

CHAPTER II

PERFORMANCE AUDIT REVIEWS

2.1 Andhra Pradesh Urban Services for the Poor

Highlights

The State Government launched (April 2000) the Andhra Pradesh Urban Services for the Poor (APUSP) project for achieving sustained reduction in poverty and vulnerability of urban areas in 42 class I towns of the State. The project estimated to cost Rs 1407.47 crore was to be aided through a grant of Rs 747.21 crore from Department for International Development (DFID). The Project comprised of three linked and complementary components viz., municipal reforms, environmental infrastructure and strengthening of civil society. Although, adequate funds were placed at the disposal of the Andhra Pradesh Urban Finance and Infrastructure Development Corporation (APUFIDC), bankers for APUSP, except for implementation of the environmental infrastructure works, the municipalities failed to bring about municipal reforms and strengthen civil society as intended. As of March 2006, only 49 per cent of the total grant of DFID had been utilized by the municipalities/APUSP and, at this pace of implementation, utilisation of full grant before closure of the project by March 2008 is doubtful. Audit scrutiny revealed unfruitful expenditure on water supply works, excess payments, losses, non-accountal of funds, parking of funds in fixed deposits, etc. in 10 test checked municipalities/Project Coordinator (PC), APUSP alone. Monitoring was inadequate both at the level of PC, APUSP and at municipalities.

Though the municipalities have carried out project formulation as stipulated and evolved comprehensive municipal action plans for poverty reduction, certain vital proposals such as System Improvement Plan, Finance and Operation Plan, Operation and Maintenance Plan and General Town Plans were either altogether left out or not implemented. Preparation/approval of Basic Municipal Action Plan for Poverty Reduction (BMAPPs) was delayed by majority of the municipalities.

[Paragraphs 2.1.7.1 and 2.1.7.2]

The State Government budgeted and released funds to AP Urban Finance and Infrastructure Development Corporation (APUFIDC) without any correlation to the actual expenditure. As a result, 30 per cent of funds are lying unutilized in the Corporation's Personal Deposit Account as of March 2006.

[Paragraph 2.1.8.2]

Though the project had commenced in 2000, the expenditure incurred during the six-year period 2000-06 at Rs 363.36 crore amounted to only 49 per cent of the total DFID grant of Rs 747.21 crore. Since the project is to be wound up by March 2008, utilization of the remaining grant before closure of the project is doubtful.

[Paragraphs 2.1.8.2 and 2.1.8.4]

Though all the three components of the project are linked and complementary to each other, only the 'Environmental Services for the

poor (C2)' component was concentrated upon. 'Municipal reforms' and 'strengthening civil society organizations' (C1 and C3) components were neglected.

[Paragraph 2.1.8.4]

The Commissioners of six (out of ten) municipalities had invested Rs 4.95 crore of the project funds in fixed deposits contrary to guidelines.

[Paragraph 2.1.8.5]

There were inordinate delays in implementation of proposals under the C1 component. None of the 122 proposals (BMAPPs) costing Rs 12.80 crore taken up in the 10 test checked municipalities had been completed, rendering the expenditure of Rs 2.29 crore so far incurred largely unfruitful.

[Paragraph 2.1.9.1]

Under 'Environmental Infrastructure' for sustainability component (C2) too 652 out of 2495 works sanctioned in different MAPPs had remained incomplete. Expenditure of Rs 5.40 crore that was incurred on 13 water supply, drainage and road-cum-drainage works in six (out of 10) test-checked municipalities without proper planning and survey was unfruitful.

[Paragraph 2.1.10]

Though the activities of formation, training and bank linkages to Self Help Groups (SHGs) and creation of livelihood were successfully carried out, none of the 382 proposals costing Rs 34.02 crore in the areas of education, health and vulnerability were implemented in the municipalities test checked. Thus, the performance of 'Strengthening of civil society' (C3) component is far from satisfactory, even after six years of launching the project.

[Paragraph 2.1.11]

Monitoring was poor both at Project Coordinator, APUSP level and at municipalities adversely affecting the pace of progress in implementation of the project as a whole, resulting in the intended benefits to the targeted population.

[Paragraph 2.1.12.1]

2.1.1 Introduction

Andhra Pradesh has been witnessing rapid urbanization over the past two decades. As per the census of 2001, 27 per cent of the total population of the State lives in urban areas. Further, majority of the urban population (75 percent) inhabits class one towns, i.e. towns with more than one lakh population. Launched in the year 2000, Andhra Pradesh Urban Services for the Poor (APUSP), is a partnership project between the Government of Andhra Pradesh and the Department for International Development (DFID), Government of United Kingdom with the aim of achieving sustained reduction in the vulnerability and poverty of the urban poor in the State. The seven-year project covering 32 class I municipalities with a population exceeding one lakh was targeted to benefit approximately 2.8 million slum dwellers. The project was later extended to 10 more class I towns in 2004. The APUSP

project comprises of the following three linked and complementary components, which form part of the Basic Municipal Action Plan for Poverty Reduction (BMAPP) or Comprehensive Municipal Action Plan for Poverty Reduction (CMAPP), as the case may be.

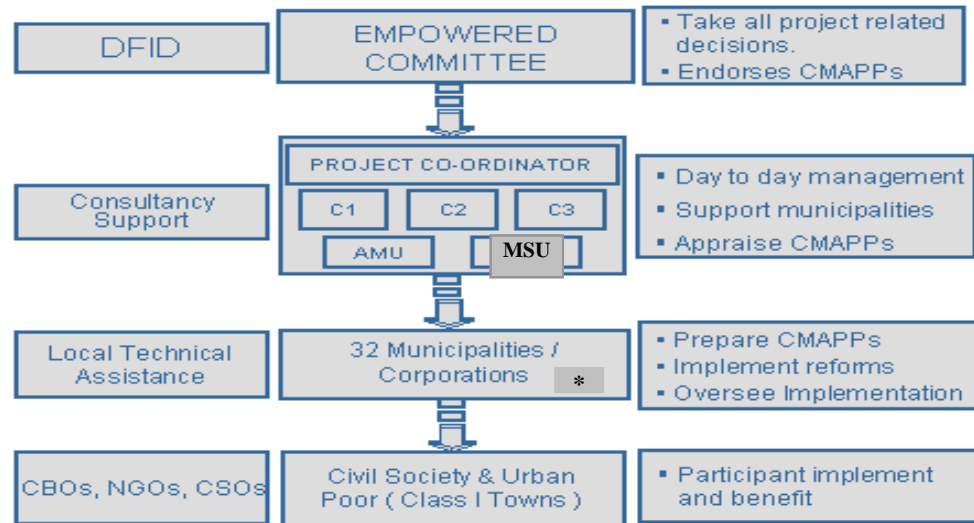
C1. Reforms leading to improved municipal performance	Focuses on municipal reforms, aims to improve the performance of municipalities and contribute to the development of pro-poor policy through initiatives that strengthen municipal finance, municipal accounting, improve planning, operation and maintenance practices and train staff in identified areas.
C2. Environmental services for the poor	Aims at environmental infrastructure improvement for sustainable provision and delivery of urban basic services to the poor. This includes improvements in water supply, sanitation, solid waste management, drainage, roads, footpaths and street lighting. Off-site infrastructure is also provided to link existing trunk infrastructure to poor settlements where necessary.
C3. Strengthening civil society organisations	Aims at strengthening civil society to build their capacity to voice the needs of the urban poor and advocate for an improved range and quality of service delivery at the local level.

BMAPP is the action plan containing the Municipality's strategy, proposals and implementation plan for Municipal Reforms (C1) and Environmental Infrastructure (C2). The time frame fixed for BMAPP is 1 - 2 years. After meeting the Minimum Performance Criteria (MPC) and demonstrated commitment to reforms planned in BMAPP, a Project Town shall graduate to the next stage of action plan called CMAPP to be completed in 3 - 5 years. It contains three separate plans each representing the three different components of the project viz., Municipal Reforms Action Plan, Municipal Infrastructure Action Plan and Social Development Action Plan.

2.1.2 Organizational set-up

Strategic oversight of APUSP was undertaken by an Empowered Committee (EC), chaired by the Principal Secretary to Government of Andhra Pradesh, Department of Municipal Administration and Urban Development (MA&UD). Implementation of the project with regard to the Action Plans (whether BMAPP or CMAPP as the case may be) was primarily the responsibility of the respective municipalities headed by the Commissioners and monitored by the Project Coordinator, APUSP. The EC would endorse the Action Plans prepared by the concerned municipalities, approved by their Council and vetted by the Project Coordinator, APUSP. Two separate units, the Municipal Strengthening Unit (MSU) and the Appraisal and Monitoring Unit (AMU) had been established in the office of the Commissioner and Director of Municipal Administration (CDMA) for the monitoring of the project. The EC would take all project related policy decisions. The project structure is depicted as below:

Project Structure



* 42 with effect from 2004

2.1.3 Audit Objectives

The objectives of the review were to ascertain whether:

- the process of preparation of BMAPP and CMAPP was carried out as envisaged, for planning various interventions.
- the financial management was effective in achieving the desired objectives.
- the environmental interventions under C2 were carried out with due regard to envisaged outputs.
- the municipal reforms were carried out effectively under C1 and the extent to which civil society was strengthened under C3.
- the programme management, including monitoring and evaluation, was effective.

2.1.4 Audit criteria

The Audit criteria adopted were:

- objectives as set out in the project document and guidelines of BMAPP and CMAPP
- prescribed norms for utilization of APUSP funds by municipalities.
- guidelines detailed in the project document for preparation of various plans for improving municipal performance.

2.1.6 Audit Findings

The Audit findings are discussed under the sub-headings project formulation, financial arrangements, municipal reforms (C1), environment infrastructure for sustainability (C2), strengthening of civil society (C3) and project monitoring and evaluation.

2.1.7 Project formulation.

2.1.7.1 Non-implementation of certain vital areas

Certain vital proposals were left out in all the test-checked municipalities while carrying out Project formulation

The success of the project implementation of APUSP depended on the process formulation and preparation of Action Plans. As per the APUSP guidelines, each municipality was to prepare an Action Plan defining how it would achieve the three linked objectives in the context of local priorities. The AMU would subject every draft document to desk appraisal. After satisfying itself about the quality of the document and eligibility of the town, the Action Plans of the concerned Project Towns would be placed before the EC for endorsement and funding. All the funds released under the project were to be based on performance and achievement of minimum performance levels by the municipalities. In turn, the municipalities would submit utilization certificates for amounts received. The effective implementation of action plans by the project towns would be gauged by the extent to which they had met the prescribed MPC detailed in *Appendix 2*.

Audit scrutiny in the test checked municipalities revealed that though the project formulation was by and large sound, several vital areas viz., System Improvement Plan (SIP), Finance and Operation Plan (FOP), Operation and Maintenance Plan (O&MP) were left out in all the test checked ULBs. Due to non preparation of these plans, the municipal reforms, as envisaged could not be achieved.

2.1.7.2 Preparation of matrix of poor settlements

Preparation/ approval of BMAPPs was delayed in almost all the municipalities

One of the major components of the BMAPP is the preparation of a matrix of 'poor' settlements in the town. The 'poor' settlements are placed in a 3X3 matrix based on poverty incidence and environmental infrastructure deficiency and funds are to be provided on this basis. It was, however, observed that although the project was conceived in the year 2000; the BMAPPs including Matrix of Poor Settlements were prepared and got approved only by 2002 by the municipalities. This resulted in over all delay in implementation of the project as detailed in paragraph 2.1.8.3. All the municipalities test checked except one i.e. Dharmavaram (Anantapur District) had taken up the works under C2 component covering the poor settlements as per the matrix design. In Dharmavaram Municipality, although 27 poor settlements were identified and the matrix prepared, only one slum (poor settlement) was taken up for development of infrastructure reportedly with an intention to take up the remaining poor settlements during subsequent cycles. However, it was observed that the development of infrastructure in this slum was slow as only

four out of 11 approved works (Feb 2005) were taken up for execution as of October 2006. The reason attributed was encroachment, necessitating recasting of the estimates, causing considerable delay.

2.1.7.3 Implementation of CMAPP

All the 32 towns initially selected were moved to the next cycle of CMAPP based on the performance criteria. Subsequently, 10 more towns were allowed to move to the CMAPP directly.

2.1.7.4 General Town Plan not yet formulated

General Town Plan was not yet formulated by any municipality

The project also envisaged General Town Plan (GTP) for providing spatial framework for achieving economic and environmental objectives, target-planning efforts, creating transparency in terms of development, etc. It involved preparation of base map, based on Geological Information Systems (GIS) survey, property survey and utility mapping by contact survey and development and customization of GIS software and integration with Municipal Management Information System (MIS). This had the potential for enhancing municipal revenues by improving the available information system about properties within municipal limits. It was observed that though base maps were prepared, the GTP was yet to be formulated. The Commissioners of the test checked municipalities stated in the exit meeting that the preparation of GTP had been taken up.

2.1.8 Financial Arrangement

2.1.8.1. Funding Pattern

Different funding was adopted for the components C1, C2 and C3

The total project cost of Rs 1407.47 crore was to be funded by DFID (Rs 747.21 crore) and State Government (Rs 660.26 crore under C2 component only). The component-wise DFID allocations are as follows:

Component	Allocation (Rupees in crore)
C1	121.13
C2	525.33
C3	100.75
Total	747.21

DFID had been providing funds (through GOI) as a grant, by way of reimbursement of eligible expenditure initially incurred by the municipalities from out of the State budget. DFID funds are budgeted at 50 *per cent of total cost of the project* assuming that additional finance would be available from the State Government/municipality revenues. Funds were released by the State Government for credit to PD account of Andhra Pradesh Urban Finance and Infrastructure Development Corporation Limited (APUFIDC), which acted as a fund-channelising agency (banker). Based on the advice of the Project

Coordinator, APUSP, the APUFIDC disbursed the funds in advance to the implementing agencies (municipalities) for execution of works under the C2-component. The municipalities were to submit the utilisation certificates after incurring expenditure. However, for implementing the components C1 and C3, the municipalities were to meet the expenditure initially from their general funds and obtain reimbursement or direct payment to third parties arranged by APUSP itself, on receipt of goods/services from them.

2.1.8.2 Releases and expenditure

Government budgeted/released funds to APUFIDC without any correlation to actual expenditure

Funds provided by the State Government against DFID's assistance to APUFIDC (through APUSP) and the expenditure incurred by the municipalities during the six year period 2000-06 as furnished by the Project Coordinator, APUSP were as follows:

(Rupees in crore)

Year	Budget Provision	Government releases to APUFIDC under C2	Releases by APUFIDC to APUSP/Municipalities under C2	Expenditure under C2	Amount unutilized lying in PD A/c of APUFIDC	Expenditure under C1 and C3
2000-01	10.00	10.00	10.00	0.00	10.00	7.20
2001-02	-----		----	10.00		14.06
2002-03	30.00	30.00	19.93	19.29	10.07	14.30
2003-04	88.63	88.63	84.28	77.89	14.42	15.61
2004-05	175.00	175.00	96.56	90.85	92.86	4.80
2005-06	165.00	152.76	110.19	101.74	135.43	7.62
Total	468.63	456.39	320.96	299.77	135.43	63.59*

* C1: Rs 51.92 crore; C3: Rs 11.67 crore Of this, DFID itself spent Rs 39.98 crore under C1 and Rs 5.92 crore under C3 components (Total- Rs 45.90) and balance (Rs 17.69 crore) by APUSP/Municipalities

During the period 2000-06, as against the total releases of Rs 456.39 crore by the State Government to APUFIDC under C2 component, APUSP reported an expenditure of Rs 299.77 crore (66 per cent). However, Audit noticed several instances of unfruitful expenditure on incomplete works in the 10 (out of 42) test-checked municipalities as discussed in the subsequent paragraphs. The municipalities had also incurred expenditure of Rs 17.69 crore under the C1 and C3 components reimbursable by DFID besides the expenditure of Rs 45.90 crore incurred directly by DFID under C1 and C3 components. It would be seen from the above, that the municipalities' own contribution towards C1 and C3 components was very low and that they concentrated only on the infrastructure works (C2 component) as detailed in subsequent paragraphs. As of December 2006, APUSP had sent claims for Rs 322.78 crore for reimbursement and DFID had reimbursed Rs 260.44 crore. As of March 2006, 30 per cent (Rs 135.43 crore) of the fund released to APUFIDC was lying unutilised in its PD Account, reportedly due to non-submission of UCs by the municipalities. It was observed, that out of the total expenditure of Rs 299.77 crore incurred under the C2 component, the municipalities had submitted UCs only for an amount of Rs 221.57 crore as of March 2006. This

indicated that advance of funds to APUFIDC by Government during 2004-05 and 2005-06 was without any correlation to the actual expenditure.

The project guidelines envisaged that 50 *per cent* of the total cost of in-slum infrastructure (C2 component) was to be borne by the GOAP/municipalities. However, details of contribution of GOAPs share were not available. In reply to an audit query, the Project Coordinator stated that contribution of the GOAP to the project was through various schemes and projects for poverty alleviation and other ongoing grants and devolution of funds to the urban local bodies. Therefore, the Project Coordinator, APUSP contended that the contribution of GOAP was largely met.

However, in the absence of GOAPs share to APUSP being distinctly accounted for or identified, Audit could not ascertain the actual position in this regard. Accordingly, the performance review was confined to the financial appraisal of the project concerning allocations made out of GOAPs budgetary provision against DFID's assistance.

The following other points were also noticed in audit:

2.1.8.3 Slow Progress in utilisation of project funds

Only 49 per cent of the total grant was spent in six years. Utilisation of full grant before March 2008 was thus doubtful

As per the project guidelines, the releases for subsequent cycles of Action Plans depended on the municipalities attaining the Minimum Performance Criteria (MPC). It was observed that there were inordinate delays on the part of municipalities (8 towns had taken more than 24 months in moving from BMAPP to CMAPP and 13 towns had taken more than 24 months from CMAPP to CMAPP 1st cycle) in achieving the milestones to become eligible for graduating to subsequent cycle of funding, thereby failing to utilize funds provided in the earlier cycles. This led to the extension of the project up to March 2008 from March 2006. During the exit conference, Project coordinator, APUSP attributed (January 2007) the delay in progressing from once cycle to the next, to some field level problems, lack of consensus in council and consequent delay in attaining the Minimum Performance Criteria (MPC) set for entry into subsequent MAPPs.

The expenditure of Rs 363.36 crore incurred by the project towns on all the three components (including that incurred by DFID directly under C1 and C3) constituted only 49 *per cent* of the total grant of DFID, indicating tardy implementation of the project. Though the utilisation of funds in BMAPP was more than 90 *per cent* in all the test checked municipalities, the performance of utilisation and submission of UCs in CMAPP was not satisfactory in Dharmavaram and Tadepalligudem municipalities (Nil), Adoni (47 *per cent*), Nizamabad (51 *per cent*), Gajuwaka (56 *per cent*) and Machilipatnam (59 *per cent*). With the present pace of implementation, utilisation of the remaining 51 *per cent* (Rs 383.85 crore) of the DFID grant in the remaining two years of the project period is doubtful. The Project Coordinator assured in the exit meeting that all steps would be taken to utilize the funds in time.

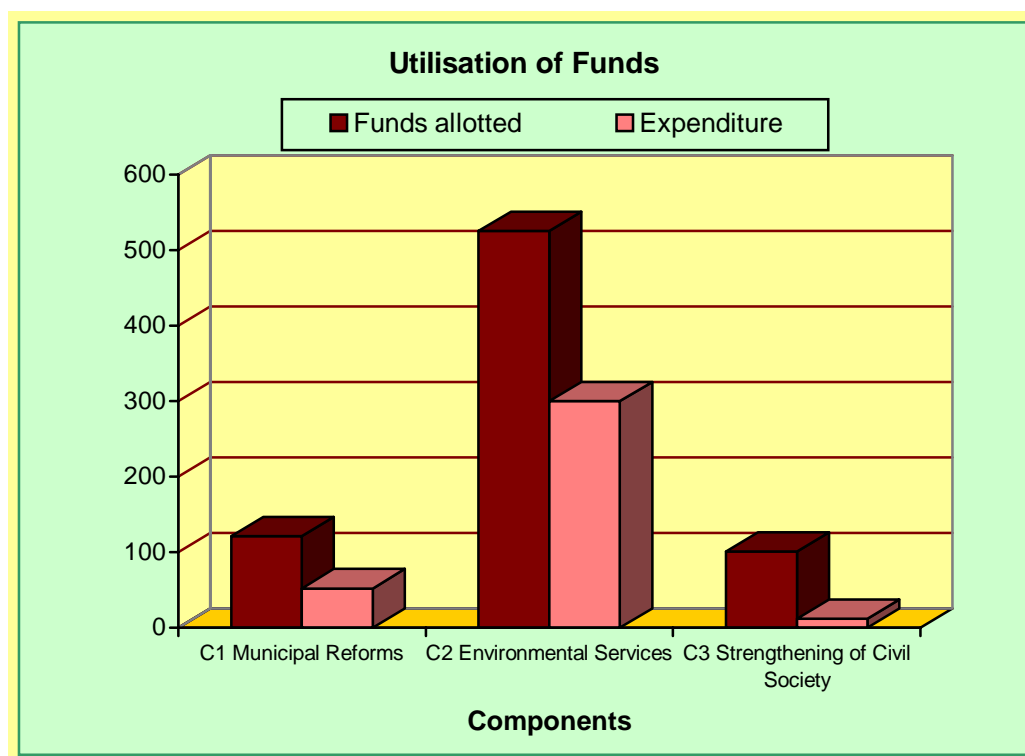
Focus was only on C2 component. The other two components C1 and C3 were neglected

2.1.8.4 Infrastructure works only focused

The three components of the project are linked and complement to each other, and the project implementation should cover all the three components for overall achievement of its objectives. It was, however, observed that the implementation of the project was skewed towards C2 component consisting of infrastructure works, ignoring C1 and C3 components as shown below, adversely affecting the overall objectives and sustainability of the project.

(Rupees in crore)

Component	Project Allotment	Approved allocation	Expenditure (Percentage)
C1 Municipal Reforms	121.13	109.90	51.92 (43)
C2 Environmental services	525.33	548.31	299.77 (57)
C3 Strengthening of Civil Society	100.75	50.68	11.67 (12)
Total	747.21	708.89	363.36



Performance of BMAPP was precariously low in Eluru, Adoni, Nizamabad, Gajuwaka and Mahboobnagar

Although the C1 and C3 components were proposed and approved by the respective municipal councils in the Action Plans, these components did not receive the desired attention. In spite of the fact that over all utilization of fund under BMAPP was more than 90 per cent in all the test-checked municipalities as stated in paragraph 2.1.8.3, the performance of C1 component under BMAPP was abysmally low in Eluru (12 per cent), Adoni (13 per cent), Nizamabad (16 per cent) Gajuwaka (15 per cent) and Mahboobnagar (17 per cent) (Appendix 3a). Further C1 and C3 components of CMAPP (both cycles)

were altogether neglected in all the test-checked municipalities and only three municipalities could graduate to CMAPP second cycle. Audit examination revealed that non-provision of funds in advance as in the case of the C2 component was one of the main reasons for the poor performance of the municipalities' vis-à-vis the C1 and C3 components. While accepting this, the Project Coordinator, APUSP stated that the recommendation of Audit would be implemented and that the same had already been approved by the EC.

2.1.8.5 Parking of funds in Fixed Deposits

Commissioners of six (out of ten) test-checked municipalities invested Rs 4.95 crore of project funds in fixed deposits contrary to guidelines

While releasing funds to the municipalities, instructions were issued from time to time by the Project Coordinator, APUSP that no part of the funds should be invested in any form of fixed deposits under any circumstances. It was, however, observed that in six² out of ten municipalities test checked, the Commissioners had invested (2002-06) Rs 4.95 crore in fixed deposits for varying periods. Of this, an amount of Rs 20 lakh was lying in fixed deposits since September 2002, Rs 1.05 crore since 2004, Rs 1.75 crore since 2005 and Rs 1.75 crore since 2006 (as of September 2006).

The amounts kept in fixed deposits for 4-5 years constituted about 10 *per cent* of the total releases, reflecting inadequate financial control both at the Project Coordinator and Commissioner's level. Due to parking of funds in fixed deposits, works identified in the Action Plans could not be completed, effecting the implementation of the project and the eligibility of the municipalities to graduate to the subsequent cycles of Action Plans. The Project Coordinator, APUSP stated in the exit meeting that immediate action was taken to withdraw the funds from fixed deposits in all the municipalities except Gajuwaka municipality after this was pointed out by Audit. Similar action needs also to be taken in other project towns, which were not covered in Audit.

2.1.8.6 Diversion of funds

Four (out of ten) municipalities diverted Rs 33.03 lakh of project funds towards salaries, etc.

Four out of 10 municipalities test checked had diverted the project funds of Rs 33.03 lakh³ (2003-06) to general funds and utilised these for payment of salaries. The Commissioners stated (October/November 2006) that the amounts would be reimbursed to APUSP account in due course.

2.1.9 Municipal Reforms (C1)

As of 31 March 2006, the total expenditure under the C1 component at Rs 51.92 crore was 43 *per cent* of the total project allotment of DFID towards this component and constituted 14 *per cent* of the total expenditure incurred on the project by APUSP/municipalities. As stated in paragraph 2.1.8.4 utilisation of funds under this component was relatively low as compared to the C2

² Eluru (Rs 0.25 crore), Gajuwaka (Rs 1.10 crore), Hindupur (Rs 0.70 crore), Machilipatnam (Rs 1.15 crore), Mahboobnagar (Rs 0.30 crore), Nizamabad (Rs 1.45 crore)

³ Kurnool (Rs 0.76 lakh), Machilipatnam (Rs 15.00 lakh), Mahboobnagar (Rs 10.00 lakh) and Nizamabad (Rs 7.27 lakh)

component. The project envisaged a range of activities focusing on municipal reforms to achieve improved financial planning and implementation capacities of participating municipalities. Funds under this component were provided on the basis of improvement in performance of activities proposed in the Action Plans. The project envisaged several reforms for enhancing the performance in various spheres for effective delivery of services and to generate more revenue for the municipalities. An important initiative in this regard has been concerted efforts by municipalities towards reduction of electricity consumption. As per the Project Coordinator APUSP, 42 project towns effected a saving of energy bill to the extent of Rs 8.5 crore as of November 2006, without any capital investment by merely analyzing street lighting, consumption of electricity for water pumping and through Contract Minimum Demand (CMD).

While this was very commendable, Audit scrutiny revealed inadequate coverage of the component with inordinate delays in implementation by municipalities as discussed below.

2.1.9.1 Inordinate delay and inadequacy in implementation of municipal reforms

Audit noticed inordinate delays in implementation of Municipal Reforms

The municipal reforms proposed by all the municipalities in their BMAPPs under C1 were under three broad categories viz. Revenue Improvement Action Plan (RIAP-study of revenue improvement, survey of municipal assets, finalisation of accounts and audit, introduction of online payments); Institutional Development Action Plan (IDAP-preparation of base maps and utility mapping, external communication systems; and computerisation of all sections) and C2 related C1 proposals consisting of procurement of equipment of engineering and town planning, solid waste disposal and recycling, drainage studies, etc.

None of the 122 proposals (BMAPPs) costing Rs 12.72 crore taken up by all the eight test-checked municipalities had been completed. Expenditure of Rs 2.29 crore was unfruitful

Test check of eight out of 10 municipalities where C1 was implemented revealed that though 122 works in BMAPPs (relating to C1) costing Rs 12.80 crore were taken up in 2002 for completion within one year, none of these had been completed as of November 2006. The expenditure of Rs 2.29 crore incurred so far on these works as detailed in *Appendix 3a* was thus largely unfruitful. Despite this, municipalities had incorporated 223 new proposals costing Rs 16.21 crore in CMAPP (in 2004) and CMAPP second cycle (in 2005), of which 191 works costing Rs 12.82 crore were approved by the Empowered Committee in 2004 and 2005 as detailed in *Appendix 3b*. However, no expenditure had been incurred as of March 2006 by any of the municipalities.

In the four test checked municipalities (Eluru, Hindupur, Machilipatnam, Mahboobnagar), six municipal reforms proposals were outsourced to ORGMARG⁴ and ASCI⁵ in September 2002 in the areas of Revenue Improvement Study, Asset Management Study, Best Practice Study tours,

⁴ Operations Research Group-ORGMARG

⁵ Administrative Staff College of India

update of accounts and audit, Property and utility mapping, Preparation of Base Maps and development of GIS to facilitate smooth, timely and effective implementation of the project. Though scheduled for completion in 18 months, none of these proposals had been completed as of September 2006 except for preparation of base maps.

Several vital areas of Municipal Reforms were not implemented

Further, several vital areas envisaged in municipal reforms component of the project were not implemented at all by the municipalities as detailed below:

- Compilation of accounts and audit of the accounts was not carried out or inadequate in seven⁶ out of 10 municipalities test checked.
- Despite existence of sanctioned proposals for carrying out reforms in municipal asset management in order to make municipal assets financially viable and improve service delivery, no significant progress in execution of these proposals was made in any of the test-checked municipalities.
- To bring out reforms in property tax collections, the project envisaged survey and detection of under-assessed, un-assessed, misused exemptions, etc. to bring them under tax net. However, cross verification of municipal data with other agencies such as APTRANSCO as well as different sections of the municipality was not carried out by any of the municipalities test checked.
- Unauthorised tap connections, incorrect categorization, lack of metering especially for bulk supplies, etc were not brought under collection net, in all the project towns test checked.
- Studies on solid waste management were not completed. Landfills were not established for disposal of solid waste in any of the project towns test-checked. Only tricycles for door-to-door garbage collection were purchased and were in use.

Thus the envisaged municipal reforms to enhance performance in the areas of finance, planning and management had not been achieved. Release of funds under C1 based on submission of the bills after incurring the expenditure by the municipality (unlike in C2 for which funds are released in advance) was one of the contributing factors for slow progress in implementation as most of the municipalities were starved of funds as stated in paragraph 2.1.8.4.

The Project Coordinator, APUSP stated in the exit meeting that all efforts were being made to implement the vital proposals.

2.1.9.2 Other points of interest.

Loss due to non-recovery of cost of training, etc. from the contracted personnel.

Cost of training/salary was not recovered from the contracted personnel though stipulated in the agreement

To provide better interface between the project office and the field agencies and to have an effective feedback mechanism, it was proposed to engage the

⁶ Dharmavaram, Hindupur, Kurnool, Machilipatnam, Mahboobnagar, Nizamabad and Tadepalligudem.

services of IT professionals as Municipal Information and Performance Officers (MIPO) for placement in each of the project towns and at the Project Office, for three years on contract basis. As per clause 22 of the agreement, three months salary and training cost would be recovered from the MIPOs who resigned within a year and one-and-a half-month's salary from those who resigned after one year but before three years of service. Though 18 MIPOs had resigned within one year and 14 before completion of three years, the cost of training and salary amounting to Rs 18.70 lakh was not recovered from them. The Project Coordinator, APUSP stated in the exit meeting that so far Rs 3.45 lakh had been recovered and the remaining amount would also be recovered in accordance with the agreement condition.

2.1.10 Environmental infrastructure for sustainability (C2)

2.1.10.1 Non-completion of works

652 out of 2495 works sanctioned in different MAPPs remained incomplete

The expenditure incurred under the C2 component was 83 *per cent* of the total expenditure incurred on the project. The actual utilization of fund under this component was 57 *per cent* of the total project allocation by DFID for this component. The project envisaged improvement in environmental infrastructure for the poor by taking up on-site infrastructure projects, sub-projects and works in the identified areas of drinking water supply, sewerage and sanitation, roads and footpaths, solid waste management, street lighting, storm water runoff and management of floods, etc under this component.

Out of 2495 works sanctioned under the C2 component during 2001-06, only 1843 works were completed as of March 2006. The MAPP wise details are as follows:

MAPP	Number of works		
	Sanctioned	Completed	Not completed (Percentage)
BMAPP	1249	1219	30 (02)
CMAPP	858	573	285 (33)
CMAPP 2 nd cycle	388	51	337 (87)
Total	2495	1843	652

In Tadepalligudem municipality, of the 25 works taken up, only three were completed. This was attributed to delay in technical sanction and execution. Similarly, improper planning and survey before conceiving the proposals/awarding contracts resulted in unfruitful expenditure of Rs 5.40 crore incurred on 13 water supply, drainage and road-cum drainage works in six (out of 10) test checked municipalities, as pointed in subsequent paras from 2.1.10.3 to 2.1.10.5.

The Project Coordinator, APUSP stated in the exit meeting that efforts were on to complete the works, and in respect of BMAPP only 13 works were yet to be completed.

The following points were also noticed in audit.

2.1.10.2 Delay in execution of works

Delays in execution of works ranged from two to twelve months

Though all 269 works taken up under BMAPP were completed in eight out of ten municipalities test-checked, there were delays ranging from two to twelve months in respect of 40 works. The progress of execution of works taken up under CMAPP and CMAPP second cycle has also been very slow. Out of 207 works proposed during 2003-05 under CMAPP in the 10 municipalities test checked, 55 works were yet to be completed as detailed in **Appendix 4**. Even in the case of completed works, there were delays ranging up to six months in 36 works. Out of 113 works taken up in three municipalities (Eluru, Hindupur and Kurnool) test-checked under CMAPP second cycle, only 42 works were completed as of September 2006.

APUSP released an amount of Rs 30 lakh in December 2004 and Rs 20 lakh in January 2006 to Dharmavaram municipality for taking up 11 water supply related works and drain works at a total cost of Rs 3.22 crore. It was, however, observed that despite issue of work orders for 10 works in April 2006, seven works had not been taken up so far (October 2006). The reasons attributed for such delays were encroachment, want of no-objection certificate from concerned authorities and lack of timely action to resolve the issues/bottlenecks by the municipalities.

2.1.10.3 Unfruitful expenditure on water supply works.

Gajuwaka Municipality:

Expenditure of Rs 1.72 crore on water supply works in Gajuwaka municipality and Nizamabad Municipal Corporation remained unfruitful

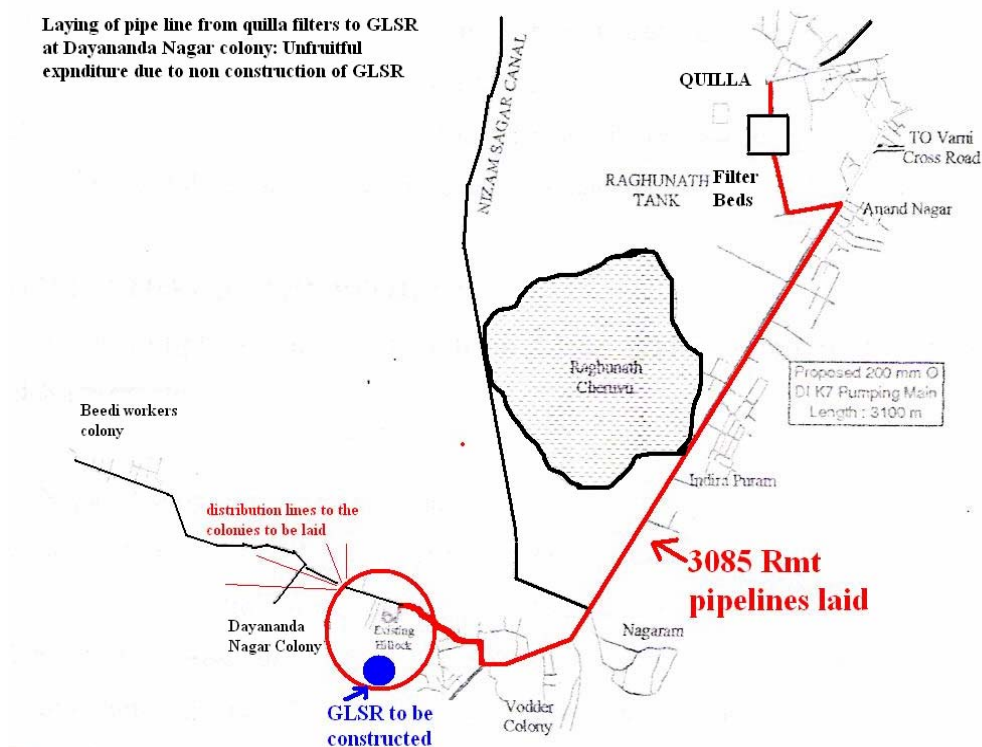
The municipality took up the work for 'providing pumping main from sump well to 500 KL Ground Level Storage Reservoir (GLSR)' in January 2004 at Dasarikonda, at an estimated cost of Rs 73.24 lakh. Although the work was commenced, the construction of GLSR was still to be taken up (as of November 2006). The municipality had laid the pipelines on land belonging to the National Highway Authority of India (NHAI) without obtaining permission and was therefore forced to realign the work. This resulted in uprooting the pipeline already laid and laying of additional length of 465 metres. Even after the lapse of more than two years, the municipality had not taken up the construction of GLSR without which the water could not be supplied. Thus, improper planning and survey, led to the expenditure of Rs 44.52 lakh already incurred on laying pipelines and other works, remaining unfruitful.

In an agreement entered into in March 2005, the municipality had taken up another work of 'providing water supply facilities to Tunglam', Gudivada Appanna colony and Kalikamba', at an estimated cost of Rs 1.19 crore. The work was scheduled to be completed in three months. Though the land identified for construction of GLSR belonged to the Endowments department, the municipality designed the work and awarded (March 2005) the contract

without obtaining the permission from the Endowment department. Even after the lapse of more than 18 months, the municipality had not taken up construction of the GLSR without which, water cannot be supplied. On this being pointed out, Commissioner replied that permission had been sought for from the Endowment department and the work would be started as soon as this was obtained. The expenditure of Rs 78.61 lakh incurred so far on laying pipelines and other works, thus, remained unfruitful.

Nizamabad Municipal Corporation:

The work of ‘laying of pipeline from quilla filters to GLSR at Dayananda Nagar colony’ was taken up at an estimated cost of Rs 44.37 lakh in March 2006. Though the work relating to pumping main was taken up in March 2006 and 90 per cent of the pipe line work (3100 Rmt) was completed, the other works viz., construction of GLSR and laying of distribution main from GLSR were yet to commence (December 2006), rendering the expenditure of Rs 37.91 lakh incurred so far on laying of pipelines, unfruitful. No specific reasons were furnished by the Commissioner for delay in completion of works.



The Municipal Corporation had taken up another work of ‘providing a water supply distribution line to the beedi workers colony’, etc at an estimated cost of Rs 24.26 lakh and an agreement was entered into with the contractor in May 2006 for completion in three months. However, it was observed that except for procurement of pipes at a cost of Rs 10.92 lakh, there was no progress in laying the pipes as of December 2006. Non-completion of envisaged water supply works in the above Municipality/Municipal Corporation rendered the expenditure of Rs 1.72 crore unfruitful. The intended

objective of providing drinking water to the targeted population had not also been achieved.

2.1.10.4 Unfruitful expenditure on drainage works

Eluru Municipal Corporation:

Expenditure of Rs 1.36 crore on drainage works in Eluru Municipal Corporation and Machilipatnam Municipality proved to be unfruitful

Two works 'construction of outfall drain in Chintalapudi road' and 'construction of outfall drain in Jangareddygudem road' were taken up at an estimated cost of Rs 47.64 lakh and Rs 45.34 lakh respectively and agreement entered into with a contractor in January 2005 for completion in three months. Although an expenditure of Rs 58.84 lakh was incurred for construction of the outfall drain in Chintalapudi road, work on a length of 25 meters was held up due to encroachments en-route. The encroachers had approached the court and obtained stay orders for not executing the work. As of September 2006, the municipality had not explored the feasibility of re-aligning the outfall drain and linking it to the main drain flow, duly by passing the encroachments. Similarly, the work of construction of outfall drain in Jangareddygudem road was also not completed after incurring expenditure of Rs 48.79 lakh due to encroachment. Thus, the total expenditure of Rs 1.08 crore incurred on these two drainage works remained unfruitful.



Machilipatnam Municipality:

Construction of Fathullabad outfall drain was taken up at an estimated cost of Rs 44.76 lakh and an agreement entered into in July 2005 for completion in four months. The work could not be completed as of September 2006 due to encroachments in some parts of the drainage track. Expenditure of Rs 28.37 lakh incurred so far has been unfruitful.

Thus, the entire expenditure of Rs 1.36 crore incurred on drainage works remained unproductive.



2.1.10.5 Unproductive expenditure on road cum drainage works

Adoni Municipality:

An agreement was concluded in August 2005 at a total value of Rs 2.04 crore for laying of CC road-cum-drainage works in six poor settlements by

Expenditure of Rs 2.32 crore on Road-cum-drainage works remained unfruitful in three municipalities/ corporation

December 2005. However, none of the works were completed due to encroachments. Commencement of works without proper preliminary survey regarding availability of site etc. rendered the expenditure of Rs 1.71 crore already incurred so far unfruitful. Road cum drainage work taken up in another poor settlement in the year 2003/2004 at a cost of Rs 19.90 lakh could also not be completed as of October 2006 due to encroachments rendering the expenditure of Rs 16.73 lakh incurred so far unfruitful.

Gajuwaka Municipality:

The work of laying of CC road-cum-drainage work was taken up in Yarada settlement and agreement entered in March 2005 for completion in three months. However, the work could not be completed owing to construction of drain without proper survey/design rendering the expenditure of Rs 14.48 lakh already incurred unfruitful.



Kurnool Municipal Corporation:

Road-cum-drainage works were taken up (2004) in the Leprosy colony. However, after incurring an expenditure of Rs 4.87 lakh, the work was stopped as the contractor failed to execute the work. The reasons for non-completion of the work by the contractor were not furnished by the department. Thus, the expenditure of Rs 4.87 lakh (November 2006) remained unfruitful. Another road-cum-drainage work taken up (November 2005) in weaker section colony-3 was also not completed due to non-laying of pipelines, rendering the expenditure of Rs 25.10 lakh unfruitful.

Thus, in the above Municipal Corporation/municipalities, expenditure of Rs 2.32 crore incurred on five road cum drainage works remained unfruitful due to improper planning and commencement of works without preliminary survey.

2.1.10.6 Liquidated damages not levied

Liquidated damages of Rs 48.81 lakh were not recovered though there were delays in executing the contracts

As per the provisions of AP Public Works Departmental Code ('D' code), liquidated damages would be imposed on the contractors for delay in reaching milestones/completion of the work. However, in six⁷ out of the ten municipalities test checked, it was observed that although there were delays in completion of the works/reaching milestones on the part of the contractors, the municipalities had not levied liquidated damages in respect of 13 works amounting to Rs 48.81 lakh. The Commissioners of the municipalities assured (October/November 2006) that liquidated damages would be recovered from the contractors in due course.

⁷ Adoni (2 works/Rs 22.36 lakh), Eluru (3 works/Rs 8.73 lakh), Hindupur (2 works/ Rs 3.20 lakh), Kurnool (2 works/Rs 2.75 lakh), Machilipatnam (2 works/Rs 7.29 lakh) and Nizamabad (2 works/Rs 4.48 lakh)

2.1.11 Strengthening of Civil Society (C3)

As of March 2006, the total expenditure under C3 component at Rs 11.67 crore was 12 *per cent* of the total project allotment of DFID towards this component and constituted only three *per cent* of the total expenditure incurred on the project by APUSP/municipalities. As stated in paragraph 2.1.8.4, utilization of funds under this component was relatively low as compared to the C2 component. The C3 component of the project was intended to strengthen the civil society through intervention in key areas such as education, health, livelihood, formation of Self Help Groups (SHG), vulnerability reduction, strengthening of Community Based Organizations (CBO), capacity building programmes, training, etc. However, adequate attention was not given to implement this component as discussed in the subsequent paragraphs.

2.1.11.1 Inadequate implementation of C3 proposals

Implementation of the 'Strengthening of Civil Society' was inadequate

Initially the activities of C3 component were directly dealt with by DFID, and in October 2003 the APUSP took over the execution of C3 component. All the municipalities had incorporated specific proposals in their CMAPPs (There is no C3 component in BMAPP) to bring out envisaged strengthening of civil society through key areas. In the ten test checked municipalities, 382 proposals costing Rs 34.02 crore were incorporated under the C3 component in CMAPPs in the areas of education, health, livelihood, SHGs, vulnerability, training, etc. as detailed in *Appendix 5*. During the exit conference, Project Coordinator informed that out of 383 proposals incorporated under the C3 component in the 10 test checked ULBs, only 169 proposals had been implemented. As in the case of the C1 component, the releases under C3 component were also based on submission of bills by the municipality after incurring the expenditure. This was one of the contributing factors for non-implementation of C3 proposals by the municipalities.

2.1.11.2 Several vital areas of C3 component not implemented

Several vital areas of C3 component in education and health sectors were not implemented

The APUSP succeeded in the implementation of SHG sub-component in all the project towns by setting up 41750 SHGs. Bank linkages amounting to Rs 117.12 crore was organized for 27812 SHGs with a satisfactory rate of recovery. Similarly, under the livelihood sub-component also, the project could provide training to 17608 candidates against the target of 21000 and placements for 12057 candidates under Phases I and II of the programme.

However, Audit noticed that some of the vital sub components in the areas of education, health, etc., were not implemented at all by any of the test checked municipalities, even though specific proposals were incorporated in CMAPPs and approved by the Empowered Committee, as discussed below:

- **Education:** Early Child Development Centers, DPEP schools, Adult Education Centers, providing basic infrastructure to schools, enrollment campaigns, were not implemented.

- **Health:** School health programmes, health check up camps, hygiene promotion and awareness programmes in AIDS, Leprosy, sanitation, family planning, formation of ECO clubs, training to ANMs, infrastructure for Urban Health Centers and Maternity Centers, were not implemented.
- **Vulnerability:** Assistance for rehabilitation of old age homes, assistance to disabled for purchase of aids, assistance to destitute, early intervention programmes, rehabilitation of commercial sex workers, were not implemented.

2.1.11.3 Extra burden on APUSP under “UPADHI”

Audit noticed excess payment of Rs 1.45 crore under ‘UPADHI’

Under livelihood advancement of the poor, the Project coordinator, APUSP in collaboration with Dr. Reddy’s Foundation (DRF) and American India Foundation (AIF) launched a programme called UPADHI (Urban Programme for Advancement of Household Income). As per the Memorandum of Understanding, the share of APUSP in Phase I was Rs 86.47 lakh for 7100 candidates in all the project towns @ Rs 1218 per candidate trained, whereas an amount of Rs 1.26 crore was released to DRF resulting in excess payment of Rs 39.53 lakh. It was noticed that the excess payment was due to payment of municipal share of Rs 500 per candidate and beneficiary share of Rs 100 per candidate over and above the share of APUSP. Similarly, an excess payment of Rs 1.05 crore was also made to DRF under Phase-II. As per the statement of Project Coordinator, APUSP, these excess payments would be borne by the project towns concerned.

2.1.12 Project monitoring, evaluation

2.1.12.1 Monitoring needs strengthening

Monitoring was poor both at PC level and at municipalities

The Project Coordinator, had not initiated effective steps in the early stages, for speeding up of the implementation of the project in municipalities where there had been slow progress. Similarly, the Appraisal and Monitoring Unit functioning under CDMA had not taken steps to pull up the sluggish municipalities for speedy completion of proposals under various components. Thus, ineffective monitoring at all levels resulted in envisaged municipal reforms in the areas of planning, finance management and strengthening of civil society not being achieved as planned. The environmental infrastructure interventions viz., C2 component were also marked by inadequacies as highlighted in paragraph 2.1.10.

Though Project impact and monitoring system was reportedly set up in the office of APUSP for refining ‘Objectivity Verification Indicator (OVI)’, quantifying their base line values and for improving and acting on recommendations arising there from, the Project Coordinator, APUSP had no information on these activities.

As per the Project Document, a Participatory Annual Evaluation Study (PAES) was to be undertaken by independent consultants to consider participation/inclusion by poor and vulnerable groups; primary and secondary

stakeholders perceptions and progress in terms of each component as well as of the project as a whole. Output to Purpose Reviews was also to be conducted at the end of three/five years. It was, however, observed that PAES was not carried out by any independent consultants. Planning and performance reviews were also not integrated in the municipalities. The Project Coordinator, APUSP stated in the exit meeting that rigorous monitoring had now been initiated and assured better implementation through regular monitoring.

2.1.13 Conclusion

APUSP is a well-conceived, innovative programme for the urban poor with the objective of bringing overall municipal reforms and strengthening of civil society in addition to creation of regular infrastructure. Though the three components were complementary to each other and adequate proposals and action plans under all the components were evolved and incorporated in MAPPs, the municipalities concentrated primarily on execution of works under the C2 component relating to creation of improved environmental infrastructure. There was also slackness in implementation. Accordingly, in all the test checked municipalities, there were delays in implementation of C2 works/proposals. Due to inadequate monitoring of implementation, Minimum Performance Criteria (MPC) were not attained within the stipulated time, resulting in non-achievement of project objectives. Audit noticed several irregularities in implementation like unfruitful expenditure on incomplete water supply works, etc. in the 10 (out of 42) test-checked municipalities. Although the project was launched in the year 2000 and was to have been completed by March 2006 (extended up to March 2008), the utilization of grant (DFID) as of March 2006 was only 49 *per cent*. Given the present pace of implementation, any productive utilization of the funds provided by DFID in full by the envisaged date of closure of the Project in March 2008, is doubtful.

2.1.14 Recommendations

- Municipalities should ensure quick completion of all the ongoing proposals under all the three components and take up new proposals at an early date so as to utilise the grants fully before the closure of the project (March 2008).
- Adequate planning and survey need to be carried out before taking up proposals/works to avoid unfruitful and wasteful expenditure.
- Release of funds to APUFIDC (through APUSP) should be strictly in accordance with actual requirements.
- The 'funding in advance' pattern adopted for C2 should be considered for the other two components, C1 and C3 also for speedy implementation of the proposals.
- All Municipalities should adhere to the stipulated financial norms and avoid parking of funds in fixed deposits.

MUNICIPAL ADMINISTRATION AND URBAN DEVELOPMENT DEPARTMENT

2.2 Information Technology Audit of Soukaryam – an e-Governance initiative of Greater Visakhapatnam Municipal Corporation

Highlights

Greater Visakhapatnam Municipal Corporation (GVMC) implemented 'Soukaryam' (meaning facility), an e-Governance project to provide civic services to the citizens in a speedy and transparent manner. IT audit of the implementation of Soukaryam revealed inadequate efforts in project planning, application development, back up recovery/ disaster recovery plans, absence of controls, logs and policies resulting in breach of security and integrity of data, exposing the system to possible manipulation. Inadequacy of an audit trail made it difficult to identify and fix responsibility in the event of unauthorized access and subsequent manipulation of data/application. Irregularities in data were noticed during data analysis. GVMC still depends on manual procedures to a significant extent and hence was not deriving full benefits of the IT application.

System Requirement Specification (SRS) was prepared five years after the implementation of Soukaryam defeating the very purpose.

[Paragraph 2.2.5.2]

Soukaryam did not have a built in module for an audit trail, and the logs maintained were incomplete thereby exposing the system to inadequate accountability.

[Paragraph 2.2.7.3]

Most of the Bulk/ Semi-bulk water meter readings were not fed to the computer database, indicating deficiencies in implementation.

[Paragraph 2.2.8.2]

Annual budget figures of GVMC did not tally with the computer database figures, depicting inconsistencies.

[Paragraph 2.2.9.4]

Revenue collections such as property tax, water charges and lease charges amounting to Rs 1.85 crore were not accounted for.

[Paragraph 2.2.9.5]

e-Procurement facility was not utilised in order to take benefits of competitive prices, etc.

[Paragraph 2.2.10.2]

'Redressal of citizens' complaints through website based complaints module was ineffective.

[Paragraph 2.2.12.1]

2.2.1 Introduction

Greater Visakhapatnam Municipal Corporation (GVMC)⁸ is responsible for discharging civic functions like town planning and provision of water supply, sewerage, roads, slum improvement, public health etc. GVMC fixes and collects property tax, water charges, advertisement tax, etc.

GVMC launched an e-Governance project - 'SOUKARYAM' (meaning facility) in 2000, for delivering civic services on-line. Soukaryam provides access to citizens through its web site⁹ for information on various services offered by GVMC, details of tax dues/ payments and for making payments and lodging complaints. Soukaryam consists of modules such as Revenue, Accounts, Engineering, Public Health, Planning, General and Human Resource covering functions of tax collections, accounting, web application for public use etc. Some of the banks, eSeva centres and the City Civic Centre have been put on the network for accepting payments online. A Local Area Network (LAN) of the GVMC forms the backbone to this network.

On an average, expenditure on providing services through Soukaryam was Rs 30 lakh per year. The IT wing of GVMC was headed by an Officer on Special Duty assisted by a Jr. Assistant and group of technical personnel drawn from a private firm for developing, implementing and maintaining the IT applications/software/ hardware.

2.2.2 Audit objectives

The IT audit of GVMC was conducted with the following objectives:

- evaluating the achievements of the project vis-à-vis the goals set.
- analyzing the data for completeness, integrity, reliability, accuracy and security.
- examining the adequacy of general and environmental controls and IT application controls in Soukaryam project.

2.2.3 Audit criteria

The audit criteria adopted were:

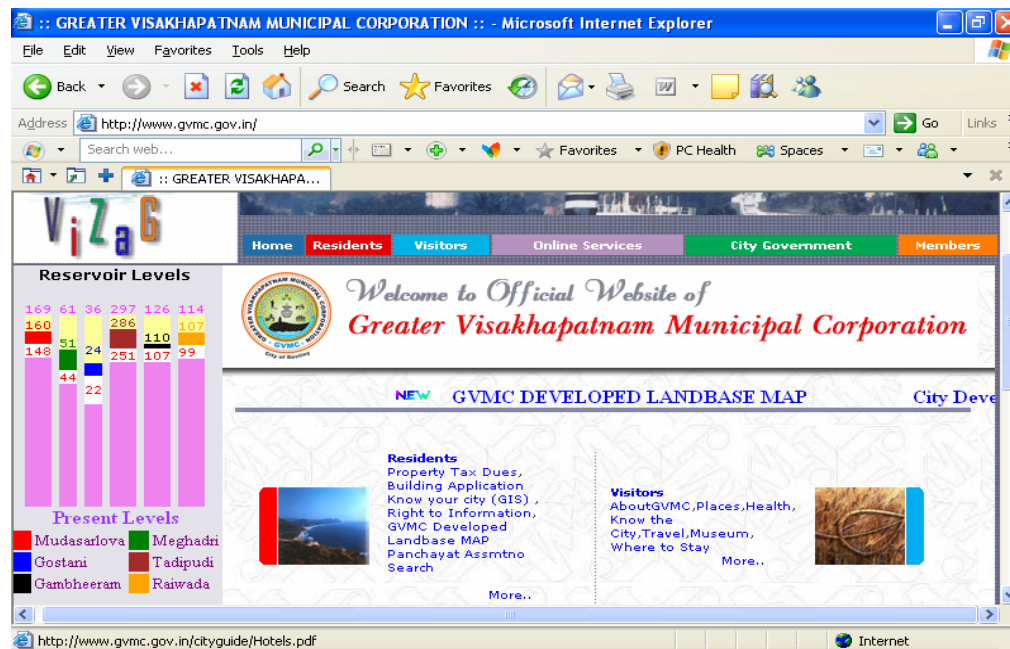
- Rules and provisions under the Hyderabad Municipal Corporation (HMC) Act, 1955.
- Instructions issued by the Government of India and Government of Andhra Pradesh.
- Instructions issued and rates adopted by the GVMC.
- Best practices for a computerized system.

⁸ Became 'Greater' in 2005, covering 540 Sq. Km areas with 14.5 lakh population

⁹ <http://www.gvmc.gov.in>

2.2.4 Scope and Methodology of Audit

IT Audit was conducted by examining the controls and through a review of an IT related practices. Data was analysed for the period 2001-07 (as of November 2006) using a computer assisted audit technique, IDEA¹⁰.



Audit findings

Important points noticed in audit are summarized in the succeeding paragraphs.

2.2.5 Design and development of application

2.2.5.1 Inadequate efforts in planning and development of the system

Adhoc approach in development of the application resulted in unreliable system

Audit examination revealed that the efforts in planning and development of a critical IT application like Soukaryam were inadequate as evident from the following:

- No feasibility study was conducted.
- There was no record of existence of any oversight mechanism in the development process in the form of minutes of the steering committee, review meetings to support the development etc.
- Adhoc and undocumented practices coupled with weaknesses in controls and irregularities were noticed, in the context of which no reliance could be placed on accuracy of data and adequacy of processes in the Soukaryam project.

¹⁰ Interactive Data Extraction and Analysis

2.2.5.2 Preparation of System Requirement Specifications (SRS) five years after the implementation of Soukaryam rendered it purposeless

SRS was prepared much after project implementation

SRS forms the basis for designing any system and its development. While, Soukaryam was implemented in 2000, SRS was prepared only in 2005, five years after implementation of the software. The work of preparation of SRS was outsourced to Andhra University (while the application was developed in-house) at a cost of Rs 1.80 lakh. Obtaining a document, which should ideally have proceeded, the design work, five years after development of the software served little purpose. GVMC also paid (2005-06) an amount of Rs 0.22 lakh to a private firm for guiding and obtaining the Standardization Testing & Quality Certification (STQC) for its software. However, Soukaryam project was not STQC certified till date.

2.2.5.3 Lack of integration of modules

Data could not be effectively used due to lack of integration of different modules

There was no integration of the different modules in GVMC. For example, while raising initial demand for trade licenses (in Public Health module), there was no provision to check if the property tax dues were paid for the premises at prescribed rates though the data was available in the same database. Similarly, while registering applications for approval of building plans (under Planning module), no programmed check was available with reference to existing data of the applicant either in the property tax or in the vacant land of the Revenue module to check that no dues were outstanding.

2.2.6 General Controls

2.2.6.1 Authorization controls

Multiple logins and access to ex-users to the application

User account management had deficiencies. Users who were no longer authorised to access continued to have access to the system. It was also observed in a particular e-Seva centre¹¹ that one user could login on any number of computers for accessing GVMC applications simultaneously, indicating weaknesses in security of data and application. When pointed out in audit, log in from e-Seva centres was restricted to a single system at a time by GVMC.

2.2.6.2 Segregation of duties

Lack of segregation of duties and dependence on contract personnel exposed the project to risk of potential misuse of critical data and application

Audit noticed that a group of individuals contracted from outside were performing various roles of DBA, DEO, System Administrator, Hardware engineers without segregation of responsibilities or any agreement to this effect. Apart from crucial jobs like programming, database, network and system administration, even the day-to-day functioning was being handled by contract personnel. In the absence of any form of agreement, the contract personnel could not be held accountable. For example, the contract person in-charge of database administration left without notice in November 2006 exposing the system to vulnerabilities resulting from inadequate DBA function.

¹¹ at Suryabagh

2.2.6.3 Change Management controls

Changes in the application without authorisation from authorities, exposed the application to internal threats like malicious codes, etc.

There was no documented change management policy or accepted procedure for making changes to the software. Frequent and adhoc changes were made exposing the system to manipulation. Though the system generated application logs, these were never reviewed. Audit also noticed gaps in the application logs. In a project where the programmer who developed the application was also responsible for day-to-day operations. A well defined procedure to control the changes made and maintaining logs of such changes was essential to prevent potential frauds, misuse etc. GVMC replied (January 2007) that the changes were made based on the oral orders of higher authorities, indicating poor change management practices.

2.2.6.4 Password policy

No specifications existed for password management

There was no password policy for the application, database or the operating system. The password practices indicated that desirable practices of good password management were not implemented. Even retired employees continued to remain enabled to log in from the members tab of the GVMC website.

2.2.6.5 Preparedness for adverse circumstances

No plans or resources existed to continue financial transactions in case of failure of server/network

There was no business continuity and disaster recovery plan for continuation of the operations of GVMC in the event of a disaster. Performance was not monitored and server down time report too was not maintained. In case of a disaster taking place there was a likelihood of the computerized system coming to a halt leading to disruption of services, as there were no backup servers, backup routers, fire alarm systems and second line of personnel.

There was no contingency plan for continuing the financial transactions from the various counters of Civic centre/eSeva centres in the event of server/intranet's failure. In all such events, the financial transactions were being stopped causing inconvenience to the public.

2.2.7 Application Controls

2.2.7.1 Input controls and Master data

Even after computerising the functions GVMC had to depend on manual procedures due to deficiencies in data

It was noticed that input controls were either missing or inadequate at both application and database level. Some instances of inadequate input controls are detailed below:

- In the Human Resource (HR) module, the Basic pay field accepted amounts, which were not in the time-scale and amounts much greater than the maximum of the scale. The application also did not provide date validations in date of birth, date of joining service, date of retirement, etc. Crucial values like Professional tax, Provident fund, etc. were being manually fed.

- In the Birth and Death registration module, the system accepted future dates. In 1742 records, the date of birth was greater than date of registration.
- In the Water charges table there were 1667 records where pay mode was cheque, but no cheque number was recorded.

Further, master data tables were also incomplete as indicated below:

- Of the 5759 records in the employee master table of the HR Module, in 1035 records there was no joining date, in 1006 records date of birth was blank and in 2030 records the category of employee was blank.
- Out of 226743 records in the Property Tax master table of the Revenue Module, parameters like plinth area, tax rate and other details which are essential for assessing the property tax demand were updated in only 79781 cases. It is necessary to update all the records so that in case of revision of tax rate in future, the system would be able to compute tax demand. Further, there were 1994 records where door numbers were not available, 41 records without name of the assessor, and 54842 records with duplicate door numbers.
- In the Water charges table there were 11392 records with duplicate door numbers, 205 records where name of the consumer was not available and 33745 records without 'Type of connection' details.

2.2.7.2 Error handling

Improper management of errors made the application cumbersome

There was no documented error handling procedure and thus *ad hoc* measures were resorted to, rendering it impossible to verify whether all the errors had been adequately rectified or not. It was also observed that whenever an error had occurred, the operators were forced to exit the application and re-login resulting in increased response time apart from the abrupt termination of the task.

2.2.7.3 Audit trail

Application log suffers from deficiencies

The application did not have a built in module for an audit trail. Payments made to the GVMC through the Revenue module could not be traced in the Accounts Module due to incomplete capture of challan numbers and dates and the fact that the field pertaining to transaction ID was not available.

Application log maintained in the Revenue module also suffered from deficiencies. There were no values in key fields like 'Type of transaction' and 'Remarks' column (in 210208 out of 239963 log records, both the values were blank).

Thus, due to non-availability of a proper Audit trail in the application, there was no way for fixing responsibility in cases where security of the data was infringed.

The Commissioner while accepting the audit observation assured (January 2007) those necessary precautions would henceforth be taken.

2.2.8 Revenue Module

2.2.8.1 Assessment key not codified properly

Assessment key is a unique code for the property and facilitates identifying the locality (ward/ circle) in which the property lies. It was observed that the 16 digit assessment key was not designed properly and properties could not be located easily using it. The Commissioner replied (January 2007) that the Assessment key would be codified so as to identify the location by seeing the number.

2.2.8.2 Irregular generation of water bills

All the water charge meter readings were not being fed to the database leading to deficient data giving scope to misuse

In July 2006, hand held meter reading devices were introduced for 1271 bulk and semi-bulk water connections ('M' series). However, it was observed that very few meter readings were being recorded monthly. From July 2006 to November 2006, the number of readings ranged between 45 and 610.

On this being pointed out, GVMC replied that 'when the consumption was less than 60 per cent of the agreement quantity, the meter reading was not fed in the computer'. The reply is not tenable. Data should be fed in the application and minimum demand raised even in cases where the water consumption was below 60 per cent of agreed quantity. Leaving the decision to meter readers to decide whether the meter reading was less than or above 60 per cent could lead to misuse.

2.2.8.3 Transfer of collection from e-Seva not traced in GVMC account

GVMC was unaware of the amounts to be received from e-Seva towards its revenues

A test-check of the Bank scrolls (of ICICI) with the invoices issued by the Administrative Officer, e-Seva, transferring the amounts to GVMC account, revealed that the following amounts had not actually been transferred to GVMC account.

Sl. No.	Proceeding No.	Amount Rs
1.	Rc.no. 1310/2004/A1 dated 02 January 2006	71,49,285.90
2.	Rc.no. 1310/2004/A1 dated 02 January 2006	1,45,08,746.00
3.	Advice dated 15 June 2006	3,14,342.00
4.	Advice dated 26 September 2006	23,19,473.00
	Total	2,42,91,846.90

The Commissioner admitted (March 2007) that the amounts had not been received as of March 2007. This indicated that apart from being unaware of the non-receipt of amounts till it was pointed out by Audit, GVMC had also been losing interest on this amount.

2.2.8.4 No action on bounced cheques

No action was taken by GVMC against cheque bounce cases

There was no evidence of any action being initiated/contemplated by GVMC against the consumers whose cheques had bounced, even though the list of bounced cheques was available on the intranet. GVMC under the provisions of the Negotiable Instruments Act, 1881, had been sending notices and collecting Rs 75 towards legal fees in addition to the demand in such cases. Audit noticed in 61 cases (pertaining to property tax collections) that the assessee's cheques had bounced 10 times or more, and yet no action had been taken by GVMC. During the period 2003-06 there were 668 bounced cheques valuing Rs 1.31 crore.

2.2.9 Accounts Module

2.2.9.1 Misclassification of revenue collections/ expenditure

Misclassifications and failure to take rectificatory action

Test-check of the data relating to remittances of tax collections, etc., pertaining to four days¹², revealed that there were instances of some tax collections being remitted into the non-tax account while the non-tax collections were remitted into the tax account due to inadequate input control validations. There was also no evidence of misclassifications being rectified promptly and on a regular basis. Thus, the collections shown under tax and non-tax heads cannot be considered to be accurate. The Commissioner admitted (January 2007) that misclassifications were due to data entry mistakes.

2.2.9.2 Spill over of unspent (budgeted) amounts to subsequent years

Unspent amounts were allowed to be carried over for several financial years

The Hyderabad Municipal Corporation (HMC) Act, 1955 was extended to GVMC. As per Rule 11 of HMC Budget Estimates Rules 1968, all allotments made in the budget shall lapse at the end of the financial year, subject to provisions of Section 190 of the Act, wherein the approval of the Standing Committee is essential for carrying forward of unspent amounts for a period of two years for completion according to the original intention of sanction. The amount proposed to be carried forward should be taken as the opening balance of the Municipal Fund for that year. Contrary to these provisions, the sanctioned amounts pertaining to budget years from 1996 were carried forward even up to the financial year 2006-07. Indefinite carrying forward of the sanctioned amounts would result in the amount not being utilized while not being available for any other purpose either.

2.2.9.3 Duplicate Examiner of Account numbers

System allowed duplicate EA numbers leading to risk of double payments not being detected

To ensure that each voucher has been pre-audited by the Examiner of Accounts, a unique Examiner of Accounts number (EA number) was to be generated for every voucher. However, during 2002-06, 7 duplicate EA numbers were generated. Due to duplicate EA numbers double payments if any, could not be identified nor could the cent per cent scrutiny of all vouchers

¹² Third November 2005, 3 January 2006, 14 February 2006 and 17 February 2006

by EA section be ensured. While accepting the audit observations, the Commissioner stated (January 2007) that it was due to a programming bug and that it would be rectified in the software.

2.2.9.4 Unreliable system providing inconsistent data

Different sources like Accounts and Revenue modules of database etc., did not tally and no reconciliation existed

GVMC was totally dependant on computerized data for receipts and payments reports since inception of the project. All collections were made online and GVMC was not maintaining the cash book for its receipts, thus making it impossible to ascertain the correctness of the tax collections as the computerized data showed incompleteness and variations between modules. The various sources for tax collections for the years 2004-05 and 2005-06 showed different figures, indicating huge variations as detailed below:

Item	Final figure (actuals) shown in Budget document Rs	Figures on the intranet Rs	Figures from Revenue module in database* Rs	Figures from Accounts modules in database** Rs
2004-05				
Water Charges	2,71,33,000	2,71,32,754	2,71,63,404	2,71,65,835
Lease	2,90,30,000	1,73,22,986	1,85,89,511	1,62,67,919
Property tax	33,72,10,000	34,38,51,314	33,79,52,274*	28,85,85,176
Semi bulk – bulk water charges	42,88,81,000	41,92,70,079	41,44,66,234	41,44,66,234
2005-06				
Water Charges	3,27,16,564	3,27,16,564	3,27,09,274	3,26,96,254
Lease	1,68,00,115	1,68,00,115	2,02,03,445	1,62,62,198
Property tax	36,05,97,000	29,63,53,907	29,83,64,310*	28,89,13,841
Semi bulk – bulk water charges	43,00,03,064	43,00,03,064	46,49,92,810	46,49,92,810

* Total transactions recorded against individual tax payer. ** The figures included offline transactions also.

Thus the data available in the database in different modules (Revenue and Accounts) did not match, indicating lack of referential integrity and the fact that relationships and constraints in the database were not defined properly. These could render the modules unreliable.

Red flags to indicate areas susceptible to fraud

2.2.9.5 Cash transactions not accounted for in the accounts

Revenue collections such as property tax, water charges and lease charge amounting to Rs 1.85 crore were not accounted for; suspicion of fraud not ruled out

All cash transactions of Tax and Non-tax revenue were received only through counters of e-Seva and City civic centre. All such transactions were accounted for in the Accounts apart from the demand, collection and balance of the concerned receipts in Revenue module. It should be possible to track every transaction of revenue in the Accounts module (either in table which records online transactions or in a table which records offline transactions). However, the transactions in the Transaction table (Revenue module) could not be traced to either of the other tables of Accounts module. These have been indicated as red flags (areas susceptible to fraud) and discussed below:

Property Tax: Cash transactions through the application could be carried out by either e-Seva or City civic centre. The only other entity that had access to the database was the GVMC computer centre (manned by contract personnel). In the Revenue module, during the period April 2003 – November 2006, there were a total of 13,97,546 transactions dealing with property tax. Of these, in 997 cash transactions¹³ (made by 19 User IDs) amounting to Rs 88.26 lakh, the demand amounts were collected at neither e-Seva nor at the City civic centre. This indicated that these transactions were made by the computer centre from the back end in the database and not through the application. Of these 997 transactions, only 114 transactions amounting to Rs 1.03 lakh were accounted for in the accounts module (bank_trans table) while 883 transactions amounting Rs 87.23 lakh were not accounted for.

Further in 1821 (out of 1825 records¹⁴) records, there were no details of the challan no., receipt no. or even the Bank ID. As credits from e-Seva and City civic centre were made to GVMC only from the day-wise and head-wise scrolls, lack of payment/ receipt details, could have resulted in these amounts not figuring in the scrolls sent to the banks by the collection centres indicating possibility of fraud in the GVMC computer centre.

Water charges: Similarly, in 482 cases of day-wise totals (up to November 2006), an amount of Rs 45.66 lakh relating to water charges collection had not been accounted for in the Accounts module (bank_trans table). The Commissioner admitted (January 2007) that there were certain loopholes in the system and these would be rectified soon.

Lease charges: An amount of Rs 51.65 lakh pertaining to 3560 cash transactions (up to November 2006) had also not been accounted for in the Accounts module (bank_trans table).

In all the above cases, possibility of fraud could not be ruled out. The Commissioner, assured (April 2007) that the matter would be got investigated.

2.2.9.6 Cheques not accounted for

Same cheques had been accounted for more than once

In the Revenue module for property tax, it was observed that in case of 1600 assesses, payments were made by cheque as per the Transaction table, but there was no corresponding entries in either the Bank transaction table of the accounts module or in the Counter master table (for cheques received by post) of Accounts module.

Test-check also disclosed that, in one case, a single cheque was used for more than one transaction. The cheque dated 06 October 2003 for Rs 8501 deposited by an assessor (no.1788) was used several times as detailed below:

¹³ excluding Gajuwaka – 828 records amounting to Rs 5.83 lakh

¹⁴ 997 (vmc) + 828 (Gajuwaka) records

	Assessment No.	Cheque No.	Amount (Rs)	Date	Year part
Original payment	1788	807886	8501	6.10.2003	2003-04 1 st
Fraud payment			4250	28.10.2003	2001-02 1 st
			467	27.10.2003	2001-02 1 st
			4250	28.10.2003	2001-02 2 nd
			467	27.10.2003	2001-02 2 nd

It was also not known how the payment was allowed to be made for a later period when dues for the earlier period were yet to be cleared.

The Commissioner assured (April 2007) that an enquiry would be conducted into the matter soon.

2.2.10 Engineering module

2.2.10.1 Incomplete Contractors' database

Deficiencies in data and improper design of the application made contractors' database ineffective

In the contractors' table each contractor was allotted a code with details of the contractor. Subsequent transactions of the contractor are monitored with the code allotted. It was, however, observed that when a contractor's class was upgraded, a new code was allotted. As a result, details of works allotted/completed, abandoned, pending (in the old code no. of the same contractor) could not be monitored through the system. Further, the table did not contain contractor's information like Bank account number, PAN number, e-mail address, which are useful for various purposes.

Thus, the contractors' database was not comprehensive and as a result, the desired information was not available. The Commissioner replied (January 2007) that the database would be modified in due course.

2.2.10.2 e-Procurement not adopted for tenders

GVMC could not derive the advantage of 'e-Procurement'

The State Government had taken up 'e-Procurement' as one of the core IT initiatives of e-Governance. All tenders above Rs 1 lakh were to be processed through e-Procurement alone. It was, however, seen that out of a total of 3,196 contracts (Rs 488 crore) awarded by GVMC during 2004-07 (November 2006), only three tenders (0.1 per cent) were initiated through e-Procurement and even these three tenders were actually processed manually. On the other hand, an amount of Rs 87 lakh (approximately) was spent on publication of tender notices in different newspapers during May 2005 to November 2006 alone, which would have been much lower under e-Procurement. Further, non-adherence to Government orders defeated the objectives of e-Governance which were transparency, competitive prices, global bidding, expertise etc.

The Commissioner, while accepting the audit observation, stated (April 2007) that GVMC had started using e-Procurement now.

2.2.11 Planning Module

2.2.11.1 Improper application controls

Building plan applications were processed through the Planning module and approvals accorded. It was observed that the application allowed the user to modify the data pertaining to the buildings, the plan of which has already been approved, thus making room for improper modifications to the data subsequently. The Commissioner agreed (January 2007) to incorporate changes in the application to this extent.

2.2.12 General Module

2.2.12.1 Ineffective monitoring of Website Complaints module

GVMC provides a facility for the citizens to register complaints online through its website. The complaints were to be attended by the authorities concerned of GVMC. The status of the registered complaints is also displayed on the website. It was, however, observed that:

- key fields like applicant name, applicant address, ward no. were not mandatory.
- unlike a call center system (through telephone), there was no automatic escalation to higher officials.
- in 2005 and 2006, out of a total of 3,803 registered complaints, only 787 complaints had been disposed off leaving 3,016 complaints (79 per cent) pending (November 2006).

The above points indicated ineffective monitoring of the 'Complaints module' at all levels in GVMC.

2.2.13 HR Module

2.2.13.1 Mandatory subscription towards Provident Fund not enforced from staff of GVMC

Mandatory Provident fund deduction was not enforced through the application

As per the provisions of the MCH Act, 1955, made applicable to GVMC, Provident fund deduction was to be made from employee's salary mandatorily at the rate of six per cent of basic pay. It was, however, observed that all PF deductions were entered manually instead of an enforced six per cent deduction by the system. The employees subscribing to less than six per cent ranged from 85 to 91 per cent during 2002-06. Non-enforcement of the mandatory deduction has resulted in the short recovery of PF from the staff of GVMC to the extent of about Rs 2.93 crore during the five year period 2002-06 alone. The Commissioner replied (March 2007) that the PF would henceforth be deducted at a minimum of six per cent of the basic pay by modifying the HR module.

2.2.14 Conclusion

Soukaryam was conceived as a path breaking e-Governance initiative to deliver civic services online in a user-friendly format using Information and Communications Technology (ICT). The project had the potential to transform existing processes to bring in transparency and accountability while improving the speed and quality of delivery of services to citizens. However, Soukaryam suffered from many deficiencies primarily due to poor planning, design and implementation. Integration of various modules was not ensured. Dependency on contract personnel exposed the data and applications to serious risks especially in the absence of proper password management, change management and segregation of duties. Design of the application did not provide for an Audit trail. GVMC continues to depend on manual procedures and hence could not derive the full benefits of the IT application.

2.2.15 Recommendations

Soukaryam project can redefine the quality of service delivery to citizens and facilitate good governance in the jurisdiction of the civic body. The limitations/ observations reported in this review can be overcome by concerted efforts by the project implementation team. To facilitate the strengthening of Soukaryam project, the following recommendations are made:

- Scientifically designed codification has to be devised for identifying properties.
- Adequate input controls should be enforced at application and database level.
- Unique transaction ID has to be devised with proper audit trail.
- Figures of all revenue collections from Revenue and Accounts modules should be reconciled immediately to rule out the possibility of frauds. Non-accountals of revenue collections should be got investigated immediately.
- There is an urgent need for establishing an appropriate business continuity plan and a disaster recovery plan.
- Training should be imparted to the employees of GVMC so as to decrease the level of dependency on the contract employees.
- Web based complaint monitoring system should have an automated escalation and redressed procedure for time bound complaint redressal.

The points mentioned above were discussed (March 2007) with the Additional Commissioner and officers of the GVMC. The Additional Commissioner accepted the audit points and assured that suitable changes/modifications would be carried out/ incorporated in the system.