CHAPTER V

PERFORMANCE REVIEWS

CHAPTER V

5.1 Jawaharlal Nehru National Urban Renewal Mission (UIG & UIDSSMT

Executive summary

The Jawaharlal Nehru National Urban Renewal Mission (JNNURM) was launched on 3 December 2005 with the objective of sustainable development of physical infrastructure in cities including technical and management capacity for promoting holistic growth with improved governance.

Implementation of the project was deficient. UIG project proposed were without assessing the immediate requirement. Unfruitful expenditure of ₹250 crore was incurred on preparation of Detailed Project Reports (DPRs). Execution of water supply scheme in Jalna Council without a distribution network had resulted in depriving people of Jalna from the desired benefit of scheme. Actual cost of award of work was as high as 66 per cent of the approved cost of work. Expenditure of ₹2.81 crore was incurred on the works that were not envisaged in the DPR. Excess payments on account of price escalation and extra items were noticed. Awarding of work without site survey and reliable data resulted into cost overrun of ₹ 11.09 crore. An amount of ₹19.15 crore was blocked due to non-functioning of Inert and Refused Derived Fuel plant. Double entry accounting system was not introduced in any of the selected Municipal Councils. Target of recovery of Property Tax and Operation and Maintenance cost as was envisaged in the agenda of reforms was not achieved in respect of six Corporations.

5.1.1 Introduction

In order to cope up with problems arising out of rapid urban growth, a coherent urbanization policy viz. JNNURM was conceived by Government of India(GOI) in December 2005 for reforms driven, fast track, planned development in selected cities in the country with a focus on efficiency in urban infrastructure/services delivery mechanism, community participation and accountability of Urban Local Bodies(ULBs) towards citizen. The Mission consisted of four components, two for Infrastructure i.e. Urban Infrastructure Governance(UIG) and Urban Infrastructure Development Scheme for Small & Medium Towns(UIDSSMT) and two for Housing i.e. Basic Services for Urban Poor (BSUP) and Integrated Housing & Slum Development Programme(IHSDP). The duration of the Mission is seven years from the year 2005-06. In Maharashtra State five Cities/Urban Agglomerations covering 12 Corporations were selected by GOI for the UIG component and 91 projects in eight Municipal Corporations and 76 Municipal Councils were sanctioned for the UIDSSMT component under the Mission.

Present review is conducted by covering two components UIG and UIDSSMT of JNNURM.

5.1.2 Organisational set-up

GOI has formed Central Sanctioning and Monitoring Committee(CSMC) with the Secretary (Urban Development) as Chairman for sanctioning the projects under JNNURM. In Maharashtra, the State Level Steering Committee(SLSC) was formed (April 2006) under the Chairmanship of Chief Minister. Government of Maharashtra(GOM) had appointed Mumbai Metropolitan Region Development Authority(MMRDA) for UIG and Directorate of Municipal Administration (DMA) for UIDSSMT component as a State Level Nodal Agency(SLNA) in lines with the guidelines of JNNURM for coordinating between various ULBs, SLSC and CSMC. The projects were executed by the Commissioner/Chief Officer of respective ULBs by utilizing the technical manpower and machineries available with them. The process of Project Proposal and Policy Directive Flow and organizational set-up for UIG and UIDSSMT component is detailed in **Appendix VIII**.

5.1.3 Audit Objective

The performance audit was conducted with a view to assess whether

- there was proper and effective planning for implementation of the Mission,
- financial management and controls were adequate and effective,
- projects were executed economically, efficiently and effectively as per DPR,
- reforms were implemented as were stipulated by JNNURM guidelines, so as to improve the quality of urban governance.

5.1.4 Audit Criteria

The following criteria were utilized in conduct of audit

- ➢ Guidelines and circulars issued by Government of India/Ministry of Urban Development/Government of Maharashtra.
- ➢ City Development Plan/Draft Project Report.
- ➢ Manuals of Indian Road Congress.
- ➢ Manuals of Ministry of Road Transport & Highways (MORTH).
- ➢ Maharashtra Public Works Manual.
- ➢ Norms of Central Public Health Environment and Engineering Organization (CPHEEO).
- ➢ Statutory Act & Rules in force as applicable for Corporations/ Councils.

5.1.5 Audit scope and methodology

Under the UIG component of the JNNURM, 79 number of projects were sanctioned in State of Maharashtra during March 2006 to December 2009 covering 12 Corporations. Out of these, records of 25 projects (**Appendix IX**) covering nine Corporations were selected for test check during September 2010 to January 2011 by adopting stratified random sampling method. Similarly under UIDSSMT, GOM sanctioned 91 projects in eight

Corporations and 76 Councils during June 2006 and March 2009. Out of these, records of 17 projects (**Appendix IX**) covering four Corporations and nine councils were selected for test check during September 2011 and October 2011 using stratified random sampling method.

5.1.6 Planning

Planning of the Mission and achievement of the desired objectives is primarily based on the City Development Plan (CDP), which is both a perspective and a vision for the future development of a city. The plan requires identifying thrust areas - what is needed to be addressed on a priority basis and also provides a framework and vision within which projects need to be identified and implemented. The CDP is to be prepared for a period of 25 years subject to modification in every five year.

Projects included in the CDP are to be taken up for execution on the basis of priority of local needs and for each project Detailed Project Report(DPR) is to be prepared with sufficient details to ensure appraisal, approval and subsequent project implementations in a timely and efficient manner

(a) Urban Infrastructure Governance

5.1.6.1 Excess investment in Sewerage Treatment Plants

As per norms of CPHEEO 70 to 80 *per cent* of sewerage is generated out of total volume of water supplied.

Scrutiny of records (January 2011) of Navi Mumbai Municipal Corporation (NMMC) revealed that Corporation is supplying 329 Million Liters per Day (MLD) of water to its citizens, accordingly sewerage generation works out to 230 (70 *per cent*) MLD. Further it was observed that NMMC was having three Sewerage Treatment Plants (STPs) for treating 280 MLD sewerage water at the time of preparation of DPR, in addition to five existing STPs having primary sewerage treatment capacity of 105.15 MLD. Thus, the constructed and available capacity of NMMC was 21.7 *per cent* excess and if the primary facility was also considered, it was 67 *per cent* excess of the requirement as of January 2011. Inspite of having sufficient treatment capacity, three more STPs having capacity of 144 MLD proposed under the Mission by the NMMC were approved and being executed. Thus, sanction of three more STPs with an expenditure of ₹ 467.75 crore without its immediate need was not justified.

The NMMC stated (January 2011 and October 2011) that initially it was proposed to use existing treatment facility in the DPR. But this option was again explained in detail at CPHEEO, Delhi at the time of technical appraisal and only after approval of the additional STPs from the CSMC the works were taken up. During Exit Conference in November 2011, NMMC also stated that the additional capacity would be for the need of the future.

Contention of the NMMC was not tenable on the ground that CSMC was also of the opinion that NMMC was having sufficient STP capacity as per norms. Also the sewage treatment capacity available with NMMC was in excess of 67 *per cent* of the present requirement and additional 144 MLD capacity for near future was not justified and available funds could have been utilised on other sectors like storm water drain, traffic and transport etc. for which investment of ₹ 868.29 crore was proposed in CDP.

5.1.6.2 Unfruitful expenditure on the preparation of DPRs

As per the Mission guidelines DPR was required to be submitted to CSMC for approval by Corporations through the SLNA. For submission of project proposals there was no financial or numerical limitation that was prescribed either at Corporation level or at State level by SLSC or CSMC. However, only in August 2009, GOI communicated the decision to restrict submission of DPR by SLNA on account of limitation of budgetary allocation.

Scrutiny of records of SLNA revealed that total number of 218 DPRs amounting to ₹ 74066.48 crore were sent to the GOI, out of which only 93 DPRs amounting to ₹ 12489.39 crore were approved and remaining 125 DPRs amounting to ₹ 61577.09 crore are pending with the Mission Directorate. Thus, expenditure of ₹ 250 crore incurred on the preparation of 125 DPRs (one *per cent* of DPR cost limited to ₹ two crore per DPR) remained unfruitful.

In reply, MMRDA stated (January 2011) that DPRs remained unapproved as allocation for GOM was exhausted as intimated by GOI (August 2009). However the DPRs prepared by the Corporations may be used for other GOI projects under different schemes of financial assistance.

Reply was not tenable as unused DPRs may not be useful for future projects due to change in demographic, infrastructural, and physical environment of the City with passage of time. Further, restriction on submission of DPRs by GOI was communicated as late as in August 2009 instead at the time of commencement of Mission itself.

5.1.6.3 Inclusion of ongoing projects under Mission

According to the guidelines only new infrastructure projects would be admissible under the Mission. However, in Nagpur City Municipal Corporation(NCMC) and Pimpri Chinchwad Municipal Corporation(PCMC) other ongoing and completed projects costing ₹ 53.08 crore were also included under Mission in contravention of guidelines as stated below:

Name of the Municipal Corporation	**Details of work**	**No. of Works**	**Amount (₹ in crore)**	**Tender Award Dates**	**Month of approval of DPR**
PCMC	Sewerage works	10	6.39	August 2004 and June 2005	October 2006
NCMC	Water supply project	2	46.69	March & July 2005	March 2006

(Source: Quarterly Progress Reports)

As could be seen from the table above, tenders of these works were awarded even before the launch of Mission in December 2005.

PCMC and NCMC stated (January 2011 and November 2011) that after approval of the project by the SLSC the proposal was submitted to CSMC/ GOI prior to issue of work order and were taken up in anticipation of approval to the project and speedy completion of the projects in public interest.

Reply is not tenable as these were ongoing projects where the tenders were awarded even before the launch of the Mission by GOI.

5.1.6.4 Commencement of projects without acquisition of land

According to Mission guidelines the Corporation before submission of the DPR to the GOI should ensure that the land required for the project must be owned/acquired by the Corporation and it should have clear title and should be unencumbered.

Scrutiny of records of three[25] Corporations revealed that these Corporations had submitted DPRs to the GOI without the stipulated acquisition of land in respect of five projects involving a cost of ₹ 245.33[26] crore.

In reply, these Corporations stated (September 2010 to November 2011) that the work of acquisition of land was in progress in most of the cases.

Reply was not tenable as prior possession of land with Corporations was the prerequisite condition of the Mission. Further, out of these five projects, one has not been started and in balance four, the progress is between five to 45 *per cent* (**Appendix X**).

(b) Urban Infrastructure Development in Small and Medium Town

5.1.6.5 Infructuous expenditure owing to improper planning

Main objective of UIDSSMT (scheme) is holistic development of small and medium towns with basic infrastructure like roads, sewerage, water supply etc. for forthcoming 25-30 years. As such projects approved under the scheme must be as per scheme guidelines and expenditure incurred thereon should serve its purpose.

Scrutiny of records of Latur Council revealed (August 2011) that the project of construction of open drains, roads, footpath divider was undertaken during the period April 2008 to March 2011 by the Latur Council at 19.32 *per cent* above the tender cost of ₹ 90 crore disregarding the opinion (July 2006) of CPHEEO that independent sewerage system and storm water drainage system should be implemented in Latur as a permanent and sustainable solution to improve the environment, as construction of open drains was neither a sewerage system nor storm water drainage system.

Latur Council stated (August 2011) that as per CPHEEO guidelines sewerage scheme is applicable only in those cities where water supply is 135 litre per capita per day (lpcd) where as in Latur water supply is only 70 lpcd and project was implemented only after due approval and release of grant from the Central Government and to ease water logging problem in the Latur city.

Reply is not tenable as 135 lpcd is the maximum quantity of water supply specified in the CPHEEO guidelines and Ministry of Urban Development, GOI while giving approval to the Drainage Project did not take into account the views of the technical organisation under the same Ministry who had clearly opined not to proceed with an open drainage system. Thus, expenditure of ₹ 107 crore incurred on construction of open drains was not a solution which will cater to the needs of future requirement for disposal of waste water.

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[25] Kalyan Dombivli , Nashik and Pimpri Chinchwad
[26] Kalyan Dombivli (₹ 108.93 crore), Nashik (₹ 2.20 crore), Pimpri Chinchwad (₹ 134.2 crore)

5.1.6.6 Execution of water supply scheme without distribution network

Purpose of any water supply scheme is said to be achieved only when water reaches to every citizen for whom the scheme was conceived/implemented.

Scrutiny of records of Jalna Council revealed that both water supply system and distribution network were covered in the CDP and proposed in the DPR for approval. However, only water supply project leaving the distribution network was approved by GOM and accordingly undertaken (August 2009) by the Jalna Council at 95.48 *per cent* above the tender cost of ₹ 104.77 crore. An expenditure of ₹ 114.60 crore was incurred as of September 2011 and the project is not yet complete (October 2011). In the absence of comprehensive planning, the construction of water supply project involving construction of head works, supply pipe lines and water treatment plant on which an expenditure of ₹ 114.60 crore that has been incurred will remain idle as separate plan for the construction of distribution network has not been approved as on October 2011.

Jalna Council stated (September 2011) that due to non-sanctioning of the distribution network by the GOM, only the water supply scheme was implemented and the work of distribution network would be implemented from any other scheme of GOM. Reply is not acceptable as at present the distribution system was not sanctioned by GOM. Thus, by the time distribution network is sanctioned by GOM and actually constructed, the water supply scheme and the components already constructed with an expenditure of ₹ 114.60 crore will remain idle.

5.1.6.7 Non-provision of recirculation sump and pump house in the DPR

Recirculation sump and pump house is essential item in any Water Treatment Plant (WTP) for recycling wash water received after washing of filter beds as it would save wastage of water and reduce the requirement of raw water proportionately. Discharge of wash water without recirculation adds to pollution as wash water is full of turbidity.

Scrutiny of records (August and September 2011) revealed that the Water Treatment Plants taken up under Water Supply Project[27] in Washim, Jalna and Katol Councils did not make any provision of recirculation sump and pump house in the DPR for reuse of wash water which would result not only in wastage of water (2-3 lakh liter per day) but also add to pollution hazard. Besides, the councils could not derive the benefits and savings associated with recycling of water.

Jalna Council (September 2011) stated that the work would be executed from savings (if any) from the WTP work and Katol Council stated (August 2011) that wash water would be utilized for gardening/swimming etc.

Reply is not tenable as recirculation sump and pump house is an important item in any WTP and wastage of 2-3 lakh litre of water per day was therefore

[27] In Washim, the project was approved in December 2006 with cost of ₹ 29.97 crore
Jalna, the project was approved in September 2006 with cost of ₹ 123.99 crore
Katol, the project was approved in September 2007 with cost of ₹ 19.17 crore

unjustified. The contention of using untreated back wash water for swimming or gardening is impracticable.

During Exit Conference (November 2011), Director Municipal Administration assured that instructions would be issued to Chief Engineers to include the provision for recirculation sump & pump house for recycling of wash water while proposing DPR for water supply projects.

5.1.7 Financial Management

As per the Mission guidelines, the cost of project under UIG would be shared by the Centre/State and the Corporations in the following proportion:

Category of Cities/Towns/UAs	Grant		Corporations Share
	Centre	State	
	(In percentage)		
Cities/UAs with 4 million plus population as per 2001 census	35	15	50
Cities/UAs with million plus but less than 4 million populations as per 2001 census.	50	20	30
Cities/UAs other than those mentioned above.	80	10	10

(Source: JNNURM Guidelines)

Under UIDSSMT the cost of the project would be shared by Centre (80 *per cent*) and State (10 *per cent*) and Corporation/Council (10 *per cent*).

The grant under UIG was to be released as 25 *per cent* as first installment on sanction of project and thereafter 25 *per cent* every time after submission of utilization certificate for earlier installment. Similarly grant under UIDSSMT was to be released as 50 *per cent* as first installment on sanction of project and thereafter remaining 50 *per cent* on submission of utilization certificate for first installment.

The Corporations/Councils wise details of fund released both by GOI and GOM and expenditure incurred there against as of 31 March 2011 in UIG and UIDSSMT was as follows :

(₹ in crore)

Sub-Component	No. of project	Project cost	Funds released			Total	Expen-diture
			GOI	GOM	Corpor-ation		
UIG	79	11747.16	3434.48	1188.83	3975.43	8598.74	7794.87
UIDSSMT	91	2678.01	1626.33	176.57	73.22	1876.12	1045.73

(Source: Progress Reports of MMRDA & DMA)

(a) Urban Infrastructure Governance

5.1.7.1 Increase in cost of project

As per the Mission guidelines, both Central and State assistance would be released in agreed proportion on projected cost. However, the cost of work awarded itself has exceeded to the projected cost to the extent of seven to 66 *per cent* due to time gap between project estimations and actual executions, rate difference etc. and thereby resulted into additional financial burden to the Corporations. No provision of extra cost due to time lag in sanction and execution of the project were made in project cost.

Scrutiny of records of MMRDA revealed (July 2010 and January 2011) that in 19 out of 25 projects selected for test check, actual cost of award of works was seven to 66 *per cent* higher than approved cost of work. Details of 19 projects for various works where the cost of award of works exceeded the approved cost is given in **Appendix XI.**

MMRDA stated (July 2010/September 2010) that increase in cost would be borne by concerned Corporations.

During Exit Conference (November 2011), it was brought out that State has agreed to fund these differential cost in cases of 'D' class Municipal Corporation and no such provision in respect of other category of Corporations was however envisaged. Resultantly, the other Corporations have to borrow funds from financial institutions to the extent of ₹ 1114.82 crore.

5.1.7.2 Non-utilization of ₹ 27.93 crore received under Mission

Scrutiny of records revealed that grant of ₹ 27.93 crore was released to Nagpur City Municipal Corporation (NCMC) (₹ 22.76 crore) for the work of recycle and reuse of waste water project and PCMC (₹ 5.17 crore) for purchase of household waste containers for Solid Waste Management (SWM) Project during March 2007 and April 2008 respectively. These projects were required to be completed by December 2008 and January 2010 respectively. These Corporations did not utilize the funds due to non-awarding of the work/non-purchase of machineries for SWM project and the money is parked with banks (November 2011). Thus, ₹ 27.93 crore remained unutilized.

NCMC stated (June 2010 and November 2011) that due to change in site of the project, the work could not be started and fund would be utilized on execution of the project. PCMC stated (October 2010), that the household containers would be purchased in due course.

During Exit Conference (November 2011) PCMC stated that the amount would be refunded, while, NCMC stated that site has been identified and Letter of Agreement is in final stage.

These items of works were critical for the integrated and comprehensive execution of projects including all its modules. For instance, house container to be distributed to household were meant for collecting and segregating dry and wet waste at the primary source of creation i.e. household and in the absence of purchase, the effectiveness of the operation of the Vermi Compost Plant constructed as a part of SWM Project was impaired as mentioned in para 5.1.8.16.

5.1.7.3 Non-release of grants amounting to ₹ 168 crore by GOI/GOM

Scrutiny of records revealed (January & November 2011) that the amount of ₹ 168.32 crore claimed during February 2009 to February 2011[28] by four Municipal Corporations *viz.* Municipal Corporation of Greater Mumbai (MCGM), PCMC, Nashik Municipal Corporation(NMC) and Nanded-Waghala Municipal Corporation (NWMC) as second and subsequent installments were not released by the GOI/GOM due to non-fulfillment of reforms and non-compliance to the observation of Independent Review and

[28] Mumbai (September 2010), Nanded (February 2011), Nashik (February 2011), Pimpri Chinchwad (March 2010)

Monitoring Agency (IRMA) by these Corporations. Illustrative cases of non-compliance leading to non-receipt of subsequent installments are given in **Appendix XII.**

(b) Urban Infrastructure Development Scheme for Small and Medium Town

5.1.7.4 Non-refund of GOI/GOM share due to reduction in project cost

Under UIDSSMT water supply scheme of ₹ 46.11 crore was approved (December 2006) by GOM for Malegaon Municipal Corporation(MMC). Accordingly, central share of ₹ 36.88 crore (80 *per cent*) and state share of ₹ 4.61 crore (10 *per cent*) was released by the GOI (October 2007 and September 2010) and GOM (October 2007 & May 2011) respectively.

Scrutiny (September 2011) of records revealed that due to deletion of some items of work, a new DPR was prepared and approved by the DMA for ₹ 42.58 crore in December 2009. In spite of downward revision in the cost of DPR to ₹ 42.58 crore, the GOM/DMA released (September 2010 & May 2011) the second installment of GOI & GOM share as per the old cost which resulted in excess payment of ₹ three crore (GOI - ₹ 2.82 crore and GOM - ₹ 0.18 crore).

MMC stated (September 2011) that, the excess funds would be utilised for laying of 100 mm pipe line after approval of the same from the GOM.

The contention is not acceptable as the item for which MMC proposed to utilize the amount was not the part of the project.

5.1.7.5 Execution of work not envisaged in approved DPR

Execution of work not envisaged in the approved DPR was not admissible as per the guidelines of Mission. It was however, observed that contrary to the guidelines, the Chandrapur Council incurred an expenditure of ₹ 34 lakh on reinstatement of road surface though not envisaged in the approved DPR of laying of sewerage line of Reinforced Cement Concrete(RCC) pipes under Sewerage project.

Chandrapur Council stated (September 2011) that reinstatement of road surface (executed after laying of sewer pipe lines) was essential and thus was included in the tender in anticipation of getting funds under the UIDSSMT scheme and would be adjusted from the Chandrapur Council's funds.

Reply is not acceptable as the item of reinstatement of road which was not contained in approved DPR should not have been executed from UIDSSMT funds.

5.1.8 Execution of projects

Review of the execution of selected projects under UIG and UIDSSMT revealed the deficiencies such as excess payment on account of price escalation, delay in completion of projects with consequential extra cost, incorrect adoption of star rate, non-acceptance of lowest tender and cases of inadmissible payments which are discussed in succeeding paragraphs.

(a) Urban Infrastructure Governance

5.1.8.1 Execution of works not included in the sanctioned DPR

According to the Mission guidelines only those works which are included in the sanctioned DPR and approved by the GOI/GOM are to be executed. NMC, prepared DPR for SWM and this was approved by GOI involving total cost of ₹ 59.99 crore in December 2006. Scrutiny in audit revealed that over and above the item of works listed in approved DPR, NMC had taken up additional works of filling up of land costing ₹ 2.51 crore, purchase of dumper trucks for ₹ 0.27 crore and the project of generation of electricity through the technology of Refused Derived Fuel (RDF) costing ₹ 2.86 crore and incurred an expenditure of ₹ 2.47 crore thereon. These items of works were not integrated in the approved DPR and therefore their subsequent inclusion was thus irregular.

NMC stated (December 2010) that a proposal of change in works was submitted (August 2008) to the GOI/GOM for approval. On receipt of approval the expenditure would be included in the Mission fund otherwise it would be borne by the Corporation. During Exit Conference (November 2011), NMC further reiterated that in the event of non-approval by GOI, the expenditure would be debited to the municipal funds

Reply was not tenable as execution of items not listed in approved DPR from Mission funds was in contravention to the Mission guidelines and also these extra items of works/projects are yet to be approved by GOI.

(b) Excess payment on account of price variation

As per price variation(PV) clause of the condition of contract, during the operative period of contract, if there shall be any variation in the whole-sale price index or in the price for all commodities connected with construction as compared to the respective figures on the date, 28 days or average of three months, prior to the last date prescribed for the receipt of tender, then price adjustment on account for these commodities as per the formulae prescribed shall be made which may be positive or negative.

5.1.8.2 Excess payment due to consideration of incorrect star rates

As per the Government Resolution(GR) issued (May 2005) by Public Works Department of GOM, all tenders document should contain the star rate for cement, steel, bitumen and pipes(pig iron) etc. for working out the PV. The star rates shall be taken as the average rate of the bitumen, cement, steel, and various types of metal pipes, pig iron etc. for the quarter proceeding the month in which the last date prescribed for the receipt of tender or the rate mentioned in the District Schedule of Rates(DSR), whichever is higher.

However scrutiny of records revealed (October 2010) that, the work of construction of Baner subway was attached (March 2008) to original work of concreting & asphalting of Paud Phata to Chandni Chowk road which was awarded in January 2008. The Pune Municipal Corporation(PMC) failed to mention the star rate in the agreement of the attached work. In the absence of star rate, the PMC adopted indices of August 2008 instead of average of December 2007 to February 2008, as the work was awarded in March 2008, for the purpose of PV. This has resulted in excess payment of ₹ 29 lakh.

PMC accepting the facts stated (November 2011) that the excess amount paid to contractor would be recovered from final bill.

However, no detail of the action initiated to recover the amount has been furnished (May 2012).

5.1.8.3 Excess payment due to non-revision of star rates

As per the condition of the tender, if felt necessary the star rates of steel & bitumen may be revised based on prevailing market conditions prior to award of contract. It was however, seen that PMC while execution of Bus Rapid Transport (BRT) Pilot project on Katraj-Hadapsar section did not revise the star rate of steel and bitumen though there was sharp increase in price during the process of tender which resulted into excess payment of ₹ 1.42 crore.

As the star rate was the basis for regularizing price escalation, its incorrect fixation on lower side led to excess payment towards price escalation which was irregular.

PMC stated (October 2010 and November 2011) that they did not feel necessary to revise star rate, however, looking into current situation the PV claim would be rectified & recovery would be made.

During Exit Conference in November 2011, PMC stated that recovery would be effected. However, no detail of the action initiated to recover the amount has been furnished (May 2012).

5.1.8.4 Excess payment of price variation

As per clause 62 of the tender document, for the formula for calculation of PV of Mild Steel(MS) Pipes, the period of execution of the item should be considered. However, in NCMC in the work of Transmission mains at Kanhan Water Augmentation Scheme costing ₹ 22.65 crore, period of purchase of MS Plate which was consumed in the manufacturing of pipes was considered instead of the period (month) of actual consumption during execution in the quarter. Thus, considering period of supply of raw material (MS Plates) instead of actual execution of work for calculation of PV resulted into excess payment of ₹ 42 lakh.

NCMC stated (December 2010 and November 2011) that PV was paid by considering the period when the pipe was actually supplied. The reply is not acceptable as period of actual execution should have been considered while calculating PV as per conditions of tender document.

5.1.8.5 Excess payment due to non-consideration of price index of base material

As the MS plate is the base material required for manufacture of MS pipe, for calculation of PV of MS pipe, rate and price index of MS plate is to be considered. However scrutiny of records in two Corporations revealed that for calculation of PV of MS pipe though the rates of MS plate was taken and same was calculated by considering price index of iron and steel instead of MS plate which resulted in excess payment of ₹ 11.57 crore as follows :

Name of Municipal Corporation	Name of work	Quantity	Cost of work	Amount excess paid
			(₹ in crore)	
MCGM	Middle Vaitarna water supply project - providing and laying MS water mains	55702 MT	746.81	10.51
Thane	Additional 100 MLD water supply scheme from Pise head works	6865 MT	76.98	1.06
	Total (In Mts)	**62567**	**823.79**	**11.57**

(Source: Quarterly Progress Reports)

MCGM and Thane Municipal Corporation(TMC) stated (September/October 2010 and November 2011) that as per the tender the price index of iron and steel was to be considered for calculation of PV of MS Pipe.

During Exit Conference (November 2011), Corporations stated that as this was part of tender condition, the PV claim was correctly regulated.

The contention of the Corporations are not acceptable, as the basis of the PV claim should have been for material used for its production which was MS plate and this aspect was sufficiently elaborated in the tender and resultantly this aspect was made known to the prospective bidder adequately. Even otherwise, as per the GR of GOM average steel index was to be considered for calculation of PV of High Yield Strength Deformed (HYSD)/Mild Steel. Thus for MS Plate, the index of Mild Steel was required to be considered.

5.1.8.6 Excess payment due to inclusion of octroi in current price while calculating price variation

The basis for calculation of PV should be uniform. However, scrutiny of records in two Corporations revealed that there was no uniformity in dealing with octroi on High Speed Diesel (HSD) for the purpose of calculation of PV. Basic price adopted was without octroi and current price adopted was with octroi. Hence there was excess payment of ₹ 0.32 crore as detailed below:

(₹ in crore)

Name of Corporation	Name of work	Cost of work	Amount of excess payment
NCMC	Construction of Railway Over Bridge at Kalamana	21.91	0.06
	Construction of Railway Over Bridge at Santra Market	45.97	0.03
MCGM	Construction of RCC Dam across Middle Vaitarna River	505.91	0.23
Total			**0.32**

(Source: Running account bills & Quarterly Progress Reports)

NCMC (MSRDC) and MCGM accepted (September/December 2010) the facts and agreed to recover the amount from the contractor. However, no detail of the action initiated to recover the amount has been furnished (May 2012).

5.1.8.7 Excess payment due to consideration of incorrect cost/rates

In four Corporations non-adherence of PV calculation norms resulted in excess payment of ₹ 1.41 crore as follows :

(₹ In crore)

Corpor-ations	Name of Project	Cost of work	Excess Payment	Reasons
Pune	Construction of 115 MLD capacity STP at Dr. Naidu Hospital	40.15	0.29	PV on steel and cement was paid separately and also in the material component. This resulted in double payment of PV on steel and cement.
Thane	Sewerage phase I conveyance system, pumping station & 120 MLD STP	194.58	0.89	PV was calculated by taking incorrect base index, rates of HSD and star rates of steel & bitumen
Nashik	Civil work under solid waste management project	5.50	0.02	Negative PV due to reduction in price index components were not calculated and recovered.
Nagpur	Construction of Railway Over Bridge at Kalamana	21.91	0.21	Due to levy of penalty indices were frozen for calculation of PV. However, on revoking the penalty, the indices were to be revised as per the period of execution of work, which was not done. This resulted in excess payment of PV, as indices were lower during the period of execution of work when compared with the frozen one.
	Total		**1.41**	

(Source: Running account bills and Quarterly Progress Reports)

All the four Corporations accepted (October to December 2010) the facts and agreed to recover the amount. Pune Municipal Corporation (PMC) and TMC effected (November 2011) the recovery of ₹ 1.18 crore.

However, the details of the recoveries have not been intimated to audit by the other two Corporations (May 2012).

5.1.8.8 Extra expenditure/Excess payment on account of extra items.

For items of works executed, rates were required to be regulated as per tender conditions and accepted by Corporation during execution. In the event, therefore, if any extra work were to be executed it was required to be regulated as per accepted rates already specified in the tender. In deviation to the above although for similar specification, rates were available in tender, NWMC proceeded to treat these as extra items which were not regulated as per accepted tender rates. Instead rates as provided for in current DSR were incorrectly adopted. As the approved rates were already lower than the current DSR rates, this resulted in excess payment.

(i) In NWMC the work of River Front Development North Bank Zone-III was awarded to a contractor at 41.90 *per cent* above the tender cost of ₹ 41.23 crore in August 2007 with stipulated period of completion of 12 months. The work was executed by Nanded Irrigation Division (NID), Nanded as a deposit work. Scrutiny of records revealed that following items formed part of Schedule B of tender document as shown below.

Description of Item	Quantity (sq m)	Rate (in ₹)	Amount (in ₹)
Providing and fixing 40 mm thick gang saw cut granite stone slabs on top flooring/paving with machine cut edges.			
a) Steel gray	32202	2217.70	71414375
b) Sader Ali gray colour	7837	2000.95	15681445
c) Hassan green colour	12173	2318.85	28227361
d) Ruby Red colour	1567	2191.95	3434786

Despite the fact that above items were tender items, extra item of ₹ 10.86 crore was sanctioned as detailed below:

Description of Item	Quantity (sq m)	Rate (in ₹)	Amount (in ₹)
Granite Stone on Tread and Riser and on landing			
a) Steel gray	2000	5022.60	10045200
b) Sader Ali gray colour	10000	4844.25	48442500
c) Hassan green colour	9000	5022.60	45203400
d) Ruby Red colour	1000	4953.40	4933400

Comparison of original tender item with extra item revealed that in extra item granite was to be laid on Tread and Riser and on landing. As such, sanction of extra item of ₹ 10.86 crore was entirely unwarranted and resulted into extra expenditure of ₹ 4.51 crore as follows :

(Amount in ₹)

Item (Schedule-B)	Quantity of extra item (Sq m)	Amount	Amount as per tender rate	Cost (including 41.90 *per cent* above)	Extra expenditure
Providing and fixing 40 mm thick gang saw cut granite stone slabs	17210.61	84419201	27736619	39358262	45060939

(Source: Running account bills and Quarterly Progress Reports)

Irrigation Division, Nanded stated (December 2010) that granite stone was not provided for the entire stairs on the ghat area but was only for decorative purpose and to break the monotony of granite slabs. As per the drawings of the consultant, small size granite slabs were used for stairs as there was no provision of small size granite stone, the item was being executed as extra item.

Reply was not tenable as the item of granite stone was already in the tender and was to be executed as per tender rate.

During Exit Conference (November 2011) NWMC stated that as the works were executed through Irrigation Department, details of the same and action taken, if any, by them would be obtained and furnished to audit.

ii) In two Corporations adoption of incorrect rate for extra item has resulted in excess payment of ₹ 2.07 crore as shown below:

Corpor-ations	Name of work	Cost of work (in crore)	Quantity of extra item paid	Excess Payment (₹ in crore)	Reasons
NWMC	Two works of Sewerage and Water Supply Project	88.76	25371.83 Cu M	1.99	Rate of ₹ 462 per Cubic Meter (Cu.M.) was available in the MJP CSR for excavation of pipe trenches in hard rock and concrete road by chiseling wedging, line drilling by mechanical means or by all means other than blasting even then rate of ₹ 1270 per Cu M was allowed and paid.
TMC	Station Area Transportation Improvement System	29.36		0.08	Consideration of incorrect rate for work of extra item
				2.07	

(Source: Running account bills and Quarterly Progress Reports)

TMC accepted (October 2011) the facts and agreed to recover the amount from contractor whereas NWMC stated (December 2010 and November 2011) that at the time of execution of work, hard rock was found which was required to be removed by splitter machine and rock breakers. The rate for this item was not available in Maharashtra Jeevan Pradhikaran (MJP) Current Schedule of Rates (CSR) and as such the rate was enquired from various sources as well as MCGM and finally the Technical Committee discussed the matter and decided the rate of ₹ 1270 per Cu.M. This was approved by Municipal Commissioner.

The contention of NWMC is not acceptable as the rate of ₹ 462 per Cu.M. for excavation in hard rock by all means was available in MJP's CSR which should have been adopted for payment of extra item instead of adopting Schedule Rates of MCGM.

Details of recovery effected by TMC has not been furnished to audit (May 2012).

iii) Excess payment on extra items

As per condition of contract, the reinstatement of road up to the stage of Water Bound Macadam (WBM) is required to be made by the contractor without any extra claim and he was eligible to receive payment for Bitumen Bound Macadam (BBM). However, it was noticed that PCMC in case of project of sewerage system for west area of Rawet Kivte road had made payment of ₹ eight lakh for WBM work in addition to payment made for BBM work by considering it as extra item which was irregular.

PCMC accepted (October 2010) the facts and agreed to recover the amount from contractor. However, no detail of the action initiated to recover the amount has been furnished (May 2012).

5.1.8.9 Unjustified rejection of lowest bidder

During test check of records of PCMC and TMC in audit, it came to light that lowest tenders received were not found to have been accepted on various reasons and pleas including expectation of obtaining better rates in subsequent tenders. The basis of such rejection was not justified. Illustrative cases are given below:

a) Underground sewerage project in Thane Municipal Corporation

TMC called (November 2007) for tenders for providing, laying and commissioning of RCC NP3 pipe gravity sewer line at tender cost of ₹ 20.76 crore. Two offers were received of M/s Bitcon India Infrastructure and M/s NCC-SMC (JV) and offer of M/s NCC-SMC at 36 *per cent* above the tender cost (₹ 27. 40 crore) was found to be lowest (L1). On negotiation M/s Bitcon India agreed to execute the work at 32 *per cent* above the cost put to tender.

TMC instead of placing orders on L1 cancelled the tenders in anticipation of getting better offer. On re-tendering (February 2008), only one offer was received and same was rejected being a single tender. Again, tenders were called (October 2008) and three offers were received and an offer of M/s Ramkey Infrastructure Limited at 112 *per cent* above the cost as per tender (₹ 43.31 crore) was found to be lowest and the same was accepted (February 2009). Thus, cancelling of tenders, in anticipation of getting better offer had actually resulted into extra liability of ₹ 15.91 crore to the Corporation.

TMC stated (October 2010 & November 2011) that offer of L1 was cancelled in anticipation of getting better offer.

Reply is not tenable as rate analysis for ascertaining the reasonability of rates was not done by the Corporation before rejection of L1.

b) Solid Waste Management under Pimpri Chinchwad Municipal Corporation

PCMC invited tenders for supply of 60 small dumpers rickshaws for transportation of garbage. Eight offers were received and after opening (August 2007) technical bids, two firms namely M/s Piaggio Automobile and M/s James Automobile were found technically suitable. Price bid of these two were opened (August 2007) and M/s Piaggio Automobile at ₹ 176740 per rickshaw was lowest (L1).

Instead of placing order on L1, the PCMC rejected the offer of L1 on the ground that L1 is not technically suitable and placed order on the second lowest tenderer at ₹ 219600/- per rickshaw which resulted in extra liability of ₹ 0.26 crore (42860 x 60) on the Corporation.

PCMC stated (October 2010) that the L1 was not technically suitable.

The reply is not acceptable as PCMC had opened the financial bids only after finding the lowest tender (M/s Piaggio Automobile) as technically suitable.

5.1.8.10 Cost overrun due to awarding of work without site survey and reliable data

MCGM under the Mumbai Sewerage Disposal Project (Stage-II) awarded (January 2007) the work of replacement of sewer lines by trench less method of pipe bursting (online trench less pipe replacement) to two contractors at a cost of ₹ 21.53 crore with the presumption that existing sewer pipes are encased with plain cement concrete and strata surrounding the sewers was soft. After executing the work amounting to ₹ 1.65 crore, the work was foreclosed due to non-working of bursting machine as the encasing around the pipes was of heavy cement concrete and strata surrounding the sewers were hard rock. The balance work of ₹ 19.88 crore was re-tendered by open trench method & awarded (February & June 2009) for ₹ 30.97 crore. Thus, due to floating of tender for execution of work by trench less method on assumption instead of actual site survey and concrete data resulted in cost overrun of ₹ 11.09 crore on MCGM.

MCGM stated (October 2010 & November 2011) that the trench less technology was used for the first time and there was no data available regarding the geology, thickness of encasement, rocks/boulders around encasement.

The contention was not acceptable as without having reliable data MCGM should not have opted for trench less technology which was being attempted for the first time by the Corporation.

During Exit Conference (November 2011) while reiterating the reply, the Corporation agreed to furnish the details of further action taken in the matter.

5.1.8.11 Inadmissible payment on transportation of Ready Mix Concrete

Work of execution of Bus Rapid Transport Pilot Project on Katraj-Swargate-Hadaspar Section in Pune was awarded to a contractor (January 2008) at 17.1 *per cent* above the estimated cost of ₹ 67 Crore. According to the condition No. 4 of the contract, contractor shall install computerized batching plant at appropriate location and shall convey concrete by using transit mixers. At least four transit mixers (in working condition) shall be available all the time at site of work. Mixing and preparation of concrete (even bed concrete) was not allowed at the site of work.

Scrutiny of records (September 2010) of PMC revealed that in-spite of contract condition, an extra item at the rate of ₹ 713 per cu.M. for transportation of Ready Mix Concrete (RMC) was sanctioned and payment of ₹ 1.94 crore was made (June 2010) to the contractor for transporting 27241.391 cu.M. of RMC.

PMC stated (October 2010) that the item provided in the tender provides for controlled concrete machine mixture with design mix but does not include transportation of RMC. PMC effected (November 2011) the recovery of ₹ 29 lakh by applying year wise Schedule of rates for extra item.

Reply was not tenable, as it was contrary to the contract condition quoted supra, which stipulates that conveying of concrete by transit mixer was contractors responsibility and the completed item of concrete includes transportation as it was to be provided at site of work.

During Exit Conference (November 2011), PMC stated that an amount has been recovered and details would be furnished to audit. However, no detail of recovery of the amount has been furnished (May 2012).

5.1.8.12 Excess expenditure due to non-observation of respective Schedule of Rates

Condition No.6 of General Notes of the MJP's CSR stipulates that the CSR rates are applicable to water supply and sewerage schemes and its allied works only. Items required for general construction, buildings, roads, irrigation, works etc. shall be adopted from the CSR of Public Works Department (PWD) or Irrigation Department.

In NWMC construction of two Water Treatment Plants (WTP) of 35 MLD Capacity was awarded (October 2007) to a contractor at 45.41 *per cent* above the tender cost of ₹ 9.80 crore. It was observed that due to change in the site of the WTP after issue of work order, extra work of Hillock cutting (requiring open excavation) was suggested. Accordingly, claim of extra item of ₹ 34.27 lakh based on the PWD CSR of 2007-08 was submitted (July 2008) by the consultant for approval. However, contractor did not accept the estimated amount of ₹ 34.27 lakh which was based on PWD CSR as the estimate of WTP was based on the MJP CSR. Accordingly, extra item of ₹ 55.79 lakh based on MJP CSR of 2007-08 was approved (September 2009) by the NWMC at a negotiated settlement between contractor and NWMC.

Thus, incorrect adoption of MJP CSR rates instead of PWD CSR rates for extra item resulted in excess expenditure of ₹ 21.52 lakh (₹ 55.79 lakh – ₹ 34.27 lakh).

NWMC stated (March 2010 & November 2011) that as this works pertains to water supply scheme the MJP CSR based on which estimate were prepared, was used for execution of extra item.

Reply was not acceptable, as the work of Hillock cutting by open excavation was a separate item for which PWD CSR was applicable.

5.1.8.13 Excess payment on reinstatement of road

Reinstatement of road surface was required to be carried out to bring the road to its original position after excavation (for laying utility services). Scrutiny of records in two Corporations revealed excess payment of ₹ 87 lakh on account of road reinstatement as follows:

(₹ in crore)

Name of Corpora-tions	Name of work	Cost of work	Amount excess paid	Reason
PCMC	Providing sewerage system for Talwade, Chikhali, Moshi, Dudoolgaon, Wadmukhwadi, Chowiswadi & Charholi	27.60	0.20	As per contract the reinstatement of road upto the stage of WBM is required to be made by Contractor without any extra payment and was eligible to receive payment for 70 mm Bitumen Bound Macadam @ ₹ 176.54 per Cu.M. However, the payment was made for WBM also.
Kalyan Dombivli	Augmentation of existing water supply scheme in Kalyan Dombivli	58.30	0.67	As per contract the reinstatement of road is required to be made by Contractor without any extra payment. As such the payment made for reinstatement of road of ₹ 0.67 crore was irregular.
	Total		**0.87**	

(Source: Running account bills and Quarterly Progress Reports)

The PCMC accepted (October 2010) the facts and agreed to recover the amount from contractor. Kalyan Dombivli Municipal Corporation(KDMC) stated (December 2010) that in the DPR the item of road reinstatement was considered which was approved CPHEEO/GOI and accordingly tenders were floated.

Reply of KDMC is not tenable as reinstatement of road after digging upto the stage of WBM was included in rates sought for the main work and only for BBM stage, additional payments were required to be made to the contractor upon execution of work.

5.1.8.14 Avoidable expenditure

PCMC had taken average of incorrect item of soft rock with soft and hard murum in the schedule for arriving at the rates of ₹ 100.80 per cu.M. for excavation of soft strata while preparing the estimates for the work of Sewerage Project Phase II instead of considering ₹ 64.45 per cu.M. for excavation of hard murum and boulders with soft and hard murum which resulted in avoidable expenditure of ₹ 34 lakh**.**

The PCMC accepted (October 2010 and November 2011) the facts and stated that this was done by mistake.

During Exit Conference, (November 2011) PCMC stated that further action of recovery would be intimated. However, no detail of the action initiated to recover the amount has been furnished (May 2012).

5.1.8.15 Non-recovery on account of excise benefit

As per serial no. 32 of General Notes to MJP schedule of rates, pipes used for drinking water supply scheme up to ESRs were exempted from Excise Duty (ED). For availing the exemption of ED necessary certificate from the project authority/District Collector shall be submitted.

In TMC, the price paid to supplier was inclusive of ED for the supply of drinking water pipelines. It was also provided in the tender that benefit of any exemption of ED availed by the contractor on the basis of certificate issued by the District Collector is to be refunded to the Corporations. However, it was seen that exemption of ED though availed by the contractor for the work of Additional 110 MLD Water Supply Scheme from Pise head works, was not passed on to the Corporation. This resulted in non-recovery of ₹ 0.31 crore.

While accepting the facts TMC stated (October 2010 & November 2011) that ₹ 0.31 crore would be recovered from contractor. However, no detail of the action initiated to recover the amount has been furnished (May 2012).

5.1.8.16 Unfruitful expenditure on Vermi Composting Plant

A Vermi Composting Plant (VCP) for processing bio-degradable waste was constructed in September 2008 at the cost of ₹ 3.20 crore. As per contract condition PCMC was to provide 30 Metric Tonne (MT) of biodegradable waste daily to contractor. However, PCMC failed to provide the required quantity of bio-degradable waste due to non-availability of infrastructure for collection of bio-degradable waste and was able to provide only 9.4 MT of waste daily. As a result contractor claimed compensation of ₹ 20.02 lakh for loss in running the plant and ₹ 1.68 lakh per month as recurring cost to run the project in future which was not yet paid by PCMC. Thus, due to the improper planning in ensuring availability of required quantity of biodegradable waste, expenditure of ₹ 3.20 crore incurred on plant remained largely unfruitful.

PCMC stated (October 2010) that they will try to provide more bio-gradable waste to the plant.

Reply is not tenable as the primary source for feeding the VCP was not properly tied up before incurring expenditure on the construction of plant. Furthermore, as was planned earlier, distribution of dust-bins to the household for the purpose of segregation of dry and wet waste as was conceived earlier, now stated to not to proceed with further will also contribute in lesser feed intake to the proposed VCP as commented in paragraph 5.1.7.2 supra.

5.1.8.17 Blocking of funds due to non-functioning of Inert and Refused Derived Fuel

Work of constructing and commissioning of garbage presorting, Refused Derived Fuel[29] (RDF) unit and Inert unit including civil work was awarded (June 2008) to a contractor at a cost of ₹ 24.26 crore for completion within eight months. Scrutiny of records revealed that civil work and installation of machineries for RDF and Inert unit work was completed in the month of February 2009. However, the RDF and Inert unit on which expenditure of ₹ 17.27 crore was incurred was not yet commissioned due to non-availability of electricity. Further, 20 heavy vehicles valuing ₹ 1.88 crore purchased for these units, were also lying idle for the last 18 months. Thus, expenditure of ₹ 19.15 crore remained unutilized for almost two years.

NMC stated (December 2010) that they are pursuing the matter with State Electricity Board to get the required electricity supply.

The reply was not tenable as the commencement of project without tying up the required electricity supply resulted in non-fulfillment of objectives for which project was conceived.

(b) Urban Infrastructure Development in Small and Medium Town

5.1.8.18 Excess payment of ₹ 16.45 lakh on account of price variation

The work of construction of concrete roads, drains, nallas, footpath and road dividers and beautification of Gunj golai in Latur city area was awarded (April 2008) to a contractor at 19 *per cent* above the estimated cost of ₹ 90 crore to be completed within 18 months. As per the tender condition star rate for calculation of HYSD Steel and cement was ₹ 29000 Per Metric Tonne (PMT) and ₹ 4800 PMT respectively.

It was however seen in Latur Council that while calculating the PV for HYSD steel Latur Council has considered the star rate of HYSD steel as ₹ 49000 PMT as against ₹ 29000 PMT as per the contract condition. Thus, due to consideration of incorrect star rate of HYSD steel has resulted in excess payment of ₹ 30.51 lakh on account PV paid on HYSD steel.

Also for calculation of price variation for labour, material & fuel the cost of HYSD steel was considered as ₹ 49000 PMT instead of ₹ 29000 PMT. Due to this there was short payment of PV of ₹ 14.04 lakh on labour, material & fuel component. Thus the net excess payment of PV worked out to ₹ 16.45 lakh[30].

[29] Fuel extracted from garbage
[30] ₹ 3050502 (excess paid) – ₹ 1405154 (short paid) = ₹ 1645348

Chief Officer, Latur Council accepted (August 2011) the facts and agreed to recover the amount. Details of recovery, if any, had not been furnished (May 2012).

5.1.8.19 Short recovery of Income Tax from consultant

As per section 194 J of Income Tax (IT) Act, IT at the rate of 10 *per cent* is required to be deducted as TDS on fess payable to any person for professional services or technical services provided by him. For the year 2008-09 the tax of 11.33 *per cent* (including surcharge) was required to be deducted as TDS while making payment of fees for technical services.

NCMC while making payment to contractor for the work of Implementation of Un-interrupted Water Supply in the pilot area of Dharampeth Zone, deducted IT at the rate of 5.15 *per cent* instead of 11.33 *per cent*, which resulted in short recovery of ₹ 20 lakh.

NCMC stated (June 2010) that short recovery of IT would be recovered from the consultant's bills payable to them. However, no detail of the action initiated to recover the amount has been furnished (May 2012).

5.1.8.20 Excess payment to the technical consultant

For providing technical services in pilot project of 24 x 7 Water supply, consultant was appointed (August 2008) by NCMC. The work of the Pilot project was started earlier in July 2007. However, payment on account of consultancy charges of ₹ 1.97 lakh was made for the period from July 2007 to July 2008 i.e prior to his appointment which was inadmissible.

NCMC accepted the fact and stated (January 2012) that amount ₹ 1.75 lakh had been recovered and ₹ 0.22 lakh is being recovered.

5.1.9 Reform Management

The main thrust of the strategy of urban renewal Mission is to ensure improvement in urban governance so that Corporations became financially sound with enhanced credit rating and ability to access market for financing new programs and expansion of services. To achieve this objective, Corporations are to be required to implement reforms. The reforms shall broadly be classified into two categories as mandatory and optional reforms. Mandatory reforms at Corporations level aims at process re-engineering through deployment of technology to enable more efficient, reliable, timely services in a transparent manner. The position of achievement by the test checked Corporations as on 31 March 2011 is as below:

Sr No	Mandatory reforms	Achievement
	State level	
1	Implementation of decentralization measures as envisaged in 74th Constitutional Amendment Act	Reform achieved.
2	Rationalization of Stamp Duty to bring it down to not more than five *per cent.*	Reform achieved.
3	Repeal of Urban Land Ceiling and Regulation Act	Reform achieved.
4	Amendment to Rent Control legislation	Reform not achieved. A case is pending with Supreme Court and judgment is awaited.

5	Enactment of Public Disclosure Law	Implementation of Public Disclosure Law is in progress.
6	Enactment of Community Participation Law	Reform not achieved.
7	Assigning or associating elected ULBs with city planning function	Reform achieved.
	ULB level	
1	Adoption of modern, accrual-based double entry system of accounting in Corporations	Seven[31] corporations had switch over to double entry accounting system and was in progress in remaining two[32] corporations. Under UIDSSMT in none of the selected units the reform was achieved.
2	Introduction of system of e-governance using IT applications like GIS and MIS for various services provided by Corporations	System of e-governance is in operation in all Corporations. Under UIDSSMT the reform was achieved partly in selected units
3	Reform of property tax, so that it becomes major source of revenue for Corporations and arrangements for its effective implementation so that collection efficiency reaches at least 85 *per cent* within next seven years.	Recovery of Property Tax (PT) was not up to 85 *per cent* as envisaged in the agenda of reforms even after completion of five years of the Mission period in respect of seven[33] Corporations and recovery was between 11 and 83 *per cent*. In MCGM and PCMC reform achieved. Under UIDSSMT the recovery ranged between 46 and 97 *per cent* in the selected units
4	Levy of reasonable user charges by Corporations with the objective that full cost of operation and maintenance or recurring cost is collected within next seven years	Operation and Maintenance (O & M) cost was not recovered in full during 2006-07 to 2010-11 as envisaged in the agenda of reforms in respect of six[34] Corporations even after completion of five years of the Mission period and recovery was between five and 85 *per cent*. In three Corporations (Mumbai, Nagpur and Pune) the reform was achieved. Under UIDSSMT the recovery of O & M charged ranges between 15 and 99 *per cent* in selected units
5	Internal earmarking within local body budgets for basic services to the urban poor.	Earmarking of budget for basic services to the urban poor was there in all Corporations and selected units under UIDSSMT.

(Source: Quarterly Progress Reports of Corporations & SLNAs)

5.1.10 Conclusion

Target for submission of DPR (financial/physical) by Corporations was not fixed by GOI/GOM which led to rejection/pendency of 125 DPRs at GOI level resulting in unfruitful expenditure of ₹ 250 crore on their preparation. Project proposed without assessing the immediate need resulted in excess investment in STP in NMMC. Ongoing projects started prior to the launch of the Mission were also included in the Mission in contravention of guidelines. Land acquisition problems led to delay in execution of projects. Instances of excess payments on account of PV and extra items as well as extra expenditure, non-recovery, blocking of fund and unfruitful expenditure were noticed in execution of projects. Excess expenditure due to incorrect application of MJP's CSR for work of hillock cutting instead of PWD's CSR was observed

[31] Kalyan-Dombivli, Mumbai, Nashik, Navi Mumbai, Pune, Pimpri Chinchwad and Thane
[32] Nagpur and Nanded
[33] Kalyan Dombivli, Nagpur, Nashik, Nanded, Navi Mumbai Pune and Thane
[34] Kalyan Dombivli, Nanded, Nashik, Navi Mumbai, Pimpri Chinchwad and Thane

in NWMC. KDMC and PCMC made inadmissible payment for work of WBM to the contractors. Double entry accounting system was not introduced in any of the selected Municipal Councils. Target of recovery of Property Tax and Operation and Maintenance cost as envisaged in the agenda of reforms was not achieved even after completion of five years of the Mission period in respect of six Corporations.

5.1.11 Recommendations

- Preparation of DPR needs to be linked to the trend of actual approvals and the budgetary allocation made so that costly expenditure on their preparation is avoided.
- Viability gap funding for execution of projects by Corporations and Councils needs to be reviewed at the level of State Government so as to ensure speedy execution of the projects where there are huge cost over-run and also for the purpose of ensuring critical availability of funds for these Corporations and Councils.
- The system of administration of contract and regulation needs to be improved so as to avoid cases of overpayments leading to consequent recoveries.
- Reforms as agreed should be implemented within prescribed time-frame for making Corporations/Councils financial viable and ensuring speedy disposal of public grievances.

The matter was referred to Government in November 2011. Reply has not been received (May 2012).

MUNICIPAL CORPORATION OF GREATER MUMBAI

5.2 Information Technology Audit of Brihanmumbai Mahanagarpalika Octroi Software System (BOSS) of Municipal Corporation of Greater Mumbai

Executive Summary

Octroi is the major source of own revenue for Municipal Corporation of Greater Mumbai (MCGM). It is the tax levied on articles on entry into Greater Mumbai for consumption. MCGM initiated computerization of various departments through Turnkey Solution Provider (TSP) route in 2000. Though, the application software namely Brihanmumbai Mahanagarpalika Octroi Software System (BOSS) was developed in Visual Basic (Client Server Architecture), it was replatformed to a web based J2EE and Oracle 10G database system since 2007.

ATS for software was given to M/s HCL Infosystems Ltd from August 2005 to August 2008 and work order for ATS was also given to M/s Ace Televoice Pvt Ltd for the same period resulting in undue benefit of ₹ 0.60 crore to the TSP. Similarly, TSP was also given undue benefit of ₹ 33.39 lakh in purchase of hardware and networking items.

Classification of articles according to Schedule 'H' of MMC Act 1888 was not followed for calculation of octroi. The octroi levied through the system was less by ₹ 46.13 crore than that calculated by audit as per corresponding Schedule 'H' rate of the article code recorded therein.

Even after 10 years of the development of the software, MCGM did not have its own personnel as Database Administrator for overall IT security and as custodian of data to ensure data integrity of such a critical system.

5.2.1 Introduction

Octroi is the major source of own revenue for MCGM. Octroi is the tax levied on articles on entry into Greater Mumbai for consumption. Nearly 32 *per cent* of the total revenue of MCGM is generated from Octroi collection.

The Octroi collection for the last 5 years is as follows:

(₹ in crore)

Year	Octroi Collection	Total Revenue
2005-06	2877.57	7638.65
2006-07	3558.39	9644.15
2007-08	4252.29	10075.00
2008-09	4514.70	15658.44
2009-10	4522.87	19035.16

(Source : data furnished by MCGM)

Goods are imported into the limits of Greater Mumbai through four modes of transport viz. sea, rail, air and road. MCGM has 64 work centres to collect Octroi and import by road accounts for nearly 58 *per cent* of the Octroi revenue. Six Octroi road check posts[35] are established at point of entry of the

[35] (i) Bal Rajeshwari Road (BRR), (ii) Eastern Express Highway (EEH), (iii) Lal Bahadur Shastri Highway (LBS) (iv) Mankhurd Panvel Highway (MPH) (v) Mulund Airoli Link Road Highway (MALR) and (vi) Western Express Highway(WEH)

major road routes. Octroi on goods imported by road is assessed by the staff of the Octroi Department of MCGM and collected by the Municipal Co-operative Bank Ltd on behalf of MCGM. Octroi on goods imported by sea or rail is collected on behalf of MCGM by the Mumbai Port Trust/Railway Authorities and Octroi on articles imported by air is collected by staff of the Octroi Department.

Octroi is charged *ad-valorem* and calculation is based on the rate specified in the Schedule 'H' under Section 192(1) of the Mumbai Municipal Corporation Act (MMC Act), 1888.

5.2.2 Organisational structure

The Municipal Commissioner is one of the authorities under the MMC Act appointed by Government of Maharashtra (GOM), assisted by Additional Municipal Commissioners, Deputy Municipal Commissioners, Assistant Commissioners and various heads of department in discharge of his functions. For the Octroi Department he is assisted by Joint Municipal Commissioner, Assessor and Collector, Joint Assessor and Collector. There are seven Deputy Assessor and Collectors (Dy A&C) for various Octroi nakas and head office. The sanctioned strength of Octroi Department was 3310 against which men-in-position were 2598.

5.2.3 Audit objectives

The objectives of the audit were to assess whether :

- The project was planned, managed and implemented in an economical, efficient and effective manner.
- The objectives of the various modules were in alignment with the business objectives of the organisation and the requirement of the various users were factored during the stage of planning.
- Effective and adequate controls were built in for entering data, its processing and for generation of the output to ensure that the integrity of the data were monitored for compliance in a systematic manner.

5.2.4 Scope and methodology of Audit

The Information Technology (IT) Audit covered a review of the working of Brihanmumbai Mahanagarpalika Octroi Software System (BOSS) in the Octroi Department of MCGM. The IT audit was carried out between November 2010 and March 2011 with a view to assess whether the objectives of computerisation were achieved. Audit adopted Computer Assisted Auditing Techniques (CAATs) to analyse the data received as data dump for the period from May 2007 to June 2010. The audit objectives were explained to the management of MCGM during the Entry Conference held in November 2010. Eight[36] work centers i.e five road nakas, one each of air, rail and sea modes were selected for audit on the basis of revenue collection. The exit conference was held on 11 May 2011.

[36] Chatrapati Shivaji Terminus, Eastern Express Highway, Indira Dock, Lal Bahadur Shastri Marg, Mankhurd Panvel Highway, Mulund Airoli Link road, Sahar Air Cargo and Western Express Highway

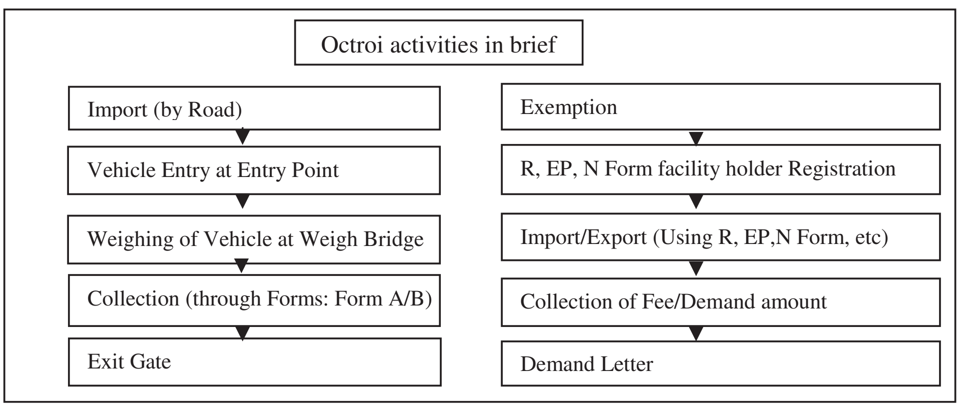
5.2.5 Computerisation of Octroi wing

MCGM initiated computerization of various departments through Turnkey Solution Provider (TSP) route in 2000. M/s Ace Televoice and Services Pvt. Ltd. was appointed TSP in 2001 for computerisation of the Octroi Department with the following objectives:

- reduce manpower
- faster retrieval/exchange of information
- improve the efficiency of the organization
- reduce waiting time for vehicles at check points
- provide better service that would benefit the tax payer

Initially, the application software namely BOSS was developed in Visual Basic (Client Server Architecture) which was replatformed to a Web based J2EE and Oracle 10G database system in 2007. For the purpose of successful implementation of enhanced BOSS system, MCGM hired the services of 13 Sr. System Administrators and 65 implementers from the TSP for five years from August 2006 to July 2011.

The functions covered in the BOSS application software include procedures for import, export, exemption from Octroi and refund as detailed below:



5.2.6 Audit findings

5.2.6.1 Planning and management

For the purpose of computerization, MCGM empanelled (2000), companies which possessed skills in areas required in the process of computerization i.e software development, training, software implementation, maintenance and hardware installation as TSP. The clauses, terms and conditions of the approved rates were included in the MCGM's circular AMP 166 dated 29 February 2000. Accordingly M/s Ace Televoice & Services Pvt Ltd was appointed TSP for computerisation of Octroi Department. Agreement was entered (September 2001) with the TSP for development of BOSS application software for ₹ 51.76 lakh. The Urban Development Department (UDD) had no role in the approval and development of the BOSS IT application.

Further, in 2006 the BOSS application software was enhanced and replatformed from Visual Basic to a web based application. The services availed from the TSP are detailed below:

Sr No	Standing Committee Resolution	Nature of services	₹ in crore
1	917/24.1.2001	Development of BOSS software	0.52
2	85/27.4.2005	TSP service charges for procurement of hardware	1.12
3	341/13.7.2006	Replatforming of BOSS software from Visual Basic to Web based J2EE platform and enhancement	1.68
4	1302/25.1.2010 (item 1)	TSP charges on service of hardware upto July 2011(for 5 years)	4.45
5	1302/25.1.2010 (item 2)	Manpower of system administrator and implementers, ISO certification, development of additional modules, training, modification of software	19.02
Total			**26.79**

(Source : data furnished by MCGM)

It was observed that the critical documents such as time schedule for list of deliverables, date of implementation of the solutions at all offices of the department, training to be imparted to the Octroi staff, infrastructure installation and commissioning, acceptance test planning, acceptance testing and handover of source code as per the contract were not available with the MCGM, even though various services costing ₹ 26.79 crore were entrusted to the TSP. During exit conference, MCGM stated (11 May 2011) that reply would be furnished. However, no reply furnished (May 2012).

5.2.6.2 Monitoring of project implementation

As per agreement with the TSP, a Project Implementation Committee (PIC) consisting of three officials from the Department concerned, two representatives of the TSP including Project Manager and one representative as IT consultant had to be formed for monitoring the implementation.

After successful acceptance of the system, PIC shall prepare a schedule for commissioning of the system at all remaining offices of the Department and TSP should ensure that the commissioning of the system at the remaining offices is executed as per the time frame described in the schedule.

Information relating to PIC and related reports were not available. Further, monthly/quarterly reports were not prescribed to obtain user feedback on application software and reporting action taken thereon to management. No regular report was prescribed and submitted by the work centres in respect of functioning of Hardware, Networking equipment, down time of hardware, down time of networking equipments etc.

5.2.6.3 Audit query module in application software

MMC Act, 1888 stipulates that Municipal Chief Auditor (MCA) shall audit all the records of MCGM. However, the requirements of audit were not considered during development of the application modules. Further, it was noticed that the audit query module was not available in the application system developed and hence auditors conducted audit manually for assessment and collection of octroi.

MCA of MCGM while accepting the facts stated (March 2011) that MCA staff was manually scrutinizing the actual assessment and calculation of Octroi on the basis of documents submitted by the Octroi Department. MCA was neither involved in system design nor was its audit requirement considered. MCA was also not provided with connectivity and access to the BOSS system.

5.2.6.4 Implementation

Scrutiny (March 2011) of yearly reports on Octroi collection prepared by octroi wing for the years 2008-09 and 2009-10 and analysis of Octroi collection from the computerized system revealed that the data pertaining to 40 *per cent* Octroi collection were yet to be computerised.

(₹ in crore)

Year	Octroi collection as per report from octroi wing	Octroi collection as per computerised data	Difference (2-3)	percentage of Octroi collection not computerised
(1)	(2)	(3)	(4)	(5)
2008-09	4514.70	2732.73	1781.97	40
2009-10	4522.87	2735.38	1787.49	40

(Source : data furnished by MCGM)

During analysis of data available in the computerized system, it was further revealed that the data actually pertained to 21 work centres only out of the total 64[37] work centres proposed for computerization which indicated that the BOSS system was not implemented in the balance 43 work centres.

During exit conference (11 May 2011), MCGM stated that only 47 work centres were in existence.

Thus the very objective of computerisation to improve the efficiency of the organization and speedy exchange of information could not be achieved to the optimum in absence of complete rollover in all the locations.

5.2.6.5 Undue benefits to contractor by way of Annual Technical Support for software and hardware

In July 2004, Octroi Department of MCGM purchased computer hardware, software and networking items at a total cost of ₹ 11.13 crore from M/s HCL Infosystems Ltd alongwith 750 copies of user license of Oracle 9i software and Oracle real application clusters costing ₹ 2.88 crore for server configuration. The Annual Technical Support (ATS) for the initial one year was included in the purchase.

ATS for Software

IT cell of MCGM (August 2007) renewed ATS for 750 copies of user license of Oracle9i software with M/s HCL Infosystems Ltd for 5 years upto August 2008 for ₹ 1.57 crore for providing software update, product support, applying patches, bug fixing, online support *etc*.

Even then, Octroi Department issued work order (December 2005 and September 2006) for ATS of Oracle9i software to M/s Ace Televoice Pvt Ltd for the period from August 2005 to July 2011 for ₹ 1.30 crore with reference to the rates of the TSP for hardware. The ATS was discontinued from August 2008, hence the proportionate amount for the period from August 2005 to July 2008 worked out to ₹ 0.60 crore.

[37] By Road - (6), By Western Railway (14), By Central Railway (11), By Sea (4), By Air (9), Bunder and Depot (7), and Other Work Centres including RTO, Vigilance Officer (13)

Audit observed that though the items for services of ATS for Oracle software was not mentioned in the list of services offered by the TSP under the circular AMP 166, even then the work order was issued to M/s Ace Televoice Pvt Ltd with reference to the items mentioned therein.

Thus as ATS was given to M/s HCL Infosystems Ltd from August 2005 to August 2008 and work order for ATS was also given to M/s Ace Televoice Pvt Ltd for the same period, it resulted in undue benefit of ₹ 0.60 crore to the TSP.

During exit conference (11 May 2011), MCGM stated that ATS to M/s HCL Infosystems Ltd has been discontinued since August 2008 and no payment was made since then.

ATS for Hardware

Work order for installation and commissioning of server, hardware and peripherals, installation and commissioning packaged software, networking products and establishing of connectivity was issued by Dy A&C (Octroi)/HO in September 2006 to M/s Ace Televoice Pvt Ltd, the TSP for rendering various services for the above procurement.

Audit observed that work order issued to M/s Ace Televoice Pvt Ltd was for the same job which was already included in the purchase order issued to M/s HCL Infosystems Ltd for purchase of hardware and networking items which resulted in undue benefit to M/s Ace Televoice Pvt Ltd for ₹ 33.39 lakh[38].

5.2.7 Input control

5.2.7.1 Data not captured at critical stages of assessment and collection of octroi at road nakas

Software Requirements Specification (SRS) revealed that stages were identified for data entry for Octroi assessment and collection at road nakas such as (i) Vehicle Entry at Entry Point (ii) Weighing of Vehicle at Weigh bridge (iii) Collection through Forms: Form A/B - Single and Multiple Consignment Cash Payment (iv) Demand Draft through Form A/B – Single and Bunch (v) Demand Draft through Form A/B and (vi) Exit Gate.

Scrutiny of system functioning at five road nakas[39] revealed that vehicle details were not captured at the entry point but captured at the Weigh bridge or at the time of entering Form 'A' even though the system was designed to capture such information at entry point. It was also noticed that at the exit gate the details such as vehicle number, name of the item, Octroi amount were noted down manually during exit and subsequently entered in the system which indicated that the software was not implemented as envisaged and hence could not be effectively used for prevention of octroi evasion. Also the entry and exit of vehicles are not properly monitored thereby indicating lapses in the procedures.

MCGM accepted the facts and stated (January 2012) that responsibility for providing connectivity was with MCGM and accordingly same was provided at exit points. However, at many times the fibre cable used to get connectivity

[38] contract value ₹ 111287341 * 3 *per cent* i.e rate of TSP as per item 3(b) of circular AMP 166 =₹ 3338620

[39] Eastern Express Highway, Lal Bahadur Shastri Marg, Mankhurd Panvel Highway, Mulund Airoli Link Road and Western Express Highway

at exit and other point were damaged. Also entering data in system was difficult due to heavy work load during rush hours.

5.2.7.2 Improper implementation of classification based on Schedule 'H'

Article 192(1) of the MMC Act stipulate that Octroi is to be calculated at rates of articles liable for payment of Octroi as specified in schedule 'H'. GOM revised schedule 'H' from time to time and last amendment was done in April 2007. The articles were identified with eight digit code, rate of Octroi prescribed against each article and these articles were classified in 99 chapters. The application to pay Octroi on form 'A' needs to be recorded with details such as item number of schedule and rate of Octroi. The Audit observed the following discrepancies in the database made available by the MCGM and in the system :

- form 'A' which is used as input record for assessment data entry do not contain the item code as per the Schedule 'H'.
- even though the SRS/Software Design Description (SDD) document shows that the article code is to be uniquely identified in the system, the application software was designed with two options i.e (i) by entering the article code and identifying the article or (ii) by selecting the rates of Octroi and not the article code. Such faulty designing of the system permitted user to select the rate of Octroi instead of identifying the item code which resulted in incorrect item code being captured in the system.
- Analysis of data in respect of application for Octroi in form 'A' for single consignment for the year 2009-10 relating to five[40] road nakas revealed that there was difference in octroi collected through the system and that calculated by audit as per corresponding Schedule 'H' rate of the article code recorded therein. The octroi amount levied in the system was less by ₹ 46.13 crore than the octroi amount worked out by audit (on the basis of article code recorded in the data base made available) as per the rate mentioned in the Schedule 'H'.

(₹ in crore)

Octroi nakas	No. of cases	Octroi actually levied	Octroi calculated by audit as per Schedule 'H'	Difference (Col 4 - 3)
(1)	(2)	(3)	(4)	(5)
Lal Bahadur Shastri Marg Naka	5907	4.66	6.62	1.96
Eastern Express Highway Naka	18825	11.93	19.96	8.03
Mulund Airoli Link Road Naka	2740	1.01	1.59	0.58
Mumbai Panvel Highway Naka	23131	16.38	26.56	10.18
Western Express Highway Naka (Dahisar)	26970	16.93	42.33	25.40
Total				**46.13**

(Source : data furnished by MCGM)

[40] Lal Bahadur Shastri Marg, Eastern Express Highway, Mankhurd Panvel Highway, Mulund Airoli Link Road and Western Express Highway

MCGM replied (January 2012) that case by case examination would be carried out. No further reply consequent to detailed examination if carried out was furnished.

5.2.7.3 Illustrative examples on discrepancies in data are indicated below:

- Data of Eastern Express Highway naka having article with same article code but different rate as elaborated below :

Sr No	'A' Form number	Shift date	Article name	Article code	Rate of Octroi	Octroi levied in ₹
1	3523242	4/1/2009	furniture	94037000	7%	4694
2	3523268	4/1/2009	furniture	94037000	7%	6733
3	3523994	4/1/2009	furniture	94037000	5.5%	523
4	3524216	4/1/2009	furniture	94037000	5.5%	385

(Source : data furnished by MCGM)

- Data of Western Express Highway naka - Motor car and motor cycle classified under same article code as elaborated below :

Sr. No.	'A' form number	Shift date	Article code	Rate of Octroi	Name of the Article	Octroi levied in ₹
1	3538778	4/3/2009	87114019	4.5%	Two Wheeler	9360
2	3542644	4/3/2009	87114019	4.5%	TVS Scooty	9900
3	3543176	4/3/2009	87114019	4.5%	Bajaj Pulsar	2449
4	3543378	4/3/2009	87114019	4.5%	Honda City	38025
5	3551271	4/4/2009	87114019	4.5%	Hyundai IZO Car	20358

(Source : data furnished by MCGM)

- Scrutiny of Data from Lal Bahadur Shastri Marg naka for the year 2009-10 revealed that the articles captured in the system indicated various rates of Octroi even though the articles in Schedule 'H' showed the rate of Octroi as 'Nil'. Some instances are depicted below :

Sr. No	Article code	Number of records	Octroi levied (in ₹)	Rates captured by system (in percentage)
1	09101040	85	1051182	7
2	09103030	146	1861361	7
3	12111000	349	25310185	7
4	12114000	11	63522	5.5

(Source : data furnished by MCGM)

- Instances of discrepancies in data noticed in the assessment made at Sahar air cargo where the assessment was done from Bill of Entry are as under :

Sr No	Assessment code	Name of the article	Total value of article (in ₹)	Rate at which Octroi levied (in percentage)	Rate leviable as per Schedule 'H' (in percentage)
1	2455659	AWB 17688072602 Forklift Parts CHA 73	10388	5.5	7
2	2455189	AWB NO 02062589925 Catalog OT 1485	12570	5.5	7

3	2455201	AWB NO 21709442355 Ship Spares 1072	632354	5.5	7
4	2455599	AWBNO.11111 Gold	793677	0.1	2
5	2455572	AWB 02369344951 Crimping Tool CHA 1123	1290103	0.1	2

(Source : data furnished by MCGM)

The faulty design in the system permitted the user to select the rate of octroi instead of identifying them in item code.

MCGM replied (January 2012) that case by case examination would be carried out. No further reply consequent to detailed examination was furnished.

The above points indicate that the Business rule was not properly mapped in the system and information/report generated from the system would be incorrect. Also, the absence of input controls in the system made the data unreliable and prone to manipulation.

5.2.7.4 Master tables

Information stored in master data files is critical for the processing and reporting of financial data hence accuracy in data of Master files is of vital importance. Data analysis revealed that there were many errors/duplication of data in the master tables which affected data integrity and accuracy of output. Instances noticed are indicated below :

a) Master table which holds the details of importer/exporter of 'R' form facility

- 6699 importer/exporter are allotted with multiple code number i.e. two to 13,334 times in the master table

b) Master table which holds the details of importer/exporter of 'N' form facility

- 2399 importer/exporter are allotted with multiple code number i.e two to 22 times in the master table

c) Master table which holds the details of exporter of Export Promotion (EP) form facility

- 529 exporters' names are repeated two to 122 times in the master table

MCGM stated during exit conference (May 2011) that a new system is proposed to be introduced which will preclude all the defects of the old system, master table would be cleaned and duplication would be avoided. Further, MCGM stated (January 2012) that the issue was referred to the agency responsible for maintenance of the system.

5.2.8 Processing controls

5.2.8.1 Receipts not available against Form 'A'

Rule 9 of the Octroi rule, 1965 stipulates that Octroi on the article imported by road shall be collected by the Municipal Octroi staff at the Municipal Octroi Posts at roads across the Greater Mumbai Limits. As per Rule 12 the importer has to fill an application to pay Octroi in form 'A' and Octroi import bill on form 'B'. The Octroi inspector shall check the particulars of the articles according to the provision of these rules.

The procedure documented in SRS states that the Octroi Inspector at the counter shall hand over all documents along with 'B' Form to the Cashier of the Municipal Co-Operative Bank Ltd for Octroi collection. Further, SRS states that the report on pending collection of Octroi should be part of shift closing reports.

Analysis of octroi data recorded in the system revealed that receipts were not available against all the application for payment of octroi. Test check of data for the period from April 2008 to June 2010 revealed that receipts were not available as detailed below for 18436 application form ('A' forms) amounting to ₹ 21.33 crore :

Work centre	Total number of 'A' form without receipts	
	No. of cases	**₹ in crore**
Lal Bahadur Shastri Marg Naka	1827	3.64
Eastern Express Highway Naka	3891	4.61
Mulund Airoli Link Road Naka	323	2.04
Mumbai Panvel Highway Naka	1696	3.32
Western Express Highway Naka (Dahisar)	10699	7.72
Total	**18436**	**21.33**

(Source : data furnished by MCGM)

Detailed scrutiny of 136 cases in five[41] road nakas revealed that manual receipts were available in 13 cases and in 24 cases new forms were entered in place of original forms. In respect of other cases, no information/records were available.

It was also noticed that even though reports were available in the system to monitor the pending 'A' form for collection, the same was not generated and reconciled as part of the shift closure report. This indicates that there was failure from the side of the department in monitoring the applications submitted for payment of octroi and collection leading to octroi evasion and revenue loss to the corporation.

During exit conference (May 2011), MCGM stated that the cases would be examined thoroughly and detailed reply furnished; also a shift closure report would be prepared before closing of every shift. Further MCGM stated (January 2012) that the matter was entrusted for investigation to Indian Institute of Technology (IIT), Mumbai.

5.2.8.2 Pending 'N' form

articles imported into Greater Mumbai for the purpose of immediate exportation i.e the articles are in transit only and not for consumption are exempted from payment of octroi. For this purpose as per Rule 6 of the MMC Exemption of Octroi (Immediate exportation) Rules, 1965 stipulate that the importer shall tender the application with a fee of ₹ 100 for exemption in form 'N' at the place of import and at the time of export, the copies of the application is to be verified with the documents of export by the Octroi

[41] Eastern Express Highway, Lal Bahadur Shastri Marg, Mankhurd Panvel Highway, Mulund Airoli Link Road and Western Express Highway

Inspector and one copy returned to the Dy A&C. Further, if any articles covered in the application have been shipped, loaded or passed out of Greater Mumbai limits before being examined by the Municipal Octroi inspectors, they shall be presumed to have been imported for the purposes of consumption, use or sale within Greater Mumbai and full Octroi due thereon shall be leviable.

In the BOSS system, in respect of import of article, 'N' forms details are entered in the system and 'N' form relating non-computerised work centres are dispatched to the concerned work centres. At the computerized export work centres a dispatch list is generated, verified and necessary certification entries are made in the system and reports in respect of 'N' forms pending for certification i.e for the articles not exported are sent to Headquarters (HQ) office for further monitoring.

Scrutiny of system implemented at the 'N' form wing of HQ office revealed that modules relating to verification and certification of 'N' forms were not implemented and certification/verification of data was also not entered. Thus due to partial implementation of the 'N' form module in all the work centres, the Demand Letters (DL) in respect of pending forms generated through the BOSS system was incomplete and showed huge pendency in the certification of 'N' forms. There is a huge difference between information available in the 'N' form section and information available in the BOSS system as detailed below:

Year	Details as per manual report (a)		Detail as per computer data in BOSS (b)		Difference(a & b)	
	Number of NDL issued	amount (₹ in crore)	Number of pending 'N' forms	Amount (₹ in crore)	Number of pending 'N' forms	Amount (₹ in crore)
2008-09	13417	321.05	252955	9474.56	239538	9153.51
2009-10	15469	152.99	637424	7619.95	621955	7466.96

(Source : data furnished by MCGM)

Thus the information relating to pending 'N' forms were incomplete and incorrect in BOSS which lead to wrong information to the octroi payers regarding pending 'N' forms and due to such incomplete system, MCGM could not effectively use the computerized system to assess the actual octroi evaders, recover the revenue loss and initiate recovery. Also the very objective of computerisation to provide better service to the octroi payer could not be achieved.

MCGM stated during exit conference (May 2011) that due to lack of connectivity between all work centres and 'N' form section in HQ office, certification of 'N' forms were partially done. Further, connectivity was provided at the 'N' form section in HQ only in the month of January 2011 and module for entering verification and certification was not implemented, which resulted in huge pendency. Further, it was stated (January 2012) that the matter would be examined and reply furnished.

5.2.9 Output controls

5.2.9.1 Statistical reports on collection of octroi prepared manually

Statistical section of the Octroi Department compiles summary report in respect collection of Octroi receipt at various work centres. Scrutiny (March 2011) of reports compiled at statistical section revealed that the reports are manually compiled based on the information furnished by the work centres and no reports are generated by the statistical wing directly from the BOSS system as connectivity to BOSS system was not provided in the statistical wing.

5.2.9.2 Difference of Octroi amount in reports

Scrutiny of reports for the month of June 2010 in respect of collection at Mumbai Panvel Highway naka revealed that the figures in the monthly collection report did not tally with daily reports generated from the BOSS system as detailed below:

(₹ in crore)

Amount shown in the statement of total amount for the month	Amount shown in the statement of day wise breakup of monthly collection	Difference
69.27	69.84	0.57

(Source : data furnished by MCGM)

This indicate that the reports were not tested for its correctness before its implementation.

5.2.10 Deficiencies in implementation

5.2.10.1 Demand letter on pending 'R' form

Rule 7 and 8 of the Rules in respect of exemption from Octroi on free gifts, etc., stipulates that articles liable to pay Octroi which are temporarily imported into or exported temporarily from Greater Mumbai and re-imported into Greater Mumbai for the purpose of inspection, demonstration, exhibition, repairs, processing or for such other similar purposes as may be exempted from Octroi provided that the importer or exporter as the case may be applies for the same in writing in form 'R' provided for the purpose. The importer or exporter as the case may be shall agree to pay a registration fees of ₹ 100 and make such deposits as prescribed by the commissioner. Within a period of six months from the date of import or export, the importer or exporter together with two copies of the form returned to him with a certificate from the processor or the repairer should submit to the Octroi Inspector and one copy will be forwarded to the Octroi official in charge at the place of the original import/export.

Audit observed that though the details in respect of 'R' Forms were entered in the system, DL for pending 'R' forms (RDL) is prepared manually as the module for RDL generation is not implemented in the work centres and the same is forwarded to Octroi Department in HQ office for verification either for closure or recovery. The 'R' form pending for certification in the system is as follows:

Name of the unit	'R' form pending in the system	Amount of Octroi (₹ in crore)
Lal Bahadur Shastri Marg Naka	12014	27.93
Eastern Express Highway Naka	14972	17.20
Mulund Airoli Link Road Naka	8610	23.74
Mumbai Panvel Highway Naka	60308	65.18
Western Express Highway Naka (Dahisar)	71355	88.59
Indira Docks	93	0.66
Chatrapati Shivaji Terminus - Central Railway	187	0.34
IAC Main	1401	5.67
Sahar Cargo	49	0.06
Total	**168989**	**229.37**

(Source : data furnished by MCGM)

5.2.10.2 Non-creation of Master table for 'R' form facility holders

As per the rule mentioned in sub para 6.5.1, the Commissioner may also accept from the regular importers/exporters a fixed deposit instead of requiring them to pay deposits at the time of import or export. Accordingly importer/exporter has to register at Octroi HQ to avail exemptions under 'R' form facility (permanent) at the Octroi work centres. The 'R' form facility (temporary) was availed by paying deposits equal to the Octroi amount on articles imported.

Audit observed that the application was not designed to capture information on 'R' form facility holder at HQ and provide online information to the work centres to check the validity of the 'R' form facility holder

During test check of the list containing names of 4286 'R' form facility holders furnished in excel sheet who have permanent deposit at HQ office for the period May 1965 to August 2010 with the actual importer/exporter availing 'R' form (permanent) facility at the nakas, it was noticed that 23 importer/exporter whose names did not appear in the HQ list availed the facility for Octroi exemptions amounting to ₹ 3.51 crore for the period from April 2008 to July 2010 in respect of 1632 'R' forms without making the required deposits equal to the Octroi value as detailed in below:

Name of the work centre	No. of 'R' forms	Octroi value (₹ in lakh)
Lal Bahadur Shastri Marg Naka	460	71.06
Eastern Express Highway Naka	94	12.31
Mulund Airoli Link Road Naka	115	16.95
Mumbai Panvel Highway Naka	460	182.69
Western Express Highway Naka (Dahisar)	489	57.33
Chatrapati Shivaji Terminus - Central Railway	1	0.01
IAC Main	13	10.87
Total	**1632**	**351.22**

MCGM stated (April 2011) that connectivity of BOSS system was not established in 'R' form section at HQ office and therefore RDL were manually prepared and information relating to deposit made at HQ by the importer/exporter was not captured in the system. MCGM replied (January 2012) that case by case examination would be carried out.

Thus the potential of Information Technology opportunity was not properly utilised to improve the efficiency by reducing loss of revenue and evasion of octroi.

5.2.11 Design deficiency

Gaps in serial numbers of receipt and assessment transactions

The system design lacked controls over deletion of records as detailed below:

- Analysis of data relating to single form receipt table which stores single form collection for the month of March 2010 with receipt serial Number designed as unique identifier for transaction from 4818126 to 4957020 revealed that there were 4467 missing receipt serial numbers in the table. It was noticed that tables were not designed to store the history of receipts deleted. Further, test check revealed that in 10 cases receipt was entered at different date with a time gap of two to 589 days.
- Analysis of data relating to 'A' form application for single consignment for the month of March 2010 revealed that there are 7008 missing serial number from 4969200 to 5111587.

The above instances indicate that due to missing serial numbers, unauthorised deletion of data records through back-end could not be ruled out which may lead to non-collection and evasion of octroi.

During exit conference (May 2011) MCGM stated that the reply would be furnished in coordination with TSP. Further it was stated (January 2012) that the matter was entrusted for investigation to IIT, Mumbai..

These discrepancies indicate lack of control over deletion of records, lack of audit trails in the system indicating that the system was insecure and vulnerable to fraud and manipulation.

5.2.12 Information System security

5.2.12.1 IT security policy

Every organization is required to adopt an IT security policy clearly identifying the organization's priority and necessary controls need to be built based on the IT security policy. Audit observed that security policy for MCGM has not been formulated.

5.2.12.2 Business continuity/Disaster Recovery Plan

The organization should have business continuity/disaster recovery plan to retrieve and protect information maintained in the event of an interruption or disaster leading to temporary or permanent loss of computer facilities.

It was observed that documented business continuity and disaster recovery plan was not available in respect of BOSS system. In the absence of such well designed plan, the organization may face major threats such as (i) the organisation's ability to accomplish its mission after restarting its operations (ii) to retrieve and protect the information maintained (iii) to keep intact all the organizational activities after the disaster and (iv) to start its operations on full scale at the earliest to minimise the business loss in terms of money, goodwill, human resources and capital assets.

5.2.12.3 Modification of data at the Oracle back-end

Computers use and store information in electronic form which requires less human involvement in processing than manual systems. This increases the potential of individual to gain unauthorized access to sensitive information and to alter data without visible evidence. Due to the electronic form, changes to computer programs and data are not readily detectible.

Audit observed that proper procedure was not followed in modification of application software and data. Also there is neither a facility/features designed in the system to modify 'A' form data through the front-end nor to store the history of the modified data.

- IT cell furnished (November 2010) an analysis conducted by TCS, IT consultant of 'A' form data, to MCGM about the changes in the rate of Octroi from three to five *per cent* made at later dates in 422 out of 478 cases on the BOSS data backup of 25 August 2009 and first January 2010.

Information was not furnished on security issues such as (i) Changes made through Oracle back-end and persons authorized to make such changes (ii) Personnel assigned the responsibility of IT security, allocation of user privileges, user identifier (ID) and data security and (iii) Personnel responsible for data custodian who ensures data integrity at all times.

This was indicative of absence of adequate control over the IT Plan.

5.2.12.4 Anonymous users

The risk of unauthorised transaction processing could be reduced by the presence of controls which positively identify individual users and log actions against them. Data analysis revealed that the user name such as "DUMMY USER" was recorded in the system as user for data entry for assessment and collection records. Further, records relating to assessment and exemption forms were deleted from system without User ID as indicated below :

- 9848 'A' form data relating to 25 work centre amounting to ₹ 287.30 crore for the period from April 2007 to June 2010 was recorded in system by user name "DUMMY USER".
- 25438 data amounting to ₹ 18.87 crore relating to Octroi receipts against 'A' form were entered by user name such as "DUMMY" in the system during the period from October 2007 to October 2009 in five nakas.
- 34849 data of 21 work centres relating various forms including 'A' form, 'N' form, 'R' form and 'EP' form amounting to ₹ 4995.50 crore for the period from April 2007 to June 2010 were deleted from the system without User ID.

- 4555 records relating to refunds for the period from March 2008 to July 2010 were deleted by user with generic name AAC, refund (HO-HO).

This indicates that there is possibility of the system being prone to manipulation.

During exit conference, MCGM stated (May 2011) that reply would be furnished in coordination with TSP. Further it was stated (January 2012) that the matter was entrusted for investigation to IIT, Mumbai.

5.2.12.5 Staffing and segregation of duties

BOSS system is a critical system which processed Octroi collection of ₹ 2735.38 crore during 2009-10. The set-up for running an application of such criticality should have personnel's from MCGM as Database administrator or manager for the overall IT security and custodian of data to ensure data integrity.

Audit observed that the system was developed by an agency M/s Ace Televoice Services Pvt. Ltd and services of 13 system administrators and 65 implementers were hired from the same agency for critical services such as System and Database Administration for a period of five years from August 2006. The Developer worked as a System Administrator and implementer and performed the duties of the user.

MCGM did not have its own personnel as Database Administrator and even these functions were also exercised by outsourced vendors. Consequently the initial replies to the audit, in absence of trained and skilled staff of MCGM could also not made by them.

5.2.13 Conclusion

The objective of computerization of Octroi Wing was to utilize information technology and improve the efficiency, provide better service that would benefit the octroi payers, reduce manpower, eliminate misclassification, etc. However, 10 years after initiation of the project, the modules are not fully implemented and majority of work centres are yet to be computerised. Lack of input controls and validation checks in the system permitted to enter the articles without considering the classifications as per rate schedule and made the data unreliable and prone to manipulation. Applications received for payment of Octroi was not reconciled against receipts and applications remaining pending in the system. Inadequate IT Security, dummy users entry, missing receipt numbers, deletion of data and modification of data by anonymous users coupled with weak audit trails made the system vulnerable to fraud and manipulation. MCGM was fully dependent on the TSP including Database Administration which made the system vulnerable for unauthorized changes in the system. Instead of utilising own staff for operation of the BOSS application, MCGM continued to hire manpower for the same. Monitoring mechanism on development and implementation of the BOSS application was very poor. Thus, the BOSS application failed to achieve the intended benefit as envisaged by MCGM.

5.2.14 Recommendation

- All the modules as envisaged should be developed and implemented so as to ensure that the data is captured in full for effective and efficient management of the octroi collection.
- The module should be upgraded by incorporating all the user requirements and validation checks for ensuring effective and timely availability of information.
- Audit trails to track missing entries and changes made should be built into the system and audit trails available in the Oracle Database system should be configured to record modifications of data through back-end.
- A mechanism to monitor the functioning of application software and hardware down-time should be introduced.
- Training and connectivity to all the users including MCA should be provided to ensure full implementation of the system and achieve the intended benefits.

The matter was referred to Government in April 2011. Reply has not been received(May 2012).