

**Mr. Chairman,**

As per Section 125 and 126E of the Mumbai Municipal Corporation Act, 1888, the Municipal Commissioner has to prepare and lay before the Standing Committee the annual budget estimates of expenditure and income Budget 'A' (Fund Code 11, 12, 60, 70), Budget 'B' (Fund Code 21, 22, 23) and Budget 'G' (Fund Code 40) on or before the 5<sup>th</sup> February every year for consideration.

Due to the Municipal General Elections in February 2012, Code of Conduct was in force. Hence, budget estimates were not put up before the outgoing Standing Committee and the Corporation.

The Hon. Governor of Maharashtra has promulgated Maharashtra Act No.XXXII of 2011, for further amendments to Mumbai Municipal Corporation Act, 1888 on 18<sup>th</sup> August 2011. As per this amendment, a new Section 129A regarding estimates of expenditure and income deemed to be budget estimates has been inserted in the M.M.C. Act, 1888. As per this Section 129A of the M.M.C. Act, 1888, if for any reason the Corporation has not finally adopted the budget estimates before the commencement of the official year to which they relate, the statement of expenditure and income prepared by the Commissioner under Section 125 shall be deemed to be the budget estimates for the year until the Corporation duly adopts the budget estimates as per the provisions of the M.M.C. Act, 1888.

In view of the aforesaid amendments in the M.M.C. Act, 1888, I have prepared a statement of Income and Expenditure for the year 2012-13 which are deemed to be the Budget Estimates for the year

**BUDGET ESTIMATES A, B & G 2012-13**

2012-13. To ensure smooth financial transactions during the current financial year commencing from 1<sup>st</sup> April 2012, these Budget Estimates have been made operative until the Corporation adopts Income and Expenditure Estimates as per the provisions of the M.M.C. Act, 1888. Against this background, I now present the estimates of Income and Expenditure in respect of Budget 'A' (Fund Code 11, 12, 60, 70), Budget 'B' (Fund Code 21, 22, 23) and Budget 'G' (Fund Code 40) for the year 2012-13 to the Standing Committee.

In my Statement while submitting the budget estimates for the last year i.e. 2011-12, I had stated that the long pending municipal balance sheets for the years from 2007-08 to 2009-10 will be finalized and submitted before the Corporation as per the expected timelines. I now feel gratified to mention that all these long pending municipal balance sheets have been finalized and submitted to the Municipal Chief Auditor well before the expected timelines. The financial statements for the years 2008-09, 2009-10 and 2010-11 have been submitted to Municipal Chief Auditor on 15.03.2011, 16.05.2011 and 08.07.2011 respectively. The consolidated financial statements i.e. balance sheets, income and expenditure, receipt and payments, trial balance of all funds for the year 2007-08 to 2010-11 are also published on MCGM's website i.e. <http://portal.mcgm.gov.in>. The accounts for the year 2011-12 shall also be closed within the specified time period. This will enable the citizens and city fathers to have a more accurate understanding of the municipal finances and will introduce higher accountability and transparency in the system.



**2. Financial position of the MCGM**

I had the challenge to improve and stabilize the municipal finances to enable MCGM to meet the growing infrastructure needs of the city.

While submitting the Budget Estimates in 2011 to the Standing Committee I had discussed in detail on the financial position of the MCGM. It was made clear that the Corporation under Section 134(1) of the M.M.C. Act is not allowed to have a deficit budget and as such it is necessary for Corporation to meet all its revenue and capital expenditure out of its revenue receipts and sustainable amount of borrowings. It was also pointed out that the capital expenditure of the Corporation especially in 'A' Budget has increased manifold which is not sustainable unless revenue collection is improved and new sources of revenue are identified. I had accordingly stressed the need for revenue augmentation and assured that efforts would be made to identify some new sources of revenue and to improve revenue collection from the existing sources.

The Brihanmumbai Mahanagarपालिका levies certain amount of fees/service charges to its citizens for various services and facilities. For sustainability, it is necessary to revise these charges/fees considering the impact of inflation.

With a view to meeting ever increasing expenditure on providing these services and facilities, all the HoDs were asked to review the various charges/fees levied by their respective departments as well as to study and explore new sources of income/revenue. A policy decision has been taken to revise the charges, which are within the powers of the M.C., by 10 percent from 1<sup>st</sup> of April every year. It has also been decided to link up the charges of the items/services which are related to the market rate of

land with the Current Ready Reckoner of department of registration. This will ensure a sizeable increase in revenue on account of various charges recovered by different departments from April 2012. Moreover, in respect of certain departments, the levy of charges has been streamlined. For illustration, Trade Refuse Charges (TRC) were being recovered from the traders at certain times/percentage of licence/registration fees. These charges were, however, being recovered by departments like SWM, Licence & CIS&E, Health and Markets. Since these charges were being recovered simultaneously by different departments at different rates, there were complaints and representations from the traders. With a view to bring in uniformity and co-ordination in recovery of these charges, amendments have been made in the procedure and revised directives have been issued. The Trade Refuse Charges have been revised commensurate with the refuse generated from the respective trade. Moreover, certain trades which were not covered under the previous guidelines have now been brought under the net of TRC. Moreover, the annual increase of 10% is proposed. This will ensure sustained annual increase in revenue from this source. Moreover, the fees for the licences issued under Section 393, 394 and 412(A) of the M.M.C. Act have also been revised by 75% since these fees had not been revised since long.

“Development Charges” is also one of the major sources of revenue of MCGM. These development charges are being recovered by the MCGM when new construction or change of use happens. I would like to mention here some of the recent amendments made by the State Govt. in Development Control Regulations and MRTP Act which will lead to enhancement in the municipal revenues to a considerable extent in future. Some of the major changes are:

- (A) The most recent modification of DC Regulation 35 introduces the innovative concept of fungible FSI in lieu of premium for allowing elevation features, balcony and pocket terraces etc. with fungible characteristics. This modification is most likely to increase revenue accrual to the extent of ₹1500 crore annually. This will enable the corporation to bridge vital gaps in major infrastructure needs of this heavily burdened megapolis, like Coastal Freeway, etc.
- (B) Amendment in section 124 of the MRTP Act, 1966 has ensured that the charges are now fixed based on a specific percentage of the Ready Reckoner rate. The development charges will, therefore, vary based on market value of the land. It will, therefore, result in recovery of enhanced development charges from the areas where land rates are substantially higher.
- (C) Amendment in Section 22(m) of MRTP Act has allowed charging premium for grant of special permission for exercise of discretionary power and for grant of additional FSI.
- (D) Modifications under Regulation No.32 for grant of 0.33 FSI in suburbs may result into revenue accruals to the extent of ₹375 crore annually for the next few years.
- (E) Regulation 33(9) in respect of redevelopment under Urban Renewal Scheme & Cluster Development permits enhanced FSI for redevelopment of buildings constructed prior to 1969. However, in order to facilitate provision of adequate infrastructure, a modification has allowed for payment by the developers of infrastructural charges to the extent of ₹5,000 per



sq.mt. as “Additional Development Cess” for the built up area over and above the permissible FSI. A similar provision has also been made in redevelopment proposals allowed under Regulation 33(7). Another provision is made under Regulation No.33(5) for meeting the cost of infrastructural liability in redevelopment of MHADA layouts, wherein 12.50% of the charges collected by MHADA is to be shared with MCGM.

With these steps it has been possible for me to step up the capital outlay for civic infrastructure from ₹7637.65 crore in 2011-12 to ₹9359.76 crore in 2012-13.

### **3. Financial Discipline**

I had mentioned in my budget speech of last year, about the committed liabilities on major capital works, particularly the storm water drain works including BRIMSTOWAD and Mithi River works, where there had been large escalation in cost after award of contract due to change in technology etc. It was also made clear that such changes after award of work are best avoided, as Corporation loses the benefit of competitive bidding and changed items are executed on fair item rates. I had also promised that these will be rectified wherever possible. I would like to mention here that all such contracts have been reviewed and I have issued specific instructions that variations in ongoing contract should not be resorted to as a regular feature for one reason or the other and the cost of the project works shall be restricted to the originally approved contract cost. If the works as per the original scope of contracts are completed within the approved contract cost, such contracts shall be closed forthwith even if there is saving in the total cost. Additional works, if any will be

taken up by invitation of fresh tenders. Certain contracts for SWD works have already been closed. I am sure this will definitely ensure financial as well as budgetary discipline and will continue to be observed in future as well.

#### **4. Pay Revision**

I would like to place on record my appreciation of the six municipal staff unions that entered into an agreement on Pay revision for 10 years on 19/09/2011, which will be coterminous with the sixth pay commission. This pay revision had been pending since 2008 for one or the other reasons. Despite court orders for negotiations with the administration, MMU and its allied Unions went on strike for a day and also did not sign the agreement signed with other unions. Employees and staff who reported duty on the day of strike deserve accolades for helping the administration provide minimum basic services to the harried citizens of Mumbai. Staff that did not report for duty on the day of strike was not paid the ex-gratia amount and this act of administration that was challenged by MMU has been upheld by Hon. Supreme Court.

The revised pay scales as per the agreement dated 19.09.2011 have been implemented since December, 2011, by completing the humungous task of pay fixation with audit in a record time. I place my extreme appreciation on record for all those employees of MCGM who put in extreme efforts for completing this job. It has, therefore, become necessary to calculate the amount of arrears payable to all the municipal employees. Computation of arrears is in progress and some part of arrears will be paid this year while all remaining arrears will be paid in April-May 2012. A provision of ₹904 crore is made in BE 2012-13 and ₹221 crore in

R.E. 2011-12. It was decided to seek individual consent from the employees, owing allegiance to MMU and its allied unions, for accepting pay fixation as per agreement reached with the other six unions on 19/09/2011. Hon. High Court has allowed the MCGM to carry forward the work of seeking consent from such employees. It is seen that approx. 8000 employees owing allegiance to MMU and its allied unions have provided their willing consent for pay fixation as per new pay revision agreement till 15/03/2012 and are being paid as per the revised pay scales.

#### **5. Dues from State and Central Governments**

While resorting to various measures to augment municipal revenue, it is also necessary to take steps to recover the outstanding dues from various agencies including different departments of the State as well as Central Govt. It is reported that by the end of November 2011, the total outstanding dues from the various departments of the State Govt. work out to ₹1599.55 crore on account of Property Tax, Water and Sewerage Tax, MCGM's share in various taxes collected by the State Govt., grant-in-aid, etc. On the other hand, an amount of ₹281.67 crore is payable to the State Govt. by the MCGM. The municipal administration has been vigorously pursuing with the State Govt. Five officers of the concerned departments of the MCGM have been appointed as "Liaison Officers" for reconciliation of the huge outstanding dues with the State Govt. After protracted correspondence and continuous follow up, the State Govt. has formed a Committee comprising of Principal Secretary/2 (U.D.), Principal Secretary, Finance and the Secretaries of the concerned departments who will deliberate with the MCGM officials and submit their recommendations.



I hope this issue will be finalized on priority basis and MCGM would be able to recover its long outstanding dues in the near future.

It was noticed that the grant-in-aid admissible to the MCGM from education department has not been paid fully on all the items. Moreover, the admissible pay scales were also not taken into account. Accordingly, the municipal administration has worked out an amount of ₹808 crore as arrears on account of grant-in-aid and has requested the State Govt. to release this immediately. The State Govt. has also in principle agreed to pay grant-in-aid as per VI<sup>th</sup> Pay Commission if the same is made applicable with effect from 01.01.2006. The MCGM has now finalized the agreement with the unions on 19<sup>th</sup> September, 2011 based on the recommendations of the VI<sup>th</sup> Pay Commission and payscales have been revised. On full implementation of the agreement, revised claim would be put up to the State Govt.

I now wish to discuss the Budget Estimates 2012-13.

6. The size of the Budget Estimates and the abstracts of the revenue account and the capital account under 'A' (Fund code 11, 12, 60, 70), 'B' (Fund code 21, 22, 23), 'E' (Fund code 30), G (Fund code 40) and Tree Authority (Fund code 50) are given below and the details thereof are given in the Annexures I to IV on pages 94-97.

The total size of Budget Estimates for 2012-2013 is ₹26581.02 crore, which is 26% more than Budget Estimates 2011-12. The Estimates of the Revenue Income at ₹19680.95 crore exceed the Estimates for the Revenue Expenditure at ₹17114.34 crore for 2012-13. In the Budget Estimates 2012-13 the Capital Expenditure is estimated at

**BUDGET ESTIMATES A, B & G 2012-13**

₹9359.76 crore which is 22.55% higher than the Budget Estimates of ₹7637.65 crore for the year 2011-12.

**SIZE OF BUDGET ESTIMATES – ‘A’ (Fund code 11, 12, 60, 70),  
‘B’ (Fund code 21, 22, 23), ‘E’ (Fund code 30), ‘G’ (Fund code 40) and  
TREE AUTHORITY (Fund code 50)**

(₹in crore)

Details	Budget Estimates 2011-12		Revised Estimates 2011-12		Budget Estimates 2012-13	
	Income / Receipts	Expenditure	Income / Receipts	Expenditure	Income / Receipts	Expenditure
Revenue Income	15427.55		16205.00		19680.95	
Revenue Expenditure		13412.54		13248.19		17114.34
Capital Receipts	5669.01		2707.54		6900.07	
Capital Expenditure		7637.65		5516.22		9359.76
<b>Total</b>	<b>21096.56</b>	<b>21050.19</b>	<b>18912.54</b>	<b>18764.41</b>	<b>26581.02</b>	<b>26474.10</b>
<b>Excess of income over expenditure</b>		46.37		148.13		106.92
<b>Size of Budget Estimates</b>	<b>21096.56</b>	<b>21096.56</b>	<b>18912.54</b>	<b>18912.54</b>	<b>26581.02</b>	<b>26581.02</b>

**REVENUE ACCOUNT – BUDGET ESTIMATES A,  
B, E, G and TREE AUTHORITY**

(₹in crore)

Fund Code	Particulars	Budget Estimates 2012-13
<b>REVENUE INCOME</b>		
11	General Budget	14430.68
12	Health Budget	183.66
21	Improvement Schemes	32.70
22	Slum Clearance	1.37
23	Slum Improvement	16.90
30	Education Budget	547.84
40	Water Supply and Sewerage	4446.10
50	Tree Authority	21.70
60	Provident Fund	...
70	Pension Fund	...
	<b>Net Income</b>	<b>19680.95</b>
<b>REVENUE EXPENDITURE</b>		
11	General Budget	7820.29
12	Health Budget	1690.23
21	Improvement Schemes	149.55
22	Slum Clearance	4.76
23	Slum Improvement	151.26
30	Education Budget	1330.84
40	Water Supply and Sewerage	2442.63
50	Tree Authority	40.12
60	Provident Fund	7.48
70	Pension Fund	3477.18
	<b>Net Expenditure</b>	<b>17114.34</b>
	<b>Revenue Surplus during the year</b>	<b>2566.61</b>
	<b>Surplus transfer to Capital Account</b>	<b>2533.77</b>
	<b>Surplus</b>	<b>32.84</b>

★ Net of transfer to other budgets.



CAPITAL ACCOUNT – BUDGET ESTIMATES A, B, E, G &  
TREE AUTHORITY

(₹in crore)

Fund Code	Particulars	Budget Estimates 2012-13
<b>Capital Receipts</b>		
11	General Budget	4527.37
21	Improvement Schemes	150.17
23	Slum Improvement	17.38
30	Education Budget	367.02
40	Water Supply and Sewerage	1838.13
	Total	6900.07
	Transfer from Revenue Account	2533.77
	<b>Total fund available for Capital</b>	<b>9433.84</b>
<b>Capital Expenditure</b>		
11	General Budget	4883.94
12	Health Budget	655.45
21	Improvement Schemes	93.60
23	Slum Improvement	...
30	Education Budget	367.01
40	Water Supply and Sewerage	3358.60
50	Tree Authority	1.16
	<b>Total</b>	<b>9359.76</b>
	<b>Surplus</b>	<b>74.08</b>

Table 1 gives the Revised Estimates for 2011-12 and the Budget Estimates for the year 2012-13.(Budgets A,B & E) on revenue account.

**Table - 1**  
**Revenue Account**

(₹ in crore)

Particulars	Budget Estimates	Revised Estimates	Budget Estimates
	2011-12	2011-12	2012-13
Revenue Income	11501.88	12253.62	15213.15
Revenue Expenditure	10690.02	10877.93	14199.66
Surplus/deficit during the year	811.86 (Surplus)	1375.69 (Surplus)	1013.49 (Surplus)
Transfer to Capital Account	811.00	1375.00	1012.50
<b>Surplus</b>	<b>0.86</b>	<b>0.69</b>	<b>0.99</b>

It will be seen from the above table that the Revised Estimates of revenue income have increased by ₹751.74 crore as compared to the Budget Estimates of 2011-12. This is mainly due to increase in Octroi Receipts, Receipts from Development Plan Deptt., Receipts from Road Dept, and Interest on Fixed Deposits. The gross income from Octroi estimated at ₹5800 crore in the Budget Estimates 2011-12 has been revised to ₹6100 crore based on the improved collections of Octroi. I have already discussed the various amendments in Development Control Regulations & MRTP Act made by the State Govt. These amendments have resulted into a sizable increase in the municipal revenue e.g. the

premium charges received against additional 0.33 FSI have shown an increase of ₹50 crore and the development charges have increased by ₹114 crore as against the estimated revenue of ₹233 crore from this revenue source. Moreover, the revenue on account of interest on deposits has also increased considerably since the rates of interest have increased noticeably during the year.

In the year 2011-12, the Revised Estimate of Revenue expenditure is ₹10877.93 crore as against B.E. of ₹10690.02 crore resulting in excess of ₹187.91 crore. Likewise, revised capital expenditure is estimated at ₹3107.18 crore as against Budget Estimates of ₹4345.64 crore. With revision in capital expenditure coupled with revenue surplus of ₹1375 crore being available for capital works, there is no need to raise internal loan of ₹2000 crore this year as envisaged in the Budget Estimates 2011-12.

Estimated revenue for 2012-13 at ₹15213.15 crore exceeds the estimated expenditure by ₹1013.49 crore, out of which funds of ₹1012.50 crore are proposed to be transferred to the capital account.

For estimation of revenue income under Revised Estimates for 2011-12 and the Budget Estimates for 2012-13, I refer to Table 2 which gives the details of various sources of income with comparative position of Budget Estimates for 2010-11.



**Table – 2**

(₹ in crore)

Sr. No.	Particulars	B.E. 2010-11	R.E. 2010-11	B.E. 2011-12	R.E. 2011-12	B.E. 2012-13
1.	Octroi (Net)	4650.21	4945.00	5700.00	6000.00	6900.00
2.	Property Tax	1540.00	1540.00	2000.00	2000.00	2200.00
3.	Receipts from Development Plan	1278.00	1311.73	1639.28	1798.02	3435.49
4.	Interest	732.82	550.12	521.52	1005.13	1030.84
5.	Grant-in-Aid from Government	446.57	159.07	271.99	317.93	304.04
6.	Receipts from Roads & Bridges	219.23	100.25	112.59	153.95	116.97
7.	Supervision Charges	300.00	250.00	250.00	200.00	250.00
8.	Solid Waste Management	117.00	86.55	90.52	92.47	99.99
9.	Receipts from Hospitals & Medical Colleges	76.92	85.69	93.61	108.57	110.45
10.	Receipts from License Deptt.	100.00	106.00	118.04	123.28	143.82
11.	Receipts from Markets & Deonar Abattoir	83.26	43.33	63.84	60.34	70.45
12.	Other Receipts	326.16	345.25	640.49	393.93	551.10
	<b>Total</b>	<b>9870.17</b>	<b>9522.99</b>	<b>11501.88</b>	<b>12253.62</b>	<b>15213.15</b>

The main increase in revenue estimates of 2012-13 is expected from Octroi, Property Tax & Receipts from Development Plan Deptt. While considering this increase, I have taken into account the current inflation rate as well as the growth rate alongwith better enforcement and some new sources of income from Development Plan Department.

I, now discuss some of the important activities / services and facilities related to Budget 'A' and 'B'.

**7. ROADS, BRIDGES AND TRAFFIC OPERATIONS****7.1 Roads**

Roads are a vital infrastructure. I, therefore, propose to step up the outlay for roads from ₹713 crore in B.E. 2011-12 to ₹1466 crore in B.E. 2012-13.

In Mumbai city, total length of the roads is 1941.16 km. Roads in the city are under tremendous stress due to heavy rainfall, many roads being in low lying reclaimed area, constant digging / trenching by utilities, high traffic volumes for long hours and inadequate time window for maintenance. To provide a good road network, it is thus imperative to build more cement concrete roads as against asphaltting and to use repair / maintenance technique which require less time and are more rain resistant. While choosing right methodologies for building and maintaining roads, due consideration has also to be given to utilities management underneath the roads.

During 2011-12, MCGM for the first time subjected the road design to peer review by IIT, Powai and introduced Third Party Inspections by S.G.S. during implementation. During 2012-13, not only I propose to continue with these improvements, but also to step up the concretization programme, use cold mix technology for pot hole treatment & take a pilot on utility ducts.

**7.1.1 Programme of concretization of roads and Improvement of Asphalt Roads**

Given the requirement of treating side lanes of any road in flexible pavements for utilities, only roads with 18 m or higher width can be concretised. On this basis, only 3765 lane km. out of a total 5636 lane km.

in MCGM can be concretised. Till last year, 2228 lane KM have already been concretized. In 2011-12, another 88.2 lane km. have been taken up for concretization.

It is necessary to step up the cement concrete road programme to 241 lane km./per year so as to concretise all roads of 18 m. widths and above in next 6 years.

Accordingly, I propose 241 lane Km. for concretisation during 2012-13, at an estimated cost of ₹800 crore (including cost of asphaltting of side lanes). Since work will continue upto May 2013, I propose a provision of ₹320 crore for new cement concrete roads for the year 2012-13.

Asphalt works of 118 k.m. road length were awarded in 2011-12. Considering effective life of asphalt as approximately seven years, out of total 1870 lane km., that will always be under this treatment, 267 lane Km will have to be yearly treated at an estimated cost of ₹280 crore. Accordingly, assuming 40% work will be completed by February 2013, I propose a provision of ₹112 crore for these new works.

Marine drive was concretised in the year 1940. Its riding quality has deteriorated over the years due to ad-hoc patch works. Improvement of Marine Drive will be taken up in 2012-13 with complete resurfacing i.e. 40 mm thick mechanized mastic, at an estimated cost of ₹36 crore. A provision of ₹15 crore has been made for the same in 2012-13.

₹687 crore provision is made to complete the works awarded in 2011-12, ₹80 crore to complete balance MUIP works, ₹8 crore for 63(k) Roads, ₹19 crore for protection to coastlines, and ₹80 crore on other ongoing individual roads. In sum, a total provision of ₹1466 crore is



proposed for road works in 2012-13 as against the provision of ₹713 crore in BE 2011-12 and ₹502 crore in RE 2011-12.

#### **7.1.2. Spot repairs and repairs to potholes**

MCGM has incurred considerable expenditure of about ₹50 crore every year on such spot/pothole repairs in last four years. Despite this, condition of roads during monsoon leaves much to be desired inviting criticism from the public and media over the poor condition of roads especially on the eve of the Ganpati and other festivals. Hot mix technology, used for filling potholes, has limitations in case of incessant rains or short duration of dry spells, as it takes long time to set and material does not have shelf life. MCGM has tried Cold mix technologies on experimental basis in last few years, and carried out special experiment of 5 such technologies during 2011. Out of five materials, 'Road bond' from Hind colas, 'Wonderpatch' from Wonder Technologies & 'Patchmakers' from Shaunak infrastructure have yielded good results. In 2012-13, these technologies are proposed to be used during monsoon to tackle pot-holes.

#### **7.1.3 Quality Control Monitoring and Quality Audit of Road Works**

To ensure quality in implementation, both Cement Concrete as well as Asphalt Road works need to be closely supervised during implementation. Accordingly in 2011-12, M/s. S.G.S. India Pvt. Ltd. is appointed for quality assurance & quality control of road works on day to day basis.

The scope of M/s. S.G.S. India Pvt. Ltd. work includes review of quality assurance plan submitted by the vendor, inspection of raw materials at source and at site, supervision and control of alignment levels and

surface regularity for pavement layers, preparation of weekly quality control reports and submission of quarterly audit report to MCGM. Appointment of similar agencies for these Third Party Inspection works is proposed for projects in 2012-13 also.

#### **7.1.4 New Technological Interventions for Quality Assurance and Control**

##### **1) Road Maintenance Management System (RMMS)**

Lack of systematic maintenance leads to early deterioration in road quality. If roads are regularly maintained then not only small depressions / cracks / dot-holes can be treated before they become pot-holes but also longevity of the roads can be achieved with lesser expenditure. To overcome this shortcoming, "Road Maintenance Management System (RMMS)" is being formulated for maintenance & management of roads in Mumbai. Under this system, every road is numbered, each road is included in some group and the responsibility of each group is entrusted to a Sub Engineer to be designated as Road Engineer (RE). It is expected that Road Engineer will prepare estimates and look after execution of maintenance works on each road under his / her jurisdiction. This will bring in accountability and regular maintenance will improve longevity of roads. System will generate reports regarding present condition of roads and will prioritize and generate list of roads in need of repairs.

##### **2) Road Scanners for Quality Control of Road Works and Utility Mapping and Management**

It is proposed to appoint agencies for geometry mapping, sub-surface layers / structure and utility mapping and management by using road scanners. The trials for this are under way. The technology helps in detection of cracks, depression on road surface and alarming conditions below road surface. It is proposed to carry out GPR survey before any

excavation permission is granted for road. Also, the inspection of Roads under Defect Liability Period (DLP) for checking depression, cracks, rutting on the road surface and alarming conditions below road surface will be carried out using this technology. The audit of newly improved roads to check the profile of layers, depression, cracks etc. on road surface will also be carried out using this technology.

### **3) Sensor Based Roller**

While inviting new tender, it is proposed to incorporate conditions like making 'Sensor Based Roller' mandatory in order to upgrade the quality of road works.

### **4) Traffic Simulation**

It has been proposed to carry out the Traffic & Simulation studies for the roads for which new R.L. are to be prescribed and for traffic engineering purposes. For this expression of interest (EOI) will be invited from the specialized agencies in the field and the competent agencies amongst them will be empanelled by MCGM. Traffic & Computer Simulation will be carried out by these agencies before finalizing the proposals of roads widening, deciding traffic directions (one way/two way), traffic engineering etc. I propose a Budget Provision of ₹5 crore for this purpose.

## **7.2 Traffic Operations**

### **7.2.1 Area Traffic Control (ATC)**

To improve traffic signals in the city, World Bank assisted ATC project is already implemented in the island city, covering 253 traffic junctions. Timers were installed on non ATC traffic signals, in order to control the traffic in City and also for convenience of Transporters &



pedestrians. India's Best Transportation system award for the year 2011-12 is awarded to this project by Ministry of Urban Development, Government of India.

**7.3****BRIDGES**

MCGM has total 253 bridges. STAC has recommended that every five years a detailed inventory of these bridges must be carried out to ensure that remedial measures, if any required, can be taken up in time. Accordingly, it is proposed to carry out detailed inventory in this year. While carrying out the inventory, technical tests to assess structural safety and adequacy status will also be carried out for all the bridges that are more than 25 years old and which have not been subjected to repairs in the last five years.

In 2009-2010, visual inspection of these bridges had led to identification of 34 bridges that required detailed inspections and tests. Three agencies were appointed for the same. Out of these 34 bridges, two bridges have been taken up by railways for repair works, two have been reconstructed by MCGM, two are under construction by MCGM, one is proposed to be removed by MMRDA for construction of SCLR. Remaining 27 bridges are proposed to be taken up in 2012-13.

A comprehensive program for resurfacing of 20 bridges has been initiated at the cost of ₹41 crore for which tenders have been invited. The technical methodology of resurfacing has been finalized in consultation with the STAC.

The safe pedestrian movements tenders has been invited for construction of 15 Foot Over Bridges (F.O.Bs.) in City, WS and ES on Design, Build, Operate & Transfer basis in lieu of the advertisement rights.

Contractor has been appointed who will construct and maintain the FOBs for 16 years and will pay an amount of ₹2.40 crore per annum to MCGM.

Two major bridges under construction by MCGM are Jogeshwari North and Jogeshwari South. A provision of ₹90 crore for construction of ROB at Jogeshwari (South) and ₹75 crore for Jogeshwari (North) has been proposed in the Budget Estimates of 2012-13.

Total provision for bridges has been stepped up from ₹ 165 crore in BE 2011-12 to ₹327 crore in BE 2012-13.

## **8. HEALTH AND MEDICAL SERVICES**

Health Sector continues to be an area of focus and I have made a conscious effort to identify the gaps in the prevailing health care infrastructure & services and address the same in this budget. Capital outlay on health has been stepped up from ₹510 crore in 2011-12 to ₹655 crore in 2012-13 and it is proposed to augment bed strength in civic hospitals by 782 beds in 2012-13 and additional 615 beds in 2013-15.

(₹ in crore )

Particulars	B.E. for 2011-12	B.E. for 2012-13
Revenue Expenditure	1672.47	1690.23
Capital Expenditure	510.63	655.45
<b>Total :</b>	<b>2183.10</b>	<b>2345.68</b>

### **8.1 Mumbai Aarogya Abhiyan**

'मुंबई आरोग्य अभियान' : With a view to provide qualitative health care services at primary, secondary & tertiary levels, 'मुंबई आरोग्य अभियान' was launched by MCGM in April 2010. What began as a campaign for outreach

services to slum population has since then grown into a comprehensive programme to provide qualitative health care in primary, secondary and tertiary sectors.

At the primary health care level, MCGM has 162 dispensaries & 183 health posts. Under the 'मुंबई आरोग्य अभियान', in the year 2011, each dispensary has been linked to one or more health posts so that the health post with its outreach activities, acts as an outreach arm of the dispensary. Under this Health Post - Dispensary linkage programme, door-to-door disease surveillance is carried out by the outreach staff of health posts ensuring that symptomatic patients are referred to the dispensary at the earliest and given correct treatment thereby ensuring **early detection and correct treatment**, which is the pivot of any health care system.

With these twin concepts of health posts & dispensary linkage and door to door disease surveillance along with effective vector control measures, MCGM was, I am happy to note, able to remarkably control and reduce the prevalence of malaria in Mumbai.

Particulars	2010	2011	% reduction
Cases	76755	39822	48
SPR	5.5	2.4	56
Indoor patients (No. of admissions)	26694	19406	27
Deaths	145	69	52

This model which has delivered impressively in malaria and other monsoon related ailments, will be further strengthened and implemented for early detection of other communicable diseases such as TB and non-communicable diseases such as diabetes.



**8.2 Aarogya Camps**

Another innovative outreach campaign launched by MCGM during monsoon 2011 for slums & slumlike areas of Mumbai, was that of Aarogya Camps.

While the traditional method of health care delivery is to treat patients coming to dispensaries, this outreach campaign aims at doctors reaching out to the communities especially in slums and slumlike localities with the twin objectives of early detection and correct treatment. This intervention of Aarogya Camps along with door-to-door disease surveillance under the dispensaries - health posts linkage, proved an effective intervention for keeping monsoon related ailments in check.

It shall be my endeavour to ensure that the health sector continues to hold such camps in the community, not only for malaria and monsoon related diseases, but also for early detection of tuberculosis, diabetes, cancer and other diseases of high prevalence in the society.

**8.3 Dispensary upgradation programme**

162 dispensaries located strategically across 24 wards are the mainstay of our primary health care system. I had in last budget, announced a programme for upgradation of these important centers and converting them into centre of excellence for primary health care. I am happy to note that under the 1<sup>st</sup> phase, modernization of 54 dispensaries would be completed by May 2012. In this budget year, I have proposed to take up Phase 2 of this programme of modernization and upgradation further

97 dispensaries. Balance 11 dispensaries will be taken up in 3<sup>rd</sup> phase in the year 2013 -14.

All doctors manning these dispensaries have been exposed to a series of workshops and training sessions to sharpen and enhance their clinical skills by expert faculty of our tertiary care hospitals. I am confident that these dispensaries will provide qualitative primary health care service delivery.

I had in last budget, also announced that the Health Deptt. will identify localities which require the services of a dispensary. Accordingly, 27 localities have been identified and new dispensaries sanctioned thereat, out of which 5 dispensaries will start functioning by May 2012 and the remaining in the next one year.

#### **8.4 Peripheral Hospitals -- Linkage System**

16 peripheral hospitals are located in the suburbs of Mumbai, 8 in the eastern suburb and 8 in western suburb, which cater to a population of about one crore and form the second level health care infrastructure.

I had in the last budget, announced a linkage system between these peripheral hospitals and major hospitals whereby 3 major hospitals i.e. K.E.M., Nair and LTMG (Sion) hospitals were proposed to be linked with peripheral hospitals, areas of specialist services that the peripheral hospitals required for specialized linkage were to be identified, and were sought to be provided by doctors of major hospitals.

I am happy to announce that all the 16 peripheral hospitals have been linked with the 3 major hospitals and linkage made functional.

<b>Major Hospital</b>	<b>Peripheral Hospital</b>
KEM Hospital	1. K.B.Bhabha Hospital, Bandra (W) 2. Dr.R.N.Cooper Hospital, Juhu 3. K.B.Bhabha Hospital, Kurla 4. V.N.Desai Hospital, Santacruz(E) 5. Shatabdi Hospital, Govandi
Nair Hospital	1. Harilal Bhagwati Hospital, Borivali 2. Shatabdi Hospital, Kandivali 3. M.W.Desai Hospital, Malad. 4. S.K.Patil Hospital, Malad. 5. Siddharth Hospital, Goregaon.
LTMG (Sion) Hospital	1. Sant Muktabai Hospital, Barvenagar. 2. Rajawadi Hospital, Ghatkopar 3. K.M.J.Phule Hospital, Vikroli. 4. S.V.D.Savarkar Hospital, Mulund (E) 5. M.T.Agarwal Hospital, Mulund (W) 6. MAA Hospital, Chembur.

I hope that this linkage scheme will gain momentum and establish itself as a much required connect for specialized services as is seen elsewhere in the world. This linkage system will be especially beneficial to the residents of suburbs, as it will provide for specialized surgeries in the peripheral hospital of their locality.

#### **8.5 Augmentation of beds in peripheral hospitals**

In order to bridge the gap between demand for & availability of beds in municipal hospitals, efforts have been made in the previous year to develop existing hospitals and build new ones.

MCGM will add 1047 beds in peripheral hospitals in next two years to its existing bed strength of 3786. Out of them, 432 beds will be commissioned during the year 2012-13 and the remaining will be commissioned in 2013-14 and 2014-15.



**BUDGET ESTIMATES A, B & G 2012-13**

Sr. No.	Name of the hospital	Budget provision (₹ in crore)	Augmentation of beds	
			In 2012-13	In 2013-14 & 2014-15
(I) i)	Redevelopment of Centenary Hospital, Kandivali	49	-	195
ii)	(Redevelopment / reconstruction) of Kasturba Cross Road Hospital	30	-	150
iii)	Reconstruction of Cooper Hospital	90	60	-
iv)	Development of Trauma Hospital, Jogeshwari (E)	54.35	266	-
v)	Upgradation of K.M.J. Phule Hospital at Vikhroli	15	-	170
vi)	Upgradation of Govandi Shatabdi Hospital	10	-	100
(II)	Augmentation of beds due to provision of additional health care facilities in existing peripheral hospitals.	--	106	-
<b>Total</b>			<b>A) 432</b>	<b>B) 615</b>
<b>Total A and B</b>			<b>1047</b>	

On augmentation total bed strength in hospitals will be as follows :-

	Existing beds strength	Augmentation proposed	Total beds after augmentation
Western Suburb	2052	713	2765
Eastern Suburb	1734	334	2068
Total	3786	1047	4833

**8.6 Augmentation of health care facilities in peripheral hospitals****1) Diagnostic Services**

Recognizing the need for establishing MRI diagnostic facilities in the public sector in suburbs, I have proposed 2 new MRI centers at Kandivali Shatabdi Hospital in the western suburbs and Govandi Shatabdi Hospital in eastern suburb for which a provision of ₹14 crore has been duly proposed. These centers, which would be first MRI centers in the public sector in the suburbs, will be commissioned by September 2012 and will address the gap in advanced diagnostic facilities in the suburbs.

Similarly, in addition to the present CT Scan centers at Bhagwati Hospital, V.N.Desai Hospital and Rajawadi Hospital, new CT Scan center is also being proposed at Govandi Shatabdi Hospital for which I have proposed a budget provision of ₹6 crore.

**2) Dental Surgical Service**

Recognizing another felt need, I have proposed to establish dental care surgical services in 11 of the peripheral hospitals and have made budget provisions accordingly.

**3) Maternal & Child Care**

At present MCGM has only 57 Neonatal Intensive Care Unit (NICU) beds. Acknowledging maternal care and care of the newborn as an area of top most priority in the health sector in MCGM, I am proposing establishment of 50 additional N.I.C.U. beds in the peripheral hospitals and have made suitable budget provisions. I am confident that this will result in qualitative health care services to the mother and the newborn and will help in reducing cumbersome referrals to the major hospitals.

<b>Name of the Hospital</b>	<b>Proposed additional N.I.C.U.beds</b>	<b>Proposed N.I.C.U.</b>
M. W. Desai Hospital, Malad	10	New
K.B.Bhabha Hospital, Kurla	10	New
Shatabdi Hospital, Govandi	10	New
V.N.Desai Hospital, Santacruz	5	Augmentation of existing 10 bedded NICU
Bhagwati Hospital, Borivali	5	Augmentation of existing 10 bedded NICU
Rajawadi Hospital, Ghatkopar	10	Augmentation of existing 10 bedded NICU
Total -	50	

Besides the provision for major repairs of Naigaon, Goregaon & Deonar Maternity Homes, a substantial provision of ₹5 crore is proposed for purchase of equipments for the upgradation of Maternity Homes and ₹6 crore is proposed for the structural repairs to various Maternity Homes.

20 bedded Riddhi Maternity Home has been commissioned in 2011 as was proposed in last budget thereby addressing a felt need of Dindoshi & Malad (East) area.

**4) Dialysis Services**

Acknowledging the prime need for dialysis services in the suburbs, I have proposed establishment of 26 dialysis units in the peripheral hospitals and 25 units in main hospitals. This will create additional 3825 dialysis slots per month – 1950 in suburbs and 1875 in the major hospitals.

<b>Name of the Hospital</b>	<b>Dialysis Units</b>
V.N.Desai Hospital, Santacruz (E)	6
M.W.Desai Hospital, Malad	6
Rajawadi Hospital, Ghatkopar	8
Shatabdi Hospital, Govandi	6
Major Hospitals	25
Total	51



**5) Emergency Medical Services**

To avoid transfer of critically ill railway and road accident patients to major hospital in city, casualty services at Muktabai Hospital & Siddharth Nagar Hospital, and ICU services at KMJ Phule Hospital, Vikhroli have been commissioned in year 2011.

In addition, I have also proposed adequate budget provision to start 10 bedded trauma units in following peripheral hospitals.

<b>Name of the Hospital</b>	<b>Trauma Beds</b>
K.B.Bhabha Hospital, Kurla	10
V.N.Desai Hospital, Santacruz	10
Shatabdi Hospital, Govandi	10

I have also made adequate budget provision for repairs of KMJ Phule Hospital, Vikhroli and M.T.Agarwal Hospital, Mulund (W).

As detailed in the earlier paragraphs, conscious efforts are made to upgrade the health care services available in the suburbs by redevelopment of existing hospitals, development of new hospitals and augmenting the health care facilities in the existing hospitals.

**6) Provision of specialist doctors in peripheral hospitals**

Often in the previous years, peripheral hospitals have suffered with non-availability of super speciality doctors in the peripheral hospitals. I have tried to meet this need by introduction of the linkage system and by appointment of post graduates and super specialist bonded student doctors in the peripheral hospitals and in the MCGM setup for the first time ever. We now have 233 post graduates & super specialist bonded student doctors working in the health sector out of which 188 are working in the peripheral hospitals.

**8.7 Major Hospitals**

At the helm of our three tier health care system, are the major hospitals handling a daily OPD of 12,660 and having combined bed strength of 4939.

**1) K.E.M. Hospital and Seth G.S. Medical College**

1. The work of new 22 storeyed building is nearing completion and will be commissioned by May, 2012. This building, for which, a budget provision of ₹8 crore has been proposed, will house residents and undergraduate students, thereby fulfilling the mandate given by Medical Council of India.
2. The work of second 22 storeyed building, which will house residents and have low cost dormitories for patients' relatives will begin this year, for which, I have proposed budget provision of ₹2 crore.
3. As was announced in last year's budget, Phase-I of restoration of KEM Hospital, amounting to ₹35 crore was commissioned in April 2011. Phase-II of restoration of the heritage structure is nearing completion, for which, I have proposed adequate budget provision of ₹20 crore.
4. I have made a budget provision of ₹7 crore for replacement of current MRI unit in KEM hospital. This along with installation of 2 new MRI units in the Suburbs, it is hoped, will reduce and almost eliminate the current waiting period of 3 months.
5. KEM hospital is the only public sector hospital in Mumbai to have a facility of Interventional Radiology and Interventional

Neuro-Radiology. This sub-specialty of radiology treats all non-coronary vascular structures connecting vital organs such as brain, lungs, liver, kidneys and the intestines thereby helping in treating patients requiring life saving procedures. This facility caters to nearly 3500 patients per year and is due for replacement for which a budget provision of ₹7 crore is proposed.

6. The Cath Lab at Cardiology Department caters to about 4000 patients of heart rhythms defects, congenital defects in the heart and those requiring angioplasties. The present Cath Lab is due for replacement for which I have proposed a budget provision of ₹6 crore.

## **2) LTMG (Sion) Hospital**

1. LTMG (Sion) hospital is strategically located being at the confluence of Western Express Highway, Eastern Express Highway and all the 3 Railway lines i.e. Western, Central and Harbour lines.
2. As announced in last year's budget, Phase 1 of construction of new building in LTMG Hospital complex was commissioned in June, 2011 resulting in shifting of all OPD services in the newly commissioned block. The resultant space is proposed to be used for 200 additional beds in 2012-13.
3. Sion hospital is the largest trauma centre in the city and I propose to further develop it as a Specialized Centre of



Excellence for trauma care and Emergency Services. Out of 200 beds proposed to be set up during the current year, 140 beds would be exclusively for trauma care, intensive care, emergency services and disaster management. Other branches such as operative rehabilitation for trauma patients, plastic surgery and cardiology, etc. will also be expanded and augmented.

### **3) BYL Nair Hospital**

1. As was announced in the last budget, the Emergency Medical Service Unit of Nair Hospital was commissioned in September 2011 which has resulted in treating medical emergencies instantly by reducing response time.
2. I am proposing to augment the bed strength of Nair Hospital from its present capacity of 1229 to an enhanced capacity of 1379, an addition of 150 beds.

## **8.8 New Initiatives:**

### **1) Non Communicable Diseases (N.C.Ds)**

Acknowledging the wide prevalence of N.C.Ds such as hypertension and diabetes, in the society as a whole, we have launched 28 diabetic clinics on World Diabetic Day, 14th November, 2011. MCGM has thus become the first Corporation to acknowledge this widespread prevalence and offer medication for diabetes at primary health care level of dispensaries. I propose to further strengthen this programme in the budget year and have made provisions accordingly.

**2) Cancer Care**

I propose to upgrade Nair Hospital into a Centre of Excellence for Advanced Cancer treatment by augmenting the present facility of chemotherapy & radiotherapy for cancer treatment and setting up a 20 bedded day care unit.

Mammography facilities will also be commissioned at KEM & Nair Hospitals in 2012 and at the redeveloped Cooper Hospital in 2013. In 2011-12, dispensaries and hospitals have been already equipped with clinical skills for first level screening of breast cancer, referrals from which would be directed to tertiary level.

**3) Blueprint Mumbai for Tuberculosis reduction and control**

Taking note of prevalence of TB and DRTB (Drug Resistant TB) as a matter of concern, a comprehensive programme to control and reduce the prevalence of tuberculosis in Mumbai has been launched by MCGM under Revised National Tuberculosis Control Programme (RNTCP) in coordination with the State & Central Governments.

Drug resistant variety of TB evolves due to incorrect, improper and incomplete treatment. It shall therefore be the endeavour of MCGM to ensure that all cases of TB and DRTB, to the extent possible, are brought within the net of RNTCP so as to ensure correct and proper treatment as per national protocols. This will also ensure that non-affordability is never a reason for incomplete treatment.

This blueprint has 4 distinct components and I have ensured that sufficient budget provisions are made for the same.

#### **4) Organizational strengthening**

Mumbai TB Control Officer has already been appointed and each of the 24 wards of MCGM are now being considered as a district under RNTCP programme. We have accordingly appointed 24 Ward TB Officers who have already started functioning.

#### **8.9 Upgradation of GTB Hospital**

1000 bedded GTB Hospital (Group of TB Hospital) established in the year 1942 is the largest hospital for specialized TB treatment in the country. The upgradation of GTB hospital is being proposed and accordingly provisions of ₹3 crore and ₹3.5 crore have been made for repairs of the existing hospital and extensive repairs of the adjoining Bahaddurji Block respectively. Bahaddurji Block when complete will result in creation of 200 additional beds for TB treatment. Major O.Ts. are proposed to be equipped with state-of-the-art equipment and made fully functional.

Similarly I have made adequate provisions to modernize and upgrade the existing Lab at GTB Hospital with state-of-the-art diagnostic capacities of liquid culture and LPA (Line Probe Assay) for detection of DRTB (Drug Resistant TB). These modern diagnostic facilities would be commissioned by July 2012.

The capacity of DOT Plus site at GTB Hospital is proposed to be enhanced from existing capacity of 44 to 90 thereby facilitating prompt treatment to DRTB patients.



**8.10 Specialized Hospitals**

Health set up of MCGM has 5 specialized hospitals. GTB hospital is already proposed for comprehensive upgradation.

At Kasturba Infectious diseases hospital, 10 bedded I.C.U. proposed in last budget will be commissioned by June 2012. I have, in this budget, proposed upgradation of Burns wards in the Kasturba Hospital complex in the form of 10 bedded I.C.U., physiotherapy unit and a operation theatre.

Restoration work of phase I of Seth A.J.B. ENT Hospital housed in a heritage structure is now complete. Microscopic surgery equipment and sterilizers for surgical intervention are proposed to be provided to ENT hospital.

At EYE Hospital, it is proposed to upgrade the O.T. by providing operating microscope for specialized eye surgery and to start Glaucoma Screening Centre in the OPD.

**9. Education : Improvement in the standard /quality of education in the municipal schools**

I have accorded due priority to the Education Sector and substantial funds have been allocated to various important aspects of education in the budget estimates particularly on strengthening the Educational Infrastructure and to enhance the academic excellence in the municipal schools.

Budget outlay for E budget has been stepped up from ₹1800.51 crore in B.E. 2011-12 to ₹2342.63 crore on B.E. 2012-13. Some of the important initiatives proposed are as follows:

**1) Virtual Classrooms**

In 2011-12, a pilot of virtual classrooms was launched in 80 schools. Scheme is very well received by the students as well as teachers. It is proposed to cover 400 more schools under this program in 2012-13. A provision of ₹28 crore is made for this purpose.

**2) Repairs & upgradation of Municipal School Buildings**

There are total 452 municipal school buildings at present out of which 103 buildings do not require repairs and upgradation. Besides, 4 buildings will get reconstructed under 'redevelopment scheme'. Out of remaining 345 buildings, repair of 83 buildings have been completed and works of 186 buildings (including new construction of 1 building) are in progress. All remaining 77 school buildings are proposed to be taken up for repairs in 2012-13 and a provision of ₹300 crore is made in B.E. 2012-13.

**3) Supply of clean water**

It is proposed to provide access to pure and clean drinking water in all the municipal school buildings, including rented ones. Bank of Baroda will install water purifiers in 32 buildings. Total 1417 water purifiers will be installed in the remaining 421 municipal and 61 private school buildings by MCGM for which a provision of ₹4.98 crore is made in B.E. 2012-13.

**4) Libraries**

During the year 2011-12, MCGM has started libraries in 75 schools of Marathi, Hindi, Urdu & English medium with the support of "Room to Read India", a voluntary organization. Since this project has

proved effective, it is proposed to start the libraries in all municipal school buildings under this scheme in the ensuing year. This voluntary organization is going to start additional 100 libraries in the year 2012-13. MCGM on its own shall start the libraries in all remaining 278 school buildings for which a provision of ₹4.93 crore has been proposed in 2012-13.

**5) Repairs of toilet rooms**

The Municipal school buildings were physically inspected. It is found that as per 'Sarva Shiksha Abhiyan' norms there is a deficit of 14 toilet blocks for boys and 7 toilet blocks for girls, 215 commode-western style for physically handicapped students and 75 urinals in municipal school buildings. This requirement as per 'Sarva Shiksha Abhiyan' norms will be met during year 2012-13.

A provision of ₹70 lacs is proposed for this purpose.

**6) Teachers Training Centre**

With a view to updating the knowledge / pedagogy, it is felt necessary to impart training to the primary teachers for upgrading their knowledge, teaching skills, art, languages and physical education. It is, therefore, proposed to start a residential training centre for the primary teachers at Chandivali in 'L' Ward, for which a provision of ₹5 crore is proposed.

**7) School Excellence Programme**

It is proposed to further expand the school excellence program started in 2011-12. Under this programme, 42 Marathi medium and 32 Urdu medium schools have been covered with the assistance of



UNICEF. In the ensuing year, it is proposed to start this programme in another 42 Marathi medium and 32 Urdu medium schools.

**10. SOLID WASTE MANAGEMENT**

The MCGM has to deal with the mammoth task of sweeping, collection, transportation and disposal of about 6500 M.T. of garbage and 2500 M.T. of silt and debris generated daily. To adhere to Municipal Solid Waste Rules - 2000, the MCGM has already adopted the closed system of storage and transportation of Municipal Solid Waste and has provided closed bins at community level collection points for temporary storage of waste. To strengthen these activities and further to provide more hygienic and healthy conditions for the operations of these activities some of the important measures to be undertaken in the ensuing year are as follows:-

**1) Large waste generation points:**

I) As rapid development of certain areas of Greater Mumbai has resulted in large amount of refuse generation at certain locations. 42 Stationary Compactors of 15 MT capacity have been installed at such places and it is proposed to install such compactors at 5 newly proposed sites. A provision of ₹7.20 corers has been made in the Budget Estimates for year 2012-13 for the purpose. No stationary compactor could be purchased in 2011-12 for want of availability of BS IV compliant vehicles.

II) 38 mini compactors and 69 new compactors, to replace old vehicles, could also not be procured this year, due to non availability of BS IV compliant chassis in the market. With court intervention, manufacturers have now agreed to manufacture these vehicles from July 2012. A provision of ₹28.40 crore is made for 2012-13 to procure these vehicles.

## **2) Cleanliness campaign**

For maintaining the zero garbage condition in Mumbai City, various schemes such as Slum Adoption Scheme (B.E. ₹42.00 crore), Clean Area Scheme (B.E. ₹29.02 crore), Manning and Mopping (B.E. ₹26.64crore) and Removal of refuse (B.E. ₹202.56 crore) are being implemented under cleanliness campaign. Similarly, seashores and beaches which are famous tourist spots are being cleansed 24X7 (B.E. ₹6.10crore). A provision of ₹306.32crore is proposed in 2012-13 for the above schemes.

Regular road sweeping activity is being carried out to maintain cleanliness on roads; however portion of roads beneath the parked vehicles remains uncleaned. To overcome this difficulty to some extent, it is proposed to utilize 5 water tankers with pumps (Firex) available in S.W.M. deptt. (which have become surplus, as now private operators are working with their pumps at the Deonar disposal site) in early morning hours for cleaning & washing of road portion beneath the parked vehicles. Waste water treated at Lovegrove STP will be utilized for this purpose. About 25 km road length of city area will be covered in this process.

## **3) Installation of litter bins**

To avoid littering on important roads and public places, it is proposed to install 20,000 new litter bins of 6.5 ltr. capacity at 10,000 locations for which a provision of ₹6.5 crore is made in the budget estimate for the year 2012-13.

**4) New modernized transfer station**

On the lines of Mahalaxmi Transfer Station, transfer stations at Gorai, Versova & Kurla need to be modernised. This will enable compaction of garbage and its transportation in closed containers to the disposal ground will lead to more hygienic working conditions. The area surrounding the platform, where garbage is received, is covered to avoid eyesore. A provision of ₹15 crore has been made to modernize the Gorai transfer station in 2012-13.

**5) Development of dumping grounds**

With a view to resolving the problem of disposal of 6500M.T. of refuse generated per day, a scheme has been worked out under an “Integrated Waste Management Project” and work of closure of 65 hectares of land at Deonar Dumping Ground in scientific manner and landfill development works are taken in hand. The work of partial closure of Deonar Dumping Ground in scientific manner which was started in the year 2009 is expected to be completed by the next year.

In the proposed project, the work of setting up plants for processing of solid waste of 2000 M.T. at Deonar, 4000 M.T. at Kanjur Marg, and 500M.T. at Mulund is incorporated in the contract awarded to private operator appointed under Public Private Partnership Model and all these projects are expected to be commissioned by January, 2013. A provision of ₹108 crore is made for this project in the Budget Estimates 2012-13 (This project is sanctioned under JNNURM).



**6) 'ASHRAY' project**

Under Ashray Project, MCGM will be developing conservancy staff quarters in City and Suburbs. The 'ASHRAY' project of construction of service quarters for the conservancy staff of SWM though initially proposed to be carried out through Municipal fund by making budgetary provision, it has now been proposed to execute the ASHRAY project in public Private Partnership (PPP) model to make the project self supporting.

**11. GARDENS**

The Garden Department of MCGM has developed/upgraded 29 gardens in the year 2011-12. These gardens have been developed comprehensively with landscaping, pathways, jogging track , gates, seating arrangements for senior citizens and playing amenities for children. In P/South ward a Vanodyan by planting 5000 number of tree saplings has been developed. In Goregaon (E) a unique garden near the Vageshwari Temple has been developed with statues of wild animals. In Kandivli, Khajuria Tank has been developed over more than 10,000 sq.mtr pond having a fountain within.

In the year 2012-13 it is proposed to develop 13 new gardens and an Estuarian Park near Mahim Creek. A budget provision of ₹43 crore is proposed in 2012-13.

**11.1 TREE AUTHORITY BUDGET**

For maintaining the green cover in the city, MCGM and the Tree Authority are carrying out various activities such as preservation and maintenance of existing trees, plantation of new trees etc. Similarly, to create the awareness about the environment, exhibition of plants, flowers,

fruits and vegetables as well as workshop on various horticultural subjects are being organized. Size of Tree Authority budget for the year 2012-13 is ₹41.28 crore. A provision of ₹22.38 crore is proposed under the Revenue Budget for conservation of existing trees in the City and the Suburbs, for plantation and maintenance of new trees. A provision of ₹70 lakhs is proposed for purchase of Tree Trimming Vans.

As per the provisions of The Maharashtra (Urban Areas) Preservation of Trees Act, 1975 the census of existing trees on all land including private land within the jurisdiction of Mumbai has to be done after every five year. Last such census of trees was done in 2007. A provision of ₹6 crore is proposed for this purpose under Tree Authority Budget for the year 2012-13. Tree Authority budget will be stepped up accordingly.

## 11.2

### MODERNIZATION OF

#### VEERMATA JIJABAI BHOSALE UDYAN – ZOO

Veermata Jijabai Bhosale Udyan – Zoo presently spread over an area of 53 acres, is one of the oldest zoo in the country established in 1862. This Udyan – Zoo is declared as “**Heritage Grade II (B)**” site and is classified as “**Medium Zoo**”. 1.6 million people have visited the Zoo in 2010-11. The Zoo has been proposed to be modernized. Central Zoo Authority has approved the modernization proposal.

The Zoo modernization is likely to be completed by August 2014. The total project cost will be approx. ₹150 crore.

The Theme of the approved Zoo layout is “Living Together” and emphasis is being given on creating **naturalistic enclosures**. i.e. creating natural habitats within the animal enclosures. The environmental

enrichment will be provided inside the animal enclosures to fulfill their biological, physiological, behavioural and other needs.

During the construction of animal enclosures no new moat will be created to ensure that there is no damage to the root system of any of precious trees. The existing moat will be modified wherever desirable and glass panels will be provided as a barrier between the animals and the visitors for safe and close viewing of animals. The existing alignment of roads and pathways like East- West Central Axis and North South Central Axis has been retained as such.

The Zoo development works to be undertaken during Phase I starting from 2012 - 13 will include the construction of enclosures for the animals belonging to cat family namely Royal bengal tiger, Asiatic lion, Jaguar, Jungle cat, Common civet cat, Palm civet cat, Large Indian civet cat and Leopard cat. Also the enclosures for the other animals like Wolf, Sloth bear, Dhole, Hyaena, Jackal, Otter, Snake house, Madras pond turtle, Muggar and Ghariyal pond and Porcupine will be constructed. Similarly the other development works will include the restoration of heritage structures, development of entry plaza, interiors of interpretation centre which includes the Humboldt Penguin and Marine Fishes, the construction of internal roads, pathways, drainage and other systems, development of gardens & lawns, staff quarters and basic public amenities to enhance experience of visitors. Also the preparation of the Master (Layout) Plan for the Birds and Reptile Park to be developed at Powai will be undertaken. An amount of ₹70 crores has been proposed during the Budget year 2012-13 to carry out the above zoo development activities.



Also an amount of ₹25 lakhs has been proposed in the Budget year 2012-13 to carry out 150 years celebration activities of VJBU – Zoo, which includes publication of booklets on existing biodiversity, etc.

## **12. STORM WATER DRAINS**

MCGM had been improving its Storm Water Drain network using BRIMSTOWAD report of 1993, which prescribed design criteria of rainfall intensity of 25 mm/hour with runoff coefficient of 0.5. However, after inundation of July, 2005, the Fact Finding Committee (Chitale Committee) constituted by Government of Maharashtra recommended revision of criteria, upgrading them to 50 mm/hr and run-off coefficient of 1.0 leading to increase of width as well as depth over that recommended in BRIMSTOWAD report especially in the tidal zone.

Government of India sanctioned special one time grant of ₹1200 crore to upgrade the storm water drainage system of Mumbai in 2007. Out of total 58 works under this BRIMSTOWAD Project, 14 works had been completed by 1<sup>st</sup> April 2011, while 34 works were in progress. Remaining 10 works were yet to be tendered. Of these, 6 works have been awarded during 2011-12.

Out of 4 works yet to be tendered, one work i.e. Dadar–Mahim diversion work needs to be dropped for now, as its need is to be re-established after up-dation of BRIMSTOWAD Master Plan. Remaining 3 works relate to pumping station at Britannia, Mahul, Mogra-Gazdharbandh which will be tendered and awarded in 2012-13.

The Government of India has sanctioned special funds of ₹1200 crore for implementation of BRIMSTOWAD Project as per DPR of the year 2007, out of which, ₹1000 crore has been received till date. Total

expenditure incurred till date is ₹1212 crore. However due to increased width and depth of the drains due to change in design parameters, requirement of unconventional technology specially in tidal zone and passage of time – particularly due to encroachment issues, total financial requirement of the project has seen a substantial rise and additional funds to the extent of ₹2700 crore are required for which revised DPR is being submitted to Govt. of India.

However, as the city needs to complete these works to protect itself from any future onslaught of rains equivalent to that of July, 2005, MCGM has to go ahead with the full implementation plan for which the allotment of ₹794.19 crore has been made in the year 2012-13. Liability of BRIMSTOWAD works on MCGM budget will continue to be there till 2014-15.

Some noteworthy works undertaken in 2011-12 for above mentioned BRIMSTOWAD Project are as follows:

1. The work of construction of R.C.C. Box drain of size 5 Mt. x 3.5 Mt. from Ganjawala Lane to Haji Ali Pumping Station through Body Guard Lane will be completed by March, 2012. Under this work one barrel of the triple barrel arch drain leading to Love Grove Nalla through Ganjawala Lane has been diverted to Haji Ali Pumping Station, as a result flooding in catchment area 130 i.e. Mumbai Central Station, Alankar Cinema, Nair Road will be abated. In the above work the arch drain through Javaji Dadaji Marg and Madanmohan Malviya Marg in Catchment No. 132 is connected to Haji Ali Pumping Station by 2 nos 2.2 Mt. dia R.C.C Pipe Drain due to which there will be

relief from flooding at Nana Chowk, Grant Road Station, Tardeo Naka and Madanmohan Malviya Marg .

2. Rehabilitation of Storm Water Drains at Patthe Bapurao Road, Drainage Channel Road, Dr. E. Moses Road and Reay Road which is expected to be completed in the year 2012-13.
3. In City area contract for the work of Augmentation of cross drain across Railway Tracks near Mahalaxami Railway Station and the work of rehabilitation of old Storm Water Drain & 7 years comprehensive maintenance at Madam Cama Marg, Pandit Madan Mohan Malviya Marg & Javji Dadaji Marg and Senapati Bapat Marg between Jawale Marg & Textile Mill Nalla, Senapati Bapat Marg between Matunga Road Railway Station & Mahim Outfall & strengthening of existing arch drain / rectangular SWD in City area are awarded in the year 2011-12. In this respect rehabilitation and augmentation of SWD length of 16841 mtrs. is proposed. All these works are expected to be completed in the year 2013-14.
4. Under the BRIMSTOWAD Project, the work of design and construction of storm water pumping stations including supply, delivery, erection, commissioning of mechanical, instrumentation & automation work and comprehensive operation and maintenance of pumping plant at various outfalls at Haji Ali, Love Grove, Cleave Land Bunder and Irla have been undertaken.

Out of total 8 no of Pumping Stations to be constructed, pumping station at Haji Ali and Irla are commissioned in May,



2011. Work of Pumping Station at Love Grove and Cleave Land Bunder are now commenced. The tender for the Britannia Pumping Station has been invited and tender for the remaining pumping stations at Gazdharbund, Mogra and Mahul are proposed to be invited in 2012-13. A provision of ₹175.10 crore is proposed in Budget Estimate of 2012-13 for pumping station works.

Other than the BRIMSTOWAD works which were posed to Government of India, MCGM has also undertaken Non-BRIMSTOWAD works for improvement of Storm Water Drain network. During this year 45 of Non-BRIMSTOWAD Project works have already been completed. Remaining 40 works are proposed to be completed in 2012-13 for which budget provision of ₹523.28 crore is made.

#### **12.1 Physical Progress of the works :**

The total length of existing major Storm Water Drains /Nallas in the limits of Brihanmumbai is about 382 kms out of which, under BRIMSTOWAD and Non-BRIMSTOWAD Project works, the work of rehabilitation/improvement / reconstruction of Storm Water Drain/Nalla for the length admeasuring 75.5 kms had been completed upto 31.3.2011. During the current financial year (i.e. upto 31.3.2012) it is expected to complete the rehabilitation/improvement / reconstruction of Storm Water Drain/Nalla for further length of about 31.8 kms.

It is proposed to take up the work of rehabilitation/ improvement / reconstruction of SWD/Nalla of the length about 33.9 kms during the next financial year i.e. 2012-13 and 65.2 kms in 2013-14. Thus, overall, it is expected to implement the work of rehabilitation/improvement /

reconstruction of SWD/Nalla for the cumulative length of about 206.5 kms upto 31.3.2014. The balance work can be reviewed and taken in hand subject to availability of funds and actual site conditions.

## **12.2 Development of Mithi River**

Govt. of Maharashtra has formed “Mithi River Development and Protection Authority” for improvement of Mithi River. The total length of Mithi River is 17.8 kms, out of which, length of 11.8 kms is in the jurisdiction of Brihanmumbai Mahanagarpalika and the balance length of 6.00 kms is under jurisdiction of MMRDA.

Under this project, 438000 Cu.M. silt has been removed and 538000 cu.m. of rock excavated up to 31.10.2011. Construction of work of 8 km long retaining wall out of a total of 20 km has been completed. Deepening of the Mithi River upto 95 % has also been completed. Works relating to training of Mithi River in length of 4.2 km have been awarded. Tender for balance length of 7.8 Kms. for the training of Mithi River will be invited after removal of encroachment on site.

## **12.3 Bridges on Mithi River**

Comprehensive development of Storm Water passage through Mithi river System envisages construction of 11 bridges, out of which construction of bridge at Krantinagar is completed. Construction of bridges at 3 places viz. Ashok Nagar, Bamandaya road and Kurla Kalina Road by MCGM and at B.K.C. by MMRDA, is under progress.

Expenditure incurred on Mithi River development till date is ₹516.12 crore and a provision of ₹50 crore has been proposed in Budget Estimate of 2012-13. Also, comprehensive DPR for funding has been

submitted to Government of India through MMRDA for Mithi River development.

Capital budget of storm water drain has been stepped up to ₹1325 crore in 2012-13 from B.E. of ₹1240 crore & R.E. of ₹1187 crore in 2011-12.

**13. FIRE BRIGADE**

In the year 2012, Mumbai Fire Brigade (M.F.B.) enters into 125th year of selfless & dedicated service and has had a distinction of saving precious life & property throughout 125 years of its existence.

To commemorate this occasion, it has been decided to observe the year 2012 as a 'Fire Safety Year' with emphasis on 'Fire Safety as a Joint Responsibility'.

With a view to continuously enhance M.F.B.'s fire fighting & rescue capabilities, I have proposed a budget allocation of ₹55.20 crore for latest fire fighting & rescue equipment and vehicles. Considering the rapid rise in skyscrapers & high rise buildings in Mumbai, it is proposed to procure a 90 meters snorkel with an estimated cost of ₹15 crore. This vehicle will be the first of its kind to be procured by any municipal fire service in the country and will, I am confident, further increase M.F.B.'s fire fighting and rescue capabilities.

The efficiency of any fire service is always evaluated on the basis of response time. With this aim in mind, MCGM had decided to set up 6 Command Centers in the city. Wadala Command Centre is already commissioned in November 2011 and Command Centers at Byculla,



Vikhroli, Mankhurd are proposed to be commissioned in the year 2012-13 for which I have made a budget provision of ₹28.57 crore.

Mumbai has a coastal stretch of 170 kilometers and its western shoreline is dotted with 6 beautiful beaches of Girgaon, Dadar, Juhu, Versova, Aksa & Gorai. Disregarding the warnings, people sometimes venture into the sea especially at high tide and during monsoon. To protect Mumbais' beaches and also safeguard precious lives, MCGM has in the previous year, set up beach safety units under fire brigade. I propose to strengthen these beach safety units and propose a budget provision of ₹2.1 crore accordingly for equipments such as semi-inflatable rescue boats, Jet-Ski with trolleys and beach life guards towers etc.

I am also happy to note that, women for the first time, have joined the M.F.B. thus making M.F.B. the only municipal fire service in the country to have women in its force. Firemen are expected to perform the specialized & skilled work of a fire fighter and I have relieved them from other non core activities such as sentry duty and ambulance duty by making suitable alternative arrangements.

#### **14. MUNICIPAL MARKETS**

Construction and maintenance of public markets is an obligatory duty of MCGM.

As was announced in the last year's budget, MCGM has undertaken a comprehensive repairs programme of 51 existing markets, which is nearing completion. A provision of ₹36.92 cores is proposed in the Budget Estimates 2012-13 for the capital works of Market Department.

MCGM has also decided to redevelop its Municipal markets in phases. Letter of Intent has already been issued for 18 markets for redevelopment in Phase-I.

Revised redevelopment policy based on ready reckon rates is also in the process of finalization which will result in enhanced revenue component for MCGM.

**15. DEONAR ABATTOIR**

Construction and regulation of an abattoir is an obligatory duty of MCGM. Accordingly, MCGM is running an abattoir at Deonar since 1971. Recognizing the need to modernize and reconstruct the Deonar Abattoir in phases, a detailed modernization plan has been formulated. It is proposed to complete modernization of sheep and goat abattoir first. For construction of liarages for sheep and goats along with other allied works, a provision of ₹11 crore is proposed in B.E. 2012-13. Similarly, a provision of ₹5.81 crore has been proposed for constructing permanent sheds in B.E. 2012-13.

**16. Conservation, interior designing of Municipal Head Office, Main (heritage) building**

The Municipal Head Office Main building is a listed Grade-IIA heritage structure owned by MCGM. It is 120 years old historical structure constructed in neo-gothic style with stone masonry facade, wooden spiral staircases, Mangalore tiled roof, stone arches, stained glasses on doors and windows and ornamental detailing with gold leafing, etc.

The MCGM has taken up the repair/restoration/ conservation works of the said heritage building in different Phases. The conservation of stone masonry, structural restoration and roof repair works are almost completed in Phase-I, the Phase-II works of restoration of stained glasses is in progress and the tenders for renovation, internal re-designing of the offices, beautification of the common areas like passage, lift foyer, staircase blocks and courtyard are invited in Phase-III. It is also proposed to open up the viewers gallery for public at the level of main dome of the building for scenic view of Mumbai City. The said works are expected to be completed by March, 2014. The budget provision of ₹15.25 crore has been made in the B.E. 2012-2013.

#### **16.1 Engineering Museum**

It is proposed to construct engineering museum in the existing building of stores at Worli Engineering Hub in G/South Ward. A token provision of ₹10 lakh is proposed for this museum in the Budget Estimates for the year 2012-13 for preparing the DPR for the museum.

#### **17.**

#### **I.T. INITIATIVES**

MCGM has initiated various important programmes of computerization with a view to increase transparency and provide easy and speedy access to the municipal services. To further strengthen these initiatives, I propose a budget provision of ₹83.72 crore under the revenue budget and ₹130.77 crore under the capital budget for 2012-13.



**17.1 I.T. – Important works carried out in year 2011-12**

- 1) FMS – Entire Computer System(Hardware Management) in MCGM is handed over to M/s Reliance Communication Infrastructure Ltd. under the project of Facility Management Service(FMS), which consists maintenance of all Hardware, Applications, & Licenses.
- 2) Training – To run Information Technology department independently, SAP certification training is arranged for 224 BMC employees. Till today 80 employees have completed this training.
- 3) Vendor Exit Policy- M/s TCS & M/s ATS were working as I.T. partner & Advisor in technical matters. On completion of their contract period, I.T. department has fully taken over their work.
- 4) New manpower – In year 2011-2012 Director, Manager, Asst. Manager, Sr. System Analyst, Jr. System Analyst were appointed in I.T. deptt. to enhance the in house capacity.
- 5) Network Access Control – Implementation of Network Access Control System for security of computer system and implementation of Microsoft active directory services is planned and will be commissioned soon.
- 6) Training of Human Resources Module- It is proposed to provide training to 1900 employees in SAP HR module, out of which 807 employees have been trained in 2011-12 and provided with user ID. Bio-metric access system which is part of SAP HR module has been commissioned at MHO since. 01.01.2012,
- 7) SAP User ID - 2655 new user IDs have been created in SAP system. It is proposed to add minimum 10,000 new users in 2012-13.

- 8) On Line Tendering facility- E-tendering facility has been started in SAP system and all departments are using E-tendering facility to invite tenders, which has brought transparency in BMC work. In all 1188 tenders have been invited through this system.(Total cost of ₹4217 crore)

**17.2 I.T. - Proposed work list in year 2012-2013**

- 1) Disaster Recovery Site and I.T. Security system – A separate disaster task recovery site outside Mumbai seismic zone for all/every computer system commissioned at Worli Data Center will be established.
- 2) It is proposed to implement comprehensive hospital, medical college and extension health services and computerization system for MCGM hospitals, dispensaries, maternity homes & medical colleges.
- 3) Geographical Information System (GIS) – Geographical Information System (GIS) is one of the important branch of Information Technology. Most of the work in MCGM relates to lands and plots. Under this project integrated geographical information of various departments in MCGM is being developed. The work of providing base map which is important for same will be completed in the next year.
- 4) Document Management system – All the inward / outward of documents will be done through computer system, enabling tracking of documents online within MCGM
- 5) Use of SMS in CPWM system – In order to attend complaints of citizens immediately the complaint will be forwarded to concerned officer by SMS. Also, action taken reports on complaints will be sent to complainants by SMS. The said work is in final stage and will be completed during next year.

- 6) Installation and commissioning of Biometrics Access system is planned to be completed during next year in all departments, offices, hospitals, and offices of different departments of MCGM.

**18. PROPERTY TAX**

Property Tax & Octroi are the main sources of revenue for the Municipal Corporation of Greater Mumbai.

(₹ in crore)

Name of Tax	Collection upto Feb 2012	To be recovered upto March 2012
Property Tax	2679.97	1657.09
Octroi	5478.47	621.53

Collection of property tax is partly hampered in January and February 2012 due to 3750 staff being employed for election work. Projected recoveries will be achieved by March 2012.

**18.1 Computerization of Assessment & Collection Deptt.**

Computerization by way of Property Tax Information System (PTIS) is fully implemented for collection of taxes in all the wards. All basic amenities for computerization have been provided in all offices. New software for migration to Capital Value (CV) system of P Tax is fully developed and migration of data of 280000 properties is also completed. In the CV system, assessment as well as collection of P Tax will be through the software. This will help providing up-to-date online information of properties and tax to the tax payers.



**18.2 Projects to be undertaken in the year 2012-13****1) Incentive to the early birds**

As per the provisions under section 197 of the M.M.C Act, 1888 the property taxes shall be payable in advance, half yearly, every first day of April and October. If the property taxes are not paid within 3 months from the date of issuance of the bill, penalty @ 2 % per month is levied on the unpaid amount after the due date. However, in order to induce the tax payers and encourage them for making early payments and also as a part of reform under JNNURM, it is proposed to give rebate to the taxpayers making early payment.

**2) Setting up of additional Court room in Small Causes Court**

To expedite the pending Small Causes Court cases in respect of property tax, government has established additional court No. 30 in Small Causes Court. Total cases pending in various courts are 2386.

**3) Implementation of Capital Value Based Property tax system**

The Corporation has decided to adopt property taxes based on capital value system (CV) with effect from 01.04.2010. The data consolidation for fixation of capital value is in progress. Initially, data in respect of 2.30 lakh properties was entered into the new CV system and now data in respect of approximately 50000 properties, which was obtained by personal visits and measurements wherever necessary, has been added to the original data. Various rounds of verification were carried out to ensure the correctness of the data, for which officers and staff made un-tiring efforts. The remaining 50000 properties, for which data has not yet been entered in the CV system, are slum properties. Many of these properties

cannot be identified individually with office records. The Corporation has written a letter to the Housing Dept. of Govt. of Maharashtra. The policy in respect of levy of property taxes on these assessed slums and also huge number of un-assessed slums will be finalized after receipt of remarks from Housing Deptt., Govt. of Maharashtra.

Now the administration is in a position to issue the special notices and also to finalize property tax bills on capital value as soon as 'The Rules for fixation of capital value' and 'Rates of property taxes' are approved by the Standing Committee and the Corporation. The Rules and Rates have already been proposed by the administration to the Standing Committee.

To maintain the uninterrupted flow of municipal revenue, provisional bills for the year 2010-11 and 2011-12 were issued on the basis of property tax leviable for the year 2009-10. Since the rules and the rates of taxes, in the CV system are not yet approved by the Standing Committee, the work of capital value fixation and preparation of bills may extend to next year, the amendment to the relevant provisions of the Act to enable MCGM to carry out the said work during the year 2012-13 has been completed.

Ward offices of Assessment & Collection Deptt. are grappling with old furniture and improper seating arrangements. A renovation plan for modernization of assessment and collection offices has been approved and all these offices will be renewed with proper furniture, fixtures and seating arrangements to ensure better quality of services to the citizens of Mumbai.

**4) Geographical Information System (GIS) Implementation**

MCGM is implementing the integration of various departments through GIS base map made available by National Informatics Centre, Delhi under utility mapping project. M/s NIIT GIS Ltd., the Consultants for GIS system integration has been appointed by the Corporation who are going to develop the applications required for various departments with required MIS reporting to increase the efficiency. IIT Mumbai is guiding us in verifying the technical aspects of software development. In case of property tax, it will help in bringing 100% properties under tax net. This is a committed reform under JNNURM.

**5) Implementation of Self-Assessment System**

Self-assessment system (SAS) is being planned for introduction in the next phase. The draft of required amendments to the MMC Act, 1888 is already prepared and it is in the process of administrative approval. The SAS will enable citizens to work out their own property tax with the help of rules and guidelines published by MCGM and the same facility will also be made available online through MCGM web portal.

**6) Web display of property details with capital value and tax payable.**

The administration is now ready with the data pertaining to about 280000 properties, except slum properties, for which the workings of capital value and the tax payable is completed on the basis of proposed rules and taxes pending the approval of Standing Committee. The said data will be made available on MCGM web portal to the citizens. Citizens can verify the data taken for capital value fixation and can also make complaints against any errors. Further a simple tax calculator will be



provided wherein a citizen can ascertain the capital value and the property tax thereon by inputting the required data of any property.

**19. OCTROI**

Octroi duty is recovered on the articles specified in Octroi Schedule 'H', when they enter into Mumbai limits for consumption, use or sale therein. Octroi is recovered at five Octroi Check Nakas and other work centres. Nearly 10,000 vehicles carrying consignments enter Greater Mumbai every day. Various measures have been initiated to avoid traffic congestion at check nakas. Various reforms have also been introduced to reduce transaction time and to provide hassle free clearance of vehicles.

**1) Modernization of Octroi Nakas:-**

The check nakas are planned to be modernized and equipped with gadgets/equipments, adopting state-of-the-art technology. Various efforts taken by the administration in the last one year are showing satisfactory results. The E.E.H. Octroi Check Naka has already been developed and contractors have been appointed for development of LBS and MPH Check Nakas. Dahisar Naka development will also be started in the next financial year.

**2) Appointment of Security Guards for Check Nakas:-**

Administration has been able to procure services of 235 Security Guards/ Supervisors from Maharashtra State Security Corporation from January 2012. These Security Guards are public servants with powers to arrest offenders. Our Officers and staff at the Check Posts will be more secure in presence of these guards. Out of 235 security guards, 54 will be equipped with arms and their services will be available very soon.

**3) Installation of modern equipments and devices at Octroi Nakas.**

To improve surveillance and minimize transaction time at all the major nakas, it is proposed to install devices like Weigh bridges, Scanners, C.C.T.V. and License Plate Recognition System (LPRS).

We need to select appropriate technology for procurement of scanners for Octroi Check Nakas. The administration approached the Atomic Energy Regulatory Board and as per their advice, e-tenders will be invited in the month of March 2012 by making a specific provision whereby scanning of vehicles without human beings will only be allowed.

The e-tenders for providing surveillance system by installing close circuit cameras at check nakas have been invited in the month of March 2012, whereby the check nakas can be monitored effectively from a central control room. The e-tenders for installation of weigh bridges with LPRS at Octroi Check Nakas have also been invited in the month of March 2012. This will help arrest evasion of Octroi by under-declaration of weight.

**4) Computerization of Octroi Deptt. :-**

It is my pleasure to state that the Octroi Deptt. has been fully computerized. New octroi software, developed under the guidance of IIT, Mumbai, is put in operation from 01.08.2011. This computerized system has the following features:

- a) The transactions of payment of octroi carried out at Octroi Check Nakas and other Work Centres are uploaded at the

Central Servers stationed at Worli Data Centre, through Real Time Data Transfer.

- b) Availability of LAN Connectivity at every point of the Check Nakas.
- c) Scanning of import documents tendered by the importers.
- d) The e-portal has been developed for making online payment of octroi by the importers through the e-payment gateway. The importers can do self assessment and pay their octroi directly into MCGM account. Thus, by this e-payment facility, there will be no need of any middle person for paying octroi, thereby eliminating any chances of importers being duped by such middle persons or Corporation losing its revenue.
- e) The importers can also verify the payment of octroi made on their behalf to the Municipal Exchequer, by visiting the e-portal. This will help the importers to ensure genuineness of the payment of octroi.
- f) The new system has built in checks to prevent evasion of octroi and also security features that will not allow any data change without authorization and will give a valid audit trail. Daily data will be transferred to back up media in CD ROM in read only format. The "B" form cum payment receipt is printed on stationery printed from Municipal Printing Press that has several security features.
- g) Smart Handled Devices (SHD) have been provided to the Vigilance Officials and at entry and exit places. This will help early tracking of vehicles and also minimize data entry errors



- h) Tenders have been invited for IVRS- Interactive Voice Response Services for checking the genuineness of the receipt and details of payment and SMS gateway for supplying information from the data server.

**5) Octroi Refund**

Refund of octroi is admissible on export of octroi paid articles out of Mumbai limits as per the provision of section 195(1) of the M.M.C.Act and Refund Rules framed thereunder. Refunds of octroi were being inordinately delayed due to certain deficiencies in the existing system. The new refund software has been developed and data entry has commenced from this month. Payment of octroi and scanned documents will be available instantaneously to the refund staff which would enable expeditious refund of octroi duty from May 2012.

**6) Octroi on Diamonds**

Reduction in rate of octroi for Diamonds from 2% to 0.01% has shown very good results with the collection rising from ₹2.25 crore in 2010-11 to ₹10 crore in just 11 months. As such, the reduction in the rate of octroi on import of diamonds will be continued further. This year, I propose to collect ₹6100 crore towards revenues from Octroi and propose to collect ₹7000 crore in the coming financial year.

**20. GENDER BUDGET**

Women empowerment has always been major area of focus in the municipal budgets. Various facilities are being provided in the Municipal Maternity Homes / Dispensaries / Hospitals to improve the health of women. Almost 50% of the health budget i.e. ₹1200 crore is spent on women health care. Besides this with a view to increasing attendance in schools, incentives are given to girl students attending primary and secondary municipal schools. Recognizing the importance of education, various facilities are extended to the girls students including free supply of text books, uniforms, school bags, education kits, etc. and supply of flavored milk. Out of the total students in Municipal school percentage of girl students is 51%. The total budget outlay for primary and secondary education is ₹2468 crore and out of this 51% amount i.e. almost ₹1258 crore are being spent on the education of girls.

In addition to this, a provision of ₹15.69 crore is proposed in the Budget Estimates for the year 2012-13 for the various schemes for women empowerment as stated below :-

1. Self Employment for deserving women.
2. Training for self-defence / skill upgradation.
3. Workshop / training for capacity building.
4. Assistance to handicapped for self-employed and medical aid.
5. Various activities under Adhar Project.
6. Study tour for political representative and officers of UPEC.
7. Resolving fund for Self Help Group (SHG)

**21. EXTENSION OF SERVICES TO THE URBAN POOR**

With a view to extending various civic services to the urban poor and improving the standard of these services, a total provision of

₹6553.91 crore is proposed in the Budget Estimates for 2012-13 under the following heads :-

	(₹ in crore)
Gaothans, koliwadass and adivasi padas	25.36
Adhar Kendras	5.01
Upgradation of slums	364.06
Improvement, management and maintenance of chawls for poorer classes.	349.78
Primary Education(Budget 'E')	2342.63
Secondary Education	225.45
Health	2079.20
Water Subsidy	1050.72
Others	111.70
<b>Total</b>	<b>6553.91</b>

## **22. SPECIAL ARRANGEMENT FOR DISABLED PERSONS**

With a view to providing barrier free access to the disabled persons, a provision of ₹10 crore is proposed in the Budget for providing facilities like ramp with handrail and low level toilet blocks etc. in all municipal offices, hospitals, recreations centres, markets and schools.

## **23. ADMINISTRATIVE INITIATIVES**

### **1) Accounting Reforms**

As part of budgetary and accounting reforms, municipal administration has undertaken the task of listing, verification and valuation of all the assets of MCGM and this activity is being completed with the



assistance of 4 consultants appointed for this purpose and with the co-operation of the A.Cs. and HoDs.

This exercise is being carried out in respect of Asset Classes of Land, Buildings, Plant and Machinery, Vehicles etc. This exercise has already been completed in respect of land and buildings pertaining to KEM Hospital and Diwaliben Mehta (MAA) Hospital, Chembur. Entire exercise will require considerable time for final completion. After completion of this entire project, the municipal administration would be able to avail system generated up to date asset register in the prescribed format of National Municipal Accounts Manual at any given time and it would be easier to track the utilization of municipal assets and there would be more transparency in the task of asset management.

During execution of the above project, it came to notice that title of many municipal properties is not clear even though it is in possession of the MCGM. The municipal administration has, therefore, undertaken the job of acquiring property cards of all the properties belonging to MCGM. After completion of this task, MCGM would be in a position to know the exact status of the assets/properties owned by it which is crucial in deciding the credit worthiness of MCGM.

## **2) Vendor Registration**

Since implementation of the SAP system, all MCGM departments are executing their functions through various modules like Project System Module, Material Management Module, etc. It is also mandatory that all the purchase orders/work orders are generated through system only. For the sake of system convenience, every service provider, supplier, contractor, etc. is required to be registered as vendor with the

MCGM. With the experience of last 4 years, the municipal administration has accordingly undertaken the task of Vendor Master updation which is based on KYC guidelines. Updation has been made mandatory before release of any payment. This will ensure the genuineness of the vendor.

In case of registered vendors, the system of automated communication through e-mail after processing the payment has been introduced by the MCGM. This has saved substantial expenditure which was required to be incurred for communication. This has also helped create confidence in the minds of all concerned regarding reform measures and the system per se.

With a view to bring in more transparency in the working of the MCGM, it has been decided to put complete information regarding purchase/work orders issued to the contractors/suppliers alongwith the details like time period for completion of work, amount and location of the work etc. as well as the payment details on the MCGM's portal. It is proposed to be operationalised from April 2012. This will enable the citizens to have access to such important real time information and this would help reduce no. of complaints/grievances etc.

### **3) Payment through NEFT/RTGS mode**

The municipal administration has opted for the NEFT/RTGS mode of payment to the vendors instead of ECS for faster clearance of payment. This has indirectly curtailed the cheque preparation activity. Subject to availability of IFSC code, payment can be processed at any location across the country through NEFT/RTGS mode; that too free of cost to MCGM as well as to the vendor.

Likewise, the payments to the vendors having their Bank Account with any Branch of State Bank of India which is involved in Core Banking System (CBS) can be processed in a very short span of time through CBS mode without any cost to the MCGM or to the party concerned.

#### **4) Material Management Module**

A Special Task Force was appointed to carry out the task of Material Management Cleansing which has identified and removed the duplicate material codes, classified each material in proper material sub-group, material group and has provided appropriate logic for the numerical, unique material code. It has restricted valuation classes to 17 groups and assigned new Valuation Class Codes. This has helped remove the difficulties faced by the Material Management Module of the SAP for material procurement. The Material Management team has been reorganized and a regular and permanent core team has been formed to tackle Material Management Module issues of the user departments and a corrected Material Management Module will be put in use with effect from 01.04.2012. This will help in stabilization of SAP system in the MCGM.

#### **5) Fair Market Schedule**

At present, there are different fair market schedules for various types of works, prepared by the different departments e.g. FMR – for road works, FMB – for building construction, FMSWD – for storm water drains etc. These fair market schedules are revised after certain period considering the inflationary trends. Some new items also need to be added in the schedule to meet the demand of new techniques/methodology to avoid resort to fair market rate mechanism.



It has now been decided to prepare a common schedule covering all relevant items required to be operated during execution of various works of civil, mechanical etc. works for which consultants have been appointed. A consultant is being appointed who will prepare a software based common schedule which will enable instant periodical revision in the fair market rates of the individual items commensurate with the increase in the cost of material. It will also enable to invite tenders based on the latest fair market schedule rates and will also help curb the tendency of creating extra fair rates during execution of work.

**Now I present the Budget 'G'.**

**24. Introduction**

One of the obligatory duties of MCGM is to supply good quality water in adequate quantity to the citizens and to dispose the waste water scientifically. I received complaints of short supply, supply of contaminated water and inequitable distribution of water supply. During the year an additional 80 mld water was brought to the city giving some relief to the short supply areas and two tunnels, namely Malabar Hill-Cross Maidan and Veravali-Yari Road, were commissioned. Part commissioning of 3000mm pipeline from Kannamwar Nagar to Amar Mahal, Chembur, resulted in improvement of water supply in Chembur , F/S, F/N, B and E wards. Proactively, water sample testing was enhanced that resulted in quicker identification of contamination prone areas; leak detection and timely repairs was closely monitored and surcharged sewer conditions were reduced; these activities led to reduction in water supply contamination. 24x7 Water Supply System has been started in 'T' Ward Mulund except High level areas on Guru Govind Singh Road from January 2012.

Even though these measures helped to minimize complaints the challenge is to plan and execute schemes to bridge the gap between the demand and supply. The basic infrastructure like water supply needs to be upgraded and augmented to meet the increasing water demand and to bring the health & hygiene levels of the city to contemporary world-class cities. Timely augmentation of sources to keep pace with development and to deliver continuous water at tap is the key issue required to be addressed by the civic administration.

So far water supply augmentation schemes were planned and executed to meet the water requirements of a decade or so. By the time the schemes were commissioned, demand had increased resulting in deficit. I now propose to develop sources to achieve surplus availability of water supply against the demand. The surplus augmentation planning will have a long-term and far-fetching effect on Mumbai water supply. It will enable MCGM to supply water continuously against the present intermittent water supply system. The problems related to contamination, inequitable distribution, odd hours supply and issues related to health can also be tackled more effectively.

Water supply from Damanganga-Pinjal water supply scheme will be adequate to meet the water demand for the year 2031.

Steps have been initiated to enhance sewer collection efficiency and treating the waste water to SW II standards before its final disposal to the sea or creek, as the case may be, since this will result in improved coastal waters as well as reduction in non point sources of pollution. Seven Waste Water Treatment Facilities (WwTF) are to be constructed in a phased manner under MSDP out of which three WwTFs are on the anvil.

In this financial year, I have taken the opportunity to plan for improvement in water and sewerage sector for next 20 years.

The cost of production of water and expenditure on account of sewerage disposal is ever increasing. Capital expenditure on projects related to water supply and distribution and strengthening the sewerage network will be ₹ 42,580 crore till 2025-26. To meet the capital project deadlines, MCGM will have to resort to local or international borrowings, besides grants under JnNURM, etc. The lenders will definitively look at financial sustainability of MCGM. As I had mentioned in my last year's budget speech, on review of future fund flows I have come to the conclusion that the present rates of charges for water supply and sewerage services need immediate revision. The tariff for water supply and sewerage services has not been revised since 2002 except introducing telescopic rates for residential societies in 2008.

25.

#### **WATER SUPPLY**

Population of Mumbai is 12.5 million (Census 2011) with water demand at 4200 mld. Present supply is 3430 mld. Projected population for the year 2031 is 15.66 million. Due to ongoing slum rehabilitation programme, cluster developments in city, redevelopment of old houses and development of land due to closure of textile mills with FSI incentives to all these developments, the water demand is increasing at rapid rate. Considering 24 x 7 water supply system and consequential increase in average drawal in planned developments and in slum colonies the projected water demand is 6000 mld for the year 2031. Middle Vaitarna Project under JnNURM will be commissioned in July 2012 that will bring 455 mld



water to Mumbai. Damanganga-Pinjaj is the next source to augment water supply by 2451 mld. at an estimated cost of ₹11470 crore. Pinjal project will be done by MCGM. Damanganga-Pinjaj River Link Project is undertaken by GoI. The Prime Minister of India has been requested through the Chief Minister of Maharashtra to declare this project as a 'National Project'. The implementation period for both these projects is 7 years.

There is no necessity to develop Gargai source (yield 455 mld and it costs ₹6.40 crore per mld) as against Damanganga-Pinjaj Project (yield 2451 mld at ₹4.45 crore per mld). However, Gargai project will be taken up in case Damanganga-Pinjaj river linking Project does not materialise.

The water supply system of Mumbai consists of 6 head works (4 maintained by MCGM), about 400 km. of raw water network, 4 water treatment plants, 2 master balancing reservoirs, 26 service reservoirs, 5 major pumping stations and about 4000 km. of feeder and distribution mains. Many of the water supply installations are more than 50 years old. Rehabilitation/reconstruction of these installations is being done in a phased manner.

Tunnels have also been constructed in the water conveyance system during the augmentation schemes as tunnels have large carrying capacity, no leakages, have longer life and do not cause disturbance to the vehicular movements on roads. Adequate working space along the roads for laying large diameter water mains is not available. The tunnels (total length 36 km) already in operation are Mulund to Kandivali, Ruparel College to Malabar Hill Reservoir, Kings Circle to Sewree, Bhandup to Charkop and Veravali Reservoir to Yari Road.

Strengthening the conveyance and distribution system of water supply has already been initiated including several newer tunnels and trunk mains.

**25.1 Tunnels in progress: ( 37.55 km.)**

- Gundavali to Bhandup tunnel is 5.5 m dia and 15.1 km long is designed to convey additional water available from new sources of water. Its progress is as per schedule and is expected to be completed by December 2014.
- Maroshi to Ruparel via Vakola and Mahim tunnels (total length 12.25km) are being constructed to improve water supply to areas in H(East), G(North), G(South) wards and to meet the water demand of Worli and Malabar Hill Reservoir (Supplying water to A,C and D wards). Tunnel from Maroshi to Vakola will be commissioned by December 2012 and remaining by September 2013.
- Powai to Veravali Reservoirs (2.2 km) and Powai to Ghatkopar Reservoirs (4.4km) tunnels will replace the existing inlets to Veravali Reservoirs and Ghatkopar Reservoirs that have gone below Link Roads posing maintenance problems. Work is expected to be completed by May 2016.
- Malabar Hill to Cross Maidan tunnel via SK Patil Udyan (3.6 km long) will be fully commissioned in March 2012 thereby improving water supply in entire 'A' Ward area. Tunnel between Malabar hill and S.K.Patil Udyan was commissioned on 08/12/2011 that helped to improve water supply in Kalbadevi, Girgaon, Thakurdwar area.

These four tunnels have an overall cost of ₹3893.47 crore for which a provision of ₹905.00 crore is made in 2012-13 Budget Estimates.

**25.2 Tunnels required and planned: (14.1 km.)**

- Chembur to Trombay Reservoirs (5.1km long)- The existing inlets to Trombay Reservoirs are old and inadequate to cater to the present demand as well as future water demand. Feasibility studies will be carried out this year and work is expected to start by April 2013 and construction will take 3 years. Estimated Cost of work is ₹265 crore.
- Chembur to Wadala to Parel (9.0 km long)- An 1800 mm dia Water main laid from Amar Mahal Chembur to Kings Circle is the only trunk main to supply water to F/South, F/North, 'B' and 'E' Wards. Raoli Reservoir, Golanji Hill Reservoir, Fosbery Reservoir and Bhandarwada Reservoir are located in these wards. MMRDA is developing large area in Wadala, which has water demand of about 60 mld. Moreover any maintenance work on 1800 mm main cuts off water supply to entire eastern part of island City. To meet the increased water demand and also to provide an alternative supply facility this tunnel has been proposed. Estimated cost of this tunnel is ₹460 crore Feasibility studies will be completed during this year. Construction work is expected to start by April 2013 and would take about 4 years to complete.

The review of the conveyance system of water supply indicates that construction of more tunnels will not be required in future.



**25.3 Replacement/Rehabilitation of Trunk Mains**

- Work of replacement of Tansa Mains, which are more than 80 years old, from Tansa to Gundavali costing ₹1432 crore is expected to be completed by May 2013. Provision of ₹300 crore is made in Budget Estimates for 2012-13
  - Tansa Mains in Mumbai are very old and frequently develop leaks and bursts disturbing water supply. These mains are on major roads and below foundations of flyovers and below ramps. All these mains need replacement which will eliminate leakages and prevent frequent disruption in water supply due to bursts. Works of replacing entire length (32 km.) of these mains will be taken up during 2012-13.
  - Bhandup to Maroshi trunk main replacement (8 km long); Provision of ₹ 5 crore is made in Budget Estimates for 2012-13
  - Mahim to Nana Chowk trunk main rehabilitation/ replacement (12 km long) ; Provision of ₹11 crore is made in Budget Estimates for 2012-13
  - Sion to Kala Chowky trunk main rehabilitation/ replacement (12 km long) Provision of ₹5 crore is made in Budget Estimates for 2012-13
- Feasibility studies are in progress and tenders will be invited by May 2012. Completion of all these works is targeted by May 2015. Estimated cost for these works is ₹176.00 crore.
- Rehabilitation of old Bhandarwada Inlet from Mahim to Reay Road (10 km. long and estimated to cost ₹73.50 crore) –

Feasibility Studies are being done departmentally and works will be carried out in phases identifying priority sections. Estimated period of completion is three years. Provision of ₹6 crore is made in Budget Estimates for 2012-13.

On completion of all these works, the water supply network will be strong enough to carry additional water available from new sources and also for 24 x 7 water supply system in Greater Mumbai.

**25.4 Rehabilitation /Replacement of Distribution mains**

Rehabilitation of 118 km. distribution mains and Laying of 39 km. new water mains will be carried out in 2012-13 for which provision of ₹218.91 crore is proposed.

**25.5 Reconstruction of Old Reservoirs/  
Construction of New Reservoirs**

Reconstruction of Worli and Bhandup Reservoirs and construction of new reservoir at Malad (Cost ₹125 crore) are in progress. Provision of ₹35.06 crore is made in Budget Estimates for 2012-13.

**25.6 Formation of DMZ and Water Audit and  
Management of water distribution**

District Metering Zones (DMZ) will be formed and Bulk flow meters will be provided to measure water supplied to each DMZ. DMZs for Eastern and Western suburbs have been formed. Fixing of Bulk Flow meters will be completed by June 2012. Flow readings will help in water audit and also enabling equitable distribution in water supply.

Identifying DMZs in the Island city will be completed by May 2012. Bulk Flow meters will be provided by November 2012.

A Leak Detection Survey and leak repair work through external agency has been proposed in each DMZ. This will be implemented in a phased manner starting from high leak prone DMZ from 2012-13. It will take three years to cover entire Mumbai.

Formation of District Metering Areas (DMAs) in each District Metering Zone, installation of Bulk Flow meters, pressure control valves and appropriate metering of all consumer meters in the DMA are the basic works to be undertaken for detailed water audit. It is proposed to undertake this work and decide DMAs in the Water Distribution System of entire Mumbai with the assistance of external Experts in this field. 'T' ward Mulund will be piloted along with parts of Bhandup, Vikhroli, Ghatkopar and Kurla for DMA formation in the year 2012-13. Rest of the area will be covered in 2013-15.

#### **25.7 Automated Meter Reading (AMR) facility Meters**

A project of providing AMR Meters on all the metered water connections was undertaken from 2009. The contractors have supplied 129775 meters with in the contract period. It was decided that AMR meters would not be fixed on the metered water connections in slums as these meters require good protection against damage, which was not possible in slum colonies. So far 66208 AMR Meters have been fixed on the connections and it is expected that balance AMR meters will be fixed on the connections by October 2012.

All consumer connections will be provided with functional water meters in the next two years. Fresh tenders for metering of remaining connections (metered as well as unmetered) will be finalized and work



orders issued by October 2012. Fixing meters on all the water connections is one of the bench marks to be achieved under JnNURM.

**25.8 24 x 7 water supply**

24x7 Water Supply System has been started in 'T' Ward Mulund except High level areas on Guru Govind Singh Road from January 2012 onwards. Flow control and pressure controls have been set with Field Operations. The Flow patterns, consumption patterns of connection holders, pressure management to meet local conditions are being studied. Results so far have shown that the 24x7 water supply system is functioning smoothly. Further steps of providing additional flow meters and water audit are being taken.

It is proposed to expand 24x7 water supply to Bhandup (East), Vikhroli (East), Pant Nagar Ghatkopar (East) areas from April 2012 when 3000 mm dia. water main being laid along Eastern Express Highway from Mulund to Kannamwar Nagar - Vikhroli will be commissioned.

**25.9 Release of water supply at Normative Demand**

I have observed that administrative decisions were taken from time to time to supply water to new developments at 90 lpcd and 45 lpcd (less than the normative demand of 135 lpcd) depending upon the area of development. I rescind all these administrative decisions and will supply water at normative demand to all the residential buildings from the coming financial year.

**25.10 Quality control in water supply**

Areas frequently receiving contaminated water supply were identified. Survey of water distribution mains in these areas was conducted.

Damaged consumer connections and leakages at 8102 locations have been repaired. 32 km. of distribution mains were rehabilitated and 36 km. were replaced.

Booster dose of chlorine is given at all the reservoirs to ensure good quality at source. High quality residual chlorine comparators are being procured to test the quality of water at reservoirs.

An average of 250 water samples is collected every day from various locations in the water distribution system and is tested at Municipal Laboratory at G/North office. The laboratory at G/North office is being upgraded to test 1000 water samples per day and laboratory at Bhandup Complex to test 250 water samples per day. NEERI has been appointed to advice on upgrading collection and testing of water samples and also on upgrading the laboratories. Both the laboratories will be upgraded in 2012-13.

This system will enable MCGM in early detection of contamination, thus leading to reduction in contamination of water supply.

#### **25.11 Removal of encroachments adjacent to trunk mains in Mumbai**

The Hon. High Court has directed that the encroachments with in 10 mts. of trunk mains supplying water in the city in a phased manner be removed. 15789 huts exist within 10 mts. of trunk mains in the city as per the report submitted to the Hon. High Court in 2009. First phase consisted of removal of 2090 huts. 2062 huts were demolished in G/North and S wards of which 798 eligible residential families and 42 commercial units have been rehabilitated. Second phase of removal of hutments will be taken up this year in N, T and M/West wards.

**25.12 Hydro Electricity Generation**

Feasibility studies have been completed for generation of Hydro Electricity at Middle Vaitarna Dam. A request has been sent to GoM for issue of LoP (Letter of Permission). DPR and Tender documents will be prepared on receipt of Lop from GoM.

**25.13 Security Measures at Dams and Water Treatment Plants**

To improve security measures at vital water supply installations, CCTV surveillance system has been installed at Vehar Dam and at Bhandup Treatment Plant at a cost of ₹6.07 crore, at Tansa Dam and Modak Sagar Dam at a cost of ₹6.33 crore. CCTV surveillance system is being installed at Pise Installations and at Panjarapur Treatment Plant at an estimated cost of ₹6.88 crore.

**26. SEWERAGE****26.1 Status of Sewerage System**

The oldest section of Mumbai Sewerage System was constructed 130 years ago and much of the original system remains in service today. As of today the sewerage system of Mumbai consists of 1500 km of sewerage network, 50 Pumping Stations, Seven Treatment Facilities with installed capacity of 5600mld and 54600 man holes, daily collecting about 1700 MLD of sewage. The sewage so collected is disposed off in sea through 3 marine outfalls at Colaba, Worli and Bandra, and through 3 lagoons at Versova, Ghatkopar and Bhandup in creek. At Malad the sewage is discharged in Malad Creek after preliminary treatment. MSDP-I completed in 2004 has resulted in enhanced sewage treatment, better service coverage and less overflow/ flooding and also relatively improved



sanitation facility in slums. The area covered under the sewerage network is about 62% of developable area which collects about 65% of the total sewage generated.

MSDP-II based on the master plan prepared in the year 2002 with project cost of 10,600 crore (at 2010 price) is proposed to be completed by 2025.

## **26.2 Sewage Collection and Conveyance System Improvement**

MCGM is committed to improve collection and conveyance of sewage from the present 65% to 80% by year 2015, as follows:

- 55.64 km of trunk and pipe sewers in unsewered areas was planned to be laid and upsized by open-cut method. 25 km of this work is completed. A provision of ₹174 crore including 30 km of earlier planned is kept in BE 2012-13 including the provision of microtunneling. Out of this, 12 km will get completed in 2012-13 and remaining 18.64 km length sewers are expected to be completed by 2015.
- Sewers across railways/highways/major nallas/rivers/locations where conventional open cut method is not possible are being laid by micro-tunneling. It was planned to lay 25.06 km sewers by microtunneling at the cost of ₹394.65 crore in the year 2007. Out of which, 12.48 km is completed. 30.17 km including the balance works of the past is proposed to be completed in 2012-13.
- The sewage generated in slum area and unsewered area goes through open drains and discharges to sea or creek as non-point sources. In the meantime it is proposed to divert dry weather flow from the nallas to

sewers in a phased manner at an estimated cost of ₹500 crore in a span of 3-4 years. I am proposing ₹10 crore for BE 2012-13.

- Condition assessment of 360 kms (₹25 crore) of non man entry sewers in City area is undertaken of which 176 kms (₹13 crore) is completed and remaining 184 kms will be completed in 2012-13. During 2012-14, it is proposed to survey 855 km length of non man entry sewer in suburbs at a cost of 58.00 crore, which will ensure that condition assessment of all non man entry sewers more than 35 years old is completed. ₹20 crore is proposed for the BE 2012-13 for condition assessment of non man entry sewers.

After the condition assessment, rehabilitation of deteriorated non man entry sewer lines is initiated. 14 kms of sewer line was rehabilitated by pipe bursting method in city area. 5.3 km of sewer lines have been upsized by pipe bursting method. Work for 10.43kms [5 km by pipe bursting and 5.43 km (₹22.5 crore) by CIPP] of rehabilitation will be completed in 2012-13. Tender will be invited for additional 15 km (estimated cost ₹24 crore) of rehabilitation by CIPP (cured in place pipe) and work will be completed in 2012-13. After condition assessment of 184 km of non man entry sewers in city area and 855 km in suburbs, work of rehabilitation of damaged sewers will be taken up in a phased manner.

- Man entry sewers in city area are of brick masonry in ovoid and circular shapes and were built prior to independence. Total length of such sewers is 45 km. Rehabilitation of 30kms of man entry sewers is completed by GRP lining so far in the city & suburb area. Under present contract rehabilitation of 5 km of man entry sewer is undertaken

at the cost of ₹22 crore. 2 km of rehabilitation work is completed. 5km of rehabilitation of man entry sewers in city area and 25km in suburbs will be initiated this year and will be completed by 2014-15, which will require 120 crore in all. I am proposing ₹27 crore for this in 2012-13 budget estimates.

- 13 km long and 1.8 to 3.5 m. dia. priority sewer from Don Bosco School and Goregaon Pumping station to junction of Link Road with Marve Road and further to Malad WwTF will be taken in hand this year. This work is costing ₹270 crore and is expected to be completed by 2016. This will provide relief to the areas from Goregaon to Dahisar. I am proposing ₹40 crore in the BE of 2012-13. Draft tenders will be ready by April 2012.
- Upgradation of existing 7 old pumping stations viz. (1) Afgan Church, (2) Nepean Sea Road, (3) Harvey Road, (4) Chinchpokli, (5) Brahman Wadi, (6) Vallabh Nagar, (7) Kannamwar Nagar, is proposed in the year 2012-13 for which ₹17.50 crore is proposed in BE 2012-13.

### **26.3 Improvements in Sewage Treatment Facilities**

Present MCGM treatment facilities; though meet SW II discharge standards with reference to Dissolved Oxygen (DO) and Bio-Chemical Oxygen Demand (BOD) at 1 km distance from sea-shore, fail to meet the faecal coliform levels of 100 colony forming units (100 cfu) per 100 ml (Present value is  $0.5 \times 10^4$  to  $1 \times 10^4$  cfu/100 ml). Therefore, MCGM has taken up the work of upgradation and enhancement of all its seven treatment facilities. This will help in achieving faecal coliform levels less than 100 cfu/100 ml.

MCGM meets the present MPCB standards of 100 milligrams per litre BOD and 100 milligrams per litre suspended solids (SS) at Versova,



Bhandup and Ghatkopar with biological treatment through lagoons. The existing facilities at Bhandup and Ghatkopar will also have to be remodeled to treat to 20 milligrams per litre BOD and 30 milligrams per litre suspended solids (SS) as insisted by MPCB by the year 2014 which will ensure 95 percentile compliance. This will substantially improve the quality of coastal water. The estimated cost of this work including upgradation of terminal pumping stations will be ₹924 crore and it is expected to be completed by year 2016. For Ghatkopar and Bhandup WWTF, the pre-qualification offers have already been invited. Versova lagoon has to be augmented by constructing one additional stream with aerators to take care of the additional sewage flows. Proposal for permission from Ministry of Environment & Forest (MoEF) is under process (NEERI is appointed for Disaster Management & Risk Assessment). Simultaneously, preparation of tender document has been taken up in hand and this work is expected to be completed by 2016 at an estimated cost of ₹128.79 crore.

Pre-treated sewage let out through Marine, Outfalls at the treatment facilities at Colaba, Worli and Bandra meets SW II standards of 3mg/l of BOD and more than 4 mg/l of DO at 1 km distance from sea-shore. However, MPCB has issued directions to treat the sewage to 50 mg/l BOD & 50 mg/l SS standard onshore for the discharge from Worli and Bandra Marine Outfalls. This will improve quality of coastal water. Land constraints at Bandra and Worli envisage Chemically Enhanced Primary Treatment (CEPT) and stacked secondary treatment to meet revised MPCB standards. This will delay achieving the desired standard to year 2017, instead of year 2014. Regarding Colaba WWTF, pre-qualification is over and Request for Proposal (RFP) is under process. It is expected to complete this WWTF by 2015, complying with MPCB standards of 20/30 mg/l of BOD/SS onshore and disposal of secondary treated effluent through marine outfall.

Malad WWTF is proposed to be completed by year 2017 at an estimated cost of ₹700 crore. MPCB has insisted to achieve 50/50 mg/l of BOD/SS onshore by 2014. Discharge from Versova lagoons and secondary treated effluent from Malad WWTF will be conveyed by stub tunnel to Bhati common point and further to the sea through Erangal outfall (4.5km.long, 3.5meter dia at 60mt.depth).

Therefore, MCGM will be in a position to meet revised MPCB standards earliest by 2017. The estimated cost of upgrading and enhancing treatment and discharge facilities will be ₹2647crore.

#### **26.4 Recycle & Reuse of water**

Due to improved level of treatment the quality of sewage would be such that the same can be recycled / reused. Re-cycling will be attempted on Design, Build, Own, Operate & Transfer (DBOOT) basis gradually as WwTFs come up with improved quality of discharged effluent. MCGM would make efforts to find buyers for the same except drinking thereby, reducing demand of potable water.

#### **26.5 Slum Sanitation Programme (SSP)**

The slum population of Mumbai as of 2011 is about 65lakh, out of which about 45lakh is served by Community Toilets. However, 20lakhs slum population is under served by toilets and resort to open defecation. The Slum Sanitation Programme introduced by MCGM plans to cover the entire slum population including those located on Government and Private lands such as MbPT, Airport, Salt Commissioner, Railways, and Forest etc. Efforts are being made to get NOCs from these authorities for construction of Community Toilets, but response from these authorities is not encouraging. SSP is a demand based programme that works on the principle of community involvement for planning, designing, operation and maintenance of community toilets.

MCGM has spent ₹131crore so far on construction of Community Toilets with community participation / Operation & Maintenance by Community Based Organizations (C.B.Os). Further it is planned to construct 8400 toilet seats at a cost of ₹140crore in the year 2012-14. It is expected that ₹360 crore will be required for construction of Community Toilets to cover the under-served slum population, as per a comprehensive demand assessment survey conducted last year. In the year 2011-12, 51 Toilet Blocks under SSP consisting of 1398 seats have been commissioned.

#### **26.6 GIS Mapping of Water Supply and Sewerage Utilities**

The water supply and sewerage network maps are based on maps of Development Plans. These maps are manually traced and have errors in scale and alignment. Geographical Information System (GIS) based maps based on aerial photographs having very large resolution have already been developed for the Storm Water Drainage System. Work of incorporating water supply system and the sewerage system on these GIS based maps will be undertaken this year. This will facilitate simulation of current scenario, design and identifying future needs, burst analysis and leak analysis, water audit and NRW computations. Survey of underground utilities will be carried out by appointing an external agency for incorporating the data on the GIS maps.

An in-house team with adequate training will be established to regularly update the GIS maps.

#### **27. FINANCIAL PROJECTIONS FOR WSSD**

The financial requirements for new water supply, sewerage and sanitation projects along with works related to rehabilitation, replacement



and strengthening of water supply and sewerage network have been estimated for the next 14 years i.e upto 2025-26. Capital expenditure is estimated to be ₹42580 crore (Table-A). This includes the cost estimates for proposed Water Supply projects and MSDP Projects amounting to ₹22080 crore.

**Table A: Projects under Water Supply and Sewerage**

Sr. No.	Project	Capacity MLD per day	Cost of Project/ expenditure (₹ in crore)
1.	Pinjal Project	865	8195.00
2.	Damanganga-Pinjal joint river project	1586	3285.00
3.	Mumbai Sewage Disposal Project Part-II (Priority Works, Component-I)		5250.00
4.	Mumbai Sewage Disposal Project Part-II (Priority Works, Component-II,III & IV)		5350.00
	<b>TOTAL (A):</b>		<b>22080.00</b>
	<b>Cost of ongoing Projects (B):</b>		<b>3244.53</b>
	<b>Other capital works to be carried out from internal accruals. C):</b>		<b>17255.54</b>
	<b>Total (A+B+C):</b>		<b>42,580.07</b>

I have prepared the fund flow statement upto the year 2025-26, which reflects a deficit of about 26,050crore despite taking into account a grant of ₹ 11040 crore (50% of the total project cost) for Water supply and MSDP Projects from GoI and GoM assuming continuation of JnNURM beyond 2012.

70% of MCGM's share of ₹11040 crore (50% balance cost of projects) i.e. ₹7728 crore will be met by raising loans from local or international financial institutions. Assuming interest rate at 10% per annum and moratorium of 5 years, interest works out to ₹4263 crore and is capitalized and treated as loan. The total loan including capitalized interest

is ₹11991 crore. Despite of considering Grant, loan and development charges of ₹2431 crore, there is a deficit of ₹26047 crore.

Considering the above facts about requirement of funds for ongoing as well as future projects to be undertaken and consequent deficit, I have come to the conclusion that the present rates of charges for water supply and sewerage services need immediate revision. Further, while approaching to financial institutions for loan on new projects, MCGM has to ensure adequate internal financial resources to meet part of capital investments, increasing operation & maintenance expenses and repayment of future loan and interest thereon. I wish to mention here that expenditure on establishment, administration, operation & maintenance, power and bulk water supply has increased by an average of 8% per annum. The cost of production of water and expenditure on account of sewerage disposal is also increasing incrementally. The tariff for water supply and sewerage services has not been revised since 2002 except for introducing telescopic rates in only one category of Societies & Buildings in 2008.

The rates for the domestic consumers were uniform, irrespective of category of domestic consumers, from 1974 to 1997. However, domestic consumers were bifurcated into three categories based on Gaothan, Koliwada, Chawls and Co-op. societies from 1997 to 200. It was again clubbed in two categories i.e. slum and societies & buildings as mentioned above from 01.04.2000.

Though, the societies and buildings are charged at ₹3.50 per 1000 litres, considering the incidence due to telescopic rates, effective rate works out to ₹5.35 per 1000 litres. Therefore, rates applicable to societies & buildings are proposed to be revised from ₹3.50 to ₹4.00 per 1000 litres which works out to an effective rate of ₹6.11 per 1000 litres. The rates

applicable to slums etc. are proposed to be revised from ₹2.25 to ₹3.50 per 1000 litres. Though MCGM is providing same quality water to both the consumers, the slum dwellers will continue to be charged less by ₹2.61 per 1000 litres as compared to proposed effective rate of other domestic consumers. In order to reduce the overall deficit to some extent, it is proposed to increase the rates for non-domestic consumers as mentioned Table-1.

**Table - 1: Proposed Tariff Structure and increase in revenue:**

Water Charges Rule No.	Description	Existing Rate per KL (₹)	Existing Revenue (₹ in crore)	Proposed Rate per KL (₹)	Revenue at Proposed Rates (₹ in crore)	Increase in Revenue (₹ in crore)
1.01 & 1.01A	<u>Domestic</u> i) Slum	2.25	103.36	3.50	160.78	57.42
1.1	ii) Societies & Buildings	3.50	376.14	4.00	429.88	53.74
1.2	<u>Non-Domestic</u> i) Non-Trading Institutions	10.50	22.86	16.00	34.84	11.98
1.4	ii) Commercial Institutions	18.00	34.05	30.00	56.75	22.70
1.5	iii) Industrial & Commercial	25.00	259.15	40.00	414.64	155.49
1.6	iv) Racecourse & Hotels 3 & above stars	38.00	20.85	60.00	32.92	12.07
	<b>Total :</b>		<b>816.41</b>		<b>1129.81</b>	<b>313.40</b>

I also propose to revise the rates of water charges proportionately every year to the extent of increase in consolidated expenditure on establishment, administration, operation & maintenance, power supply & bulk water supply on actual basis but not exceeding 8% per year and also propose to charge and recover sewerage charges proportionate to the revised water charges as per prevailing rules and request Standing



Committee to give approval for the same. If the rates of water charges are required to be revised beyond 8% as stated above, a separate proposal will be submitted to the Standing Committee.

I have separately submitted a proposal for revision of present water and sewerage charges with the Budget Estimates for 2012-13 for approval of the Standing Committee. I request the Standing Committee to consider and approve the proposal of revision of water and sewerage charges.

**27.1 Size of Budget Estimates 2012-13 – G (Fund code 40)**

The revenue and capital receipts proposed for the BE 2012-13 is ₹6284.23 crore, while revenue and capital expenditure proposed is ₹6283.43 crore.

**27.2 Balancing of Budget:**

The position of the Revised Estimates for the year 2011-12 is initially resulted into deficit budget as there was net shortfall of ₹410.20 crore which is met by raising internal loan against Depreciation Fund. Similarly, the position of the Budget Estimates for the year 2012-13 is initially resulting into the deficit budget as there is a shortfall of ₹1751.22 crore even after anticipating the additional revenue on account of revision of tariff structure. This anticipated deficit is balanced by tapping reserves like Depreciation Fund, Accumulated Surplus and Asset Replacement Fund. Accordingly, the Budget Estimates for the year 2012-13 is balanced with a small surplus of ₹0.80 crore.

**BUDGET ESTIMATES A, B & G 2012-13**

Comparison of Income & Expenditure of Budget Estimates of 2012-13 with Budget Estimates for 2011-12 is given below in Table -2 :

**Table: - 2:**

(₹ in crore)

Particulars	B.E.2011-12	R.E.2011-12	B.E.2012-13
<b><u>Sources</u></b>			
Anticipated Revenue	3868.28	3931.59	4446.10
Government Grant	260.38	354.55	0.00
Development Charges	58.38	86.66	86.91
Withdrawal from Reserves	1739.32	410.20	1751.22
<b>Total Sources (A)</b>	<b>5926.36</b>	<b>4783.00</b>	<b>6284.23</b>
<b><u>Applications</u></b>			
Revenue Expenditure	2564.60	2374.77	2924.83
Capital Expenditure	3361.15	2407.91	3358.60
<b>Total Applications(B)</b>	<b>5925.75</b>	<b>4782.68</b>	<b>6283.43</b>
<b>Surplus/Deficit (A-B)</b>	<b>0.61</b>	<b>0.32</b>	<b>0.80</b>

It will be seen from the above table that, the income in 2012-13 has increased by ₹577.82 crore due to combined effect of proposed tariff revision from July 2012 amounting to ₹293.93 crore, additional water supply from Middle Vaitarna, increase in Benefit Taxes by ₹150.03 crore (due to increase in rateable value) and increase in other revenue by ₹133.86 crore on account of interest, additional water charges and water/sewerage charges levied on contract works.

The Budget Estimates of ₹5925.75 crore for the year 2011-12 are revised to ₹4782.68 crore.

**BUDGET ESTIMATES A, B & G 2012-13**

I would like to emphasize that revision in water and sewerage charges is inevitable to meet the cost of the projects planned and complete them by 2025-26. These projects have been planned to provide for 100% coverage in water supply & sewerage facilities to the Citizens of Mumbai.

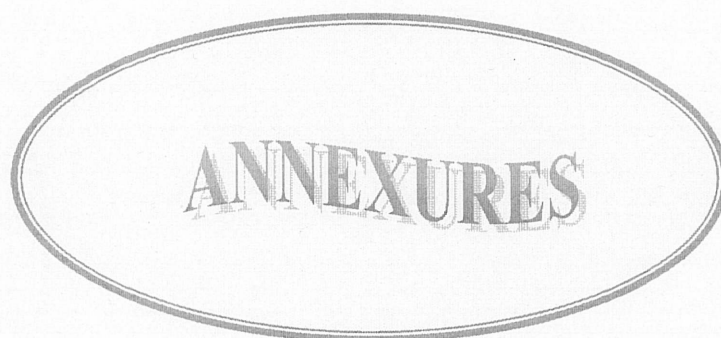
28. Looking forward to your wholehearted participation and cooperation, I present for consideration and approval of the Standing Committee the Budget Estimates for a surplus Revenue and Capital Budget 'A' (Fund Code - 11, 12, 60, 70), a balanced Budget 'B' (Fund Code - 21, 22, 23) and surplus Budget 'G' (Fund Code - 40) for the year 2012-13.

Thank you,

**Mumbai**  
**Date :20<sup>th</sup> March, 2012**

**Subodh Kumar**  
**Municipal Commissioner**





**ANNEXURE - I  
Revenue Income - Budget Estimates 'A', 'B', 'E',  
'G' & Tree Authority**

		(₹ in crores)
Sr. No.	Sources of Revenue Income	Budget Estimates 2012-13
1.	Octroi (Net)	6900.00
2.	Property Tax	4313.34
3.	Water & Sewerage Charges	1121.00
4.	Receipts from Development Plan Department	3435.49
5.	Grant-in-Aid from Government	304.04
6.	Income from investments	1533.75
7.	Supervision Charges	509.49
8.	Solid Waste Management	99.99
9.	Receipts from Roads & Bridges	116.98
10.	Receipts from License Department	143.82
11.	Receipts from Hospitals & Medical Colleges	110.44
12.	Receipts from Markets & Deonar Abattoir	70.44
13.	Other Receipts	1022.17
	<b>Total</b>	<b>19680.95</b>

**ANNEXURE – II**  
**Revenue Expenditure - Budget Estimates 'A', 'B', 'E',**  
**'G' & Tree Authority.**

(₹ in crores)

Sr. No.	Items of Revenue Expenditure	Budget Estimates 2012-13
1.	Establishment Expenses	9281.00
2.	Administrative Expenses	740.64
3.	Operation and Maintenance	2749.02
4.	Interest and Finance Charges	97.43
5.	Programme Expenses	107.35
6.	Revenue Grants, Contributions and Subsidies	3451.03
7.	Provisions and write-off	363.13
8.	Transfer to Reserve Fund	...
	Other	112.74
9.	Refund of taxes	212.00
	<b>Total Revenue Expenditure</b>	17114.34
	Transfer to Capital Account	2533.77
	<b>Total</b>	<b>19648.11</b>



**ANNEXURE – III  
Budget Estimates A, B, E, G, & Tree Authority  
Department-wise Summary**

(₹ in crores)

Deptt. Code	Department	Budget Estimates 2012-13		Total
		Revenue Expenditure	Capital Expenditure	
18	Information Technology Department	83.72	130.77	214.49
21	Disaster Management Cell	9.76	12.23	21.99
24	Assessor & Collector Department	491.06	171.52	662.58
30	Education Department	1412.45	323.25	1735.70
31	Solid Waste Management Deptt.	1445.27	232.63	1677.90
32	Transport Department	369.84	75.78	445.62
33	Storm Water Drains Department	300.53	1325.47	1626.00
34	Mechanical & Electrical Deptt.	60.77	53.26	114.03
35	City Engineer's Department	358.21	211.59	569.80
37	Development Plan Department	37.44	531.82	569.26
38	Fire Brigade Department	142.12	126.49	268.61
41	Garden Department	166.71	151.86	318.57
42	Market Department	64.24	36.93	101.17
43	Deonar Abattoir Department	29.01	18.99	48.00
44	Roads & Traffic Department	575.46	1485.47	2060.93
45	Bridges Department	6.19	327.00	333.19
46	Printing Press Department	40.83	7.50	48.33
47	Health Department	523.08	151.92	675.00
	Major Hospitals	547.59	134.78	682.37
	Medical Colleges	198.23	24.79	223.02
	Specialised Hospitals	101.05	22.25	123.30
	Peripheral Hospitals	310.42	279.88	590.30
49	Water Operation Department	1332.01	688.70	2020.71
50	Water Supply Project Department	31.12	1790.57	1821.69
51	Sewerage Operation Department	684.23	282.83	967.06
52	Sewerage Project Department	25.59	174.21	199.80
53	Mumbai Sewerage Disposal Project	14.71	394.63	409.34
	Other Department	7752.70	192.64	7945.34
	<b>Total</b>	<b>17114.34</b>	<b>9359.76</b>	<b>26474.10</b>
	Contribution to Capital Account	2533.77	..	
	<b>Total</b>	<b>19648.11</b>	<b>..</b>	

**ANNEXURE – IV**

**Capital Accounts –Budget Estimates A, B, E, G & Tree Authority**

(₹ in crores)

<b>Sr. No.</b>	<b>Particulars</b>	<b>Budget Estimates 2012-13</b>
	<b>CAPITAL RECEIPTS</b>	
1.	Loan	2557.00
2.	Grants	212.00
3.	Contribution from Development Fund	347.63
4.	Sale proceeds/ premium of land and building	150.17
5.	Accumulated Surplus	690.00
6.	Withdrawal from Special Fund :	
	Assets Replacement Fund	1400.00
	Land Acquisition and Development Fund	450.00
	Primary School Building Maintenance Fund	102.75
	Primary School Building Construction Fund	0.50
	Asset Replacement & Rehabilitation Fund	504.22
	Total - 6	<b>2457.47</b>
7.	Other Receipts	485.80
	Total – 1 to 7	<b>6900.07</b>
8.	Contribution from Revenue Account	2533.77
	Total -Capital Receipts	<b>9433.84</b>
9.	Capital Expenditure	9359.76
	Surplus during the year	74.08

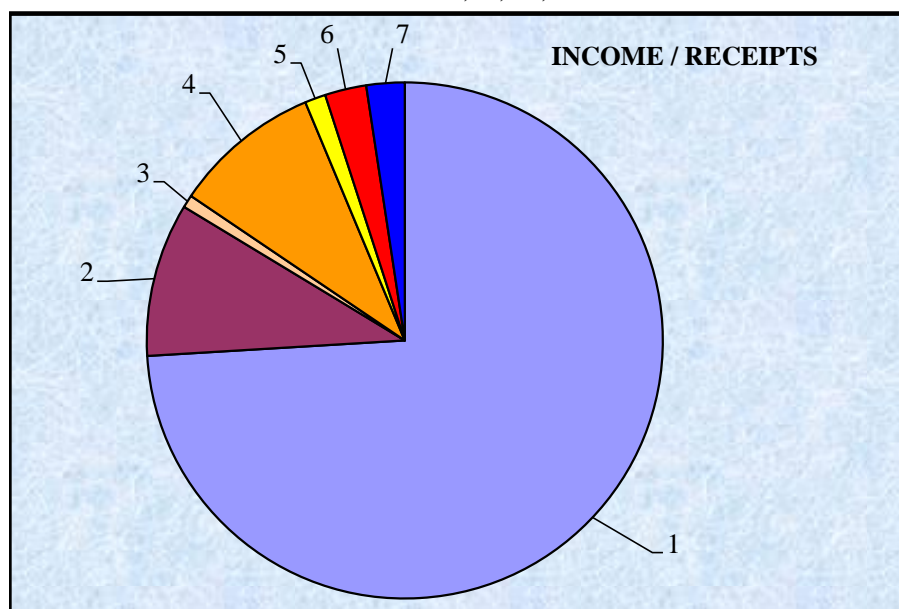
# Graphical Information



**OVERALL FINANCIAL POSITION  
BUDGET ESTIMATES  
A,B,E,G & TREE AUTHORITY**

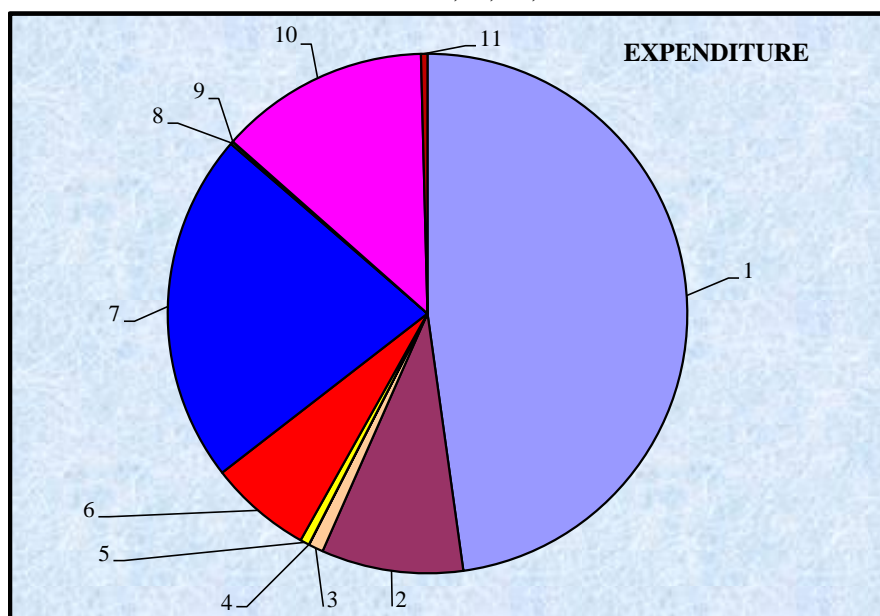
**(FUND CODE-11,12,21,22,23,30,40,50,60&70)**

**SIZE OF BUDGET ESTIMATES 'A','B', 'E', 'G' AND TREE AUTHORITY**



Sr.No.	Sources of Income/Receipts	Budget Estimates 2012-2013 (Rs.in crore)	Share in Rupee
1	Revenue Income	19680.95	74
2	Loan	2557.00	10
3	Grants	212.00	1
4	Withdrawal from special fund	2457.47	9
5	Contribution from Development Fund	347.63	1
6	Contribution from Accumulated Surplus	690.00	3
7	Other Receipts	635.97	2
	Total	26581.02	100

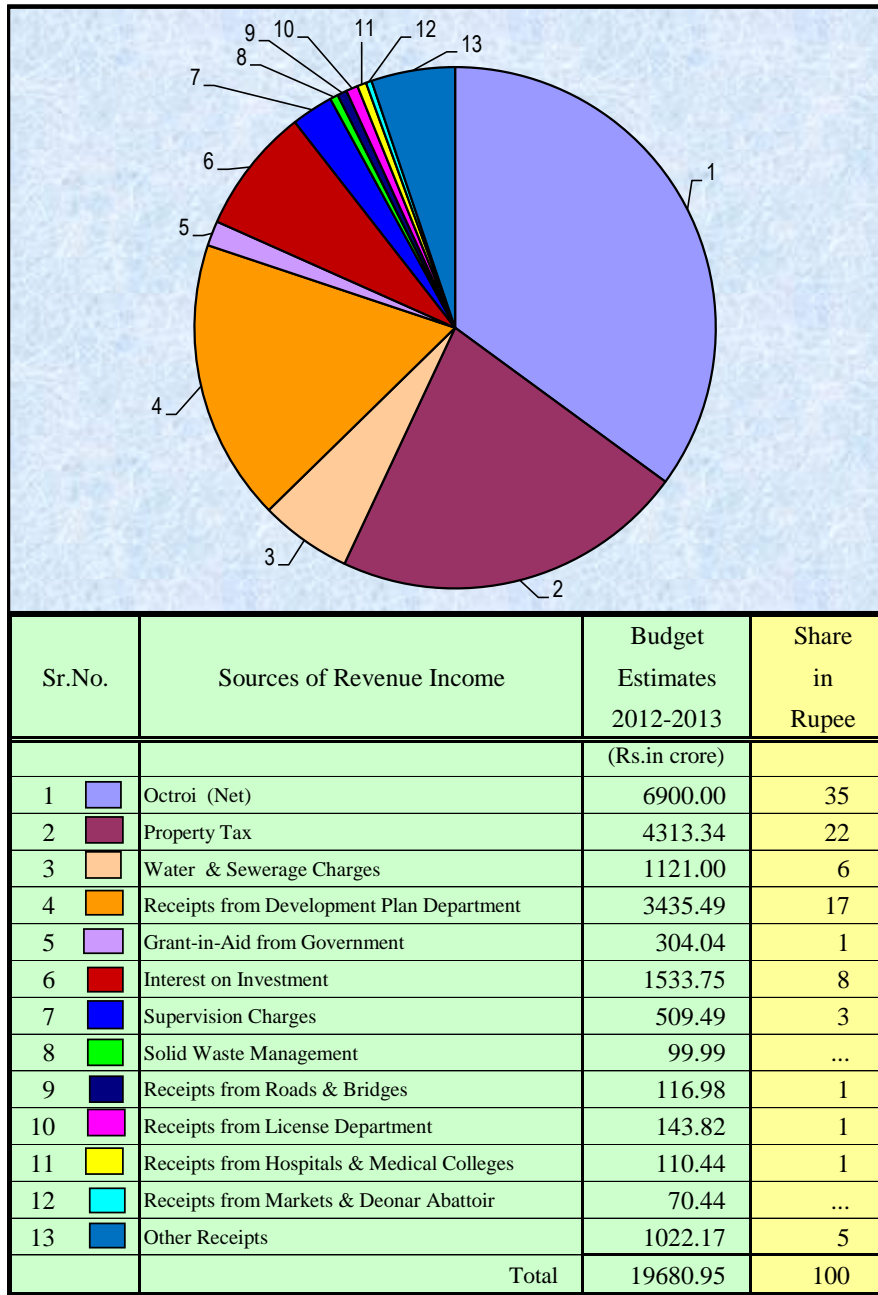
**SIZE OF BUDGET ESTIMATES 'A','B', 'E', 'G' AND TREE AUTHORITY**



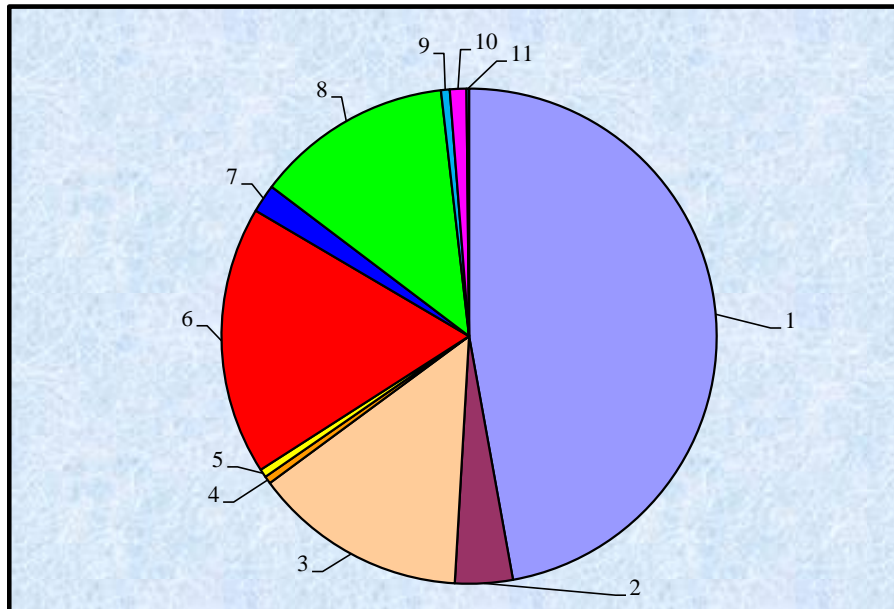
Sr. No.	Items of Expenditure	Budget Estimates 2012-2013	Share in Rupee
		(Rs.in crore)	
1	General Budget	12704.23	48
2	Health Budget	2345.68	9
3	Improvement Schemes	243.15	1
4	Slum Clearance	4.76	...
5	Slum Improvement	151.26	1
6	Education Fund	1697.85	6
7	Water Supply & Sewerage Disposal	5801.23	22
8	Tree Authority	41.28	...
9	Provident Fund	7.48	...
10	Pension Fund	3477.18	13
11	Excess of Income over expenditure	106.92	...
	Total	26581.02	100



**REVENUE INCOME-BUDGET ESTIMATES 'A','B', 'E','G' AND TREE AUTHORITY**

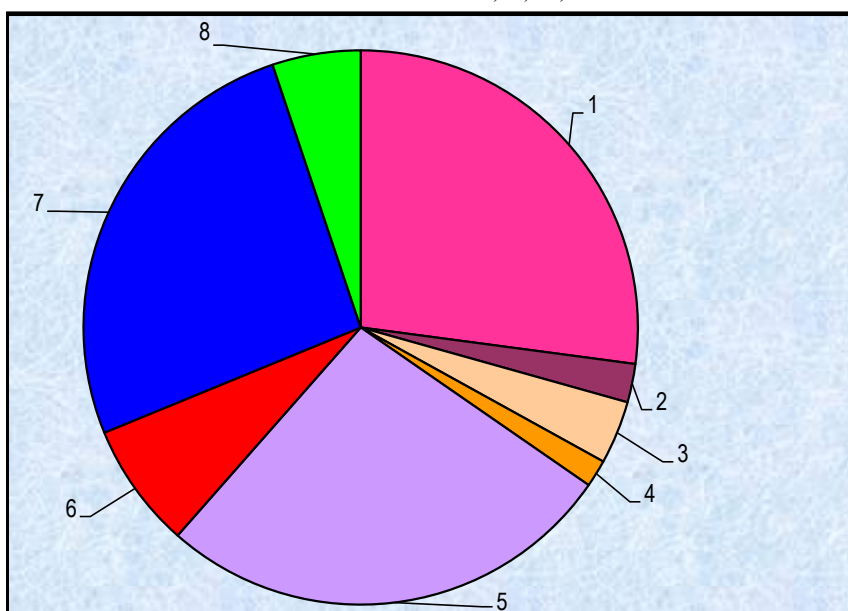


REVENUE EXPENDITURE -BUDGET ESTIMATES 'A','B', 'E', 'G' AND TREE AUTHORITY



Sr. No.	Items of Revenue Expenditure	Budget Estimates 2012-2013	Share in Rupee
		(Rs.in crore)	
1	Establishment Expenses	9281.00	47
2	Administrative Expenses	740.64	4
3	Operation & Maintenance	2749.02	14
4	Interest and Finance Charges	97.43	...
5	Programme Expenses	107.35	1
6	Revenue Grants, Contributions and Subsidies	3451.03	17
7	Provisions and Write-off	363.13	2
8	Transferred to Capital A/c	2533.77	13
9	Other Expenses	112.74	1
10	Refund of Property Taxes	212.00	1
11	Excess of Income over expenditure	32.84	...
	Total	19680.95	100

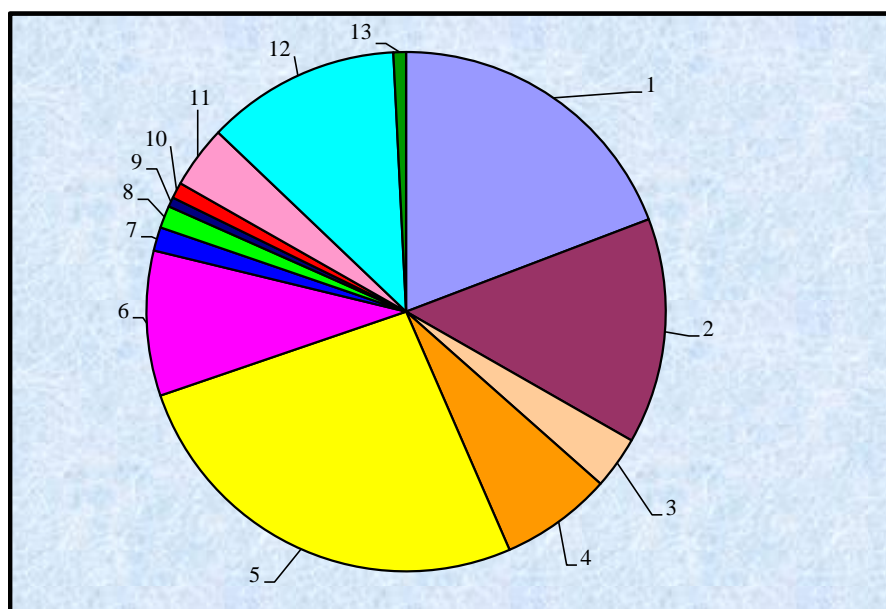
**CAPITAL RECEIPTS -BUDGET ESTIMATES 'A','B', 'E', 'G' AND TREE AUTHORITY**



Sr.No.	Sources of Capital Receipts	Budget Estimates 2012-2013 (Rs.in crore)	Share in Rupee
1	Loan	2557.00	27
2	Grants	212.00	2
3	Contribution from development Fund	347.63	4
4	Receipts from Premium of land and buildings	150.17	2
5	Contribution from Revenue A/c	2533.77	27
6	Accumulated Surplus	690.00	7
7	Withdrawal from special fund	2457.47	26
8	Other receipts	485.80	5
	<b>Total</b>	<b>9433.84</b>	<b>100</b>



**CAPITAL EXPENDITURE -BUDGET ESTIMATES 'A','B', 'E', 'G' AND TREE AUTHORITY**

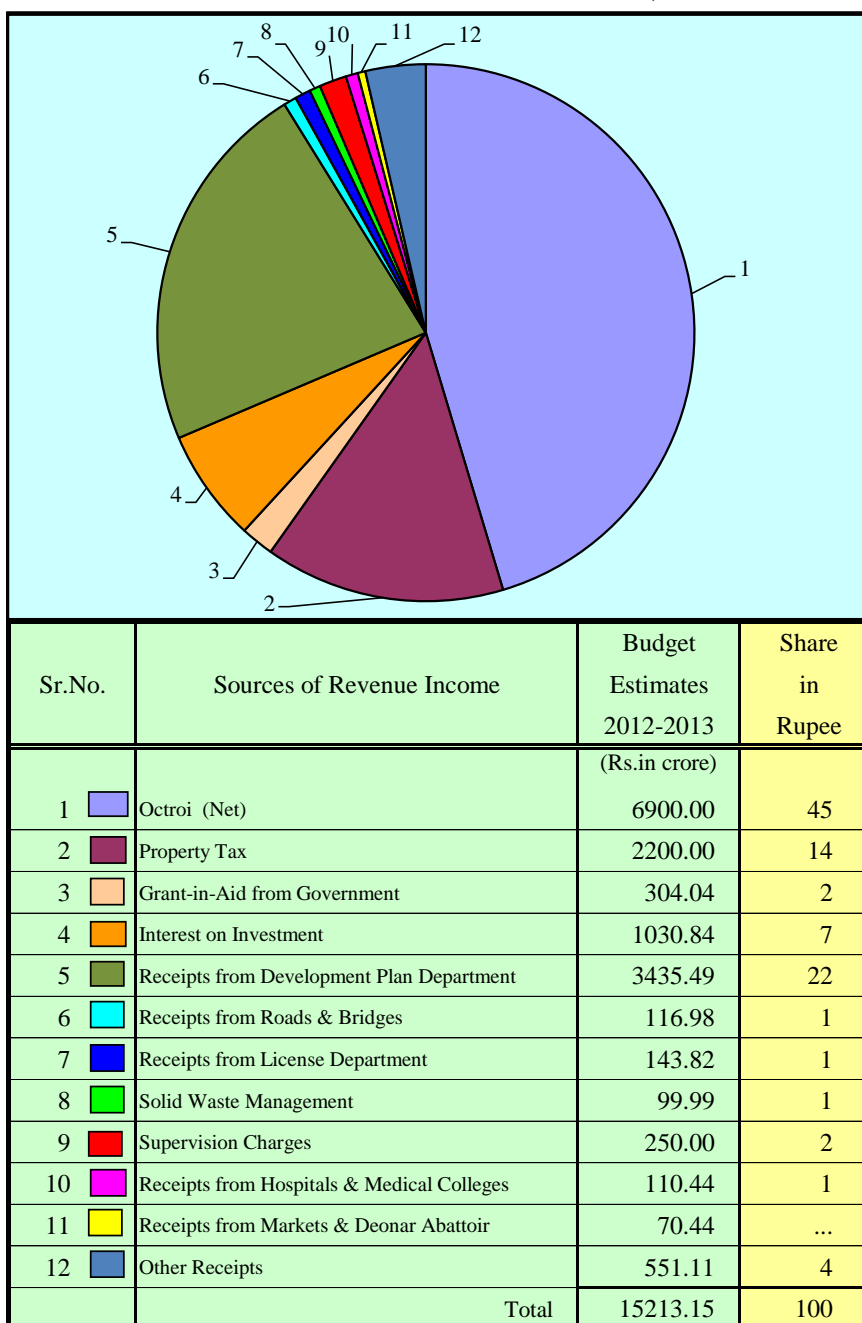


Sr. No.	Items of Capital Expenditure	Budget Estimates 2012-2013 (Rs.in crore)	Share in Rupee
1	Traffic Operations, Roads & Bridges	1812.47	19
2	Storm Water Drains	1325.47	14
3	Solid Waste Management & Transport	308.41	3
4	Health Budget	655.45	7
5	Water Supply	2479.27	26
6	Sewage Disposal	851.67	9
7	Fire Brigade & Disaster Management	138.72	2
8	Information Technology	130.77	1
9	Market & Deonar Abattoir	55.92	1
10	Repairs to Mun.Properties & Slum Improvement (Budget-B)	93.60	1
11	Repairs to Primary School Buildings (Budget E)	367.01	4
12	Others	1141.00	12
13	Excess of Income over Expenditure	74.08	1
	<b>Total</b>	<b>9433.84</b>	<b>100</b>

**FINANCIAL POSITION  
BUDGET ESTIMATES  
A, B & E**

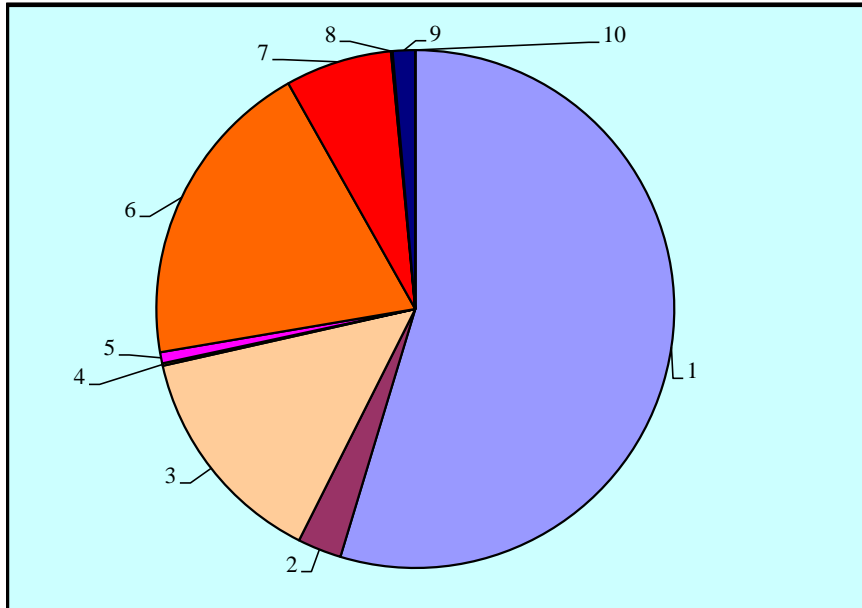
**(FUND CODE-11,12,21,22,23,30,60& 70)**

**REVENUE INCOME-BUDGET ESTIMATES 'A','B' & 'E'**



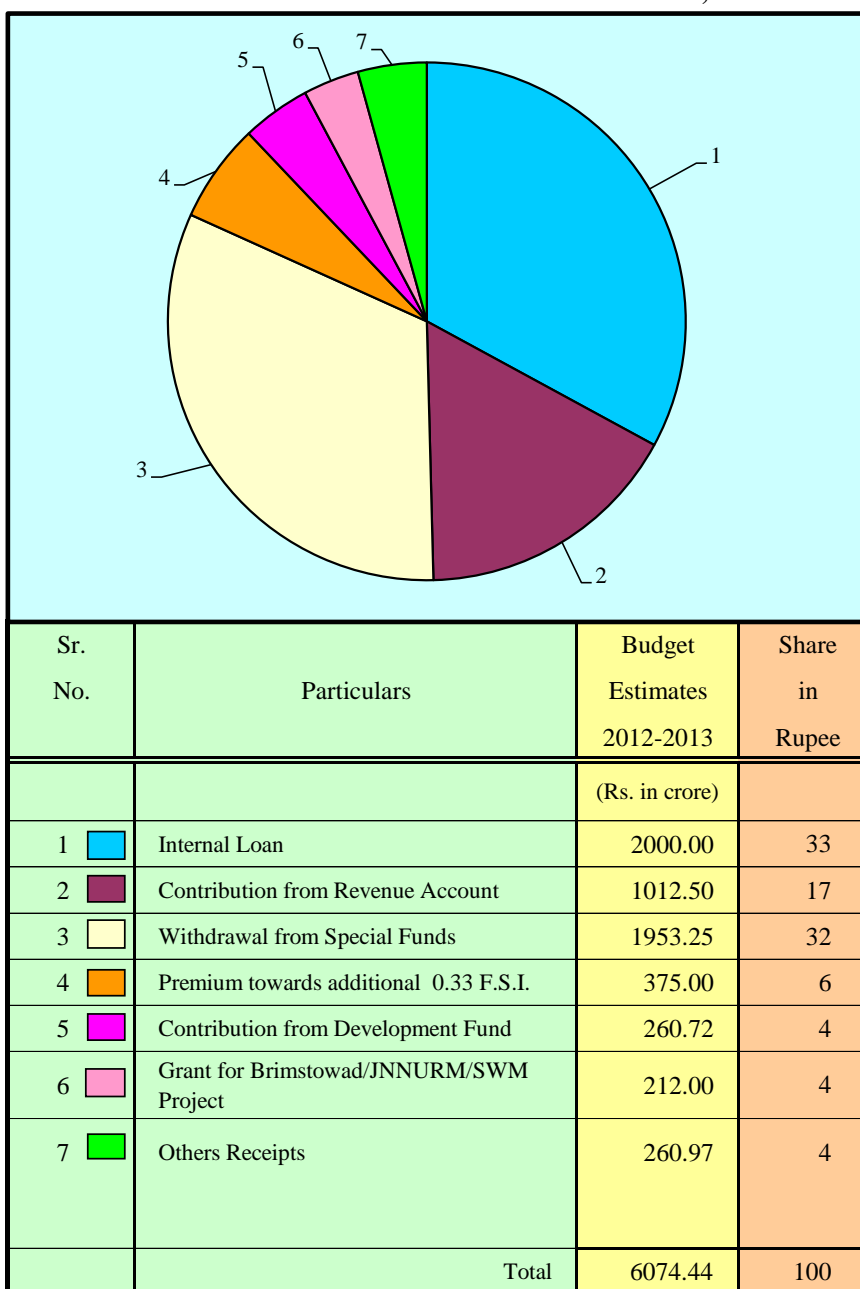


**REVENUE EXPENDITURE-BUDGET ESTIMATES 'A','B' & 'E'**

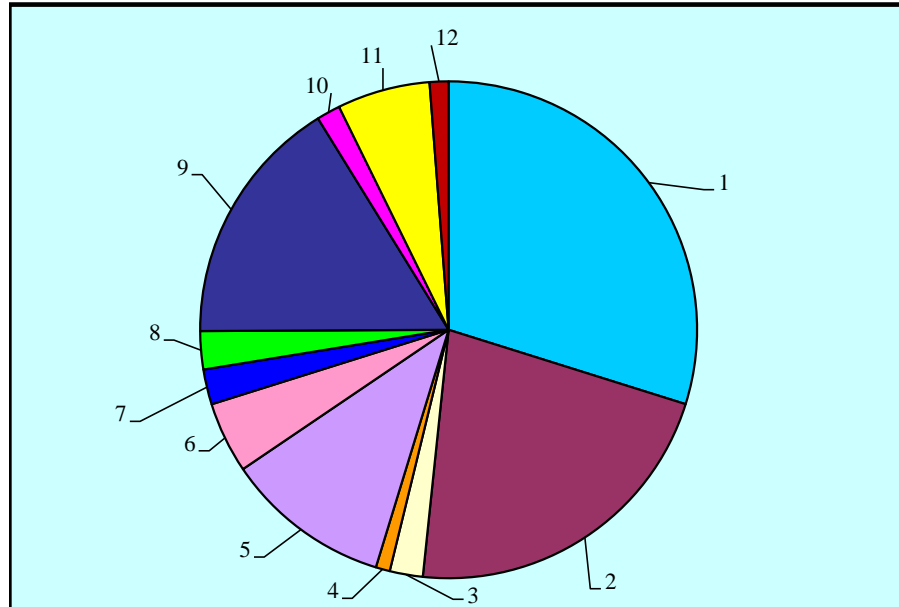


Sr. No.	Items of Revenue Expenditure	Budget Estimates 2012-2013	Share in Rupee
		(Rs.in crore)	
1	Establishment Expenses	8317.16	55
2	Administrative Expenses	416.96	3
3	Operation & Maintenance	2139.82	14
4	Interest and Finance Charges	23.18	...
5	Programme Expenses	105.86	1
6	Revenue Grants, Contributions and Subsidies	2969.09	19
7	Transfer to Capital A/c	1012.50	7
8	Other Expenses	15.60	...
9	Refund of Property Taxes	212.00	1
10	Excess of Income over Expenditure	0.98	...
	Total	15213.15	100

**CAPITAL RECEIPTS - BUDGET ESTIMATES 'A','B' & 'E'**

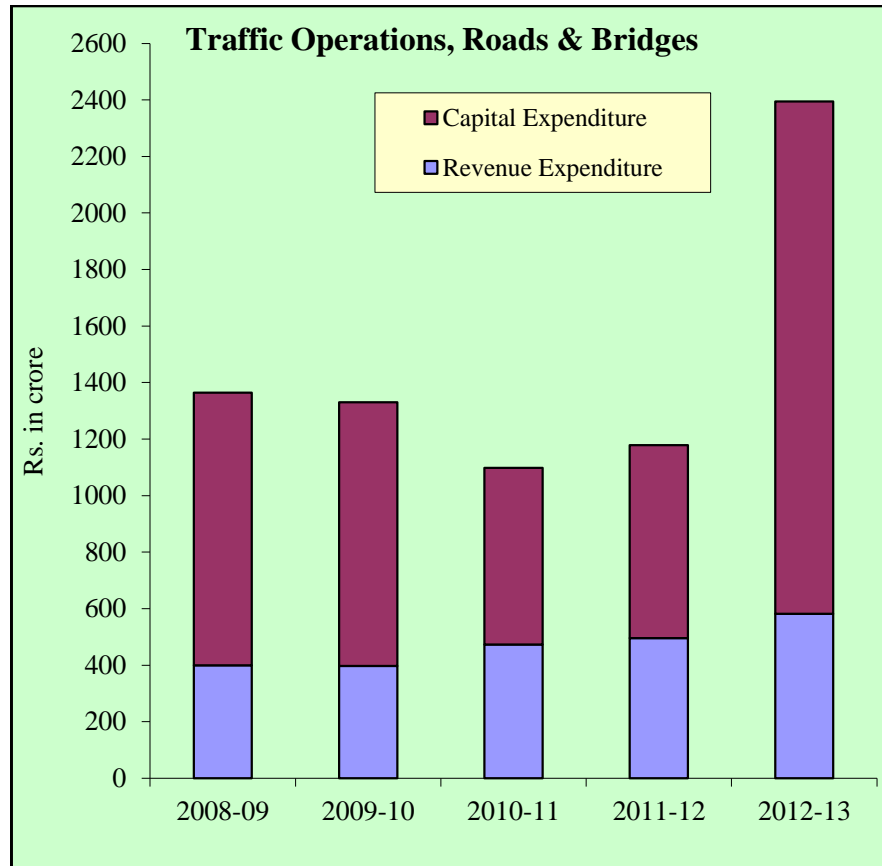


**CAPITAL EXPENDITURE - BUDGET ESTIMATES 'A', 'B' & 'E'**

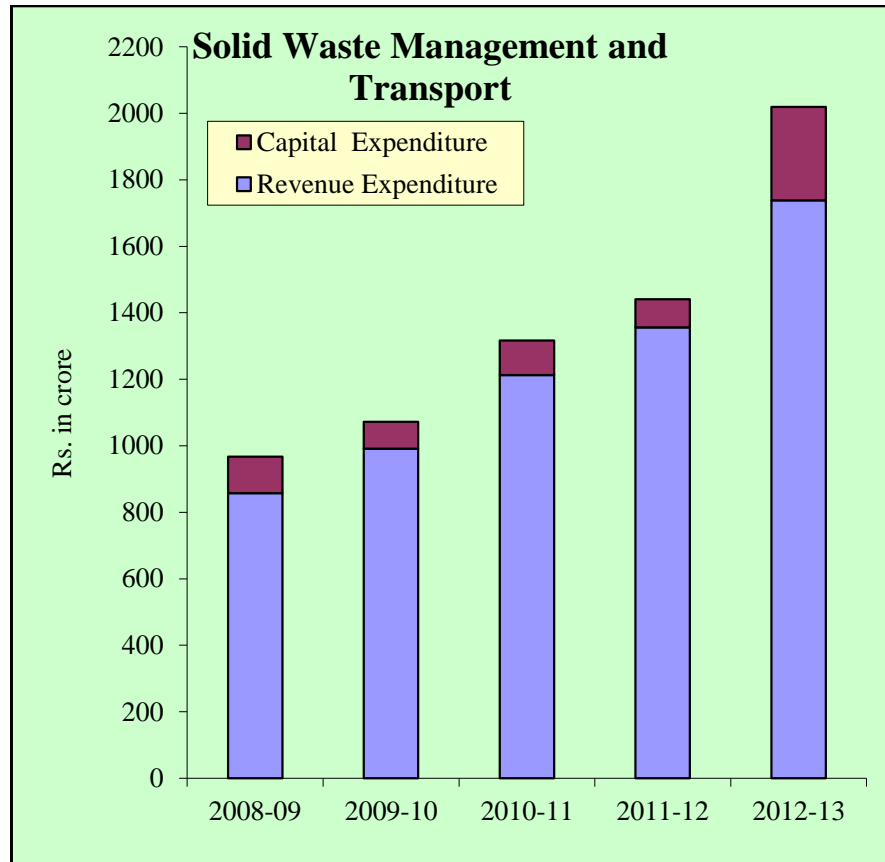


Sr. No.	Particulars	Budget Estimates 2012-2013	Share in Rupee
		(Rs.in crore)	
1	Traffic Operations, Roads & Bridges	1812.47	30
2	Storm Water Drains	1325.47	22
3	Information Technology Department	130.77	2
4	Markets & Deonar Abattoir	55.92	1
5	Health Budget	655.45	11
6	S.W.M.and Transport	281.30	5
7	Fire Brigade Services & Disaster Management	138.72	2
8	Gardens,Zoo,Swimming Pools & Theatres	150.70	2
9	Others (Budget A )	988.59	16
10	Repairs to Municipal properties & Slum Improvement (Budget B )	93.60	2
11	Repairs to Primary School Buildings (Budget E )	367.01	6
12	Excess of Income over Expenditure	74.44	1
	Total	6074.44	100



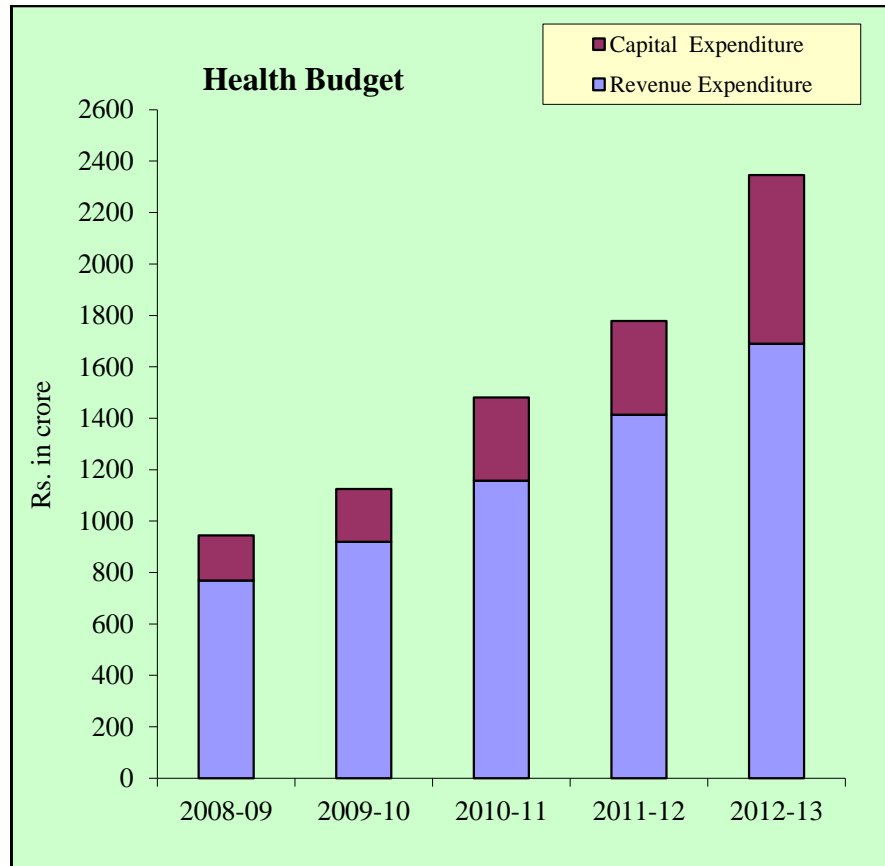


(Rs.in crore)					
Particulars	Actuals			R.E.	B.E.
	2008-09	2009-10	2010-11	2011-12	2012-13
Revenue Expenditure	399.12	397.49	472.84	495.79	581.65
Capital Expenditure	965.51	932.90	625.65	682.35	1812.47
<b>Total</b>	<b>1364.63</b>	<b>1330.39</b>	<b>1098.49</b>	<b>1178.14</b>	<b>2394.12</b>



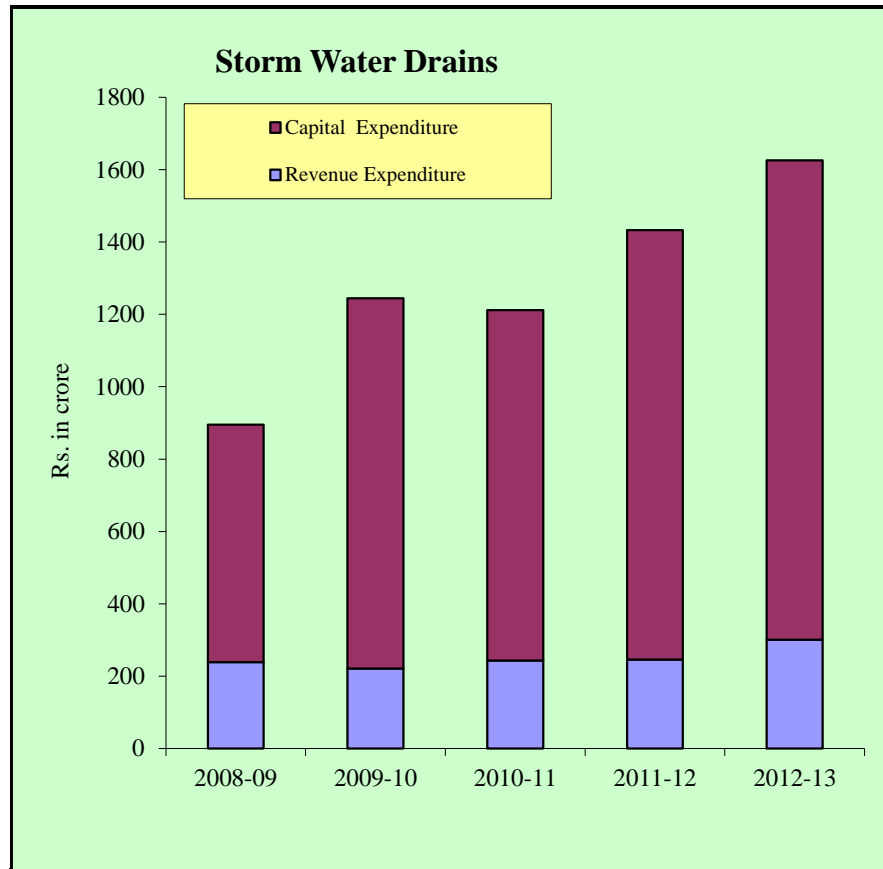
(Rs.in crore)

Particulars	Actuals			R.E.	B.E.
	2008-09	2009-10	2010-11	2011-12	2012-13
Revenue Expenditure	857.24	990.95	1212.97	1355.91	1737.94
Capital Expenditure	109.88	81.19	103.85	84.68	281.30
<b>Toal</b>	<b>967.12</b>	<b>1072.14</b>	<b>1316.82</b>	<b>1440.59</b>	<b>2019.24</b>

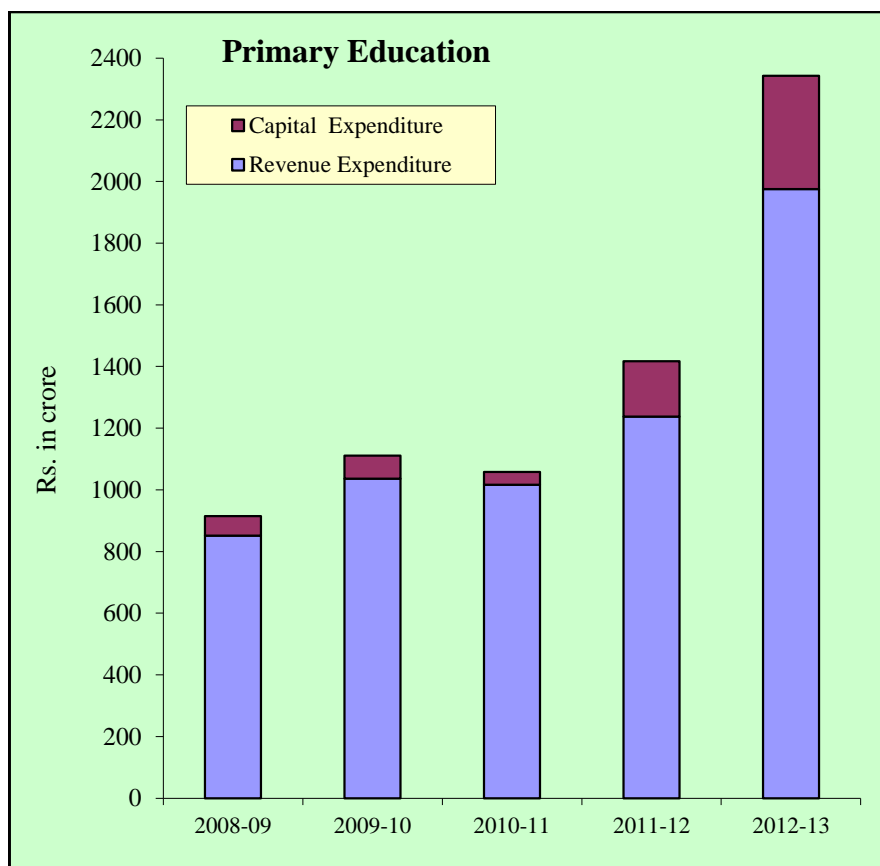


(Rs.in crore)					
Particulars	Actuals			R.E.	B.E.
	2008-09	2009-10	2010-11	2011-12	2012-13
Revenue Expenditure	769.28	919.09	1156.78	1413.83	1690.23
Capital Expenditure	175.44	206.04	324.45	364.28	655.45
<b>Total</b>	<b>944.72</b>	<b>1125.13</b>	<b>1481.23</b>	<b>1778.11</b>	<b>2345.68</b>





(Rs.in crore)					
Particulars	Actuals			R.E.	B.E.
	2008-09	2009-10	2010-11	2011-12	2012-13
Revenue Expenditure	239.05	220.88	242.65	245.70	300.53
Capital Expenditure	655.79	1024.03	969.29	1187.09	1325.47
<b>Total</b>	<b>894.84</b>	<b>1244.91</b>	<b>1211.94</b>	<b>1432.79</b>	<b>1626.00</b>



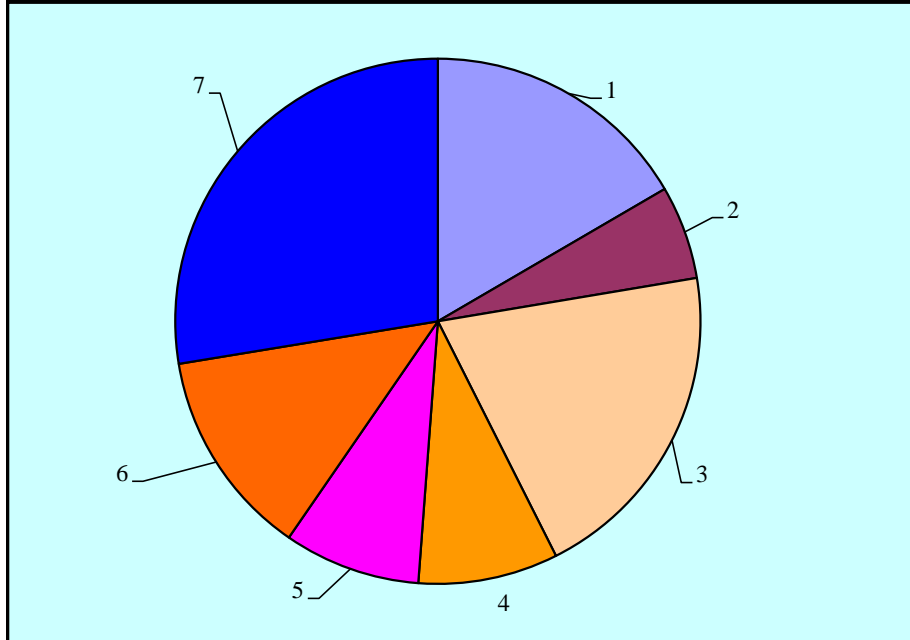
(Rs.in crore)					
Particulars	Actuals			R.E.	B.E.
	2008-09	2009-10	2010-11	2011-12	2012-13
Revenue Expenditure	851.19	1036.03	1016.45	1237.47	1975.62
Capital Expenditure	63.21	74.48	41.76	179.87	367.01
<b>Total</b>	<b>914.40</b>	<b>1110.51</b>	<b>1058.21</b>	<b>1417.34</b>	<b>2342.63</b>

**FINANCIAL POSITION  
BUDGET ESTIMATES - G**

**(FUND CODE-40)**

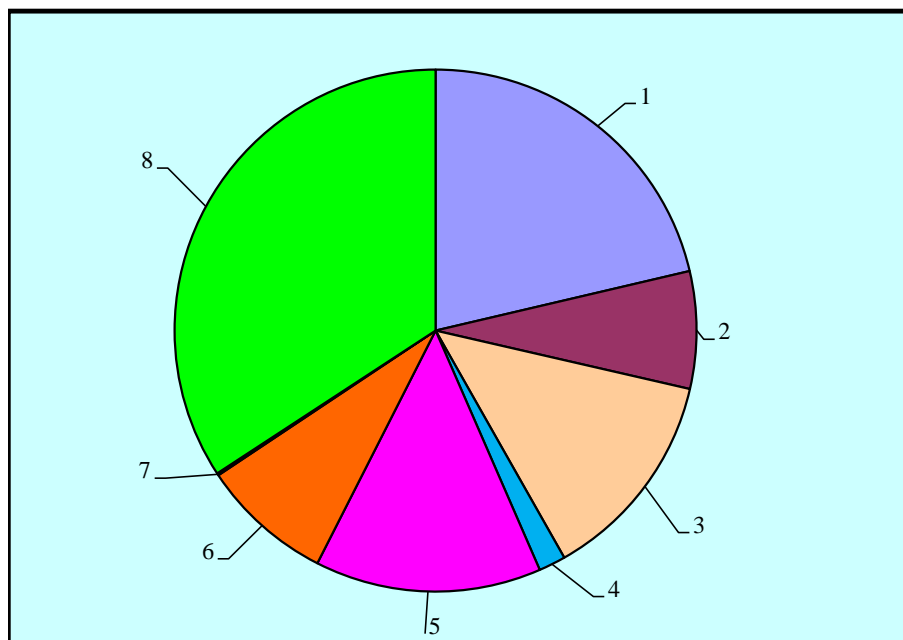


**REVENUE INCOME - BUDGET 'G'**



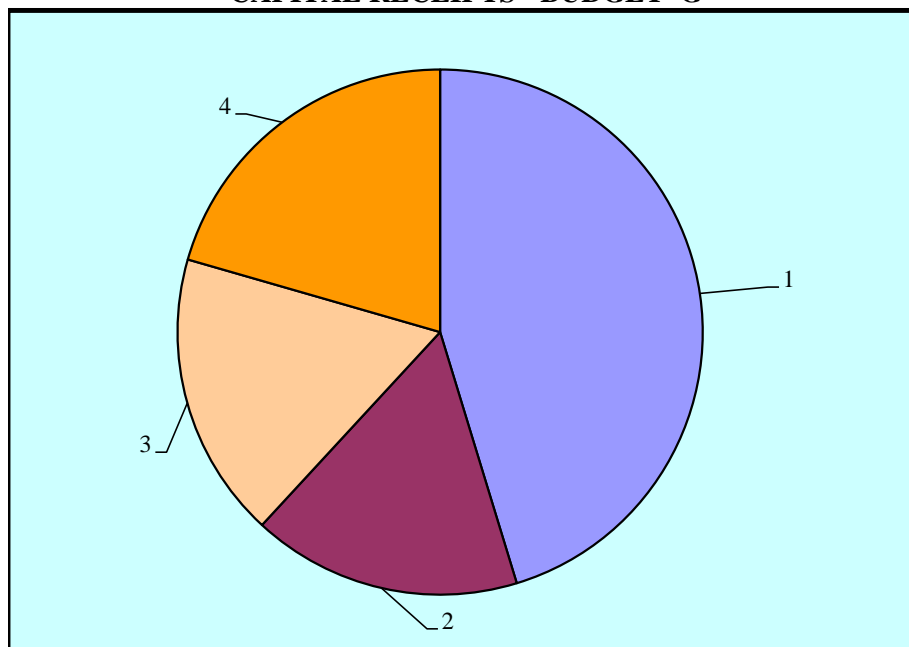
Sr. No.	Sources of Revenue Income	Budget Estimates 2012-2013	Share in Rupee
		(Rs.in crore)	
1	Water Charges	737.90	17
2	Water Tax	256.13	6
3	Water Benefit Tax	898.87	20
4	Sewerage Charges	383.10	9
5	Sewerage Tax	374.03	8
6	Sewerage Benefit Tax	569.28	13
7	Other Receipts	1226.79	27
	Total	4446.10	100

### REVENUE EXPENDITURE - BUDGET 'G'



Sr. No.	Items of Revenue Expenditure	Budget Estimates 2012-2013 (Rs.in crore)	Share in Rupee
1	Establishment Expenses	948.54	21
2	Administrative Expenses	322.83	7
3	Operation & Maintenance	586.82	13
4	Interest and Finance Charges	74.25	2
5	Revenue Grants, Contributions and Subsidies & Programme expenses	623.30	14
6	Provisions and Write-off	363.03	8
7	Prior period Expenses	6.06	...
8	Transfer to Capital A/c	1521.27	35
Total		4446.10	100

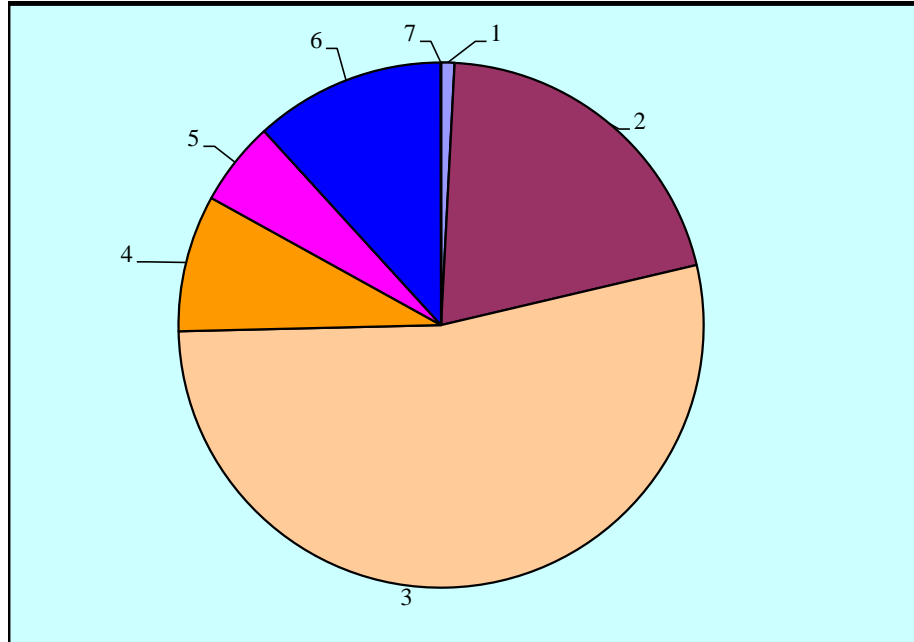
### CAPITAL RECEIPTS - BUDGET 'G'



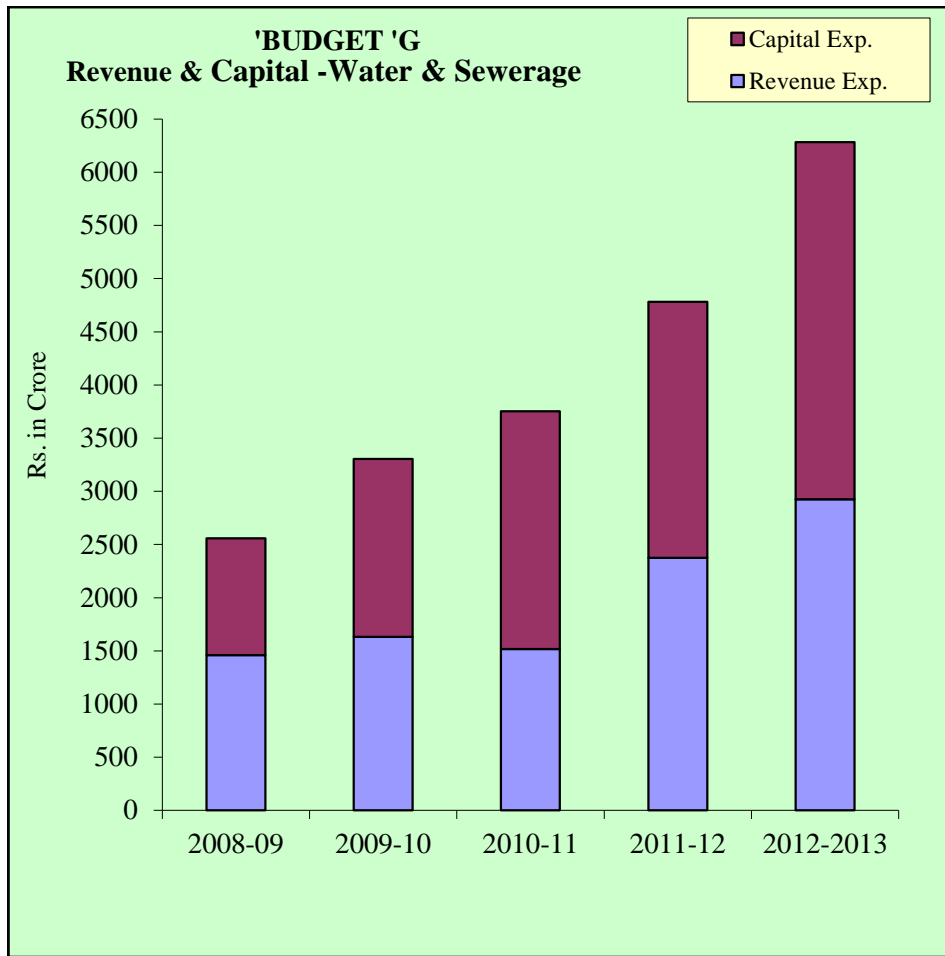
Sr. No.	Particulars	Budget Estimates 2012-2013  (Rs.in crore)	Share in Rupee
1	Internal Generation	1521.27	44
2	Loan Receipt	557.00	17
3	Contribution/Grant	591.13	18
4	Accumulated Surplus	690.00	21
	Total	3359.40	100



**CAPITAL EXPENDITURE - BUDGET 'G'**



Sr. No.	Division wise Capital Expenditure	Budget Estimates 2012-2013	Share in Rupee
		(Rs.in crore)	
1	Common Services	27.66	1
2	Water Operation	688.70	21
3	Water Supply Project	1790.57	53
4	Sewerage Operation	282.83	8
5	Sewerage Project	174.21	5
6	M S D P	394.63	12
7	Anticipated surplus during the year	0.80	...
	Total	3359.40	100



(Rs. in Crore)					
Particulars	Actuals			R.E.	B.E.
	2008-09	2009-10	2010-11	2011-12	2012-2013
Revenue Exp.	1460.15	1631.72	1518.55	2374.77	2924.83
Capital Exp.	1097.35	1672.26	2233.09	2407.91	3358.60
<b>Total</b>	<b>2557.50</b>	<b>3303.98</b>	<b>3751.64</b>	<b>4782.68</b>	<b>6283.43</b>