

Case on Modern Accounting System

Fund Based Accounting System **in Bangalore Mahanagara Palike**

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Prelude

The new Government which took over in Karnataka, a State in South of India in 2000 was reform oriented. Bangalore, a City of Karnataka, called as the Silicon Valley of India was becoming one of the fastest growing cities in India and the existing infrastructure was crumbling down. The presence of top software companies like Infosys, Wipro and foreign companies like Intel, IBM, Oracle; and the fast growing software industry made it imperative for the State to develop the city at par with global standards in infrastructure. The Government was finding it difficult to grapple with the development as it lacked not only the wherewithal for infrastructure but also information about its own resource position and infrastructure status.

The Government of India passed the 74th Constitutional Amendment Act (CAA) 1992 as a significant move to strengthen local governments which come under state governments. Its main objective was to facilitate greater devolution of power to local governments through more decentralization, functional autonomy and private participation. The implementation of the Act was yet to get reflected on the field in many municipal corporations including Bangalore. The Bangalore Mahanagara Palike (BMP), as Bangalore City Corporation is called, started major reorganization through creation of more zones, delegation of powers to zonal level, introduction of Self Assessment Scheme to improve property tax collection, etc. However, these were attempted in a checkered fashion and there was no comprehensive strategy to integrate these together.

The new government embarked on several strategic measures to develop the City and one such initiative was the formation of Bangalore Agenda Task Force (BATF). BATF consisted of several committed professionals and important citizens who were brought together to play an advisory role for improving the city. The members of BATF soon understood the gravity of the situation and hurdles on the road ahead. If Bangalore had to be developed, one of the key organizations would be BMP. The top management of BMP and the BATF soon realized that if BMP had to be effective it has focus as much as on soft areas like information system as much as infrastructure. They decided on Fund Based Accounting System (FBAS) as a critical initiative towards the accounting and information system reform. BATF supported it through both professional and financial support.

BMP Profile

BMP spreads over 100 Administrative wards covering an area of 225 sq. kms with a population of about 5.5 million and a matching floating population. BMP is divided into 3 zones viz. East Zone, West Zone and South Zone. However for administrative and accounting purposes BMP has four zones including Head Office Zone. It has about 11,500 employees and has its own nursery and high schools, junior colleges, maternity hoses etc. It has about 3745 kms of road length which it has to manage and has about 2200 properties.

BMP being a local government, fulfills various functions that can be classified as: Obligatory Functions like providing health, primary education, sanitation services; Commercial Functions like provision of parking lots, commercial complexes; and Agency Functions like implementation of special schemes on behalf of Central and State Governments and other agencies. In India, the size of some of these corporations are comparable to States in funding and these perform multifarious functions. These are service delivery agencies and visible entities of Governments in urban areas as far as utility services are concerned. These are the last mile providers of service and have significant interface with public.

Organizational Structure

Municipal Corporations are complex entities and these perform both constitutional and executive functions. It is comparable to Legislative Assemblies in its constitutional role and State Owned Enterprises in provision of services like hospital care or water supplies. Its overall organization structure is provided in Annexure 1, which gives an idea of relationship between legislative council and executive body. Mayor heads the Corporation Council and is an elected representative. The Commissioner, who is a senior bureaucrat, heads the Executive.

The BMP Council is represented by 100 Corporators who represent the 100 wards of BMP. Each corporator is elected at the ward level on a 5 year term. Each year, the elected corporators elect the Mayor. The BMP Council has many statutory committees like, Taxation and Finance Standing Committee, Accounts Standing Committee, Town Planning and Development, Standing Committee, Public Works Standing Committee, etc which is the policy making and final decision making body.

Decentralization has been happening from Central Government to State Government, and to Local Government steadily but slowly. It is even more slow when it comes to decentralization within local government entities. Powers were centralized at head quarter level and zonal officers had little delegation. Municipal corporations are highly hierarchic and bureaucratic. BMP is organized as functional departments like Health, Education, Horticulture, Project Engineering, Solid Waste Management, and support services departments like Finance & Accounts, Administration, Estates, etc. BMP took a major initiative to decentralize its structure, and under the new dispensation Zonal Officers were given more functional and financial powers as part of the reform initiative.

Context for Modernizing Accounts

The growing infrastructure and service requirements lead to severe resource crunch. The State Government was prepared to continue its support through grants; and revenue collections also improved due to certain policy decisions, and improved assessment and collection system. But considering the requirements and deficit, there was need for resorting to market borrowings. An officer from central revenue services was brought in to improve the financial planning as well as he brought some fresh thinking to the revenue department being from revenue service. In the changed circumstances, demand for more information grew from the system, top management as well as external stakeholders like BATF. The existing system was woefully inadequate in even doing basic functions like, timely updates on revenue collection, and tracking of flow of funds, status of contracts and committed expenditure, etc. In one interview, Srihari, the Joint Commissioner, who spearheaded this project mentioned that, he got triggered to go for FBAS when once their Commissioner asked for latest revenue figures and his executives gave him three different figures with wide variations, which was not unusual.

It was also clear that the Institutional investors would be demanding more quality information if they have to go for borrowings. The necessity for modernizing the legacy system was direly felt. It was in this context, BMP decided to go for Modern Accounting System (MAS) consisting mainly of Fund Based Accounting and Accrual System. It can be called as MAS as it draws upon the best features of FBAS, Accrual Accounting and Reporting Standards. In this, the BATF team and the consultant played a sterling role in going beyond the immediate requirements and launched into a project benchmarked against global standard rather than national standard.

Legacy Accounting System in BMP

The Traditional Accounting System (TAS) followed by BMP was quite traditional and archaic, and was typical of accounting in municipal corporations. It had outlived the limited purpose for which these systems were developed decades ago. The old system was one of record keeping than financial accounting. The TAS maintained records of all monies received and paid, but nothing beyond that. According to Schedule IX of the KMC Act, 1976, the Corporations in the State are allowed to have their own accounting system but BMP did not have any specifically designed system of accounting. The system evolved by convention and convenience, and is a mirror image

of state governmental accounting. The system followed by BMP was "single entry - cash basis" of accounting and line item accounting.

Cash System of Accounting

The Cash system of Accounting which was followed by BMP, like all governmental accounting system in India, observed similar methodology. This is described below in brief detail as within cash based accounting systems there could be variations among institutions and developing countries. Its features are:

- Vouchers are prepared based on transactions (Receipts & Payments)
- The voucher information is recorded in the cash book
- From Cash Book, classified abstract or classified Registers are prepared separately for Revenue & Expenditure
- The columnar totals, on a monthly basis, are carried over to a Receipts & Payments Statement. Every month, similar statement is prepared. The accounts are maintained according to major headings and minor headings.
- The monthly balance in the classified register is not carried over from one month to another. Each month has a separate total. The Receipts & Payments statement is summarized for cumulative figures. .
- Cash book balances are carried over, but break-up provided by the classified abstracts are not carried over. So, overall self-balancing is not achieved.
- The limitations imposed by manual maintenance of classified registers resulted in unscientific grouping of account heads.
- Though, Demand-Collection-Balance (DCB) Registers are mandatory, the cash book accounts only for accounting the "collection" portion (which is shown in Receipts & Payments Statement) and there is no financial statement for accounting demand and balance.
- The accounts are maintained according to major heads and minor heads.
- At the end of the year, an annual report is presented to the Council which gives the actual and budgeted figures for the last year and budgeted figures for the coming year. During the year, revised estimates of expenditures and revenue is collated and presented to the council as a mid term review, primarily to go for more appropriation or for revision of rates or estimates.
- Another important classification of accounts is Capital and Revenue, and plan and non – plan accounts, which is again according to national accounting practices. Capital refers to expenditure leading to additions to assets or development expenditure and Revenue refers to recurring or non – development expenditure or current receipts. Plan finance are those which figure in the plan allocation. This classification is quite flexible (though fund surpluses cannot be transferred from one head to other without approvals) and expenditure can get wrongly classified (Ref Annexure II which gives the flowchart of accounts under TAS).

A financial statement that summarizes all transactions of the year, taking in to account both "operational aspects" and "financial position" of BMP was not prepared. Financial statements mainly present budgets and actuals according to various major and minor heads. A sample old annual report is provided to give an idea of the old system in Annexure VI.

Gaps in the Legacy Accounting System

The Accounting Information (AI) generated by the legacy accounting system is deficient in many respects. It has been designed more to account transactions to ensure compliance than accounting for information to help decision making and financial analysis. Its basic advantage is its simplicity, but even under this condition, annual accounts were in arrears and consequently audit was also delayed and incomplete. Part of the problem is due to manual accounting. The annual accounts that were prepared did not reflect various aspects like receivables, payables, fixed assets, loans and other liabilities, cash and bank balances etc. Hence the correct financial position of the BMP could not be assessed based on annual accounts

It is clear from the process flow that even if the cash transactions are accounted for, aggregation and presentation according to broad headings posed its own problem. The way it is structured, accounting information does not easily lend itself for manipulation for control and decision making. For example, even in its limited purpose of accounting for transactions, it is not comprehensive enough as it was observed that there were always un-reconciled accounts, and that there was no system to relate expenditure with physical progress. Aggregation also made costing exercise difficult, as expenditures were grouped unscientifically. Probably, costing of services was rarely attempted.

The major limitation of TAS which is much discussed is that, transactions which do not involve movement of cash, are not accounted immediately. Also, transactions are not accounted in the period in which they arise, hence performance related to a given period cannot be measured. An audit of TAS in select department showed these gaps and weaknesses (Table-1 below):

Table 1: Gaps in Control under TAS

Area	Weakness resulting in Gaps	Risk
Accounts	<ul style="list-style-type: none"> a. Internal A/c compilation dependent on banking inputs b. Expenditure tracking not done by Ward/Zone c. Numbering done monthly v/s annually d. CAO's office reduced to compilation section 	<ul style="list-style-type: none"> a. Delayed reconciliation / lack of accuracy b. Inability to monitor detailed financial activities c. Weak Control d. Inability to generate financial intelligence
Revenue	<ul style="list-style-type: none"> a. Inputs from 3 sources: AROs / Depts./ Banks b. Weak monitoring of dishonoured cheques c. No bifurcation of taxes and cess 	<ul style="list-style-type: none"> a. No possibility of reconciliation (Control) b. Misclassification c. Potential for missing credits d. Temporary misappropriation (control) e. Accuracy of information
Expenditure For eg. Health, Engineering,	<ul style="list-style-type: none"> a. Salary payment mechanism of one voucher – to – many bank cheques b. No tracking of assets from Financial Accounting and Management a. No relation to physical progress 	<ul style="list-style-type: none"> a. Weak Control b. b. Weak Control

There were also major gaps like non-existence of a single database for information; non-availability of information on a timely basis to all levels of management because of considerable delay in compiling information from various sources (registers and records maintained in various offices); existence of only a vertical movement of information within the department.

The system suffered from deficiency mainly in three areas. One, being cash based accounting system, the system was incomplete and deficient in information for decision making and control. It was observed that even the minimum function of tracking cash movement can be deficient in the absence of double entry accounting and reconciliation. Manual processes would have added to the miseries. Two, a highly centralized system with few decision takers felt no necessity for modern accounting system for decision making. The emphasis was more on compliance and vigilance than decision making and control. Three, Corporation being a public system, had no hunger for information and so no felt strategic imperative to modernize accounting. There were thus serious Agency problem and Incentives issues which explains the continuance of TAS beyond its life cycle and could have killed many new initiatives in this area.

Accounting is one of the principal ways of addressing transparency and accountability in public systems. In public systems, it is considered that only statutes and legal systems ensure accountability and governance. A good accounting system with appropriate mix of financial and physical reports provides basis for comprehensive accountability. There were also other considerations which influenced the decision to go for modern accounting system, apart from the gaps mentioned earlier. The passing of the Karnataka Right to Information Act, 2000 and the Transparency Act 2001, required more extensive disclosure to external stakeholders. With raising awareness level among citizens, the ULBs were expected to be quite equipped with information to meet their information needs.

A thorough process study of TAS was undertaken to understand its nature and utility in the changing context, and to help design a new accrual and fund based system that would take care of these deficiencies.

Reengineering of Accounting Information Flows

An important initiative of MAS is the decision to go for a complete process study to understand the implications of reorganization and delegation that have been introduced, and features offered by automation. BMP decentralized its administration; but accounting and financial information was still centralized. AI was designed based on a thorough process mapping and intended processes.

Under the old system, BMP did not have any method to trace all the vouchers that came for payment. Each BMP office made vouchers and the CAOs office in the Head Office would know about the payables only after the monthly accounts were submitted. Some of the entries passed by bank like the charges for the bounced cheques were not accounted by the BMP, as bank charges are adjusted by the bank directly.

In contracts, there was no structured information on status of work and bills payable. A new 14 digit coding structure was introduced to classify works according to the year of origination, nature of work, source of funding for the work, type of work, sub – type of work, there was also a ward specific running number. To enable initiation and migration of data, a detailed format to collect the works information for coding plus other related information like the date of approval, tender issue date, work start date, approval estimate, tender cost, actual cost in terms of bills received, extent of work completed, expected date of completion, details of payments made, etc were all collected and central works data base compiled. Totally over 6,500 works were coded as against 1,650 works that were presumed to be the number of works then handled

Similarly, in payroll, overall picture was never known by BMP as over 300 Drawing and Disbursing Officers (DDOs) were handling payroll independently. It has to be appreciated that 20% of total accounting entries were related to salary expenditure and it was over time that all the 13,500 employees were brought under the monthly computerized billing system. It was centralized at the head quarters and banking transactions were also streamlined through specific arrangements with banks for providing information in the format required by BMP to facilitate accounting and control. Flow chart of Revenue and Expenditure accounting process can be seen at Annexure II A, II B, and II C.

Revenue collection information from the AROs offices used to take over 6 weeks when the Accounts Department would know the collection information as part of the monthly accounts. Bank reconciliation was delayed, incorrectly carried out, and at any point had several unreconciled entries.

The benefits of reengineered processes for the design of accounting systems is shown in Annexure III in which it has been contrasted with TAS. It is clear from the Annexure that MAS has sufficiently accommodated the requirement of decentralization and delegation of powers. Information gathering as well application was diffused. At each level they have to feed the information and they get information about them at disaggregated levels. Even if the system is maintained and managed at HO level, it was clear it is basically providing a shared services for zones and functional offices. MAS gave a formal structure to the restructuring that was introduced

in BMP. It was done partly achieved through formal reporting systems like BIDS, Works Reports, Revenue Reports from each level.

Reengineering of the budgeting process and linking of the same has enabled increased control and established accountability at various levels. The budgeting is done bottom-up through a process of collecting budget data through BIDS (Budget Information Data Sheet). The BIDS are department and head of account sensitive and provides scope for arriving at budget for each item of account head literally on a zero base approach rather than on incremental approach. The software provided for BIDS makes possible compilation of budgets department wise and revenue/expenditure wise for budget discussions. The successful performance of the same for the last three years has enabled the executives reposing a lot of confidence on the new system. Moreover, it provides them complete supporting (through detailed break-up for every figure) for each and every head. Another major feature is the linking of the accounting heads to budget heads; this has resulted in creating various budget variance reports, the generation of which are possible department/account head wise,

By designing information flow synchronous with responsibility and decision matrix, it gave a structure to the decentralization. For each functional area separate modules were developed and these were designed such that there are highly functional and scalable. The BPR was also backed by changes through BMP (Accounts) Regulation, 2001, BMP (Budget) Regulations, 2003, and BMP Significant Accounting Policies, 2003 documents and MOUs with State Government and Banks.

The Proposed Modern Accounting System

The proposed accounting system was christened Fund Based Accounting System (FBAS) which is rather a Modern accounting System (MAS) as mentioned above and is more than FBAS. MAS was decided to be introduced after a series of research, debates and discussions. Fund based accounting is a concept that is new to Indian Governmental accounting system. In the present case, FBAS was suggested to the top management for the following reasons:

- It is "objective" oriented accounting
- It is suitable to account and track governmental type of operations by having specifically earmarked funds
- It offers methods for evaluating various objectives and the extent of achievement of the same from financial perspective

MAS in BMP was designed according to the accounting standards specified in the 'technical guide on accounting and financial reporting by urban local bodies' of The Institute of Chartered Accountants of India. It was also decided in principle in the beginning to develop a system which should move towards the standards of General Accepted Accounting Principles (GAAP) which is the global standard for accounting. The proposed system also took in to account the Government Accounting Standards Board (GASB) of USA (which conceptualized fund based accounting) Statement No 34, adapting the same to Indian conditions

The adoption of various accounting standards for various items are shown in Annexure IV which gives the AS Guidelines and compliance. A perusal of this and the actual system that evolved later will show that they designers have to tried to meet the standards in spirit. New account heads were created like Fixed Assets Accounting Group, Long Term Debts Accounting Group, segregation of funds, generation of Balance Sheet, etc mark major departure in governmental accounting in India. The BMP took major efforts to bring to book all its assets and wherever needed got the assets valued. Manuals were prepared and methodologies like depreciation were developed to reflect the standards. Accrual system was put in place in revenues and expenditure which helped better resource planning. What was finally achieved provided a good foundation on which they can add any future developments like foreign exchange management or construction contracts or R & D.

Fund Accounting Components and Process

FBAS which is a component of MAS is a generally well understood framework. Accounting Standards mainly prescribe three categories of funds: Governmental, Proprietary, and Fiduciary funds with each one to be treated as separate entity requiring different treatment. In BMP also it was decided to maintain this groupings as this is an internationally recognized practice. This categorization is based on the purpose, activities, operations and their nature. The accounting system followed in the present case is described in detail to indicate the methods and improvisation adopted for these three types of funds.

The basic principle underling MAS is control and hence it is directly linked to budget document, which is a planning and control document. The entries for a year begin with incorporating the budget entries in the books of account.

The financial statements of Governmental funds are prepared under the modified accrual basis of accounting. Under this system, revenues are recognized when susceptible to accrual, and expenditures are recorded when the related fund liability is incurred, as per the standard. In accordance with this concept, current assets and current liabilities alone are included in the balance sheet of the fund.

Proprietary funds are accounted on a flow of economic resources measurements focus and prepared under the accrual basis of accounting. In accordance with this principle, all assets and liabilities associated with the operation of these funds are included in the balance sheet. The equity of the fund is segregated into two components namely, contributed capital and retained earnings.

Fiduciary funds are accounted on a flow of economic resources measurement basis. Accordingly, all assets and liabilities associated with the operation of these funds are included in the balance sheet, and equity is segregated into contributed and retained. The financial statements of trust funds are prepared under accrual basis and agency funds under modified accrual method as described below. .

The long term assets and liabilities belonging to non – proprietary funds are accounted separately with the use of Accounting Groups. Accounting Groups are memorandum accounting entities. Fixed Assets Accounting Groups (FAAG) was used to account for long term fixed assets and Long Term Debts Accounting Groups (LTDAG) is used to account for long term liabilities (Ref Table 2 below).

Table 1: Showing disclosure of Fixed Assets & Depreciation

Treatment of Fixed Assets

Sl No.	Assets	Fund-wise Financial Statements				Corporation-wide Financial Statements		Depreciation
		Governmental Funds		Proprietary & Fiduciary Funds		Proprietary & Governmental Funds		
		BS	FAAG	BS	FAAG	BS	FAAG	
1	Infrastructure Assets (eg. Roads, Bridges, Culverts, Flyovers)	x	✓	x	x	✓	x	x
2	Other Fixed Assets (eg. Land, Buildings)	x	✓	✓	x	✓	x	✓

Treatment of Liabilities

Sl No	Liabilities	Fund wise Financial Statements				Corporation wide Financial Statements	
		Governmental Funds		Proprietary & Fiduciary Funds		Proprietary & Governmental Funds	
		BS	LTDAG	BS	LTDAG	BS	LTDAG
1.	Long Term Loans	x	✓	✓	x	✓	x
2.	Current Liabilities	✓	✓	✓	✓	✓	✓

In the non – proprietary funds, accounting for expenditure is based on modified accrual concept. Amount expended for assets creation is shown as expenditure of the period in the Revenue and Expenditure account. Similarly, long term receipts are shown as revenues in the Revenue and Expenditure account. However, in order to have complete control over long term assets and liabilities, memorandum entries are passed for these entries and shown under the FAAG and LTDAG in Balance Sheet. The entries in the accounting - groups column in FAAG and LTDAG columns in Balance Sheet will thus refer to the non – proprietary fund that are of long term nature.

Fixed assets are reflected directly in financial statements only in the case of Proprietary (Enterprise and Internal Service) funds and fiduciary funds. In the case of Governmental funds, the cost incurred to acquire / construct a fixed asset during an accounting period is charged off as expenditure incurred during that period. Such expenditure is reflected in the "Fixed Assets Accounting Groups" (FAAG) column as an asset and disclosed appropriately under the relevant account head. The sources of funds for such acquisitions / constructions are disclosed under the caption " Investment in fixed assets" as a liability.

The expenditure on creation / acquisition of Fixed Assets under Governmental Fund Type are accounted as Capital expenditure in the year in which such expenditure is incurred. and is expensed in the Revenue and Expenditure account. For control purpose such Fixed Assets are also accounted in the FAAG by passing memorandum accounting entries for such capital expenditure.

There are basically two important financial statements: Balance Sheet and Revenue & Expenditure statement. Apart from these, two important ancillary statements that are prepared are Cash Flow statement and Budget variance statement. Revenue and Expenditure statement is similar to Income and Expenditure statement popularly used in India, it has been named as such as the local bodies do not earn "income". Balance Sheet was prepared for the first time for BMP after the introduction of FBAS. It has been producing Financial Statements as per MAS for the last three years.

The Balance Sheet, and Revenue and Expenditure Statement for the year 2004 – 05 is presented in Annexure V. These are the financial reports that are presented to the Council these days. It can be observed from these statements how the changes get reflected in the financial reports. These were prepared in accordance with the standards and separate accounting groups were created to track long term assets and liabilities. Care has also been taken to incorporate capital and revenue classifications as per governmental accounting procedure as it can be seen in Revenue and Expenditure statement. A budget document under the old system is also presented in Annexure VI to show the contrast and benefit of introducing MAS. It will show the contrast between the two reporting systems.

Accounting Structure

The accounting structure of MAS, as designed and implemented in BMP, makes an intelligent combination of organizational entity levels (ward being the unit of accounting), fund categories (major classification), sub - fund categories (minor heads) and account heads (chart of accounts). This classification is helpful in meeting the requirements of accounting in terms of tracking, decision making and control. Each of these items follow independent logical order so that we can maintain granularity of entries at line item level, at functional and zonal level, aggregating from voucher level information. This design is being very much appreciated for its features, flexibility and scalability.

The Coding Structure of MAS has 5 digits (Alphanumeric) Coding starting from Head of Accounts and following a tree structure. The Coding Structure is shown through an example. The following shows one item each for asset, liability, expenditure and revenue through a 5 level classification. The chart of accounts of BMP has over 1500 heads. We can infer from this the potential for AI that can be generated according to various classifications for control as well as decision making purpose.

Table 3: Accounting Code Schema

1 Type	2		3		4		5	
	Major Group		Minor Group		Sub Group		Account Head	
	Code	Description	Code	Description	Code	Description	Code	Description
ASSETS	FIXED	Fixed Assets	BLNDG	Buildings	COMML	Commercial Assets	FBM02	Commercial Complexes
LIABILITIES	CL	Current Liabilities & Provisions	CL	Current Liabilities	CESS	Cesses, Taxes & Royalties	CL004	Beggary Cess Payable
EXPENDITURE	REXP	Revenue Expenditure	GENAD	General Admin Expenses	ELESH	Electricity Charges - Shared Expenditure	RE136	Electricity - Street Lighting
REVENUE	CREC	Capital Revenue	GRNT	Grants	GRNTM	MOU Grants – Rajdhani Development Fund	RR032	MOU Grants - Flood Management Works

The chart of accounts classified along fund types, sub - categories wise, for various levels of offices of BMP like HO, Zone, Ward, etc (accounting unit or entity) provide excellent combination for granular accounting providing manipulation of AI, which can take care of all administrative functions and decision making requirements. The advantage of designing it this way, is that new groupings can be formed and information can be drawn in any suitable form required by decision makers.

Currently, revenue collection are captured from the tax collection software, various expenditure categories are captured from respective modules like, works expenditure from a detailed works management module, payroll from payroll subsystem and all other expenditure from automated payment mechanism, including online bill register, payment passing and cheque printing have been enabled. This has resulted in increased control over authorization process and payment mechanisms.

Technology

The Data Center is located in the Head Office. It works on LAN and access is restricted to PCs within the main office. It is now proposed to make it WAN based and extendable to divisions. BMP has a centralized server room located at their head office. The head office and exchange are connected through 2 mbps leased line, and from the exchange to Citizen Service Center (CSC)/Zonal Offices, a 64 kbps-leased line is provided. BMP has two Application servers, three database servers, a backup server and an anti-virus server. FBAS is hosted in a separate server. The Applications are both web-based and non web-based applications. Daily information are collected from the zonal offices and keyed in here. The data entry job is outsourced and they also prepare updates and periodic reports. Note on Technology can be seen at Annexure VII. The modules have been developed on internet-ready technology though they are currently being operated on an intranet environment.

The data entry operators were given intensive training in accounting, especially governmental accounting proper classification of vouchers and keying in of entries. Totally over 2,00,000 man hours of the Consultants' time and 1,00,000 hours of the time of BMP officials were invested. Over 100 staff of BMP have undergone training. The Chief Minister impressed by its success and utility, announced in August 2002 that all the ULBs in the State will be expected to follow FBAS.

MAS enabled Financial MIS in BMP

MIS has been designed such that it would provide control as well as analytical information to concerned levels. In BMP, five levels have been identified in the MAS enabled MIS and for each level, the focus is different as shown in Table 4 below. Three types of reports have been evolved which are operational, statutory (obligatory), and analytical and performance reports. There are four levels of reports: the detailed, summary reports, analytical reports, and functional reports like the one to elected representatives. The reports have been analyzed from two viewpoints:

- Operational or Statutory (obligatory): Operational reports are oriented towards conduct of the business, while the statutory reports address legal requirements.
- Analytical / Summary / Detailed: These relate to the type of decisions that a particular level take. These have been listed at the end of this paper.

The highlight of the experiment in BMP is the excellent link between the AI and MIS. This is conspicuously absent in all other experiments. The report formats developed were with the participation and concurrence of the users. For example, Reports at corporate level and Reporting Structure at summary level can be seen at Annexure VIII and Annexure IX respectively.

Table 4: AI and MIS Linkage

Level	Designation	Focus	Needs
1	Mayor, Council Members, Commissioner.	Corporate decision making	Policy / Organizational level. Reporting to stakeholders like Government, public, other agencies for utilization and compliance. Reporting for governance.
2	JC/ DC/ CAO/ EIC/ CE/ CHO/ EO/ JDTP	Compliance, Control and performance evaluation.	Compliance with budget and procedures Monitoring and Progressive information Information for Evaluation Consolidation / processing of information
3	ACF / EE / ZHO	Operations / Task related info Day to day monitoring reconciliation	Procedure related. Progress of activity and expenditure. Field level information Narrow focus. Escalation of information
4	Unit Officers	Operation related Transaction Related	Source of data and data entry Ensure reliability and periodicity of reports. Generation of information
5	Data Base	Comprehensive	The Data Base needs to be authentic and comprehensive to cater to the needs of various levels

Level 1: Corporate level monitoring reports

The major accounting and statutory reports that are generated by MAS are Revenue and Expenditure Account, Balance Sheet, and Cash Flow Statements (Refer Annexure V). Earlier there used to be only one budget document. The elected Council of the Corporation works through various Committees and sub committees. In relation to the Finance and Accounts there are basically two Committees of importance: The Taxation and Finance Committee (T&F Committee) and the Accounts Committee. The requirements of the elected representatives of the Council and these two committees have been specifically addressed in MAS enabled MIS. For the Corporators, an information Kit has been developed with scope for generating various reports. It is called "Arthika Darpana" and is meant exclusively for ward representatives. It includes information on revenue - expenditure information relating to the ward; the number and value of projects works related to the ward; and a detailed report on various aspects of each and every ward work (the work code, approval date, approval amount, tender date, tender amount, completion status, bill amount, payment amount, value outstanding and so on).

At corporate level, the objective is to enable the policy makers understand the status of various programmes being implemented along with financial figures. The reports relate to various public works, projects, etc which have direct relation to the finances of the Corporation. There are also reports for tracking revenue and tax collections, and borrowings.

The core aspect of implementation was introduction of Management Information Systems (MIS) in all major departments of BMP. It was thought, the best way to make the officers understand the power of information system is to provide them with MIS on operations concerning them and provide for a review mechanism at a senior level. Over 50 different MIS reports are getting generated for use at various levels in various frequency.

Level 2: Control level reports

In the second level, focus is on “control” to ensure that all plans are going as per schedule and deviation if any is captured to enable corrective actions. This seeks to address various control information requirements at senior operating level and provide the executives with useful MIS reports. The focus here is on zonal level and functional level.

Level 3: Operational level reports

The operational level reports help the executives to ensure that the day to day operations are conducted properly as per plans and decisions are taken in relation to operations. Though the list given here is less, these executives receive copy of various reports addressed to various levels. The difference is in the way the other levels and this level uses the report.

Level 4: Transaction level reports

This is the level at which records are maintained and employees at this level maintain the ‘content’ in various records maintained and hence the reports are of detailed nature. Some of these reports in summarized form are used at various levels above. The reports listed in Annex MIS 4 help the employees in handling day to day operations and maintain various basic records.

Support Infrastructure

Politico – Legal Clearances

One of the major interventions of MAS is the support infrastructure created. The accounting changes had to be initiated based on accounting policy changes which needed approval at highest levels. The policy making body in BMP is the Corporation Council and in major subjects, the changes need to be accepted or confirmed by the State Government also. The Karnataka Municipal Corporations Act, 1976 enabled the BMP to have its own accounting system. But the BMP did not prescribe itself any specific system. Hence required regulations were drafted and passed. This was done in stages. Initially the BMP Accounting Regulations, 2001 were passed to make FBAS the official accounting system. Subsequently, the Accounting Policies, Budgetary Regulations, etc were framed in accordance with the Act. Accounting regulations, policies and budgetary regulations were drafted for the first time in BMP.

MOUs

BMP had over 300 bank accounts from which information flowed on a daily basis to corporate office. The information flow was streamlined and was enabled by a banking service MOU with the Bankers. As per this arrangement, the Bankers would provide daily information to BMP according to BMP format to facilitate prompt accounting and reconciliation. Presently effort is on to get one consolidated data from each bank for all their branches as all banks have electronic trading system.

An MOU between the Government of Karnataka (GOK) and BMP provided the basis for strong review and control system. An MOU between the Finance Department of the State and BMP provided a review mechanism wherein the financial performance and implementation of reforms was reviewed by the GOK periodically. The MOU contained specific benchmarks which were related to release of grants to BMP by GOK.

Demand – Supply Aspects of AI

The experiment in BMP started with the supply side of AI reforms. The BMP initiated a drive to completely revamp its accounting operations and to enable generation of reliable AI and also in related control areas like, works management at ward level, budgeting etc. As, one of the members of BATF put it ‘Sunlight is the best disinfectant’, and so it was felt necessary to generate useful information. However, unless demand for such information is created, these reports will

remain unused and ineffective as there will be more reports generated with less application creating more dissonance. In Bangalore, a campaign launched by four NGOs called PROOF (Public Record Of Operational Finance) created some demand for AI. The PROOF platform is a citizens' platform where the performance of BMP is evaluated on a quarterly basis. By June 2005 three quarterly reviews were completed and BMP has successfully gone through the exercise of replying in a public forum to the issues raised by citizens. These institutional mechanisms are critical to the sustainability of change mechanism that has been introduced in BMP. Left to itself there are high chances of a relapse of old methods.

BMP also publishes its summarized financial statements every half-year in national dailies, generally within 6 weeks of accounts closing properly approving the statements by the statutory committees concerned. Such initiatives have been possible basically due to strengthening of the supply side of information through the reform programme. Till the fourth quarter of 2004 – 2005, five public debates have been held by BMP on its quarterly performance. It is important to note that it has institutionalized this system and the executive has become accustomed to discussing issues in an open forum with general public. It has been of course producing quarterly performance reviews systematically even if there were no open debates.

Present Position

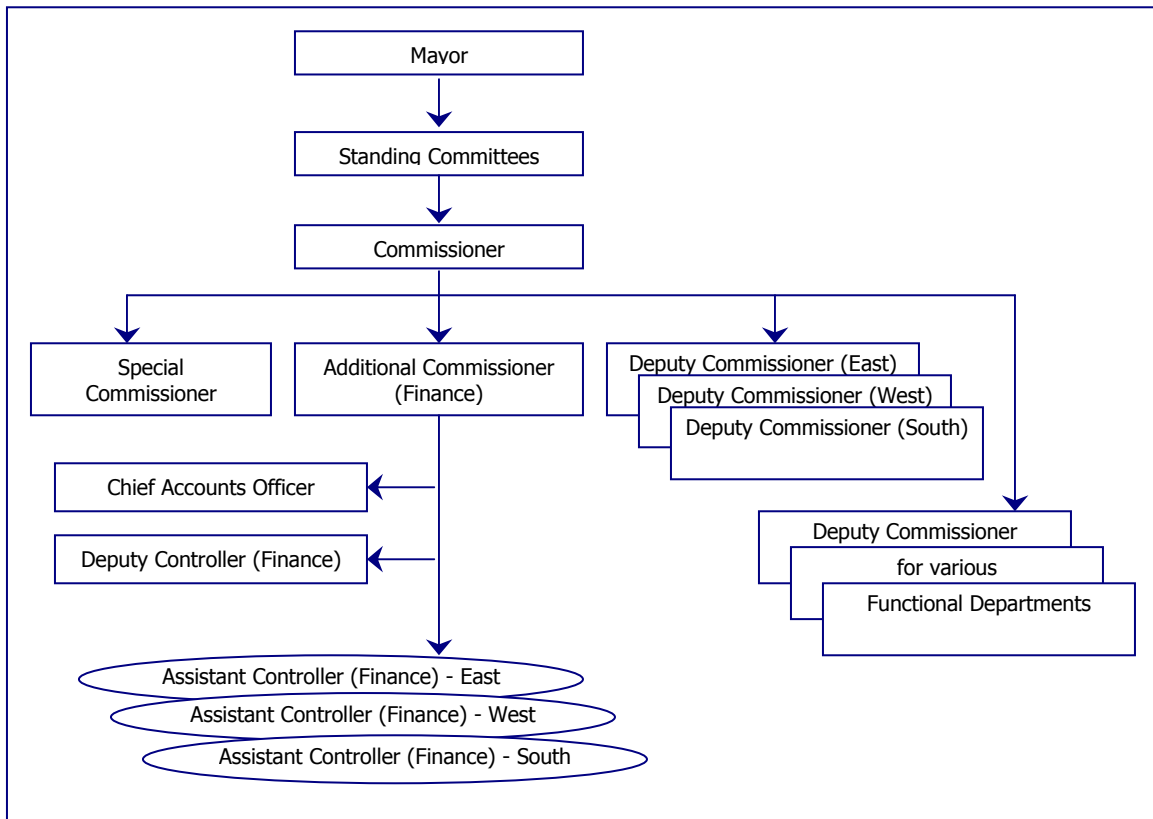
The system is in the fourth year of operation and is being extensively used in the corporation. So far, three annual reports have come out and it is being published in record time. The records are updated and daily tracking of fund flow is in vogue. The reports are being extensively used and discussed. Corporators also find it a good source of information. Public is yet to take it in significant way. Future plan is to make it WAN based so that all data can be entered at zonal level itself. This is likely to provide accounting linkages with banks in such a way that as soon as a property tax payment is made in a bank branch the same could trigger a revenue entry in the books of BMP. One of the key aspects in this regard is the cannibalization of the old system; care was taken to see that the manual record maintenance and reporting are phased out. This is key for sustenance and usability of the system.

In 2000, the audits were in arrears for more than 5 years. 1994-95 audit was being done in the year 2000-01. Whereas now, after implementation of FBAS, BMP took measures for completing the audits and bringing it concurrent. As of now, 2003-04 audit is completed and the annual report of 2004 – 2005 is completed. Audit has started for the year 2004-05

We have also provided in Annexure X a list of Reports that has been found to be critical and most frequently used.

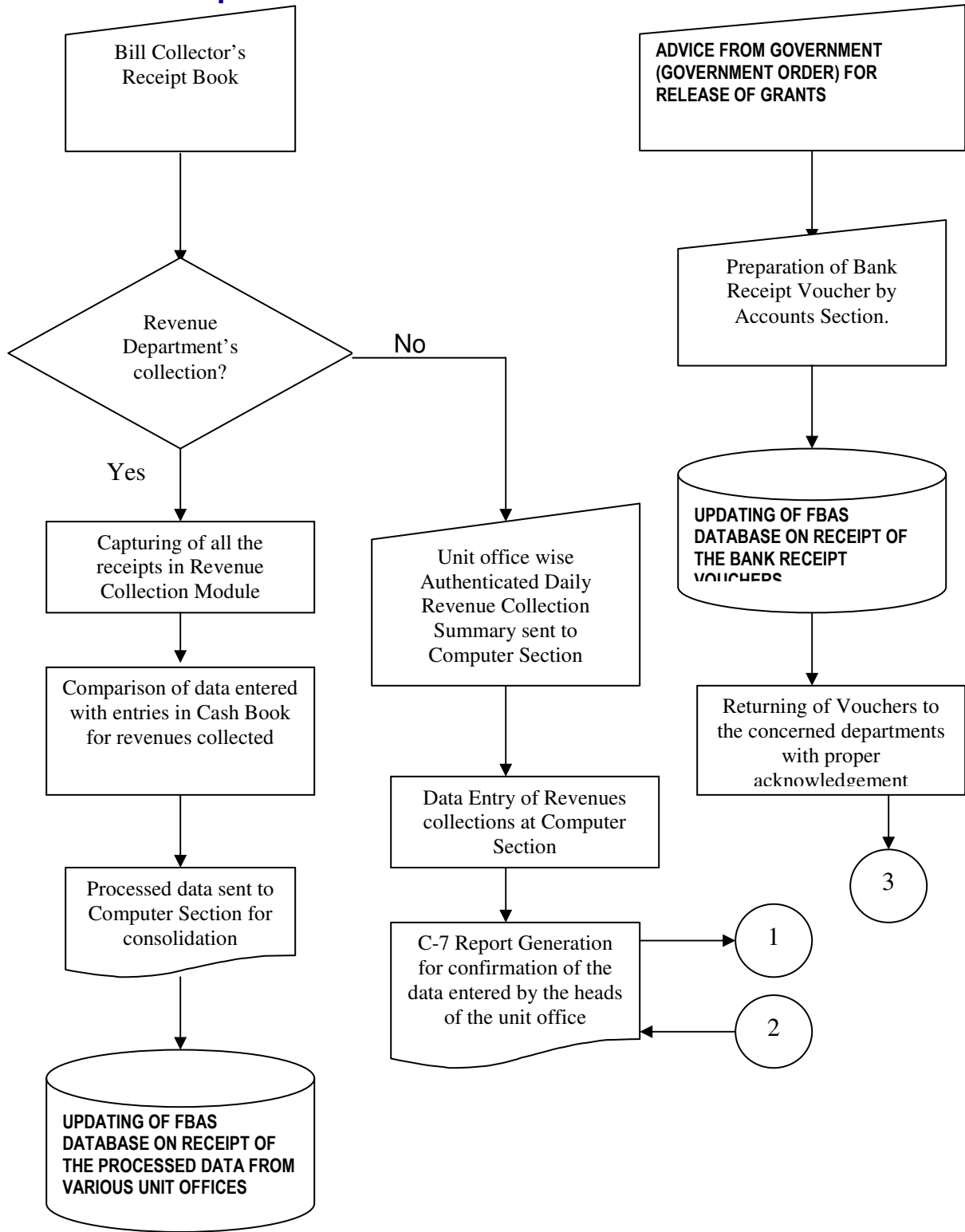
Annexure I

Organizational Structure of BMP



Annexure II A

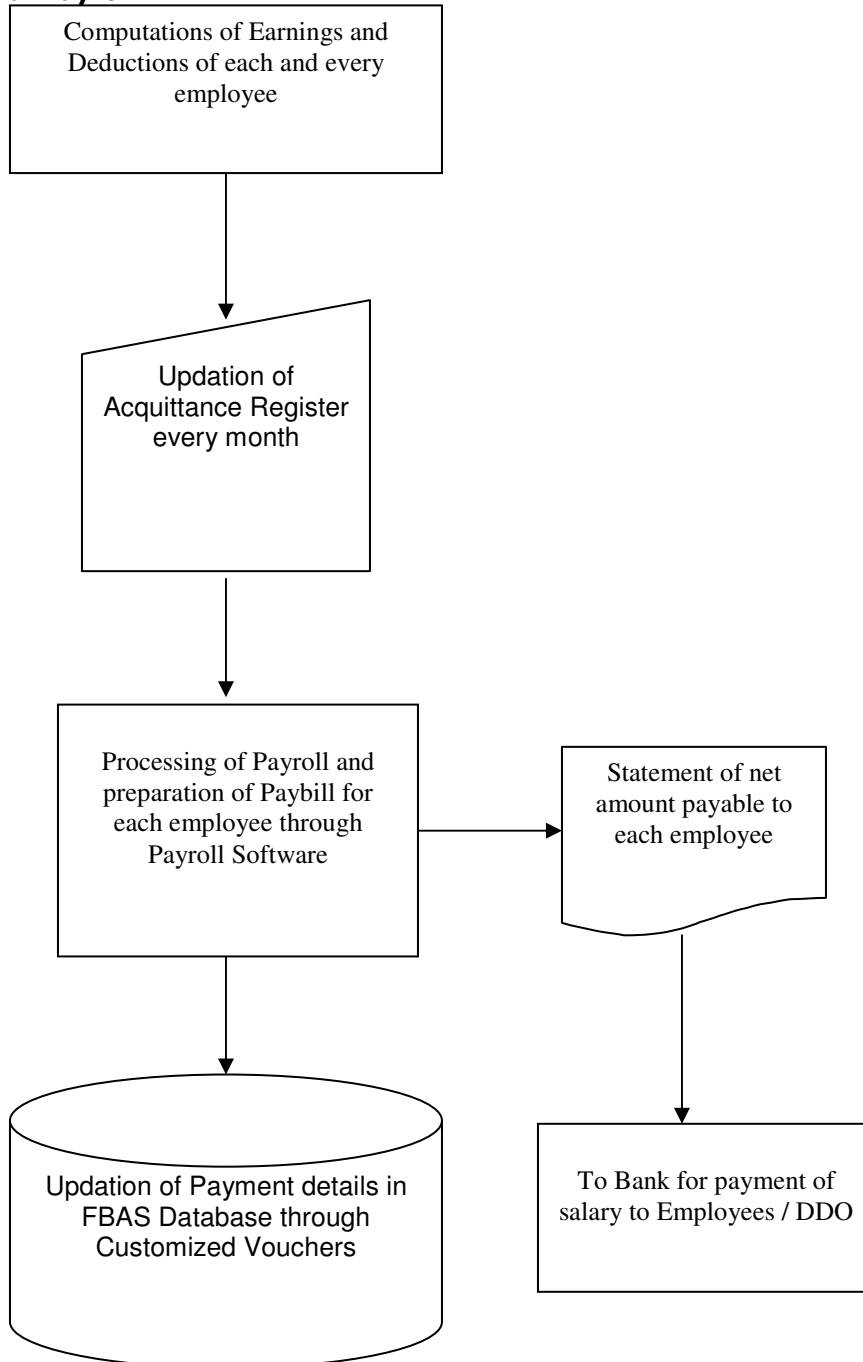
Revenue Receipts Flow Chart



Annexure II B

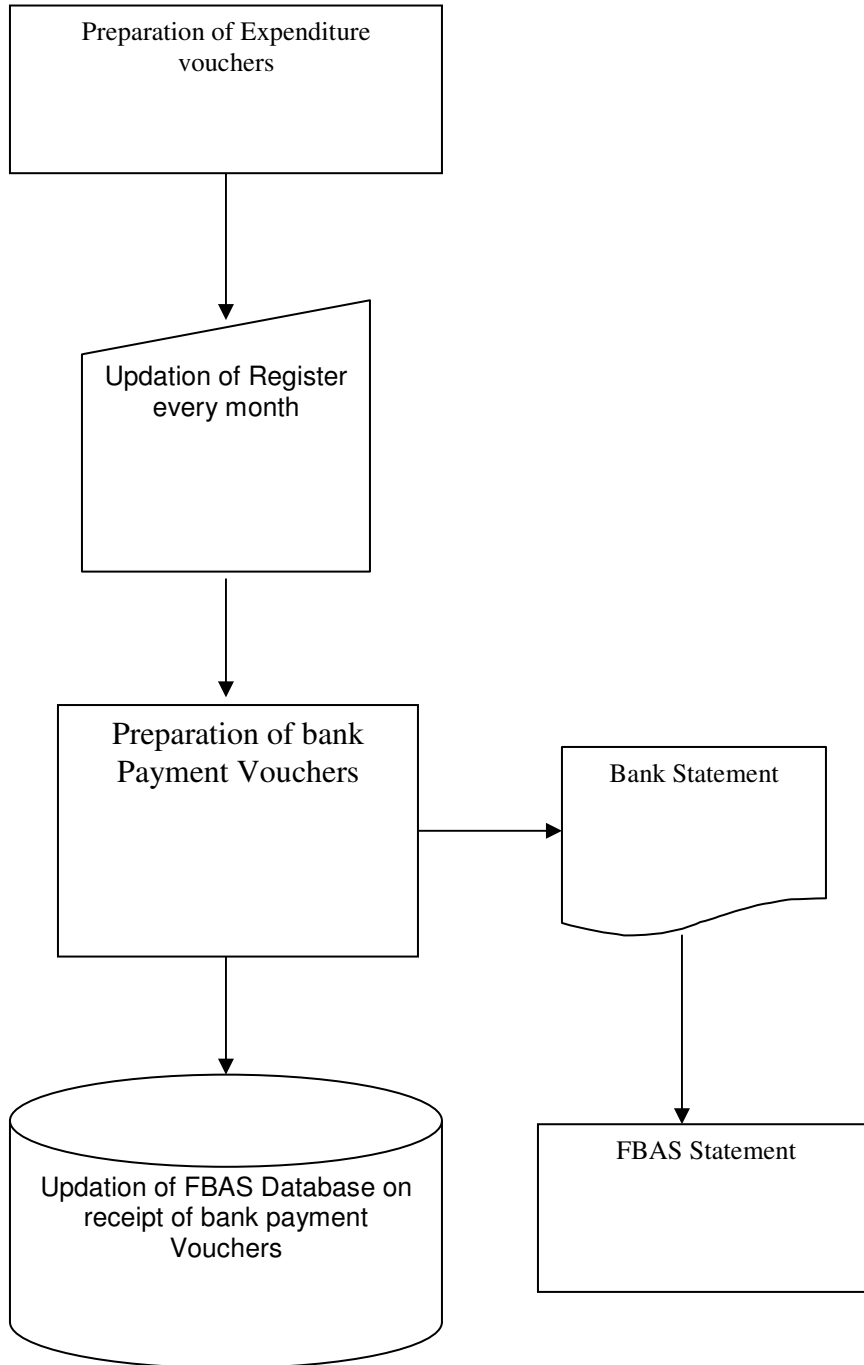
Revenue Expenditure Flow Chart

a. Payroll



Annexure II C

Other Revenue Expenditure



Annexure III

Re-engineered Processes Post - FBAS

Area	Before FBAS	After FBAS
REVENUE	Delay in information	Information updated on a daily basis
	Daily collections position not known	Real-time knowledge of revenue collections position – at all levels
	No single information source	Single source of information to all uses
	No information on availability of funds for expenditure	Review of collection and target made possible Systematic transfer of funds to operating accounts
EXPENDITURE	Centralized	Decentralization of powers to Zonal ACFs
		Payments decentralized
		Payment process simplified and speeded up
		No payment without works code has enabled complete control over works payments
BUDGETING	Budget prepared based on estimates of previous years	BIDS implemented Systematic way of budgeting
		Bottom-up approach in budget preparation: Ward to Zone to HO BIDS process also helps documenting proposals formally
WORKS	Number of works in BMP not known	Complete database of all works (current and old) available at a single source
	No tracking of works	All works tracked throughout the work-life-cycle till its closure
	Duplication of works	No duplication – each work identified by a unique work code
	Delay in payment of works bills to contractors	MAS enabled financial management system helped BMP in planning its finances. Works bills now settled faster
PAYROLL	No database of employees	Employee electronic database available for all employees. About 13000
	Pay bills prepared manually	DDO wise (224) pay bills are generated through the system Total control in salary related aspects
	Manual efforts – most of the time used in payroll activities	Reduction in efforts. Manpower effectively deployed in other areas
M I S	No M I S	MAS enabled MIS includes about 150 MIS reports for various modules at various levels
		Operational MIS for management / staff)
		MIS for public (Arthika Darpana)
		MIS on revenue / accounts / works / payroll
FINANCIAL STATEMENTS	No Financial statements – bi-monthly accounts prepared for submitting to council	MAS provides financial statements like Balance Sheet, Revenue and Expenditure statement, Receipts and Payment statement

Annexure IV

Standards and Accounting Treatments

AS 1 – Disclosure of Accounting Policies

Basic Requirements	Compliance by FBAS
Disclosure of significant accounting policies	Disclosure of accounting policies is being made in the notes part
Going concern, consistency and accrual	Going concern and consistency are complied. Modified accrual being followed in the case of Governmental Funds
Prudence, substance over form and materiality	These concepts have been incorporated Being early adopter, Improvisation and Prudence to suit Indian system were appropriately adopted

AS 2 – Valuation of Inventories

Basic Requirements	Compliance by FBAS
Inventories to be valued at lower of cost or net realizable value	The valuation principle is being followed by MAS
Cost to include purchase price, costs of conversion and other costs incurred to bring them to their present location and condition	Purchase price and cost of conversion are being included in the cost of inventories. However allocation of fixed and variable overheads to cost of inventories is difficult in this setup

AS 3 – Cash Flow Statements

Basic Requirements	Compliance by FBAS
Bifurcation of cash flows between operating, investing and financing activities	Receipts and payments account is being prepared which provides all the information envisaged by AS 3. The same is in accordance with the requirements of foot note 4 to AS 3 in the Technical guide

AS 4 – Contingencies and Events Occurring after the Balance Sheet Date

Basic Requirements	Compliance by FBAS
Contingent losses to be provided for or disclosed	Applied wherever accrual accounting is followed
Treatment of events occurring after the balance sheet date	Any change in assets or liabilities arising as a result of info coming into light after the BS date is incorporated with a corresponding change in the Fund Balance

AS 5 – Net Profit or Loss for the Period, Prior Period Items and Changes in Accounting Policies

Basic Requirements	Compliance by FBAS
Extraordinary Items to be disclosed separately	Reporting of any extraordinary item of revenue or expenditure is automatically taken care of since it would not have a matching budget head. This will be separately disclosed in the Income & Expenditure Account
Adjustment of Prior Period Items	Prior Period Items are adjusted by making corresponding changes in the Fund Balance
Change in Accounting Estimates and Policies	Disclosure of such changes are made in the Notes forming part of the financial Statements

AS 6 – Depreciation Accounting

Basic Requirements	Compliance by FBAS
Depreciation to be charged keeping in view the useful life and the residual value of the asset	Rates of depreciation are fixed keeping in view the useful life and the residual value. However, Governmental Fund assets are not depreciated.

AS 7 – Accounting for construction Contracts

Basic Requirements	Compliance by FBAS
Applicable in the case of contractors undertaking contracts	Not applicable for construction contracts in Governmental fund. In case contracts are undertaken on commercial basis, the standard is to be complied

AS 8 – Accounting for Research and development

Basic Requirements	Compliance by FBAS
Treatment of expenditure on Research and Development	Not Applicable

AS 9 – Revenue Recognition

Basic Requirements	Compliance by FBAS
Revenues to be recognized when they accrue and are certain of being collected	Revenues which can be determined such as Property tax, rent from properties etc. are accounted on accrual basis. Revenues which cannot be determined such as surcharge on stamp duty, fees etc. are accounted on cash basis

AS 10 – Accounting for Fixed Assets

Basic Requirements	Compliance by FBAS
Fixed Assets are to be reported at cost less accumulated depreciation	This method of reporting is adopted
Valuation of fixed assets in different cases	Purchased and constructed fixed assets are valued at cost (purchase price, transportation costs, installation costs and other incidental costs) Donated assets, assets acquired free of cost etc. are accounted at nominal value Existing infrastructure assets are brought into the balance sheet at nominal value (Re. 1) Improvements to fixed assets are accounted at cost Governmental Fund fixed assets are expensed in the year of purchase / creation. Information about such assets are separately tracked by means of memorandum group entries
Revaluation of fixed assets	Any revaluation of fixed assets is adjusted in the Fund Balance
Disposal of Fixed Assets	Profit / loss on disposal of fixed assets in the Proprietary fund is recognized. Proceeds on disposal of Governmental Fund fixed assets are accounted as revenue in the year of disposal

AS 11 – Accounting for Effects of Changes in foreign Exchange Rates

Basic Requirements	Compliance by FBAS
Treatment of foreign exchange transactions	This standard is to be complied with as and when such transactions arise

AS 12 – Accounting for Government Grants

Basic Requirements	Compliance by FBAS
Grants to be recognized only when there is reasonable assurance that they will be received	Grants are accounted when the Government Order pertaining to the same is received
Grants to be utilized for a specific purpose	Such grants are accounted under the Fiduciary Fund

AS 13 – Accounting for Investments

Basic Requirements	Compliance by FBAS
Disclosure of current and long term investments	Investments with a maturity period exceeding one year are treated as long term investments. Current and long term investments are disclosed separately
Valuation of inventories	Current investments are valued at lower of cost or fair value. Long term investments are valued at cost. However provision is made for any permanent loss of value.
Classification of investments	Investments are classified depending on the nature of the investments

AS 14 – Accounting for Amalgamations

Basic Requirements	Compliance by FBAS
Accounting treatment of amalgamations	Not applicable

AS 15 – Accounting for Retirement Benefits in the Financial Statements of Employers

Basic Requirements	Compliance by FBAS
Provision to be made for liability on the basis of actuarial valuation	Year end entries have to be passed to provide for the liability towards retirement benefits. The liability has to be determined on the basis of actuarial valuation.

AS 16 – Borrowing Costs

Basic Requirements	Compliance by FBAS
Capitalization of direct borrowing costs	Interest costs on specific borrowings is capitalized along with the asset till the date of completion of the asset
Capitalization of borrowing costs on general borrowings	A suitable method of allocation of common borrowing costs has to be developed

Annexure V

BALANCE SHEET as on 31/03/2005

	as on 31-03-2005								as on 31-03-2004
	Funds				Accounting Group			Memo-randum Total	
	Governmental	Enterprise	Fiduciary	Total	Fixed Assets	Long Term Debt	Total		
LIABILITIES									
Fund Balance	8,548.24	245,083.10	279.69	253,911.03	-	-	-	253,911.03	254,362.45
Long Term Liabilities	-	-	-	-	-	50,551.67	50,551.67	50,551.67	33,627.15
<u>Current Liabilities and Provisions</u>									
Current Liabilities	5,036.45	-	-	5,036.45	-	-	-	5,036.45	4,453.75
Deposits	2,584.12	-	-	2,584.12	-	-	-	2,584.12	2,477.31
Provisions	16,046.12	-	-	16,046.12	-	-	-	16,046.12	15,467.60
	23,666.69	-	-	23,666.69	-	-	-	23,666.69	22,398.66
Inter Fund Balances	-	213.72	-	213.72	-	-	-	213.72	71.32
Sources of Funds for Fixed Assets	-	-	-	-	84,733.34	-	84,733.34	84,733.34	53,584.80
Total	32,214.93	245,296.82	279.69	277,791.44	84,733.34	50,551.67	135,285.01	413,076.45	364,044.38
ASSETS									
<u>Fixed Assets</u>									
Buildings	-	68,661.84	267.71	68,929.55	6,670.28	-	6,670.28	75,599.83	73,288.63
Infrastructure Assets	-	-	-	-	65,772.78	-	65,772.78	65,772.78	41,018.68
Lands	-	175,521.64	-	175,521.64	9,146.07	-	9,146.07	184,667.71	181,699.97
Other Assets	0.13	6.39	-	6.52	2,988.52	-	2,988.52	2,995.04	1,563.62
Vehicles	-	-	-	-	155.69	-	155.69	155.69	104.72
	0.13	244,189.87	267.71	244,457.71	84,733.34	-	84,733.34	329,191.05	297,675.62
Long Term Investments	235.48	-	-	235.48	-	-	-	235.48	60.00
<u>Current Assets</u>									
Inventory	178.86	-	-	178.86	-	-	-	178.86	359.46
Receivables	8,995.29	123.94	-	9,119.23	-	-	-	9,119.23	10,778.11
Cash & Bank Balances	5,420.18	983.01	11.98	6,415.17	-	-	-	6,415.17	4,516.96
Loans and Advances	1,125.16	-	-	1,125.16	-	-	-	1,125.16	1,488.16
	15,719.49	1,106.95	11.98	16,838.41	-	-	-	16,838.41	17,142.69
Inter Fund Balances	213.71	-	-	213.71	-	-	-	213.71	71.32
Application of Long Term Liabilities	-	-	-	-	-	50,551.67	50,551.67	50,551.67	33,627.15
Work in Progress	16,046.12	-	-	16,046.12	-	-	-	16,046.12	15,467.60
Total	32,214.93	245,296.82	279.69	277,791.44	84,733.34	50,551.67	135,285.01	413,076.45	364,044.38

REVENUE & EXPENDITURE STATEMENT for the period 01/04/2004 to 31/03/2005

	2004-05				2003-04
	Governmental	Enterprise	Fiduciary	Total	
REVENUE					
<u>Revenue [Capital]</u>					
Grants	2,300.00	-	-	2,300.00	2,440.20
Long Term Loans	22,064.20	-	-	22,064.20	17,192.40
Non Tax Revenues	334.11	-	-	334.11	-
	24,698.31	-	-	24,698.31	19,632.60
<u>Revenue [Revenue]</u>					
Grants	11,473.29	-	-	11,473.29	11,071.81
Non Tax Revenues	6,992.44	357.03	-	7,349.47	7,186.66
Other Revenues	383.66	188.47	-	572.13	504.60
Tax Revenues	22,513.68	-	-	22,513.68	21,764.45
	41,363.07	545.50	-	41,908.57	40,527.52
Total	66,061.38	545.50	-	66,606.88	60,160.12
EXPENDITURE					
<u>Expenditure [Capital]</u>					
Buildings	1,944.45	-	-	1,944.45	1,634.37
Comprehensive	12.50	-	-	12.50	210.26
Development Programme					
Infrastructure Assets	24,754.10	-	-	24,754.10	22,075.93
Lands	3,262.66	-	-	3,262.66	3,672.06
Other Assets	1,431.29	-	-	1,431.29	899.04
Repayment of Long Term	5,139.68	-	-	5,139.68	4,477.27
Loans					
Vehicles	50.96	-	-	50.96	104.72
	36,595.64	-	-	36,595.64	33,073.65
<u>Expenditure [Revenue]</u>					
Council Related Expenses	189.18	-	-	189.18	160.98
Employees Retirement	3,228.55	-	-	3,228.55	2,721.33
Benefits					
Financial Expenses	3,234.06	-	-	3,234.06	2,587.63
General Administration	2,182.61	116.16	-	2,298.77	1,392.17
Expenses					
General Expenses	2,378.53	15.60	-	2,394.13	1,744.83
M & R to Buildings	270.07	50.52	-	320.59	286.88
M & R to Infrastructure	762.15	-	-	762.15	3,021.45
Assets					
M & R to Lands	147.04	-	-	147.04	18.32
M & R to Other Assets	801.78	-	-	801.78	736.28
M & R to Vehicles	145.08	0.13	-	145.21	123.61
Physical Educational	10.48	-	-	10.48	7.06
Activities					
Public Health	4,921.89	-	-	4,921.89	3,593.72
Public Works	95.86	-	-	95.86	156.30
Salary Expenses	11,160.53	117.39	-	11,277.92	10,538.09
Welfare Activities	700.23	-	-	700.23	262.89
	30,228.04	299.80	-	30,527.84	27,351.54
Total	66,823.68	299.80	-	67,123.48	60,425.19
NET SURPLUS / (DEFICIT)	(762.30)	245.70	-	(516.60)	(265.07)

CASH FLOW STATEMENT for the period 01/04/2004 to 31/03/2005

	2004-05			2003-04
	Cash	Investments	Total	
Opening Balance as on 01 April	4,516.96	60.00	4,576.96	5,082.89
Receipts	76,687.95	346.89	77,034.84	67,544.06
	81,204.91	406.89	81,611.80	72,626.95
Payments	74,789.74	171.41	74,961.15	68,049.99
Closing Balance as on 31 March	6,415.17	235.48	6,650.65	4,576.96

Annexure VI

Financial Statements prepared before Implementation of FBAS

Provisional Receipts & Expenditure Statement for the period 1-4-2000 to 31-3-2001, as per K.M.C Act 1976, schedule-I, & Rule 4, is prepared and placed			
Sl. No	Head of Accounts	Budget Provision for 200-03 (Rs. In Lakhs)	Provisional Accounts from 1-4-2000 to 31-3-2001 (Rs.)
1	Property Tax	11228.14	1120798000.00
2	Advertisement Tax	1051.00	26526000.00
3	Service charges on Central Govt Building	218.25	207100000.00
4	Income from Revenue Dept	72.64	7264000.00
5	Improvement charges from Revenue dept	165.00	49447000.00
6	Fees collected from Engg Dept	23565.61	2316966000.00
7	Other Fees collected from Engg Dept	2977.50	257441000.00
8	Fees collected from Health Dept	740.00	40121000.00
9	Misc Receipts from Health Dept	11.11	795000.00
10	Fees collected from Horticulture Dept	10.00	1256000.00
11	Fees from GAD Dept	8.00	561000.00
12	Grants - Census	396.50	28446000.00
13	Surcharge on Cauvery 4th Stg	972.70	6500000.00
14	Grants - Fire and Riots	5762.20	431607000.00
15	Other Fees collected from Education Dept	820.17	151000.00
16	Income from Capital Investments	12142.90	880360703.00
17	Grants from State Govt		96182710.00
	TOTAL	60141.70	5471522413.00

Annexure VII

Technology Brief

Windows 2000 Server Edition is used as the operating system in both the database and application servers. Windows XP or Windows 2000 - Professional Edition is used as the desktop operating system. The database of BMP is in Oracle. BMP has 3 database servers. One of the three database servers holds real time data for accounting system. Of the other two, one acts as the atabase server for property tax module and the other holds the database for other modules. Web-based applications are developed using ASP or JSP and non web-based applications are developed using VB. For ASP applications BMP uses IIS as application server and for JSP applications BMP uses a Tomcat server. Oracle is used as the standard back-end across all the applications.

Details on current network architecture:

Snapshot view of e-Governance initiatives in BMP

Parameter	Details
1.No. of Modules implemented	4
2. Platform/ Programming Language(s)/ Technology	J2EE, ASP, VB
3. Software Architecture	3-tier, 2-tier
4. Deployment Architecture	Centralized
5. Database	Oracle
6. Connectivity	Leased Lines
7. Hardware Platform (Servers)	Xeon, Pentium
8. Hardware Platform (Clients)	Pentium
9. Operating System (Servers)	Windows
10. Operating System (Clients)	Windows
11. Software Applications	- FBAS - Property Tax - Birth & Death - Complaints Mgmt.
12. Build or Buy	In-house, contracted, provided by BATF
13. Development Process	No recognized process
14. Backup Procedures	Backup daily to tape.
15. PPP Arrangements	eGovernments Foundation
16. Citizen Interfaces	Citizen Service Centres
17. Documentation	Limited documentation
18. Use of Local Language	Limited to user interface

Annexure VIII

Level 1: Corporate Level Reports

SL.NO	REPORT CODE	TITLE	PURPOSE	PERIODICITY	DEPT	TARGET GROUP
1.1	RP-1	Receipts & Payment Statement	To understand overall daily performance	Daily	FIN	Commissioner DCF CAO
1.2	BV-1	Budget Variance Analysis	To analyse the budget variance for monitoring	Monthly	FIN	Commissioner DCF CAO
1.3	W-1	Works Funds Utilisation Status Report	To analyse the status of works expenditure against funds released	Fortnightly	ENG	Commissioner EIC CE DCF CAO
1.4	W-2	Zone wise Works Summary	To review the overall status of works zone wise based on Type of Works	Monthly	ENG	Commissioner EIC CE DCF CAO
1.5	FS-1	Financial Statements Balance Sheet Revenue & Exp A/c	To understand financial position and performance	Monthly	FIN	Commissioner DCF CAO

Annexure IX

Summary Reports

Sl.no	Code	Report Title	Level	Particulars	User Dept	User
1	C 1	Revenue Transaction Summary	1,2,3	All Revenue Transactions Head of Account wise	Accounts	Accounts Staff
2	C 2	Expenditure Transaction Summary	1,2,3	All Expenditure Transactions Head of Account wise	Accounts	Accounts Staff
3	C 3	JV Transaction Summary	2,3	All Journal/Transfer type Transactions Head of Account wise	Accounts	CAO
4	C 4	Unit wise Revenue Summary	2,3	Lists out Revenue Transactions HOA wise for a particular Unit Office	Revenue / Engineering	Accounts Staff
5	C 5	Unit wise Expenditure Summary	2,3	Lists out Expenditure Transactions HOA wise for a particular Unit Office	Engineering	Accounts Staff
6	C 6	Unit wise Expenditure Summary-grouped	2,3	HOA wise summary of Transactions(without Transaction details) for a particular Unit Office	Engineering	Accounts Staff
7	C 7	Consolidated Revenue Collections	1,2	Day-wise / Head-wise Collection Summary for a particular bank of a Unit office	Revenue	ARO / AOR / A/c Staff
8	C 7a	Consolidated Revenue Collections - Monthly	1,2	Monthwise / Head-wise Collection Summary for a particular bank of a Unit office	Revenue	ARO / AOR
9	RP 1	Receipts & Payments Statement	1,2,3	Cash basis Receipts & Payments	Finance / Accounts	JCF / Commissioner / CAO
10	RP 2	Dept wise Receipts & Payments Statement	1,2	Dept wise breakup of Cash basis Receipts & Payments	Finance / Accounts	JCF / CAO
11	Ms 8	Salary Statement	2,3	Department wise Summary of Salary heads	Accounts	CAO
12	Ms 9	Salary Recoveries	2,3	Summary of Recoveries / Deductions from Salaries	Accounts	CAO
13	F 2	Fund Transfer Summary	1,2,3	Division wise Summary of Funds released from CAO's Section	Finance / Accounts	CAO / JCF

Annexure X

Most frequently used FBAS MIS Reports in BMP

Sl.no	Code	Report Title	Particulars	User Dept
1	TL 1	Revenue Transaction Listing	Lists out all Revenue Transactions Dept/voucher wise	Accounts
2	TL 2	Expenditure Transaction Listing	Lists out all Expenditure Transactions Dept/voucher wise	Accounts
3	TL 3	JV Transaction Listing	Lists out all Journal & Transfer type transactions Dept/voucher wise	Accounts
4	GL 1	General Ledger	Transactions of a particular head of Account with Opening & closing Balance Figures	Accounts
5	M 1	Chart of Accounts	Lists All Head of Accounts created in FBAS under Major - Minor - Sub Groups	Accounts
6	Ms 5	Voucher View	Displays a particular Voucher as entered	Accounts
7	RP 1	Receipts & Payments Statement	Cash basis Receipts & Payments	Finance / Accounts
8	Ms 8	Salary Statement	Department wise Summary of Salary heads	Accounts
9	Ms 2	Property Tax Collections Structure	Ward wise - Unit wise - Zone wise - Overall Structure of Property Tax Collections	Revenue
10	Ms 3	Unit wise Revenue Collections	Revenue Collections of a particular Unit and Department represented by a tabular format & a pie chart presentation	Revenue
11	BV 1	Budget Variance Report	Variance Analysis of Budget & Actuals	Finance / Accounts
12	WRK1	Work Code Master List	List of Work code with Description.	Engineering
13	WRK2	Engineering Work Details	Detail information of works with relevant dates.	Engineering
14	WLR5	WLR-Balance bills	Month & division wise balance bills.	Engg / Accounts