperation and coordination for the city development activities.

Delegation of powers

Administrative restructuring was initiated in Surat in 1993 when six zones were created in the city. Wide-ranging reforms, in the solid waste management system were introduced. Following the success of these changes, the administration of Surat Municipal Corporation was also revamped completely. The six zones of the city were designated as ‘ one-stop’ window for the residents of Surat as most municipal functions were decentralized at this level and the need for people to visit the city hall was eliminated. The two phrases used by the previous CEO to describe the phenomenon of administrative revamping were– ‘Six-by-Six-by-Six’, and ‘AC to D.C.’

‘Six-by-Six-by-Six’: The first step that was taken to decentralize the decision-making process in the Corporation was delegation of administrative and financial powers to the executive officers of various divisions. The top-rung management, including all heads of divisions such as Deputy and Assistant Commissioners; Chief Engineers of

departments of sewerage, water supply, and roads; and the Director of Planning, were vested with administrative and financial powers equivalent to those of the Municipal Commissioner. Simultaneously, the principle of shared responsibility was given equal importance, with all policy decisions now being taken jointly by the eleven Commissioners. The Municipal Commissioner, who as the chief executive officer was swamped with work in absence of delegation of powers, stated that the new system reduced his daily workload from 666 to 66 decisions as a result of executive decisions being taken at the six zones by the zonal officers. He coined the phrase ‘Six-by-Six’ for this transformation.

‘A.C. to D.C.’: Repeated emphasis was laid on the need for all heads of divisions to spend a minimum of five hours every day in the field, and at least half of that in slums. This system had several positive impacts. Due to the introduction of daily monitoring by senior staff, the sanitary workers became much more regular and efficient. The top officials were also exposed to the hardships of working in the field, making them much more considerate and humane. This transformation is referred to as ‘AC to DC’ – Or from air-conditioned (AC) offices, cars and homes to Daily Chores (DC).

Daily Review of Activities

A system of daily review by senior officers has also been established, wherein the entire senior Commissioners meet and discuss the activities of the previous day and the plans for the following days. The executive and elected wings of SMC have also been brought closer due to the formation of an informal Coordination Committee. This committee consist of the Municipal Commissioner, Deputy Commissioner (General), Director of Planning and other Divisional Heads from the executive wing, and leaders of the elected wing – the Mayor, Deputy Mayor, and Chairperson of the Standing Committee.

Enforcement

Enforcement of the rules for punitive actions against the staff and general public has been the key to the success of administrative reforms as well as the new urban management practices in Surat.

Disciplinary Enforcement in SMC

Six months after the plague, owing to a distinct flagging of interest in the sanitation and public health engineering workers, a need was felt for stronger disciplinary

enforcement within the Corporation. Since work ethics and discipline held the key to long-term success of the administrative changes, disciplinary action was taken against 1,200 employees of the Corporation, ranging from sweepers to senior officers. Six of the first and second rung officials were forced either to resign for their non-performance or to take voluntary retirement. The repeated reinforcement of the commitment of the Corporation to improving its own efficiency not only helped it to improve its professional competence but also won it the respect of citizens.

Demolition of illegal constructions

Illegal constructions dominate the skyline and landscape in the city. One estimate even puts the percentage of buildings not conforming to Development Control Regulations at 95 percent. The “moral authority” of the Surat Municipal Corporation was established by their decision to demolish the constructions raised by builders with money, muscle power, administrative and political backing, rather than launching an attack on dwellings of poor / helpless people.

Responsive Urban Governance

To make governance more responsive and responsible, a grievance redressal system has also been introduced to attend to citizen complaints promptly. Under this system, the grievances are categorized into those to be attended within 24 hours and those to be attended within 48 hours. For ensuring feedback, a Reply Card system has been introduced. The Reply Card lists the complaints, which are to be attended to within 24 hours and those, which would be disposed off in 48 hours. A complainant must fill in the card, which has separate columns for the complainant’s name and address, the date, time, nature and location of complaint. After the complaint was attended to, the card was signed by officer responsible for the activity and sent back to the complainant. The system won the responsible officials recognition, appreciation and respect of the citizens and served to motivate them further. The Reply Card system has been adopted in both the health and engineering departments of the Municipal Corporation. Between September 1995 and December 1996, the various zonal offices had together received over 90,000 complaints, all of which the SMC claims to have been attended to within the stipulated time-frame.

Schedule for Disposal of Complaints: Public Health Department

Grievances to be attended to within 24 hours

- a) Removal of dead animals
- b) Leakage in half-inch water connection
- c) Clearing garbage from streets
- d) Drainage overflow
- e) Public standposts leakage
- f) Complaints about mixing of drainage water in municipal water pipelines
- g) Chlorinating of drinking water

Grievances to be attended to within 48 hours

- a) Complaints regarding drain-cleaning and garbage removal
- b) Complaints regarding Public toilets
- c) Spray of insecticides
- d) Complaints about overflowing septic tanks
- e) Complaints regarding smoke emission
- f) Sale of stale and inedible food in restaurants
- g) Plugging of rat-holes

Schedule for Disposal of Complaints: Engineering Department

Grievances to be attended to within 1 day

- a) Replacements of broken covers of water supply, sewerage and storm-water drainage systems
- b) Removal of broken streetlight poles
- c) Removal of felled trees
- d) Repairs of road dividers, pavements, and railings
- e) Removal of building material and rubble

Grievances to be attended to within 3 days

- a) Repairs of streetlights

Grievances/Work to be attended to within 7 days

- a) New water connection
- b) New drainage connection
- c) Potholes on public roads
- d) Repairs of pavements
- e) Removal of encroachment
- f) Repairs of hand-pumps in slum areas
- g) Repair of public stand-posts

Public Health Mapping

A “Public Health Mapping” exercise was initiated in 1995 by the city government, with a major focus on preventive and promotive health care. Preventive health care envisions extensive spatial documentation or ‘mapping’ of health-related data. Parameters include quality of drinking water, leakage in water pipes, access to sanitation and drainage facilities, as well as occurrence of major diseases. For documenting the occurrence of diseases, SMC has developed a network of about 274 surveillance centres, 90 percent of which are located in slums. This network includes two municipal hospitals, nineteen urban health centres, seven major private hospitals and an assortment of private medical practitioners. Plotting of morbidity rates relating to major diseases on the city map that enables the city health manager to predict trends and focal points of outbreaks of epidemics.

Financial Management

Surat Municipal Corporation is vested with powers to raise resources for its various activities through tax and non-tax sources. SMC has sound financial and technical capabilities. In the past five years particularly (since 1994), the financial performance of SMC has been exceptionally good, with both the revenue and total income showing a steep increase.

Table 4: Increase in revenue Income of Surat Municipal Corporation

Year	Revenue Income (Rs. Million)	Percentage Change
1989-90	798.84	-
1990-91	827.90	3.64
1991-92	993.73	20.03
1992-93	1019.81	2.62
1993-94	1385.70	35.88
1994-95	1646.81	18.84
1995-96	2530.00	53.63

Source: Surat City Profile (1997)

Nearly 90 percent of the city’s revenue income comes through tax sources. Traditionally, octroi contributes about 80 percent of the total tax income. It is on account of the buoyancy of income from octroi that SMC has largely been able to meet its growing financial obligations. The rates are *ad-valorem*, ranging from 0.5%

to 3%. The other major tax source, property tax, accounts for about 15 percent of the tax income. The revenue expenditure mainly includes expenditure on general administration, public health services, water supply, and education. Improved financial management practices have led to increased resource mobilisation as well as higher development expenditure in the past few years. Establishment expenditure has been contained at 32%, and debt servicing is as low as 3.97% (against revenue income). The SMC doesn't depend too much on state and central grants, and most of its capital outlay is met through its own sources. The SMC has proposed a budget of Rs. 4,828.57 million (US\$ 122.24 million) for the year 1998-99 with Rs. 2,205.88 million (US\$ 55.84 million) for capital projects. Investment on the capital projects in last two years has been Rs. 1,493 million (US\$ 37.79 million) and Rs. 1,552 million (US\$ 39.30 million) respectively.

Online Property Tax Collection System

SMC raises between 14-18% of its income from property tax. Development of an online property tax collection system has been one of the biggest successes of the Corporation in the recent years. In the old manual system, each ward inspector was issued a pre-numbered triplicate receipt book - one copy of the receipt was given to the tax payer, one was for the computer and the third was an office copy. At the end of the day, all receipts were entered into a cashbook and each ward inspector prepared a list of cheques. Next morning, the cash and cheques were deposited in the SMC treasury. This was a lengthy and time-consuming process and not very accurate either. With computerisation of property tax collection, the collection efficiency has increased from 30 percent in the earlier system to more than 80 percent. The online tax collection system facilitates retrieval of status in terms of arrears, ward-wise tax collection performance, as well as tax collection at any given point of time or during a given time period.

Computerisation of Other Records

Computerisation of property tax billing and vehicle tax billing, along with that of payroll and pension roll of employees, was undertaken as far back as 1982 with the assistance of external agencies. In 1990, SMC decided to go for complete computerisation by installing an in-house computer on a rental basis. A local computer software firm was awarded the turnkey project of

- Buying, installing and maintaining computer systems
- Developing and maintaining application software
- Training the SMC staff

As on date, besides the tax billing and collection system, the provident fund accounting, investment accounting, credit society accounting, water meter billing, central stores accounting, birth and death register system, municipal accounting, budgeting and budgetary control, revenue analysis and funds flow management, public health engineering daily information system and disease monitoring system are also computerised. Computerisation of project accounting and monitoring systems, legal case follow-up system, octroi accounting system and the personnel information system are underway.

Public-Private Partnerships

The Surat Municipal Corporation is forging partnerships with the private sector, institutions and NGOs in strategic areas of urban development. The major areas chosen for public-private partnerships are:

- a. redevelopment of streets, to be designed and constructed to ensure smooth flow of traffic while ensuring the safety of pedestrians, reducing pollution and beautifying the cityscape;
- b. riverfront development in order to offer people a wider choice of recreational facilities; a water park at Singanore; a fun park at Bhestan, and
- c. An indoor stadium at Athwa Lines.

The Ghoddod road is being taken up as a pilot project under the street redevelopment programme, while the Piplod riverfront is proposed to be developed as a key riverfront recreational area, with features such as a paved walkway along the river, recreational nodes, jogging trails, water sports facilities, garden and promenades, eating joints and kiosks. In the water supply sector, SMC proposes to invite private companies to provide water supply facilities to Pandesara GIDC on a Build, Operate, and Transfer basis. Other projects in the pipeline are a Mass Rapid Transit System for Surat, amusement parks at Alia Bet and Rander, a city trade center, and a captive power project. The SMC has its own web-site where the projects for public-private partnership are listed.

Lessons and the Tasks Ahead for Surat

One of the most significant achievements in Surat has been the cleaning-up of the city to achieve the status of the second cleanest city in India. This was achieved, not through some piece-meal efforts of a few pilot projects, but through

institutionalization of many reforms. The Surat Municipal Corporation has emphasized on putting in place institutional mechanisms for improved decision-making. On the whole, not only has the physical appearance of the city improved, but there has also been a significant improvement in public health. The city administration, too, has been rejuvenated. One of the intangible but most significant benefits of the entire exercise has been the change in the attitude of citizens, who are now proud to belong to the second-cleanest city in the country. Apathy has given way to concern and awareness. A campaign of 'Surat First' has been launched by the city government, in response to which 184 private sector firms and institutions have come forward to invest in the city's welfare. NGOs have also come forward to adopt slums for creation and maintenance of infrastructure.

One of the important lessons that Surat provides to other cities is that it is possible to overcome the most pressing urban problems through local solutions. Though the motivation for change came from a crisis-driven situation of Plague, the efforts to revamp the municipal administration were through the collective efforts of the elected representatives and the executive officers. There was no external aid, neither financial or technical, for initiation of change. This was possible through the able leadership of the chief executive officers and the excellent support of the Mayor, other councilors, and the municipal staff.

Other cities in India and the region have recognised that the Surat experience suggests that the local governments need to first build its credibility through improved administration. This is made possible by making some concerted efforts in one or two critical areas and bringing about changes that are 'visible' to the people. Surat's experience also suggests that it is important to continue with the process of reform within the municipal government.

The city government and the people of Surat now feel that an action plan is required which provides for a more participatory mode of urban management. Some citizens feel that their participation in civic affairs is still absent. Many Non-Governmental Organisations, which initiated clean-up campaigns during and after the plague, have now withdrawn due to the newly developed efficiency of the city administration.

It is argued that though the garbage is collected regularly from streets and the city appears clean and beautiful, the living and working conditions of majority of the people remain unchanged as poverty persists (Shah, 1997). Chemical effluents and untreated sewage continue to flow into the river. Recyclable solid waste is still being

dumped into landfills, and no steps have been taken for encouraging recycling and reuse of materials. Again, though the public health situation in the city has improved due to the efforts of the health department of SMC, the health infrastructure in the city is still grossly inadequate.

These shortcomings are being sought to be overcome through consultative processes in Surat under the Urban Management Programme. These consultations are aimed to involve all stakeholders in the city – the industrialists, traders, working population, intellectuals, non-governmental organisations and community-based groups – in urban governance and environmental management. Through this process, it is likely that a collective set of priorities for the city will be developed, incorporating the concerns of all the stakeholder groups. Simultaneously, the role and responsibility of each stakeholder group in management of the city will also be highlighted.

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