

## 1. Raska Project For Emergency Water Supply to Ahmedabad City

Category: Infrastructure; Urban Governance

- Safe Water Provision; Monitoring and Evaluation, Visioning, Openness and Transparency

### 1.1. Situation before the Initiative

- City of Ahmedabad has two sources of water A. Surface water drawn from Sabarmati river and B. Underground water drawn from more than 350 tube wells, spread all over the city. About 50% water was drawn from the river, which was depending on the availability and discharge of water from Dharoi dam built at a distance of 153 kms from Ahmedabad to meet the demands of the city. The catchment area of the Dharoi dam was mainly in Rajasthan state and availability of water was dependent on rains in the catchment area.
- In the beginning of 1998, as the drinking water crisis gripped the city; the situation demanded an emergency response. Due to insufficient rainfall in the catchment areas of the Dharoi reservoir, there was no replenishment of water into the reservoir. By 1999, only 13.19 mcm (1.79%) of water was available in the reservoir against its full storage capacity of 735.05 mcm. There being no overflow from the reservoir, the river Sabarmati went completely dry. The availability of surface water came down to unsustainable level and AMC was compelled to depend only on underground water sources resulting into excessive withdrawal from bore wells and further lowering of water table at an alarming rate. The average water supply of 527mld had to be reduced by about 25%. There were inevitable water cuts imposed on the municipal water supply. To meet the developing emergency, an alternate reliable source of surface water had to be considered before the onset of the following summer in 2000.

### 1.2. The Initiative/Innovation

- The Raska Water Supply project was therefore launched as an emergency project in October 1999 to avoid the impending water crisis.
- The AMC took up the emergency water supply project of Rs.110 crores involving 43 kms of pipe length, including 10 km through the congested parts of the city.
- AMC also demonstrated unprecedented speed and determination in the execution of the project, without any cost escalation.
- There was no compromise on quality and the task was achieved within 180 days with a great teamwork, effective monitoring and a committed leadership – both political and administrative.

### 1.3. Strategies Adopted

- In August 1999, the then Municipal Commissioner realized the gravity of emerging situation of water crisis on account of consecutive failure of monsoon and depleting levels of underground water sources. He initiated, on war footing, a proposal to tap a new source of water from near Raska weir on Shedhi canal at a distance of 43 kms from Ahmedabad. He was authorized by the Standing Committee to undertake, in two phases, the Raska project for emergency water supply to Ahmedabad city with consultancy support from the Gujarat Water Supply and Sewerage Board (GWSSB).

- A detailed Project Report was then prepared by AMC in consultation with GWSSB. This study brought out the technical aspects that included those related to withdrawal of drinking water from the Shedhi branch of the Mahi canal system. The details of the intake channel and pump house were also worked out. There were two technical components viz:

#### Part-1

- Laying of 32 km long, 2100 mm dia MS pipeline from Shedhi Canal tail end to Kotarpur Water Works; erection and commissioning of the Raw Water Pump House at Jinzer village

#### Part-2

- Laying of 10.5 km long, 1600 mm dia MS pipeline to carry water treated at Kotarpur Water Works to Dhudheswar Water Works; link the same with Motera for supply to western parts of Ahmedabad city
- Remodeling and overhauling the Kotarpur Water Works, that was lying idle for the last few years due to non-availability of water.

#### 1.3.1. Chronology of Bid process

<b>Date 1999</b>	<b>Activity</b>
2 <sup>nd</sup> August	Proposal from Government to supply water from Shedhi Canal
15 <sup>th</sup> August	Feasibility report sent to Government
20 <sup>th</sup> August	Bid process proposal submitted to Standing Committee and sanctioned
21 <sup>st</sup> August	Invitation to 37 pre-qualified bidders to bid & for site-familiarization visit
1 <sup>st</sup> September	Site visit by 36 bidders; bidders informed of project details by the Commissioner and engineering staff of AMC
10 <sup>th</sup> September	Last date for issue of tenders
16 <sup>th</sup> September	Pre-bid conference at Ellis Bridge Gymkhana
30 <sup>th</sup> September	Last date of receiving tenders up to 8 pm; opening of technical bids
1 <sup>st</sup> October	Technical evaluation of bids started by GWSSB committee
2 <sup>nd</sup> October	Raska-1 evaluation over; bidders informed of opening of price bids by phone & fax
4 <sup>th</sup> October	Raska-1 price bids opened
5 <sup>th</sup> October	Raska-2 evaluation over; bidders informed of opening of price bids by phone & fax
6 <sup>th</sup> October	Raska-2 price bids opened
7 <sup>th</sup> October	Proposal submitted to Water Supply Committee, Standing Committee and sanctioned by both the Committees on the same day
	Work orders faxed with a mobilisation period of one month <i>D-Day 31<sup>st</sup> March, 2000: Date of the completion of the project</i>
11 <sup>th</sup> October	Inauguration of the project by Chief Minister of Gujarat <i>"Tum aghe bado, sarkar tumahare saath hai"</i> ("you must go forward; the Government is with you)

- The implementation period was from October 1999 to 31<sup>st</sup> March 2000(6 months).

#### 1.3.2. Project cost

- The projected cost of Rs. 110 crore for the entire project included:
  1. Rs. 93 crore for the part I of the project (including Rs. 5 crore for the repairs of Kotarpur works)
  2. Rs.17 crore for the part II of the project

### 1.3.3. Financing

- 20% of the project cost was financed through Municipal bond money, the remaining 80% coming from HUDCO.
- The Municipal Commissioner personally lead the team for monitoring of the work on a day to day basis by a special team of engineers and administrators numbering about 45 officers.

### 1.3.4. Critical aspects of the project

- The pipeline was to be laid all along national expressway having three rivers and two railway tracks on route, which were to be crossed using special engineering skills in a short time and without disturbing traffic and railways.
- Clearances of defence authorities were required as part of the pipeline was passing through defence areas.
- Railways and National Highway permissions were necessary for crossing the pipelines under the railways tracks and highways.
- 2700 metric tones of steel plates and 3,00,000 bags of cement were required to be procured on emergency basis to fabricate the pipes for this project (no steel plates were available in the market in ready stock)
- Consent of private owners was required to be taken where the pipes had to pass through their property. About 9 km pipeline had to pass through the most congested area of the walled city-where even digging the land for laying the pipes was difficult and underground electricity and telephone network was to be protected from damage due to excavations.

### 1.3.5. Implementing strategies

- For getting various clearances required from Defense, National Highway Authority, Railways, etc, the Municipal Commissioner took up the responsibilities upon himself and got the clearances through personal efforts and meetings with the top officials of various institutions.
- This effort of the Commissioner saved the time of getting necessary clearances, from the usual, Period of two to three years to less than three weeks. The contractors were not treated as a separated entity, their problems were as considered the problems of the Corporation so as to ensure that there was no time lost in any procedural formalities.
- The procurement of steel and cement and other critical materials on high priority was done directly dealing with the Steel Authority of India and other agencies.
- The Commissioner had set targets of the work to be done on day-to-day basis and he monitored progress personally every day and all problems were resolved on the spot. Staff was fully motivated and supported to complete the project on time.
- A clause of incentive and heavy penalty was introduced in the contract to ensure the timely completion of the project.
- Excellent coordination between the State government, the Elected wing and the Administrative wing was achieved.
- The success of the project depended upon the turnkey contracts with heavy penalties for delay and fixed prices. Since there was no escalation clause and with penalties for delay, the contractors themselves were motivated to complete the project in time.

- As a third party, SGS India Ltd. of Ahmedabad was assigned the task of quality control during the fabrication of pipes

#### 1.4. Results Achieved

- The entire project got completed in a record time of 130 days at the cost of 110 crore.
- There was energy saving on account of reduction of withdrawal of water from deep bore wells.
- Environmental sustenance was achieved by arresting the depletion of underground water resource.
- The competitive tenders and fixed-price contracts have helped Ahmedabad Municipal Corporation save a substantial amount of Rs. 30 cores in the project. In case the project were to be implemented in the normal course extending to a period of three years, it would have required an additional sum of Rs. 50 crores.
- Timely completion of project has not only saved the city of Ahmedabad from water crisis, but it has also provided a permanent and reliable surface water source for considerable number of years to come.
- The quality of water matches the WHO standards. AMC will be able to provide water supply everyday to the citizens for two-hours in the morning and half-an-hour in the evening.
- With the completion of Raska Project, 70% of the population is being supplied surface water, reducing the dependency on bore well water.



#### 1.5. Lessons Learnt

- The Raska project completed within 130 days at the cost of Rs 110 crores offers important lessons, particularly for urban managers, in the area of urban infrastructure development and its management.
- Active interactions and good communication skills play an important role in leading the project partners towards timely completion of a project.
- The chief executive can bring a sea change in the project implementation of the key infrastructure projects if they take personal interest and adequately monitor the project with assistance of professional and technical team.
- The time generally lost in obtaining clearances of authorities could be minimized substantially by taking up the matters at a personal level by the chief executive.
- Teamwork is an essence for expediting the project. The contractor and the corporators have to work as a team to ensure that all hurdles in the project are removed for smooth implementation of the project.



- Incentive for timely completion/disincentive for delays and “no cost escalation” could help the timely completion of the project by the contractors as it builds pressures on the executing agency.
- Motivations of the supervisory staff and the appreciation of the work done by the chief executive boosts the morale of the supervising officer resulting into better outputs.
- Political support is critical-taking political wings into the confidence and keeping them in the loop of the decision making process ensures their full support in getting timely clearances.
- Pre-qualified contractors of high repute and outstanding capabilities, if assigned the work through a transparent process, ensure timely completion of the project and quality output.
- Financial management and timely payments to the suppliers and contractors is necessary to ensure the completion so that work does not get hampered for want of funds.

## **1.6. Sustainability**

- The project is sustainable, as the Corporation has created a permanent alternative source of water to meet the requirements of the city in future at least for another decade..
- The Corporation has the necessary finances for the operation and maintenance of the project, which are available from the savings from non-withdrawal of water from underground sources and the Dharoi water project.

## **1.7. Transferability**

- The process adopted in the timely execution of the water project is transferable to any city facing similar problems.

## 2. The First Ever Tax-Free Municipal Bonds

Category: Urban Governance; Economic Development

- Resource Mobilization, Visioning, Openness and Transparency, Monitoring and Evaluation; Capital Formation

### 2.1. Situation before the Initiative

- In India, the 74th Amendment to the Constitution has recognized the role of ULBs in infrastructure development and has made an endeavor to give autonomy – fiscal and administrative, to the ULBs to meet their obligations. The present fiscal position of the State Governments in India indicates that financial support to ULBs would be limited in future and they will have to find their own financial resources.
- It is widely expected that capital markets, especially debt markets, would play a pivotal role in bridging the demand- supply gap in the urban infrastructure sector.
- The Ahmedabad Municipal Corporation, in the year 1998 – 1999 became the first municipal body in South Asia to access the local debt markets to raise finances for infrastructure development to an extent of Rs. 100 crores. These were tradable bonds. The corporation had to go through credit rating for establishing its credibility in the market before financing the first bond issue in 1998-1999. AMC utilized the bond money for its water supply and sewerage project and ensured timely repayment of interest on the bonds to the bondholders. This built confidence in the credibility of the Corporation.

### 2.2. The Initiative/Innovation

- AMC once again became the pioneer, this time, in issuing the first ever tax-free bonds for infrastructure development as part of urban and economic reforms undertaken by Govt. of India. AMC issued these Bonds for its water and sewerage projects by special notification published in the Gazette of India on August 22, 2001 by giving tax breaks to municipal bonds for infrastructure projects. It was also meant only for private participation.
- The objective was mainly to part finance Rs. 150 crore water project and Rs. 150.00 crores sewage project of the city.

#### 2.2.1. *Highlights*

- Ahmedabad Municipal Corporation's first tax-free bond issue was opened on March 7, 2002 and closed on March 30, 2002.
- A total Rs. 100 crores were subscribed through this issue. Bond details are as per table shown below:

Issue Amount	Rs. 50 crores with a right to retain over subscription up to Rs. 50 crores
Instrument	Secured, non convertible redeemable tax free bonds in the nature of debentures
Face Value	Rs. 1,00,000/- per debenture
Minimum Application	Ten debentures in multiples of one debenture thereafter
Credit Rating	AA (so) by CRISIL
Coupon Rate	9.00% p.a. payable semi-annually, for first five year. New coupon rate from the beginning of the sixth year will be the prevailing Bank Rate+2.50% payable semi annually and will remain constant till final redemption
Tenure	10 years
Put / Call Option	At the end of 5th year from deemed date of allotment
Redemption	At the end of 10th year from deemed date of allotment
Interest on Application Money	9.00% p.a.
Security	Mortgage of the Corporation's assets/properties with a minimum asset cover of 1.25 times
Credit Enhancement	Escrow account of property tax revenues from Central and North zone's as receivables
Interest Payment Dates	Semi annually payable on 15th March and 15th September of each year during the tenure of the Bond
Tax Benefits to Investors	The Municipal Corporation is eligible for tax exemption under section 10(15)(vii) of the Income Tax Act 1961.
Trustee	Central Bank of India, Debenture Trustee Section, Jahangir Wadia Building, 51, MG Road, Mumbai-23.

### 2.3. Strategies Adopted

- Corporation obtained the Government of India permission to issue the tax-free bonds.
- Prospective investors such as banks, financial institutions were approached and persuaded to commit to invest in the bonds.
- Pay back mechanism through Escrow account was finalized in consultation with the trustees of the bond.
- The appropriate rate of interest and the right time of release of the bond were carefully worked out in consultation with subject experts.
- A detailed program for the timely utilization of funds was worked out to ensure that the funds generated do not remain idle.

### 2.4. Results Achieved

- The tax-free privately placed bonds issue of the Ahmedabad Municipal Corporation is a trendsetter and paved the way for the further development of the municipal bond market in India.
- The AMC could raise the required finances through subscriptions for the bonds and retained Rs. 100 crore as against the bonds of Rs. 50 crore for infrastructure development at a low rate of interest affordable to the corporation.
- The issue was over-subscribed. This amount was returned to the investors.

## 2.5. Lessons Learnt

- The provision of tax-free benefits has provided access to low cost funds to ULBs, while at the same time, enlarging the pool of potential lenders/investors. For the society, this resulted into superior civic services, which are more transparent and accountable
- The opening up of the economy has opened up new vistas for municipalities in the delivery of civic services. The ability of municipalities to take advantage of these opportunities is dependent on their ability to gear themselves up operationally, both with respect to raising the revenue through bond market and reducing cost of interest.
- For collecting funds through a bond issue, the corporation should have credit rating done to project its financial soundness in front of the investors.
- Financial reforms and in-house capacity building is a pre-requisite for positive credit rating, even before any market borrowing is recommended.
- The credit rating was able to build confidence in favour of AMC. This coupled with the good work done by the Corporation successively for three years helped AMC in marketing its financial strategy to generate funds through the bond issue for infrastructure projects.
- To develop a sustainable market for municipal bonds, it is necessary that municipalities exhibit sufficient buoyancy in revenues.
- With the support of the Government, it should be possible for local bodies to access the capital market and through this process provide more transparent accountable and superior civic services.
- The local body must have detailed project including time-bound action plan ready for implementation to ensure quick utilization of funds.
- The bonds issue of the Ahmedabad Municipal Corporation in this regard is trendsetter and paved the way for the development of the municipal bond market in India.
- To the municipalities, the provision of tax-free benefits would provide access to lower cost commercial resources, while at the same time making the pool of potential lenders/investors to the municipality larger. For society, the resultant externality benefits emanating through the provision of superior civic services, which are more transparent and accountable, would be achieved. Such fiscal support would also serve to kick start the process of municipal bonds in the country.
- Financially viable infrastructure projects can attract positive credit rating, which in turn encourages market borrowing to sustain such projects. The infrastructure services so provided are therefore sustainable in a manner that contributes to delivery of essential services such as water supply to the consumers.

## 2.6. Sustainability

- Market borrowing is a tool for sustaining a high level of services for the city. The two successive bond issue by AMC and similar bond issues elsewhere in India suggests that the process is financially viable.
- The process of raising finances from the bond market is sustainable for the local bodies that have set their house in order and have developed the capacity to repay their debt raised through bonds.
- This effort is sustainable as cheaper funds are available to AMC because of the nature of tax-free bonds.
- The public confidence would continue to sustain on account of Escrow account mechanism to pay back the debts.



- Being tax-free, public confidence would continue to sustain the process on account of escrow mechanism to pay back the debts.
- Also, such market borrowing will become an even more attractive instrument if such debentures are exempted from the levy of 1% stamp duty, which is the current practice of the Central Govt. under Sec. 8 of Indian Stamp Act.

## 2.7. Transferability

- Rising of funds through tax-free bonds is a transferable practice for the local bodies who have positive credit rating and ability to pay back the debt. The private placement of funds also makes it easier for the local bodies to access these funds.

### 2.7.1. Similar efforts –elsewhere

- The Bangalore Municipal Corporation in India also floated municipal bonds through private placement @13.25% interest with the rating A (SO). This bond was completely tied up with institutional financing and was mainly subscribed by the SBI, LIC etc. The State Bank of Karnataka provided to the bonds floated by the Bangalore Municipal Corporation as guarantee. Nasik Municipal Corporation and Nagpur Municipal Corporation also accessed the bond market for its infrastructure projects.
- Floating of municipal bonds for financing infrastructure development has now become a well-accepted trend with the local governments in India.

### 3. Slum Networking Project

Category: Infrastructure; Environment Management; Housing; Social Service; Civic Engagement

- Sanitation; Environmental Health; Land Tenure and Security; Affordable Housing; Education; Health & Welfare; Crime Reduction & Prevention; Community Participation

#### 3.1. Situation before the Initiative

- As per the 1991 survey, Ahmedabad had 2142 localities having slums and chawls with a population of about 12 lakh constituting 41% of the total population of the city.
- More than 43% of the slum population did not have facility of adequate potable drinking water and about 77% did not have facility of individual toilet.
- Absence of basic amenities created many health and environmental problems, which has lowered the quality of life in the city.
- Although AMC was providing various basic amenities to slum dwellers, their condition of living had not improved and the effort was fragmented and did not address the issue holistically over the years.

#### 3.2. The Initiative/Innovation

- The Slum Networking Project (SNP), Ahmedabad is an innovative, partnership approach for the improvement of slums. It is a comprehensive project for upgrading / providing infrastructure in the slums and integrating it with the city's infrastructure. Though the major emphasis is on physical infrastructure, it also focuses on environmental upgradation, sanitation, health education and income generation. A Pilot project has been successfully completed at Sanjaynagar. This SNP is also known as the "Parivartan project".

#### 3.3. Strategies Adopted

- After studying the various national and international attempts made in this direction, it was felt that the Slum Networking Project adopted in Indore could be replicated in Ahmedabad with some modifications.
- Encouraged by the experience of Indore, one of the leading corporate houses of Ahmedabad -Arvind Mills Ltd came forward to develop a partnership with the urban local body.
- AMC received an approval for this partnership from the Standing Committee in September 1995.
- AMC set up a Slum Networking Cell, headed by a Deputy Municipal Commissioner.
- The project aimed at successful partnership between AMC, an NGO, a corporate house and the beneficiary communities. It worked towards upgrading the slums.
- The basic services in the slums were planned on an equitable cost-sharing basis, with a unique partnership between the Ahmedabad Municipal Corporation, the private sector and the public sector (the slum residents). Each stakeholder contributed 1/3 of the total "on site" capital cost of the services provided.
- Arvind Mills and SAATH (an NGO) agreed to contribute 33.33% of the development cost respectively. AMC undertook the establishment and the supervision expenditure in addition to its 33.33.% share of development towards the first phase of the project.
- The objectives were:

1. Upgradation/provision of infrastructure in the slums (incl. Environmental upgradation, sanitation, housing, health, education and income generation), in partnership with the local residents, NGOs, AMC and the private sector,
  2. Integration with the city's infrastructure within a finite period
- Components of the SNP are:
    1. Physical Development
    2. Community Development
    3. Linkages with the city level services
    4. Supportive activities

1. Physical Development: - This component involves the provision of essential basic infrastructure service.

1. Individual water supply
2. Sewerage network with individual toilets
3. Storm water Drainage
4. Paved Roads/streets
5. Street Lighting
6. Tree Plantation
7. Solid Waste Management

2. Community Development: Activities supporting the implementation of the project and further improving the quality of life form part of this component.

1. Formation of our, women and youth interest groups.
2. Mobilization of community savings for development
3. Pre-primary, primary and adult education programs
4. Community and primary health with focus on pre and postnatal care & childcare as well as immunization campaign.
5. Provision of vocational training and guidance.
6. Skill development and improve access to jobs and formal sector financing for self employment
7. To avail benefits under various Govt. Schemes.

3. Linkages with the city of level services: Activities linking the slum level intervention to the city as a whole so as to increase the effectiveness of these efforts.

1. Enhancing water supply distribution around slums
2. Strengthening the city's sewerage and storm water drainage system to facilitate integration of slums networks
3. Improving city roads approaching the slum areas.
4. Efficient and effective solid waste management at city level.

4. Supportive activities: - Activities ensuring professional management of the project and its effective implementation.

1. Project formulation and evaluation
2. Baseline Socio-economic survey.
3. Management information system
4. Project documentation and dissemination

- Agencies in the Partnership and their Roles

#### 1. Ahmedabad Municipal Corporation

- AMC's main role as a partner was to facilitate all the activities and co-ordinate with all the agencies. Moreover, it would contribute 33% of the cost of physical development of slums, 70% of the cost of community development and 100% of the cost of development /strengthening the infrastructure to link up the slum with the city level services. AMC mobilized its own resources and also obtained resources from other Central / State Government schemes such as Urban Community Development, Low Cost Sanitation, Urban Basic Services, Integrated Child Development Scheme and N.S.D.P. AMC's responsibility included development of a comprehensive strategy for city level slum improvement and infrastructure needs and implementation of 74th Amendment of the Constitution. AMC's role was to involve private sector efforts in the planning and execution of city level infrastructure and environmental improvement programs.

#### 2. Slum Communities

- Direct participation was ensured by sharing one third of the physical development costs. The slum dwellers were made responsible for community services and maintenance of these facilities. Neighbourhood committees and special interest groups comprising of women and youth were formed with the assistance of NGOs. The community was motivated to actively participate in the socio-economic programs and other community development activities and create an environment for sustainability of the initiative and the partnership.

#### 3. Private Sector Companies / Charitable Organizations

- The private sector company/charitable organization which becomes a partner in this process was expected to mobilize resources towards part cost (33%) of physical upgradation of slum. Their entrepreneurial, managerial and technical skills were utilized in managing and implementing this project.

#### 4. NGOs

- The role of the partner NGO was initially to motivate the slum dwellers to join the project and to facilitate community participation, community resource mobilization and assist in health, education and income generation programs.

#### 5. Professionals

- Professionals were brought in to assist by way of extending their consultancy in the planning, design, and execution of project through surveys, detailed designs, project management and evaluation. Their expertise was obtained in health, education and community training.

#### 6. A Special Nodal Agency

- A Special body either a Charitable Trust or a not-for-profit (Section 25) company, with representation from the community, corporation, private sector companies and eminent citizens was set up to co-ordinate all the efforts in project implementation.

The Resource are being mobilized as under:

1. Those slum dwellers desiring to join the project were asked to contribute Rs. 2000 as their 33.33 per cent share of the total development cost, and Rs. 100 for a corpus to be created for community services. They were also responsible for the maintenance of the physical services, and required to pay the charges decided by AMC for water and drainage connections.
2. The participating industrial house contributed Rs. 2000 as its 33.33 share of the project cost per family, and 30 per cent of the establishment and supervision expenses based on 5.50 per cent of the total project cost of Rs. 6000 per family.
3. The charitable institutions joining in the project either contributed 30 per cent of the expenses to be incurred for community work, or arranged it from others.

Physical Development Cost	Rs. 6000/- per household.
Contributions:	Rs. 2000/- slum dweller Rs. 2000/- industry/social institutions, etc. Rs. 2000/- Municipal Corporation (AMC)
Community Development Cost	Rs. 1000/- per household.
Contributions:	Rs. 300/- NGO Rs. 700/- AMC
Linkage with basic city Infrastructure Cost	Rs. 3000/- per household.
Contribution:	Rs.3000/- AMC
Individual toilet Cost	Rs. 4500/-
Contribution:	Rs. 4500/- AMC.
Community corpus for maintenance	Rs. 100/-
Contribution:	Rs. 100/- slum dwellers

- The Ahmedabad Municipal Corporation (AMC) bore the rest of the expenses of the project.



**BEFORE**



**AFTER**

- If the industry and the public charitable organizations do not participate or contribute to the project, AMC would contribute their share of the expenses; in which case it would implement the project independently.

### 3.4. Results Achieved

- A multi-tier urban transformation:
  1. From physical degradation and lack of services to upgradation and basic infrastructure provision;

2. From no dialogue between residents of informal settlements and the municipality to a participatory process of dialogue between them;
  3. From illegal to respectable, from dirty to clean, from diseased to healthy;
  4. The transformation of a slum into a colony or society.
- Slum networking has been carried out in the following areas successfully:

Sr No	Name of slum	Zone	Election Ward	No. of huts	App. Popu	Est. cost Rs in lacs	Expend . Rs. In lacs	NGO	Industrial Partner
1.	Sanjay Nagar	N Z	Potalia	181	1000	21.7	21.7	SAATH	Arvind Mills
2.	Sinheshwari Nagar	N Z	Naroda Road	43	225	6.37	7.5	SEWA	Lions Club
3.	Sharifkhan Pathan ni Chali	N Z	Saijpur	98	525	17.26	16.83	SEWA	Lions Club
4.	Melady Nagar	N Z	Potalia	98	500	15.5	12.68	SEWA	-
5.	Shivaji nagar-1	E Z	Bhaipura	74	400	9.53	6.77	-	Lions Club
6.	Shivaji nagar-2	E Z	Bhaipura	51	265	5.95	2.22	-	Sanatan
7.	Hanuman nagar Part 1	S Z	Bage firdosh	147	750	22.16	17.97	-	Lions Club
8.	Hanuman nagar Part 2	S Z	Bage firdosh	147	750	25.56	20.33	-	Lions Club
9.	Ghanshyam Nagar	E Z	Bhaipura	126	625	14.88	10.24	SEWA	-
10.	Azad Nagar	S Z	Bage firdosh	147	1000	27.55	18.45	SAATH	-
11.	K.K.Vishwa Nathan Chali	S Z	Maninagar	525	3200	101.55	38.00	-	-
12.	Bavalavlavi nagar	S Z	Baheram-pura	100	900	33.52	7.9	SEWA	SBI Emp. Union
13.	Kailash Nagar	S Z	Isanpur	75	650	18.12	4.84	SEWA	-
14.	Jayshakti Nagar	N Z	Sardar nagar	145	1000	28.94	18.92	SEWA	-
15.	Ashapuri Nagar	E Z	Amraiwadi	125	800	23.62	5.63	-	-
16.	Revaba Nagar	S Z	Bage Firdosh	70	595	10.15	4.65	SEWA	-
				<b>2152</b>	<b>13185</b>	<b>382.36</b>	<b>214.63</b>		

### 3.5. Lessons Learnt

- Partnership between a ULB and people can substantially help achieve the goals of urban poverty alleviation programmes
- Involvement of various agencies at different tiers within the slum communities leads to a holistic achievement of the planned targets.

- The capacity building and empowerment of the poor is one of the critical inputs for the active participation of the community in the decision making process, and towards poverty alleviation programme as a whole. The communities' play an important role in planning, contracting, implementation, monitoring & supervision, cost recovery and above all the management of assets created in their neighbourhoods keeping in mind long-term sustainability.
- Provision of infrastructure services alone will not help in integrating slums with cities. It is important for slum dwellers to have socio-economic inputs if their quality of life and confort levels were to improve.
- A strong commitment and commonly shared vision by all the partners, are the pre-requisite for scaling the slum ugradation efforts, which would need to be supplemented by well-designed capacity building interventions.

### **3.6. Sustainability**

- A holistic partnership initiated by AMC, with human and financial resource availability, is a sustainable process towards achieving the goal of integrating slums with the cities.
- The efforts at upscaling the project shows the acceptance of the initiative by all concerned. The task is huge and will require more and more urban NGOs to participate. This would require training and capacity building of potential NGOs and professionals.

### **3.7. Transferability**

- The idea can be readily transferred to all the cities having poverty alleviation programs and facing various issues of slum integration.
- CMAG had organized a National workshop in this subject-area in 2001 to disseminate the process and learning from the initiative.

## 4. Heritage Initiative of AMC

Category: Urban & Regional Planning; Architecture & Urban Design; Civic Engagement & Cultural Vitality; Urban Governance

- Cultural Heritage Conservation; Historic Preservation; Social and Cultural Vitality; Partnership Development

### 4.1. Situation before the Initiative

- Despite having a wealth of heritage resources and a strong community network, historic urban settlements in the walled city of Ahmedabad is undergoing rapid change and decline due to pressures of urbanization.
- The traditional urban fabric is constantly getting transformed to accommodate and adjust to the new land use, industrial growths and evolving transport system. There is an absence of any significant effort on the part of the concerned authorities to preserve the aesthetic beauty of these historical places.
- The problems include:
  1. Change in the land use resulting in the breakdown of the traditional social fabric.
  2. Lack of awareness and appreciation towards traditional architecture and its inherent advantages.
  3. Break down of traditional local governance system (panch).
  4. Subdivision of housing units and increasing pressure on infrastructure systems.
  5. The commercial activity that attracts large volumes of traffic.
  6. Lack of parking space and problems of regular traffic jams.

### 4.2. The Initiative/Innovation

- The situation called for an alternative way of utilizing community resources and initiatives through community participation and local community organizations for managing, regenerating and redeeming the quality of the built heritage and for reviving the cultural traditions of the walled city.
- Ahmedabad Municipal Corporation (AMC) with assistance from CRUTA Foundation had set up a Heritage Cell in 1996 with an intention to create awareness amongst the citizens and to develop a comprehensive plan for conservation of the walled city of Ahmedabad.
- The Mission of Heritage Cell is to enable communities to take pride in their traditional built-form and thus get involved actively in the process of its revival.

### 4.3. Strategies Adopted

- The Objectives are:
  1. Create awareness regarding heritage resources.
  2. Promotion of traditional built forms.
  3. Support participatory action programmes.
  4. Co-ordinate efforts of different disciplines, stakeholders and authorities.



5. Undertake Tasks Related to the Promotion of Traditional Built-Forms, Mobilizing Finance and Resources that would not otherwise have been available to the Area.
6. Act as interface amongst concerned citizen, public and the private Actors.

- To arrest the factors for decay, the Heritage Cell has been involved in aspects of urban conservation while effectively implementing numerous projects. The following interventions are part of the strategy of overall process of inner city revival:

1. General awareness among people: Documentation, Preparation of models, organizing street exhibitions and community meetings.
2. Initiate restoration efforts: Commissioning detailed surveys, mobilizing resources, identifying and commissioning expertise, providing technical assistance, initiating community-based restoration process, training of volunteers, initiating citizens/ NGO actions.
3. Enabling government facilitation: Resolving legal issues, clarification of the property tax, financial assistance, coordinating the efforts of the different departments, initiating requisite institutional development, preparing guidelines for revitalization.

- Several activities for raising awareness undertaken by the Heritage Cell since 1996 till date are as under:

- Introduction of the guided Heritage Walk
- Formation of Old House Owners Association
- Redevelopment Programs
- Celebration of the *Pol-day*
- The Auto Rickshaw tour
- Signages within the pols
- Heritage artifacts
- Facilitating HUDCO's assistance for restoration work
- Freedom walk
- Illumination of Monuments
- Traditional street theatre
- Information through the media
- Training for administrators
- City heritage award
- Revival of the *Panch*

- The following projects have been undertaken by the Heritage Cell:

1. Restoration of *Chabotras* (bird feeders)
2. Restoration of *Dwarkadhish* temple
3. Restoration of the facades
4. Revival of the '*Tankas*'
5. Revitalization of the walled city of Ahmedabad (an AMC–France collaborative project)
6. Restoration of the Panch-Kuwa building and the Step-well
7. Heritage gate for the Collectorate office
8. The city museum
9. Special fire fighter
10. Development of the Manek Burj
11. Restoration and development of the Dutch Tomb Complex at Kankaria
12. Establishment Repair Cell
13. Earthquake damage repairs of the Municipal School Building
14. Conducting awareness programs for children



#### 4.4. Results Achieved

- Community has been motivated and is making appreciable efforts towards conserving old structure; old spaces are being renovated in accordance with new techniques without disturbing the character of the historic structures.

#### 4.5. Lessons Learnt

- There is a need for such Heritage Cells within urban local bodies in all cities where our built heritage still exists.
- Through introduction of such participatory approaches, urban local bodies can enable people to take pride in preserving their traditional heritage and culture
- Heritage cells can create awareness through various communication activities among the people of the city as a whole.

#### 4.6. Sustainability

- AMC's Heritage initiatives help in overall sustainable city development.
- The process itself is sustainable through innovative public-private partnership (AMC-CRUTA) and encouragement to people to participate in AMC's conservation efforts.

#### 4.7. Transferability

- CMAG had organized the transfer seminar on this practice in 2001 in which many Gujarat cities participated. Two cities, Bhuj and Siddhpur, are in the process of establishing the cell even as training material is ready with CMAG and CRUTA.



## 1. Public-Private Partnerships

Category: Urban Governance; Environment Management; Civic Engagement

- Partnership Development; Pollution Control, Urban Greening, Environmental Health; Community Participation

### Solid Waste Management Park Development and Maintenance

#### A. Solid Waste Management

- Situation before the Initiative
- The Bodak Dev, located in western Ahmedabad, comprising of commercial and residential properties, generated about 8-10 tons of solid waste per day. The area is around 6 sq. kms in size The Bodakdev Nagar Panchayat incurred an expenditure of around Rs. 40,000-50,000 in garbage collection and transportation to the dumping site.
- Similar to most of the municipalities in the country, Bodakdev Nagar Panchayat also faced problems in managing the solid waste generated in the area. This was ironic since this area comprises of some of the costliest properties of the city.
- Due to lack of proper networking of garbage collection points, irregular transportation of garbage to the landfill site and improper supervision of maintenance; garbage was dumped at various places along the road creating unhygienic & unpleasant conditions.
- The citizens of the area were not ready to pay taxes in absence of proper service delivery by Nagar Panchayat.
- A need was felt for an alternative method, which would keep the area clean and maintain hygiene and in turn encourage the citizens to pay the taxes.

- The Initiative/Innovation

- Though it is not a mandatory function of Ahmedabad Urban development Authority (AUDA), SWM was initiated in January 2002. The initiative has been named as "Green Bodakdev, Clean Bodakdev".
- AUDA has entered into a unique partnership with a private agency, to facilitate solid waste management in the Bodakdev area so as to provide better services to its residents.

- Stakeholders Involved

1. Ahmedabad Urban Development Authority
2. A Private Agency
3. Local Government / Gram Panchayat in this case
4. Resident associations/societies



- Strategies Adopted

- AUDA took up this initiative to privatize the operation of collecting the solid waste generated, maintaining cleanliness and increasing greenery in Bodakdev area.
  - The contract has been given to a private agency, called “Clean Bodakdev Green Bodakdev” for one year as a pilot project.
  - The private agency undertook the task of collecting the solid waste of each of the 279 societies identified, dumping it into a large garbage bin shared between societies and finally transporting and emptying the large garbage bins at the pre-identified landfill area.
  - The infrastructure for garbage collection viz. tractors, three wheeler bicycles, etc have been provided by the Gram Panchayat and the private agency has undertaken the task of providing sweepers and carrying out the actual work. The Gram Panchayat is also currently paying the wages of the sweepers, while reporting of work done etc is made by this agency to AUDA.
  - All the societies in the particular area were listed methodically and routes for cleaning and maintenance purpose were identified.
  - 279 societies have been enlisted in the Bodakdev area and 13 routes have been identified. A team of 35 sweepers has been mobilized by the private agency.
  - One/two garbage collection bins of 2-ton capacity are provided outside each society free of cost.
  - The sweepers/cleaners of each society are instructed to dump the entire solid waste collected into the bins provided for the society.
  - The sweepers appointed by the private agency collect the garbage from each of these garbage bins and transport it to the larger garbage (10-ton capacity) collection point from where this is carried to the landfill site.
  - The contractor’s sweepers are also required to sweep the roads on their collection route.
  - This entire process of collection is carried out twice in a day, once in the morning and second in late afternoon.
  - For maintaining a strict supervision over the entire activity complaint cards have been printed and distributed to the head of every society, which is to be filled on monthly basis.
  - The sweepers also are required to get their daily work card signed by the watch keeper’s of individual society after collecting the solid waste and sweeping the assigned area.
  - Roadside Plantation of trees procured from forest department has also been undertaken by the private agency with the help of people’s participation. Tree Guards have been provided by AUDA and the agency encourages the societies to undertake tree plantation and maintenance.
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- Results Achieved
    - Bodakdev area is now one of the cleanest areas of AUDA.
    - The citizens of the area have shown their readiness to pay taxes and share the costs incurred in this activity.

- From the role of that of an implementing agency, the Gram Panchayat has changed to that of a facilitator.

## **B. Park Development and Maintenance**

- Situation before the Initiative
  - The Green Belts proposed in the earlier development plans have failed, as the land was never acquired/developed as open spaces.
  - There are inadequate gardens and open spaces in the fast growing periphery of the city, because of lack of finances for maintaining the green areas as well as for developing new ones.
  - Ground water is depleting rapidly.
  - These reserved lands were encroached upon or became dump yards. This created unhygienic situations at important junctions and locations of the city.
- The Initiative/Innovation
  - AUDA has initiated partnership with private sector for developing and maintaining the land parcels designated for open space/recreational and park development as well as traffic islands.
- Strategies Adopted
  - In the new zoning plan, a virtual green belt is proposed with private sector participation.
  - Up to 5% of all land in the T P Schemes is being earmarked for parks and open spaces.
  - AUDA has identified various pockets of land and traffic islands for development of parks/gardens.
  - Several leading organizations from private sector have been approached to carry out the development and maintenance of these parks.
  - These organizations are required to initially pay a fixed amount to AUDA as token money based on the area of the plot.
  - AUDA carries out the garden development, which has to be maintained by the organization on yearly contract basis.
  - All the maintenance charges including water charges, electricity bills, lighting repairs and labour wages have to be born by the private organization.
  - In return, the private organizations are entitled to install their booths/stalls and advertising hoardings at the particular park within the area permitted by AUDA.
  - AUDA inspects the maintenance carried out by the private organizations on a regular basis and the contract is renewed on yearly basis if it is found satisfactory.



- Results Achieved
  - 33 gardens with an aggregate area of 1,00,000 sq. meters have been developed and 13 more gardens covering 36000 sq. meters are being planned on AUDA land.
  - A unique garden strip has been developed along the Sarkhej-Gandhinagar Highway, enhancing the beauty of this stretch.
  - Finances are generated to carry out works for improving the environmental conditions in the city as well as dilapidated plots are developed and maintained as green spaces of the city.
- Lessons Learnt
  - Urban Local Bodies act as facilitators rather than implementers.
  - People are willing to pay in return of services and willing to participate.
  - Mobilization of resident groups can help undertake social programs like planting of trees, etc.
  - Civic amenities improving environmental and social aspects can be provided and encouraged with private sector participation.
  - The activities being carried on contract basis, ULBs can monitor the process strictly and terminate the contract if the work carried out is not satisfactory.
- Sustainability
  - The privatization initiative is sustainable as private sectors as well as communities are motivated in the development and maintenance of recreational areas, which in turn leads to clean, environmentally healthy and aesthetically beautiful surroundings.
- Transferability
  - The initiatives of public private participation are easily transferable among other local bodies where financial and human resources are meager.