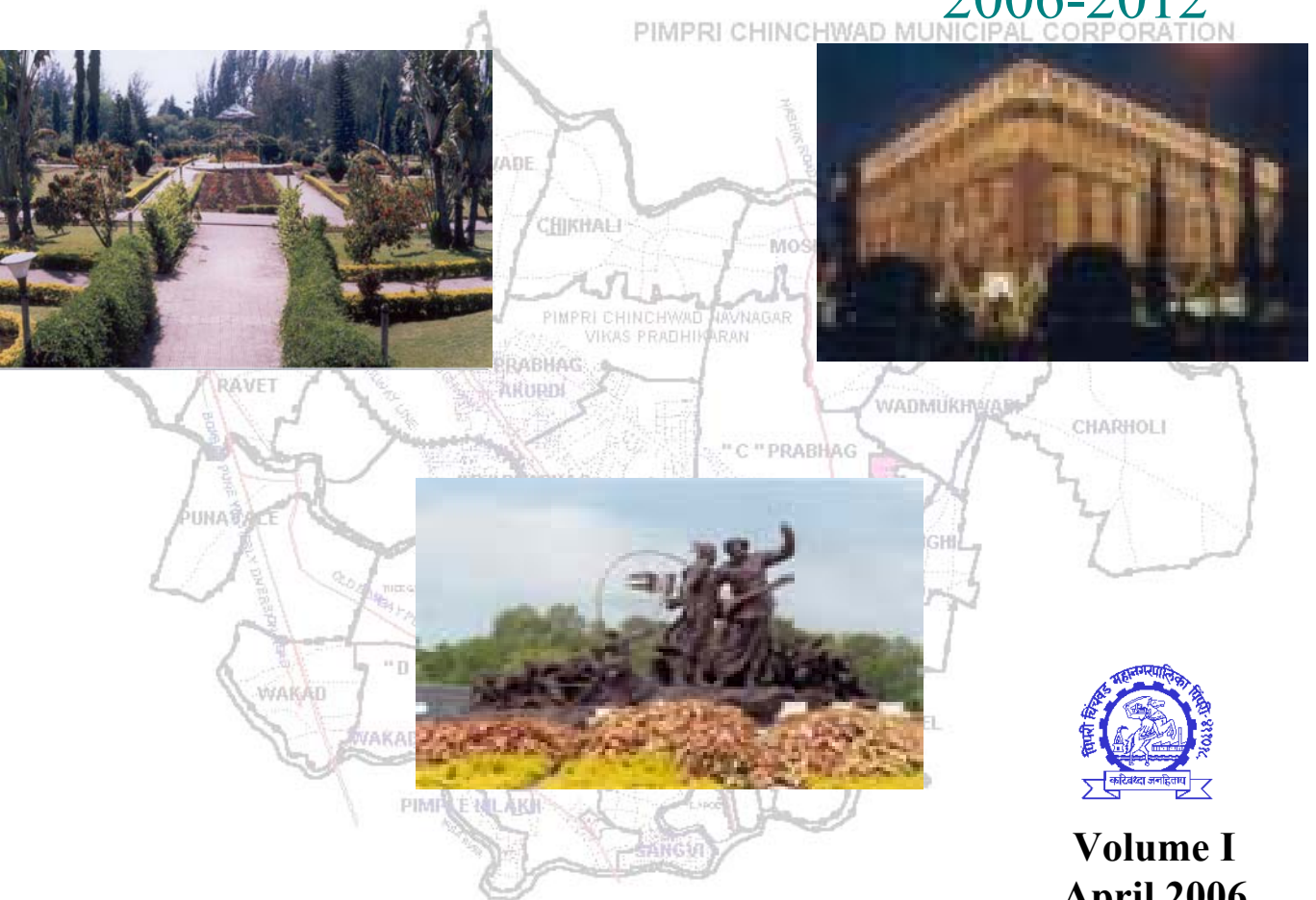


PIMPRI-CHINCHWAD

City Development Plan

2006-2012



Volume I
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Technical Assistance by



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ABBREVIATIONS

ARV	Annual Rateable Value
BT	Black Topped
CAGR	Compound Annual Growth Rate
CC	Cement Concrete
CDP	City Development Plan
CIP	Capital Investment Plan
DCB	Demand Collection Balance
DCR	Development Control Regulations
DPR	Detail Project Report
ESR	Elevated Storage Reservoir
EWS	Economically Weaker Section
FSI	Floor Space Index (same as FAR)
GLSR	Ground Level Storage Reservoir
GoI	Government of India
GoM	Government of Maharashtra
gpcd	Grams per Capita per Day
HHs	Households
IPT	Intermediate Public Transport
JNNURM	Jawaharlal Nehru National Urban Renewal Mission
LCS	Low Cost Sanitation
lpcd	Litres per Capita per Day
MIDC	Maharashtra Industrial Development Corporation
NGO	Non-Governmental Organization
O&M	Operation & Maintenance
PCMC	Pimpri-Chinchwad Municipal Corporation
PCMT	Pimpri-Chinchwad Municipal Transport
PMC	Pune Municipal Corporation
PMRDA	Pune Metropolitan Regional Development Authority
PMT	Pune Municipal Transport
PPP	Public Private Partnership
PT	Property Tax
RTO	Regional Transport Office
Sqkm.	Square Kilometre
SRA	Slum Rehabilitation Authority
STP	Sewerage Treatment Plant
SWM	Solid Waste Management
TDR	Transfer of Development Rights
UGD	Underground Drainage
WBM	Water Bound Macadam

EXECUTIVE SUMMARY

Municipal governments and other institutions in India responsible for providing civic services are facing an acute shortage of capacity and resources, notwithstanding the Constitution (seventy-fourth) Amendment Act, 1992 on Municipalities. Most municipalities are starved of resources on account of their inability to effectively use their revenue-raising powers, particularly those relating to property tax and user charges. The situation is grave, what with India's urban population estimated to account for 40% of the total population of the country by the year 2021 and our cities being perceived as engines of economic growth and drivers of India's economy. Given the current state of affairs of our cities, which is incompatible with the country's socio-economic objectives and India's growing role in the world economy, the Government of India (GoI) has launched the Jawaharlal Nehru National Urban Renewal Mission (JNNURM) in FY 2005-06. This will be in place till 2011-12 and aims to create economically productive, efficient, equitable and responsive cities.

The JNNURM assumes that to enable our cities to meaningfully contribute to India's economic growth and poverty reduction objectives, it is essential to create incentives and support for urban reforms both at the state and city level. The GoI has framed the JNNURM guidelines in such a way that applicant urban local bodies (ULB) will be eligible for grant assistance, provided the ULBs undertake certain reforms; the objective is to ensure improvement in infrastructure along with long-term sustenance of the ULBs. Thus, in order to be eligible for grant assistance under JNNURM, the GoI requires eligible cities to:

The reforms under JNNURM would include moves like developing appropriate enabling frameworks, enhancing the creditworthiness of municipal governments and integrating the urban poor with service delivery

- Formulate a medium-term City Development Plan (CDP) to align with citizens' interest and priorities,
- Prepare project proposals in accordance with CDP, and
- Draw up a timeline for implementing the urban sector reforms.

Objectives of CDP: The CDP is the municipal corporation's corporate strategy that comprises both a vision of a desired future for the city and the corporation's organisation, as well as mission statements on how the corporation, along with other stakeholders, intends to work towards attaining this long-term vision in the subsequent five to ten years.

The City Development Plan for the city of Pimpri Chinchwad was completed with the technical assistance of CRISIL Infrastructure Advisory.

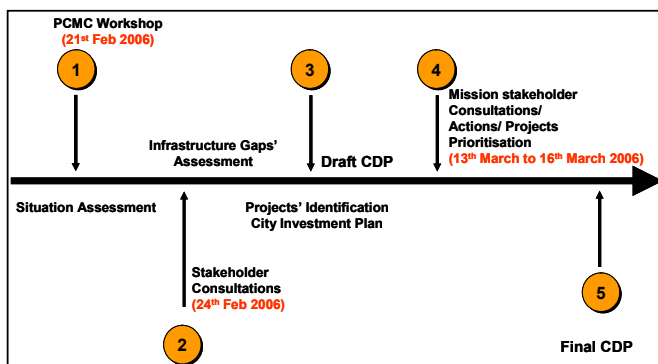
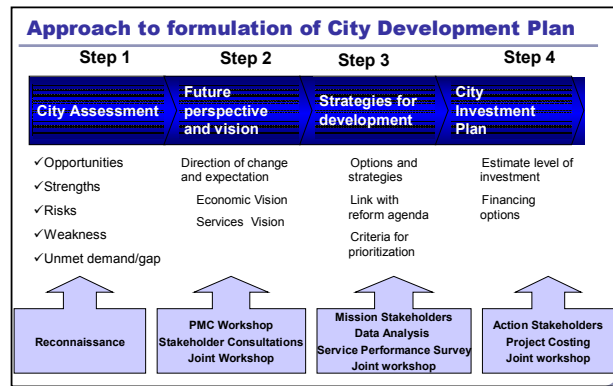
I. Process of preparation of CDP

The City Development Plan offers both a perspective and a vision for the future development of the city and involves an extensive consultative process. This CDP is thus also called the "Voice of Pimpri Chinchwad"; it addresses the following issues:



- Where are we now?
- Where do we want to go?
- What do we need to address on a priority basis?
- What interventions do we make in order to attain the vision?

The CDP process has been based on the active participation of stakeholders, drawn from various walks of life (officials, corporators, academicians, NGO activists, consultants, senior citizens, and the like). The CDP preparation process was executed in the following phases.



Phase 1 – Define vision and mission statements

Phase 2 – Identify priority actions to achieve missions

Phase 3 – Undertake feasibility assessments and investment scheduling

II. About Pimpri Chinchwad

The city of Pimpri-Chinchwad is situated towards the northeast of Pune and 160 km from Mumbai, the capital city of Maharashtra. It is predominantly an industrial area, which has developed chiefly during the last four decades. The process of urbanisation of this area began in 1954 with the establishment of Hindustan Antibiotics, a public sector pharmaceutical undertaking. With each passing year, the landscape saw significant changes, long stretches of farmland giving way to enclosed factory campuses. Today, Pimpri-Chinchwad is a major industrial centre of the Pune region and of the entire country.

Pimpri Chinchwad city is managed and governed by Pimpri Chinchwad Municipal Corporation (PCMC) and is responsible for providing infrastructure services to the citizens of the city. The city has an area of 171 sq. km with an estimated population of over 12.5 lakhs. For administrative purposes, the entire city is divided into four wards.

PCMC is governed by the Bombay Provincial Municipal Corporation (BPMC) Act, 1949.

With a high growth of around 100% in the last two decades and more than 150% in the previous decades, the city's service levels have been severely strained. This pressure is expected to intensify, since the population of Pimpri Chinchwad is expected to grow at a high rate in the subsequent three decades due to the all-round economic development of the Pune region. Accordingly, the population of the city is estimated to reach 15.07 lakhs and 21.50 lakhs by 2011 and 2021 respectively. To service this increased population efficiently, PCMC needs to upgrade its infrastructure and carry out urban reforms.



Evolution of Pimpri Chinchwad: Pimpri Chinchwad is a newly developed urban area of Pune city and was basically established as a centre for refugees from Pakistan. Industrialisation in Pimpri area commenced with the establishment of Hindustan Antibiotics Limited in 1956. The establishment of the Maharashtra Industrial Development Corporation (MIDC) in 1961-62 considerably facilitated industrial development in the area. In the last five decades, Pimpri-Chinchwad has developed as a major industrial centre and is home to large industrial conglomerates like the Tatas and Bajajs as well as other large Indian and multi-national companies. The presence of large-scale industries has spawned the development of a large ancillary sector, particularly Small and Medium Enterprises (SME) and Small Scale Industries (SSI). The city provides employment to industrial workers and of late has emerged as an affordable urban destination for low-level residential purposes.

The developments in the city and the hinterland have been complementary and supplementary to each other. Thus the development of the city has to be in harmony with that of the Pune Metropolitan Region (PMR). The city has the potential to contribute and support the development of the region on a larger scale.

Key drivers: UNIDO selected Pune in 2003 as a Dynamic City Region since the city's industrial development focuses on three main sectors; automobiles/auto components, information technology/electronics hardware, and biotechnology. In addition to the above factors, the region has the right blend of peace and prosperity and is home to sound education and industrial infrastructure. It is also fast transforming into an IT city of the 21st century.

The main drivers of economy in the region are:

- *Auto and auto ancillary industries*
- *Higher educational centres*
- *Strong development of the IT industry*
- *Potential to emerge as the bio-technology (BT) hub*
- *Growing agro and food processing industry*

The three 'I's, in the form of Institutions, Infrastructure and Industries are gifting the Mumbai-Pune corridor with the requisite support and facilities to create more opportunities and wealth for the state and for the country. Under the Maharashtra government's 3As initiative, i.e. Anytime, Anyhow, Anywhere (AAA), the objective of enhancing the IT policy for empowerment was attained. An economic perspective of the developments that have taken place and consideration of the emerging trends resulting from various initiatives make it apparent that the region will emerge as the IT capital of the 21st century.

With the development of industries in and around Pimpri Chinchwad, the city needs to follow a focused agenda for development. The consultations helped to draw the vision for the city's economic growth.

III. Vision for Pimpri-Chinchwad

Following intensive deliberations on the city's strengths, current issues, concerns, problems and future focus areas, the vision that emerged was:

'Pimpri-Chinchwad will be the place to live, spend and entertain. It will contribute towards maintaining and sustaining the vibrant economic growth of the region through a modern & systematised administration, an optimum level of services and enriched environment'



The vision aims at ensuring the '*economic development of the region*' by improving the quality of life of the citizens of Pimpri-Chinchwad. Given the focus on maintaining the economic momentum, some other objectives also need to be met simultaneously.

- ◆ Providing universal access to the urban poor
- ◆ Improving the standard of education
- ◆ Providing an efficient administration

For effective realisation of this vision, PCMC identified the focussed mission of making PCMC a leading digitally governed corporation through smart governance, which would result in quality administration and improved service delivery. A study of PCMC's infrastructure was necessary to comprehend its strengths and weaknesses.

IV. Infrastructure status of Pimpri Chinchwad

A detailed assessment of the current infrastructure status - water supply, sewerage, storm water drainage, roads, street lighting, solid waste management, slum up-gradation, etc. was carried out to grasp service gaps. The exhaustive exercise identified the infrastructure refurbishment and augmentation needs for Pimpri-Chinchwad city. The assessment status of the different services is elucidated below:

Water Supply System: The present source of water supply for the PCMC area is river Pawana. The service levels with regard to water supply -- a gross supply of over 185 lpcd and a net supply of 154 lpcd (accounting for distribution loss) -- are fairly good in Pimpri Chinchwad and well above those of other cities with similar characteristics. The distribution network reach is about 95 percent of the road length and the total storage capacity available is 32 percent of the installed capacity (228 MLD) of the system. The storage reservoirs are filled twice a day. The analysis indicates that the service is good; however, the newly added areas to PCMC face certain problems of network reach and low pressure.

Sewerage System: The sewerage system consists of an underground piped network. For effective administration, the city is divided into four sewer zones. While there is adequate installed capacity of sewerage treatment plants (70% of gross water supply and 85% of net water supply), the system falls short in conveying the entire sewerage generated to the treatment plants. The network is 615 km in length covering 80% of the total road network of the city. However, in terms of population coverage, only 50% of the city population is understood to be covered.

Storm Water Drainage System: The storm water drainage system in Pimpri Chinchwad comprises primary, secondary and tertiary drains. Primary drains comprise the rivers Mula, Pawana and Indrayani and the natural channels/ nallahs constitute the secondary drains. Tertiary drains are the roadsides built-up open or closed drains, which run to a length of 369 km. Together these drains, cover only 48 % of the total road network against a requirement of 150% for efficient service. The inadequacy of the system is clearly felt during monsoon with overflowing drains and flooded streets.

Solid Waste Management System: Of the 490 tonnes of waste generated every day, the source segregation activities have reduced considerably the quantum of waste to be collected by PCMC. Accordingly PCMC is required to handle only 440 tonnes per day. Also door-to-door collection has been started in some wards and PCMC plans to extend this system to the entire city in the near future. There are adequate numbers of dustbins and hand carts for the



primary collection activity. However PCMC is falling short in fleet size for secondary collection and transportation to disposal site. The present rated vehicle capacity of 305 tonnes is sufficient to handle only about 65 percent of the waste generated. Hence, PCMC is compelled to increase the number of trips per vehicle. The disposal site, about 62 acres in area, is located 15 km away from the city. However, no scientific method of disposal is followed. PCMC is contemplating acquisition of a new disposal site with engineered land fill and compost facilities.

Roads and Street lighting: The total road length in the city is 757 km of which 89 percent are surfaced. This network covers the length and breadth of the developed area of the city. Only the peripheral areas that are newly added to PCMC are lacking in sufficient coverage. Also, while the service reach is fairly placed, road surface condition has been an area of concern due to the phenomenal increase in the number of vehicles plying on the city roads. This also includes the regional traffic entering the city owing to lack of bypass/ ring roads. Consequently, the major roads and intersections of late have been experiencing traffic congestion during peak hours.

Further, the roads of the city are well lit with poles spaced at 20 mt average against an acceptable 30 mt. There are about 37,783 street light poles in the Pimpri Chinchwad city.

City Beautification - Garden Department & Tree Authority: The city beautification drive serves an important objective – abating pollution by planting trees and increasing the city’s green cover. The presence of river Pawana has also been a boon to the city beautification plan. PCMC has been active in improving the environmental status of the city. In the past 22 years, PCMC has seen the green cover of the city increase to 27%. It intends to increase this cover to 33% and thereby qualify as an “urban forest”.

Slums and Urban Poor in PCMC: The existence of slums can be traced back to the decade of industrialisation in Pimpri Chinchwad. Slums have proliferated as a corollary of industrial growth in and around PMR. At present, there are 61 declared and 10 undeclared slums on MIDC lands and government lands along major roads, railways lines and river banks and houses. The slum population accounts for 12 percent of the city’s 1.43 lakh population. The location of the slums is mainly influenced by the residents’ closeness and access to their workplaces. Also, a recent survey indicated the lack of adequate and basic infrastructure in most of the slums.

To rehabilitate the slums established prior to 1995, the state government has constituted the Slum Rehabilitation Authority (SRA) and 68 slums in the PCMC area qualify for rehabilitation under the SRA. The authority will rehabilitate the slums based on a privatisation model, by sanctioning additional floor space index (FSI) to the developers.

Land use and Growth Management: The growth management of the city is in the form of land use planning. Following the constitution of the planning authority in 1982, a Development Plan (DP) was prepared for the then PCMC area of 86 sq. km. and sanctioned by the Government on 18th September 1995. The DP came into force with effect from 2nd November 1995. Under this old DP which is due for revision in 2007, against a planned development of about 74% of the 86.01 sq.km, 32% of the area was developed. However, today a reconnaissance survey indicates that the entire area of 86.01 sq.km has been developed though not in line with what was envisaged in the DP.



In 1997, certain areas, which were under the planning control of PCNTDA, were merged with PCMC. A new DP was prepared for these areas. This is still in the draft stage and is yet to receive sanction.

The primary issue with regard to physical planning in Pimpri-Chinchwad is the time-consuming implementation of the DP that has resulted in the haphazard developments on the periphery of the city. A specified growth pattern as envisaged in the Development Plan is necessary for an orderly development and transformation of the city.

Urban Transport: With respect to public transport facilities, Pimpri Chinchwad Municipal Transport (PCMT) is the sole provider of the service and has been in operation since 1974. The public transport system in PCMC area is one of the most important components of the CDP and has to be considered as an integral part of the Pune Metropolitan Region (PMR) comprising Pune and Pimpri-Chinchwad. With a population of five millions, PMR creates 3.5 million commuters on a daily basis. Of this, PCMT caters to only 22% of the commuters leaving the rest to use other modes of transport like three-wheelers and personalised vehicles.

Over the years, the passenger base and operational efficiency of PCMT has reduced considerably owing to the lack of adequate improvements in the system. There are more than 3.4 lakh registered vehicles in PCMC. Their number has been growing at the rate of over 13% during the last five years. The most important fallout of the enormous number of vehicles on the road is the threat to the safety of pedestrians/ children and the aged. In PMR, about 300 persons die on account of road accidents every year.

Based on this assessment of infrastructure, a demand-supply gap analysis was carried out to estimate the level of investments needed for the city of Pimpri-Chinchwad. Accordingly an infrastructure development plan was chalked out.

V. Infrastructure development plan

The plan estimates the capital investment required for providing efficient services to the present population and future population of PCMC by the year 2031 as Rs. 4416 crores at constant prices. Of this, a total of Rs. 3962 crores is proposed for investment by 2011-12.

The planning horizon for projects identified in the sectors of urban poor/ slums, land use/ development planning and other projects is 2011-12. Accordingly, the entire identified investment is proposed for funding by 2011-12 itself. The planning horizon for the core service sectors of water supply, sewerage, drainage and solid waste management is 2031. Hence, only a part of the identified investment is proposed for funding by 2011-12. PCMC will need to plan for the remaining identified investment to be funded beyond 2011-12 but before 2021. In case of roads, traffic and transport sectors, 97 percent of the identified investment is proposed for funding by 2011-12 considering the immediate need for improving the road network and transport systems in the city.

The table below presents the summary of sector-wise total investment needs and investments made up to 2011-12.



Summary of Capital Investments

Sector	Total Investment Need (Rs. lakhs)	Investment till 2011-12 (Rs. lakhs)			% Investment till 2011-12 against Total
		Base Cost	Escalated Cost*	% Sector wise of Total	
1 Water Supply	52412	36503	44575	9 %	70 %
2 Sewerage & Sanitation	33806	20119	25777	5 %	60 %
3 Roads, Traffic & Transport	211991	205891	255189	52 %	97 %
4 Drains	39574	32368	41114	8 %	82 %
5 Street Lights	2330	1787	2282	0.5 %	77 %
6 Solid Waste Management	5045	3152	3807	1 %	62 %
7 Urban Poor/ Slums	23056	23056	29154	6 %	100 %
8 Land use/ Dev. Planning	9638	9638	11731	2 %	100 %
8 Others +	63749	63749	80258	16 %	100 %
Total	441601	396263	493887	100 %	90 %

* Escalated cost includes Physical contingencies and Technical assistance at 10% of total cost and 6% cost escalation due to inflation.

+ Includes River Conservation project.

Fifty two percent of the total identified investment is proposed in the roads, traffic and transport sector towards up-gradation, new construction, widening and strengthening works, Mass Transit systems, public transport systems, bridges and junction improvements. The majority of these projects are prioritised for funding by 2011-12. Water supply system improvements and augmentation account for nine percent followed by drains at eight percent. Six percent of the investment till 201-12 is proposed for various urban poor/ slum development programs.

Five percent of investment till 2011-12 is proposed in the sewerage sector. This is followed by two percent % for land use planning. Sixteen percent of the investment till 2011-12 is proposed in non-core sectors for programs like river conservation, inner city revitalisation, relocation of markets and economic infrastructure, system modernization, year-to-year minor capital works etc.

In addition to these identified investment needs, PCMC also needs to provide for the implementation of certain reforms mandatory under JNNURM.

VI. Reform Strategy

Though one of the main aims of JNNURM is to finance the infrastructure investments identified as part of the CDP, the larger objective of the mission is to initiate the much-needed reforms in ULBs. The mission has identified certain mandatory and optional reforms to be undertaken during the mission period for the ULB to be eligible for funding; the reforms are at the level of State government and the ULB.

Of the mandatory reforms listed below, PCMC has already initiated some and plans to implement the rest and more aspects under each reform in a time- bound manner over the next five years. The execution status of each reform is presented below.

1. Adoption of a modern accrual-based double-entry system of accounting – **Process already initiated by PCMC**



2. Introduction of a system of e-governance using IT applications such as GIS and MIS for various services provided by the ULB – ***Already in place and PCMC plans to implement more aspects of e-governance***
3. Reform of property tax with GIS and achievement of collection efficiency of 85 per cent of the demand by the end of the mission – ***Process already initiated by PCMC***
4. Levy of reasonable user charges to ensure that the full cost of O&M or recurring cost is collected within the next seven years – ***PCMC plans to implement this over the next five years***
5. Internal earmarking in budgets for basic services to the urban poor – Already in place; PCMC plans to increase allocations in line with the CDP proposals.
6. Provision of basic services to the urban poor including security of tenure at affordable prices – ***PCMC plans to implement this over the next five years.***

The JNNURM has also identified seven optional reforms that the ULB needs to implement -- two reforms each year -- to be eligible under JNNURM. The specific items under each reform, which PCMC intends to implement as part of these reforms, are listed below.

1. Revision of byelaws to streamline the approval process for construction of buildings, development of site etc years – ***PCMC plans to implement this during 2006-07 in line with the revision of the DP which is due in 2007.***
2. Earmarking at least 20-25% cent of developed land in all housing projects (both public and private agencies) for economically weaker sections (EWS) and low-income groups (LIG) category with a system of cross subsidisation years – ***PCMC proposes to implement this in phases from FY 2006-07. PCMC has initiated consultations with builders associations for this project.***
3. Revision of byelaws to make rainwater harvesting mandatory in all buildings and adoption of water conservation measures – ***Already in place***
4. Byelaws for reuse of recycled water – ***Already in place***
5. Administrative reforms i.e. reduction in establishment costs by adopting the Voluntary Retirement Scheme (VRS), not filling posts falling vacant due to retirement etc., and achieving specified milestones in this regard – ***PCMC shall explore the possibility of VRS in departments where it is possible and simultaneously plan to upgrade the technical skills of the staff by organising training programmes from 2006-07.***
6. Structural reforms – ***As part of structural reforms, the merger of PMT and PCMT is in the final stages. PCMC is also planning the constitution of PMRDA and Metropolitan Committee in consultation with PMC.***
7. Encouraging Public-Private-Partnerships (PPP) – ***Initiatives have already been taken up in the conservancy sector. Also, hospital waste management and Citizen Facilitation Centres are already based on the PPP format. In addition to these services, PCMC proposes to explore various innovative contracting options like deferred payments for major infrastructure projects (High Capacity Mass Transit system, BRTS and certain non technical activities). PCMC plans to take up these actions from 2007-08 in phases.***

Following the study of infrastructure and reforms, an assessment of PCMC's financial situation was undertaken to identify surpluses available for meeting its investment needs and also to measure the impact of proposed reforms on its investment capacity.



VII. Existing Financial Profile of PCMC

An assessment of the annual accounts of PCMC showed that revenue income (a combination of general and water account) of PCMC has grown to a level of Rs. 46138 lakhs in FY 2004-05 from Rs. 21697 lakhs during FY 2000-01, registering a compounded annual growth rate (CAGR) of 21 percent, while revenue expenditure has increased at a CAGR of 10 per cent. This indicates the corporation's sound financial condition. The corporation has maintained an average revenue surplus of over 40 percent of its revenue income. The salient features of the finances of PCMC are detailed below:

- Considerable annual surplus (about 40 percent of the revenues)
- Limited external dependency
- PCMC's large (over 75%) dependency on octroi
- Current collection efficiency of property tax recorded at about 42%
- Highly subsidised water supply -- cost recovery is around 30%
- No debt burden and hence no debt servicing commitments
- Interest on investments contributing largely to revenues

Given this sound financial condition, PCMC has been meeting bulk of its capital expenses on creation of assets for infrastructure provision through internal generation only and has enormous potential to leverage the Corporation's resources to mobilise debt funds for implementation of large-scale infrastructure projects. The fact that PCMC received AA+ credit rating from CRISIL also signifies the same.

VIII. PCMC's financing strategy for sustaining investment

Given the existing financial position of PCMC, the revenue and capital accounts of PCMC are projected against specific assumptions against each of the revenue heads including property tax and user charges. The Financial Operating Plan (FOP) is generated from the sustainable investment point of view in line with current growth trends against the **recommended investment of Rs. 3963 crores at constant prices till 2011-12.**

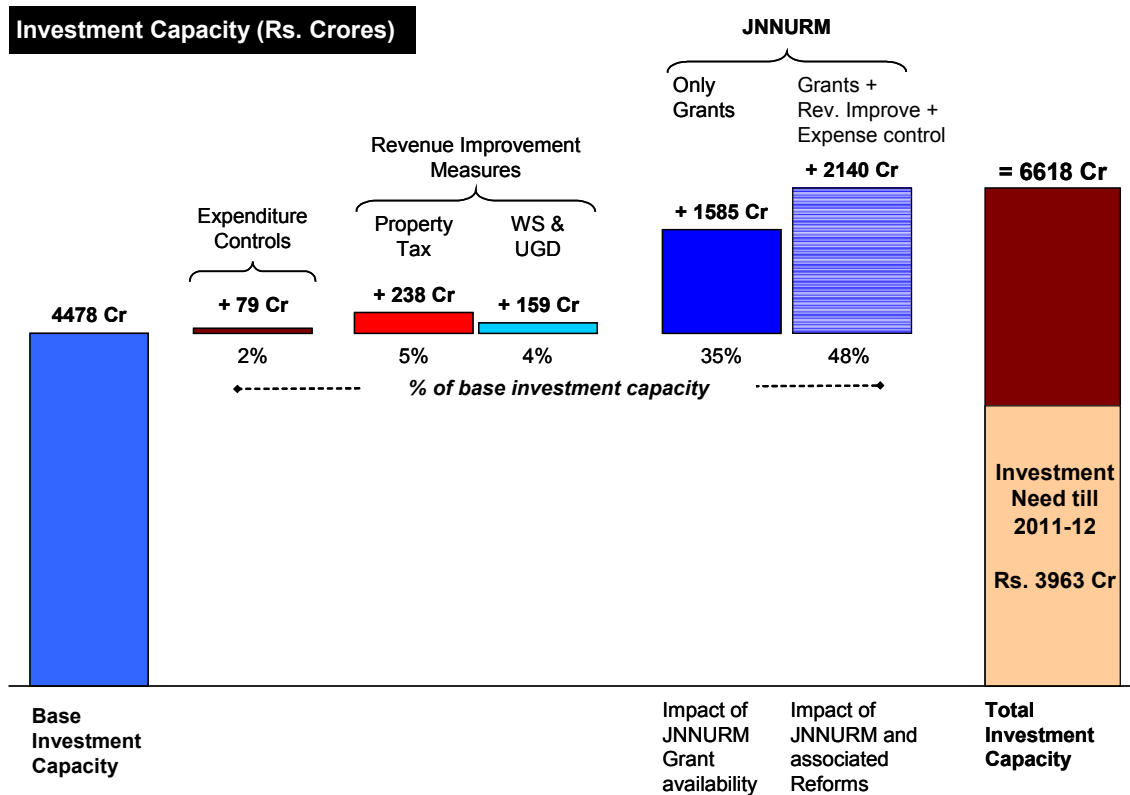
The receipts of PCMC are expected to be 2.6 times their current levels by 2012-13 under the projection scenario. The revenue improvement and expenditure control measures coupled with the availability of grants under JNNURM framework give PCMC an **investment capacity of Rs. 6618 crores (constant prices)** over the next six years against an investment need of Rs. 3963 crores by 2011-12, i.e. **investment sustenance of 167 percent against the need.**

It is observed that following the current growth trends; PCMC can sustain an investment of Rs. 4478 crores (constant prices), which is 113 percent of the identified investment till 2011-12. This indicates the soundness of PCMC's financial condition and its capacity to take up large scale infrastructure projects on its own. The impact of various revenue improvement and expenditure control measures are assessed in terms of their additions to the corporation's investment capacity.

Expenditure control measures in the form of energy efficiency measures in all departments of PCMC and part privatisation of maintenance functions in water supply, sewerage, and



conservancy sectors would increase the investment capacity of PCMC by about Rs. 79 crores, i.e. 2 percent of the base investment capacity.



Various revenue improvement measures in property tax like identification of unassessed properties, regular revision of tax rates and improvement of the collection efficiency are bound to increase the investment capacity by an additional Rs. 238 crores, amounting to an additional five percent of base investment capacity. Further, revenue improvement measures in water supply and sewerage sectors like the regularisation of unauthorised connections, regular revision of user charges and new connection deposits, and improvement of the collection efficiency are bound to augment the investment capacity by an additional Rs. 159 crores on the base investment capacity.

Availability of JNNURM grants, which will fund the majority of the identified investment, will improve the investment capacity by Rs. 1585 crores against the base investment capacity. Since JNNURM funds are available only with associated reforms, the same is also assessed. JNNURM grants availability together with all revenue improvement and expenditure control measures as mentioned above will add a significant Rs. 2140 crores to the base investment capacity of Rs. 4478 crores, thus taking the total investment capacity of PCMC to Rs. 6618 crores, which is 167% of identified investment till 2011-12 of Rs. 3963 crores.

IX. Expected Outcomes

The level of economic development in PCMC areas is satisfactory. A great deal of development is happening not only within Pimpri Chinchwad’s limits, but also outside. Through the CDP, PCMC expects to achieve two objectives: provide the necessary civic services to its citizens and continue economic development. PCMC’s resource requirements



can be realistically met with JNNURM funds (from both the State and the Central Government), PCMC's internal revenue surpluses and expected additional revenues from the implementation of reform measures. At the end of the JNNURM mission period, PCMC would have achieved full service coverage and would also maintain a sustainable financial position. PCMC would also have built on its strong governance framework to establish a citywide planning and governance framework and ensure modern financial management, effective e-governance and transparency in its functions.



1. PROJECT BACKGROUND

1.1. BACKGROUND

As per the 2001 census, the urban population of India stood at 285.35 million, which is about 27.8 per cent of the country's total population; by 2021, the urban population is estimated to account for above 40 per cent of India's population. Thus, cities and towns are expected to play a vital role in India's socio-economic transformation and change. Apart from their contribution to the country's gross domestic product (GDP), which is currently placed at about 50-55 per cent, and their growing role in global markets, cities in India will be the engines of economic growth, the centre-points of innovation and the hub of many socio-economic activities. But the current state of affairs in most of our urban areas is unsatisfactory on all parameters of urban governance like planned growth, share of slum population, reliability of civic infrastructure and financial resources. All these factors will have a significant negative economic consequence if not addressed in a planned manner.

Municipal governments and other institutions responsible for providing services are facing an acute shortage of capacity and resources, notwithstanding the Constitution (74th) Amendment Act, 1992 on municipalities. Most municipalities are starved of resources on account of their inability to effectively use their revenue-raising powers, particularly those relating to property tax and user charges.

Given the current state of affairs of our cities, their incompatibility with the country's socio-economic objectives and India's growing role in the world economy, the Government of India launched, the Jawaharlal Nehru National Urban Renewal Mission (JNNURM) in FY2005-06. This mission will be in place for the next seven years and aims at creating economically productive, efficient, equitable and responsive cities. The Jawaharlal Nehru National Urban Renewal Mission focuses on:

- Improving and augmenting the economic and social infrastructure of cities
- Ensuring basic services to the urban poor including security of tenure
- Initiating wide-ranging urban sector reforms whose primary aim is to eliminate the legal, institutional and financial constraints that have impeded investment in urban infrastructure and services
- Strengthening municipal governments and their functioning in accordance with the provisions of the Constitution (seventy-fourth) Amendment Act, 1992. It provides for public disclosure of local spending decisions together with the earmarking of budgetary locations for basic services to the poor.

The JNNURM assumes that in order to make our cities contribute meaningfully to India's economic growth and poverty reduction objectives, it is essential to create incentives and support for urban reforms both at the state and the city level by:

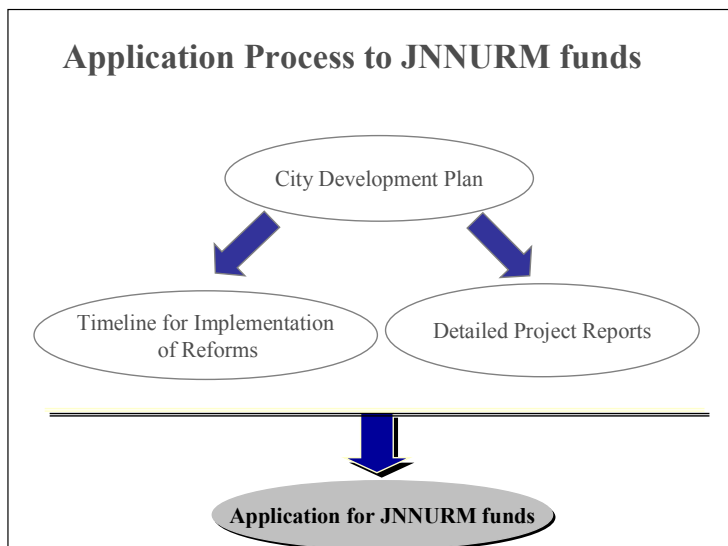
- Developing appropriate enabling frameworks;
- Enhancing the creditworthiness of municipal governments; and
- Integrating the urban poor with the service delivery systems.



The Jawaharlal Nehru National Urban Renewal Mission is also designed to encourage the involvement of the private sector in service delivery and management and thus in the implementation of the reform agenda. It accordingly provides for the participation of business, industry, civic groups and communities in local decision-making. It is estimated that cities with a million plus population and a few special cities (about 63 cities) together need about Rs. 1,25,000 crores to cover the gap in their infrastructure-building funds. To meet this gap, the Government of India (GoI) proposes to allocate about Rs. 50,000 crores during the next seven years in the form of grants to urban local bodies (ULBs). But GoI has framed the JNNURM guidelines in such a way that applicant ULBs will be eligible for grant assistance, provided the cities undertake certain reforms; the objective is to improve infrastructure as well as ensure long-term sustenance of the ULBs. Thus, to be eligible for the

grant assistance under JNNURM, the Government of India requires cities to:

- Formulate a medium-term City Development Plan (CDP) to align with citizens interest and priorities,
- Prepare project proposals in accordance with the CDP, and
- Draw up a timeline for implementing the urban sector reforms.



Subject to the fulfilment of the above-stated requirements and

their satisfactory appraisal, the Government of India, Ministry of Urban Development/Ministry of Urban Employment and Poverty Alleviation will sign a Memorandum of Agreement (MoA) with the state government and the City, and release funds in accordance with the payment schedule that will form a part of the Memorandum of Agreement (MoA).

The formulation of a City Development Plan is thus a mandatory requirement for accessing JNNURM funds. In this context, the government of Maharashtra (GoM)/PCMC have appointed CRISIL Infrastructure Advisory to prepare the CDP for Pimpri Chinchwad.

1.2. OBJECTIVES OF A CITY DEVELOPMENT PLAN

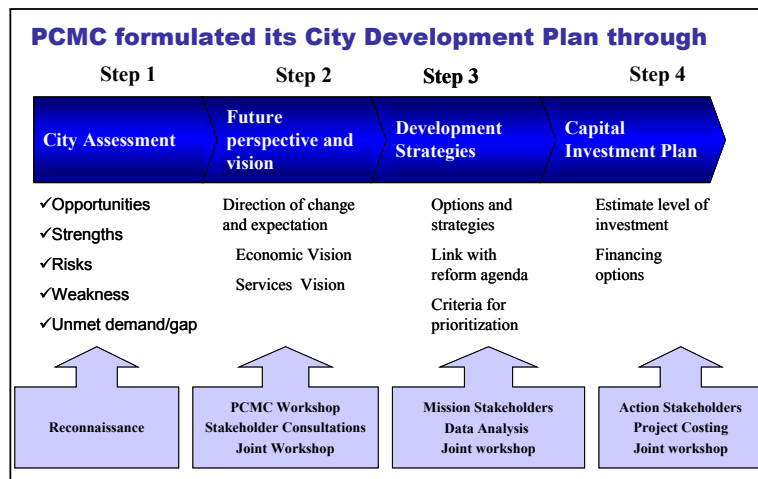
The City Development Plan (CDP) is the municipal corporation's corporate strategy that presents both a vision of a desired future for the city and the Corporation's organization, as well as mission statements on how the Corporation, together with other stakeholders, intends to work towards achieving this long-term vision in the next five years.

The CDP should lead to the translation of missions into actions and actions into outcomes. The objective of involving the stakeholders through a consultation process and securing endorsement by the local body and other implementing agencies who have committed themselves to action is that they can be held accountable for their mission statements, actions and expected outcomes.

The CDP clearly defines how a Corporation will **serve its customers** (businesses and citizens). For example, the CDP will talk about how the Corporation intends to guarantee a basic level of urban services to all citizens; make urban planning responsive to emerging needs; and become responsive to the needs of, and improve its services, to local businesses. The CDP will also outline how the Corporation plans to **run its business**. The CDP will elaborate how the Corporation intends to manage public finance in a modern and transparent way; execute urban planning and governance in line with an established framework; and become more responsive -- cost and time efficient – by availing of technology in its governance and service delivery processes. Finally, the CDP will reveal the Corporation’s strategy to **manage its resources**, i.e. how it intends to increase revenues and expand its tax base to allow for self-sustaining urban service delivery; improve its creditworthiness; and recruit and retain a skilled workforce.

1.3. THE CDP PROCESS ADOPTED FOR PIMPRI CHINCHWAD

In order to achieve the objectives specified, CRISIL Infrastructure Advisory undertook the following tasks and activities in preparation of CDP. The approach to the preparation of the City Development Plan is illustrated in the flow chart below:



In the **first phase**, which aimed at – defining vision and mission statements for PCMC, data was collected from the corporation and other agencies to gain a preliminary understanding of the city. The city assessment and strength, weakness, opportunity and threat (SWOT) analysis was carried out. Stakeholders from diverse backgrounds like NGOs, Chambers of Commerce, educationists, and citizen groups were identified.

As a **second step**, a workshop with PCMC officials was organised to formulate their vision and focus areas by familiarising them with the objectives of JNNURM. Additional information on demographics, economy, civic services, physical features, etc. was collected to assess the validity of the proposed actions. A credit assessment was conducted to provide an insight into the corporation’s current performance and financial management practices, and to provide an opinion on the ability of the corporation to meet its financial commitments on a timely basis (creditworthiness). Additionally, other economic indicators of the city’s status (per capita income, number of vehicles registered) were also assessed. The receipts and expenditures of the PCMC were analysed. Also, the operating efficiency of the core infrastructure services provided by the corporation was evaluated.

As a part of the **third step**, a second workshop to define vision/mission statements was organised. The findings from the assessment were shared with all the stakeholders and the facts and figures on various sectors were presented. Focus sectors were identified and sub groups comprising PCMC officials and stakeholders were formed. The objective of each



group was to formulate the vision for the city and for the sector under the consideration of the group, and detail out strategies to achieve the vision. The aim of this workshop was also to reach a consensus on strategies for each focus area.

Phase two of the CDP preparation process, aiming at feasibility assessments and investment scheduling, was executed in three steps. The first step entailed identification of the types and sources of financing -- internal resource generation; support from state and central governments, local financial institutions and donor agencies; and public-private partnerships - - for each priority action. The risks and suggested risk management measures for debt financing of commercially viable projects were assessed. The financing was structured by ensuring maximum leverage of local financial resources through grants and private sector investments.

The next step was to schedule priority actions and develop a City Investment Plan (CIP). An implementation plan for all the prioritised projects/actions in a logical sequence based on the availability of resources was prepared. The CIP for the identified projects was finalised following consultation with PCMC officials. A Financial Operating Plan (FOP) to outline the preliminary budget and clarify financing assumptions and responsibilities for implementation and financing was prepared.

The third step was to finalise the draft CDP based on feedback from the stakeholder workshop. A summary of the CDP will be published for wider dissemination among participating stakeholders. This would be the final City Development Plan for Pimpri-Chinchwad.



2. INTRODUCTION

Pimpri-Chinchwad is situated towards the northeast of Pune and 160 km. from Mumbai. The city of Pimpri-Chinchwad is predominantly an industrial area, which has developed largely during the last four decades. Pimpri Chinchwad is a relatively newly developed urban area of Pune city. Pimpri was basically established as a centre for refugees from Pakistan. Industrialisation in Pimpri area commenced with the establishment of Hindustan Antibiotics Limited in 1956. The establishment of the Maharashtra Industrial Development Corporation (MIDC) in 1961-62 considerably facilitated industrial development in the area. The establishment of large-scale core industries has led to the growth of ancillary and small-scale industries in and around this industrial belt. With each passing year, the landscape saw significant changes, long stretches of farmland giving way to clusters of enclosed factory campuses.

2.1. GEOGRAPHY

The city of Pimpri-Chinchwad is situated near the western margin of the Deccan Plateau on the leeward side of the Sahyadri ranges and Western Ghats, 560 m above sea level, on the banks of the rivers Mula, Pawana and Indrayani.

The city lies in the seismically active zone of Koyna Region, which is about 100 km. south of Pune. The region has recently been upgraded to lie in zone IV, which is the second most dangerous seismic zone in India. Consequently, the area has experienced some moderate-intensity and many low-intensity earthquakes. Although earthquakes were not known to have originated in the cities of Pune or Pimpri-Chinchwad, an earthquake of a very slight intensity took place in Pune with its epicentre in Dehu . Seismologists were however unable to explain the occurrence of this earthquake.

2.2. CLIMATE AND RAINFALL

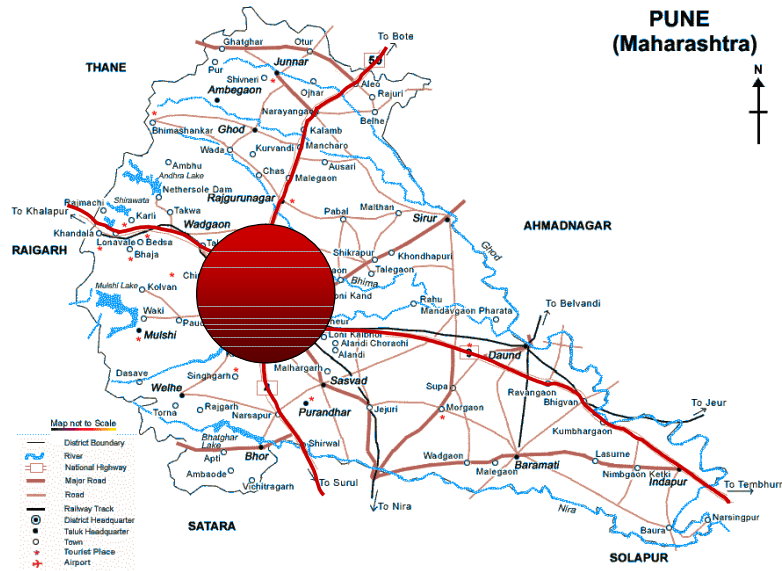
Pimpri-Chinchwad experiences three distinct seasons: summer, monsoon and winter. Typical summer months are from March to May, with maximum temperatures ranging from 35 to 39°C (95 to 102°F). Contrary to most of the Deccan Plateau where May is the warmest month, the warmest month in Pimpri-Chinchwad is April. The city often receives locally developed heavy thundershowers with sharp downpours in May. Though the temperatures plunge in this month, the summer heat accompanied by high humidity can be occasionally quite oppressive. Nevertheless, the nights are significantly cooler compared to most other parts in this region owing to its high altitude.

The cities of Pune and Pimpri-Chinchwad receive moderate rainfall, an annual average of 722 mm., mainly between June and September as the result of southwest monsoon. July is the wettest month of the year. The weather is very pleasant in the city with average temperatures ranging from 20 to 28°C (68 to 82°F). The cities experiences winter from November to February -- pleasant windy days, clear skies and cool nights make it the most enjoyable time of the year. The day temperature hovers around 29°C (84°F) while night temperature is below 10°C (50°F) for most of December and January, often dropping to 5 or 6°C (42°F). On particularly cold days, the wind may appear to be very chilly due to the dryness of air. Rain is very rare in this season.



The highest temperature recorded was 110 °F (43.3°C) on 30 April 1987 and 7 May 1889. The lowest temperature recorded during 1881-1940 was 35 °F (1.7°C) on 17 January 1935. More recently, Pune recorded a lowest temperature of 2.8°C on January 1991.

2.3. LINKAGES AND CONNECTIVITY



Pimpri-Chinchwad being an extension of Pune, enjoys the excellent connectivity that Pune has. The city is well connected by road, rail and air to almost all-important cities in India. It is extremely well connected to most of the important cities in India like Mumbai, Hyderabad, Bangalore, Delhi, Kolkata and Chennai. Pune suburban trains also run from Pune Junction to Pimpri-Chinchwad. Pune now has an international-

deemed airport, with flights to Singapore and Dubai. Domestic flights are available to most metropolitan cities in India. Pimpri-Chinchwad is situated along the National Highway, NH-4 leading to Mumbai.

2.4. ECONOMIC BASE

Initially, the region had a traditional agro based economy; its metamorphosis into an industrial hub and a knowledge-driven region has been incredible. Today, Pune and its surroundings comprising Pimpri-Chinchwad is a cluster for the auto and auto ancillary industries; the emergence of Pune as a tech destination has also supported the emergence and existence of ancillary and supporting units in Pimpri-Chinchwad.

The main drivers of economy in this region are:

- Auto and auto ancillary industries
- Higher educational centres
- Strong development of the IT industry
- Potential to emerge as the bio-technology (BT) hub
- Growing agro and food processing industry
- Selection of Pune by UNIDO in 2003 as a Dynamic City Region
- Listing of Pune by Forbes as the third most Favored World Corporate Destination

As an Auto-hub: The establishment of Hindustan Antibiotics and MIDC marked the beginning of industrialisation in the area. Stringent restrictions imposed by the state

government on industrial expansion in Mumbai and Thane coupled with the availability of necessary infrastructure in the Pimpri Chinchwad area, induced national and multinational companies to set up establishments along the rail corridor. In 1960, MIDC set up a huge industrial estate on 4000 acres of land at Bhosari. This development led to a spate of engineering ancillary industries being set up in Pimpri-Chinchwad.

Later, Pimpri-Chinchwad also witnessed the entry of auto-majors such as Tata Motors, Bajaj Auto and Bharat Forge Ltd. It is also home to Kinetic Engineering, Force Motors/ Bajaj Tempo. Later additions are an assembly line for the Mercedes Benz brand and a Research & Technology centre for Cummins Engines Co Ltd. Pune metropolis is now recognised as the Auto Nagar/ Auto Cluster due to the presence of several automobile ancillary units. While in 1980, there were only about 200 factories, by 1990, the number extended beyond 1000; by the year 2000, the number of factories had increased to 5000, making the Pune metropolis one of the largest industrial areas of India.

As an emerging IT & BT Centre: The future drivers of the Pune and Pimpri-Chinchwad economy would be the IT sector. Today, Pune has a burgeoning software industry; almost all the major software players in the country like TCS, Wipro, Infosys, Mahindra British Telecom, Mastek and PCS have a significant presence in Pune; this factor also drives the economy of Pimpri-Chinchwad. The region is estimated to have close to 54,000 people working in the IT sector.

As an Agro Business Centre: Pune region with its diverse industrial activities is also an emerging agro business centre specialising in horticulture, floriculture etc. Given the distinctive characteristics of the agro-industry, many value-added industries like food processing have flourished in this region. The demand in this region also increased due to the presence of markets at Mumbai, Nasik, Nagpur and Aurangabad.

2.4.1. Pune recognised as a Dynamic City Region by UNIDO

UNIDO selected Pune in the year 2003 as a Dynamic City Region since the city's industrial development focuses on three main sectors -- automobiles/auto components, information technology/electronics hardware, and biotechnology. In addition to the above factors, the region has the right blend of peace and prosperity, sound educational facilities and industrial infrastructure; it is fast transforming into an IT city of the 21st century. The three 'I's, in the form of Institutions, Infrastructure and Industries are gifting the Mumbai-Pune corridor with the requisite support and facilities to create more opportunities and wealth for the state and for the country. Under the Maharashtra government's 3As initiative, i.e. Anytime, Anyhow, Anywhere (AAA) connectivity, the objective of enhancing the IT policy for empowerment was attained. An economic perspective of the developments that have taken place and consideration of the emerging trends resulting from various initiatives make it apparent that the region will emerge as the IT capital of the 21st century.

2.4.2. Industrial and Commercial Activity in PMR

Large and Medium Scale Industries

The growth of the Pune region is being driven by various industry segments. The sectors that are vibrant today are auto, auto components, forgings, mechanical components, food



processing and service industries like IT and IT enabled services. The region boasts of a number of established large businesses in every segment. Phase I and Phase II of industrial estates developed by MIDC are fully occupied and Phase III of the project is under development.

The development of the IT park at Hinjawadi received an immense response from IT companies in India and abroad; the major IT firms which established their presence in Pune include Infosys Technologies, Wipro Technologies, KPIT Cummins, Geometric Software Solutions, Mahindra British Telecom, L & T Infotech, and Persistent.

The large-scale industries in the automobile sector are Tata Motors, Bajaj Auto, Force Motors, Mahindra and Mahindra, Kinetic Engineering, Daimler Chrysler, and Piaggio Vehicles. These are not just large-scale industries in terms of investment, but they also create large employment opportunities. The other sectors where medium to large-scale investments are being made are the BT and agro sectors; BT majors like Emcure Pharmaceuticals and Venkateshwara Hatcheries and agro sector players like Gits Food Products, Weilfield Products, and Chitale Bandhu have already established their operations in this region.

Medium Scale Industries and Small Scale Service & Business Entrepreneur (SSSBE)

There are a sizeable number of medium scale industries in and around Pune and Pimpri-Chinchwad, which are engaged in the manufacture of a variety of products, including automobile parts, electrical and electronic spare parts and equipment, air compressors, garments, leather, chemicals, soaps and detergents, paper and paper products, rolled steel, and truck and bus bodies. Table 1 presents the number of medium scale and SSSBE industrial units registered in Pune district. During the last seven years, there was an increase in terms of the number of units established and investments made, excepting for a slowdown during 2003-04. The total investment made in the last seven years is about 13 crores, generating an employment of over 13,000. It is also observed that more than 50 percent of the units were registered during the last five years.

Table 1. Details of MSI and SSSBE in Pune District

S. No.	Year	Registered Units (Nos.)		Investment (Rs. Lakhs)		Employment (Nos.)	
		MSI	SSSBE	MSI	SSSBE	MSI	SSSBE
1	1999-2000	99	274	53.00	68.88	496	2,774
2	2000-2001	104	655	56.24	431.08	521	3,169
3	2001-2002	138	53	47.69	37.19	505	209
4	2002-2003	151	66	49.83	44.45	529	244
5	2003-2004	253	87	89.61	52.58	911	375
6	2004-2005	445	64	183.69	37.34	1,681	234
7	2005-2006*	293	77	157.69	56.84	1,340	330
	Total	1,483	1,276	637.75	728.36	5,983	7,335
8	Cumulative since Inception	2,203	2,646				

Source: Directorate of Industries, Maharashtra.

*Note: * Figures for FY 2005-06 are as on December 2005.*



Small-Scale Industries (SSI)

Sizeable investments have also taken place in small-scale industries in the Pune district. Their nature and products are similar to those obtaining in the medium scale sector with additional categories like publishing, printing, furniture, rubber and plastic products. Table 2 presents the number of SSI units registered in Pune district since their inception.

Table 2. Details of Small Scale Industries in Pune District

S. No.	Year	Total Registered Units (Nos.)	Capital Investment (Rs. In Lakhs)	Employment (Nos.)
1	1999-2000	7,300	4,812.93	35,052
2	2000-2001	6,979	4,605.99	33,397
3	2001-2002	2,183	1,035.95	9,627
4	2002-2003	2,248	1,044.54	9,730
5	2003-2004	2,667	1,856.80	11,233
6	2004-2005	3,667	2,727.53	15,404
7	2005-2006*	2,879	2,844.61	12,475
	Total	27,923	18,928.35	126,918
	Cumulative since Inception	40,221		161,950

Source: Directorate of Industries, Maharashtra.

*Note: * Figures for FY 2005-06 are as on December 2005.*

During the last seven years, there was an increase in the number of units established, with a total investment of about Rs. 189 crores and creation of over 1,26,000 employment; this trend indicates the spurt in economic activity in recent years in and around Pune. Altogether, there are over 40,000 SSI units employing over 1, 60,000 persons.

Trade and Commerce

A large proportion of the city's population thrives on wholesale and retail trade and commerce. The city serves as the regional wholesale market for food grains and other commodities. It also serves as the market centre for agricultural produce such as green peas, wheat, rice, pulses, oilseeds, and maize, which are cultivated in the rural hinterland. The region also functions as a distributing centre for agriculture implements, fertilizers, drugs and medicines, iron and steel, cement and minerals, petroleum products and forest produces such as timber, and readymade garments and textiles.

Table 3. Details of Commercial Establishments in Pune City

Employment Category	Number	Number of Employees
Shops	11,718	28,866
Commercial	22,925	1,93,557
Hotels	3,967	9,237
Theatres	30	313
Total	38,640	1,31,974

Source: Pune Municipal Corporation ESR-2005

The figures presented in Table 3 indicate that the bulk of employment originates from these commercial establishments within Pune city.



2.4.3. Recent Major Investments in Pune District

As per the Industrial Entrepreneur's Memorandum (IEM) applied to the Secretariat of Industrial Assistance, during the last five years, Pune district has attracted an investment of about Rs. 800 crores from 128 medium and large scale sectors and created a direct employment of over 9,000 persons (refer Table 4) in supervisory and non-supervisory category. It is also observed that in value terms, about 60 per cent of the investment were in the auto, mechanical, electronics and industrial alcohol sectors.

Table 4. Recent Investment in MSI/LSI

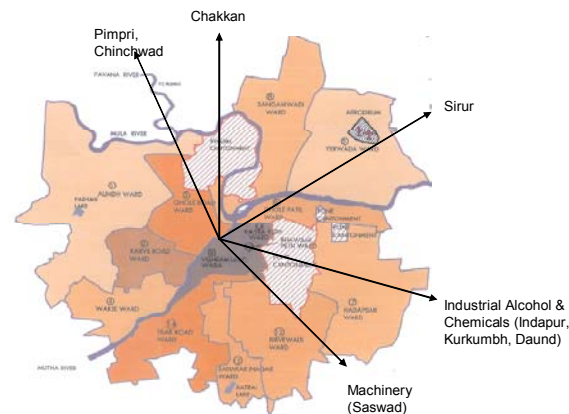
Year	No. of New Units	Proposed Investment- Crores	Rs.	Employment- Nos.
2000-01	5	5.00		185
2001-02	6	21.34		183
2002-03	22	133.50		1,347
2003-04	54	366.18		4,007
2004-05	41	247.07		3,584
Total	128	773.09		9,306

Source: MCCIA Report, New Manufacturing Capacities in Pune, Since 2001
Note: The employment figures indicated is not the total employment created in Pune during the years.

Further, the investments in the recent past are moving out of PMC and PCMC areas towards Shirur, Khed, Ranjangaon and Indapur, which are fast emerging as the industrial hubs around Pune. It also needs to be mentioned that the above investments are fresh.

2.4.4. Key issues

The above analysis leads to the conclusion that the region has a strong and diverse economic base. With the overall economy showing a growth trend and local talent and resources easily available, this growth promises to happen at a faster pace. In addition to its inherent potential to develop further, various policies and programs of GoI are likely to boost the region's economy. For instance, the establishment of the Auto Cluster has the potential to create an additional employment for over 10 lakh people. It is also estimated that the region will become a hub for BPO services ; in the near future, this would generate another 50,000 direct employment. Such actions and investments would spur economic development, create a vast potential for indirect employment and also give a boost to commercial activities in and around Pune.



Given the socio-economic impact of the industrial downslide of the late 1990s, the city needs to be geared to avoid such hiccups in the future. There is a clear need for more focused economic development planning, which will tackle current issues as well as provide a long-term direction and impetus. Given this scenario, PCMC civic authorities and other concerned departments have to prepare themselves to improve the urban and social infrastructure like

adequate and uninterrupted power supply to sustain and promote economic activity in the city and the region.

2.5. PCMC - INSTITUTIONAL SETUP

Pimpri-Chinchwad city is managed and governed by the Pimpri-Chinchwad Municipal Corporation (PCMC), which was established in 1982. As per the Bombay Provincial Municipal Corporation (BPMC) Act, 1949, PCMC is obligated to provide basic infrastructure like water supply, drainage, sewerage, roads and services such as conservancy, fire fighting, street lighting, education and primary health. The governing body of the city corporation comprises the elected and the administrative wings.

2.5.1. Elected Wing

The city has 35 wards, each represented by a corporator, who is elected by the people. The elected wing comprising these corporators is headed by a Mayor who also controls the working of general body meetings. In the absence of the Mayor, the Deputy Mayor performs the Mayor's role. The important committees that play a major role in the governance of the corporation and comprise members from the elected wing are:

Standing Committee -- This committee consists of 16 corporators and is headed by the chairman. These 16 corporators are elected by the corporators from amongst themselves at their first meeting after the general elections. This committee, as specified in the BPMC Act, is the most important committee of the corporation; it essentially governs the corporation's functioning and makes all decisions with respect to the establishment and finances of the Corporation. The standing committee has unlimited financial powers, and is subject to supervision by the state government.

Ward Committee -- The ward committee consists of corporators representing the electoral wards within the territorial area of the ward committee. The main functions of the committee are to approve the cost of works for the wards, incorporate the expenses in the budget and the like.

In addition, there are the Legal Committee, Education Committee, Transport Committee, Woman/Child Welfare Committee and Tree Authority, which meet periodically to take decisions within their purview on their respective subjects/ tasks/ activities/ works.

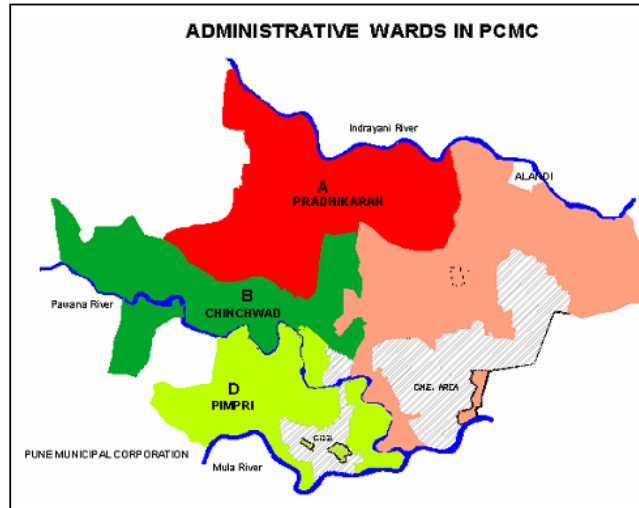
2.5.2. Administrative Wing

The election wards are grouped into four wards -- specifically for administrative purposes -- and are termed as Administrative wards A, B, C and D. The executive wing is headed by the commissioner, who is the chief executive head and looks after the city administration. The administrative set-up comprises the additional commissioner, assistant commissioner, city engineer, and additional city engineers, medical officer of health, and the heads of departments viz. electrical, education, garden, town planning, octroi etc.



The two structures mentioned above -- elected and administrative -- are complementary to each other. The administrative wing carries out its duties as listed in the BMC Act; the Pimpri-Chinchwad Municipal Corporation has a huge organizational structure with 43 departments. To carry out a functional analysis of the organization, it is important to understand the functional needs of the customer segments – internal or external. Along with this, the synergy between functions, the location or geographical needs of the function and the current shortcomings or problems faced have to be considered.

The administrative head of PCMC is the municipal commissioner. The commissioner manages the day-to-day affairs and functions of the corporation subject to approvals and sanctions from the standing committee and is assisted by senior officials of the corporation. When required, the entire executive powers to carry out the provisions of the BMC are vested with the commissioner.



Organisational Level Analysis

To aid understanding of the huge scope and spread of PCMC's activities, its functions were broadly divided into the following units:

- A. Citizen services delivery
- B. Revenue – billing and collection
- C. Project (Infrastructure / Activity) – planning and execution
- D. Infrastructure maintenance
- E. Regulation
- F. Social welfare
- G. Socio economic & developmental planning
- H. Administration and support

Issues related to city administration

There are three active and functional authorities in the PCMC area, namely the Municipal Corporation itself, MIDC and the Pimpri-Chinchwad New Town Development Authority (PCNTDA). The co-existence of these three authorities creates various administrative and citizen services-related complications and at times duplication of functions.

Also, the delays in decision-making and award of approvals/ sanctions has been leading to organisational lapses and delays in planned development work, increased costs and inefficient use of funds.

Growing dissatisfaction among its customers/ citizens has led to an increased number of litigations from aggrieved stakeholders.

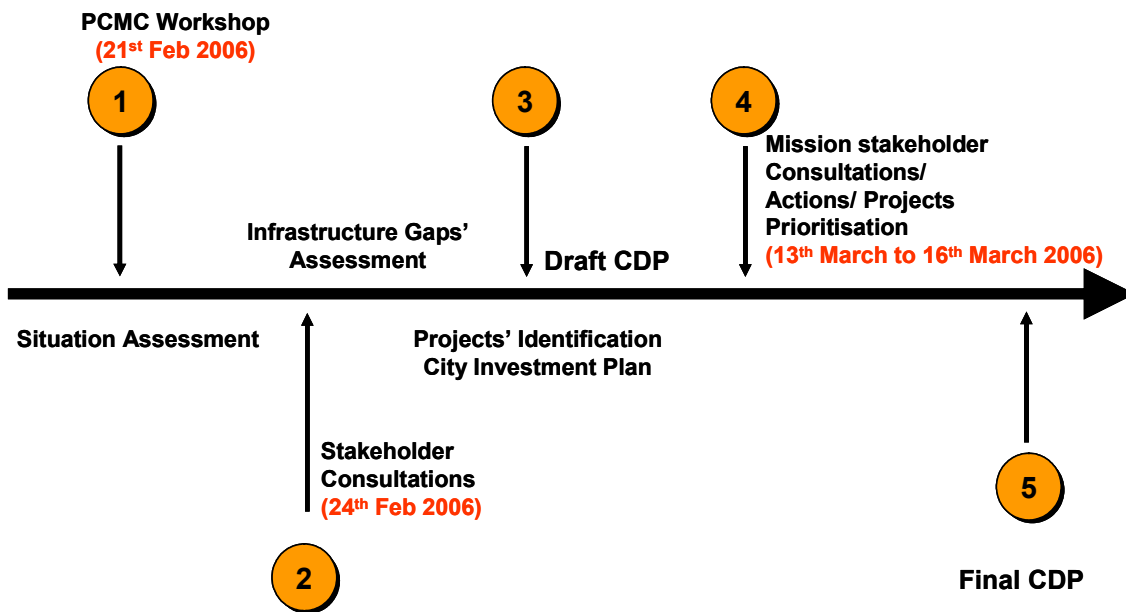
3. FORMULATION OF VISION AND MISSION

The City Development Plan is the Municipal Corporation’s strategy that outlines a vision for growth of the city and details how the Corporation together with stakeholders, intends to achieve its long-term vision. The CDP leads to translation of missions into actions and actions into outcomes.

3.1. APPROACH

Several stakeholder consultations were organised to finalize the CDP. The stakeholder consultations were held at the organization level, in core groups pertaining to particular sectors and finally in the form of workshops to bring together the stakeholders on one platform and enable them to voice their opinion and come to consensus on strategies and actions for each identified priority sector. Also, a citizen survey was conducted through the medium of the press, wherein opinions from general citizens were invited on a select range of issues and their vision for their city sought.

The stakeholders comprised NGOs, industry associations, educationists, environmentalists, councilors, and representatives of the informal sector. The stakeholder consultations also involved representatives from the Department of Town Planning, Central Institute of Road Transport, Municipal Employees’ Union, and Pimpri-Chinchwad Municipal Transport besides the PCMC officials.



Three rounds of consultations in the form of workshops and focus group discussions were held during the period 21st February’06 to 16th March’06 as illustrated in the chart above. The outcome of each discussion and workshop are summarized in the following section and have been incorporated in formulating the strategies and action plan. The details of each consultation are presented in Volume II of CDP.



3.2. STAKEHOLDER CONSULTATIONS – THE PROCESS AND OUTCOME

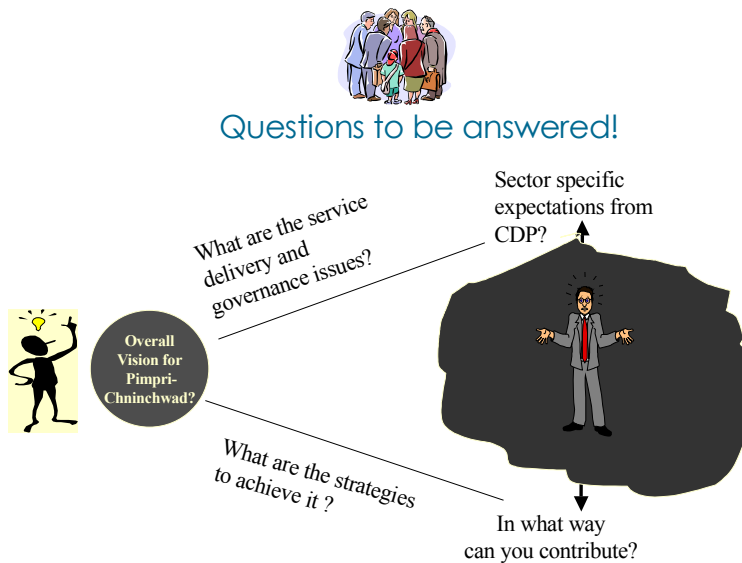
Here are the various levels of consultations/ discussions organised for formulating the CDP. Most of them follow a structured format, with pre-defined agenda and objectives. The process details and the summary of the outcome of each consultation are discussed in the respective section.

Nature of Consultation	Participants
First Workshop	PCMC officials
Second Workshop -- Vision and Mission	PCMC officials, stakeholders, other institutions and organisation
Citizen Survey	Invitation to citizens to respond to a structured questionnaire published in print media
Third Workshop -- Mission stakeholders/ Focus Group Discussions	PCMC officials, stakeholders, other institutions and organisations in the form of small groups for identified priority sectors
Final CDP workshop	PCMC officials, stakeholders, other institutions and organisations

The consultations conducted on 21st and 24th of February 2006 with municipal officials and the stakeholders group respectively saw huge turnouts of individuals, eager to express their views and concerns about the city’s development. The main objective of the consultations was to involve people in the preparation of the CDP.

3.2.1. Consultation with PCMC

The consultation was basically a kick-off meeting with the PCMC officials to make them aware of JNNURM and the CDP process. The objective of the workshop was to get the implementing agency’s view on issues such as the importance of Pimpri Chinchwad, the strengths of the city and the desired focus areas for the development of the city and the region. About 40 officials including the Commissioner, Additional Commissioners and Heads of Department and other officers attended the workshop.



The meeting started with a brief introduction to the JNNURM and an elucidation of its features, objectives, required reforms, as well as the importance of the CDP. The PCMC officials were also informed about the work plan for preparing the CDP. After these initial discussions, a presentation was made to all officials on facts and figures in the sectors of demography, economics, PCMC’s financial profile, civic infrastructure and related issues,



institutional aspects and the status of the city with respect to the reforms under JNNURM. Also, a SWOT analysis of the Pimpri-Chinchwad city as a whole and SWOT of PCMC as an organisation were presented. Through the presentation, feedback was taken from the PCMC officials on the relevance and accuracy of the assessment.

After the presentation, the participating PCMC officials were asked to make presentations on their respective sectors. Each department presented the key facts and figures corresponding to their sector followed by a SWOT analysis of the sector, priorities and a vision for each sector. Presentations were made on the following aspects by the departments of PCMC:

- Land use and Town Planning
- Water supply, sewerage and drainage
- Roads, traffic and transportation
- Slums
- River conservation
- Municipal finances/ accounts
- Municipal governance – E-governance

The workshop concluded with a summary of the action points, strengths of the city and the broad vision. The outputs from this workshop were used as inputs for further discussions with city stakeholders. This workshop not only enabled the officials, a better understanding of the city but also induced a sense of involvement among the PCMC officials.

The details of the schedule, participants and the presentations on city assessment and SWOT analysis during the workshop are given in the **Volume II of CDP**.

3.2.2. Consultation with City Stakeholders

This workshop was held to bring together municipal decision-makers and stakeholders to define the vision for the city and the various sectors of Pimpri Chinchwad. The stakeholders hailed from diversified backgrounds including representatives of non-governmental organisations (NGO), industrial and trade associations, banks and credit agencies, and health and education; real estate developers and architects; and senior citizen groups. About 75 stakeholders, excluding PCMC officials, participated at the workshop.

The workshop fostered an understanding amongst the stakeholders regarding JNNURM, the importance of CDP, the key facts that need to be kept in mind during envisioning and the present status of Pimpri Chinchwad. The stakeholders were divided into four groups according to their areas of focus. These were:

- Urban economy and municipal finance
- Urban basic services (water supply, sewerage and sanitation, storm water drains, solid waste management, roads and street lighting, and other services)
- Land use, urban transportation and environment
- Basic services to urban poor and slum development

Each of the four groups was allotted a representative from PCMC to provide technical inputs. Each group also included a member from the CRISIL team who played the role of an observer and assisted them. The groups were asked to orient their discussions around four



areas: issues concerning their sector, sector specific visions, an overall vision for the city of Pimpri Chinchwad, and strategies and actions to realise the vision.

Each group was also asked to make a presentation on the same. Written feedback was also collected from each individual stakeholder. The workshop concluded with a summary by the Municipal Commissioner.

3.2.3. Focus Group Discussions with Mission and Action Stakeholders

In order to refine the strategies identified during stakeholder workshop and also to understand the demands, expectations from service delivery, willingness to contribute and pay etc., focussed discussions were conducted with small groups of stakeholders for each sector (six groups) during 13th March'06 to 16th March'06. These consultations were held at the PCMC office with PCMC officials acting as moderators for each group. The aim of these consultations was to ensure that the priority needs are addressed through the actions proposed for each mission statement. The consultations also helped in obtaining qualitative information on the proposed actions and ensuring that diverse perspectives on the city's development were incorporated in the CDP process. The details of the mission stakeholder consultations are presented in Volume II of CDP.

The focus group discussions were held among the following groups:

- Urban economy
- Urban governance and municipal finance
- Urban basic services (water supply, sewerage and sanitation)
- Urban basic services (roads and street lighting), traffic and transportation
- Land use, environment and solid waste management
- Basic services to urban poor and slum development

Each of the six groups was allotted a representative from PCMC to provide technical inputs. Each group also included a member from the CRISIL team who played the role of an observer and assisted them. The groups were asked to orient their discussions around specific actions concerning the issues in the sector, and prioritising the identified actions in the context of realising the overall vision for the city.

Each group meeting started with a presentation by CRISIL Infrastructure Advisory, which highlighted the current status of the CDP, the context of the workshop and an update on the activities that have been completed. The presentation explained how the identified vision and mission statements have been broken down into strategies and action points on the basis of the stakeholder consultations conducted till date. The projects have been identified on the basis of the infrastructure demand-gap analysis carried out by the team.

3.3. PERSPECTIVE AND VISION FOR THE CITY

For effective urban reconstruction and development, a common vision of the future development of a city/region is essential. The Vision for the city of Pimpri-Chinchwad is formulated by continued consultation with stakeholders in an integrated and cohesive manner. The consultations centred on the city's strengths, current issues, concerns, problems and future focus areas.



3.3.1. Pimpri-Chinchwad and its requirements

Pimpri-Chinchwad has been a pioneer in many ways. It was one of the first cities to have a citizen charter. PCMC was awarded the national level e-governance award by the Department of Administrative Reforms and Public Grievances in February this year. It has also been honoured with the Rajiv Gandhi Pragati Abhiyan Award for Administrative Reforms this year. In the automobile industry, this part of the Pune metropolis is now recognized as the Auto Nagar or Detroit of India due to the presence of several automobile ancillary units.

With the development of the city, the public wants have developed into legitimate aspirations. There is an awareness within the governing systems that has led to more accountability and effective utilisation of limited resources; this indicates a proclivity towards increased professionalism and good and transparent governance. This would help the city to develop as a hub of auto-cluster, biotech and agro-based industries.

VISION: "PIMPRI-CHINCHWAD WILL BE THE PLACE TO LIVE, SPEND AND ENTERTAIN. IT WILL CONTRIBUTE TOWARDS MAINTAINING AND SUSTAINING THE VIBRANT ECONOMIC GROWTH OF THE REGION THROUGH A MODERN & SYSTEMATISED ADMINISTRATION, AN OPTIMUM LEVEL OF SERVICES AND ENRICHED ENVIRONMENT"

The vision aims at ensuring the '*economic development of the region*' by improving the quality of life of the citizens of Pimpri-Chinchwad. Given the focus on maintaining the economic momentum, some other objectives also need to be met simultaneously.

Providing universal access to urban poor – The gap between the 'haves and the have-nots' shall be bridged by ensuring that the urban poor have access to basic infrastructure like water, sewerage and waste management by the end of seven years. The objective is to ensure that the economic benefits reach each and every individual of the city and also that each and every individual of the city contributes to the economic growth of the city qualitatively and quantitatively.

Improving the standard of education – The quality and standard of education in any country, state or city is a determining factor of its economic development. Pimpri-Chinchwad today is dependent on Pune for quality education. The objective therefore shall be to create good educational institutions to boost the economic development of the city and thereby the region.

Providing an efficient administration – Economic development needs to be supported with efficient and transparent governance. Hence, the role of the local authority, Pimpri-Chinchwad Municipal Corporation, shall be to support the process through efficient and transparent governance and provision of adequate infrastructure.

MISSION STATEMENT for PCMC: The objective of the mission is to realise the above vision by making PCMC a leading Digitally Governed Corporation through smart governance which will result in quality administration and improved service delivery.



4. CITY ASSESSMENT- SITUATION ANALYSIS

Development of the Pimpri-Chinchwad Municipal Corporation dates back to the establishment of industries (Bajaj and Telco pioneering this wave in 1961) in the middle of the 20th century. The urban development of Pimpri Chinchwad has happened almost entirely along the old Bombay-Pune highway. If one looks beyond the first or second row of houses lining the main roads, one does not find any appreciable level of urban settlement; the areas still retain their rural character. Civic amenities like shopping complexes and hospitals are also situated along the Bombay-Pune highway only. The establishment of the Pimpri-Chinchwad New Town Development Authority (PCNTDA) in the 80s helped the development of proper residential colonies in the 90s to an extent. Affordable housing was provided by PCNTDA and availed of by a large number of workers and lower and middle-income group citizens.

4.1.1. City and Population Growth Trends

Pimpri Chinchwad provides employment to industrial workers and of late has emerged as an affordable urban destination for residential purposes. The increasing demand for industrial and residential areas led to continuous addition of areas and upgradation of the erstwhile Municipal Council to Corporation.

Table 5. Population Trends

Census Year	Population	Decadal change	Growth Rate (%)
1951	26,367	-	-
1961	39,654	13,287	50.39
1971	98,572	58,918	148.58
1981	251,769	153,197	155.42
1991	520,639	268,870	106.79
2001	1,006,417	485,778	93.30

For the last two decades, the decadal growth rate of population has been in the range of 100% while the previous two decades witnessed population growth in the range of 150%. The population of Pimpri-Chinchwad as per 2001 Census is 1,006,417 persons. The current population is estimated to be in the range of 12 lakhs.

It is pertinent to note that the population dynamics in Pimpri-Chinchwad is a cumulative causation of demographic and economic changes in Pune and vice-versa. Hence, it is essential to gain an understanding of both the cities to grasp their population dynamics and make growth projections.

4.1.2. Population Density

Pimpri-Chinchwad has a population density of 5,902 persons per square kilometre as per the 2001 census, which is comparatively less than that of its neighbouring city, Pune. However, this is mainly due to the large extent of vacant spaces available in the peripheral, undeveloped areas of the city. The developed areas of Pimpri-Chinchwad have a population density of about 7000 persons per sq.km.



The city is tucked between the Mula, Pawana and Indrayani rivers which form the natural boundaries of the city on the northern and southern sides. The densely populated old city is located in the centre, with the Pawana River on one side and the Mumbai-Pune railway line on the other. These are also the old PCMC and PCNTDA areas. The interiors of these areas comprising Morwadi, Kharalwadi, Pimpri Waghere and Pimple Saudagar still retain their rural character and have narrow road widths.

Year	Area- Sq.km.	Density/ Sq.km.
1971	-	-
1981	86.01	2,927
1991	86.01	6,053
2001	170.51	5,902
<i>Source: Census & PCMC records</i>		

The geographical location of the city between the rivers on one side and vast defence areas on the eastern side of the city form natural barriers to the city's growth; comprehensively, the western side of the city facing Mumbai has the maximum potential for growth and development.

The dynamic process of population growth beyond the control of authorities is largely the function of real estate development, land prices and ease of accessibility to work place, and availability of basic services. As a result, population growth is being witnessed in the fringe areas of the city and just outside the PCMC limits, especially in the northwest direction.

4.1.3. Other Demographic Indicators

Pimpri-Chinchwad has a literacy rate of 74% as per the 2001 Census, which is marginally lower than that of Pune city at 77%. In Pimpri-Chinchwad, more than 60% of the population growth has been on account of migration largely due to the employment opportunities prevailing in the region. Pimpri Chinchwad has a sex ratio of 916 females for every 1000 males as per Census 2001, which is much better than that of Pune's at 840 females for every 1000 males.

4.1.4. Population Projection

For the last two decades, the decadal growth rate in population has been in the range of 100%; the previous two decades witnessed population growth in the range of 150%. The very high growth rates of the past decades, accounted for by migration and the addition of new areas, have started to show a downward trend; however, these would still be on the higher side for the next three decades due to the all-round economic development of the Pune region. Accordingly, the population is estimated to reach 15.07lakhs and 21.50 lakhs by 2011 and 2021 respectively. As of 2006, it is estimated that the total population of the PCMC area is about 12.5 lakhs.

As in the case of Pune city, so in Pimpri-Chinchwad too, the majority of the population (over 80%) is below the age of 50; the city has a very young population with the median age being close to 24 years. Since a large chunk of the current younger generation is expected to start families within the next decade and half, the population will escalate to the projected level.

The population of Pimpri-Chinchwad in the last two decades grew at an annual average rate of over 7% against the national average of 2.1% and state average of about 3.3%.



4.1.5. Key Issues

Based on the above review, the following issues have emerged with regard to the demographic characteristics of Pune.

Firstly, given the population trend and the strong economic activity in Pune region, Pimpri-Chinchwad is bound to attract a lot of migrants. The migrant population is likely to increase the demand for housing, particularly for Economically Weaker Section /Low Income Group; if housing for these groups is not planned, slums are likely to proliferate.

Secondly, the availability of large parcels of vacant lands and low densities, except in the core old city, is a positive feature, though affordability in the current scenario of roaring real estate prices is an area of concern.

Lastly, the population growth is also likely to stress the already stressed modes of public transport and will impact other services; hence, planned efforts are required to direct the growth in the right direction.

4.2. LAND USE AND URBAN ENVIRONMENT

The unplanned migration along with the natural growth of population led to rapid increase in the population of Pimpri-Chinchwad in the last four decades. The chronology of events in the development of the city of Pimpri Chinchwad is presented below.

1970: The Pimpri Chinchwad Municipal Council with a status of ‘C’ class was formed on 04.03.1970 by merging four villages, namely Pimpri, Chinchwad, Bhosari and Akurdi.

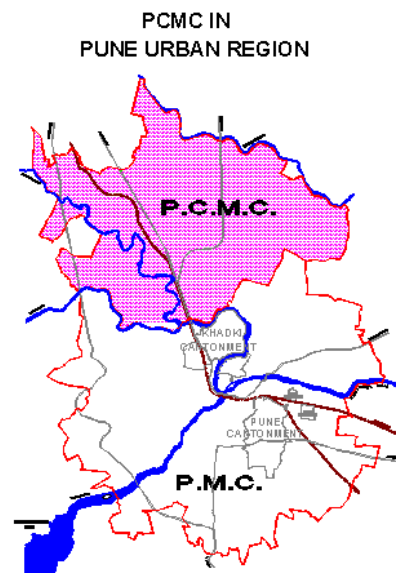
1972: The Pimpri Chinchwad New Town Development Authority (PCNTDA) was established in 1972 as per the recommendations of the Pune Metropolitan Regional Planning Board. The main objective was to create a planned environment for the working population in the vicinity of their work place.

1975: Status of Municipal Council was changed from “C” Class to “A” Class from 7th January 1975.

1982: A Municipal Corporation was formed by merging seven surrounding villages in the Municipal Council, namely Sangvi, Rahatani, Thergaon, Wakad (part), Pimple Nilakh, Pimple Gurav, Pimple Saudagar and the PCNTDA area. A total area of 86 sq. km. came under PCMC’s jurisdiction vide notification dated 05.10.1982.

1997: The area under the Municipal Corporation was further increased through the addition of 18 new villages in part or full, constituting an extended area of 84.51 sq.km. Thus, the total area under the jurisdiction of PCMC measured 170.51 sq.km..

These villages are located on the periphery of the erstwhile PCMC area. The villages Talwade, Chikhali,



Moshi, and Dudulgaon along the Dehu-Alandi road, and Choviswadi and Wadmukhwadi along the Dighi-Alandi road are located north of the erstwhile PCMC, bounded by the Indrayani River. Charholi BK, Dighi, and Bopkhel along the Pune-Alandi road lie towards the east, bordered by the area under the Ministry of Defence. Towards the south are Dapodi, Sangavi (Aundh Chest Hospital), Bhosari, and Pimple Nilakh (Rakshak Co-operative Housing Society Private Ltd. and Bharat Electronics Ltd. Colony). To the west, the river Pavana bisects the villages Mamurdi, Kiwale, and Ravet from the villages Punawale and Wakad that lie along the westerly Mumbai-Bangalore bypass highway.

The present PCMC area is situated to the northwest of Pune on the Mumbai-Pune National Highway NH4. The Mumbai-Pune rail link also traverses through the corporation area dividing it into two halves.

4.2.1. Land Use and Development Plans

Pimpri was basically established in 1948 by the Government of India as a centre for refugees from Pakistan. 1609 tenements were constructed on 203 acres of land and named Pimpri Camp. The land use of the area since decades has been predominantly industrial. The last decades have seen the increase of residential areas too. The formulation of development plans for various areas under the jurisdictions of Pimpri-Chinchwad Municipal council and later Pimpri-Chinchwad Municipal Corporation are detailed below.

Preparation of Development Plan

The first development plan for the erstwhile Municipal Council had been prepared and sanctioned by the State Government in the year 1978. Following the constitution of the planning authority, the Pimpri-Chinchwad Municipal Corporation in 1982, a Development Plan was prepared for the then PCMC area of 86 sq.km. and sanctioned by the Government on 18th September 1995. The Plan came into force with effect from 2nd November 1995.

In 1997, certain areas, which were under the planning control of PCNTDA, were merged with PCMC. Different surveys have been carried out for the purpose of the preparation of the development plan for these newly added areas, such as ELU, housing, traffic and transportation, industrial trade and commerce, water supply, sewage and waste disposal, slums, environment, health and medical, education and recreation.

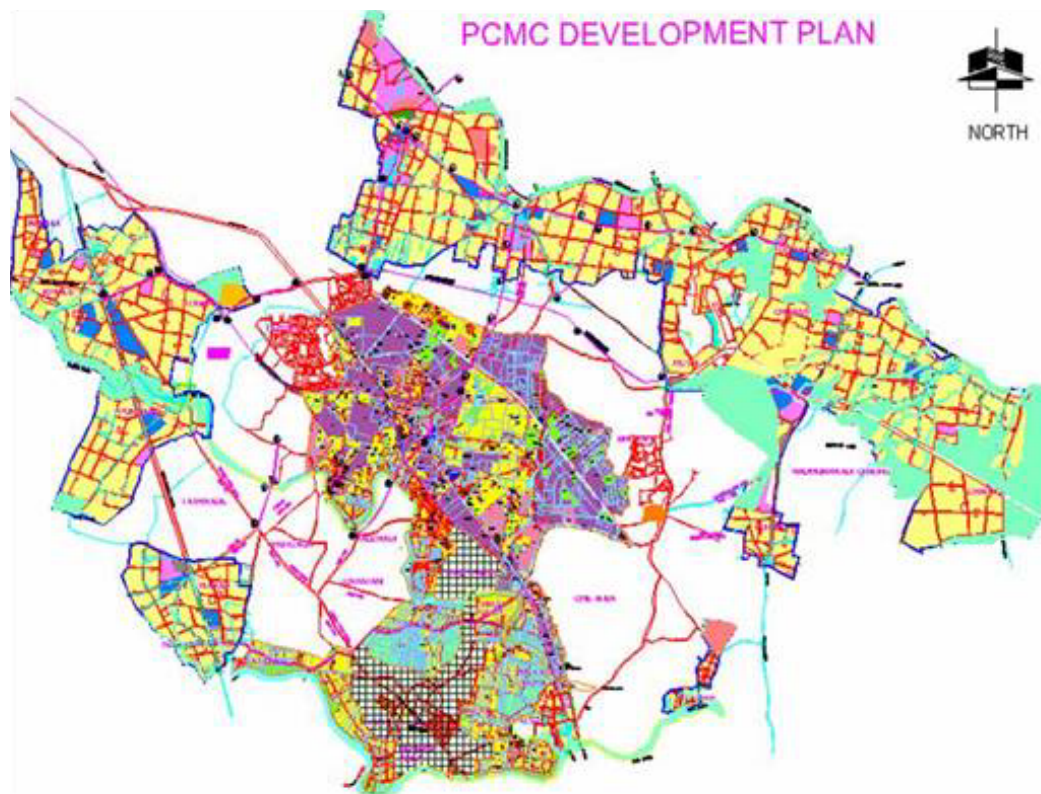
Land use (as in 1986)

In DPs for the old PCMC measuring 86 sq.km., different reservations for public purposes have been worked out on the basis of planning norms and a projected population for ten years. Zoning proposals to accommodate the population for 20 years have been distributed into different planning units.

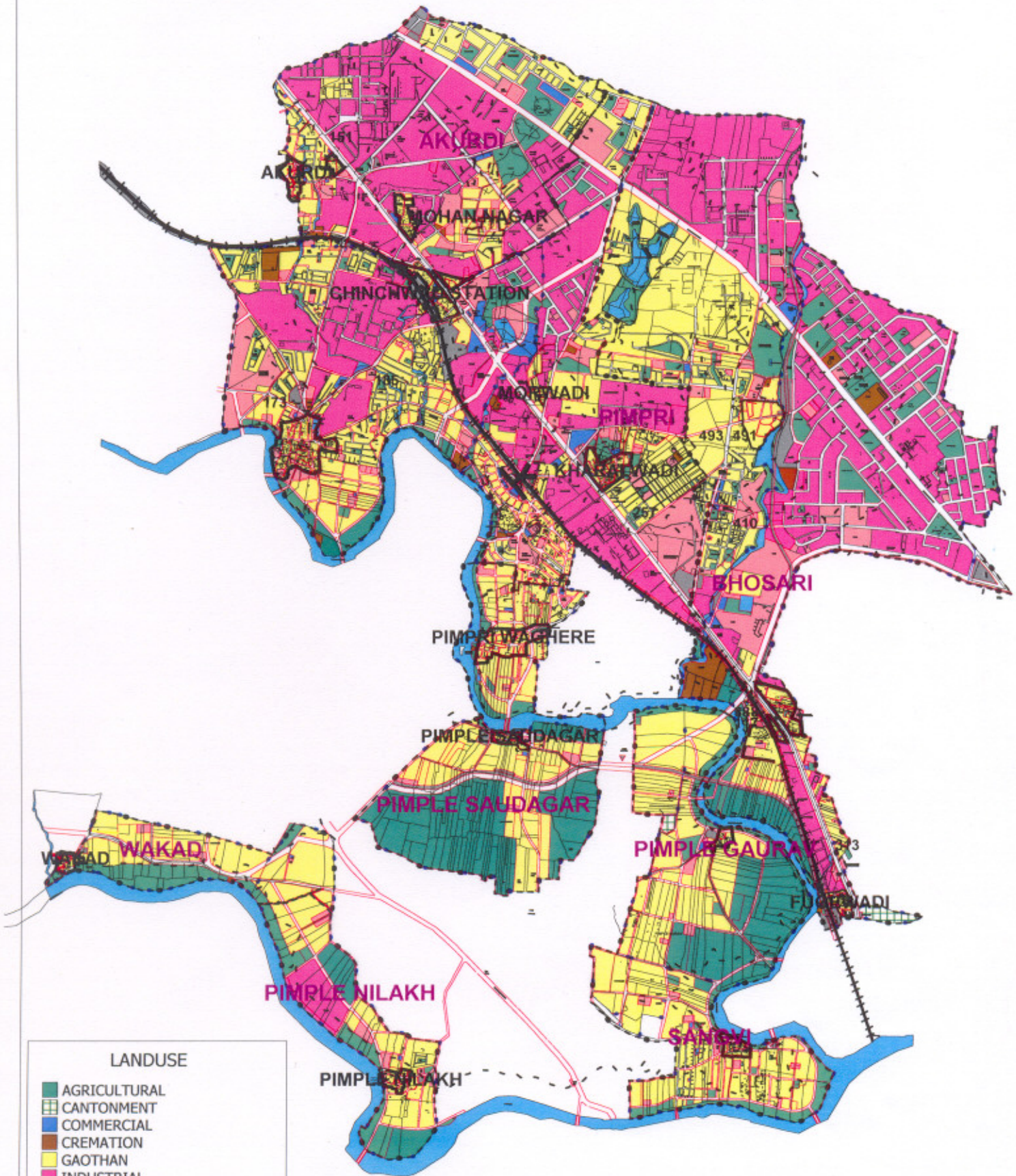
Table 7. Land use for Old PCMC & PCNTDA areas (as in Old Development Plan)

Head	Existing in 1986			Proposed in old DP		
	Area (Sq.km.)	% to Developed area	% to Total Area	Area (Sq.km.)	% to Developed area	% to Total Area
1 Residential	10.16	36.78	11.81	36.94	57.73	42.95
2 Commercial	0.40	1.43	0.46	0.29	0.45	0.34
3 Industrial	10.85	39.28	12.62	15.61	24.39	18.14
4 Public Utilities	0.42	1.52	0.49	0.77	1.21	0.90
5 Public & Semi- public	0.84	3.04	0.98	3.14	4.90	3.65
6 Transportation/ Circulation	4.26	15.44	4.96	5.48	8.56	6.37
7 Open Spaces/ Recreation	0.69	2.51	0.81	1.76	2.75	2.05
8 Water Bodies	1.89		2.19	3.63		4.23
9 Quarry	0.22		0.25			0.00
10 Barren/ Vacant Lands	30.02		34.90			0.00
11 Agriculture & Reserve Forest	26.27		30.54	18.39		21.38
Sub-Total (Developed Area)	27.62	100.00	32.11	63.99	100.00	74.40
Sub-Total (Un-Developed Area)	58.39		67.89	22.02		25.60
Total	86.01			86.01		

In case of the old DP, sanctioned for an area of 86.01 sq.km. in 1986, against a planned development of about 74% of the 86.01 sq.km., 32% of the area was developed. However, today a reconnaissance survey indicates that the entire area of 86.01 sq.km. has been developed though not in line with what was envisaged in the DP. The DP is due for revision in 2007 and a survey of the existing land use is in progress for this area.

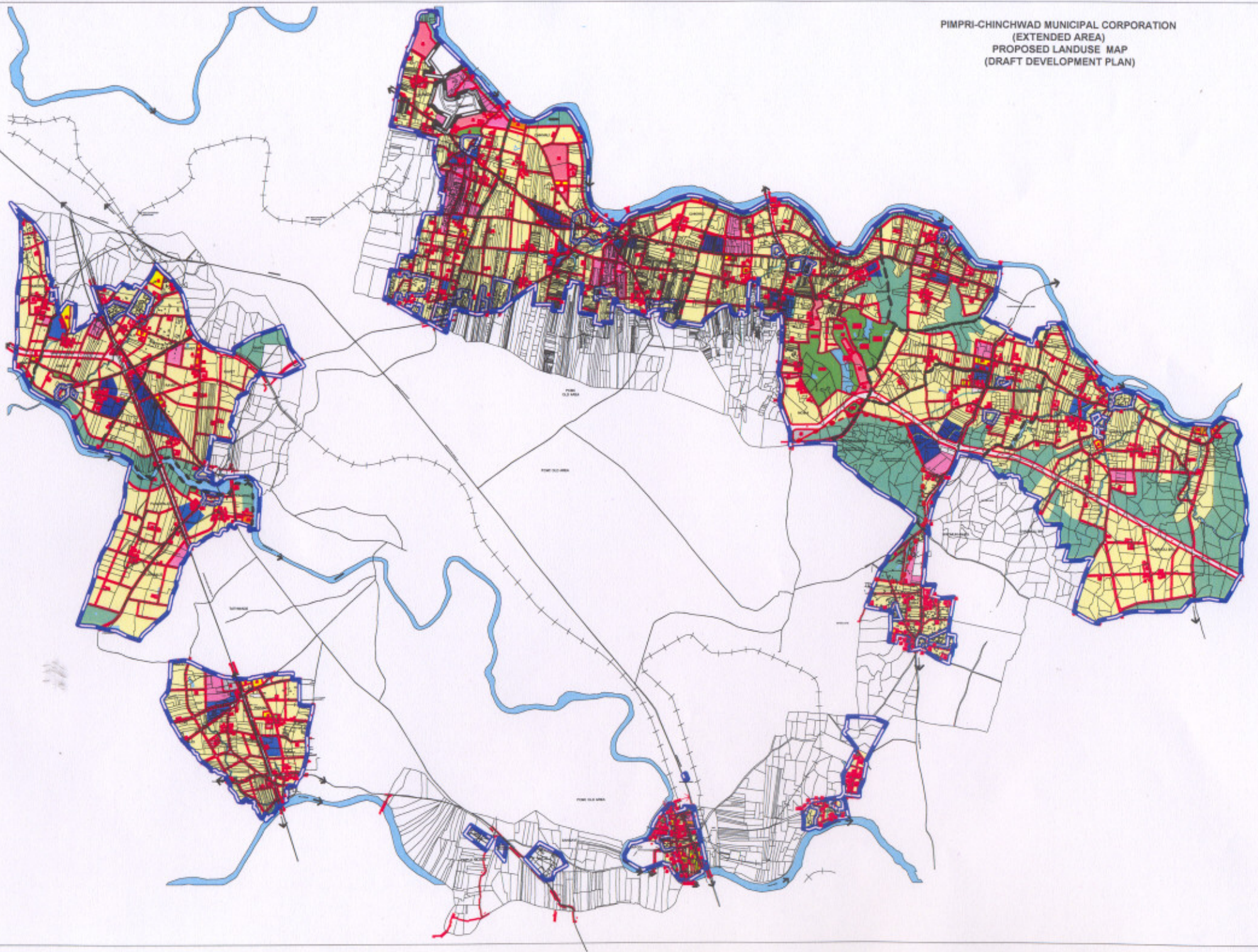


PIMPRI-CHINCHWAD MUNICIPAL CORPORATION



LANDUSE	
■	AGRICULTURAL
■	CANTONMENT
■	COMMERCIAL
■	CREMATION
■	GAOTHAN
■	INDUSTRIAL
■	PUBLIC/SEMI-PUBLIC
■	RECREATIONAL
■	RIVER/NALA/WATER-BODIES
■	ROADS
■	TRANSPORTATION

PIMPRI-CHINCHWAD MUNICIPAL CORPORATION
(EXTENDED AREA)
PROPOSED LANDUSE MAP
(DRAFT DEVELOPMENT PLAN)



In the old DP, the projected population for a period of 10 years (1996) and 20 years (2006) is 8.01 lakhs and 12.32 lakhs respectively. In the sanctioned DP for old area of 86.01 sq.km., 488 sites were earmarked for different public purposes. PCMC can take up acquisition for 464 sites identified in the DP.

Table 8. Land use for extended areas of PCMC

Head	Existing			Proposed in Draft DP		
	Area (Sq.km.)	% to Developed area	% to Total Area	Area (Sq.km.)	% to Developed area	% to Total Area
1 Residential	22.26	80.84	26.34	47.28	67.25	55.94
2 Commercial	0.19	0.70	0.23	2.68	3.81	3.17
3 Industrial	1.48	5.37	1.75	3.22	4.58	3.81
4 Public Utilities	0.39	1.43	0.47	0.97	1.37	1.14
5 Public & Semi- public	0.82	2.99	0.97	2.66	3.78	3.15
6 Transportation/ Circulation	2.38	8.63	2.81	10.94	15.57	12.95
7 Open Spaces/ Recreation	0.01	0.05	0.01	2.56	3.64	3.03
8 Water Bodies	0.95		1.13	1.33		1.57
9 Quarry	2.46		2.91			0.00
10 Barren/ Vacant Lands	20.29		24.00			0.00
11 Agriculture & Reserve Forest	33.27		39.37	12.89		15.25
Sub-Total (Developed Area)	27.54	100.00	32.59	70.29	109.86	83.18
Sub-Total (Un-Developed Area)	56.97		67.41	14.22		16.82
Total	84.51			84.51		

Even for the DP of the newly merged area in PCMC limits admeasuring 84.51 sq.km., different reservations for public purposes have been worked out on the basis of planning norms, taking into account the projected population of 10 years; zoning proposals, to accommodate the population for 20 years, have been distributed in different planning units. In the draft DP for this extended area, 643 sites are earmarked for different public purposes. The draft DP for these newly merged areas has been submitted to the state government and approval for the same is awaited.

Revision of the Development Plan for the old PCMC area of 86.01 sq.kms. is due in 2007. It is considered necessary that a comprehensive Development Plan for the entire area of 170.51 sq.km. be drawn up. Hence, the draft DP for the newly added areas has to be merged into the revised DP to ensure a comprehensive plan for the PCMC area.

4.2.2. Key Issues related to Land use and Growth management

Delay in implementation of Development Plan proposals

The primary issue with regard to physical planning in Pimpri-Chinchwad is the time-consuming implementation of the DP that has resulted in haphazard developments on the periphery of the city. A specified growth pattern as envisaged in the development plan is necessary for an orderly development and transformation of the city. Time-bound implementation and usage of the reserved lands for a specified purpose is necessary.

The DP prepared for the extended areas of PCMC is still in the draft stage and is yet to be taken up for implementation. The delay on this front has also led to several changes in land uses, which are not in conformity with the proposed land use in the draft DP.



Comprehensive Development Plan for the entire of PCMC area

At present there are two development plans for the earlier jurisdiction and newly added areas of 86 sq.km. and 84.51 sq.km. respectively. Also, the DP for the added areas is still in the draft stage and yet to be sanctioned. Since DP for the 86 sq.km. area is due for revision in 2007, a comprehensive DP for the entire area of 174.51 sq.km. is judicial. Controlled development of residential and industrial areas and compatible land uses with adequate basic and social amenities and organized traffic patterns are necessary. This DP also needs to have a time- bound implementation framework in place.

4.3. URBAN ENVIRONMENT

The environment of a city is a critical determinant of the quality of life of its inhabitants and consequently of urban productivity. Air, water, greenery and noise levels are the constituents of urban environment. The Maharashtra Pollution Control Board (MPCB) is responsible for monitoring the water and air quality in the city.

4.3.1. Air Pollution

The major cause of air pollution in Pimpri-Chinchwad is the discharges from automobiles and industries. Large vehicle ownership and the large numbers of industry-related heavy vehicles plying on the city roads are the main causes of air pollution in the city. MPCB observed that two-wheelers were the majority contributors to pollution levels in the city. During 2002-03, two-wheelers accounted for 79% of pollution in the city followed by light and medium vehicles (LMVs) and heavy vehicles. During the last two years, the trend is changing with increasing contributions from heavy vehicles too. Carbon emission levels are found to be particularly high at the time of festivals. Doctors report that there is a high increase in diseases like asthma during the time of Diwali and Ganesh Chaturthi when air pollution reaches its peak.

Vehicular Emissions

The daily emission of carbon monoxide in the city amounts to 45 tonnes, of which about 28% each is contributed by the growing two-wheeler community and heavy trucks. This large quantum of contribution by trucks to the pollution load in the city is attributed to the presence of large industrial estates within the city limits and the entry of regional traffic into the city owing to the lack of bypass/ ring roads. The city generates 88 tonnes of harmful emissions per day. Daily vehicular emissions, as recorded by MPCB, are presented in the table below.

Table 9. Inventory of Daily Vehicular Emissions in Pimpri-Chinchwad City

Type of Vehicle	No. of Vehicles	CO	NO ₂	SO ₂	HC	TSP	PM	Total
Cars	27224	7.66	0.90	0.012	1.44	0.11	0.07	10.192
Two- wheelers	211837	13.64	0.11	0.021	7.20	0.34	0.26	21.57
Rickshaws	10203	9.27	0.24	0.011	6.10	0.30	0.23	16.15
Taxis	587	0.94	0.09	0.0007	0.17	0.01	0.007	1.21
Buses	214	0.30	0.31	0.03	0.06	0.04	0.35	1.09
Trucks	18492	13.37	16.96	1.30	2.14	2.46	1.94	38.17
Total	268557	45.18	18.61	1.37	17.11	3.26	2.85	88.38

Source: MPCB & PCMC



Industrial Pollution

MPCB has earlier carried out Ambient Air Quality (AAQ) monitoring of the parameters of SPM, SO₂ and NO_x in select industrial, residential and silence zones in Pimpri-Chinchwad. Monitoring was carried out in the industrial areas of TELCO, Bhosari, Ruston Hornsby, Garware and Hindustan Antibiotics. The results indicated high suspended particulate matter (SPM) levels above permissible limits at all the locations. The SO₂ and NO_x emissions are within permissible limits.

AAQ monitoring of the same parameters in the residential areas of TELCO colony, Century Enka colony, H.A Colony, Pradhikaran and Indiranagar indicated higher levels of SPM in TELCO colony and Indiranagar. Notably, both the locations are close to industrial areas.

4.3.2. Water Pollution

The Pawana river originates in the Sayhadri mountain range on the western side of the PCMC area about 35 km. away and enters the PCMC area at Mamurdi and runs through the city for a length of about 20 km. The width of the Pawana river as it passes through the city is about 70-80 meters. Pawana river meets Mula river near Dapodi in the PCMC area. Eleven natural channels/ streams with a discharge of more than 5 cum/ second meet Pawana river within the PCMC area.

The degree of pollution in the rivers, specifically Mula and Pawana, is significantly high. Current laboratory results of the Pawana River water are as under:

PH	: 7.2 to 8.4
BOD at 27 ⁰ c	: 8 to 16.2 mg/ lit.
Total Suspended solids	: 222 to 408 mg / lit.
COD	: 30 to 60 mg / lit.

As per the Central Pollution Control Board (CPCB) norms for inland surface water, COD above 10 is highly polluted, DO less than 4 is critical and BOD must ideally be 3. The figures above presented indicate that the Pawana river is highly polluted. The high level of pollution is due to the disposal of untreated domestic sewage and industrial effluent flowing in from various locations. The industrial effluent is discharged through secondary and primary natural channels into the Pawana River. Also, other activities like the washing of clothes, animals and vehicles, as well as the release of foam, alkaline and other detergents account for the deterioration in the quality of water.

Further, the river waters remain stagnant in the PCMC area for most part of the year except during the monsoons due to the construction of weirs. This stagnancy has also become a cause for mosquito breeding, which affects the health of citizens.

4.3.3. Noise Pollution

A snapshot survey on air and noise pollution levels in the PCMC area by Polytest Laboratories, Pune, indicated high noise levels, which are more than 100 times the norm, at six commercial and four residential areas in the city. The large numbers of private vehicles and heavy vehicles constantly plying on the city roads are mainly responsible for these high levels of noise pollution in the city.



4.3.4. Key issues with regard to urban environment

Entry and plying of regional traffic on city roads

The westerly bypass is at present the only bypass for regional traffic passing through the Pune region. Even this bypass serves the PMC area more. PCMC area lacks any such bypass or outer ring roads and all the regional traffic is bound to enter the city roads, mainly the NH 4 passing through PCMC, contributing to increased vehicular emissions in the city's environment.

Inefficient Public Transport system

The public transport system in the city has been inefficient and not been able to cater to the growing mobility needs of the citizens of the city. A plaguing public transport system has contributed largely to a rise in private vehicle ownership and consequently to more vehicular emissions and higher noise levels in the city.

High levels of pollution in the water bodies

Both the cities of Pune and Pimpri-Chinchwad are crisscrossed by a number of water channels and the main rivers Mula, Mutha and Pawana. These water bodies and their surroundings are dangerously polluted by the uncontrolled flow of sewerage and dumping of waste. Also, there are not adequate numbers of MPCB monitoring stations to monitor the pollution levels in the environment of the city.

4.4. URBAN POOR AND SLUMS IN PCMC

This section deals with slums and urban poor and access to urban basic service in Pimpri-Chinchwad. The analysis is based on the secondary information and interactions with stakeholders. It also reviews past and present programs for service delivery to the urban poor in the city. The aim is to identify key issues in service delivery to the poor in Pune and arrive at strategies that would enable the PCMC to address these issues and fulfil its mandate of providing basic services to the poor in the city.

4.4.1. Poverty in Pimpri-Chinchwad

Discussions with stakeholders reveal that there are levels of poverty in Pimpri-Chinchwad. Poverty and slums are coexistent in the city. Absolute poverty as per the general definition i.e. *not enough to eat*, is not really prevalent in the city, except amongst a small section of people living in slums who lack even housing and other amenities and can be categorized as the urban poor. For majority of the poor in the city, the only concern is security of land tenure, quality of housing and access to basic infrastructure.

Defining and Measuring Poverty

The simplest definition of poverty is the lack of specific consumptions (i.e., not enough to eat). A broader definition is the lack of command over commodities exercised by a population. Another, more sophisticated definition is based on capability of poor to function in society. Access to basic services, especially adequate and safe water, health and sanitation, and education are now increasingly being recognized as an important indicator of poverty.

Standard and widely accepted representations of poverty are - the Head Count Index (HCI) signifies the percentage of people below poverty line; Poverty Gap (PG) measures the depth of poverty (in statistical terms, this stands for the mean distance below the poverty line as percent of the poverty line).



But if other parameters of urban poverty like housing, access to better sanitation facilities and capability to function in society are considered, and then almost all slum dwellers can be categorized as the urban poor.

The urban poor population (slum population) of Pimpri-Chinchwad is estimated to be about 13 per cent of the total population of the city; the rapid growth of slums has been largely the function of the economic growth of city and non availability of EWS/LIG housing and adequate service levels in some pockets of slums leading to deteriorating environmental problems.

4.4.2. Slums in Pimpri-Chinchwad

The existence of slums can be traced back to the decade of industrialisation in Pimpri Chinchwad. Slums have proliferated as a corollary of industrial growth in and around PMR. The first slum survey carried out by the Municipal Council in 1976 identified 35 slum pockets (5621 hutments) with a population of 26,470. The slums were located chiefly around the industries on open lands close to the workplaces. The survey was updated by PCMC in 1987 when 65 slum pockets (21326 hutments) with a population of 96,272 persons were identified. Further, in 2002, the Government under its resolution dated 11/07/2001, carried out a slum survey which identified 71 slum pockets (35412 hutments) with a population of 1,46,054 persons.

Of the identified 71 slum pockets in PCMC, 61 are declared. Though the proportion of population living in slums has decreased from 27 percent in 1971 to 13 percent in 2001, in absolute terms, there has been a rapid growth of slum population. The proportional decrease is largely due to the addition of villages to the PCMC area during the past decade and also the large influx of skilled workforce into the PCMC area. While the slum population in PCMC continued to grow in the range of 40 per cent per annum, the remaining population has grown at above 100 per cent per annum.

Influenced by access to work places and employment

Table 10. Slums in PCMC area with respect to Ownership of Land

Ownership of Land	Declared	Undeclared	Total
PCMC	7	0	7
PCNTDA	9	0	9
MIDC	15	0	15
Government	15	0	15
Private	15	10	25
Total	61	10	71

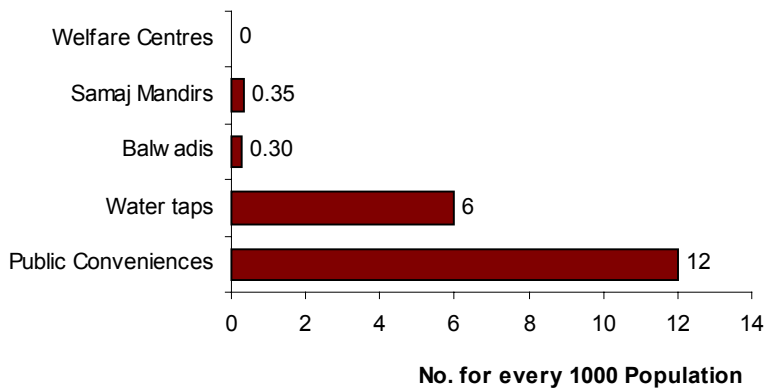
Note: As per Govt. Letter Date 16/7/94 the slums on lands belonging to Govt. & Semi Govt. need not be declared. The details of each of the slums are given in annexure

opportunities, most of the slums are located on industry/ MIDC lands, along the river banks of Pawana and along railway lines on railway lands. Most of the slums, 46 out of 71, are located on either MIDC, Government, PCMC and PCNTDA lands and the remaining 25 of them are on private lands.

Access to basic services and amenities in slums

PCMC had engaged an independent agency to identify the existing level of services in the slums in the PCMC area. The agency inferred a poor level of services in each of the slums independently and as a comprehensive unit.



Services/ Amenities in Slums

At present there are 12 seats of public convenience for every 1000 slum dwellers and there are six water tap connection for every 1000 slum dwellers indicating the inadequacy of basic services to slum dwellers in the city.

In addition to infrastructure services, social amenities like

welfare centres are also missing in all the slums in the PCMC area. Details of access to these basic amenities in each of the slums are provided in **Annexure 1**.

4.4.3. Schemes for slum improvement

The slums that would get covered for improvement are only those slums covered under road widening projects, green zones, flood affected areas and railway lands and also those which does not get covered under SRA. For the purpose of better services, PCMC has earmarked land at sector 22 with development plan reservations. This would chiefly cover 'Housing for Dishoused'. The list of slums with the areas is given below:

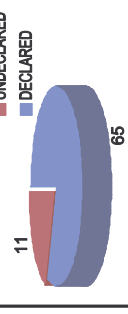
Sl.	Village/ Area	Purpose	Reservation No.	Areas (Hec.)
1	Sector 22 Nigadi	Slum rehabilitation		5.60 Hectare
2	Talawade Gayaran	Municipal purpose	1/52	10.00 Hectare
3	Wakad	H.D.H.	4/41	2.00 Hectare
4	Rawet	H.D.H.	4/89	2.00 Hectare
5	Pimpri	H.D.H.	77	0.50 Hectare
6	Pimpri	H.D.H.	79	0.40 Hectare
7	Chinchwad	H.D.H.	237	0.80 Hectare
8	Akurdi	H.D.H.	257	0.40 Hectare
9	Akurdi	H.D.H.	283	1.78 Hectare
10	Akurdi	H.D.H.	293	0.80 Hectare
11	Pimple Gurav	H.D.H.	357	0.80 Hectare
	Total land available			25.08 Hectare

Housing for Dishoused

There are 2237 hutments in road widening areas, 1851 hutments on railway lands, and 1680 hutments in green zone/ flood affected areas. PCMC planned to rehabilitate them under the Ajantha Nagar Slum Rehabilitation project in the second and third phases. PCMC has already taken up the rehabilitation project at Ajantha Nagar and the first phase has been completed. The details of various slum locations covered under the slum rehabilitation programme are presented in **Annexure 1**.



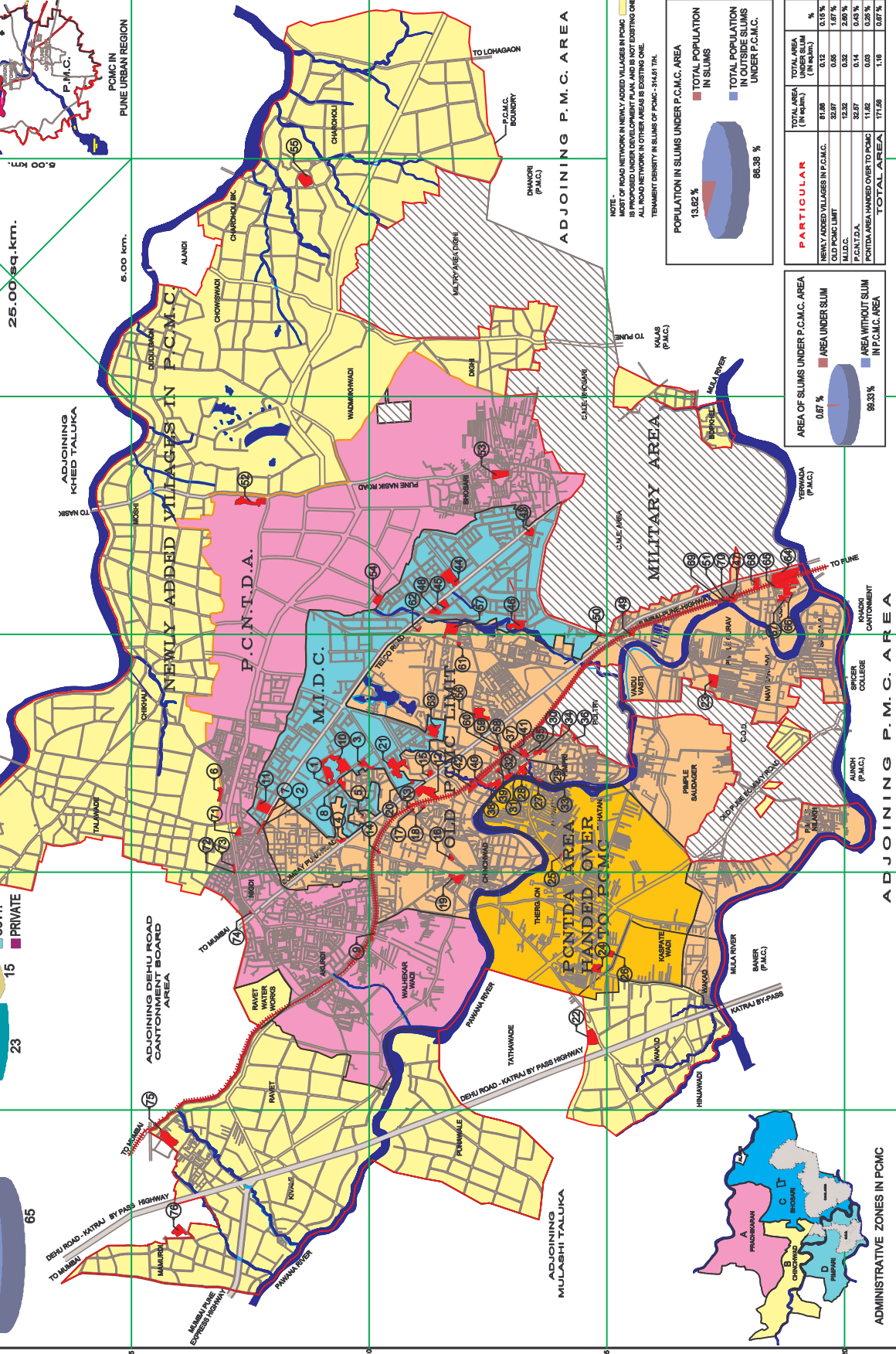
DECLARED AND UNDECLARED SLUMS IN P.C.M.C. AREA



OWNERSHIP STATUS OF SLUMS IN P.C.M.C. AREA



LOCATIONS OF 76 SLUM POCKETS IN P.C.M.C. AREA



ABSTRACT OF SLUMS IN P.C.M.C. AREA - 2005

MAP NO.	NAME OF SLUMS	AREA (sqm)	SECTION	OWNERSHIP STATUS	WARD NO.	NO. OF HUTS	POPULATION
1	VOTVANAGAR	41383.38	AURRI	M.I.D.C.	24	1145	4128
2	DURGANAGAR	5767.75	AURRI	P.C.N.T.D.A.	24	285	1066
3	MAYATIM PALLE INAGAR	13512.96	AURRI	M.I.D.C.	24	490	2190
4	JAYALAKH GANESHNAGAR	1516.12	AURRI	M.I.D.C.	23	72	263
5	KALBORG INAGAR	2367.62	AURRI	M.I.D.C.	23	87	370
6	MACE WASTI CHERUJI	38545.72	AURRI	P.C.N.T.D.A.	02	562	2168
7	AMERKUNAGAR AURRI	4654.96	AURRI	M.I.D.C.	20	222	866
8	PAVET INAGAR AURRI	19301.40	AURRI	M.I.D.C.	24	427	1933
9	PAVET INAGAR AURRI	19301.40	AURRI	M.I.D.C.	24	427	1933
10	PAVET INAGAR AURRI	19301.40	AURRI	M.I.D.C.	24	427	1933
11	PAVET INAGAR AURRI	19301.40	AURRI	M.I.D.C.	24	427	1933
12	ANANDNAGAR	59622.00	CHERCHAND	PVT + RLY	34	232	9824
13	SARASWATI	9062.00	CHERCHAND	PVT + RLY	22	292	1280
14	UDYOGNAGAR DALVI INAGAR	15133.50	CHERCHAND	P.C.M.C.	35	652	3114
15	ANANDNAGAR DALVI INAGAR	7709.00	CHERCHAND	M.I.D.C.	35	321	1437
16	MAY INAGAR	4889.00	CHERCHAND	PRIVATE	252	2115	1115
17	SHANTORI INAGAR	1225.25	CHERCHAND	PRIVATE	56	204	204
18	OLANDE COLONY	1201.25	CHERCHAND	PRIVATE	1289	5413	5413
19	NETALIMA INAGAR	30763.76	CHERCHAND	PRIVATE	32	1289	5413
20	MALHUNDA RAVI INAGAR	648.20	CHERCHAND	P.C.M.C.	24	13	48
21	MALHUNDA RAVI INAGAR	29607.91	CHERCHAND	M.I.D.C.	24	762	3694
22	MALHUNDA RAVI INAGAR	33877.25	WAKAD	GOVT.	16	959	2078
23	MALHUNDA RAVI INAGAR	13776.06	WAKAD	PRIVATE	16	263	1470
24	MALHUNDA RAVI INAGAR	2544.10	WAKAD	PRIVATE	80	417	417
25	TAYAR INAGAR WAKAD	8314.37	WAKAD	P.C.N.T.D.A.	14	134	623
26	ANANDNAGAR DALVI INAGAR	5926.00	PIMPRI	P.C.M.C.	30	134	623
27	ADARSH INAGAR	17092.72	PIMPRI	P.C.M.C.	501	2115	2115
28	MILIND INAGAR	1334.88	PIMPRI	P.C.M.C.	29	467	1719
29	UTTAM INAGAR	14878.50	PIMPRI	GOVT.	29	467	1719
30	SHASTRI INAGAR	17487.50	PIMPRI	P.C.M.C.	492	1932	1932
31	BURHAN INAGAR	15486.30	PIMPRI	GOVT.	30	576	2276
32	AMERKUNAGAR	9325.83	PIMPRI	GOVT.	28	316	1438
33	SHANTORI INAGAR	1727.25	PIMPRI	GOVT.	28	316	1438
34	SHANTORI INAGAR	1727.25	PIMPRI	GOVT.	28	316	1438
35	SHANTORI INAGAR	1727.25	PIMPRI	GOVT.	28	316	1438
36	GANESH INAGAR	2420.10	PIMPRI	GOVT + PVT	94	411	411
37	MAYATIM INAGAR	4460.50	PIMPRI	GOVT.	28	113	375
38	BOLD INAGAR	20334.88	PIMPRI	GOVT.	872	3612	3612
39	BRAMHAR (SANITARY CHAWL)	10851.65	PIMPRI	GOVT.	286	1096	1096
40	PANDEANAGAR (NANDACHAWL)	18808.75	PIMPRI	GOVT.	608	2802	2802
41	PANDEANAGAR	2939.77	PIMPRI	GOVT.	42	170	170
42	LINK ROAD PATRIK SHEED	9251.99	BRISKOR	P.C.M.C.	44	170	1762
43	LINK ROAD PATRIK SHEED	29622.76	BRISKOR	M.I.D.C.	05	423	1726
44	JALGA INAGAR	54051.00	BRISKOR	M.I.D.C.	07	923	4126
45	WASARI INAGAR	39471.50	BRISKOR	M.I.D.C.	103	1362	5054
46	WASARI INAGAR	39471.50	BRISKOR	M.I.D.C.	103	1362	5054
47	SARVAY INAGAR WAKAD	8030.25	BRISKOR	RAILWAY	09	237	462
48	GAVAL INAGAR WAKAD	21712.75	BRISKOR	M.I.D.C.	660	2639	2639
49	HERABAI LANDE CHAWL	6189.25	BRISKOR	PVT + RLY	08	1224	1224
50	MASKR PHATA	7645.25	BRISKOR	PVT + RLY	08	154	461
51	PATIL BHOWANAGAR	933.00	BRISKOR	PRIVATE	26	101	101
52	SHANTORI INAGAR (NANDI)	24130.75	BRISKOR	GOVT.	02	380	1544
53	SHANTORI INAGAR (NANDI)	17632.16	BRISKOR	GOVT.	07	667	3083
54	SHANTORI INAGAR (NANDI)	9490.89	BRISKOR	P.C.N.T.D.A.	125	591	591
55	SHANTORI INAGAR (NANDI)	10030.89	BRISKOR	PRIVATE	99	488	488
56	UTTAM INAGAR	32227.50	BRISKOR	PRIVATE	35	1461	1738
57	UTTAM INAGAR	32227.50	BRISKOR	PRIVATE	35	1461	1738
58	UTTAM INAGAR	32227.50	BRISKOR	PRIVATE	35	1461	1738
59	SHANTORI INAGAR (NANDI)	26730.00	PIMPRI	PRIVATE	107	394	394
60	SHANTORI INAGAR (NANDI)	4800.88	PIMPRI	PRIVATE	185	663	663
61	AMERKUNAGAR NEHRUNAGAR	2280.00	PIMPRI	PRIVATE	35	181	181
62	YASHWANT INAGAR	4431.25	PIMPRI	PRIVATE	181	702	702
63	STAR RUBBER MOWADI	27226.25	PIMPRI	M.I.D.C.+PVT	917	3684	3684
64	SHANTORI INAGAR	37204.76	DAPOLI	PRIVATE	1125	4915	4915
65	SHANTORI INAGAR	62052.80	DAPOLI	PVT + RLY	1579	5678	5678
66	JAY INAGAR	21950.25	DAPOLI	PRIVATE	785	2933	2933
67	JAY INAGAR	10839.25	DAPOLI	PRIVATE	382	1527	1527
68	JAY INAGAR	10839.25	DAPOLI	PRIVATE	382	1527	1527
69	JAY INAGAR	10839.25	DAPOLI	PRIVATE	382	1527	1527
70	AMERKUNAGAR NEHRUNAGAR	1829.75	DAPOLI	RAILWAY	108	103	103
71	AMERKUNAGAR NEHRUNAGAR	1829.75	DAPOLI	RAILWAY	108	103	103
72	AMERKUNAGAR NEHRUNAGAR	1829.75	DAPOLI	RAILWAY	108	103	103
73	SHANTORI INAGAR (NANDI)	7178.11	DAPOLI	PVT + RLY	157	424	424
74	SHANTORI INAGAR (NANDI)	6469.25	NGAOI	P.C.N.T.D.A.	233	1088	1088
75	SHANTORI INAGAR (NANDI)	39005.70	NGAOI	P.C.N.T.D.A.	55	215	215
76	SHANTORI INAGAR (NANDI)	22207.76	NGAOI	P.C.N.T.D.A.	365	1607	1607
77	SHANTORI INAGAR (NANDI)	30776.50	NGAOI	P.C.N.T.D.A.	109	420	420
78	SHANTORI INAGAR (NANDI)	27689.75	KNWALE	M.E. CAMP INAGAR	17	56	243
79	SHANTORI INAGAR (NANDI)	5902.00	KNWALE	PRIVATE	56	243	243
80	SHANTORI INAGAR (NANDI)	11821.50	KNWALE	PRIVATE	36540	149900	149900

PREPARED BY

MASHAL

NOTE - MOST OF ROAD NETWORK IN NEWLY ADDED VILLAGES IN P.C.M.C. AREA IS UNDER CONSTRUCTION. ALL ROAD NETWORK IN OTHER AREAS IS EXISTING ONE. THAMMENT DENSITY IN SLUMS OF P.C.M.C. - 3448 1/TH.

POPULATION IN SLUMS UNDER P.C.M.C. AREA 13.82 %

POPULATION IN OUTSIDE SLUMS UNDER P.C.M.C. AREA 86.38 %

PARTICULAR

TOTAL AREA (In Sqm)	8126	%	0.15
NEWLY ADDED VILLAGES IN P.C.M.C. AREA	3237	%	1.67
OLD POC LIMIT	1232	%	2.00
P.C.N.T.D.A.	32.87	%	0.43
PONDA AREA HANDED OVER TO POCM	1172	%	0.28
TOTAL AREA	11262	%	0.87

AREA OF SLUMS UNDER P.C.M.C. AREA 0.87 %

AREA UNDER SLUM 86.38 %

AREA WITHOUT SLUM IN P.C.M.C. AREA

COMPREHENSIVE SLUM IMPROVEMENT PROJECT

PIMPRI - CHINCHWAD MUNICIPAL CORPORATION

PIMPRI, PUNE 411 018

ADMINISTRATIVE ZONES IN POCM

ADJOINING P.M.C. AREA

Slum Rehabilitation (Up-gradation) project at Ajanta Nagar slum

Pimpri Chinchwad Municipal Corporation has taken up the Ajanta Nagar slum up-gradation project for a slum situated at Akurdi survey no. 88 (part) along the old Pune–Mumbai road on the land owned by MIDC. Under this first phase of the project which has been completed, 1559 hutments at Akurdi residing on the land owned by MIDC are being rehabilitated as a joint venture project of PCMC and the Mata Amritanandamai Math. Mata Amritanandamai Math contributes 18% of the expenditure (labour expenses) towards the total cost of project. Considering the site condition, PCMC has decided to complete the project in three phases. The 600 tenements, which PCMC constructed as transit accommodation for phase I shall be used for the second phase. The beneficiaries of these projects are:

1 st phase	- 590 slum dwellers
2 nd phase	- 457 slum dwellers
3 rd phase	- 512 slum dwellers
Convenient shops	- 65
Society office	- 22
Total	- 1746 tenements

Slum Rehabilitation Authority

PCMC has submitted a list of 68 slum pockets to the state government for the Slum Rehabilitation Project. A Slum Rehabilitation Authority (SRA) has been formed to undertake this project. The rules and regulations of the SRA are framed and the work is slated to commence shortly. SRA will essentially rehabilitate the slums based on a privatisation model by sanctioning additional FSI to the developer.

The SRA scheme is applicable to slums located on private lands and is purely a public private initiative with only 10% contribution from beneficiaries. The owner of such private land where a slum stands is allowed to develop the land. Also, there is a provision for residential accommodation for the existing slum dwellers in accordance with the guidelines. The land owner/ developer is permitted to utilise FSI up to a maximum of 3 or as permitted. In case of higher FSI, the difference of 3 FSI will be made available in the form of TDR. The minimum and maximum permissible density is 360 and 1080 person per hectare. The schemes shall provide residential tenements with built-up areas of 270 sft including toilets and balconies. The scheme is being well-received. Certain slums and private lands have been identified and plans are being proposed in both the cities.

4.4.4. Key issues with regard to Slums and Urban poor

Concentration of Slums along environmentally sensitive locations

A large number of slum dwellers in the city have taken refuge to such easily available locations like the river bed and banks, edges of railway lines and hill slopes apart from vacant industrial lands. These slum dwellers do not have access to basic services and thus their living conditions are unhygienic. Also, these concentrations of slums along environmentally sensitive areas are dense. This is also leading to environmental degradation of the locations.

Lack of land for provision of basic infrastructure

While efforts towards comprehensive development of the slum locations are underway, PCMC has been finding it difficult to provide necessary and enough infrastructure like water



supply, sewerage, and drains in several existing slum locations due to non-availability of enough land.

Unaffordable housing situation for LIG/ slum dwellers

Today the land market in Pimpri-Chinchwad is booming with real estate values reaching levels which are unaffordable for LIG/ slum dwellers groups. Also the non-implementation of the development plan proposals with respect to reservations for these groups has led to a shortage of housing for these unprivileged groups, in an otherwise large housing market.

Lack of awareness of slum development programs

There is a general lack of awareness of the various slum development schemes and programs announced from time to time by the central and state governments. Even the innovative SRA scheme is facing a similar situation. This is primarily leading to long delays in implementation of the programs and hence the benefits are not reaching people.

Lack of clarity on post-1995 settlers in slums

While the Government of Maharashtra has notified that slum dwellers settled prior to 1995 will be eligible under various slum development and rehabilitation programs, there is not enough clarity on those who settled in the city post-1995. Recent surveys indicated large numbers of these slum dwellers. This situation can turn into a potential cause for confrontation leading to delays in the implementation of related programs.

4.5. ROADS, STREET LIGHTING, AND TRANSPORTATION

PCMC's role with regard to road infrastructure in the city includes the construction and maintenance of all roads in its jurisdiction, except the roads belonging to the Public Works Department (highways and other district-level roads). While the construction of internal roads in the case of a plotted development is the responsibility of the developer, PCMC verifies the adequacy with respect to the development plan, at the time of sanction. Once the layout is developed, PCMC takes over the roads and open spaces for maintenance. PCMC is also responsible for implementing the master plan proposals with regard to new major roads and road widening activities.

4.5.1. Road Network

PCMC area is characterised by the old MIDC and the newly extended areas. Most of the developed area of PCMC has a good road network connecting the main roads and arterial roads in a planned manner. The central areas of the city comprising the old PCMC areas and MIDC areas have a dense and narrow road network in comparison to the new areas to the north and west of the city where the roads are comparatively wider. The road network in the PCMC area functionally comprises arterial roads, sub-arterial roads, collector roads and local streets. Most of the arterial roads have few encroachments, which however is not the case with sub-arterial and collector roads.

The present length of the road network is 757 km., of which 667 km. is of BT surfacing, 4.95 km. has cement concrete surface and 85 km. are WBM roads. Though the national highways (NH) and state highways (SH) run across a significant length through the city, the maintenance of the same has been now taken over by PCMC.



Road Network in PCMC

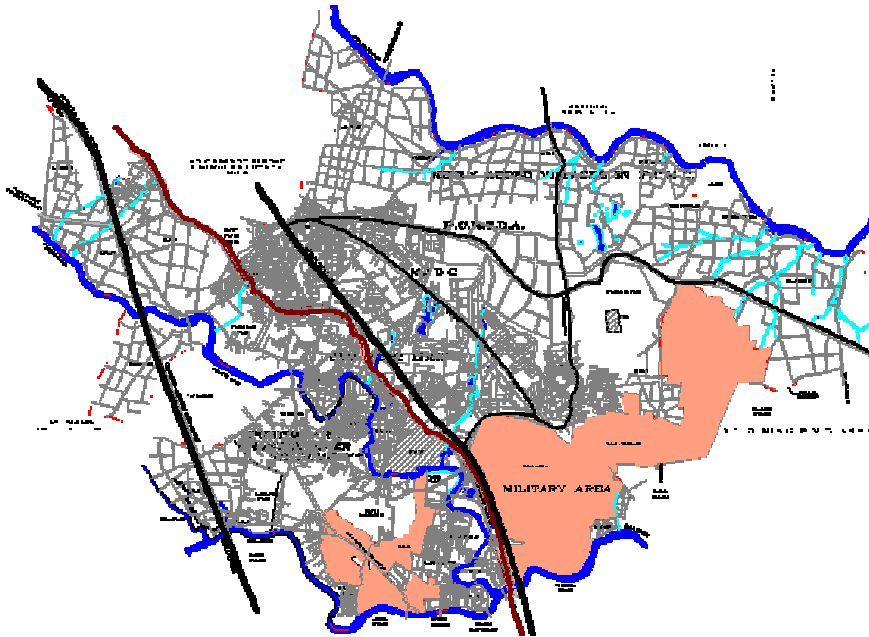


Table 11. Road Length in Pimpri Chinchwad

Sl.	Surface Type	Length in Kms	Percentage
Municipal Roads			
1	Concrete	4.95	1
2	Black-topped	667.00	88
3	WBM	85.00	11
Total Road Length		756.95	100

Road condition

88 per cent of the roads in the city are surfaced. The per-capita road length as on date is 0.62 metres which is relatively low compared to the existing population and the size of the city. Several roads proposed in the Development Plan are yet to be developed; These are mainly in the newly extended areas. PCMC proposes to take up construction of these roads on a priority basis over the next two years.

Due to the rapid development of in economic, industrial and commercial activities, there has been an enormous increase in traffic plying on the city roads. Also, due to the absence of bypass and ring roads, the city is witnessing the entry of regional traffic on the city roads. This causes heavy load and frequent damages to the road surfaces. The present road network and the surface type and condition in the PCMC area are inadequate to carry a high volume of traffic with a comfortable Level-of-Service (LOS). This causes traffic congestion during peak hours and increases travel time.

From the geographical point of view, PCMC is bounded by the Mula and Indrayani rivers and divided by the Pawana River. Also, the Mumbai-Pune railway line passes alongside the Pawana River through the centre of the city. This geographical situation necessitates a greater numbers of bridges and flyovers in the city to cross over the rivers and railways line and

avoid traffic congestion at railways crossings. At present, the numbers of bridges across the rivers are limited.

Key issues regarding PCMC Roads

Rapid urbanisation

As described earlier, the population of PCMC has increased by 93% from 1991 to 2001. Also, the Government of India has decided to construct a new international airport on the outskirts of PCMC. In addition, MIDC has developed the Chakan Industrial Area, the Talegaon Industrial Area with a Floriculture Park, the Talewade I. T. Park and the Rajiv Gandhi I.T. Park at Hinjawadi. The last mentioned is one of the biggest I.T. centres in the country. This has completely changed existing traffic movement logistics and stressed the immediate need for improving connectivity in the peripheral areas and hinterland of the city. Also, the future increase in population is expected to give rise to cross-movements of traffic within the city area; this would lead to traffic congestion along important routes. Thus, planning for grade separators, flyovers etc. is required.

Entry and mix of regional traffic on city roads

For want of bypass roads, the vehicular traffic is compelled to pass through the city. Due to this, there is a tremendous traffic congestion on important roads of the city. This issue has been tackled partially by the formation of the westerly bypass for the through traffic bound to Satara/ Kolhapur/ Bangalore. The proposal for an easterly bypass has remained on paper for years now; it needs to be implemented immediately to completely resolve the issue of regional traffic entering the city.

Lack of appropriate and efficient road infrastructure

While the city has good road connectivity, road infrastructure is weak. For instance, inadequate grade separation and poor surface quality are leading to travel delays, congestion and pollution. Appropriate safety and visibility enhancement parameters like signage, markings, channel islands, street name boards and other street furniture are absent from the majority of the roads. Many major roads lack footpaths and pedestrian facilities. The footpaths available are encroached upon by informal activities and street hawkers.

Too many agencies involved in planning and implementation

The presence of a large number of players in the Pune Metropolitan Region like the public works department (PWD) of the Government of Maharashtra, PCMC, PMC, Defence, Dehu Road Cantonment Board and Khadki Cantonment Board has led to duplication and consequently neglect of specific, overlapping areas/ locations. Also, the paucity of planning and funds of many of these bodies is resulting in a lack of comprehensive and integrated solutions to the problems of road connectivity, traffic, and transportation-related issues. PMC and PCMC have initiated studies in this direction and an Integrated Traffic Dispersal System (Master Plan for Road Network Improvement) for PCMC and PMC has been prepared. However, implementation of the same is yet to take place.

4.5.2. Street lighting

The provision and maintenance of streetlights is an obligatory function of PCMC. The electricity department of the PCMC is responsible for the installation, replacement, repairs, operation and maintenance of streetlights in the city. There are about 37,783 street light poles in the Pimpri Chinchwad city with different types of electrical fixtures. 83 per cent of the fixtures are high power lamps, mainly sodium vapour lamps of various wattages -- 70W, 150W and 250W. 16 per cent of the fixtures are tube lights. Against the available road length of 757 km. in the PCMC's limits, the average spacing of streetlight poles works out to about 20 meters, which rates well against the norm of 30 meters.

Table 12. Street lights in PCMC area

Number of Lights by Type	No of streetlights
Tube lights	5,861
Sodium Vapour Lamps	31,036
Mercury Lamps	159
Focus/ Halogen Lamps	-
High Mast Lamps	50
Others	677
Total	37783

4.5.3. Urban Transport

The public transport system in the Pune Metro Region (PMR) comprising Pune city and Pimpri-Chinchwad and providing about a 1000 buses on the road on any given day does not necessarily meet the needs of the commuters. In the absence of other modes of public transport, urban mobility is made possible through 9 lakh two wheelers, 5 lakh bicycles, 1.6 lakh cars, 1.2 lakh three-wheeler auto rickshaws and 5000 seven-seaters in the PMR.

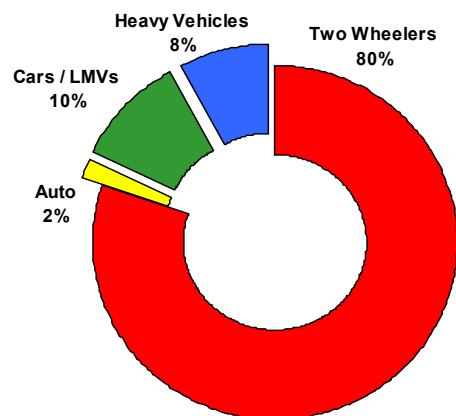
There are also 2000 un-registered vans, jeeps and contract buses catering illegally to commuters' needs.

The five million-strong PMR creates 3.5 million commuters on a daily basis. The public transport system caters to approximately 22% of the commuters. Two-wheelers cater to not more than 1.5 commuters per vehicle on road. The average car occupancy is not more than two persons per vehicle on road. The routes of PMT and PCMT were started for small concentric circles. New routes were added in the last 20 years, especially after 1989.

Since the public transport is not organized to provide quality and dependable service to all sections of the public and in all directions of the PMR, increasing acquisition of and dependence on personal transport vehicles meet the gap. This has resulted in the crowding of already narrow roads and traffic jams/ snarls. Pollution has reached such ominous proportions that the region has acquired the dubious distinction of recording the highest incidence of air pollution. The air pollution is solely attributable to vehicular exhaust.

Vehicular Population in PCMC

There are more than 3.5 lakh registered vehicles in PCMC as on date. The vehicles have registered an annual growth of over 13% during the last five years. This also indicates the vehicle ownership pattern in PCMC wherein more than 50% of the households own two-wheelers, as was the case in Pune city.



The high growth rates in the numbers of two-wheelers (mopeds and motorcycles) and four-wheelers indicate a growing dependence on private and own transport in Pune. The vehicular modal split indicates that 80% of the total vehicles are two-wheelers, followed by LMVs/ four-wheelers at 10% and three-wheelers at 2% of the total registered vehicles in the city.

Table 13. Registered Vehicles in PCMC

Year	Two Wheelers	Auto	Cars / LMVs	Heavy Vehicles	Total
2003	2,36,301	5,415	30,242	25,041	2,96,999
2004	2,69,210	5,494	33,994	26,955	3,35,653

Source: RTO, Pimpri-Chinchwad

Travel Characteristics in PCMC

The PCMC area has more industrial use (percentage wise) than residential use while the reverse is true for the PMC area. As major industries are situated in the PCMC area, they provide job opportunities to the citizens in PMR. This typical geographical arrangement has necessitated long work trips by citizens.

While the preferred mode of travel (motorized) in PCMC is two-wheelers at 28%, a good number of trips in the city are also pedestrian in nature or made by bicycles. Public transport accounts for 13% of the total trips. 51% of the trips generated in the city are work related and 36% are accounted for by education. Auto rickshaws constitute 2% of the vehicles plying the city roads. Alternatively, the number of two-wheelers plying on the city roads is 80% and four-wheelers/ LMVs 10%.

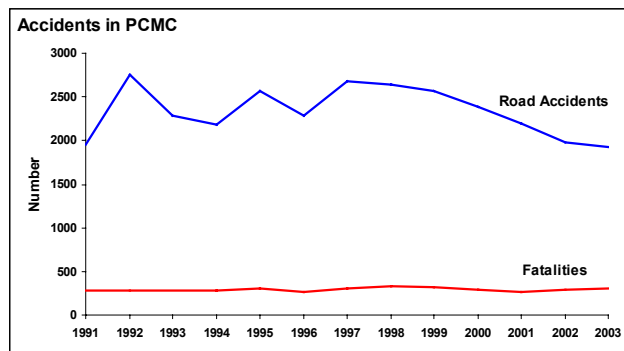
Table 14. Mode wise Trip Distribution

Mode	% of total Trips
Walk	31%
2 Wheelers	28%
Cycle	13%
Bus	13%
Auto	7%
Cars	6%
Mini Bus	2%
Rail	0.2%

The current situation as mentioned above also clarifies the shift in travel mode from public transport to personal transport and high growth in the numbers of two-wheelers. Pedestrian movements also suffer the same fate owing to the lack of adequate pedestrian facilities in the city. It has also been observed that most of the roads in the city lack footpaths.

Accidents in PCMC

The most important fallout of the enormous number of vehicles on the road is the threat to the safety of pedestrians/ children and the aged. In PMR, about 300 persons die on account of road accidents every year. As presented in the adjacent figure, the numbers of accidents occurring on the roads of PCMC per year figure in the range of 2000; 300 of them are fatal in nature.



Public Transport System (PCMT)

Pimpri-Chinchwad Municipal Transport (PCMT) was started as an independent agency under the aegis of then Pimpri-Chinchwad Municipal Council and later Pimpri-Chinchwad Municipal Corporation in 1974. The transport committee, set up under section 25 of the Bombay Provincial Municipal Corporations Act, 1949, manages PCMT. Chapter XX of the BMC Act contains detailed provisions regarding the operations of the undertaking. A general manager from the IAS cadre and officers from State Civil Services manage the administration of the undertaking. PCMT owns a central workshop and three depots.

The fleet size of PCMT, as on 31st March 2005 is 212 i.e. 21 buses per lakh population against a norm of 37 buses per lakh population. Of these, only 130 buses are on the road on a daily basis. Since 1989, PCMT has been allowed to ply buses to cater to the needs of the city and its peri-urban inhabitants up to 20 km. beyond the municipal limits. Accordingly, PCMT is now operating on 65 routes. While the Pune Municipal Transport (PMT) plies 165 buses (of 790 buses on road) in the PCMC area, PCMC plies 104 buses (of 130 buses on road) in the PMC area.

Table 15. PCMT Fleet Size

Year	Population	CIRT norms for bus fleet	Existing fleet
1981	251,769	92	63
1991	520,639	191	249
2001	1,006,417	372	239
2005	1,182,878	372	212

Source: PCMC & PCMT

The load factor of PCMT ranges from 37% to 70% with an average of 51%. In fair season, the load factor goes up to 60% on an average. The present fuel consumption is yielding 3.25 km./ litre for PCMT buses. Better management and scientific operations would however yield an average of 3.75/ 4.00 km/ litre of fuel

and can bring in savings of Rs. 600 lakhs annually. While the city and the suburbs have expanded more than two folds, the fleet size of PCMT has not increased in a corresponding manner. The number of PCMT buses on road has continued to be stagnant over the past 14 years.

PCMT and Passenger Base:

Recurring losses in operations resulted in stagnancy in the commuter base of PCMT despite exponential growth in population and employment in PCMC as well as in the PMR. The number of passengers using PCMT has drastically fallen from around 1.3 lakh passengers per day during 1995-96 to a low of 0.54 lakh passengers per day in 2001-02. The situation however has improved to 0.83 lakh passengers per day using PCMT services during 2004-05.

Table 16. Passenger base of PCMT

Year	No. of Buses	Buses on Road	No. of Passengers/ Day
1995-96	248	158	130985
1999-2000	215	130	55674
2000-01	232	142	60989
2001-02	232	121	54684
2002-03	232	111	59192
2003-04	187	109	75627
2004-05	212	123	83192

Source: PCMC & PCMT



Financial Status of PCMT:

PCMT has a huge accumulated loss and is incurring net cash losses of Rs. 3.32 lakhs per day on day-to-day operations. This loss does not take into account depreciation, outstanding liabilities, unpaid taxes, non-servicing of loans and outstanding payments of hardware and spare parts suppliers. The operational revenue and expenditure of PCMT for the last five years is as under.

Table 17. Financial Status of PCMT

Year	Income (Rs. Lakhs)	Expenditure (Rs. Lakhs)	Loss (Rs. Lakhs)	No. of Buses plying on road per day
2000-01	1800	2428	628	142
2001-02	1500	2239	739	121
2002-03	1811	2469	658	111
2003-04	2182	2755	573	109
2004-05	2346	3559	1213	123

Source: PCMT

PCMT has always been incurring losses in its operations right from its inception excepting for the years 1976-77, 1978-79 and 1994-95 when it posted negligible profits. The principal reason for making losses was the inability of the undertaking to meet the changing requirements/ demands of the commuting public. Also, PCMT has a net liability of Rs. 2500 lakhs.

Necessity for Amalgamation of PMT & PCMT

Due to the overlapping routes of PMT and PCMT, PCMT actually operates 80% of its fleet in the PMC area. PMT and PCMT have entered into agreements, giving certain rights to each other to operate services in each other's municipal jurisdictions. However, this has not resulted in an efficient or a mutually beneficial state of affairs. Actually, the agreements restrict PCMT capacity to run any commercially viable enterprise. At the same time, commuters also are not benefited, as they do not enjoy end-to-end bus service.

At present, 13 member-Transport Committees head both the undertakings. By the very nature of the process of selection, it is difficult to ensure the appointment of persons with experience and knowledge as required by law. None of the undertakings have professional experts and all the decision-making powers are vested in the committee. Also, continued municipal assistance has become more of a liability, as it does not compel the undertakings to pull up their socks and run their affairs in an efficient and financially sustainable manner.

Proposed Restructuring

The basic objective is to create a dependable PMR wide urban transport infrastructure for better urban mobility. To begin with, the target would be to cater to 60% of the commuters in a planned manner over the next five years. This should result in reduced dependence on personal vehicles or modes of transport, cleaner environment, safety of pedestrians and citizens in general and better quality of urban life.

PMT and PCMT would be merged and the new entity would be called the Pune Metropolitan Region Transport Corporation (PMRTC). PMRTC would be set up under the Road Transport



Corporations Act, 1950. Under the act, PMRTC will get monopoly for stage carriage transport in PMR under section 99 of the Motor Vehicles Act. The combination of PMRDA - - which will wield overall authority in regional planning including mobility planning -- and PMRTC will give a definite role to this undertaking in the urban transport scenario of PMR. PMRTC will be running or anchoring the facilitation of all modes of public transport like buses, HCBS, BRT, MRTS, LRTS, Sky Bus, trams etc.

Through the merger, the overlapping and repetitive structure of routes will be rationalized, freeing additional buses for other / starved routes. Implementation of better working systems will aim at more than ninety percent (possibly 96%) fleet utilization. Better route planning to increase the load factor to 72-80% and increase of bus revenue from Rs.3800 per bus to Rs.5000 per bus is easy to achieve. Today, every bus carries 600 passengers per vehicle whereas PMRTC would target 800+ passengers per vehicle per day.

The PMRTC will not employ additional any employees and may not increase the fleet size, but at the same time, it will involve the private sector for running certain routes on a licensing basis. PMRTC would earn additional revenue through pay and park, parking plaza, development of bus ports, parking lots etc. PMRTC shall raise additional revenues through advertising, leveraging on real estate assets through commercial exploitation etc. The financial support from the Municipal Corporations should be frozen at the present level for the next three years. Non-availability of ad hoc assistance will make PMRTC fend for itself. Availability of expert financial and operational advice would enhance the revenue level and/or reduce operating costs.

Key issues regarding Urban Transport in PCMC

Lack of an integrated traffic and transportation system

Most of the roads and intersections in the city have naturally evolved and lack standard geometry; they also suffer from problems of encroachment. There is no cohesion between road geometry and intersections' geometry indicating the lack of integrated traffic and transport systems. Also, the mixing of traffic owing to the lack of lane separators and encroachments is predominant. The capacity of many intersections has been exhausted due to poor geometry and many areas, including core areas of the city are experiencing parking problems, low-speed travel, increased congestion, and environmental pollution leading to worsening air quality.

Lack of coordination between land use and transportation systems

Inadequate numbers of truck terminals and improper location of the same, lack of planned arterial ring roads/ bypasses and incompatible land uses of trade and wholesale activities are leading to a great deal of unwanted freight movement inside the city.

Lack of an efficient public transport system

PCMC is presently not able to cater to and match the transportation needs of the citizens of PCMC in an efficient manner. Spiralling effects of the lack of an efficient public transportation system is being witnessed in the form of traffic snarls, congestion on roads and road sides, increase in pollution, and accidents.



4.6. MUNICIPAL SERVICES

This section reviews the existing situation and issues related to core municipal services provided by PCMC such as water supply, sewerage and sanitation, storm water drains, and solid waste management, in terms of their current level of service, coverage and key issues. In addition to these services, PCMC also provides other services such as fire services, and education and health, which are briefly covered in this section.

4.6.1. Water supply

In 1982, when the Pimpri-Chinchwad Municipal Corporation was carved out, comprehensive water supply systems were planned and designed to cater to the population of 2011. The plan comprising two phases was implemented accordingly with Phase-I of the works commissioned in 1982 and Phase-II during 1999-2000. These two phases are detailed in the following table; these constitute the present water supply systems in the city.

Table 18. Phase-wise development of Water Supply system

Phase – I commissioned in 1982	Phase – II commissioned in 1999-00
<ol style="list-style-type: none"> 1. Head works of 228 MLD capacity 2. Raw water Rising main & Pumping Machinery 3. Water Treatment Plant of 114 MLD capacity 4. Clear water sump (S-1) 8 ML capacity. 5. Clear Water Sump S-2 3.4 ML 6. Clear Water Pumps. 7. Elevated service reservoirs 8. Clear water rising main from S-1 to S-2. 9. Distribution system <p>* All the sub works except the intake works and the headworks were designed for 114 MLD supply.</p>	<ol style="list-style-type: none"> 1. Raw water Rising main & Pumping Machinery 2. WTP of 114 MLD capacity for Phase-II 3. Pure water sump – 12 ML capacity 4. Clear Water Pumps 5. Elevated service reservoirs 6. Clear water pumping at various locations 7. Distribution system for Water Districts WD-II, WD-IV, WD-V & WD-VI.

Source of Water Supply

The source of water supply to the city of Pimpri-Chinchwad is a dam located upstream 40 km. of river Pawana. Intake works are constructed in the riverbed 150 mt upstream of the existing “Punawale weir” near “Ravet” village, situated about 6 km. from the city. At present, the total quantum of water released at the source for the city is 228 MLD.

Service Levels

The service levels with regard to water supply are comparatively better than those obtaining in many other cities in the country. Pimpri-Chinchwad has a gross supply of over 154 lpcd (accounting for about 15% of transmission losses) and a net supply of 138 lpcd (accounting for 10% of distribution losses).

The distribution network in the city covers a length of 722 km., which is about 95 percent of the road length. The system presently covers almost 100 percent of the developed areas including the slums. The newly added areas are currently being catered to by tanker supply.



The distribution system in the city is based on both gravity and pumping. The total storage capacity available is 74 ML, which is 32 percent of the installed capacity (228 MLD) of the system. Elevated storage capacity stands at 65.5 ML which is 29 percent of the installed capacity. The reservoirs are filled up more than two times a day.

Table 19. Service Levels – Water Supply

Details	Unit	Service level Indicator
Drawl at Intake works	228 MLD	154 lpcd
Treatment capacity	228 MLD	100%
Storage Reservoirs (ESR)	65.5 ML (48 Nos.)	28.7%
Storage Reservoirs (GLSR)	8.0 ML (14 Nos.)	3.5%
Distribution network	734.9 Km	95% of road length
Individual House Service Connections –Nos.		
Meter-Domestic	298	0.35%
Unmetered -Domestic	82,496	97.66%
Commercial & Industrial	1,675	1.98%
Total Connections	84,469	

In terms of service levels, the per capita supply is fairly good. The distribution network coverage is about 95% of the present road network, indicating that all the developed areas enjoy access to piped water supply. The elevated storage capacity of 29% is falling short of the desired norm of 33%; this needs augmentation in the wake of new areas, which have been added to PCMC.

Treatment

Two treatment plants are located in sector 23, Nigdi, each with a capacity of 114 MLD. The total capacity as on date is 228 MLD which matches the installed capacity. The treatment process is of the conventional type, consisting of aeration fountain, intake channel, flash mixer, clariflocculator, rapid sand filters, chlorine contact tank, treated water (TW) sump and relevant TW pumping machinery. There are three clear water sumps and one MBR for storage of treated water and further supply to the zones. These are grouped as below.

- S1 – TW Sumps 2 Nos. (8 ML and 12 ML capacity)
- S2 – TW Sump 1 No. (3.5 ML capacity), and Master Balance Reservoir (MBR) of 3 ML capacity

Treated water from S1 and S2 is supplied to individual service reservoirs (ESRs/ GLSRs) located across the city.

Distribution System

The distribution system in the city is based on the division of the entire city into two distinct parts on the basis of its topography, created by the ridge running in the east-west direction.

- Gravity Zone, comprising areas south of the ridge and sloping towards Pawana river
- Pumping Zone, comprising areas north of the ridge and sloping towards the Indrayani river



These zones are sub-divided into eight water districts from WD-I to WD-VIII -- for ease of distribution. Each water district is served from the local ESR/ GLSR, depending on the system in that ward, whether gravity or pumping.

1. Gravity Zone

The gravity zone is served by clear water sumps with a total capacity of 20 ML. The zone covers areas largely on the west side of the existing Pune-Mumbai highway and railway line like Chinchwad, Gaonthan, Pimpri Rahatni, Kalewadi, Wakad, Pimple Nilakh, Pimple Gurav, Sanghavi, Thergaon and surrounding areas. The area lies within the basin of the Pawana River and slopes from northwest to southeast.

2. Pumping Zone

The pumping zone is served by the clear water sump of 3.5 ML capacity at the treatment plant and MBR of 3 ML capacity in WD II. Clear water is transmitted by gravity up to the Gawali matha sump and Landewadi sump from where water is pumped to elevated service reservoirs (ESR) for further distribution in WD-IV & V. ESRs in areas of other water districts, WD-II and WD-III are filled by pumping from S2 for further distribution in the respective ESR's zones. The areas covered in this zone are Morwadi, Amruteshwar, Masulkar colony, Saint Tukaram Nagar, Kharalwadi, Bhosari, Dighi, Charoli, Wadmukhwadi, Dudoolgaon, Bopkhel and other areas located on either side of the Pune Nashik road, largely covering the PCNTDA area.

The details of the water districts are presented in the table below zone-wise.

Table 20. Details of Water Districts in Gravity & Pumping Zones

S. No	Zone	Water District	Coverage (Sector/ Wards)
1	Gravity	I & IA	Sectors 23 to 28 of PCNTDA & ward no. 14,15,16,18,19 & 37 of PCMC
2		VI	Sectors 29 to 33 of PCNTDA and wards 2, 7, 8, 9, 10, 11 and 12 of PCMC
3		VII	Wards 21 to 27, 29 to 32 of PCMC
4		VIII	Sectors no 36 to 42
5	Pumping	II	Sectors 13 to 200 of PCNTDA & ward 17 & 39 of PCMC
6		III	PCMC ward no 18,33 to 37, 45, 50 to 53 and 54 (part)
7		IV	Sectors 3 (part) and 4 to 12 of PCNTDA and Borade wadi and wards 58,60 and 54 (part)
8		V	Sectors 1, 2, 3 (part) and 7 of PCNTDA and ward 54 (part), 55 to 59 of PCMC

House Service Connections

The total number of house service connections in the city is 84469; these cover only 41% of the total properties assessed in the city indicating a huge gap in cost recovery. The number of metered connections is low at 298 domestic connections and 1550 commercial/ industrial connections.

While the domestic metered connections are charged at Rs. 3.3 per KL, non-domestic connections are charged at Rs. 28 per KL. Un-metered domestic connections are charged a



minimum of Rs. 792 per annum and unmetered non-domestic connections are charged Rs. 652 per annum to Rs. 11358 per annum depending on the diameter of the connection.

New connection deposits are charged at Rs. 1000 to Rs. 12000 for domestic connections according to the diameter of the connection and Rs. 3000 to Rs. 15000 for non-domestic connections.

The last revision of water charges was carried out during 2002-03. During 2005-06, the general body of PCMC rejected further upward revision of the water charges in the city.

Low Pressure & Tanker Supply Areas

Low pressure in supply is observed specifically in areas where the distribution network is old or where the areas are farthest from the servicing ESR. Also, most of the newly added areas where the distribution network is yet to be completely provided, are facing the problem of low pressure in supply. The identified areas are listed below.

Table 21. Water supply – low pressure areas in PCMC

Location	Assessed causes of Low Pressure
Old & New Sangvi: Sangamnagar, Bughaghosh Hsg. Society, mulanagar	Shortage of water, level of local ESR
Madhuban colonies, shitolenagar area, C.M. society area	Can't be maintained to expected level.
Pimprinagar: Shani mandir Road, PWD-HB Block.	Uneven topography w.r.t. ESR
Pimprigaon: Shine lane, Waghere lane	Uneven topography w.r.t. ESR
Kalewadi: Tapkirnagar	Insufficient storage capacity
Thergaon: Ganesh nagar	Capacity of distribution main exhausted
Pimple Nilakh: Panch sheel nagar, Ganeshnagar, Samrat colony.	Uneven topography & tail end w.r.t. ESR
Kudalwadi: Kudalwadi, Rupinagar, Jadhavwadi.	Uneven topography
Ajmera, Masulkar colony, Gandhinagar, Sant Tukaram nagar, Fugewadi, Kasarwadi, Indrayani nagar, Chakrapani, Sector 3, Dighi, Bopkhel,	Uneven topography
Sudarshannagar, Vijaynagar, Talera, Road, Kunal estate.	Ridge points, increase in population, shortage of water.

Water supply through tankers is provided in areas where the distribution network is yet to reach. These areas are the old and new Sangvi, Pimpri gaon, Pimpri nagar, Kalewadi, Thergaon, Pimple Nilakh, Bopkhel, Charholi, Akurdi, Yamunanagar, Sudarshannagar, Vijaynagar, Talera, Road and Kunal estate. These areas are served by tankers at an average of about 45 trips per day. The capacity of each of the tankers is in the range of 9,000 to 12,000 litres.

Phase – III system augmentation works nearing completion

The existing system with its head works at Ravet was designed for 228 MLD to cater to the population of 2011. The large influx of population combined with the wide expansion of the city limits over the past decade has increased the water demand considerably and the present installed capacity is expected to saturate by the year 2007-08 itself. Accordingly, Phase III



and Phase IV of the system are designed to cater to the population of 2021 through augmentation by another 200 MLD.

Works on Phase III of the system for augmentation by 100 MLD have started in 2004-05 and are nearing completion; these are expected to be commissioned by 2006-07. Various works taken up as part of Phase III are listed below.

- Intake works for 100 MLD capacity comprising inlet chamber, raw water channel, coffer dam and pump house
- Six raw water vertical turbine (VT) pumps with discharge capacity of 1250 cum per hour per pump to pump water to aeration fountain of WTP
- 100 MLD water treatment plant (WTP) at sector 23 PCNTDA, Nigdi
- 10 ML capacity clear water sump at the WTP to cater to areas in WD VI

The works of Phase IV is planned to cater to the needs of the 2021 population -- augmentation by another 100 MLD including WTP, ESRs and distribution network. This work is planned to commence later after 2011-12.

Issues related to water supply

Policy level issues

Short-term policy: Lack of political will and clarity on fixation of norms for water tariff and structure, cost recovery and illegal connections are the main policy issues that need to be addressed in the immediate future.

Long term Policy: Availability of Pawana river as the source to cater to the demand of 2031 in the scenario of high population growth rates and identification of other sources/ regional water supply system to cater to the demand beyond 2031 are the long-term policy decisions that need to be taken.

Inter-service Issues

- Lack of coordination with the Town Planning department to locate open spaces for construction of ESRs etc.
- Involvement of more than a single agency (government, semi-government, and private organizations) in making available the land along the proposed raw water transmission main from Pawana dam to Ravet
- Dependency on MIDC for water supply of about 15 MLD
- Ever-increasing water demand due to rapid urbanization, implementation of township policy and the evolution of the Pune Metro Region into an IT hub and Auto Cluster
- Increasing conversion of abandoned industrial sites into residential locations and demand on the existing distribution system

O&M Issues

- Unaccounted for water and high transmission and distribution losses
- Non-availability of advanced software for water distribution analysis like WATER CAD and Epanet Computer facility
- Low pressure in several areas of PCMC



4.6.2. Sewerage system

Underground drainage was first provided in the city of Pimpri-Chinchwad after the formation of the Pimpri-Chinchwad Municipal Council, when sewerage network and Sewerage Treatment Plans (STP) were constructed and commissioned in 1976. Two STPs were constructed at Chikali Part-I Phase-I and Kasarwadi of capacity 16 MLD and 40 MLD respectively.

With the formation of the Pimpri Chinchwad Municipal Corporation in 1982, it was considered appropriate to have a centralised system for the entire PCMC area. Accordingly, various sewerage schemes were prepared and implemented in phases. These are listed below.

- The Chinchwad scheme with an STP of 30 MLD capacity was commissioned in 2000.
- The Chikhali scheme with an STP of 16 MLD capacity was commissioned in the year 2001.
- The Kasarwadi scheme with an STP of 40 MLD capacity was completed in the year 2003.
- The Sanghvi scheme with an STP of 15 MLD capacity

The current gross installed capacity is 157 MLD, which is about 70% of gross water supply and 85% of net water supply; it caters to the demand of total sewage generated within the PCMC area.

Sewerage Districts

The various sewerage districts comprising the sewerage system in Pimpri-Chinchwad are listed below.

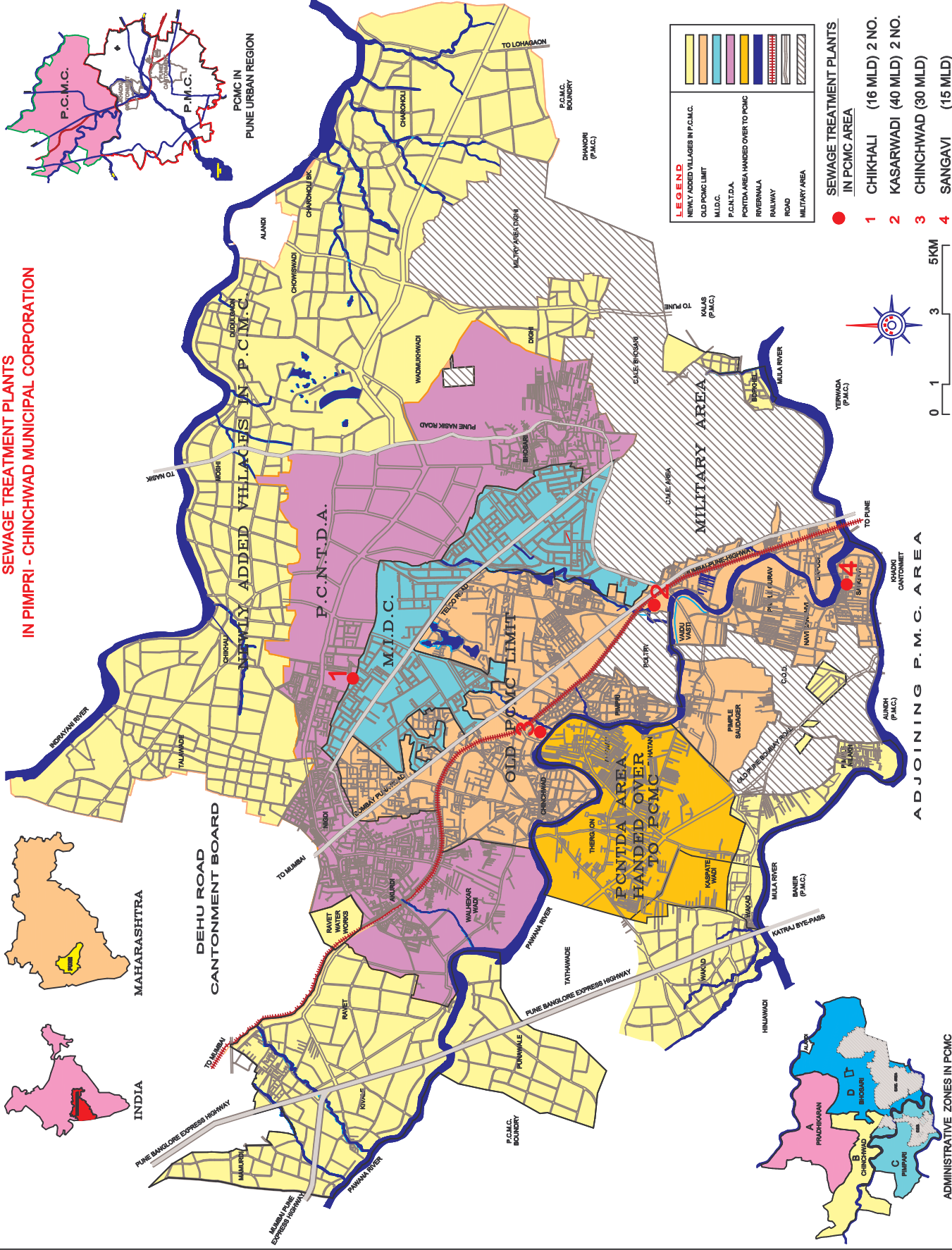
- PCMC area Phase-I Part-I comprising sectors 21, 22, 23, 24, 25, 27 and ward A.
- PCMC area Phase-I Part-II comprising sectors 27, 18, 20, 28 and Nigdi Gaothan, Akurdi Gaothan
- Chinchwad UGD system Phase-II covering Pimpri waghera, Pimpri Camp, Kharalwadi, Morwadi, MIDC, G Block, Chinchwad Station, Chinchwad Gaon, Sector 26 (part) and Sector 27
- Kasarwadi UGD system Phase-I Part-II covering Kasarwadi, Phugewadi, Bhosari, Saint Tukaram Nagar, Vastu Udyog Nagar, Nehru Nagar and Dighi
- Sanghavi Sewerage Scheme Phase II covering Sanghavi, New Sanghavi, Pimple Gurav and Vaidu Vasti area
- Kasarwadi UGD system Phase II covering Pimple Saudagar, Rahatani, Kalewadi, Thergaon, Dapodi
- Pimple Nilakh Wakad Sewerage System Phase I covering Pimple Nilakhat Wakad areas

Sewerage Network

The sewerage network in the city runs to a length of 615 km. which is 80% of the total road network of the city. This however, doesn't present the true picture of system coverage as the road network in the city itself falls short of requirement. In terms of population coverage, the



SEWAGE TREATMENT PLANTS IN PIMPRI - CHINCHWAD MUNICIPAL CORPORATION

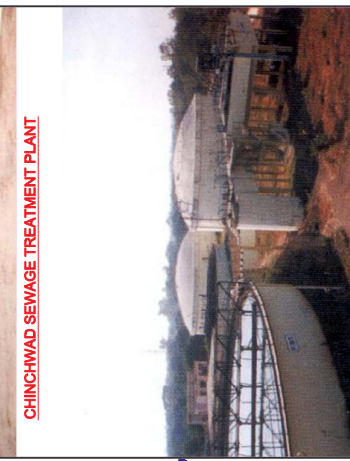


- SEWAGE TREATMENT PLANTS IN PCMC AREA**
- 1 CHIKHALI (16 MLD) 2 NO.
 - 2 KASARWADI (40 MLD) 2 NO.
 - 3 CHINCHWAD (30 MLD)
 - 4 SANGAVI (15 MLD)

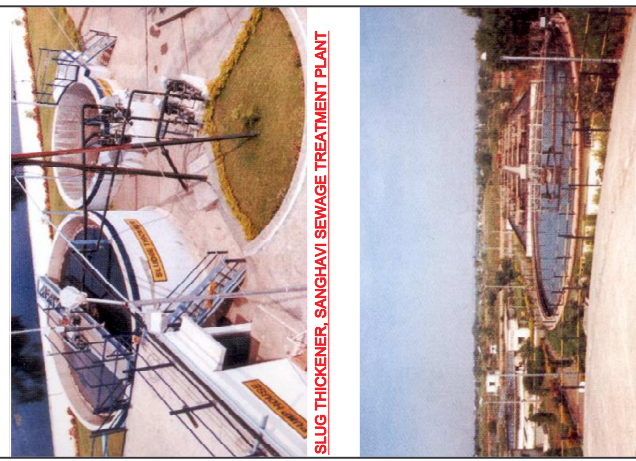
CHINCHWAD SEWAGE TREATMENT PLANT



DAJESTAR, CHIKHALI SEWAGE TREATMENT PLANT



SLUG THICKENER, SANGHAVI SEWAGE TREATMENT PLANT



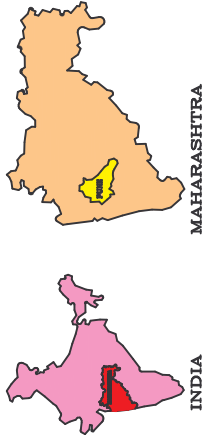
PRIMARY SETTLING TANK, CHIKHALI SEWAGE TREATMENT PLANT



PREPARED BY

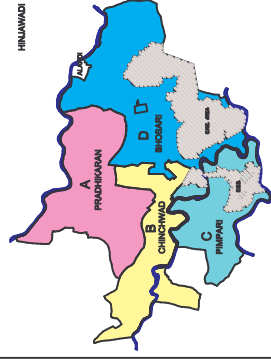
SANITATION MAPPING FOR PIMPRI-CHINCHWAD MUNICIPAL CORPORATION

MASHAL



INDIA

MAHARASHTRA



ADMINISTRATIVE ZONES IN PCMC

ADJOINING P.M.C. AREA

DEHU ROAD CANTONMENT BOARD

PCMC IN PUNE URBAN REGION



LEGEND

[Yellow box]	NEWLY ADDED VILLAGES IN P.C.M.C.
[Orange box]	OLD PCMC LIMIT
[Blue box]	M.I.D.C.
[Purple box]	P.C.M.C.
[Pink box]	PONTDA AREA HANDED OVER TO PCMC
[Green box]	RIVERWALLA
[Red box]	RAILWAY
[Black line]	ROAD
[Hatched box]	MILITARY AREA

network is understood to be covering only 50% of the city's population implying that a large quantum of sewerage is flowing into the open drains and the rivers of the city untreated.

Issues related to Sewerage system

Policy level issues

Short-term policy: Lack of political will on the introduction of sewerage charges and cost recovery is the main policy issue that needs to be addressed in the immediate future.

Long-term policy: Reservations in the Development Plan to be provided towards making land available in future for the location of sewerage systems/ treatment plants etc. Also, co-ordinated planning between the departments needs to be worked out as a long-term policy measure.

Inter-service Issues

Lack of coordination with the Town Planning department to identify locations for STPs

- Increasing sewerage generation due to rapid urbanization, implementation of township policy, and the evolution of the Pune Metro Region into an IT hub and Auto Cluster
- Load shedding of electricity and land acquisition becoming major roadblocks in the implementation of sewerage schemes

O&M Issues

- Low system coverage with a large quantum of sewerage being allowed to flow into water bodies untreated
- Non-availability of advanced softwares for sewerage system analysis like SEWER CAD and Epanet Computer facility

4.6.3. Storm Water Drainage

The storm water drainage system in Pimpri Chinchwad comprises primary, secondary and tertiary drains. Primary drains comprise the rivers Mula, Pawana and Indrayani with a discharge capacity of more than 5 cum/ sec. Secondary drains are the natural channels/ *nallahs* with a discharge capacity of up to 5 cum/sec. Tertiary drains are the roadside built-up open or closed drains and those of the unlined *kutchha* type.

The network of tertiary drains in the city covers a length of 369 km., which is only 48% of the present road network in the city. This is grossly inadequate coverage of 150% of the road network is generally considered to be a good network. This system shortage is primarily resulting in the mixing up of sewerage and storm water at several locations in the city. Details of the tertiary drains in the city are presented in the table below.

The tertiary drains in PCMC are cleaned at least twice a year as a preventive maintenance operation.

Table 22. Storm Water Drains (Tertiary Network) Details

S.No	Drain Type	Length (Kms)	Percentage
1	Open Pucca	330.68	90
2	Open Kutcha	7.38	2
3	Closed Drains Total Pucca Drains	31.02	8
4	Total Drain Length	369.08	100
5	Total Road length in PCMC	761.95	--
6	Drain Length as % of Total Road Length		48.43

However, the primary and secondary drains in the city are silted to the core, thereby reducing their discharge capacity; these are in need of immediate de-silting operations.

PCMC is presently in the process of preparing hydraulic computations like discharge; velocity to be non-scouring and non-silting etc, for arterial roads like Mumbai-Pune road, Aundh road, Telco road etc. Accordingly, work on the construction of built-up storm water drains along these roads has commenced. Also, PCMC proposes to take up up-gradation of storm water drains along major roads in the city in line with its functional classification based on hydrology data of rainfall intensity of 50 mm/ hour.

Issues related to Storm water drains

Flooding of low-lying areas and road infrastructure

During the monsoons of 2005, the low-lying areas on the banks of the Pawana River in Chinchwad and Pimpri and the Mula River in Sangavi and Dapodi were inundated. The high flood level recorded was higher by about two meters from that previously observed. Following this incident, PCMC stressed on the need for the protection of riverbanks from floods and decided to prepare a storm water drainage master plan; the study of the same is in progress. PCMC proposes to implement the master plan over a period of six years.

Road infrastructure in the city is badly affected and damaged at several locations during monsoons due to the inadequacy of storm water drainage networks. The monsoons have also been witnessing, year after year, the overflow of several secondary and primary drains as most trenches of these drains are silted and have not undergone desilting operations over the years.

Rapid Urbanisation

By 2015, PCMC is estimated to have a population of 20 lakhs and the city is also expected to grow rapidly due to various large-scale investments planned mainly in the adjoining areas of PCMC in the north and south directions. This would increase the pressure on the urban services significantly; especially the drainage system of the city would feel the brunt. To meet the increased demands, PCMC will have to provide sustainable infrastructure and emphasise on the development of road network along with storm water drainage and its operation and maintenance.

4.6.4. Solid Waste Management

Solid waste comprises unwanted and discarded materials from houses, street sweeping, and commercial and industrial operations. Rapid urbanisation, increasing commercial and



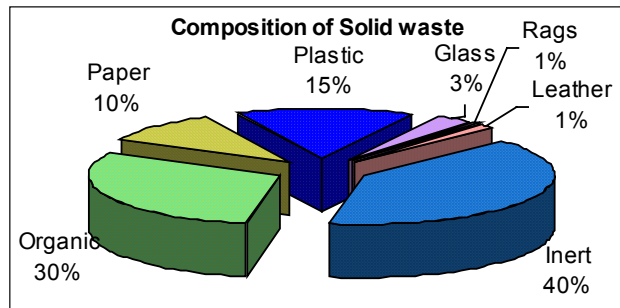
industrial activities and changing life styles in Pimpri-Chinchwad are observed to be leading to a steady increase in the generation of solid waste.

PCMC is responsible for the collection, transportation and disposal of all solid waste generated in the city, except untreated bio-medical waste and hazardous industrial waste, which are taken care of by the respective generators. PCMC organizes the collection and transportation through a team of its own conservancy workers and a fleet of vehicles and dumper-placers. PCMC has introduced community participation in waste collection and transportation activities in some wards of the city. The waste collected is disposed at the dumping yard on the outskirts of the city without any treatment.

Quantum of Solid Waste Generation and Composition of Waste

The primary sources of solid waste in Pimpri-Chinchwad are local households, markets, commercial establishments, hotels, restaurants, and hospitals. The total quantity of waste generated is in the order of 490 tonnes per day (TPD) at a per-capita generation of 396 grams per day. No significant seasonal variation in the quantity of waste generated is observed, as Pimpri-Chinchwad does not have any tourism-related activity.

Maximum quantity of waste generated in the city is inert in nature at 40 percent. Organic waste primarily generated by households and restaurants constitutes 30% of the total waste followed by plastic waste at 15% and paper at 10%. Waste in the form of glass material, rags and leather constitute the remaining 5%.



As a part of its initiative to reduce waste generation at source, PCMC has involved people/communities in the process of segregation of solid waste and recycling of waste by process vermin composting. This initiative has been taken up in certain localities in Pradhikaran Shridharnagar (Chinchwad). This initiative is called the Model Community Programme and has been adopted under Agenda-21 with the help of ICLEI. Stakeholder groups have been formed for the purpose.

PCMC has also facilitated the formation of a rag pickers' association for salvaging recyclable waste from collection points to put in place an organised source segregation system.

Collection of Solid Waste

The estimated quantity of waste collected and disposed is about 440 tonnes per day, which translates into a collection performance of about 90 per cent. 772 conservancy workers are engaged by PCMC and the waste is collected on a day-to-day basis through sweeping and door-to-door collection. 1499 dustbins have been placed in the city for primary collection of waste at a spacing of 80/ 100 meters. The details are presented below.

Table 23. Provision for Primary Collection (Bins)

S.No	Bin Type	Capacity	Percentage
1	MS Container	7 cum	363
2	MS Container	1cum	566
3	RCC Bin	0.3 cum	537
4	Constructed Bin	varies	33
	Total		1499



PCMC has also introduced door-to-door collection of waste and accordingly declared the following wards as dustbin-free wards.

- Ward no.18 Pradhikaran
- Ward no. 27 Sant Tukaram nagar
- Ward no.7 Indrayaninagar (part)
- Ward no. 32 Walhekar wadi
- Ward no.19 Yamunanagar (part)
- Ward no. 33 Prekshagruh
- Ward no.23 Sambhaji nagar (part)

In these wards, municipal garbage vehicles run as per a scheduled timetable and collect waste from door-to-door and transfer the same to the transfer station established in J Block, MIDC, Bhosari. From the transfer station, four Bulk Refuse Carriers (BRC) of 12 MT capacity each transport the waste to the dumping yard. This intermediate transfer station process has reduced the number of trips generated by the collection vehicles and thus saves on transportation costs. About 30,000 households are covered under this scheme. 347 *Ghantagadi Chalaks* are appointed on a contract basis by PCMC for door-to-door collection.

PCMC has made separate arrangements to collect and transport waste from vegetable markets, hotels and restaurants, slaughterhouses and hospitals. Also, PCMC has declared Thursday as the day for the cutting of trees and collection and transportation of waste generated for composting.

Waste Transportation & Disposal

Transportation of waste is carried out on all days except Sundays. Waste collected from various locations in the city is transported either to the transfer station or directly to the dumping yard. PCMC uses its own conservancy vehicles for the purpose and has additionally engaged the services of a private contractor.

Table 24. Fleet of Conservancy vehicles with PCMC

Vehicle Model	No.s	Capacity/ Vehicle (MT)	Trips Per day	Distance traveled (km/ trip/ vehicle)	Personnel Per Vehicle	Nature of transfer	Daily hrs. of operation
Heavy trucks	3	5	2	30 kms	1+6	Secondary	8 Hrs
Medium trucks	8	3	1	35 kms	1+4	Primary	7 Hrs
Small trucks	2	2	3	30 kms	1+4	Secondary	7 Hrs
Dumper placer	18	1.5	6	30 kms	1+2	Secondary	7 Hrs
Dual loaded dumper placer	2	1	2	30 kms	1+2	Secondary	7 Hrs
Bulk refuse carriers	4	12	6	12 kms	1+1	Tertiary	8 Hrs

In addition to the above, PCMC also uses the services of 34 private contractors. The total capacity of the vehicles being put to service is 305 MT, which is about 62 per cent of the waste generated. These vehicles conduct on an average about three trips per day. Against a density factor of 0.35 and an average of three trips per vehicle per day, the collection capacity of the conservancy vehicles with PCMC is only 68 per cent of the waste generated indicating a major shortfall.



PCMC has a dumping site at Moshi Village at a distance of 15 km. on an area of 25 hectares. No scientific method of disposal is followed and the waste is dumped on open ground. The present disposal site does not cater to future needs; there is an immediate requirement for the acquisition of a new disposal site for engineered landfill having all basic infrastructure. About 157 acres of land would be required to cater to the needs of the population of year 2031.

Vermiculture Initiative of PCMC

PCMC has set up a vermiculture plant in August 1997, on a plot of 1.5 acres on one of the municipal parks. Two agencies -- Institute of Natural Organic Agriculture (NGO) and NRG Tech Consultants (Pvt. Agency) -- evinced interest in collaborating with PCMC. PCMC daily collects 10 MT of garbage from the vegetable market and transports this to the vermiculture plant. In addition, waste generated by the hotels is to the tune of about 4 MT. This is also collected and supplied for the purpose of vermiculture.

Issues related to Solid Waste Management

1. Only 30% of the waste is put to source segregation; the practice is yet to be implemented in all locations of the city.
2. There is strong public opposition to the establishment of a municipal slaughterhouse within the city limits.
3. Crude dumping is resorted to at the disposal site due to non-availability and non-provision of infrastructure for scientific disposal.
4. About 347 Ghantagadi Chalaks working on contract basis since eight years are on agitation demanding inclusion into the PCMC service. The matter is pending before the High Court.
5. Considering the workload and ban over employing new staff, part-privatisation is necessary for the efficient delivery of the service. However, the employees' union is opposed to privatisation. A consensus needs to be arrived at on this issue by PCMC.
6. The identified new landfill site at Punavale village belongs to the forest department and has not yet been handed over to PCMC. The issue with respect to unscientific disposal continues.

4.6.5. Other Social Infrastructure

Fire Services

Pimpri Chinchwad City does not have any industry dealing with hazardous materials or chemicals. However, it is a hub of manufacturing and IT industries. Fire is the major man-made disaster to which the city's industrial base is prone. The fire department of PCMC is responsible for responding to this kind of a disaster.

The fire department of PCMC was established in 1971 with only one Petrol DODGE fire appliance. Over the years, with the growth of the city, the fire brigade has been upgraded. Today, the department has a 109-member strong staff and 12 advanced fire vehicles. Five fire stations at various locations in the city cater to the needs of the PCMC area. In addition to these, certain large industries have their own fire stations.



Table 25. Staff and vehicles with Fire Department, PCMC

Name of Fire Station	Location	No of staff	No of vehicles
General Avuncular Vaidya Central Fire station	Pimpri	48	8
Bhosari Sub station	Bhosari	19	1
Pradhikaran Sub station	Pradhikaran	19	1
Rahatni Sub station	Rahatni	19	1
Moshi Garbage Sub station	Moshi, Dighi	4	1

Table 26. Appliances and equipment with Fire Department, PCMC

Fire Appliances/ Equipment	No.s	Salient Features
I. Fire Appliances		
Water Tender 'Type B' Composite	4	4500 litres water, Co2 (20kg)-2, DCP (75 kg)-2, Ex. Port pump genset, light mast, monitor, etc.
Water Tender 'Type B'	3	4500 litres water capacity
Combined Foam, Co2, DCP, Tender	1	4500 litres water capacity, Co2 (20 kg)-6, DCP (75 kg)-2, etc.
Water Bouser	1	10,000 litres water capacity
Rescue Tender	1	Cutting, breaking, lifting, pulling, lighting, chemical handling and other life-saving equipments.
Mini Water Tender	2	2500 litres water capacity
Emergency Response vehicle	1	Emergency equipments and crew carrier.
J. Special Equipments		
Breathing Apparatus set (Drager make - 45 min duration)	12	With spare cylinders
Smoke Extractor	4	-
Rubber Inflatable boats	2	-
K. Communication		
V.H.F Wireless sets	11	4 No.s at base station and 7 No.s mobile

The city houses a number of slums, markets, high-rise buildings and large industrial areas with about 3500 small and large factories. Given this, the existing fire stations and staff are inadequate to meet the current demand and cater to the growing population of the city. As per the norms laid down by the Standing Fire Advisory Council, the current PCMC area will require at least 13 fire stations with minimum technical staff, including a well-equipped central fire station with facilities like a parade ground, a full-fledged workshop, training halls and residential facilities. An area of two acres would be required for the setting up of the central station. The department also needs more specialised equipment like hydraulic platforms, fire trailers, rescue vans, ambulances and mortuary vans.

Issues related to the fire department

- Inadequate infrastructure to cater to the current and future demand
- Shortfall of equipment and spacious central fire station
- Lack of adequate technical manpower
- Lack of moving space for fire tenders around several buildings in gross violation of building permissions sanctioned by PCMC
- Narrow roads in slums and densely populated areas like markets etc. for the movements of fire tenders



- Increasing numbers of high-rise buildings and the lack of capacity of the Fire Brigade to reach upper floors

City Beautification - Garden Department & Tree Authority

The PCMC has been active in trying to improve the environmental status of the city. In the last 22 years, the green cover of the city has increased to 27 percent owing to various measures taken by PCMC. Some of them include:

- Developing gardens over a total area of 427 acres
- Planting about two million trees
- Preparing an Urban Forestry Master Plan (2000-2005)
- Carrying out afforestation on military lands
- Recycling and reusing garden waste
- Promoting tree adoption schemes
- Undertaking environment awareness tours for school children

The Urban Forestry Master Plan prepared as part of the city beautification initiatives of PCMC aims at pollution abatement by improving the city's green cover through tree plantation and development of the Pawana riverfront. The garden department of PCMC has also involved citizens in protecting areas under the People's Participation in Protecting Areas model (PPIP).

In recognition of PCMC's efforts, the Government of Maharashtra conferred on PCMC the **Vanashree Puraskar** award in 1990. PCMC also received the most prestigious **Indira Priyadarshini Vrikhsa-Mitra Puraskar** in 2002 from the Ministry of Environment & Forests, Government of India. PCMC is the first Municipal Corporation in Maharashtra to have received this award.

The plantation activities undertaken by PCMC to improve the greenery of the city are:

▪ Number of nurseries established	3 No.
▪ Area used for activity	12.10 acre
▪ Seedlings produced during the last 22 years.	31,65,000
▪ Plantation undertaken by the PCMC	19,63,685
▪ Plants sold and distributed to the public	8,11,133

At the same time, PCMC has also implemented measures for soil and water conservation at Talawade, Chikhali, Moshi, Dighi, Survey no. 131 Bhosari, and Nigdi-Chincholi. The plantation activity was not only carried out on PCMC land, but also on other agencies' lands – PCNTDA and MIDC.

PCMC plans to increase the green cover from the current level of 27% to 33%; to achieve this, PCMC will need to identify barren open spaces. Under the former plantation programmes, PCMC has utilised all available open spaces for plantation. Only Cantonment lands adjoining the city limits are available for further plantation. PCMC needs to coordinate the same with relevant authorities. Also, PCMC plans to locate such spaces which are encroached upon, like the river banks and surroundings and hill slopes to take up the development of green areas and parks.



Secondary Education Facilities

At present, PCMC runs as many as 18 secondary schools within its jurisdictional area. The first secondary school was opened by PCMC at Bhosari in 1975. The basic facilities provided by PCMC at these schools are listed below:

- Supervision studies and central examinations
- Science exhibition and educational trips
- Drawing and sports competition
- Night studies
- R.S.P. platoones
- Environmental education (Tree Plantation)

The growth of the city has also resulted in the opening of new secondary schools by PCMC at Kharalwadi, Wakad, Pimple Gurav, Landewadi, and Rupinagar, and the setting up of a sports school called Krida Probhodini at Nehrunagar. The details of the secondary schools are given below:

Table 27. Details of Secondary Schools run by PCMC

Category	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006
Schools	18	18	18	18	18
Classes	315	315	315	315	315
Students	9147	9239	9098	10148	9561

4.7. REVIEW OF MUNICIPAL FINANCES

Finance management and accounts are the principal functions of the Accounts Department headed by the Chief Accountant. The Accounts Section also monitors the grants and state government transfers and devolution, and manages debt servicing, provident fund accounts, pensions, salaries and advances.

4.7.1. Framework for Analysis

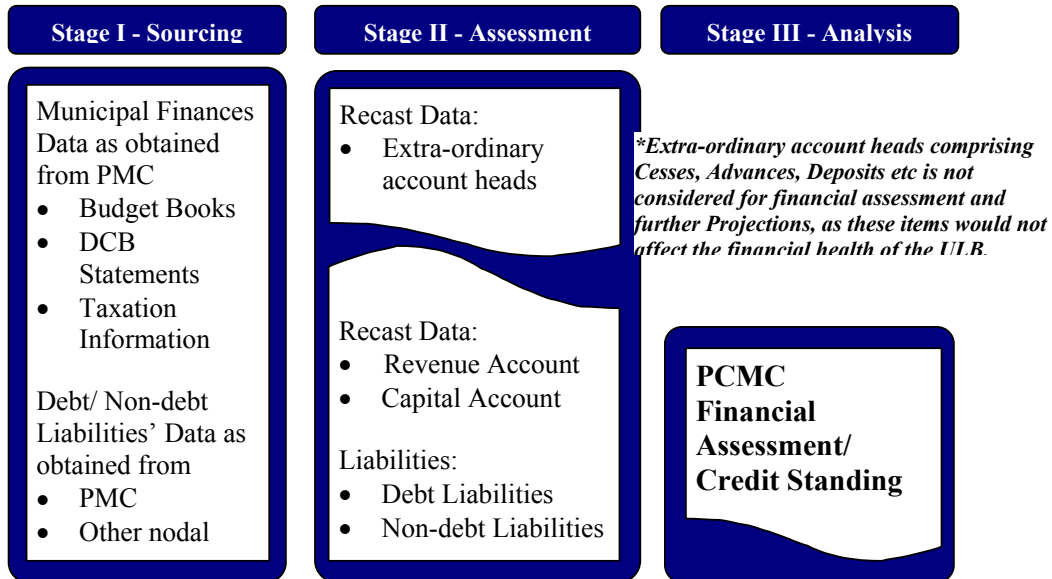
For the purpose of financial assessment, financial data pertaining to the last five years (2000-01 to 2004-05) have been analysed. The first step in analysing the financial position of PCMC is to differentiate and categorise the account heads into General Account, Water Account and Capital Account through a budget recasting exercise.

PCMC's current accounting system is cash-based; income and expenditure heads are maintained on a cash basis. All the expenses towards regular maintenance are treated as revenue expenses, while expenses on new projects are treated as capital expenses. The standing committee exercises strict control over the projects that requires capitalization. Direct expenses are appropriated directly to the user department. PCMC is in the process of migrating to the accrual-based double entry accounting system and plans to generate the balance sheet by March 31, 2007.



The Corporation accounts can be classified under two major heads - general fund and water & sewerage fund. The revenue sources of the Corporation may be broadly classified as internal or operating income and external receipts. Internal income includes receipts from the operations of the Corporation in the form of taxes, octroi, water and sewer charges and fees and charges on other services such as advertisement fee and food and license fee.

PCMC Financial Assessment – Analysis Framework

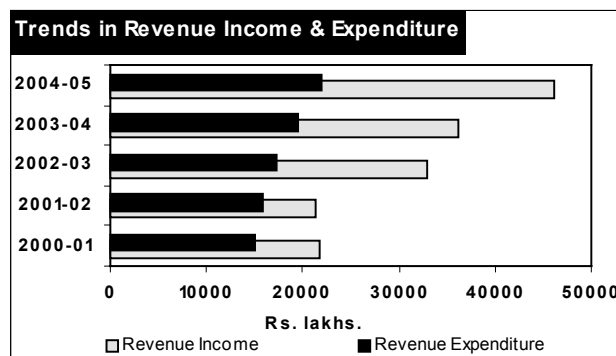


External fund sources include revenue grants from the State and Central Governments, loans for and contributions for projects.

Expenditure incurred towards establishment cost, operation and maintenance expenditure for provision of services and repayment of loans are treated as revenue expenditure and expenditure on asset creation, purchase of equipment and investments in new projects etc. are treated as capital expenditure.

Advances and deposits and any items of income or expenditure of temporary nature are treated and accounted for under an extraordinary account. These heads of account are not analysed as they are temporary in nature and have no impact on the overall financial position of PCMC.

4.7.2. Financial Status at a Glance



The municipal finances of the Corporation (PCMC) have been reviewed for the last five years, commencing from the financial year 2000-01 to 2004-05. The items of both receipts and expenditure are classified under revenue and capital accounts as per their sources and uses.

Revenue Income (a combination of



General and Water Account) of PCMC has grown to a level of Rs. 46138 lakhs in FY 2004-05 from Rs. 21697 lakhs during FY 2000-01, registering a compounded annual growth rate (CAGR) of 21 percent, while revenue expenditure increased at a CAGR of 10 per cent. This presents a sound financial condition for the future. PCMC maintained an average revenue surplus of over 40 percent of its revenue income.

Capital income of PCMC comprises loans and internal transfers from revenue to capital account or utilisation of funds for asset creation from the sinking funds; during the past few years, PCMC has not availed of any loans for its capital expenditure. It is observed that capital income from external sources is negligible and that the capital account is continuously in deficit, indicating that most of the capital expenditure is met from internal surplus alone.

Table 28. Financial Status at a Glance

Items	2000-01	2001-02	2002-03	2003-04	2004-05	CAGR
	Actuals in Rs. Lakhs					%
Revenue Account						
Income	21697	21395	32860	36264	46138	21
Expenditure	14944	15927	17316	19441	21871	10
Surplus/ Deficit	6753	5468	15544	16823	24267	
Capital Account						
Receipts	534	481	567	540	1103	20
Payments	9418	10992	9941	12405	20537	22
Surplus/ Deficit	(8884)	(10511)	(9374)	(11865)	(19434)	
Overall Status incl. O.B.	660	(1803)	4253	9426	15411	

Source: PCMC Annual Accounts

Year-on-year expenditure by PCMC on capital items is dependant on the availability of revenue surplus and year-to-year priorities, and lacks planned capital investment. Capital expenditure by PCMC during 2004-05 is Rs 20537 lakhs. Though this is observed to be increasing the pressure on the revenue surpluses, the presence of a large quantum of octroi amount reflects positively on the revenue as well as the overall municipal surpluses. The overall municipal account has been in a surplus position except during 2001-02, primarily due to increase in capital expenses during the year against reduced revenue surplus. No to repeat this situation, expenditure control measures and planned capital investments on the part of PCMC are warranted.

The following section provides a detailed review of the revenue account, in order to assess the municipal fiscal status and to provide a base for determining the potential of each of the sources and the ability of PCMC to sustain the extent of planned investments identified under the City Development Plan.

4.7.3. Revenue Account

The revenue account comprises two components - revenue income and revenue expenditure. Revenue income comprises internal resources in the form of octroi, tax and non-tax items. External resources are in the form of shared taxes/ transfers and revenue grants from the State and Central Government. Revenue expenditure comprises expenditure incurred on salaries, operation & maintenance cost, contribution & donations and debt servicing.



Table 29. Source-wise revenue income (Incl. Water Account)

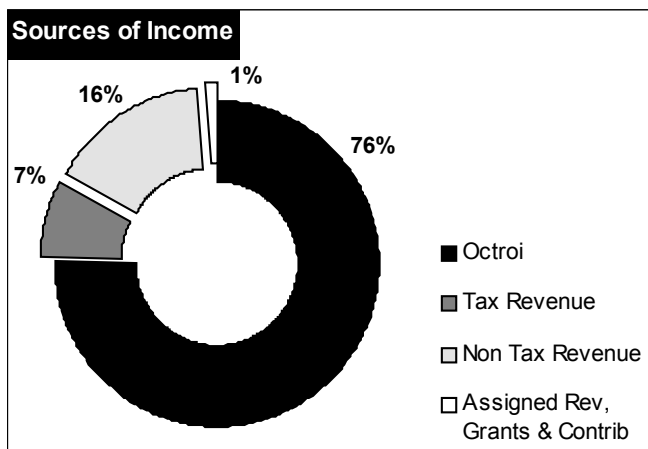
Items	2000-01	2001-02	2002-03	2003-04	2004-05	Share	CAGR
	Actuals in Rs. Lakhs					%	%
Own Sources	21299	21082	32742	36017	45753	99	21
Octroi	14696	14917	25631	28968	37681	75	27
Tax Revenue	1639	2163	2237	2363	2596	7	12
Non Tax Revenue	4964	4002	4874	4686	5476	16	2
Assigned Rev & Grants	398	313	118	247	385	1	(1)
Total	21697	21395	32860	36264	46138	100	21

Source: PCMC Annual Accounts

Revenue Income

The revenue sources of PCMC can be broadly categorized as own sources, assigned revenues, grants and contributions. The source-wise income generated during the review period is presented in 0 and the detailed income and expenditure statement, the sectoral contribution and growth rates of each of the items are presented in **Annexure 2**.

Own Sources: Own source income includes income from octroi, property tax (comprising



general tax, water, sewerage and sanitation taxes), other taxes and non-tax income in the form of development charges, income from municipal properties, fees & fines and other miscellaneous income. Income from own sources accounts for 99% of the revenue income, indicating almost nil dependability of PCMC on external sources for its operations. The own sources registered a consistent average annual growth rate of 21 per cent.

Octroi is a local tax charged on all goods entering the city; it is levied based on the category of goods (weight, numbers, etc.). It is the single largest source of income accounting for over 75 per cent of municipal revenue income. During the review period, it has registered a very high average annual growth of 27 per cent.

Property Tax consists of general tax on properties, water tax, water benefit tax, conservancy tax and street tax. It is charged as a percentage of Annual Rateable Value (ARV). Currently, the general property tax for residential assessment is 25-35 percent of ARV and for non-residential assessments it is 34-44 percent of ARV.

In PCMC, the general tax and other taxes including water and sewerage taxes levied as part of the property tax account for about 7 per cent of the revenue income; this income has registered an average annual growth rate of 12 per cent. The average collection performance stands at about 42 percent of the total demand, indicating a large scope for reforms in property tax collections and thereby improvement of collection efficiency.



Table 30. Property Tax Details and DCB Statement

Item	2000-01	2001-02	2002-03	2003-04	2004-05
No. of Assessments (No.)	1,38,093	1,49,617	1,63,839	1,77,314	2,05,499
Annual Rateable Value (Rs. lakhs)	7,754	10,310	10,692	11,618	12,336
ARV per Assessment (Rs.)	5615	6891	6526	6552	6003
Demand-Collection-Balance (Rs. lakhs)					
Current Demand	2172	2427	2871	3486	4035
Arrears Demand	4120	4317	6330	3486	4035
Total Demand	6292	6744	9201	8832	9980
Current Collection	1471	1852	2187	2452	2889
Arrears Collection	1170	1542	1257	1242	1014
Total Collection	2641	3394	3444	3694	3903
Collection performnace-%	42%	50%	37%	42%	39%
Tax per Assessment (Rs.)	1,573	1,622	1,752	1,966	1,964
Persons per Assessment (No.s)	7	7	7	6	6

PCMC compares on a similar note with cities of similar characteristics in the country like Coimbatore in terms of tax and persons per assessment¹. However, since Pimpri-Chinchwad functions more as a twin city of Pune, the assessment needs to compare against that of Pune.

The tax per assessment in PCMC area during 2004-05 is low at Rs. 1964 against Rs. 4100 in the PMC area. The impact has been also largely visible with more and more people opting to reside in the PCMC area against the PMC area. Also, the numbers of unassessed properties in the PCMC area appear to be on the lower side considering the persons per assessment have come down to 6 against a household size of 5. It is to be noted that assessment figures from FY2003-04 indicate that there has been a consistent effort on the part of PCMC to widen the tax net.

Non Tax Revenue: Non-tax sources include all non-tax revenues such as fees and charges levied as per the Municipal Act and services provided by the PCMC. These sources include income from building license fee, development charges, trade licence fee, births and death certificates, income from municipal properties and other fees and fines. The non-tax income of PCMC accounts for about 16 percent of the revenue income and has registered a CAGR of 2 percent. However, the annual growth rates are inconsistent. Interest on municipal investments has been the main contributor at more than 10 percent of the municipal revenues followed by water charges and other water income at 2 percent of the revenues. This is followed by fees and fines like building fees and development charges generating about 2 percent of revenues.

¹ Comparative Statement of ARV and person per asesment – around FY 2002-03

City	Tax per Assessment –Rs.	Person per Asemsent-Nos.
Pune	5,062	9.14
Coimbatore	1,819	5.68
Ahmedabad	1,605	3.75



External Sources: External sources mainly include grants from local funds, grants from the state and central government, and compensation towards motor vehicles tax (until FY 2000-01). All external sources put together account for only about 1 percent of the revenue income.

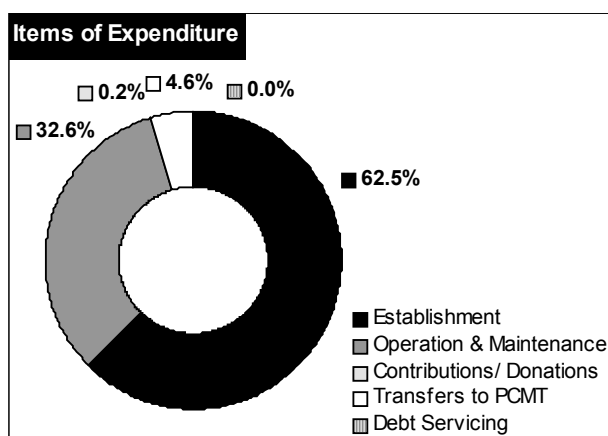
Revenue Expenditure

Revenue expenditure of PCMC has been analysed based on expenditure heads which are broadly classified into general administration & tax collection, water & sewerage, conservancy public works (roads, drains & buildings), street lighting, public health (general & medical), education, town planning, slum clearance and miscellaneous. Revenue expenditure is further classified into establishment and contingencies (O&M). Besides the above items of expenditure, pension contribution and debt servicing constitute a substantial proportion of revenue expenditure. The application of funds by heads of accounts is presented in Table 31. It indicates that the overall revenue expenditure registered an average annual growth of 10 percent against growth in revenue income by 21 percent. This trend indicates that PCMC has sufficient operating surplus and that PCMC is fairly placed with respect to measures towards reducing expenditure (PCMC has implemented energy efficiency measures) or enhancing its resources to avoid a deficit situation in the future.

Table 31. Application of funds by heads of Accounts

Items	2000-01	2001-02	2002-03	2003-04	2004-05	Share	CAGR
	<i>Actuals in Rs. Lakhs</i>					%	%
Establishment	9330	10060	11339	12324	12734	63	8
Salaries incl. Pay revision	9180	9970	10669	11774	12234		
Pension Contribution	150	90	670	550	500		
Operation & Maintenance	4917	5263	5014	6636	7469	33	11
Contributions/ Donations	37	24	55	16	40	0	2
Transfers to PCMT	660	580	908	465	1628	5	25
Debt Servicing	0	0	0	0	0	0	-
Total Revenue Expenditure	14944	15927	17316	19441	21871	100	10

Source: PCMC Annual Accounts



The establishment expenditure including pension contribution and pay commission revision alone accounts for over 63 percent of revenue expenditure. In terms of revenue income spent on salaries, it is about 37 percent, which is just above the reasonable range of 35 percent. O&M expenditure accounts for about 33 percent of the total expenses and transfers to PCMT account for the rest of the expenses. The salient feature of the accounts of PCMC is that its

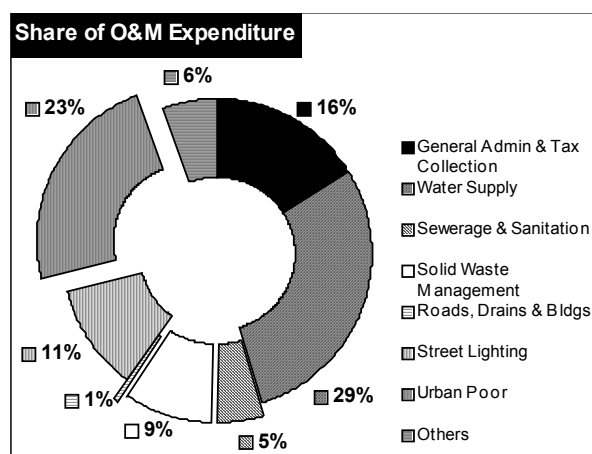
expenditure towards debt servicing is nil, indicating high scope for leveraging of its resources to implement large-scale projects.

Establishment expenditure: Establishment expenditure accounts for about 63 per cent of the revenue expenditure; it registered 8 percent CAGR in the last five years. The general administration and conservancy departments accounted for the maximum share of establishment cost at 21 and 16 percent respectively. The departments of water, sewerage and public works together accounted for 15 percent followed by departments involved in urban basic services like education and public health at 14 and 11 percent of the establishment cost. Rs. 12734 lakhs is the current establishment expenditure of PCMC (refer to Table 32).

Table 32. Section-wise establishment expenditure

Section/ Department	2000-01	2001-02	2002-03	2003-04	2004-05
	<i>Actuals in Rs. lakhs</i>				
General Admin & Tax Collection	1,781	2,003	2,599	2,709	2,802
Water supply & Sewerage	624	702	687	828	854
Solid Waste Mgmt	1,611	1,682	1,685	1,953	2,059
Public Works	492	533	551	641	639
Street Lighting	381	427	447	528	538
Urban Poor (Public health, Edu., Slum Clearance)	3,878	4,091	4,726	4,921	5,074
Town Planning	44	58	62	73	77
Miscellaneous	518	564	581	672	691
Total	9,330	10,060	11,339	12,324	12,734
<i>Share in Rev Exp (%)</i>	62	63	65	63	58
<i>Annual growth rate (%)</i>		7.8	12.7	8.7	3.3

Source: PCMC Annual Accounts



Operation and Maintenance: Majority of the O&M expenses incurred by PCMC are on water supply operations at 29 percent of total O&M expenses. This mainly relates to pumping operations involving nearly half of the PCMC area. O&M expenses incurred on the provision of urban basic services like education, health facilities, and slum clearance account for 23 percent of the total O&M expenses. General administration and tax collection activities account for 16 percent and street lighting systems account for 11 percent of O&M expenses. Conservancy

operations have accounted for only 9 percent of the O&M expenses as vehicle related expenses are booked under the workshop department. O&M expenditure on the whole accounts for 33 percent of revenue expenditure and has registered a CAGR of 11 % during the review period (refer 0).

Table 33. Section wise O & M Expenditure

Items	2000-01	2001-02	2002-03	2003-04	2004-05	Share	CAGR
	<i>Actuals in Rs. Lakhs</i>					%	%
General Admin & Tax Coll	713	848	773	1133	1265	16%	15
Water Supply	1691	1731	1515	1703	1861	29%	2
Sewerage & Sanitation	217	322	291	296	406	5%	17
Solid Waste Management	346	424	527	664	727	9%	20
Roads, Drains & Bldgs	24	22	20	34	55	1%	24
Street Lighting	837	612	526	568	683	11%	(5)
Urban Poor	804	970	1037	1875	2075	23%	27
Others	287	335	326	363	397	6%	3
Total	4917	5263	5014	6636	7469	100%	11

Source: PCMC Annual Accounts

Debt Servicing and Outstanding Loans: The review of annual accounts reveals that PCMC has no outstanding loans and hence no debt servicing expenses are unincurred. This is a positive feature which PCMC should be able to leverage to undertake large scale infrastructure projects.

Transfers to Pimpri-Chinchwad Municipal Transport (PCMT): PCMC has also contributed substantial amounts as its outlay to the Pimpri-Chinchwad Municipal Transport Undertaking (PCMT). These transfers registered a 25 percent CAGR over the past five years and account for about 5 percent of revenue expenditure. It needs to be mentioned that in spite of these transfers, PCMT has been incurring heavy losses since years due to operational inefficiencies. Though these transfers are intended at meeting the capital needs of PCMT, they are just able to meet the operating expenses and certain other minor capital expenses.

4.7.4. Capital Account

In general, the capital income of PCMC comprises loans, grants and contributions, transfers from revenue surplus and utilization of funds from sinking funds. As mentioned earlier, in recent years, PCMC has neither availed of any loans nor received any capital grants. The capital income during the review period is in the form of project specific capital grants and sale proceeds of lands and other assets. These are classified under capital income due to their nature, though in the municipal accounts, they are treated as revenue income.

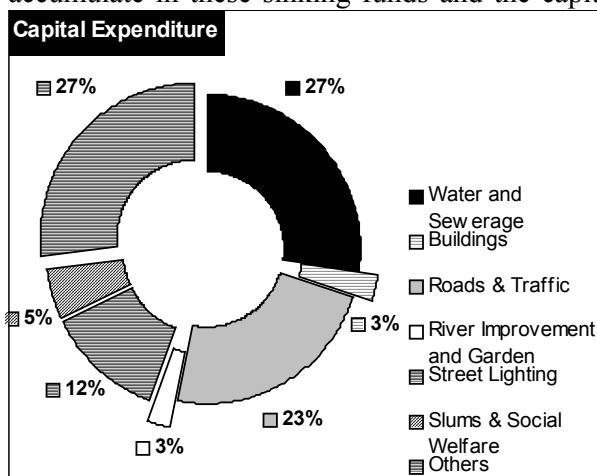
Table 34. Capital Income (Incl. Water Account)

Items	2000-01	2001-02	2002-03	2003-04	2004-05	Share
	<i>Actuals in Rs. lakhs</i>					%
Own Sources	462	478	471	330	500	75
Loans	0	0	0	0	0	0
Grants	72	3	96	210	603	25
Total	534	481	567	540	1103	100

Source: PCMC Annual Accounts



PCMC maintains sinking funds primarily to meet the capital needs of the Corporation. Surplus and general transfers from the general account and water & sewerage account accumulate in these sinking funds and the capital expenses are met from these funds. Over the past five years, the majority of capital investments have been made from internal surpluses and sinking funds.



The figures presented in Table 34 and Table 35 clearly indicate that most of the capital expenditure is met from revenue surpluses. On an average, over the past five years, the majority of capital expenditure has been directed towards water supply and sewerage systems, and roads and traffic. Water and sewerage system improvements, extensions etc. accounted for 27% of the total capital investment followed by construction of

new roads, traffic management measures etc. at 23 percent.

During the review period, there has been considerable investment in the installation of street lighting systems, which accounted for 12 percent of the total capital expenses. Social welfare and slum improvement programmes accounted for 5 percent. Other minor works and ward development works accounted for a significant 27 percent of the total capital expenditure during the review period.

Table 35. Capital Expenditure (Incl. Water Account)

Items	2000-01	2001-02	2002-03	2003-04	2004-05	Share
	Actuals in Rs. Lakhs					%
Water and Sewerage	2808	3832	2826	2972	3917	27
Buildings	448	380	305	140	332	3
Roads & Traffic	2401	2156	2300	3602	3625	23
River Improvement and Garden	251	331	300	286	318	3
Street Lighting	1401	1401	1165	1445	2231	12
Slums & Social Welfare	562	459	593	701	873	5
Others	1547	2433	2452	3259	9241	27
Total	9418	10992	9941	12405	20537	100

Source: PCMC

4.7.5. Cost Recovery on Services

Water supply

The cost recovery from water supply operations is poor at just about 30 percent indicating the very high subsidisation rate in the system. This has been due to financing of capital expenditure by internal surplus of general account and not is charged to the water account. The income from water supply operation includes water charges from house service connections, and new connection fees -- bulk water supply charges from cantonment boards and villages. The figures presented in Table 36 indicate that in PCMC, cost recovery is only



in the form of water charges as there is no provision for additional water tax; it is as part of property tax.

Table 36. Water Supply Account

Items	2000-01	2001-02	2002-03	2003-04	2004-05
Income					
Water Charges	597.00	496.00	737.00	823.00	887.00
Connection Fee	3.00	1.00	5.00	24.00	7.00
Total	600.00	497.00	742.00	847.00	894.00
Expenditure					
Establishment	573.26	637.00	629.00	764.00	779.47
O & M	1,691.22	1,731.00	1,515.00	1,703.00	1,861.39
Total - Expenditure	2264.48	2368.00	2144.99	2467.00	2640.86
Status	-1,664	-1,871	-1,403	-1,620	-1,747
Cost Recovery Status					
All Items- %	26%	21%	35%	34%	34%

As can be observed from the Demand-Collection-Balance statement for water charges, the growth in the numbers of house service connections is high, averaging at about 12 percent indicating a good service coverage and reach. However the collection efficiency is low at an average of 44 percent. This anomaly needs to be corrected for complete cost recovery on the service against the present adequate level of water supply.

Table 37. Water Charges – DCB Statement

Items	2000-01	2001-02	2002-03	2003-04	2004-05
	<i>Rs. Lakhs</i>				
Current Demand	596	650	889	1061	1310
Arrears Demand	335	424	615	890	965
Total Demand	931	1074	1504	1952	2275
Collection	502	397	649	824	940
Balance	429	677	855	1128	1335
Collection Efficiency (%)	54%	37%	43%	42%	41%
No. of HSCs (No.s)	53114	60711	68589	77362	84469
Growth of HSCs (%)	-	14%	13%	13%	9%

Ideally, it is desirable to recover 100 % of O&M expenses through direct charges and utilize taxes, if any, for refurbishment and improvement of water supply systems and other capital expenditure.

Table 38. Existing Water Tariff Structure

S. No.	Type of Consumer	Water Charges
1	Residential – metered	Rs. 3.30 per KL
	Residential – un metered	Rs. 792 per annum
2	Commercial and Industrial – metered	Rs. 28 per KL
	Commercial and Industrial – un metered	Rs. 652 per annum to Rs. 11358 per annum according to the size of the connection



Under Ground Drainage

As in the case of water supply, PCMC maintains a separate account on sewerage. At present there are no direct or indirect user charges for this service. PCMC proposes to recover cost in the form of sewerage tax which is to be levied as part of property tax at 4% of the ARV. PCMC plans to implement once the ongoing sewerage projects are completed.

4.7.6. Salient Features

The assessment of the municipal accounts, as presented above, brings out certain positive features with respect to the financial condition and the credit worthiness of PCMC. These are listed below:

- The revenue account of PCMC has been showing a healthy surplus every year, with an operating surplus of over 40 percent.
- The internal sources of revenue account for almost the entire municipal income. Thus, external dependency for its operations is very limited.
- The Corporation has no debt burden and hence no debt servicing commitments (including water and sewerage). This indicates the enormous potential for PCMC to leverage the Corporation's resources to mobilise debt funds for the implementation of large-scale projects.
- PCMC has been earmarking internal funds for capital expenditure in the form of sinking funds for water and sewerage items and other capital items.
- PCMC has also been earmarking internal funds for various social welfare and slum improvement related programme expenses in the form of a dedicated fund.
- PCMC has about Rs. 250 crores as fixed deposit and the interest on these investments has been a major contributor of revenues.

Table 39. Key Financial Indicators

S. No	INDICATOR	Unit	Value		
			Minimum	Maximum	Average OR as on 31/03/2005
A	Resource Mobilisation				
1	Per Capita Income	Rupees			3900
2	Source of Funds				
	i Share of Octroi	%	67.73	81.67	75.40
	ii Share of Taxes	%	5.63	10.11	7.32
	iii Share of Non Taxes	%	11.87	22.88	16.24
3	Growth in Income Sources				
	i Growth in Taxes	% p.a.	3.42	31.97	12.72
	ii Growth in Own Sources' Receipts	% p.a.	-1.02	55.31	22.83
	iii Growth in Total Receipts	% p.a.	-1.39	53.59	22.45
B	Expenditure Management				
1	Per Capita Expenditure	Rupees			1849
2	Functional Allocation				
	i Share of Salaries & Wages	%	58.22	65.48	62.54
	ii Share of O & M Expenditure	%	28.96	34.15	32.64
	iii Share of Salaries' Expenditure to Rev Income	%	27.60	47.02	37.22
3	Growth in Items of Expenses				
	i Growth in Establishment Expenditure	% p.a.	3.33	12.71	8.14
	ii Growth in O & M Expenditure	% p.a.	-4.73	32.35	11.80



S. No	INDICATOR	Unit	Value		
			Minimum	Maximum	Average OR as on 31/03/2005
	iii Growth in Total Expenditure	% p.a.	6.57	12.50	10.02
C	Performance				
1	Operating Ratio	Ratio			0.47
2	Capital Utilisation Ratio	Ratio			18.62
3	Per-capita performance Assessment				
	i Per Capita Own Income	Rs. p.a.	2011.84	3867.91	2833.47
	ii Per Capita Salaries Expenditure	Rs. p.a.	927.08	1084.80	1017.53
D	Taxation				
1	No. of PT Assessments				205499
2	ARV per Assessment	Rs.	6003	6891	6493
3	Tax Per Assessment	Rs. p.a.	1622	1966	1826
4	Population per PT Assessment (Bldgs)	Persons			6
E	Efficiency				
1	Property Tax				
	i Growth in Assessments	% p.a.	8.22	15.90	11.21
	ii Collection Performance-Property Tax	%	37	50	42
	iii PT Arrears as % of Total Demand	%	60	69	63
2	Water Supply				
	i Growth in Water Connections	% p.a.	9.19	14.30	12.31
	ii Average Expenditure per Connection/ month	Rupees	260.49	355.29	293.42
	iii Average Revenue per Connection/ month (Excl Taxes)	Rupees	68.22	94.14	86.39
	iv Average Revenue per Connection/ month (Charges alone)	Rupees	68.22	94.14	86.39
	v Cost Recovery on Water Supply (%)	%			29
	vi Cost Recovery on WS (%) – Charges alone	%			29
	vii Collection Performance-Water Charges	%	36.95	53.95	43.51
	viii Water Charge Arrears as % of Total Demand	%	36.01	45.62	40.88
F	Debt and Liability Management				
1	Outstanding Debt per Capita	Rupees			-
2	Debt Servicing Ratio	Ratio	-	-	-
3	Ratio of Outstanding Debt to Tax Demand	Ratio			-
4	Ratio of Outstanding Debt to ARV	Ratio			-

4.7.7. Key issues

The following issues emerge from the above analyses of the municipal finances of PCMC. The financial soundness and credit strength of PCMC is revealed by the key financial indicators presented in Table 39.

- Octroi and property tax account for 75 and 7 percent of municipal income, respectively, indicating large dependence on a single source of revenue stream.
- The current collection efficiency of property tax is at about 42 per cent (current collection 72%). There is scope for improving collection efficiency and also for bringing a large number of properties under the tax net.
- Bulk of the revenue expenditure at more than 63 percent is in the form of establishment expenditure alone. In terms of revenue income, salaries and wages account for 37 percent of the revenue indicating the need for better HR management and reforms in the sector.



- The bulk of capital expenditure is financed through internal generation rather than any external funding; this causes pressure on available surpluses.
- It is to be noted that at an average rate of Rs. 3.00 per KL against a gross supply of 228 MLD of water in Pimpri-Chinchwad, the billable amount should be about Rs. 25 crores as against the current demand being just Rs. 13 Crores. The collection efficiency recorded at this level is only 44 percent. This indicates a huge loss of about 64 percent.
- In terms of user charges alone, PCMC recovers only 29 percent of the operation and maintenance expenses incurred on water supply operations and the collection performance is just about 44 percent. Also, at present, PCMC doesn't charge the users for sewerage service.

5. CITY INVESTMENT PLAN, STRATEGIES AND IMPLEMENTATION PLAN

City Investment Plans in line with the identified vision for Pimpri-Chinchwad have been prepared through a comprehensive process of assessment of the physical and social infrastructure sectors and stakeholder consultations. A review of the Detailed Project Reports for various projects already in place has also led to the identification of sector specific strategies, implementation actions and associated reforms.

The strategies adopted primarily have three dimensions -- improving the service delivery by efficiency measures, improving service delivery by creating infrastructure assets and improving the governance aspects of PCMC. This section summarises the capital investments required for creating infrastructure assets and various strategic interventions required in the implementation of such projects.

5.1. CITY INVESTMENT PLAN (CIP)

The City Investment Plan is the multi-year scheduling of identified and prioritized investments. The scheduling or phasing of the plan is based on studies of fiscal resources availability (for new investments and O&M), technical capacity for construction and O&M, and the choice of specific improvements to be carried out over a period of six years.

The CIP is needed for:

- Assessment of city growth and infrastructure needs (to be carried out once every five years)
- Detailed feasibility/ engineering studies carried out for new projects
- Scheduling of investments of ongoing projects due to cost and/ or time overruns
- Assigning of priorities within the constraints of available financial resources

5.1.1. Institutionalising the CIP Process

The City Investment Plan is an important element of the CDP and is significant in terms of the city's management process and sustainability with regard to the delivery of basic services. The CIP also provides a framework for the annual budget cycle of PCMC for the future 6-10 year period.

As a part of CIP prepared for the CDP, PCMC has:

- Analysed and discussed with the stakeholders, the existing standards and levels for infrastructure services;
- Agreed and recommended a reasonable and realistic option;
- Justified and provided rationales if the chosen option is not within the existing service level standards; and

Identified the roles and responsibilities of various stakeholders in the implementation of identified projects.



5.2. CAPITAL FACILITIES, INVESTMENT PHASING AND IMPLEMENTATION

The City Investment Plan involved the identification of public capital facilities to cater to the demand of the city populace by the year 2011, 2021 and 2031 according to the short, medium and long-term infrastructure needs.

The project identification has been done through a demand-gap analysis of the services and reconciliation of the already identified projects as part of various detailed engineering studies.

Further project prioritisation and strategising of the investments/ phasing of investment is based on the strategies listed out under each service sector as identified by PCMC through stakeholder consultations. The projects derived are aimed at ensuring the optimal and efficient utilisation of existing infrastructure systems and enhancing the capacity of the systems/ services to cater to the demands of future population additions. Certain other projects listed as part of the CIP include developmental projects other than those addressing the core service sectors viz. system modernisation, river conservation etc. Such projects are also based on lists and/ or reports prepared by and for PCMC.

The phasing of the identified projects and investments is based on the following principles

- **Priority needs, with developed areas receiving priority over future development area**
- **Inter and intra-service linkages, viz. water supply investments shall be complemented by corresponding sewerage/ sanitation improvements**
- **Size and duration of the requirements, including preparation and implementation period**
- **Project-linked revenue implications, such as installing house connections where supply and distribution capacities have been increased**

The City Investment Plan and forecasted future needs for provision of capital facilities under each identified sector are presented below. These assets will help PCMC universalise services for the current population as well as accommodate the expected increase in population. In sectors where long-term planning is required (for example, source development for water supply), a 25-year planning horizon (till the year 2031) is considered. Assets created in such sectors consider the projected population in this horizon. PCMC expects that these infrastructure assets would not only guarantee services to its citizens, but also give out a **signal of proactive commitment to potential investors** considering the Pune region.

5.2.1. Summary of Investments

The total estimated capital investment required for providing efficient services to the present population and future population of PCMC by the year 2031 is Rs. 4416 crores at constant prices. Of this, a total of Rs. 3962 crores is proposed for investment by 2011-12.

The planning horizon for the projects identified in the sectors of urban poor/ slums, land use/ development planning and other projects is 2011-12. Accordingly, the entire identified investment is proposed for funding by 2011-12 itself. The planning horizon for the core service sectors of water supply, sewerage, drainage and solid waste management is 2031. Hence, only a part of the identified investment is proposed for funding by 2011-12. PCMC will need to plan for the remaining identified investment to be funded beyond 2011-12, but before 2021. In case of roads, traffic and transport sectors, 97 percent of the identified investment is proposed for funding by 2011-12 considering the immediate need for improving road network and transport systems in the city



The table below presents the summary of sector-wise total investment need and investments up to 2011-12.

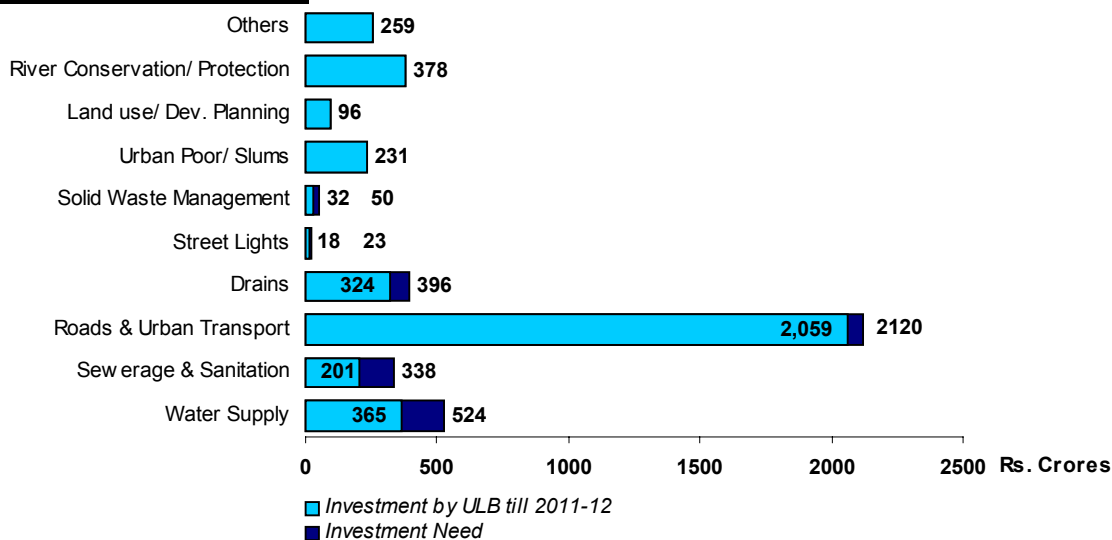
Table 40. Summary of Capital Investments

Sector	Total Investment Need (Rs. lakhs)	Investment till 2011-12 (Rs. lakhs)			% Investment till 2011-12 against Total
		Base Cost	Escalated Cost*	% Sector wise of Total	
1 Water Supply	52412	36503	44575	9 %	70 %
2 Sewerage & Sanitation	33806	20119	25777	5 %	60 %
3 Roads, Traffic & Transport	211991	205891	255189	52 %	97 %
4 Drains	39574	32368	41114	8 %	82 %
5 Street Lights	2330	1787	2282	0.5 %	77 %
6 Solid Waste Management	5045	3152	3807	1 %	62 %
7 Urban Poor/ Slums	23056	23056	29154	6 %	100 %
8 Land use/ Dev. Planning	9638	9638	11731	2 %	100 %
8 Others ⁺	63749	63749	80258	16 %	100 %
Total	441601	396263	493887	100 %	90 %

* Escalated cost includes Physical contingencies and Technical assistance at 10% of total cost and 6% cost escalation due to inflation.

+ Includes River Conservation project.

Investment Need (Rs. Crores)



52% of the total identified investment is proposed in the roads, traffic and transport sector towards up-gradation, new construction, widening and strengthening works, setting up of Mass Transit and new public transport systems, bridges and junction improvements. The majority of these projects are prioritised for funding by 2011-12. Water supply system improvements and augmentation account for 9% followed by drains at 8%. 6% of the investment scheduled till 2011-12 is proposed for various urban poor/ slum development programmes. And 5% of the investment till 2011-12 is proposed in the sewerage sector. This is followed by 2% for land use planning. 16% of the investment till 2011-12 is proposed in non-core sectors for programs like river conservation, inner city revitalisation, relocation of



markets and economic infrastructure, system modernization and year-to-year minor capital works.

Sector wise details of the City Investment Plan, capital facilities identified to be created and supportive actions and implementation aspects/ strategies are discussed in the following sections in detail. Componentwise details of capital investment phasing under each sector are presented in **Annexure 3**.

5.2.2. Water Supply

Long term needs (2031)

A sum of Rs. 52412 lakhs is the capital cost estimated for the proposed interventions to cater to the needs of the year 2031. The CIP for the water supply sector is based on requirements and demand for the year 2031. At a per-capita requirement of about 185 lpcd, the demand by 2031 is estimated to be in the range of 550 to 575 MLD. Accordingly, additional treatment capacity proportionate to the estimated demand would be required. Additional elevated storage of 54 ML capacity is required at 33% of total supply by 2031.

Sector Strategies & Investment Need

Strategy identified	Augmentation of system for increased drawl from source in line with long term planning and equitable distribution of potable water to all through piped supply.
Expected Outcome	Assured ability to meet the year 2031 demand
Total Investment Need	Rs. 52412 lakhs

Priority needs (2011-12)

Priority capital investments are required for the refurbishment and augmentation of the distribution network, source development, storage capacity augmentation and provision of treatment facilities. A sum of Rs. 36503 lakhs (70% of total investment need in the sector) is proposed by 2011-12. PCMC is currently implementing a 100 MLD phase III augmentation plan, which is expected to be commissioned by 2007. This will help PCMC reach a capacity that would meet the requirements of the year 2011 (328 MLD). However, the population growth has been rapid and will continue, considering the expected growth in IT & manufacturing sector and the township policies that have been announced. Hence, PCMC wishes to augment its capacity for water supply. An additional 100 MLD of capacity can be achieved by developing Phase IV of the Rawet project. This would provide PCMC sufficient capacity (total of 428 mld) to meet the anticipated growth till the medium term of 2021. The project would include the entire chain of water supply from source to distribution strengthening and is expected to cost Rs 100 crores.

PCMC is vulnerable to authorized / unauthorized en route abstractions that take place before the water reaches the intake location of Punawale weir. To reduce this, PCMC plans to draw water directly from the Pawana reservoir. The drawl is planned for 575 MLD. The current facility at Rawet would be required to be operated for 82 days in a year to provide for other planned usages from the Pawana dam. This would require the Rawet facility to be strengthened with additional pumping capacity. The total project cost is expected to be Rs 207 crores. The projects for implementation are planned over the next four years.



PCMC also plans to build interconnecting lines between the existing and proposed systems and to refurbish old pipelines. These are expected to cost Rs 10 crores. PCMC also plans to introduce household metering to equip itself to migrate to a volumetric tariff and to also be in a position to monitor and control water consumption. Metering costs (household as well as bulk meters) are estimated to be Rs 25 crores. PCMC will also need to plan beyond 2011-12 for further augmentation of capacity by another 120 MLD to cater to long-term needs of 2031.

Action Plan for Implementation (2006-07 to 2011-12)

Water Supply		2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
Investment upto 2011-12 (Rs. lakhs)	Rs. 36503 lakhs	3272	11165	13140	8733	96	96
Capital Facilities	Remaining works of Phase III augmentation by 100 MLD	✓					
	Raw water transmission system of about 40 Km length		✓	✓	✓		
	Distribution network augmentation					✓	✓
	Phase IV system augmentation by 100 MLD (including treatment by 100 ML, elevated storage by 70 ML and 1000 Km of Distribution network)		✓	✓	✓		
	System refurbishment & replacements (estimated 15% of existing network – refer sector notes)	✓	✓				
	Metering system (Complete metered connections)	✓	✓	✓	✓		
Support & System Sustenance Measures	Regularise unauthorised connections, Check distribution Leaks and reduce UFW	✓	✓	✓	✓		
	Improve Collections to reach 85% collection efficiency by 2011-12	✓	✓	✓	✓	✓	✓
	Revision of tariff every five years starting 2007-08 by 25%		✓				
Other actions/ Measures	<ul style="list-style-type: none"> ▪ Prepare an asset inventory and map the water supply systems for effective monitoring ▪ Develop a comprehensive watershed management plan for the City including details of groundwater availability, use, potential and develop a policy and legal framework to use and replenish groundwater ▪ Make land reservations for zones that are good for water recharge and water conservation ▪ Implement findings of ongoing water audit and leak detection study w.r.t identified leaks, UFW and worn out networks ▪ Facilitate regular checking of internal plumbing and storage systems at the consumers' end by licensing service providers ▪ Ensure that high-volume non-domestic users compulsorily fit ISP metres ▪ Promote individual water HSCs even in slum locations and discourage PSPs as a policy measure and to increase accountability ▪ Identify potential and existing polluting sources 						
Sector Notes	<ul style="list-style-type: none"> ▪ PCMC shall be responsible agency for implementation of all the suggested actions ▪ Capital investments on system refurbishment and replacements shall happen only after concluding Water Audit and identification of UFW sources. ▪ Improvement of collection efficiency is applicable to both arrears and current demand. 						
Performance Monitoring	<ul style="list-style-type: none"> ▪ Daily per-capita water supply (min of 185 lpcd) ▪ Elevated storage capacity w.r.t Supply (33%) 						



Water Supply		2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
Indicators	<ul style="list-style-type: none"> ▪ Distribution network reach as % of Road length (min 85%) ▪ System Coverage – water HSCs as % of PT Assessments (min 85%) ▪ Cost Recovery through user charges (100% O&M Expenses) 						

5.2.3. Sewerage

Long term needs (2031)

A sum of Rs. 33806 lakhs is the investment need for the proposed interventions to cater to the needs of the year 2031. Identified investments in the sector are intended to cover the augmentation of the UGD networks in line with the proposed increase in water supply and road network as well as refurbishments to the existing network. The sewerage system is planned to cover 90 percent of the population and 85 percent of the road network.

Sector Strategies & Investment Need

Strategy identified	Capacity expansion, collection and conveyance system to match additional water supply and provide for environmentally safe disposal
Expected Outcome	Synchronisation with water supply capacity, ability to meet service level targets and disposal norms
Total Investment Need	Rs. 33806 lakhs

Priority needs (2011-12)

A sum of Rs. 20119 lakhs (60% of total investment need in the sector) is proposed by 2011-12. The priority capital investments are intended to cater to the current service gap as well as meet the medium term needs of the estimated population by 2021. Accordingly, an additional 620 km. of sewerage network is proposed to be put in place by 2011-12.

Capacity addition of sewerage treatment by 125 ML through a new STP is proposed by 2011-12. These would also serve as the cause of the river conservation project. Further, PCMC will need to plan beyond 2011-12 for further augmentation of capacity by another 135 ML of STP and about 450 km of UGD network to cater to the long-term needs of 2031.

Action Plan for Implementation

Sewerage System/ UGD		2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
Investment upto 2011-12 (Rs. lakhs)	Rs. 20119 lakhs	3103	4160	3582	1502	3887	3887
Capital Facilities	Conveyance and Rising mains for capacity augmentation	✓	✓	✓		✓	✓
	Collection network augmentation by about 620 km	✓	✓	✓	✓	✓	✓
	Sewerage Treatment Plant addition by about 125 ML capacity	✓	✓	✓	✓		



Sewerage System/ UGD		2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
Support & System Sustenance Measures	Ensure every PT Assessment & Water connection is also connected to the UGD	✓	✓	✓	✓	✓	✓
	Revision of New connection deposit every five years starting 2007-08 by 5%		✓				
Other actions/ Measures	<ul style="list-style-type: none"> ▪ Isolate sewerage system from drinking water and storm water lines ▪ Eradicate conditions for malaria, dengue and other water borne diseases ▪ Decentralise the system of operations for effective service delivery ▪ Ensure location of STPs under the River Conservation Plan so that benefits are maximised. ▪ Ensure full capacity utilization of existing treatment plants ▪ Improve and ensure access to sanitary facilities for the urban poor and slum dwellers. ▪ Encourage pay & use category of public conveniences with community involvement in the maintenance of the same. 						
Sector Notes	<ul style="list-style-type: none"> ▪ Cost recovery on service is possible only through the introduction of Sewerage charges directly or in the form of tax, which however is in want of political will. 						
Performance Monitoring Indicators	<ul style="list-style-type: none"> ▪ Collection network reach as % of road length (min 85%) ▪ System Coverage – UGD HSCs as % of PT Assessments (min 85%) ▪ Cost Recovery through user charges (100% O&M Expenses) 						

5.2.4. Storm Water Drainage

Long-term needs (2031)

A sum of Rs. 39574 lakhs is the investment need for the proposed interventions to cater to the needs of the year 2031. Identified investments are meant for the up-gradation of 338 km. of existing open network to closed network and augmentation by 2575 km to cater to current and future service gaps. The drainage system is planned to cover 150 percent of the road network for efficient service delivery.

Sector Strategies & Investment Need

Strategy identified	Network expansion, conversion to closed and Pucca drains
Expected Outcome	Universal coverage and disposal capability
Total Investment Need	Rs. 39574 lakhs

Priority needs (2011-12)

An investment of Rs. 32368 lakhs (82% of total investment need in the sector) is proposed by 2011-12. Priority capital investments are to cater to the current service gap and medium-term needs in line with the proposed road network by 2021. About 338 km. of open drains are proposed for up-gradation and about 1800 km. of new closed drains are proposed for funding by 2011-12. Majority of the investment is towards the formation of new networks in un-serviced areas and newly-added areas to PCMC. Further, PCMC will need to plan beyond 2011-12 for further augmentation of network by another 775 km. in line with new roads to be developed beyond 2011-12 to cater to the long-term needs of 2031.



Action Plan for Implementation

Storm Water Drainage		2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
Investment upto 2011-12 (Rs. lakhs)	Rs. 32368 lakhs	1348	8494	9937	4671	3959	3959
Capital Facilities	Up-gradation of about 338 km of open drains to closed drains	✓	✓	✓			
	New formation of about 1800 km of Pucca open and closed drains		✓	✓	✓	✓	✓
	Desilting and strengthening of about 35 km length of Primary Drains in city		✓	✓			
Support & System Sustainance Measures	Ensure that every divided road to have closed drains on either side and undivided roads have drains on atleast one side	✓	✓	✓	✓	✓	✓
Other actions/ Measures	<ul style="list-style-type: none"> ▪ Isolate sewerage system from drinking water and storm water lines ▪ Identify, delineate, sanitize and protect the natural drainage system of the city ▪ Develop common washing areas in identified hawking areas with connection to treated water and drainage 						
Sector Notes	<ul style="list-style-type: none"> ▪ All new roads to be designed shall have adequate provision for storm water drains. ▪ Constructing new drains shall be integrated with the new roads development 						
Performance Monitoring Indicators	<ul style="list-style-type: none"> ▪ Drainage network reach as % of road length (min 150%) ▪ All divided roads to have drains on either side and undivided roads on at least one side 						

5.2.5. Solid Waste Management**Long term needs (2031)**

A sum of Rs. 5045 lakhs is the total identified investment need for various projects in the sector to meet the demands of the 2031 population living in the PCMC area. The future generation of solid waste is assumed at 2.2% per annum for the next ten years and at a reduced rate of 1.9% per annum and 1.6% per annum for the next two decades. Accordingly the requirements are planned for the horizon year 2031. An additional 96 acres to the present 62 acres of disposal site would be required for future land fill and composting purposes. About 440 tonnes capacity addition through increasing fleet size would be required for efficient primary and secondary collection.

Sector Strategies & Investment Need

Strategy identified	Source segregation and door-to-door collection, effective transportation and environmentally safe disposal
Expected Outcome	Reduced waste generation, hygienic conditions and a clean city
Total Investment Need	Rs. 5045 lakhs



Priority needs (2011-12)

An investment of Rs. 3152 lakhs (62% of total investment need in the sector) is proposed by 2011-12. Priority capital investments are meant to cater to the current service gap and the medium term needs of 2021. The requirements at the disposal site are planned for the horizon year 2031 and accordingly, infrastructure for land fill and composting is proposed on an additional 96 acres. Infrastructure development for land fill would be a year-to-year capital expense. In line with these developments, augmentation of vehicle capacity by 320 tonnes would be required by 2011-12 to meet the current gap and immediate needs. Also, 900 handcarts are planned to be acquired by 2011-12 to cater to house-to-house collection activity by PCMC in 20% of the city area (remaining 80% area is proposed to be privatised). In addition to the existing Dual Loaded Dumper Placers (DLDP), 24 more are proposed for acquisition to augment the collection system and cater to future demands.

These investments will help PCMC to comply with the SWM Rules 2000 by minimising manual handling of garbage and by developing landfill sites that are in conformity with the legal requirements. PCMC will need to plan beyond 2011-12 for further augmentation of vehicle capacity by 120 tonnes and construction of more intermediate transfer stations in line with the changing land use pattern and waste generation trends, to cater to the long-term needs of 2031.

Action Plan for Implementation

Solid Waste Management		2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
Investment upto 2011-12 (Rs. lakhs)	Rs. 3152 lakhs	80	2537	50	50	80	354
Capital Facilities	Increase fleet size/ capacity by 320 tonnes. Acquisition of 900 handcarts		✓				✓
	Acquisition of new DLDPs (24 No.s)	✓	✓			✓	✓
	Acquiring new disposal site of about 96 Acres area		✓				
	Land fill infrastructure and Composting facility development at disposal site	✓	✓	✓	✓	✓	✓
Support & System Sustenance Measures	Implementation of complete house-to-house collection	✓	✓	✓			
	Part-privatisation of house-to-house collection at 80% households (PCMC to cover only 20% households)	✓	✓	✓			
	Awareness campaign on source segregation	✓	✓	✓	✓	✓	✓
Coordination measures (PMC & PCMC)	Probability of sharing a common disposal site by PMC and PCMC needs to be explored. The requirement would be in the range of 300 acres. This would mean common land fill and infrastructure and composting facilities and hence reduction in operating costs. The operation and maintenance of the common site may be privatised.						
Other actions/ Measures	<ul style="list-style-type: none"> ▪ Create a separate multi-disciplinary SWM cell with expertise in Engineering Human Resources/Personnel Management, Awareness generation/ Social Behaviour, Health ▪ Increase the ambit of Solid Waste Management to include “recycling” and to facilitate and regulate the sector accordingly. ▪ Ensure optimum utilization of existing fleet 						



Solid Waste Management		2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
	<ul style="list-style-type: none"> ▪ I-E-C campaigns to be initiated for awareness among the urban poor and slum dwellers towards better SWM practices ▪ Initiate steps towards sharing the responsibility of primary collection of segregated garbage with citizens. Also institutionalise rag-pickers association and integrate them into the system in primary collection activities ▪ Develop transfer stations in a scientific, eco-friendly manner to also act as decentralised waste processing sites for different types of material 						
Sector Notes	<ul style="list-style-type: none"> ▪ The option of establishment of additional Intermediate Transfer Stations to reduce cost of transportation need to be explored ▪ Identify localised/ decentralised locations for processing/ disposal/ reuse of bio-degradable and plastic waste 						
Performance Monitoring Indicators	<ul style="list-style-type: none"> ▪ Source segregation – reduction of waste to be collected (min 70 % of waste generated) ▪ Door-to-door collection as % of households covered (min 80%) ▪ Optimum fleet utilisation (No. of trips/ vehicle/ day - average minimum of 2.5) ▪ Vehicle capacity as % of rated capacity to waste generated (minimum 100%) 						

5.2.6. Roads, Street lighting, Transportation and Traffic Management

Long term needs (2031)

A sum of Rs. 214321 lakhs is the investment need for the proposed interventions to cater to the needs of year 2031. The identified investments are meant for the up-gradation of existing un-surfaced roads, new roads development, widening and strengthening of identified major roads, and improvements in the transportation and traffic management systems. In line with the Development Plan proposals of 9.63 percent of total city area for transportation and circulation, an average road width of 7 mt along 1960 kms of road would be required. This would provide a fair degree of connectivity at an average of 0.68 meters per capita by 2031. Accordingly, an additional 1200 km. of surfaced road networks are proposed to be put in place. Installation of lighting systems on the roads will be in line with new roads development and shall maintain a spacing of not more than 30 metres per light pole. The upgradation of public transport systems is proposed through the widening of major roads with dedicated bus lanes, development of mass transit systems etc. Also, geometric improvements to important roads in the form of grades separators, flyovers etc and various critical intersections to affect an efficient traffic management system are proposed.

Sector Strategies & Investment Need

Strategy identified	Increase carrying capacity through widening and improve riding quality through strengthening of existing roads. Creation of new roads to cater to missing links and developing areas and present the urban face of the city. Institution of efficient, safe and accessible mass transportation system for entire region
Expected Outcome	Hassle-free travel on the roads and effective transportation system at easily accessible to everyone
Total Investment Need	Rs. 214321 lakhs



Priority needs (2011-12)

An investment of Rs. 207678 lakhs (97% of total investment need in the roads and transport sector and 77% of total investment in street lighting sector) is proposed by 2011-12. Priority capital investments are to cater to the current service gap and the medium term needs of 2021.

Eighty-five kilometres of WBM roads in each of the newly added villages and other such roads in the PCMC are proposed for up-gradation to BT surfacing by 2011-12. Also, about 96 km of existing main roads with BT surfacing would be up-graded to CC surfacing to reduce year-to-year operating costs. An additional 600 km of new roads would also be required to be developed by 2011-12 to provide better connectivity in the peripheral areas. Another 410 km of existing roads have been identified for widening and strengthening by 2011-12. A sum of Rs. 1787 lakhs is proposed for the installation of 14000 streetlights. Automated street lighting systems on all the new roads are expected to be developed by 2011-12.

A sum of Rs. 60000 lakhs has been earmarked for various improvements to the public transport system following the probable merger of PMT and PCMT. This also includes the proposal for a fast track mass transit system in the form of trams etc. A sum of Rs. 68561 lakhs has been estimated for the proposed up-gradation of 14 identified stretches of important roads in the city involving the construction of 4/6 lane divided roads with dedicated bus lanes, eleven rail over bridges (ROB)/ flyovers, five minor bridges/ subways, and also shifting of utility lines to dedicated corridors along these stretches of roads. A sum of Rs. 28176 lakhs has been earmarked for land acquisition purposes under this project. A sum of Rs. 1500 lakhs is estimated as the need to affect geometric improvements and install automated signalling systems at select ten intersections across the city.

Further, PCMC will need to plan beyond 2011-12 for increase of road network by about 510 km and installation of 16000 high power lamps in line with the development of new roads to cater to the long-term needs of 2031.

Action Plan for Implementation

Roads, Street lighting, Transportation and Traffic Management		2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
Investment upto 2011-12 (Rs. lakhs)	Rs. 207678 lakhs	32753	50806	49482	40675	26844	7117
Capital Facilities	Up-gradation of 85 km of WBM roads to BT surfacing and about 96 km of BT roads to CC surfacing	✓	✓	✓	✓		
	New Formation of about 600 km of CC and BT Roads		✓	✓	✓	✓	✓
	Street lighting (about 5,400 poles with fixtures to be installed)	✓	✓	✓	✓	✓	✓
	Widening and Strengthening of arterial & sub-arterial roads (about 525 km)	✓	✓		✓	✓	
	Land acquisition for Road Development (14 Roads)	✓	✓	✓			
	Improvements/ up-gradation of 101Km stretch of 14 major roads to 4/6 Lanes	✓	✓	✓	✓	✓	



Roads, Street lighting, Transportation and Traffic Management		2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
	Construction of ROBs/ Flyovers (11 No.s)		✓	✓	✓	✓	✓
	Construction of minor bridges/ subways (5 No.s)		✓	✓	✓	✓	✓
	Junction improvements (10 No.s)/ geometric improvements and signalisation		✓		✓	✓	
	Public Transport system – add Rolling stock to the existing system, preferably CNG buses and also procure new buses		✓	✓	✓	✓	
Support & System Sustenance Measures	Merger of PMT and PCMT (Refer Sector Notes) – Agencies responsible are PMC, PCMC, PMT and PCMT	✓	✓				
	Identification of prime traffic corridors and missing links for BRTS	✓	✓				
	Widening, strengthening and development of roads under jurisdiction of Defence and/ or other agencies (Refer Sector Notes) – Agencies responsible are PMC, PCMC and Defence/ Cantonment		✓	✓			
	Development of Regional Connectivity and Eastern bypass (Refer Sector Notes) – Agencies responsible are PMC, PCMC, GoM/PWD, Surrounding town/ village Panchayats	✓	✓	✓			
	Planning for Outer Ring Road and connectivity with Western and Eastern Bypass (Refer Sector Notes) – Agencies responsible are PMC, PCMC, GoM/PWD, Surrounding town/ village Panchayats	✓	✓	✓			
Coordination measures (PMC & PCMC)	<ul style="list-style-type: none"> ▪ Public transport improvements like provisions for bus bays, bus stops with signages, furniture etc, shall be planned and implemented irrespective of the progress of merger of PMT and PCMT. The plan and design of such infrastructure shall be common for both PMC and PCMC areas. ▪ A Coordination Committee with officials from PMC and PCMC shall be formed for development of roads extending into each other's jurisdictional area. Nominated officials from Defence/ Cantonment shall also be given representation ▪ A Joint Coordination Committee for Public Transport system in Pune Region has to be formed with officials from PMC, PCMC, PMT and PCMT. ▪ A regional traffic and transportation study shall be conducted jointly by PMC and PCMC for integrated planning and development of ring roads, bypass roads, and other regional connecting roads. The study shall form the basis for the fixing of alignment, land acquisition if any and other such regional projects to be implemented. ▪ Cost and revenue sharing principles shall be arrived at between PMC and PCMC for all such projects to be implemented jointly. PPP options for the O&M may be explored 						
Other actions/ Measures	<ul style="list-style-type: none"> ▪ A common bus workshop with technological back up must be established. State-of-the-art technology must be used. ▪ Assess the capacity of PMT and PCMT and identify the training needs to manage BRTS ▪ Hawker zones to be created as part of land use policy and continuous efforts to be made to avoid encroachments 						

Roads, Street lighting, Transportation and Traffic Management	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
	<ul style="list-style-type: none"> ▪ Increase parking charges especially in prime areas and congestion zones ▪ Provide for bicycle networks, pedestrian facilities like pedestrian plazas and footpaths. ▪ It must be ensured that at least 60 per cent of the roads must have footpaths (i.e. roads of 20 feet and above) 					
Sector Notes	<ul style="list-style-type: none"> ▪ Design of new roads shall necessarily have provision for shoulder, foot paths, utility ducts and storm water drains under the foot paths, landscaped median and concealed cabling for lighting system ▪ Public transport improvements shall include identifying and locating bus bays, development of dedicated bus lanes on major roads, etc. Location of city bus stops shall be always such that no city bus stop is within 100 mt distance of a junction/ intersection. City bus bays shall have separate provision as an extension from the carriageway. ▪ Coordinated efforts between PMC and PCMC and the respective Traffic Police departments need to be put in place for effective traffic management and ensuring disciplined travel and behaviour. ▪ Street lighting systems shall comprise automation of switching, dimming mechanism etc. 					
Performance Monitoring Indicators	<ul style="list-style-type: none"> ▪ Road network – Degree of connectivity in terms of area under roads (in conformity with DP proposal) ▪ Road condition - % municipal roads surfaced (100% - CC/ BT surfacing) ▪ Road condition - Roughness (Max. Permissible 2000mm/km); Rutting (20 mm) Max. Permissible (1 %) ▪ Public transport – CIRT norm of 37 buses/ lakh population; > 90% fleet utilisation; Average load factor > 75% 					

5.2.7. Slums and Basic Services for Urban Poor

The requirements in the sector are of immediate priority and hence, the planning horizon for the sector is 2011 and accordingly projects and investments are identified to be funded by 2011-12. A sum of Rs. 23056 lakhs is the investment identified for various slum rehabilitation and improvement projects and for providing basic services to the urban poor. As part of the GoM/ PCMC's strategy to improve the economic conditions in the slums and thereby erase the word 'slum' from the face of the city of Pimpri-Chinchwad, various development works and improvement programs are being proposed.

Slum pockets in railway land, green zones and flood-affected areas are not expected to benefit from the projects of Slum Rehabilitation Authority. PCMC intends to rehabilitate 6737 units who currently reside in such land pockets. A sum of Rs. 20733 lakhs is proposed for rehabilitation/ construction of these dwelling units under Ajanta Nagar Phase II and III projects. Of this, PCMC proposes to mobilise 10 percent of the cost, i.e., Rs. 2073 lakhs through beneficiary contribution. An amount of Rs. 2323 lakhs is the estimated requirement for providing infrastructure facilities at these rehabilitated locations as well as other slum locations in the city.

Sector Strategies & Investment Need

Strategy identified	Rehabilitation of slum dwellers currently staying in vulnerable areas and in proposed project locations, in-site improvements and access to basic services and amenities
Expected Outcome	Improvement in quality of services for the urban poor, preservation of sensitive geographies, reduced vulnerability of urban poor
Total Investment Need	Rs. 23056 lakhs



Action Plan for Implementation

Slums and Urban Poor		2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
Investment upto 2011-12 (Rs. lakhs)	Rs. 23056 lakhs	2984	5187	4449	4171	4344	1920
Capital Facilities	Housing and Infrastructure development for Slum rehabilitation (6737 units)	✓	✓	✓	✓	✓	✓
	In-site infrastructure development and providing basic services to Urban Poor	✓	✓	✓	✓	✓	
Support & System Sustenance Measures	Inventory and geographical mapping of all slums and infrastructure in slums for PMC and PCMC area	✓	✓				
	Socio-Economic Survey of all slums in PMC and PCMC area	✓	✓				
	Training for women in slums and urban poor towards self-employment and other income generating activities. NGOs and CBOs to play the lead role and PMC/ PCMC shall assume the secondary/ supportive role	✓	✓	✓	✓		
Other actions/ Measures	<ul style="list-style-type: none"> ▪ Take up slum networking involving mapping and integrating slum locations and the natural drainage paths of the town with parks, playgrounds etc. to form a continuous network of green corridor. The approach is to help build infrastructure in an economical way and also target the environmental improvement of the surroundings ▪ Providing for reservation of lands for EWS in or near each type of commercial/ industrial/ residential land use in the development plan ▪ Facilitating access to credit for urban poor. PCMC can explore the option of acting as a guarantor. ▪ Registration system for all the workers in the informal sector and creation of a specific cell with facilities and options for insurance, training etc to the workers. ▪ Frequent meetings with slum dwellers towards encouraging participation in slum development programmes, awareness creation on beneficiary contribution to project development and also assuming the responsibility of implementing the projects. ▪ Facilitate and encourage the neighbourhood concept in slums to carry out towards recreational activities such as reading, sports and drama. 						
	Sector Notes	<ul style="list-style-type: none"> ▪ Infrastructure and basic services' provision in slums shall not in isolation but in conjunction and in line with overall infrastructure development in the respective city. ▪ Awareness on health and hygiene shall be created among slum dwellers in line with the long term goal of moving towards individual toilets and doing away with public convenience systems. 					
		Performance Monitoring Indicators	<ul style="list-style-type: none"> ▪ Road network – Degree of connectivity in terms of per-capita road length (min 0.75 mt) ▪ Road condition - % municipal roads surfaced (100% - CC/ BT surfacing) ▪ Road condition - Roughness (Max. Permissible 2000mm/km); Rutting (20 mm) Max. Permissible (1 %) ▪ Public transport – CIRT norm of 37 buses/ lakh population; > 90% fleet utilisation; Average load factor > 75% 				

5.2.8. Land use/ Development Planning

While the planning horizon is 20 years for the sector, the requirements are however immediate in nature and accordingly investments are identified to be funded by 2011-12. A sum of Rs. 9638 lakhs is the identified investment for acquisition of various reserved lands in the existing Development Plan proposals. Considering the immediate need for PCMC to implement all pending DP proposals, these reserved lands are proposed to be acquired by 2010-11.

These apart, the existing development plan is due for revision in 2007 and accordingly a GIS-based existing land use survey is proposed for the entire PCMC area as well as surrounding areas to help prepare a comprehensive and up-to-date master plan/ development plan. In line with the proposals to be identified in the revised DP, PCMC will need to plan beyond 2011-12 for any reserved lands to be acquired to facilitate planned development of the city and cater to its long-term needs.

Sector Strategies & Investment Need

Strategy identified	Facilitate planned development of city through a comprehensive DP supplemented by modified DCR and applicable norms
Expected Outcome	Planned, orderly development of the peripheral areas contributing to overall city development
Total Investment Need	Rs. 9638 lakhs

Action Plan for Implementation

Land Use/ Developmental Planning		2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
Investment upto 2011-12 (Rs. lakhs)	Rs. 9638 lakhs	1918	2447	2397	2397	479	-
Capital Facilities	Acquisition of reserved lands in present DP (app. 767 acres)	✓	✓	✓	✓	✓	
	GIS based existing land use survey (200 Sq.km area)		✓				
Support & System Sustainance Measures	Inventory and geographical mapping of all slums and infrastructure in slums	✓	✓				
	Socio-Economic Survey of all slums	✓	✓				
	Inner/ Core areas revitalisation			✓	✓	✓	
Other actions/ Measures	<u>Core areas revitalisation</u> <ul style="list-style-type: none"> ▪ Decongesting core areas through selective relocation of commercial, wholesale and trading activities ▪ High density, high rise provision in old city limits ▪ Identify land in the peripheral areas and provide connectivity and other infrastructure ▪ Building Regulations to be framed to encourage for decongestion of the core areas through <ul style="list-style-type: none"> ➤ Revision of FSI Norms and incentives ➤ Parking Norms ➤ Specific Regulations-Accommodation and Reservation <u>Discourage development in critical, ecologically sensitive areas</u> <ul style="list-style-type: none"> ▪ Environmentally critical locations need to be identified and demarcated. ▪ Special DCR to be made applicable to these areas to restrict encroachments and unauthorised developments. 						



Land Use/ Developmental Planning	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
	<p><u>Develop CBDs in other parts of city</u></p> <ul style="list-style-type: none"> Moving away from current concentration of CBDs in few locations, more CBDs need to be developed at strategic dispersed locations to decongest the core city areas. <p><u>Compatibility of land uses (compatibility with transportation)</u></p> <ul style="list-style-type: none"> Carrying capacity of the city at ward level need to be assessed as part of revision to DP and identified actions incorporated accordingly Where carrying capacity still exists, concept of paid FSI may be explored. Encourage new schools to be developed in the peripheral areas to reduce traffic in the core city, the DP due in 2007 needs to address this through reservations <p><u>Housing for students and transit shelters for the EWS/ LIG migrant population</u></p> <ul style="list-style-type: none"> Encourage builders to develop hostels, working women's hostels under incentives. These aspects will need to be taken into account in the new Development Plan to be prepared. <p><u>Focus on peri-urban development and integration with transportation networks</u></p> <ul style="list-style-type: none"> Coordinated efforts from PCMC with regional and district town planning authorities Potential areas in the peripheral areas need to be linked through an efficient arterial structure within/outside the city to bypass the core city. Provision of adequate land for transportation corridors, transportation hubs and network including mass transportation to provide safe efficient and affordable mobility. Study to identify corridors where densification is possible <p><u>Develop open spaces as lungs of the city</u></p> <ul style="list-style-type: none"> Use of market friendly mechanisms like densification, accommodation, reservation to generate more urban land and to further generate open space <p><u>Give a boost to education sector through land use planning</u></p> <ul style="list-style-type: none"> Reserve more lands for educational and institutional purposes in revised DP and facilitate development of focused institutional/ educational zones with all basic services Research institutes must be relocated in organised institutional areas 					
Sector Notes	<ul style="list-style-type: none"> PCMC/PMC/PCB/MIDC needs to have a coordination cell or constitute Pune Metropolitan Development Authority (PMRDA) for planning functions alone (land use and major infrastructure) in line with 74th CAA and modify DCR accordingly. Increase open spaces' area in the revised DP through identification of such potential areas. In newly added areas encourage high density housing by giving additional FSI of about 0.4 and in turn get 20% of housing stock at free of cost from the developers to be provided to EWS/LIG at a subsidised rate or on rental mode under PPP format (in line with JNNURM reforms agenda) 					

5.2.9. River Conservation

Under the river conservation plan, PCMC has identified an investment need of Rs. 37800 lakhs for cleaning the stretches, strengthening the riverbanks and providing for permanent treatment facilities for the river Pawana. The investments in the sewerage sector also benefit river conservation since they would intercept and treat the sewerage before discharging it into the river. The proposed investment is planned for funding by 2010-11.

Sector Strategies & Investment Need

Strategy identified	Desilting, clearing encroachments, beautification, treatment facilities for preserving rivers and the riverine system within cities
Expected Outcome	Conserving natural river resource, enriched and enhanced lung spaces for the city
Total Investment Need	Rs. 37800 lakhs



Action Plan for Implementation

River Conservation		2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	
Investment upto 2011-12 (Rs. lakhs)	Rs. 37800 lakhs	5300	8000	9900	8500	6100	-	
Capital Facilities	Clearing off Encroachments and Desilting operations	✓	✓					
	Rehabilitation of Slum dwellers along the river banks/ river bed	✓	✓	✓				
	Strengthening and lining of river banks	✓	✓	✓	✓	✓		
	Development of Riparian zone	✓	✓	✓	✓	✓		
	Widening and construction of roads, bridges etc	✓	✓	✓	✓			
	Restoration and development of social facilities		✓	✓	✓	✓		
	Setting up of secondary STPs		✓	✓	✓			
	Beautification of surroundings			✓	✓	✓		
Support & System Sustenance Measures	Augmentation/ extension of UGD system in the cities	✓	✓	✓	✓	✓	✓	
	Implementation of SWM practices and complete coverage of city through door-to-door collection	✓	✓	✓				
Coordination measures (PMC & PCMC)	<ul style="list-style-type: none"> ▪ Coordinated efforts between PMC and PCMC are required for plugging of all inlet points into the rivers before desilting operations are taken up. ▪ Coordinated efforts between PMC and PCMC are required for checking of encroachments and unauthorised use of river bed, banks and surroundings ▪ A Pune-Pimpri-Chinchwad River Conservation Committee needs to be formed from among the officials of POMC, PCMC and environmental groups of the cities for effective management of the riverine areas. 							
	Other actions/ Measures	<ul style="list-style-type: none"> ▪ Eradicate conditions for malaria, dengue and other water borne diseases ▪ Ensure location of STPs under the River Conservation Plan in such a way that the benefits are maximised. ▪ Ensure full capacity utilization of existing treatment plants ▪ Identify, delineate, sanitize and protect the natural drainage system of the city 						
		Sector Notes	Rehabilitation/ relocation of slums along the river banks needs to be given maximum priority and coordinated efforts are required from respective departments of PMC and PCMC for the purpose.					

5.2.10. Projects supporting Economic Development and City beautification

While PCMC does not have a direct role to play in the economic development of the city or the region, they propose to play a proactive role in facilitating and supporting the same through identified projects from time to time. While the infrastructure development initiatives are of this bent, other initiatives like decongesting the core area through relocation of specific economic infrastructure (markets, wholesale and trade centres etc. to appropriate locations on the periphery) and construction of night shelters are proposed. A sum of Rs. 5150 lakhs is the proposed investment for such initiatives. Also construction of a sports centre cum stadium of international standards is proposed at cost of Rs. 8562 lakhs. The stadium is proposed to



support the existing stadium in Pune for the region as a whole and also generate related economic activities.

Several parks/ gardens are proposed for development by PCMC at various places in the city to continue the current efforts and to gift a pleasant climate and environment to its citizens. A sum of Rs. 4423 lakhs has been proposed for this purpose by 2011-12. PCMC further proposes to mobilise part of the investment need through contributions from various organisations/ institutions and communities.

Some of these projects like the construction of a stadium and night shelters shall be proposed under the PPP format of development and the appropriate project structure shall be evolved in detailed project reports.

Sector Strategies & Investment Need

Strategy identified	Appropriate siting of economic infrastructure, facilitate development of sports facilities and strive for city beautification
Expected Outcome	Boost in economy of the region, access to best educational/ sports/ arts related facilities and an enriched environment
Total Investment Need	Rs. 18135 lakhs

Action Plan for Implementation

Economy, City beautification		2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
Investment upto 2011-12 (Rs. lakhs)	Rs. 18135 lakhs	1013	2248	5169	4724	3791	1190
Capital Facilities	Development of parks/ gardens and Tree plantation	✓	✓	✓	✓	✓	✓
	Construction of night shelters/ travellers bungalows		✓		✓		✓
	Relocation of Markets/ Economic infra./ development of truck terminals		✓	✓	✓	✓	✓
	Construction of International Stadium			✓	✓	✓	
Other actions/ Coordination measures (PMC & PCMC)	<u>Towards facilitating Economic Development</u> <ul style="list-style-type: none"> ▪ Facilitate collaboration and association between institutions and industries in PMC and PCMC areas to clench the dynamic role of the region as a auto and IT Hub ▪ Facilitate concentration of research institutes in organised institutional areas ▪ Immediate measures in power sector to cover the current shortfall of 20 percent during peak hours through demand management, captive power generation and appropriate planning for the future ▪ Feasibility Study needs to be conducted for location of international and cargo airport. PPP options to be explored. The study must also explore the option of providing an inland container hub at the airport ▪ Facilitate development of good quality hotels (star hotels) to support industrial and Economic development ▪ Provide for safe and secure low cost housing, night shelters, working women's hostels and the like. 						
	<u>Parks/ Gardens development and City beautification</u> <ul style="list-style-type: none"> ▪ Ensure beautification of water bodies by creating parks and recreational activities ▪ Encourage citizens contribution towards maintenance of neighbourhood parks ▪ Core areas revitalisation ▪ Decongesting the core areas through selective relocation of commercial, wholesale and trading activities 						



Economy, City beautification		2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
	<ul style="list-style-type: none"> ▪ High density, high rise provision must be made in the old city limits ▪ Identify land in the peripheral areas and provide connectivity and other infrastructure ▪ Building Regulation policies to be framed to encourage for decongestion of the core areas through ▪ Revision of FSI Norms and incentives ▪ Parking Norms and Specific Regulations-Accommodation and Reservation 						
Sector Notes	<ul style="list-style-type: none"> ▪ PMC and PCMC also need to play a proactive role in ensuring that the region is provided with adequate power supply to retain the newly acquired role as an investment destination ▪ PMC and PCMC need to take up with the AAI to improve the air connectivity and associated infrastructure through the development of a new international airport; provide air cargo facilities to cater to the export demand of various agro products 						

5.2.11. Urban Governance/ System Modernisation

A sum of Rs. 1604 lakhs has been proposed to be spent over the next five years towards **system modernisation, e-governance and GIS** projects. These projects would involve administrative reforms implementation, computerisation efforts, improvement and additions to the on-going e-governance project, GIS-based systems development etc. These capital investments are expected to bring in more accountability and transparency in the administration of PCMC.

Action Plan for Implementation

Urban Governance/ System Modernisation		2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
Investment upto 2011-12 (Rs. lakhs)	Rs. 1604 lakhs	321	321	321	321	321	-
Capital Facilities	Urban governance, GIS systems, Systems modernisation	✓	✓	✓	✓	✓	
Support & System Sustenance Measures	Implementation of Double entry accrual system of accounting	✓	✓				
	Implementing GIS based property tax system and support engineering services	✓	✓	✓			
	Rationalisation of tax admin process		✓	✓			
	Restructuring of admin systems			✓	✓		
Other actions/ Coordination measures	<u>Urban Governance & Finance</u> <ul style="list-style-type: none"> ▪ Identify training needs of the staff of all departments ▪ Involve city based institutions towards imparting training ▪ Publish property tax records at the ward level and bring in transparency in the system. ▪ Carry out a cost audit of all the expenditure, service-wise ▪ Communicating with the public and within the organisation to build popular support for the reform initiatives ▪ Outsourcing high energy consuming maintenance works of municipal services to target energy efficiency with revenue sharing model. ▪ Outsourcing non-administrative and non-technical operations of most of the municipal functions like ▪ Property Tax database management, demand notices generation, arrears collection, etc. ▪ Non-core functions in the Vehicle/ workshop department ▪ Establishing a pension fund for the retired employees who already exist and employees 						



Urban Governance/ System Modernisation	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
<p>who are on the payroll prior to 2005. New enrolment will however be on contributory mode.</p> <ul style="list-style-type: none"> ▪ Creation of such funds like the depreciation fund, infrastructure fund disaster management fund, etc. to meet unplanned and emergency expenses to have prudent financial management. ▪ Further decentralization must be incorporated in the system. For example, licensing and taxing rights need to be given to ward officers. The function of the Central body must be limited to monitoring, planning and executing. ▪ Establishing a discriminatory pricing policy ▪ Take up benchmarking of services 						

5.2.12. Minor Capital works and System studies

A sum of Rs. 210 lakhs has been proposed for funding various systems' improvement studies to be taken up by PCMC in line with the various reforms proposed in the CDP. These apart, PCMC proposes to invest Rs. 1000 lakhs per year through budget allocations for minor **development works** to be identified on a year-to-year basis.

Action Plan for Implementation

Other Projects	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
Investment upto 2011-12 (Rs. lakhs) <p style="text-align: center;">Rs. 6210 lakhs</p>	1053	1053	1000	1053	1053	1000
Capital Facilities						
Systems' Studies	✓	✓		✓	✓	
Regular capital works (minor)	✓	✓	✓	✓	✓	✓
Other actions/ Coordination measures	<ul style="list-style-type: none"> ▪ Identify on an year-to-year basis, the detailed list of minor capital works to be taken up at the ward level ▪ Identify various studies to be conducted for effective implementation of the various proposed reforms <ul style="list-style-type: none"> ➤ Administrative restructuring ➤ Inventory and Mapping of infrastructure in Slums ➤ Master plan documents for water supply, sewerage, drainage etc 					

6. INVESTMENT CAPACITY AND SUSTENACNE OF PCMC

The investment capacity of PCMC is assessed through a Financial Operating Plan (FOP), which gives a multi-year forecast of finances of the local body for a medium term. In line with the phasing of identified investment from 2006/07 to 2011/12, the FOP has been generated for the same period. A salient feature of the FOP is that all outstanding dues, including debt and non-debt liabilities if any, have been taken into account.

The accounts data between the years 2000-01 and 2004-05 are used as the basis for determining past trends in revenue and expenditure and arriving at appropriate growth assumptions for each of the income and expense items. After forecasting the revenue account, the capital investments proposed under the CIP are added to the forecast. The FOP is generated to assess the investment-sustaining capacity of the Corporation, if PCMC adopts a project funding structure comprising grants under the JNNURM framework (accounting for 70 per cent of the funding) and internal resources and loans (accounting for the rest). The level of investment that PCMC can sustain is then determined by studying the overall surpluses/ year-to-year opening balance and debt service coverage ratio (DSCR).

If the debt service coverage ratio (amount of surplus available to pay interest and to repay principal that is due) falls below 1.25 (i.e. less than 25 % cushion), then the investments are reduced gradually till the DSCR exceeds 1.25 in all the years in the forecast period.

The main items of income and expenditure, classified into the revenue account and the capital account, are projected in the FOP under the following categories.

- Categories of FOP Projections
 - Revenue Account Receipts:
 - Octroi, Taxes, Non Tax Sources, and
 - Grants, Contribution and Subsidies
 - Revenue Account Expenditure:
 - Establishment
 - Operation and Maintenance
 - Debt Servicing- Existing and New Loans
 - Phasing of non debt liabilities, and
 - Additional O&M
 - Capital Income and
 - Capital Expenditure

6.1. FINANCING STRATEGIES FOR THE CIP

In determining a long-term financial strategy, PCMC plans to raise resources and fund the CIP by :



- Accessing grants available under the JNNURM Framework (as % of investment proposed for funding by 2011-12 in Urban Governance and infrastructure sectors) financing pattern - 50% Central Govt. Grants and 20% State Govt. Grants)
- Using available internal resources and improving upon the same through:
 - Revision of the Annual Rateable Value at certain levels
 - Revision of water and sewerage charges at specific intervals
 - Transfer of water and sewerage tax to the respective account heads
 - Maintenance of the collection performance of taxes and charges at certain minimum levels for current and for arrears
 - Borrowings

6.2. ULB FINANCE PROJECTIONS

Current ULB finances are projected under built-in growth assumptions for income and expenditure items, to assess the impact of each such revenue enhancement measure being suggested. The projections also aim at estimating the surplus that will be available for servicing new debt. Part of the surplus, after meeting the additional O&M expenses on newly created assets and infrastructure, is translated into debt size and project size (grant component plus debt component) based on certain assumptions regarding interest rate, repayment method and loan-grant mix.

A spreadsheet FOP model has been customised to depict the financial position of PCMC and work out the investment sustaining capacity of PCMC, based on the FOP assumptions. The model can be used to calculate future surpluses under various scenarios involving combinations of internal revenue improvement, state support, financing terms, etc.

6.2.1. Municipal Account – Growth Projections and Assumptions

The standard assumptions under which the projections are carried and certain expenditure control and revenue augmentation measures proposed in line with the mandatory and optional reforms under the JNNURM framework are presented below.

Table 41. Important assumptions made in the projections

Head	Assumptions
Property Tax	
Growth in PT Assessments	Follows the current growth rate with a ceiling of a minimum of 1% and a maximum of 2.5% per year
Collection efficiency for both current and arrears demand	Maintain current levels if more than 90% or incrementally increase to 90% by 2011-12
Growth in tax rate	Revise every five years starting 2007-08 by 15%
Widening the Tax net	Identification and assessment of all properties in the ULB by 2007-08 through a GIS-based survey
Introduction of Conservancy Cess	4% of ARV from 2007-08
Water Charges	
Growth in HSCs and demand	Follows the current growth rate with a ceiling of a minimum of 1.5% and a maximum of 5% per year
Collection efficiency	Maintain current levels if more than 85% or incrementally increase to 85% percent by 2011-12
Water rate & New Connection	Revise every five years starting 2007-08 by 25%



Head	Assumptions												
Deposit													
Increasing Coverage	Identification and regularisation of all unauthorised connections in the ULB over 3 years starting 2007-08												
Sewerage Charges													
Growth in HSCs and demand	Continues at present coverage (% of water HSCs) if above 90% or incrementally increases to 90% percent by 2011-12												
Collection efficiency	Maintain current level of no charges and no revision												
Sewerage Charge & New Connection Deposit	Maintain current level of no monthly charges and no revision. New connection deposit to be revised to Rs. 1500 per connection starting 2007-08.												
Other Income items and Capital grants													
Growth rate	Current CAGR with a ceiling of minimum 8% and maximum of 15%												
Expenditure Items													
Growth rate	Current CAGR with a ceiling of minimum 8% and maximum 10% and where expenditure control measures are proposed (part privatisation, energy efficient systems etc.) Current CAGR with a ceiling of minimum 6% and maximum of 10%												
Salaries/ Wages and Pay Commission Revision	6 th pay commission revision during 2007-08 (Maximum of additional 10% growth)												
O & M expenditure arising from new assets (from 2007-08)	The incremental O & M for new assets is calculated based on the following norms (O & M cost as a percentage of capital costs). <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>▪ Water supply</td> <td>: 3%</td> </tr> <tr> <td>▪ Sewerage</td> <td>: 6%</td> </tr> <tr> <td>▪ Solid waste management</td> <td>: 12%</td> </tr> <tr> <td>▪ Roads & Drains</td> <td>: 4%</td> </tr> <tr> <td>▪ Street lighting</td> <td>: 8%</td> </tr> <tr> <td>▪ Urban poor/ Slums</td> <td>: 2%</td> </tr> </table> <p>For the second year and beyond, a growth rate of 6% is assumed on the base O & M cost.</p>	▪ Water supply	: 3%	▪ Sewerage	: 6%	▪ Solid waste management	: 12%	▪ Roads & Drains	: 4%	▪ Street lighting	: 8%	▪ Urban poor/ Slums	: 2%
▪ Water supply	: 3%												
▪ Sewerage	: 6%												
▪ Solid waste management	: 12%												
▪ Roads & Drains	: 4%												
▪ Street lighting	: 8%												
▪ Urban poor/ Slums	: 2%												
Outstanding Non-debt Liabilities	Repayment over equal instalments over a 5-year period from 2006-07												
Outstanding Debt Liabilities	Repayment over equal installments over a 1 to 10-year period starting 2006-07												
Project Financing Terms													
JNNURM Framework (All urban infrastructure/ governance/ urban poor related projects except land acquisition costs)	<u>JNNURM Framework</u> <ul style="list-style-type: none"> ▪ 50% GoI Grant, 20% GoM Grant <u>Revolving Fund</u> <ul style="list-style-type: none"> ▪ <i>Urban Infrastructure/ Governance Projects</i> - Contribution of 25% of the total grants received under JNNURM framework to the State Infrastructure Fund by 2011-12. ▪ <i>Urban Poor/ Slums Projects</i> - Contribution of 10% of total grants received under JNNURM framework to the State Infrastructure Fund by 2011-12. O&M expenses on new assets (urban poor and slums projects) also to be met from the fund. 												
Loan terms for commercial borrowings of PCMC	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>▪ Loan period</td> <td>: 20 years (5+15)</td> </tr> <tr> <td>▪ Moratorium period</td> <td>: 5 years on principal repayment</td> </tr> <tr> <td>▪ Repayment method</td> <td>: Equal annual instalments</td> </tr> <tr> <td>▪ Interest rate</td> <td>: 7.5%</td> </tr> </table>	▪ Loan period	: 20 years (5+15)	▪ Moratorium period	: 5 years on principal repayment	▪ Repayment method	: Equal annual instalments	▪ Interest rate	: 7.5%				
▪ Loan period	: 20 years (5+15)												
▪ Moratorium period	: 5 years on principal repayment												
▪ Repayment method	: Equal annual instalments												
▪ Interest rate	: 7.5%												
Debt Service Coverage Ratio	DSCR of at least 1.25												



6.3. INVESTMENT CAPACITY/ SUSTENANCE

Given the existing financial position of PCMC, the revenue and capital accounts of PCMC are projected against the growth scenario and assumptions presented above. The FOP is generated from the sustainable investment point of view in line with current growth trends against the **recommended investment of Rs. 3963 crores at constant prices till 2011-12**. The results of the FOP are presented in **Annexure 4** and the same is summarised below.

The receipts are expected to be 2.6 times their current levels by 2012-13 under the projection scenario. The revenue improvement and expenditure control measures coupled with the availability of grants under JNNURM framework would give PCMC an **investment capacity of Rs. 6618 crores (constant prices)** over the next six years against an investment need of Rs. 3963 crores by 2011-12, i.e. **investment sustenance of 167 percent against the need**.

6.3.1. Impact of JNNURM Reforms on Investment Capacity

It is observed that following the current growth trends; PCMC can sustain an investment of Rs. 4478 crores (constant prices), which is 113 percent of the identified investment till 2011-12. This indicates the present soundness of PCMC’s finances and the capacity to take up large-scale infrastructure projects on its own. The impact of various revenue improvement and expenditure control measures is assessed in terms of their contribution to the investment capacity.

Expenditure control measures in the form of energy efficiency measures in all departments of PCMC and part privatisation of maintenance functions in water supply, sewerage, and conservancy sectors increase the investment capacity by about Rs. 79 crores, i.e. 2 percent of the base investment capacity.



Various revenue improvement measures in property tax like the identification of unassessed properties, regular revision of tax rates and improvement of collection efficiency is bound to increase the investment capacity by an additional Rs. 238 crores, which amounts to an additional 5 % of base investment capacity. Further, revenue improvement measures in the water supply and sewerage sectors like the regularisation of unauthorised connections, regular revision of user charges and new connection deposits, and improvement of collection efficiency are bound to augment the investment capacity by an additional Rs. 159 crores on the base investment capacity.

Availability of JNNURM grants, which will fund the majority of the identified investment, will improve the investment capacity by Rs. 1585 crores against the base investment capacity. Since JNNURM funds are available only with associated reforms, the same is also assessed. JNNURM grants availability together with all revenue improvement and expenditure control measures as mentioned above will add a significant Rs. 2140 crores to the base investment capacity of Rs. 4478 crores. This would take the total investment capacity of PCMC to Rs. 6618 crores, which is 167% of the identified investment till 2011-12 of Rs. 3963 crores.

6.3.2. Major Sources of Revenue

It may be observed from the figure above, that the combination of grants availability under JNNURM and implementation of the associated reforms would further prop up the investment capacity of PCMC and helps PCMC to maintain the present sound financial condition as well as fund the identified investments. This indicates the need and applicability of the JNNURM framework. At present, octroi is the single largest source of revenue. Augmented revenue from other sources like property taxes and user charges would diversify the revenue base as well as create enough surpluses, which together with the capital grants under JNNURM will give PCMC enough leverage to take up major capital works.

6.3.3. Fund Requirement

For the identified investment of PCMC of Rs. 3963 crores at constant prices and Rs. 4939 crores at current prices, the funding pattern as worked out in the FOP model would be:

Table 42. CIP Funding Pattern

S. No	Mode of Funding	Source	Amount (Rs. Crores) – Current Prices	% of Total Investment
Identified Investment till 2011-12			4938.87	100
1	Grants	JNNURM	3082.79*	63*
	GoI Grants	JNNURM	2201.99	45
	GoM Grants	JNNURM	880.80	18
2	Loan	Open Market/ FIs	91.39	2
3	Own sources	PCMC	1764.69	35

* Of the total investment of Rs. 4938.87 crores (current prices), only Rs. 4521.30 crores is being proposed for JNNURM funding and hence the figure of Rs. 3082.79 crores reflects 63% of total identified investment.

PCMC would be able to maintain an average municipal account surplus of Rs. 1113 crores per annum during the period 2006-07 to 2012-13. The operating surplus for the same period would be an average of Rs. 588 crores per annum. Debt servicing burden on the revenue account is an average of Rs. 6.4 crores per annum during the same period with a peak load of Rs. 10.4 crores from 2011-12.



7. REFORM ACTION PLAN

JNNURM aims to create 'economically productive, efficient, equitable and responsive cities' by focusing on a) improving and augmenting the civic, social and economic infrastructure; b) ensuring basic services for the poor including security of tenure at affordable price; c) initiating wide ranging of urban sector reforms, primarily aiming to eliminate legal, institutional and financial constraints that are impeding investments in urban infrastructure and services; and d) strengthening municipal governments and their functioning in accordance with the provisions of the 74th Constitutional Amendment Act, 1992.

Though one of the main aims of JNNURM is to finance the infrastructure investments identified as part of CDP, the larger objective of the mission is to initiate the much-needed reforms in ULBs. The mission has identified certain mandatory and optional reforms to be undertaken at the state government and ULB levels during the mission period, for the ULB to be eligible for funding. This section deals with the ULB level reforms; specific items are identified under each reform. The timelines for implementation are indicated and the detailed action plan and the status of these reforms if already underway are presented in **Annexure 5**.

7.1. MANDATORY REFORMS BY PUNE MUNICIPAL CORPORATION

JNNURM has identified six mandatory reforms that the ULB needs to implement to be eligible for funding under JNNURM. The specific items under each reform, which PCMC intends to implement :

8. Adoption of modern accrual-based double-entry system of accounting
9. Introduction of a system of e-governance using IT applications such as GIS and MIS for various services provided by the ULB
10. Reform of property tax with GIS and achievement of collection efficiency of 85 per cent of the demand by the end of mission
11. Levy of reasonable user charges with the objective of collecting the full cost of O&M or recurring cost within the next seven years.
12. Internal earmarking in budgets for basic services to the urban poor
13. Provision of basic services to the urban poor including security of tenure at affordable prices

7.1.1. Adoption of modern accrual-based double-entry system of accounting,

The Government of Maharashtra has issued a Circular No. Lekhasu/102004/71/Pra.Kra.5/04. Navi-31 dated 6th July 2005 to implement the Accrual Based Double Entry Accounting System in all Municipal Corporations and "A" Grade Municipal Councils in Maharashtra w.e.f. 1st April 2005.

As part of accounting reforms, Pimpri-Chinchwad Municipal Corporation has initiated work; the progress made so far is elucidated below. The estimated time frame for completion of this reform process is about two years; by 2007-08, the new system is expected to be in place. The detailed time schedule for implementation of these reforms is presented in **Annexure 5**.



Activities already completed

Training: All India Institute of Local Self Government, Mumbai, has been engaged by PCMC to train the staff. It has already prepared a detailed programme to train staff from the departments of accounts, octroi, property tax, and audit on the double entry accounting system. Staff from accounts, computer and store departments have already been trained in the double entry accounting software package.

Maintenance of Records, Fixed & Flexible Assets: The accounts department has already issued a circular to all functional departments to prepare the inventory of assets as per the format given in the National Municipal Accounts Manual. Accordingly, work on this project has already commenced.

Implementation of Function and Accounting Codes: The accounts department has commenced coding of various items of income and expenditure as per the guidelines of the National Municipal Accounts Manual. The proposed system and the method are more or less similar to the current system of PCMC; hence the shift to the new coding system is simple and hassle-free.

Computer Programme for Double Entry Accounting System: PCMC, with support from the National Informatics Centre in Pune, has successfully completed a few modules of the programme for the accounts department. The programmes are designed for both single entry and double entry accounting system and are presently put to use to make the migration to double entry system easier.

Activities to Commence

PCMC has floated a tender notice inviting tenders for the appointment of chartered accountant/ chartered accountants' firm for the following jobs; the tender process is in the final stages. These are:

- Recording and valuation of all fixed and flexible assets and liabilities of the corporation
- Bank reconciliation work of all the bank accounts of the corporation
- Training corporation staff for accurate account coding as per the National Municipal Accounts Manual for the preparation of the balance sheet and the budget
- Preparing the opening balance sheet for the year 2005-06 and the consequent two years by March 2008

7.1.2. Introduction of a system of e-governance using IT applications such GIS and MIS for various services provided by PCMC

E-governance is an opportunity to transform the corporation's commitment to be citizen-centric and provide cost effective services and enhance governance through improved access to accurate information and transparent, and responsive and democratic institutions. Thus e-governance is no longer an experimental administrative reform but a permanent part of the governing process. For both government organizations and citizens, its advantages are far reaching in comparison to the investment in establishing e-governance. The objectives of the e-governance reforms as set by PCMC are:



- Promote people-centric administration -- Common citizens to get the benefits of the system of accurate billing and avoidance of corruption
- Move from process accountability to productivity accountability and from transactional to transformative governance -- The process is computerized to increase productivity. Each department of the corporation has reports giving exact statistics of how accountability is achieved through the system.
- Reduce delays and ensure promptness in delivery of services through computerization – This will ensure timely delivery of accurate service.
- E-Administration -- Improve administrative processes by cutting cost, managing performance, making strategic connections within the local bodies and creating empowerment
- E-Citizen and E-Services -- Connecting citizens to the local government by talking and listening to citizens, supporting accountability and democracy, and improving public services
- Citizen Centric Organisation: PCMC has taken the lead in e-governance projects and presently it has displayed a true citizen centric project through Citizen Facilitation centres.

Services already offered:

PCMC intends to complete the process of e-governance by FY 2008-09. As part of e-governance reform, PCMC intends to cover all services in addition to the existing ones. Services which are currently available to citizens are a citizen facilitation centre covering 65 different services of 10 departments, sky sign & license department, web portal, collectorate services on Municipal CFC, nagarwasti department, slum department, and birth & death and all services of administration department.

The services that have been already initiated are property tax management, integrated octroi management, hospital management, and departments of nagarsachiv, audit accounts and intranet for all departments.

Services to be covered:

PCMC intends to cover the following areas under the e-governance plan. (The detailed annual phasing is presented in annexure).

- GIS-based property tax and overall GIS for engineering, water supply & building permission departments etc.
- SAP for the engineering department
- E-Seva center – Multicentre
- Decentralisation of CFC

7.1.3. Property tax on GIS platform to achieve collection efficiency of at least 85%

JNNURM requires certain reforms to be taken up in property taxes, with the broad objective of establishing a simple, transparent, non-discretionary and equitable property tax that encourages voluntary compliance; the same would be brought under the GIS platform.



PCMC envisions a grand plan to provide high quality services to its citizens with unique, sophisticated and easy-to-use information, availing of cutting edge Internet technology. PCMC has engaged Sci-Tech Management to explore, quantify and submit the proposal to build and operate the GIS-based Urban Renewal Project. The technology platform selected was based primarily on costs and resource availability and moderated by the unique client needs.

Present Status and proposal

Mapping and digitisation of about 38 sq.km of old PCMC area was completed in 1999. The present area being about 171 sq.km, it is proposed that the base map for the entire area should be prepared and digitized. In addition, a comprehensive suite of GIS based applications for property tax and for all services offered by the Corporation should be prepared. PCMC proposes to implement the GIS systems using CentOS/ OpenSuse Linux Server as operating systems on a GRASS/ Quantum platform using Python, C++ and Java. The data base is being captured using MySQL 5.0/ PostgreSQL 8.x. The over-arching functional goal of PCMC is to provide GIS that can be converted into knowledge by the city planners and administrators whenever and wherever required. Following are the various modules proposed under GIS.

- GIS for Urban Renewal System: This module will be the main application server that will enable the user to digitise, update and create digital maps for various end user applications.
- GIS based Asset & Works Management System: It will manage the various assets of the municipal corporation like land parcels, electrical fittings and furniture. The works management feature shall enable users to update all expenses booked on a particular segment and build a history of costs incurred on a particular asset over the years. All payment orders shall be moved through this module to maintain a strict audit trail.
- GIS-based Water & Property Revenue Management System: The GIS-based water & property revenue management system shall generate the billing for water supply connections and properties located within PCMC limits. This data shall be tied to the data in the GIS server on a layer-to-layer basis. The most important objective of this module is to relate revenue generation to the GIS data to plug leakages.
- Citizens Facility Centre (CFC) Application: The objective of this module is to provide services to citizens by setting up CFCs across the corporation limits and efficient front offices to service the various needs of the citizens. These front offices of PCMC will bring the services like Licenses, Permissions and Bill Payments within a fixed time frame.
- Map Digitisation, Survey and Data Updating: This module will cover scanning and cleaning of city survey sheet, digital conversion of city survey, establishment of pillars / markers throughout PCMC area, scope of high resolution Satellite Image (QUICKBIRD), merging of maps through field survey, attribute data collection, attachment of attribute data, mapping of under ground utilities and execution methodology and quality control.

PCMC intends to complete the GIS-based property tax reform process in all respects by 2007-08; it would achieve 85% collection performance in FY 2011-12.



7.1.4. Levy of reasonable user charges by PCMC for all services to recover full cost of O&M

JNNURM requires levy of user charges on different municipal services, with the objective of securing effective linkages between asset creation and asset maintenance and ultimately leading to self-sustaining delivery of urban services. PCMC incurs huge amounts each year on operation and maintenance for various services like water supply, sewerage, storm water drainage, fire service, street lighting and roads and bridges. However, currently cost recovery exists only for water supply, which is too low. As far as the other services are concerned, the cost recovery is absent. PCMC proposes to address the cost recovery issue in the following manner for all those services, wherever recovery is possible;

- Water Charges: To move towards full cost recovery, PCMC proposes to meter all house service connections and also revise water tariff to ensure full recovery by 2007-08.
- Sewerage Charges: Currently, there is no direct or indirect user charge for this service. PCMC proposes to recover cost in the form of sewerage tax to be levied as part of property tax, which it plan to implement once the ongoing sewerage projects are completed.
- Intra City Transport Service: PCMT, an undertaking of PCMC, provides intra city transport facility. The recovery is in the form of fare collection and advertisement revenue. Currently, the recovery is to the extent of 80-85 % and the balance is subsidized by PCMC.
- Other Services: With regard to cost recovery for solid waste management and fire service, PCMC proposes to reduce its cost through private participation and the levy of additional cess as part of property tax in phases.

7.1.5. Internal earmarking within local bodies budget's for provision of basic services to the urban poor including affordable tenure security

JNNURM endorses the provision of basic services to the urban poor with the objective of providing security of tenure at affordable prices, improved housing, water supply and sanitation. In addition, delivery of other existing universal services of the government for education, health and social security is to be ensured. In this regard it proposed as part of reforms that the ULB should earmark certain funds for the urban poor in order to improve the housing stock and provision of basic urban service.

With regards to this, PCMC is well ahead and allocates over 20 % of its total budget for provision of services like water supply, sanitation, education, primary health and urban community department activities for the urban poor and slums. Also, PCMC has been able to spend over 90 percent of the budget allocations. However, the only area of concern is the quality of housing stock which PCMC proposes to address through SRA and its own slum rehabilitation plans. In addition to the above, Nagar Wasti Department of PCMC has the following schemes for the urban poor;

- Mahila Bal Kalyan Yojana (Mother and Child welfare schemes)
- Magasvargiya kalyankari Yojana.
- Aadhar Nidhi Yojana (Financial assistance for divorced women for self employment)
- Suvarna Jayanti Urban Employment Scheme.



Apart from general budget allocations under various sectors for the urban poor, PCMC has also set aside as a reserve fund, five percent of its net revenue (after making provision for obligatory expenses) for the welfare of the backward classes. This fund is utilised for capital works like community halls, roads, gutters, gyms etc. in the backward society areas, scholarships for students of class 5th to 10th, free distribution of bicycles, payment of computer training fees, as well as provision for finance for medical and engineering students and the like.

7.1.6. Provision of Basic services to Urban Poor: Slums and Housing Activities

The slum clearance department of PCMC provides basic services to 71 slum pockets with a population of 1.43 lakhs. According to a recent survey conducted by an NGO in all the slum pockets, the levels of services were found to be inadequate. Non-availability of land for relocation of slums has been one of the main reasons for the delay in the provision of basic services. However, with the establishment of SRA which is expected to operate on the basis of market forces, the housing problem of the urban poor in the city area is expected to be solved to an extent.

The earlier model of providing free houses to the poor would no longer be followed. The market-driven approach under SRA would involve private builders for the rehabilitation of slums. It would be a self-financing scheme under which the builders would be provided with additional FSI for commercial exploitation. This would take care of the cost of development of housing for the urban poor. The development would be vertical (G+3) and provide for all the basis amenities and facilities. The cost of the housing would also be partly borne by slum dwellers; their contributions would be retained as a fixed deposit that would take care of operation and maintenance expenses.

To achieve logical and rational decision-making in the interest of the urban poor, PCMC involved NGOs to conduct a detailed survey of these poor settlements and their socio-economic aspects. Currently, PCMC is levying a service charge on all bonafide slum dwellers. To safeguard the interests of all slum dwellers who have settled in the city prior to January 1995, PCMC is issuing photo identity passes. PCMC and the SRA propose to bridge the gap between the current level of services in the slum locations and acceptable norms in the next six years. This initiative of PCMC and the establishment of the SRA would provide urban basic services and low cost housing to all those slum dwellers who have photo identity cards.

7.2. OPTIONAL REFORMS

The mission has identified seven optional reforms. The ULB needs to implement two reforms per year to be eligible under JNNURM. The specific items under each reform, which PCMC intends to implement are discussed below.

7.2.1. Revision of bye-laws to streamline the approval process for construction of buildings, development of site etc.

The Development Plan for the old PCMC area is due in the year 2007. As part of DP revision, PCMC proposes to revise the current DCR taking into account the recent developments and requirements of the city. PCMC is also exploring the option of



introducing area specific DC Rules with regard to FSI and the like. These initiatives are planned for the period 2006-08.

It has also proposed to check and approve building plans using computer software. PCMC is exploring the option of developing such software with certain IT firms. It is expected that within a year, building plans would be scrutinised for violations and compliance on computers. This would be integrated with the proposal of submitting and receiving approvals of building plans online. It is estimated that about two-three years would be required for preparation and testing of the software; training of the staff, architects and citizens; generation of awareness; and provision for hardware infrastructure.

The limit specified for every building permission is 60 days (10 days for checking the plinth with time limit extension of 15 days, and completion certificate within 30 days.) PCMC always tries to complete these activities before the time limit through the single window system for submission of application. However, as part of the streamlined process, for speedy processing and approval, PCMC has decentralised the approval powers; the Deputy Engineer is given the power to approve proposals up to 3000 sq. ft. FSI, Deputy City Engineer has the powers to approve proposals up to 5000 sq. ft. FSI, and a City Engineer has the power to approve proposals above 5000 sq. ft. FSI.

7.2.2. Earmarking at least 20-25% of developed land in all housing projects (both public and private agencies) for EWS and LIG category with a system of cross subsidisation

PCMC proposes to implement this in phases from FY 2006-07 onwards. To this end, PCMC is exploring various options. One of option was actively considered in builders' association consultation, to provide High Density Housing (HDH) in the newly added areas. For every one FSI, an extra 0.4 FSI is given to the builder. Once the construction is complete, the builder will hand over 20% of the tenements to PCMC as per specifications; the builder can sell the remaining 80% in the market.

7.2.3. Revision of byelaws to make rain-water harvesting mandatory in all buildings and adoption of water conservation measures

Already in place

7.2.4. Byelaws for reuse of recycled water

Already in place

7.2.5. Administrative reforms i.e. reducing establishment costs by adopting the Voluntary Retirement Scheme (VRS), not filling posts falling vacant due to retirement etc., and achieving specified milestones in this regard

Currently, establishment expenditure as percentage of revenue income is 37 percent, which is just above the reasonable range of 35 percent; however VRS shall be explored in departments where it is possible. Also, PCMC proposes to upgrade the technical skills of the staff by organising training programmes from 2006-07 onwards.



7.2.6. Structural reforms

Currently, Pune and Pimpri-Chinchwad Municipal Corporation have their own transport undertakings, namely PMT and PCMT respectively. As part of structural reforms, the immediate decision being taken is the merger of the two transport undertakings to improve their performance as both serve a common area. Formal government approval for the same is already in place and the process of merger is expected to be completed in a year's time. The other reforms as part of the JNNURM and the 74th Constitutional Amendment Act, 1992 are the constitution of Pune Metropolitan Regional Development Authority (PMRDA) and a Metropolitan Committee.

7.2.7. Encouraging Public-Private-Partnerships (PPP)

With regard to private sector participation in the provision of services in PCMC, the conservancy sector has undertaken door-to-door collection through rag pickers association in a few wards. It further proposes to extend this to the entire city over the next 2-3 years. Hospital Waste Management and Citizen Facilitation Centres are already based on the PPP format. In addition to these services, PCMC proposes to explore various innovative contracting options like deferred payments for major infrastructure projects (High Capacity Mass Transit system, BRTS and certain non technical activities). PCMC plans to take up these actions from 2007-08 onwards in phases.

The other initiatives of PCMC include using massive energy savings mechanism in areas of street lighting by changing over to efficient lamps, switching lights on and off 15 minutes before and after low energy, energy savings in water supply operations by conducting energy audit and taking corrective measures.

7.3. STATE LEVEL REFORMS TO BE UNDERTAKEN BY GOVT. OF MAHARASHTRA

In addition to the mandatory and optional reforms specified by ULBs, JNNURM has prescribed some reforms for implementation by state governments.

7.3.1. Mandatory Reforms

Implementation of decentralization measures as envisaged in the 74th CAA -- The State should ensure meaningful association and engagement of ULBs in planning the function of parastatal agencies as well as the delivery of services to the citizens.

- Repeal of ULCRA
- Reform of rent control laws, balancing the interests of landlords and tenants
- Rationalization of stamp duty to bring it down to no more than five percent within the next seven years (already in place)
- Enactment of the public disclosure law to ensure the preparation of a medium-term fiscal plan of ULBs and parastatal agencies and release of quarterly performance information to all stakeholders
- Enactment of the Community Participation Law to institutionalize citizens' participation and introduce the concept of the Area Sabha in urban areas



Assigning or associating elected ULBs with the “city planning function”-- Over a period of seven years, transferring all special agencies that deliver civic services in urban areas to ULBs and creating accountability platforms for all urban civic service providers in transition.

7.3.2. Optional Reforms

- Simplification of legal and procedural frameworks for the conversion of land from agricultural to non-agricultural purposes
- Introduction of the Property Title Certification System
- Introduction of a computerised process of registration of land and property

Annexure



ANNEXURE 1. MUNICIPAL SERVICE INFORMATION

1.1. SLUMS AND NAGAR WASTI DEPARTMENT

Slums in Pimpri-Chinchwad – Land ownership and Demographic Characteristics (2005)

Name of Slum	Ward No	Ownership	Zone	Area (Sq.mt)	Popl	No. of Huts	
1	Vidhyanagar			41383	4310	1125	
2	Durganagar	20	PCNTDA	Akurdi	5758	1134	285
3	Mahatma Phule Nagar / Mohan Nagar	24	M.I.D.C.	Akurdi	13513	2171	487
4	Jai Malhar Nagar/ Ganesh Nagar	23	PRIVATE	Akurdi	1516	264	79
5	Kalbhor Nagar	23	M.I.D.C.	Akurdi	2358	313	81
6	More Vasti Chikali	2	PCNTDA	Chiklhi	38546	2158	58
7	Ambedkar Nagar, Akurdi	20	M.I.D.C.	Akurdi	4555	966	204
8	Ram Nagar Akurdi	24	M.I.D.C.	Akurdi	16301	1633	467
9	Datta Nagar Akurdi	24	M.I.D.C.	Akurdi	46645	4213	1485
10	Ajanta nagar Akurdi	20	M.I.D.C.	Akurdi	19413	5010	1200
11	Anand Nagar	34	PRIVATE	Chinchwad	59552	10418	2364
12	Saibaba Nagar	22	PRIVATE	Chinchwad	9062	1278	292
13	Udhyog Nagar/ Dalavi Nagar	33	PCMC	Chinchwad	15134	2976	660
14	Annasaheb Magar Nagar	25	M.I.D.C.	Chinchwad	7709	1408	314
15	Vijay Nagar	33	PRIVATE	Chinchwad	4889	1151	252
16	Santosh Nagar	33	PRIVATE	Chinchwad	1225	270	57
17	Golande Colony/ Sudharshan nagar	33	PRIVATE	Chinchwad	1201	177	49
18	Vetalbaba Nagar	32	PCMC	Chinchwad	30754	5458	1313
19	Indira Nagar Chinchwad	24	PCMC	Chinchwad	29608	3684	827
20	Kalakhadak	16	GOVT.	Wakad	30676	2078	569
21	Rajiv Gandhi Nagar Pimple Gurav	12	PRIVATE	Pimple Gurav	14883	2004	322
22	Mhatoba Nagar Wakad	16	PRIVATE	Wakad	13376	562	198
23	Tapkir Nagar Kalewadi	14	PRIVATE	Kalewadi	2544	417	86
24	Annabhau Sathe Nagar Wakad	16	PCNTDA	Wakad	9315	697	150
25	Adarsh Nagar	30	PCMC	Pimpri Nagar	5826	621	141
26	Milind Nagar	30	PCMC	Pimpri Nagar	17093	1933	527
27	Uttam Nagar	30	PCMC	Pimpri Nagar	1335	75	25
28	Shashtri Nagar	29	GOVT.	Pimpri Nagar	14879	1661	446
29	Subhash Nagar	29	PCMC	Pimpri Nagar	17488	1854	478
30	Ambedkar Nagar	30	GOVT.	Pimpri Nagar	15486	1773	587
31	Sanjay Gandhi Nagar	29	GOVT.	Pimpri Nagar	6326	1272	302
32	Baldev Nagar	29	GOVT.	Pimpri Nagar	7287	697	230
33	Indira Nagar	29		Pimpri Nagar	3650	519	
34	Kailash Nagar	29	GOVT.	Pimpri Nagar	7507	1284	424
35	Ganesh Nagar	28	GOVT.	Pimpri Waghare	2429	388	94
36	Mahatma Gandhi Nagar	29	GOVT.	Pimpri Nagar	4451	359	121
37	Bhaudha Nagar	34	GOVT.	Pimpri Nagar	20335	3620	906
38	Bhim Nagar / Sanitary Chal	34	GOVT.	Pimpri Nagar	10652	1035	246
39	Ramabai Nagar/ Niradhar Nagar	34	GOVT.	Pimpri Nagar	16809	2297	655
40	Ramkrushna Nagar, Arya Samaj Mandir	5	GOVT.	Pimpri Nagar	2940	170	42
41	Link Road Patra Shed	34		Chinchwad	9252	1762	
42	Landewadi	6	M.I.D.C.	Bhosari	23653	3867	922
43	Balaji Nagar	7	M.I.D.C.	Bhosari	54061	7605	1859
44	Ganesh Nagar	7	M.I.D.C.	Bhosari	5672	535	133
45	Mahatma Phule Nagar	7	M.I.D.C.	Bhosari	33641	5323	1341
46	Sanjay Nagar Vakhare	9	GOVT.	Phugewadi	8030	941	237
47	Gavali Nagar vasahat	7	M.I.D.C.	Bhosari	21713	2574	651
48	Hirabai Landge chal	8	PRIVATE	Kasarwadi	6199	1300	247
49	Nashik Phata	7	GOVT.	Kasarwadi	7646	617	158



Name of Slum	Ward No	Ownership	Zone	Area (Sq.mt)	Popl	No. of Huts	
50	Ratilal Bhagvandas	9	PRIVATE	Phugewadi	933	115	26
51	Sanjay Gandhi Nagar Boradewadi	2	PCNTDA	Moshi	24131	1462	379
52	Shanti Nagar Bhosari	7	GOVT.	Bhosari	17632	3083	540
53	Khande vasti Bhosari	7	PCNTDA	Bhosari	9491	390	96
54	Gandhi Nagar	35	PRIVATE	Pimpri Waghire	32228	6768	1451
55	Vitthal Nagar	26	PCMC	Pimpri Waghire	31348	6769	1403
56	Bharat Mata nagar (Pimpri Railway station)	35	PRIVATE	Pimpri Waghire	2678	405	107
57	Gurudatta Nagar (Nanekar Chal)	35	PRIVATE	Pimpri Waghire	4601	754	155
58	Vaishali Nagar	35	PRIVATE	Pimpri Waghire	2280	210	58
59	Ambedkar Nagar (Neharu Nagar)	25	PRIVATE	Pimpri Waghire	2625	374	84
60	Yashavant Nagar	25	PRIVATE	Pimpri Waghire	4431	611	149
61	Star Rabar Morwadi	25	M.I.D.C.	Pimpri Waghire	22726	3607	911
62	Sidharth Nagar	10	PRIVATE	Dapodi	37205	4163	1133
63	Gulab Nagar	10	PRIVATE	Dapodi	62053	6171	1633
64	Jai Bhim Nagar	10	PRIVATE	Dapodi	21961	2689	710
65	Mahatma Phule Nagar	10	PRIVATE	Dapodi	10809	1185	242
66	Limbore Chal	10	PRIVATE	Dapodi	7190	756	189
67	Sharad Nagar	1	PCNTDA	Nigadi	6458	1074	242
68	Samratnagar Ankush Chowk Nigadi	20	PCNTDA	Nigadi	3807	110	30
69	Raj Nagar Nigadi	20	PCNTDA	Nigadi	22208	506	116
70	Siddharth Nagar Nigadi	19	PCNTDA	Nigadi	3077	457	109
71	M. B. Camp Kiwale	17	PRIVATE	Kiwale	27697	2563	643
Total				1101838	143054	34102	

Slums in Pimpri-Chinchwad – Infrastructure Levels (2005)

List of Slums	Toilet Seats	Water Taps	Gutters (rmt)	Balwadis	Samaj Mandir	Street Lights	
1	Vidhyanagar	47	11	1530	3	1	62
2	Durganagar	18	8	650	1	0	16
3	Mahatma Phule Nagar / Mohan Nagar	44	11	1050	1	1	19
4	Jai Malhar Nagar/ Ganesh Nagar	4	3	169	0	0	5
5	Kalbhore Nagar	24	3	250	0	0	7
6	More Vasti Chikali	0	2	0	0	0	0
7	Ambedkar Nagar, Akurdi	8	8	460	1	1	17
8	Ram Nagar Akurdi	12	12	1668	1	1	18
9	Datta Nagar Akurdi	92	22	3905	1	1	54
10	Ajanta nagar Akurdi	28	12	1545	0	1	9
11	Anand Nagar	176	72	3200	8	4	71
12	Saibaba Nagar	30	9	323	0	0	12
13	Udhyog Nagar/ Dalavi Nagar	32	11	1010	1	1	19
14	Annasaheb Magar Nagar	8	5	480	1	1	17
15	Vijay Nagar	9	9	228	1	0	15
16	Santosh Nagar	6	2	148	1	0	3
17	Golande Colony/ Sudharshan nagar	4	3	275	0	0	9
18	Vetalbaba Nagar	36	27	1424	2	2	55
19	Indira Nagar Chinchwad	24	14	855	2	1	32
20	Kalakhadak	8	22	1820	2	1	17
21	Rajiv Gandhi Nagar Pimple Gurav	16	26	1857	1	1	4
22	Mhatoba Nagar Wakad	8	5	0	1	1	5
23	Tapkir Nagar Kalewadi	0	6	263	0	0	5
24	Annabhau Sathe Nagar Wakad	0	1	0	1	0	0
25	Adarsh Nagar	4	6	408	0	1	8
26	Milind Nagar	20	17	1260	1	1	32
27	Uttam Nagar	0	1	12	0	0	4
28	Shashtri Nagar	8	17	1322	1	0	35
29	Subhash Nagar	33	12	896	0	1	41
30	Ambedkar Nagar	24	13	893	0	1	33
31	Sanjay Gandhi Nagar	8	8	525	0	0	9



List of Slums		Toilet Seats	Water Taps	Gutters (rmt)	Balwadis	Samaj Mandir	Street Lights
32	Baldev Nagar	4	5	523	1	1	12
33	Indira Nagar	4	5	343	0	1	7
34	Kailash Nagar	8	9	650	0	1	18
35	Ganesh Nagar	8	4	249	0	1	5
36	Mahatma Gandhi Nagar	19	3	92	0	1	10
37	Bhaudha Nagar	50	13	750	0	0	36
38	Bhim Nagar / Sanitary Chal	14	6	735	0	1	12
39	Ramabai Nagar/ Niradhar Nagar	40	16	1084	0	1	32
40	Ramkrushna Nagar, Arya Samaj Mandir	2	3	178	0	0	4
41	Link Road Patra Shed	11	14	937	1	0	5
42	Landewadi	78	30	2445	0	1	71
43	Balaji Nagar	66	38	1225	1	2	114
44	Ganesh Nagar	8	15	682	0	0	9
45	Mahatma Phule Nagar	42	26	1555	1	1	34
46	Sanjay Nagar Vakhare	16	8	540	0	1	9
47	Gavali Nagar vasahat	44	28	1780	0	1	42
48	Hirabai Landge chal	32	5	540	0	0	19
49	Nashik Phata	14	5	620	0	0	14
50	Ratilal Bhagvandas	4	4	150	0	1	5
51	Sanjay Gandhi Nagar Boradewadi	20	14	1450	1	1	21
52	Shanti Nagar Bhosari	8	12	1200	1	1	24
53	Khande vasti Bhosari	0	0	248	0	0	0
54	Gandhi Nagar	64	41	3025	0	1	78
55	Vitthal Nagar	48	53	3625	0	0	62
56	Bharat Mata nagar (Pimpri Railway station)	12	2	200	0	1	7
57	Gurudatta Nagar (Nanekar Chal)	6	5	182	1	1	13
58	Vaishali Nagar	5	4	225	1	1	12
59	Ambedkar Nagar (Neharu Nagar)	3	3	108	0	1	10
60	Yashavant Nagar	8	9	315	0	1	11
61	Star Rabar Morwadi	23	30	850	1	0	18
62	Sidharth Nagar	166	22	3565	0	1	68
63	Gulab Nagar	56	0	2600	0	1	61
64	Jai Bhim Nagar	20	8	1700	0	1	25
65	Mahatma Phule Nagar	24	9	550	1	1	21
66	Limbore Chal	40	6	997	0	1	18
67	Sharad Nagar	10	3	125	1	0	10
68	Samratnagar Ankush Chowk Nigadi	8	1	0	0	0	3
69	Raj Nagar Nigadi	0	4	0	0	1	0
70	Siddharth Nagar Nigadi	0	1	0	0	0	3
71	M. B. Camp Kiwale	0	12	0	1	0	0
		1716	854	64466	43	50	1556

DP Lands reserved for slum rehabilitation

S.No	Village/ Area	Purpose	Reservation No.	Areas (Hec.)
1	Sector 22 Nigadi	Slum rehabilitation		5.60 Hector
2	Talawade Gayaran	Municipal purpose	1/52	10.00 Hector
3	Wakad	H.D.H.	4/41	02.00 Hector
4	Rawet	H.D.H.	4/89	02.00 Hector
5	Pimpri	H.D.H.	77	00.50 Hector
6	Pimpri	H.D.H.	79	00.40 Hector
7	Chinchwad	H.D.H.	237	00.80 Hector
8	Akurdi	H.D.H.	257	00.40 Hector
9	Akurdi	H.D.H.	283	01.78 Hector
10	Akurdi	H.D.H.	293	00.80 Hector
11	Pimple Gurav	H.D.H.	357	00.80 Hector
	Total land available			25.08 Hector



Slums not covered under SRA and identified for rehabilitation

S.No	Name of slum	Location	No. of huts
Slum under road widening			
1	Gandhi Nagar	Pimpri	65
2	Durga Nagar	Akurdi	285
4	Anand Nagar	Chinchwad	191
5	Annasaheb Nagar	Chinchwad	111
6	Udhyog Nagar	Chinchwad	56
7	Vijay Nagar	Chinchwad	31
8	Sudarshan Nagar	Chinchwad	11
9	Sidharth Nagar Dapodi	Dapodi	134
10	Hirabai Landge Chal	Kasarwadi	52
11	Nashik Phata	Kasarwadi	158
12	Mahatma Phule Nagar	Bhosari	392
13	Gavali Nagar	Bhosari	40
14	Nehru Nagar/ Ambedkar Nagar	Pimpri Waghire	23
15	Ambedkar Nagar Akurdi	Akurdi	204
16	Morwadi	Pimpri Waghire	166
17	Vetalnagar	Chinchwad	24
18	Rajnagar	Nigadi	116
19	Limbhore Chal	Dapodi	3
20	Sidharth Nagar, Nigadi	Nigadi	109
	TOTAL		2237
Slums over Railway land			
1	Hirabai Landge Chal	Kasarwadi	58
2	Anand Nagar	Chinchwad	858
3	Udhyognagar	Chinchwad	222
4	S. No. 68 to 74 Gulab Nagar	Dapodi	85
5	Sanjay Nagar Fugewadi	Fugewadi	237
6	Niradhar Nagar / Ramabai Nagar	Pimpri	212
7	Saibaba Nagar	Chinchwad	100
8	Sudarshan Nagar	Chic wad	13
9	Sanitary Chal / Bhim Nagar	Pimpri	66
	Total		1851
Slum under Flood Affected, River Bed, Green Belt			
1	Ramabai Nagar	Pimpri	443
2	Sanjay Gandhi Nagar	Pimpri	302
3	Bhouth Nagar	Pimpri	906
4	Sr.No.68 to 74 Dapodi	Dapodi	29
	Total		1680

Details of welfare schemes under Nagar Wasti Department of PCMC

- Mahila Bal Kalyan Yojana.
- Magasvargiya kalyankari Yojana.
- Aadhar Nidhi Yojana.
- Suvarna Jayanti Urban Employment Scheme.

There are 16 projects under the Mahila Bal Kalyan Yojana schemes. The Aadhar Nidhi Yojana fund provides finance for divorced women for their self-employment; finance for disabled students in the form of scholarships; useful instruments for the disabled; scholarships for orphan students etc. Towards this purpose, PCMC has created a separate fund of Rs. 4 lakhs. The projects are generally implemented from the income derived from interest on the above-mentioned fund. Following are the details of expenditure, since the inception of this fund.

2002-03:	Rs. 20,01,300/-
2003-04:	Rs. 31,80,500/-
2004-05:	Rs. 1,20,23,397/-
2005-06:	Rs. 20,00,000/- (expected)
2006-07:	Rs. 26,00,000/- (proposed)

Five per cent of total revenue income that has been derived after incurring obligatory expenses is reserved for the welfare of backward classes as a reserve fund. Also, some capital works like the building of Samajmandirs, roads, gutters, gyms etc. in the backward society areas, scholarships for the students of class 5th to 10th, free distribution of bicycles, payment of computer training fees, as well as provision for finance for medical and engineering students and the like are undertaken under this fund.

The income and expenditure recorded in the last three years is as follows.

Year	5% amount (Rs.)	Actual expenditure (Rs.)
2002-03	7,97,45,920/-	5,60,64,524/-
2003-04	6,25,43,980/-	6,15,72,201/-
2004-05	8,97,17,267/-	7,33,11,371/-

As per the census, about 70% of the people living in the slums belong to the backward classes. Accordingly it is considered that 70% of the total expenditure incurred on slum rehabilitation and redevelopment programmes are to be treated as expenses towards upliftment of the backward classes. Accordingly, budgetary provision is increased to step up the five per cent amount and thus the contribution towards the upliftment of the backward classes.

The budget provides Rs. 580 lakhs for schemes on welfare of the backward classes for the year 2005-06; Rs. 625 lakhs for slum rehabilitation and redevelopment schemes. A sum of Rs. 300 lakhs has been kept aside as reserve fund; 70% cent of this amount i.e. Rs. 437.5 lakhs and Rs, 580 lakhs totalling to Rs. 1017.5 lakhs is the total provision for these schemes. Rs. 835 lakhs has been proposed for the FY 2006-07.



1.2. WATER SUPPLY SYSTEMS

Details for installed water works at Rawet for combined capacity of 228 MLD

Raw water Pumping Machinery	(Combined for 228 MLD)
Type of Pumps	V.T. mixed flow
No. of pumps	Twelve (eight duty, four stand) (Mather and Platt make)
Discharge of each	1230m ³ /hr. (341 Ips or 29.5Mld)
Head	72 m (58m static + 14m frictional)
Speed	1500rpm (Syn)
Delivery	400 mm
Total discharge of eight pumps	228 MLD

Details of Treatment Plant of 114 MLD capacity

S. No	Description of Unit
1	Aeration Fountain
2	Venturi Flume Channel
3	Flash Mixer
4	Clariflocculator
5	Filter House
6	Chemical House
7	Chlorine Room
8	Clear Water Sump no.2 (S-1) new -12 MI

Water supply systems - Details of existing reservoirs/ storage in various zone

S. No	WD No.	Location / Identification No	No.s	Capacity In ML	Total cap. In ML	Levels		
						GL	LWL	FSL
1		Sump – S-I	2	08 12	20	-	610.41	615.455
2		Sump – S-II	2	1.65 1.85	3.5	-	613.257	616.173
3		MBR	1	3.00	3.00	611.097	616.020	620.336
4	I-A	Sect.20 at Triveni Nagar Sump ESR	1	-	-	607.546	-	610.159
			2	2.5	5.00	607.546	621.393	627.411
5	II	Sect-20	2	1.1	2.2	615.955	627.618	632.391
6	III	E-3	2	1.75	3.5	582.654	597.798	603.66
			1	1.65	Total 5.15ml	585.875	597.884	603.660
7	IV	* Gawali Matha Sump @ sect 20	1	0.1	2.6	582.285		585.315
		* ESR of PCNTDA	1	2.5				
			2	0.9	1.8ml	605.057	621.245	627.031
		* Indrayani Nagar	2	0.65	1.65ml	601.644	616.245	622.100
				1.00		601.278	615.99	620.075



S. No	WD No.	Location / Identification No	No.s	Capacity In ML	Total cap. In ML	Levels		
						GL	LWL	FSL
		* Boradewadi				602.435	615.245	618.005
		* Ground Tank at Jadhav Wadi	1	0.25	0.25	599.894	-	603.394
		* Sect 2				605	617	622
		* Sec - 6	3	2.2	6.6	611.453	626.501	631.153
		* Wadmukh Wadi	1	0.12	0.12	581	596	600
		* Moshi-GSR	1	0.5	0.5	596	596.50	600
8	V	Lande Wadi Sump	1	1.2	1.2	575		577.996
			1	-	-	572.976		574.628
		Lande Wadi ESR-WD-V/A	1	1.5	1.5	580.088	600.797	606.615
	V	* Bhosari WD V/B	1	1.5	1.5	589.081	603.873	608.568
		* ESR at Sect III	1	2.2	2.2	601.902	616.891	621.783
		* Bopkhel - Proposed	1	0.55	0.55	568	580	584
		* Dighi	1	0.84	0.84	615	620	625
	VI	Sect-30 (E-6)	2	1.75	3.5	581.60	591.00	600.00
			1	2.00	2.0	581.60	591.00	600.00
	VII	E-7 Pimpri	2	2.25	4.50	556.00	580.00	585.00
			1	2.00	2.00	559.00	575.00	580.00
	VIII		2	2.50	4.50	579.00	595.00	600.00
			1	0.30	0.30	583.00	595.00	599.00
		Sect-40 (E-8)	1	1.00	1.00	568.65	583.30	587.30
		Wakad	1	0.60	0.60	574.87	582.28	586.28
		Thergaon (ET)	1	0.70	0.7	561.14	585.82	589.82
		Rahatni (ER)		0.60	0.60	558.80	573.80	578.80
		Pimple Nilakh (EPN)	1	1.50	1.50	556.00	571.00	576.00
		Pimple Saudagar (EPS)	1	0.18	0.18	557.345	569.00	574.00
		Pimple Gaurav (EPG)	1	2.00	2.00	560.00	576.00	580.00
		Sanghavi	1					
		Sump at Old Sanghavi 8.0 Lac		0.80	0.80	557.28	553.28	
		Sump at PWD cap-3.0 Lac.	1	0.30	0.30	558.43	554.43	
		Old ESR at Sanghavi	1					
		New ESR at PWD		0.60	1.25	557.28	572.28	576.28
		New ESR at Wakad	1	0.65	2.00	558.43	573.43	577.93
		10. Kalewadi	1					
				2.00	2.50	582.685	596.00	600.00
			1	2.50				
				2.00	2.00	582.685	596.00	600.00

1.3. STORM WATER DRAINS

Details of storm water drains – Ward wise

Ward	Type of Storm Water & Length (m)			Total Length (m) of all types
	Open drains Pucca	Open drains Kutchha	Closed drain	
A – HO	78760	-	2500	81260
A - Ward	107720	-	-	107720
B – HO	13020	200	3200	16420
B - Ward	24000	7180	4250	35430
C – HO	20200	-	-	20200
C - Ward	9500	-	2200	11700
D – HO	73080	-	18270	91350
D - Ward	4400	-	600	5000
Total in Rmt.	330680	7380	31020	369080
Total in Kms	330.68	7.38	31.020	369.08

1.4. ROADS

Important roads in the PCMC area

Sl.	Name of Road	Length (Km)	DP Width (m)	Remarks
Improvement to Main Roads through Fringe Villages				
<i>Dehu - alandi Road</i>				
1	Dehu - Alandi Road of 30m DP in Talawade Gaothan Limits	2.5	30	
2	Dehu - Alandi Road of 30m DP in Chikhali Gaothan Limits	3.6	30	
3	Dehu - Alandi Road of 30m DP in Moshi Gaothan Limits (including Missing Length)	3.65	30	Partly Missing
4	Dehu - Alandi Road of 30m DP in Dudulgaon Gaothan Limits up to boundary of PCMC	2.35	30	
<i>Pune - Alandi Road (from Dighi to Chowis Wadi)</i>				
5	Pune - Alandi Road in Chowiswadi Gaothan Limits	1.2	60	
6	Pune - Alandi Road in Wadmukhwadi & Dighi Gaothan Limits	5.15	60	
<i>Bhosari - Alandi Road</i>				
7	Bhosari Alandi Road	2.8	24	
<i>Pune - Nashik Road (N-50) in PCMC Limits</i>				
8	Nashik Road (NH-50) in PCMC Limits (from Mumbai Pune Road to Moshi Gaothan Boundary)	7.4	61	Existing Road (Work in Progress)
9	Pune - Nashik Road in Moshi Gaothan Limits	4.7	60	Existing Road (Work in Progress)
<i>Aundh - Ravet - Kiwale Road (SH-56)</i>				
10	Road from Rajiv Gandhi Bridge (Aundh) (PMC Limits) to Dange Chowk - Old Mumbai - Pune Road - SH-56	7.74	45	
11	Road from Dange Chowk - Ravet (Near MIDC Pumping Stn.) - Old Mumbai Pune Road - SH-56	3.26	30	Partially Missing) - Bridge Required.
12	Road from Kiwale to Ravet (Old Mumbai - Pune Road)	3.6	30	
Major DP Roads within Fringe Villages.				
<i>Major Roads in Wakad Gaothan Area</i>				
13	Widening of existing road from Kaspate Vasti to Westerly Bypass to 45m Wide DP Width.	1.9	45	
14	Road Connecting Old Mumbai -Pune Road (SH-56) near Jagtap Dairy to 45m Wide DP Road near Kaspate Vasti.	1.3	24	Missing DP
15	Road from Westerly Bypass (NH-4) to Hinjewadi (Up to Hinjewadi Ph-I Chowk)	1.1	45	
16	Road from Hinjewadi - Ph-I Chowk to Westerly	3.1	30	

Sl.	Name of Road	Length (Km)	DP Width (m)	Remarks
	Bypass.			
17	Road From Bhumkar Chowk to Chandkhed Road	1.8	36	
18	Road From Dange Chowk to Westerly Bypass (Part of MDR-31)	1.8	45	
19	Link connecting Aundh Wakad Road at Wakad Gaon & Old Mumbai-Pune Road at Dange Chowk	2.5	45	
20	Road at the Boundary of Wakad & Tathwade	1.3	30	
<i>Punawale, Ravet & Surrounding Area</i>				
21	Road From Westerly Bypass to Stone Quarry through Punavle Area	2.5	30	
22	Inner Street through Punawle Village.	1.3	18	
23	45m DP road along Railway line & Boundary of Ravet and Kiwale.	3.2	45	Missing DP
24	24m DP road from Ravet Village to Railway line at the Boundary of Ravet.	1.95	24	
25	Road from Northeren Boundary Corner of Ravet to Mumbai - Pune Highway at Nigadi	1.96	30	Partially Missing
<i>Roads in Talawade Gaothan Area</i>				
26	30m wide DP Road Adjacent to MIDC Software Technogy Park.	1.5	30	Missing DP
27	Road from Kaka Saheb pawar Chowk to Junction with Old Mumbai Road (TELCO Rd.) at Nigadi.	3.2	24	
28	24m DP road at the Boundary of Talwade & Chikhali towards southern end of Dehu-Alandi Road.	3	24	Missing DP
29	24m DP road at the Boundary of Talwade & Chikhali from Dehu-Alandi Road to Indrayani River.	1.2	24	Missing DP
<i>Roads in Chikahali Gaothan Area</i>				
30	24m / 30m Wide DP Road connecting Chikhali Gaothan to Proposed Expressway at Akurdi.	3	24/30	Partially Missing
31	30m / 24m wide DP Road from Border of PCNTDA / Chikhali to Dehu - Alandi Road.	1.75	24/30	Partially Missing
32	New alignment of 30m Wide DP Road running parallel to south of Dehu - Alandi Road.	3.8	30	Missing DP
33	30m wide DP Road connecting Dehu-Alandi Road to TELCO material gate through Jadhav Wadi.	2.4	30	
34	30 Wide DP from Kudale Wadi to Northern Boundary of Chikhali at Indrayani Rver.	1.3	30	Partially Missing
35	24m Wide DP Road at Chikhali - Moshi Border	2.5	24	
<i>Roads in Moshi Gaothan Area</i>				
36	45m wide DP Road at the Southern Boundry of Moshi Gaothan.	1.8	45	
37	24m / 30m wide DP Road running parallel & to the North of Dehu-Alandi Road.	2.6	24/30	Missing DP

Sl.	Name of Road	Length (Km)	DP Width (m)	Remarks
38	24m / 30m wide DP Road running parallel & to the South of Dehu-Alandi Road.	3.4	30	Missing DP
<i>Roads in Dudulgaon Gaothan Area</i>				
39	24m wide DP Road connecting Dehu-Alandi road to Northern Boundary of Chowiswadi - upto Proposed Expressway).	1.35	24	Partially Missing
<i>Roads in Chowiswadi Gaothan Area</i>				
40	24m wide DP Road from Southern Boundary of Dudulgaon to Expressway	1.35	24	Missing DP
41	24m wide DP Road connecting Pune-Alandi road at Southern Boundary of Chowiswadi to Eastern Moshi Boundary	1.8	24	Missing DP
42	Pune – Nashik Road in Chowiswadi Gaothan Limits	1.2	60	
43	Road connectig Pune-Alandi Road & Charoli Gaon (Within Chowiswadi gaothan limits)	0.9	30	
<i>Roads in Charoli Gaothan Area</i>				
44	30m/18m wide road in Charoli Bk Gaothan area connecting East & West boundary (further goes to Lohegaon) with a Bypass (18m) to the Village adjacent to Indrayani River.	4.7	30/18	Partially Missing
45	24m/30m wide DP road connecting Northern Boundary through Expressway (Bisecting the Charoli Gaon) to Southern Boundary	5	24/30	Missing DP
46	30m wide DP road running parallel to Eastern Boundary through Expressway .	2.9	30	Missing DP
Roads in PCMC Area (Old Limit)				
47	Mumbai - Pune Road (NH-4) in PCMC Limits	11	61/42	
48	TELCO Road (Including length in PCNTDA Limits)	10.1	61/24/45	
49	New 45m Wide DP Road From Mumbai - Pune Highway (NH-4) at Kasarwadi (Nashik Phata) to Westerly Bypass (running Parallel to HCMTR from Pimple Gurav to Rahatni).	5.6	45	Missing DP
50	Road connecting Mumbai-Pune Road (NH-4) to TELCO Road.(Part of MDR-31)	2	30	
51	Road connecting Mumbai-Pune Road (NH-4) at Vallabh Nagar Junction thru' Nehru Nagar to TELCO Road at Yeshvant Nagar .	3.1	25	
52	Road connecting Mumbai-Pune Road (NH-4) at Pimpri Chowk to Nehru Nagar.	1.65	20	
53	Road Connecting Dange Chowk to Mumbai - Pune Road (NH-4) - Part of MDR -31.	4.5	45/25	
54	Road Connecting Pimpri Bazar to SH-56 (Old Mumbai - Pune Road) through Kalewadi.	3.5	18	
55	45m Wide DP Road from TELCO chowk to Boundary of Chikhali (Near Jadhav vadi) - Part	3	45	

Sl.	Name of Road	Length (Km)	DP Width (m)	Remarks
	Length being Developed by PCNTDA			
56	30m DP Road from Khandoba Chowk at Akurdi to Krantivir Chaphekar Chowk	2.35	31	
57	45m Wide DP Road from TELCO Chowk to Pawana Bank at Chinchwad Thru' Premier Factory	3.3	45	Partly Missing
58	New 30m DP road for Dapodi	1.35	30	Partly Missing
59	30m DP Road from Mumbai - Pune Highway (NH-4) at Dapodi to PCMC Boundary at Sangvi.	1.2	30	
60	HCMTR Corridor from Dapodi to Rahatni - Ist Segment.	5.2	30	Missing DP
61	HCMTR Corridor from Dapodi to MIDC at Northern PCMC Boundary - IInd Segment.	8.2	30	Missing DP
Total Length Of Major Road		190.36		
62	Length of Expressway (from Kiwale to South - Eastern Boundary of Charoli)	Approx. 26 Kms	90	Proposed

1.5. ELECTRICITY DEPARTMENT

Results of Energy Savings by all departments of PCMC

After the implementation of energy saving measures, PCMC has been successful in saving energy worth Rs.14.30 crores during the last four years (i.e. 2002 to 2005).

Year	Street lighting	Water Works	STPs	Admn and YMCA bldgs	Total Energy Savings
2001-02	257.451	0	0	1.63	259.08
2002-03	321.87	13.57	26.57	27.05	389.06
2003-04	251.41	47.58	50.30	24.63	373.92
2004-05	220.03	75.70	87.50	24.00	407.23
Total	1050.77	136.85	164.37	77.31	1429.29

Note: All figures are in Rs. lakhs

In lieu of its efforts, PCMC received the first prize in energy conservation for the year 2003 from MEDA as well as a prize in the same year from the Govt. of Maharashtra under the Rajiv Gandhi Abhiyan.



1.6. MUNICIPAL SERVICES - EXISTING SERVICE LEVELS/ INDICATORS

A Water Supply				
1	Source of Water			
	i	Surface/ Sub-Surface/ Both	Surface	Pawana River
2	Scheme-wise Water Supply Details			Own Scheme
	i	Quantity Supplied (MLD)	228.00	Every day
	ii	Distance of the Source from Town (Kms)	46.00	
	iii	Treatment Plant capacity (MLD)	228.00	
3	Distribution System based on (Pumping/ Pumping Gravity)			Pumping & Gravity
4	Length of Pipe Lines (Transmission Network)			13.17 Kms.
	Length of Pipe Lines (Distribution Network)			721.73 Kms.
5	Storage Reservoirs			<i>Nos.</i>
	Over Head Tanks (OHT)			48
	Ground Level Reservoirs (GLR)			14
6	No. of House Service Connections			<i>Metered</i>
	i	Residential	298	<i>Un-metered</i>
	ii	Commercial & Industrial	1,550	82,496
	iii	Industrial		125
7	Public Stand Posts & Hand Pumps			
	i	Deep Bore Wells	929	
	ii	No. of Public Fountains (Stand Posts)	1376	
	iii	No. of Public Fountains (Stand Posts) in Slums		
	iv	No. of Hand Pumps in Slums	774	
8	Water Tariff Details			<i>Rs. Per 1000 litres</i>
	i	Residential	3.3	<i>Flat Rate Rs/month</i>
	ii	Non Domestic/ Commercial & Industrial	28	66
	iii	Industrial		410
9	New Connection Fee/ Deposit (in Rupees/Connection)			
	i	Residential	6500	
	ii	Non Domestic/ Commercial & Industrial	9000	
	iii	Industrial		
10	Water Supply Indicators			<i>Value</i>
	a	Gross Daily Per Capita Supply-Year 2006	185	<i>Unit</i>
	b	% Roads Covered with Distribution Network	94.7	Litres
	c	% Elevated Storage capacity w.r.t Supply	28.7	%
	d	% Total Storage capacity w.r.t Supply	32.2	%
	e	% Treatment capacity available	100.0	%
	f	% Assessment Covered by House Service Connections	41.1	%
	g	% Non Domestic Connections	2.0	%
	h	Slum Population per Public Stand Post/ Hand pump	185	Persons
B Sewerage and Sanitation				
1	Quantum of Sewerage Generation			80.00 % of net Water Supply
2	Do you have an Under Ground Drainage System?			YES



		If Yes, length of UGD Network	615.00	Kilometers
		Capacity of Treatment Plant	157.00	MLD
3	Number of Connections			
	i	Residential	3,446.00	
	ii	Non Domestic/Commercial	-	
	iii	Industrial		
4	Sewer Charge Details		Rs./Month/Co nnection	
	i	Residential	-	
	ii	Non Domestic/Commercial	-	
	iii	Industrial		
5	New Connection Fee/Deposit		Rupees/Conne ction	
	i	Residential	150.00	
	ii	Non Domestic/Commercial	150.00	
	iii	Industrial		
6	No. of Households with Septic Tank			
7	No. of Households with LCS		1563	
8	Public Conveniences		Free	Pay & Use
	i	Number of Units in Slums		
	ii	Total No. of Seats in Slums	1716	
	iii	Total Number of Units		705
	iv	Total No. of Seats	6052	11358
9	Indicators		Value	Unit
	a	% Roads Covered by UGD Network	80.7	%
	b	% of Treatment capacity w.r.t water Supplied	68.9	%
	c	% Water Supply Connection having access to UGD	4.1	%
	d	% Assessment having access to UGD facility	1.7	%
	e	% Population Covered by UGD (Year 2006)	50.0	%
	f	% Assessment Covered with Septic tanks	NA	%
	g	% Assessment Covered with LCS	0.8	%
	h	% Assessment Covered with safe Disposal facility- Total	2.4	%
	i	Slum Population per Seat of Public Convenience	83	Persons
	j	% Seats under Pay & Use category	0.0	%
C	Roads & Drains			
1	Area under Roads (% of Urbanisable area)		3.89 Sq.km	
2	Maintained by Local Body (Km)		As on 31/3/05	
	a	Concrete	4.95	
	b	BT	667.00	
	c	WBM	85.00	
	d	Stone Slab		
	e	Gravel & Earthen		
	f	Earthen		
	Total		756.95	
5	Storm Water Drains (Length in Km)		As on 31/3/05	
	a	Kutchra Drains	7.38	
	b	Pucca Drains	330.68	
	c	Pucca Closed Drains	31.02	



	d	Other Water Channels maintained by PWD	35.00	
6	Indicators		Value	Unit
	a	% Municipal Roads Surfaced	88.8	%
	d	% Road Length Covered with Storm Water Drainage	48.4	%
	e	% Road Length Covered with Pucca Drains	47.5	%
	f	% Pucca Drains (Open & Closed) against total Drain length	98.0	%
D Street Lighting				
1	Number of Lights by Type		As on 31/3/2005	
	a	Tube lights	5,861	
	b	Sodium Vapour Lamps	31,036	
	c	Mercury Lamps	159	
	d	Focus/ Halogen Lamps	-	
	e	High Mast Lamps	50	
	f	Others	677	
	Total		37783	
2	Indicators		Value	Unit
	a	Spacing Between Lamp Posts (meters)	20.2	
	b	% Tube Light	15.5	%
	c	% High Power	82.7	%
	d	% Other Lights	1.8	%
E Solid Waste Management				
1	Waste Generated per day		490	Metric Tonnes
2	Waste Collected per day		440	Metric Tonnes
	i	% Roads where Collection is Privatised/ Door-to-Door Collection introduced	50	%
	ii	% HHs covered under Door-to-Door Collection by Non-Municipal Agencies	60	%
	iii	% HHs covered under Door-to-Door Collection by Municipality	5	%
3	Number of Dust Bins		1499	
4	Number of Wheel Barrows		300	
5	Number of Hand Carts		-	
6	Number of Disposal Yards		1	
7	Total Area of Disposal Yards		61.78	Acres
8	Avg.distance of disposal yard from Town Centre		15	Kms.
9	Whether garbage is merely dumped		YES	
10	Conservancy Vehicles Details		No. of Vehicles	Rated Capacity/ Vehicle
	i	Trucks	40	5.0
	ii	Medium Trucks	8	3.0
	iii	Bulk Refuse Carriers (BRC)	4	12.0
	iv	Small Trucks	2	2.0
	v	Loaders	-	
	vi	Compactors	-	



	vii	Dumper Placer	18	1.5
	viii	Dual Loaded Dumper Placers	2	1.0
11		Average No. of Trips per day	3.11	
12		Indicators	Value	Unit
	1	Waste Generated per capita (2006)	398	Grams
	2	% Waste Collected as per LBs Estimate	89.8	%
	3	% Waste Collected as per available capacity	67.7	%
	4	% Households covered by Door-to-Door Collection by Private Sector	60.0	%
	5	% Households covered by Door-to-Door Collection by Municipality	5.0	%
	6	Road length per Conservancy Staff	697	Meters
	7	Total Rated Capacity of Vehicles	305	Tonnes
	8	% Rated capacity to waste Generated	62.2	%
	9	No. of Trips per Vehicle/day	3	Nos.
	10	Average Spacing Between Dustbins	254	Meters
	11	Area Coverage per Collection Point	0.11	Sq.Km
	12	Mode of Disposal	Dumping	

ANNEXURE 2. MUNICIPAL FINANCES

2.1. INCOME AND EXPENDITURE STATEMENT

S. No. Head of Account	<i>Income and Expenditure Statement</i>				
	2000-01	2001-02	2002-03	2003-04	2004-05
Opening Balance	2,281.00	659.59	(1,803.41)	4,252.59	9,426.08
<i>Rupees Lakh</i>					
Summarised Financial Statement					
Part I - Revenue					
I Revenue Income					
A Own Sources	21,299.00	21,082.00	32,742.00	36,017.49	45,752.69
Octroi	14,696.00	14,917.00	25,631.00	28,968.49	37,680.69
Tax Revenue	1,639.00	2,163.00	2,237.00	2,363.00	2,596.00
Non Tax Revenue	4,964.00	4,002.00	4,874.00	4,686.00	5,476.00
B Assigned Rev, Grants & Contributions	398.00	313.00	118.00	247.00	385.00
Total Revenue Income	21,697.00	21,395.00	32,860.00	36,264.49	46,137.69
II Revenue Expenditure					
A Salaries/ Wages	9,330.34	10,060.04	11,338.83	12,323.90	12,734.14
General Account	4,828.16	5,267.00	5,925.49	6,574.77	6,805.94
Urban Poor	3,877.96	4,091.04	4,726.34	4,921.13	5,074.33
Water & Sewerage Account	624.22	702.00	687.00	828.00	853.87
B Operation & Maintenance	4,916.91	5,262.96	5,014.17	6,636.10	7,469.19
General Administration & Tax Collection	712.79	847.59	772.91	1,132.65	1,264.69
Water Supply	1,691.22	1,731.00	1,515.00	1,703.00	1,861.39
Sewerage & Sanitation	216.69	322.00	291.00	296.25	406.28
Conservancy/ Solid Waste Management	345.63	424.00	526.55	664.00	726.92
Public Works (Roads, Drains & Bldgs)	23.59	22.00	19.80	34.13	55.20
Street Lighting	836.79	612.00	526.00	568.00	683.40
Urban Poor	803.70	969.51	1,036.79	1,875.09	2,074.81
Town Planning	38.78	26.00	38.87	38.44	32.49
Miscellaneous (Fire/ Libraries/ Gardens/ Markets/ S	247.72	308.86	287.25	324.54	364.01
C Contributions/ Donations	37.16	24.00	55.00	16.00	39.67
D Transfers to PCMT	660.00	580.00	908.00	465.00	1,628.00
E Debt Servicing	-	-	-	-	-
Total Revenue Expenditure	14,944.41	15,927.00	17,316.00	19,441.00	21,871.00
Operating Status - Revenue Account	6,752.59	5,468.00	15,544.00	16,823.49	24,266.69
Part II - Capital					
I Capital Income					
A Own Sources	462.00	478.00	471.00	330.00	500.00
B Loans	-	-	-	-	-
C Grants & Contributions	72.00	3.00	96.00	210.00	603.00
Total Capital Income	534.00	481.00	567.00	540.00	1,103.00
II Capital Expenditure					
A Water and Sewerage	2,808.00	3,832.00	2,826.00	2,972.00	3,917.00
B Buildings	448.00	380.00	305.00	140.00	332.00
C Roads & Traffic	2,401.00	2,156.00	2,300.00	3,602.00	3,625.00
D River Improvement and Garden	251.00	331.00	300.00	286.00	318.00
E Street Lighting	1,401.00	1,401.00	1,165.00	1,445.00	2,231.00
F Slums & Social Welfare	562.00	459.00	593.00	701.00	873.00
G Others	1,547.00	2,433.00	2,452.00	3,259.00	9,241.00
Total Capital Expenditure	9,418.00	10,992.00	9,941.00	12,405.00	20,537.00
Utilisation Status - Capital Account	(8,884.00)	(10,511.00)	(9,374.00)	(11,865.00)	(19,434.00)
Part III - Suspense					
Total Suspense Income	7,578.00	7,781.00	7,477.00	6,840.00	8,518.00
Total Suspense Expenditure	7,068.00	5,201.00	7,591.00	6,625.00	7,366.00
Status - Suspense Account	510.00	2,580.00	(114.00)	215.00	1,152.00
Summary					
Opening Balance	2,281.00	659.59	(1,803.41)	4,252.59	9,426.08
Grand Total Income	29,809.00	29,657.00	40,904.00	43,644.49	55,758.69
Grand Total Expenditure	31,430.41	32,120.00	34,848.00	38,471.00	49,774.00
Current year Status	(1,621.41)	(2,463.00)	6,056.00	5,173.49	5,984.69
Closing Balance	659.59	(1,803.41)	4,252.59	9,426.08	15,410.77



2.2. SECTORAL CONTRIBUTION/ SHARE

S. No. Head of Account	Sectoral Contribution/ Share					
	2000-01	2001-02	2002-03	2003-04	2004-05	Avg (2000-01 to 2004-05)
Opening Balance	<i>Percentage</i>					
Summarised Financial Statement						
Part I - Revenue						
I Revenue Income						
A Own Sources	98.17	98.54	99.64	99.32	99.17	98.97
Octroi	67.73	69.72	78.00	79.88	81.67	75.40
Tax Revenue	7.55	10.11	6.81	6.52	5.63	7.32
Non Tax Revenue	22.88	18.71	14.83	12.92	11.87	16.24
B Assigned Rev, Grants & Contributions	1.83	1.46	0.36	0.68	0.83	1.03
Total Revenue Income	100.00	100.00	100.00	100.00	100.00	100.00
II Revenue Expenditure						
A Salaries/ Wages	62.43	63.16	65.48	63.39	58.22	62.54
General Account	32.31	33.07	34.22	33.82	31.12	32.91
Urban Poor	25.95	25.69	27.29	25.31	23.20	25.49
Water & Sewerage Account	4.18	4.41	3.97	4.26	3.90	4.14
B Operation & Maintenance	32.90	33.04	28.96	34.13	34.15	32.64
General Administration & Tax Collection	4.77	5.32	4.46	5.83	5.78	5.23
Water Supply	11.32	10.87	8.75	8.76	8.51	9.64
Sewerage & Sanitation	1.45	2.02	1.68	1.52	1.86	1.71
Conservancy/ Solid Waste Management	2.31	2.66	3.04	3.42	3.32	2.95
Public Works (Roads, Drains & Bldgs)	0.16	0.14	0.11	0.18	0.25	0.17
Street Lighting	5.60	3.84	3.04	2.92	3.12	3.71
Urban Poor	5.38	6.09	5.99	9.65	9.49	7.32
Town Planning	0.26	0.16	0.22	0.20	0.15	0.20
Miscellaneous (Fire/ Libraries/ Gardens/ Markets/ S)	1.66	1.94	1.66	1.67	1.66	1.72
C Contributions/ Donations	0.25	0.15	0.32	0.08	0.18	0.20
D Transfers to PCMT	4.42	3.64	5.24	2.39	7.44	4.63
E Debt Servicing	-	-	-	-	-	-
Total Revenue Expenditure	100.00	100.00	100.00	100.00	100.00	100.00
Operating Status - Revenue Account						
Part II - Capital						
I Capital Income						
A Own Sources	86.52	99.38	83.07	61.11	45.33	75.08
B Loans	-	-	-	-	-	-
C Grants & Contributions	13.48	0.62	16.93	38.89	54.67	24.92
Total Capital Income	100.00	100.00	100.00	100.00	100.00	100.00
II Capital Expenditure						
A Water and Sewerage	29.82	34.86	28.43	23.96	19.07	27.23
B Buildings	4.76	3.46	3.07	1.13	1.62	2.81
C Roads & Traffic	25.49	19.61	23.14	29.04	17.65	22.99
D River Improvement and Garden	2.67	3.01	3.02	2.31	1.55	2.51
E Street Lighting	14.88	12.75	11.72	11.65	10.86	12.37
F Slums & Social Welfare	5.97	4.18	5.97	5.65	4.25	5.20
G Others	16.43	22.13	24.67	26.27	45.00	26.90
Total Capital Expenditure	100.00	100.00	100.00	100.00	100.00	100.00

2.3. GROWTH TRENDS OF INCOME AND EXPENDITURE

S. No. Head of Account	Trends in Income & Expenditure					
	2000-01 to 2001-02	2001-02 to 2002-03	2002-03 to 2003-04	2003-04 to 2004-05	SAGR (2000 01 to 2004-05)	CAGR (2000-01 to 2004-05)
Opening Balance	<i>Percentage per Annum</i>					
Summarised Financial Statement						
Part I - Revenue						
I Revenue Income						
A Own Sources	(1.0)	55.3	10.0	27.0	22.8	21.1
Octroi	1.5	71.8	13.0	30.1	29.1	26.5
Tax Revenue	32.0	3.4	5.6	9.9	12.7	12.2
Non Tax Revenue	(19.4)	21.8	(3.9)	16.9	3.9	2.5
B Assigned Rev, Grants & Contributions	(21.4)	(62.3)	109.3	55.9	20.4	(0.8)
Total Revenue Income	(1.4)	53.6	10.4	27.2	22.4	20.8
II Revenue Expenditure						
A Salaries/ Wages	7.8	12.7	8.7	3.3	8.1	8.1
General Account	9.1	12.5	11.0	3.5	9.0	9.0
Urban Poor	5.5	15.5	4.1	3.1	7.1	7.0
Water & Sewerage Account	12.5	(2.1)	20.5	3.1	8.5	8.1
B Operation & Maintenance	7.0	(4.7)	32.3	12.6	11.8	11.0
General Administration & Tax Collection	18.9	(8.8)	46.5	11.7	17.1	15.4
Water Supply	2.4	(12.5)	12.4	9.3	2.9	2.4
Sewerage & Sanitation	48.6	(9.6)	1.8	37.1	19.5	17.0
Conservancy/ Solid Waste Management	22.7	24.2	26.1	9.5	20.6	20.4
Public Works (Roads, Drains & Bldgs)	(6.7)	(10.0)	72.4	61.7	29.3	23.7
Street Lighting	(26.9)	(14.1)	8.0	20.3	(3.2)	(4.9)
Urban Poor	20.6	6.9	80.9	10.7	29.8	26.8
Town Planning	(33.0)	49.5	(1.1)	(15.5)	(0.0)	(4.3)
Miscellaneous (Fire/ Libraries/ Gardens/ Markets/ S	24.7	(7.0)	13.0	12.2	10.7	10.1
C Contributions/ Donations	(35.4)	129.2	(70.9)	147.9	42.7	1.6
D Transfers to PCMT	(12.1)	56.6	(48.8)	250.1	61.4	25.3
E Debt Servicing	-	-	-	-	-	-
Total Revenue Expenditure	6.6	8.7	12.3	12.5	10.0	10.0
Operating Status - Revenue Account						
Part II - Capital						
I Capital Income						
A Own Sources	3.5	(1.5)	(29.9)	51.5	5.9	2.0
B Loans	-	-	-	-	-	-
C Grants & Contributions	(95.8)	3,100.0	118.8	187.1	827.5	70.1
Total Capital Income	(9.9)	17.9	(4.8)	104.3	26.9	19.9
II Capital Expenditure						
A Water and Sewerage	36.5	(26.3)	5.2	31.8	11.8	8.7
B Buildings	(15.2)	(19.7)	(54.1)	137.1	12.0	(7.2)
C Roads & Traffic	(10.2)	6.7	56.6	0.6	13.4	10.8
D River Improvement and Garden	31.9	(9.4)	(4.7)	11.2	7.3	6.1
E Street Lighting	-	(16.8)	24.0	54.4	15.4	12.3
F Slums & Social Welfare	(18.3)	29.2	18.2	24.5	13.4	11.6
G Others	57.3	0.8	32.9	183.6	68.6	56.3
Total Capital Expenditure	16.7	(9.6)	24.8	65.6	24.4	21.5

2.4. PER-CAPITA INCOME AND EXPENDITURE

S. No.	Head of Account	Per-Capita Income & Expenditure						CAGR in Per Capita Amounts (% p.a)
		2000-01	2001-02	2002-03	2003-04	2004-05	Avg (2000-01 to 2004-05)	
	Opening Balance	10.06	10.48	10.91	11.36	11.83	<----- Popl in Lakhs	
Summarised Financial Statement		<i>Rs. per Annum</i>						
Part I - Revenue								
I Revenue Income								
A Own Sources		2,116.3	2,011.8	3,000.9	3,170.4	3,867.9	2,833.5	16.3
Octroi		1,460.2	1,423.5	2,349.1	2,549.9	3,185.5	2,193.7	21.5
Tax Revenue		162.9	206.4	205.0	208.0	219.5	200.4	7.7
Non Tax Revenue		493.2	381.9	446.7	412.5	462.9	439.5	(1.6)
B Assigned Rev, Grants & Contributions		39.5	29.9	10.8	21.7	32.5	26.9	(4.8)
Total Revenue Income		2,155.9	2,041.7	3,011.7	3,192.1	3,900.5	2,860.4	16.0
II Revenue Expenditure								
A Salaries/ Wages		927.1	960.0	1,039.2	1,084.8	1,076.5	1,017.5	3.8
General Account		479.7	502.6	543.1	578.7	575.4	535.9	4.6
Urban Poor		385.3	390.4	433.2	433.2	429.0	414.2	2.7
Water & Sewerage Account		62.0	67.0	63.0	72.9	72.2	67.4	3.9
B Operation & Maintenance		488.6	502.2	459.6	584.1	631.4	533.2	6.6
General Administration & Tax Collection		70.8	80.9	70.8	99.7	106.9	85.8	10.8
Water Supply		168.0	165.2	138.9	149.9	157.4	155.9	(1.6)
Sewerage & Sanitation		21.5	30.7	26.7	26.1	34.3	27.9	12.4
Conservancy/ Solid Waste Management		34.3	40.5	48.3	58.4	61.5	48.6	15.7
Public Works (Roads, Drains & Bldgs)		2.3	2.1	1.8	3.0	4.7	2.8	18.8
Street Lighting		83.1	58.4	48.2	50.0	57.8	59.5	(8.7)
Urban Poor		79.9	92.5	95.0	165.1	175.4	121.6	21.7
Town Planning		3.9	2.5	3.6	3.4	2.7	3.2	(8.1)
Miscellaneous (Fire/ Libraries/ Gardens/ Markets/ S		24.6	29.5	26.3	28.6	30.8	28.0	5.7
C Contributions/ Donations		3.7	2.3	5.0	1.4	3.4	3.2	(2.4)
D Transfers to PCMT		65.6	55.3	83.2	40.9	137.6	76.5	20.4
E Debt Servicing		-	-	-	-	-	-	-
Total Revenue Expenditure		1,484.9	1,519.9	1,587.0	1,711.3	1,849.0	1,630.4	5.6
Operating Status - Revenue Account								
Part II - Capital								
I Capital Income								
A Own Sources		45.9	45.6	43.2	29.0	42.3	41.2	(2.0)
B Loans		-	-	-	-	-	-	-
C Grants & Contributions		7.2	0.3	8.8	18.5	51.0	17.1	63.4
Total Capital Income		53.1	45.9	52.0	47.5	93.2	58.3	15.1
II Capital Expenditure								
A Water and Sewerage		279.0	365.7	259.0	261.6	331.1	299.3	4.4
B Buildings		44.5	36.3	28.0	12.3	28.1	29.8	(10.9)
C Roads & Traffic		238.6	205.7	210.8	317.1	306.5	255.7	6.5
D River Improvement and Garden		24.9	31.6	27.5	25.2	26.9	27.2	1.9
E Street Lighting		139.2	133.7	106.8	127.2	188.6	139.1	7.9
F Slums & Social Welfare		55.8	43.8	54.3	61.7	73.8	57.9	7.2
G Others		153.7	232.2	224.7	286.9	781.2	335.7	50.1
Total Capital Expenditure		935.8	1,049.0	911.1	1,091.9	1,736.2	1,144.8	16.7

ANNEXURE 3. CITY INVESTMENT PLAN

3.1. DESIRED SERVICE LEVELS, SERVICE GAPS, COSTING AND INVESTMENT NEEDS

	Existing and Desired Level			Service Gap by Year 2031			Costing	
	Existing Level	Unit	Desired Level	Demand	Gap	Unit	Unit Cost	Investment Need
Pimpri-Chinchwad Municipal Corporation							<i>Rs. Lakhs</i>	<i>Rs. Lakhs</i>
A Water Supply								52,411.85
1 Daily Supply	185	Litres	185	537.94	119.94	MLD	80.00	9,594.80
2 Roads Covered with Distribution Network	95	%	100	1962.74	241.01	Km.	4.00	964.03
3 Elevated Storage capacity w.r.t Supply	29	%	33	179.31	53.81	ML	25.00	1,345.29
4 Treatment capacity	100	%	100	537.94	119.94	ML	35.00	4,197.73
5 Phase III Remaining Works						L.S	2,034.00	2,034.00
6 Raw Water Transmission system						L.S	20,713.00	20,713.00
7 Phase IV 100 MLD Augmentation						L.S	10,000	10,000.00
8 Refurbishment of Old Distribution Network						L.S	1,063	1,063.00
9 Metering System						L.S	2,500	2,500.00
B Sewerage and Sanitation								33,805.95
1 Under Ground Drainage								
1 Population Coverage	50	%	70	2035430	1419614	Persons		
2 UGD Network/ Road Length Covered	81	%	85	1668.33	1053.33	km.	18.00	18,959.86
3 Sewerage Treatment (Against generation)	86	%	100	430.35	273.35	ML	52.00	14,214.10
4 Installation of Pumping Machinery - Rs					105	No.	6.00	632.00
2 Slum Population per Seat of Public Convenience (2011)	83	Persons	60	0	0	Seat	0.20	-
					0	Units (P&U)		

Contd..



Pimpri-Chinchwad Municipal Corporation	Existing and Desired Level			Service Gap by Year 2031			Costing	
	Existing Level	Unit	Desired Level	Demand	Gap	Unit	Unit Cost	Investment Need
							<i>Rs. Lakhs</i>	<i>Rs. Lakhs</i>
C Urban Roads, Transport & Traffic								211,990.67
1 Road Length per Capita	0.62	meters	1.50					
2 % Town Area under Roads/ Circulation	3.89	%	9.63					
3 Average Road Width	4.64	meters	7.00					
4 Distribution of Road by Type								
i Concrete	1	%	10	196.27	191.32	km.		
ii Black Top	88	%	90	1766.46	1099.46	km.		
iii WBM	11	%	0	0.00	-85.00	km.		
iv Cut Stone/ Earthen/Others	0	%	0	0.00	0.00	km.		
Total Municipality Road Length				1962.74	1205.79	km.		
5 Upgradation								
i BT to Concrete					95.66	km.	75.00	7,174.63
ii WBM to Black Top					85.00	km.	12.00	1,020.00
iii Earthen to Black Top					0.00	km.	16.00	-
6 New Formation								
i Concrete					95.66	km.	60.00	5,739.71
ii Black Top					1014.46	km.	15.00	15,216.94
iii WBM					0.00	km.	8.50	-
7 Widening/ Strengthening & Other Improvements					410.04	km.	60.00	24,602.39
8 Public Transport/ Improvements/ Trams/ BRTS						L.S	60000.00	60,000.00
9 Improvements to identified 14 Major Roads					101.28	km.	440.00	44,561.00
14 Roads (ROB/ Fly-overs/ Elevated Roads)					11	Nos.	1750.00	19,250.00
14 Roads (Minor bridges/ Subways)					5	Nos.	950.00	4,750.00
Utility Shifting for Road Improvements						L.S	0.00	-
10 Land Acquisition for Road Improvements						L.S	28176.00	28,176.00
11 Traffic Management/ Junction Improvements					10	Nos.	150.00	1,500.00

Contd..



Pimpri-Chinchwad Municipal Corporation	Existing and Desired Level			Service Gap by Year 2031			Costing	
	Existing Level	Unit	Desired Level	Demand	Gap	Unit	Unit Cost	Investment Need
							<i>Rs. Lakhs</i>	<i>Rs. Lakhs</i>
D Storm Water Drains								39,574.14
1 Road Length Covered with Drains	48	%	150	2944.10	2575.02	km.		
2 Distribution by Type								
i Kutcha Open	2	%	0	0.00	0.00	km.		
ii Pucca Open	90	%	20	588.82	258.14	km.		
iii Pucca Closed	8	%	80	2355.28	2324.26	km.		
3 Desilting & Strengthening of Primary Drains			100	35.00	35.00	km.	5.00	175.00
4 Upgradation						km.		
i Kutcha to Pucca Open					7.38	km.	8.50	62.73
ii Pucca Open to Pucca Closed					330.68	km.	10.00	3,306.80
5 New Pucca Open Drains					581.44	km.	12.25	7,122.65
6 New Pucca Closed Drains					1993.58	km.	14.50	28,906.96
E Street Lighting								2,330.27
1 Spacing Between Lamp Posts	20	meters	30	65425	27642	Nos.		
2 Distribution by Type							Rupees per Fixture	
i Tube Light	16	%	5	3271	0	Nos.	4,000.00	-
ii High Power	84	%	93	60845	28973	Nos.	7,500.00	2,172.96
iii High Mast Lamps	0	%	2	1308	1258	Nos.	12,500.00	157.31
F Solid Waste Management								5,045.30
1 Waste Generated per capita	398	Grams	398	809		Tonne		
2 Collection Performance	67.7	%	100					
3 Density Factor		Ratio	0.35					
4 No. of Trips per Vehicle/ day	3.11	Nos.	3.11					
5 Vehicle Capacity Required (Vehivle Carrying Capacity)				743.44	438.44	Tonne	2.50	1,096.10
Hand Carts required for municipality (@ Privatisation of 8	5	% HHs	20	1200	900	Nos.	0.03	27.00
6 Disposal Site	61.78	Acres		157.43	95.65	Acres	10.00	956.53
Land Fill Infrastructure (as per CPHEEO Standards)		%	67		335.52	Tonne/ Day	7.50	2,516.42
Composting Plant		%	33		165.26	Tonne/ Day	2.00	330.51
7 Secondary Collection (Area Coverage)	0.11	Sq. Km	0.16					
1 Container Bins (2.5 T) Capacity (Additional 5 bins for servicing)				1055	0	Nos.	0.25	-
2 Dual Loaded Dumper Placers		No. of Trips	3	44	24	Nos.	5.00	118.74



Pimpri-Chinchwad Municipal Corporation	Existing and Desired Level			Service Gap by Year 2031			Costing	
	Existing Level	Unit	Desired Level	Demand	Gap	Unit	Unit Cost	Investment Need
							<i>Rs. Lakhs</i>	<i>Rs. Lakhs</i>
G Urban Poor/ Slums' Improvement								23,056.00
1 As Identified by the ULB								
i Slum Improvement - Rehabilitation/ Housing					6737	L.S	20733.00	20,733.00
ii Slum Improvement - Infrastructure						L.S	2323.00	2,323.00
iii Slum Improvement (SRA) - Infrastructure						L.S	0.00	-
iv Slum Improvement (non-SRA) - Land Acquisition						L.S	0.00	-
H Land use/ Development Plan								9,638.13
1 Acquisition of Reserved lands					767.05	Acres	12.50	9,588.13
2 Existing Land use Survey (GIS based)						L.S	50.00	50.00
3 Others						L.S	0.00	-
I Other Projects								63,749.00
1 As Identified by the ULB								
a River Conservation/ Protection						L.S	37800.00	37,800.00
b Tree Plantation & Gardens						L.S	4423.00	4,423.00
c Stadium						L.S	8562.00	8,562.00
d Night Shelters/ Travellers Bungalows					5	Nos.	30.00	150.00
e Eco. Infra/ Relocations/ Truck Terminals						L.S	5000.00	5,000.00
f Urban Governance/ E-Governance/ GIS						L.S	1604.00	1,604.00
g Others (System Studies etc)					6	Nos.	35.00	210.00
h Regular Capital Works						L.S	6000.00	6,000.00
Total Investment Identified								441,601.30



3.2. CITY INVESTMENT PLAN – PHASING OF INVESTMENT TILL 2011-12

Sector/ Component	Investment till 2011-12	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
	(Rs. Lakhs)						
Water Supply	36,503	3,272	11,165	13,140	8,733	96	96
1 Phase III Remaining Works	2,034	2,034	-	-	-	-	-
2 Raw Water Transmission system	20,713	-	6,190	8,815	5,708	-	-
3 Phase IV 100 MLD Augmentation	10,000	-	3,900	3,700	2,400	-	-
4 Refurbishment of Distribution Network	1,063	613	450	-	-	-	-
5 Metering System	2,500	625	625	625	625	-	-
6 Distribution Network Augmentation	193	-	-	-	-	96	96
Sewerage & Sanitation	20,119	3,103	4,160	3,582	1,502	3,887	3,887
1 UGD - Network	12,490	1,755	1,920	894	337	3,792	3,792
2 UGD - STPs	7,039	1,298	2,040	2,538	1,164	-	-
3 UGD - Pumping Machinery	590	50	200	150	-	95	95
4 Public Convenience Systems	-	-	-	-	-	-	-
Roads & Urban Transport	205,891	32,427	50,417	49,265	40,458	26,580	6,743
1 Roads Upgradation	8,195	408	2,868	2,766	2,152	-	-
2 Roads New Formation	14,857	-	2,283	3,143	3,143	3,143	3,143
3 Roads Widening & Strengthening	24,602	7,381	4,920	-	7,381	4,920	-
4 Public Transport/ Improvements/ BRTS	60,000	-	12,000	18,000	18,000	12,000	-
5 Road Infra Dev (14 Imp. Roads)	68,561	13,368	19,368	16,903	9,256	6,066	3,600
6 Land Acquisition for Road Improvements	28,176	11,270	8,453	8,453	-	-	-
7 Traffic Management/ Jn. Improvements	1,500	-	525	-	525	450	-
Drains	32,368	1,348	8,494	9,937	4,671	3,959	3,959
1 Drains Upgradation	3,370	1,348	1,179	842	-	-	-
2 Drains New Formation	28,824	-	7,227	9,007	4,671	3,959	3,959
3 Desilting & Strengthening of Primary Drains	175	-	88	88	-	-	-

Contd..



Sector/ Component	Investment till 2011-12	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
	(Rs. Lakhs)			(Rs. Lakhs)			
Street Lights	1,787	326	389	217	217	264	373
1 Tube Lights	-	-	-	-	-	-	-
2 High power Lamps	1,630	326	326	217	217	217	326
3 High Mast Lamps	157	-	63	-	-	47	47
Solid Waste Management	3,152	80	2,537	50	50	80	354
1 New Vehicles	739	-	465	-	-	-	274
2 Acquiring New Disposal Site	957	-	957	-	-	-	-
3 Infrastructure at Disposal Site	1,337	50	1,085	50	50	50	50
4 DLDPs & Container Bins	119	30	30	-	-	30	30
Urban Poor/ Slums	23,056	2,984	5,187	4,449	4,171	4,344	1,920
1 Slum Improvement - Rehabilitation/ Housing	20,733	2,500	4,727	3,989	3,711	3,885	1,920
2 Slum Improvement - Infrastructure	2,323	483	460	460	460	459	-
3 Slum Improvement (SRA) - Infrastructure	-	-	-	-	-	-	-
4 Slum Improvement (non-SRA) - Land Acquisition	-	-	-	-	-	-	-
Land use/ Dev. Planning	9,638	1,918	2,447	2,397	2,397	479	-
1 Acquisition of Reserved lands	9,588	1,918	2,397	2,397	2,397	479	-
2 Existing Land use Survey (GIS based)	50	-	50	-	-	-	-
2 Others	-	-	-	-	-	-	-
Others	63,749	7,686	11,621	16,390	14,597	11,264	2,190
1 River Conservation/ Protection	37,800	5,300	8,000	9,900	8,500	6,100	-
2 Tree Plantation & Gardens	4,423	1,013	953	922	675	472	388
3 Stadium	8,562	-	-	2,997	2,997	2,569	-
4 Night Shelters/ Travellers Bungalows	150	-	45	-	53	-	53
5 Eco. Infra/ Relocations/ Truck Terminals	5,000	-	1,250	1,250	1,000	750	750
6 Urban Governance/ E-Governance/ GIS	1,604	321	321	321	321	321	-
7 Others (System Studies etc)	210	53	53	-	53	53	-
8 Regular Capital Works	6,000	1,000	1,000	1,000	1,000	1,000	1,000
Total	396,263	53,143	96,417	99,428	76,797	50,954	19,524



3.3. PROJECT DETAILS – WATER SUPPLY

Project Investment Phasing for Water Supply Projects

Name of Work		Total Cost	2006-07	2007-08	2008-09	2009-10
Phase III Remaining works		20.34	20.34			
1	Designing & constructing ESR of 15 lakhs litre capacity & sump of 6 lakh @ Kala Kadhak at Wakad	1.00	1.00			
2	Providing & Supplying ,L / L 500 mm dia M.S pipe line from Pimple Saudagar Brige to S,No.72 Pimple Gurar ESR.	2.60	2.60			
3	Providing & Supplying ,L / L 500 mm dia M.S pipe line from S,No.72 Pimple Gurar ESR to New Sangvi ESR.	1.75	1.75			
4	Providing & Supplying ,L / L 600 mm dia M.S pipe line from Jijamata Hospital to Majula park.	1.10	1.10			
5	Designing & constructing ESR of 15 lakhs litre capacity @ S.no. 78 Pimple Gurav..	0.50	0.50			
6	Shifting of Pipeline from Pawar Bridge to Dange Chowk Road (Vision 2005)	4.00	4.00			
7	Shifting of Pipeline from Dange Chowk to Kalewadi phata (Vision 2005)	2.75	2.75			
8	Moshi to Charholi Pipe line	2.72	2.72			
9	Charholi ESR S.No. 133	1.52	1.52			
10	Pure water gravity main from S1, to Punawale ESR.	2.00	2.00			
11	R.C.C. ESR @ Punawale capacity 12 lac litres & 19 m staging height	0.40	0.40			
Raw water Trassmission system		207.13	-	61.90	88.15	57.08
1	2500 mm Dia MS pipe lines from Intake to Master Storage Reservoir	6.65		6.65		
2	2 No.s of 1800 mm Dia from Storage Reservoir to WTP at PCMC (Sector 23)	116.80		38.93	38.93	38.93
3	Master Storage Reservoir construction at Pawana Dam	2.30		2.30		
4	Storage Reservoir at Ravet	2.00			2.00	
5	Refurbishment of Ravet Pumping Station	17.00			8.50	8.50
6	1300 mm Dia MS pipelines from Ravet PS to WTP	9.40			4.70	4.70
7	Intake works and Pumping Station at Pawana Dam	18.13		9.07	9.07	
8	Electrical and Mechanical works at PS at Pawana Dam	20.00			20.00	
9	Contingencies	14.85		4.95	4.95	4.95



Name of Work		Total Cost	2006-07	2007-08	2008-09	2009-10
100MLD Augmentation (Phase IV)		100.00	-	39.00	37.00	24.00
1	Augmentation works at PCMC Water Works for 100 MLD	5.00		5.00		
2	Construction of WTP (100 MLD)	10.00		6.00	4.00	
3	Installation of pumping Machinery	5.00			5.00	
4	Laying Distribution Network	80.00		28.00	28.00	24.00
Replacement of old pipe line		10.63	6.13	4.50	-	-
1	16.40 Km in Ward A	1.50	1.50			
2	8.50 Km in Ward B	1.35		1.35		
3	16.25 Km in Ward C	1.48	1.48			
4	29.10 Km in Ward D	6.30	3.15	3.15		
Metering system		25.00	6.25	6.25	6.25	6.25
Total		363.10	32.72	111.65	131.40	87.33

3.4. PROJECT DETAILS – SEWERAGE

Project Investment Phasing for Water Supply Projects

Name of Work	Description of Quantities	Cost in Lakhs	2006-07	2007-08	2008-09	2009-10	2010-11
Conveyance system							
a) Wakad, Pimple Nilakh Main Line	5000 Mtr.(800 to 1200 mm)	599	350	179	70	0	0
b) Chikhli Talawade Main Line	2600 Mtr.(600 to 800mm)	301	100	201	0	0	0
c) Dighi Main Line	4500 Mtr (300 to 450 mm)	306	250	56	0	0	0
d) Sangvi	2000Mtr.(300 to 600 mm)	100	0	25	75	0	0
e) MIDC	1800Mtr.(300 mm & above)	75	50	25	0	0	0
		1381	750	486	145	0	0
Rising Main							
a) Pimple Nilakh & Wakad	750 Mtr (250 mm)	35.00	35	0	0	0	0
b) Chikhali	2040 Mtr (450 mm)	98.93	25	73.93	0	0	0
		133.93	60	73.93	0	0	0
Sewage Treatment Plant							



Name of Work	Description of Quantities	Cost in Lakhs	2006-07	2007-08	2008-09	2009-10	2010-11
1) Pimple Nilakh	20 MLD	1075.00	860	215	0	0	0
2) Chinchwad	30 MLD	1750.00	437.5	875	437.5	0	0
3) Kasarawadi Phase III	40 MLD	2000.00	0	500	1000	500	0
5) New Village Rawet- Chikhali	15 MLD	1014.38	0	250	500	264.38	0
6) Sangvi	20 MLD	1200.00	0	200	600	400	0
	125 MLD	7039.38	1297.5	2040	2537.5	1164.38	0
Effluent Pumping							
Chikhali Scheme		400.00	50	200	150	0	0
Collection System							
	200mm Dia.						
1) Pimple Nilakh Wakad	40000 Mtr	657.61	400	200	57.61	0	0
2) Chikhali Tawalde	32000 Mtr	491.42	100	300	91.42	0	0
3) Dighi	34000 Mtr	510.00	300	210	0	0	0
4) Wakad New area	15000 Mtr	217.19	0	50	100	67.19	
5) Kiwale- Rawet	44000 Mtr	670.00	0	200	200	170	100
6) Sangvi	12000 Mtr	200.00	0	100	100	0	0
7) MIDC	32000 Mtr	645.00	145	300	200	0	0
		3391.22	945	1360	749.03	237.19	100
	Grand Total-	12345.53	3102.5	4159.93	3581.53	1401.57	100

3.5. PROJECT DETAILS - ROADS

Criteria adopted for Prioritisation of Roads

Sl.	Criteria	Scale	Points
1	Existing Congestion Index (V/C)	> 0.90 0.75 - 0.90 0.50 - 0.75 < 0.50	6 4 2 1
2	Improvement of LOS (D/C Improvement)	High (1.0 and above) Significant (0.5 to 1.0)	4 3



Sl.	Criteria	Scale	Points
		Moderate (0.3 - 0.5)	2
		Low (< 0.3)	1
3	Hierarchy of Road	Express Highway	4
		Main arterial (N-S & E-W)	3
		Sub-arterial	2
		Periphery and Local	1
4	Integration with other Systems	Suburban Railway System	4
		Bus Terminals	3
		Major Traffic Nodes	2
		Others	1
5	Safety/ Environmental conditions	Very Poor	4
		Satisfactory	3
		Good	2
		Excellent	1

Priority of Road development as identified by PCMC

Priority I (Year 2006 to 2008)	Priority II (Year 2008 to 2010)	Priority III (Year 2010 to 2012)
<ul style="list-style-type: none"> ▪ Dehu - Alandi Road through Talawade, Chikhali, Moshi and Dudalgaon ▪ Pune - Alandi Road in PCMC limits from Dighi to Chowis Wadi. ▪ Bhosari - Alandi Road ▪ Aundh - Rawet - Kiwale Road (SH-56) ▪ Road from Westerly Bypass (Wakad) to Hinjewadi (Up to Hinjewadi Ph-I Chowk) ▪ Road from Westerly Bypass (Wakad) to Nashik Phata at Kasarwadi ▪ Road from M-P Expressway Exit (on W. Bypass) to Bhakti Shakti Chowk ▪ Link from Westerly Bypass (Wakad) to Dehu-Alandi Road at Chikhali 	<ul style="list-style-type: none"> ▪ Road from Hinjewadi - Ph-I Chowk to Junction of Westerly Bypass (Wakad) with MDR-31 ▪ Link connecting Aundh Wakad Road & Aundh-Ravet Road at Dange Chowk (Wakad road) ▪ Road from Westerly Bypass to Chandkhed Road (MDR-30) through Punavle Area ▪ Road from Krantivir Chaphekar Chowk at Chinchwad to Chikhali - Nigadi Road ▪ Kalewadi road from Aundh - Ravet road to Pimpri Bazar ▪ Road from Vallabh Nagar Jn. on Old NH-4 to Yeshvant Nagar on TELCO road 	<ul style="list-style-type: none"> ▪ Road from Bhumkar Chowk (Wakad) to Chandkhed Road (MDR 30). ▪ Link road at the Boundary of Wakad & Tathwade, from Westerly Bypass to MDR-30. ▪ Internal link through Ravet village form MIDC filter house ▪ Road from Pavana river to NH-4 in Dapodi ▪ Road from old NH-4 at Dapodi to PCMC Boundary at Sangvi. ▪ DP Road adjacent to MIDC Software Technology Park. ▪ Road parallel to Dehu - Alandi Road (on its north) through Chikhali & Moshi Villages ▪ Road from Jadhav Wadi to Indrayani river



Priority I (Year 2006 to 2008)	Priority II (Year 2008 to 2010)	Priority III (Year 2010 to 2012)
<ul style="list-style-type: none"> ▪ Missing DP link from Kalewadi to Pimpri - Telco road chowk through Premier factory ▪ Mumbai - Pune Road (old NH-4) in PCMC Limits ▪ TELCO Road (Including the length in PCNTDA Limits) ▪ Road from old NH-4 at Pimpri Chowk to Nehru Nagar. ▪ DP Road parallel to Talwade Road from prop. Expressway to Indrayani river ▪ Talawade road from TELCO road to Dehu-Alandi road. ▪ DP Road parallel to Talwade Road from prop. Expressway to Indrayani river 	<ul style="list-style-type: none"> ▪ Road from Chikhali Gaothan to proposed Expressway at Akurdi. ▪ Road parallel to Dehu - Alandi Road (on its south) through Chikhali & Moshi Villages ▪ Road from Kudlewadi to Dehu-Alandi Road (upto Indrayani river) ▪ Road from Kudalewadi to TELCO through Jadhav Wadi ▪ DP link from Indrayani river to Dighi - Alandi road through Charholi Bk. 	<ul style="list-style-type: none"> ▪ Road Connecting Nashik Road with proposed Expressway. ▪ Road from Dehu-Alandi road at Dudulgaon to proposed Expressway ▪ Road from Pune-Alandi road at Chowiswadi to Moshi Boundary ▪ Road from Pune - Alandi Road at Chowiswadi to boundary of Charoli. ▪ Lohagaon - Charoli Road parallel to Eastern Boundary of Charoli.

Proposed Improvements to various roads in PCMC Area

Road No	Name of the Road	Proposals/ Improvements
1	Dehu - Alandi Road through Talawade, Chikhali, Moshi and Dudalgaon	6 Lane Divided
2	Pune - Alandi Road in PCMC limits from Dighi to Chowis Wadi.	6 Lane Divided
3	Bhosari - Alandi Road	2 Lane
4	Pune - Nashik Road (NH-50) in PCMC Limits (From Old NH-4 to Indrayani River - Moshi)	6 Lane Divided +4-Lane Flyover at Dehu-Alandi road Jn. + 4 Lanes Elevated Road in Bosari Town
5	Aundh - Rawet - Kiwale Road (SH-56)	6 Lane Divided
5a	From Rajiv Gandhi Bridge (Aundh) (PMC Limits) to Dange Chowk: SH-56	6 Lane Divided
5b	From Dange Chowk to Westerly Bypass (Kiwale) through Ravet: SH-56	2 Lane + Major Bridge Across Pavna River Near Kiwale
6	Road from Westerly Bypass (Wakad) to Hinjewadi (Up to Hinjewadi Ph-I Chowk)	2 Lane
9	Link road at the Boundary of Wakad & Tathwade, from Westerly Bypass to MDR-30.	6 Lane Divided
11	Road from Westerly Bypass (Wakad) to Nashik Phata at Kasarwadi	



Road No	Name of the Road	Proposals/ Improvements
11a	From Westerly Bypass to Jagtap Dairy (Aundh - Wakad Road)	4 Lane Divided
11b	From Jagtap Dairy to Nashik Phata at Kasarwadi	4 Lane Divided
13	Road from M-P Expressway Exit (on W. Bypass) to Bhakti Shakti Chowk	
13a	From Expressway Exit to Mumbai - Pune Rly line (Ravet)	4 Lane Divided + 4-Lane ROB Across Mumbai-Pune Rly Line at Nigadi
13b	Parallel to Rly line in Ravet upto Polytechnic in PCNDTA	2 Lanes
13c	From Polytechnic to Bhakti Shakti Chowk.	4 Lane Divided
15	Link from Westerly Bypass (Wakad) to Dehu-Alandi Road at Chikhali	
15a	From Westerly Bypass at Wakad to old NH-4 at Chinchwad through Dange Chowk.	6 Lane Divided + 4 Lane Flyover at Dange Chowk + Pedestrian Subways at Chapekar Chowk in Chinchwad
15b	From old NH-4 at Chinchwad to TELCO Chowk	6 Lane Divided
15c	From TELCO Chowk to Dehu-Alandi Road at Chikhali through Kudalewadi.	4 Lane Divided + 4 Lane Flyover at TELCO Chowk
17	Missing DP link from Kalewadi to Pimpri - Telco road chowk through Priemer factory	2 Lanes + 2 Lane ROB Across Mumbai-Pune Rly Line at Pimpri
20	Road from old NH-4 at Dapodi to PCMC Boundary at Sangvi.	2 Lanes + 4 Lane ROB cum Flyover at Dapodi
21	Mumbai - Pune Road (old NH-4) in PCMC Limits	10 Lane Divided + 4 Lane Flyover at Pimpri-Finolex Jn + 4 Lane Flyover at Chinchwad Jn + Flyover at Akurdi Jn + Pedestrian Subways at Nigdi Gaonthan + Pedestrian Subways at Phugewadi
22	TELCO Road (Including the length in PCNTDA Limits)	6 Lane Divided
24	Road from Old NH-4 at Pimpri Chowk to Nehru Nagar.	4 Lane Divided
29	DP Road parallel to Talwade Road from prop. Expressway to Indrayani river	2 Lanes
31	Road parallel to Dehu - Alandi Road (on its south) through Chikhali & Moshi Villages	6 Lane Divided
32	Road parallel to Dehu - Alandi Road (on its north) through Chikhali & Moshi Villages	6 Lane Divided
35	Road from Jadhav Wadi to Indrayani river	2 Lanes
38	Road from Pune-Alandi road at Chowiswadi to Moshi Boundary	2 Lanes
40	DP link from Indrayani river to Dighi - Alandi road through Charholi Bk.	4 Lane Divided
41	Lohagaon - Charoli Road parallel to Eastern Boundary of Charoli. .	2 Lanes



Comprehensive list of Structures proposed for Road development in PCMC Area

S. No	Road No.	Str.No.	Type	Description	Length (m)	Width (m)	Proposed No.of lanes
Flyovers							
1	4	FL1	Flyover	On NH-50 At Dehu-Alandi road Jn on Nashik Highway NH-50 (at Moshi)	500	17	4-lanes
2	11(b)	FL2	Flyover	Across Pavna River, Mumbai-Pune Rly line and old NH4 at Nashik Phata in Kasarwadi			
3	15(a)	FL3	Flyover	At Dange chowk	500	17	4-lanes
4	15(c)	FL4	Flyover	At Telco chowk	500	17	4-lanes
5	21	FL5	Flyover	Flyover at Pimpri - Finolex Jn			PCMC
6	21	FL6	Flyover	Flyover at Chinchwad Jn	500	17	PCMC
7	21	FL7	Flyover	Flyover at Akurdi Jn	500	17	PCMC
Elevated Roads							
8	4	EL1	Elevated Road	On NH-50 in Bosari Town	1000		4-Lanes (MORT&H)
ROBs							
9	13	RB1	ROB	Across Mumbai-Pune Rly Line at Nigadi	500	17	4-lanes
10	17	RB2	ROB	Across Mumbai-Pune Rly Line at Pimpri for Missing DP from Kalewadi	500	8.5	2-lanes
12	20	RB3	ROB	ROB cum flyover at Dapodi (CES)	500	17	4-lanes
Major/ Minor Bridges							
13	5(b)	MJ1	Major Bridge	Across Pavna River Near Kiwale	200	20	
14		MJ2	Major Bridge	Across Pavna River Near Pimpri	200	20	
Pedestrian Subways							
15	15(a)	PS1	P.Subway	At Chapekar chowk in Chinchwad	30	4	
16	21	PS2	P.Subway	At Nigdi Gaonthan	50	4	
17	21	PS3	P.Subway	At Phuge wadi	50	4	



Investment Plan for Road, Bridges and Flyovers

Road No.	Name of Road	Total Length (Kms)	Block Cost (Rs. Lakhs) (Including cost of Structures)
1.	Improvement / Construction Of Spine Road From MPEW Exit At Kiwale To Nashik Highway (NH-50) At Moshi Road Work Structures	12.7	7187 2552
2.	Link Road Connecting Telco Chowk To Kalewadi Through Bhatnagar At Chinchwad Road Work Structures (RB, FLO & ROB)	4.0	2068 2966
3.	Improvement / Construction Of Dehu – Alandi Road Through Taklawade, Chikhali, Moshi & Dudalgaon Road Work Structures	12.1	3466 1702
4.	Improvement / Construction Of Link Between Westerly Bypass At Wakad To Nashik Phata At Kasarwadi Through Pimple Gurav & Vaidu Vasti. Road Work Structures	8.3	5661 4400
5.	Improvement / Construction Of Link Road from Dange Chowk To Dehu- Alandi Road At Chikhali Through Kudale Wadi (part of MDR-31). Road Work Structures	7.82	4986 2992
6.	Construction Of Link Road From Dange Chowk To Wahlekarwadi Via Boat Club & From Dange Chowk To Pcmc Limits (Hinjewadi) – Roads 6A & 6B Road Work Structures	4.8	2152 2267
7.	Construction Of Link Road From Triveni Nagar To Proposed Chakan Airport Via Kaka Sahib Pawar Chowk Road Work Structures	15.2	4496 238
8.	Road From Jadhav Wadi To Dehu-Alandi Road. Road Work	2.0	506



Road No.	Name of Road	Total Length (Kms)	Block Cost (Rs. Lakhs) (Including cost of Structures)
9.	Improvement / Construction Of Mumbai – Pune Road From Harris Bridge At Dapodi To Bhakti – Shakti Chowk At Nigdi. Road Work Grade Separators	12.23	10522 5720
10.	Improvement / Construction Of Aundh – Rawet Road Road Work Structures	14.5	7937 1200
11.	Improvement / Construction of Y-Junction at Aundh - Ravet Road to Kaspate Vasti Road Work	1.3	601
12.	Improvement / Construction of Road from Kalewadi - Phata to Kaspate Vasti	2.0	924
13.	Improvement / Construction of Road from Kalewadi-Pimpri Road junction to Dange Chowk & Road from Aundh Ravet Road to Wakad Gaothan (Part-I) Road Work	2.675	572
14.	Improvement / Construction of Road from S. No. 70 at Pimple Nilakh to S. No. 26. Road Work	1.65	350
15.	Under Pavement Management System- “Riding Quality Improvement of various Roads” under complete PCMC road network	about 90.0 lakhs Sqm.	18000
TOTAL =(A)			93465
Road Works			69428
Structures		191.275	18317
Grade Separators			5720
(B) = Contingencies & Supervision Charges @ (10+5) =15% on (A)			14020
Grand Total (A+B)			107485 = 1074 crores



3.6. PROJECT DETAILS – URBAN POOR AND SLUMS

Investment Plan for Urban Services for Poor and Slum Improvement

Year	Total	2006 – 2007	2007 – 2008	2008 – 2009	2009 – 2010	2010 – 2011	2011 - 2012
	Rs. lakhs						
Services to Urban Poor	2323	483	460	460	460	460	-
Slum Improvement							
Ajanta Nagar Project, which is in progress. Phase II & Phase III		500	500	278			
50% road widening & 25% of sector 22		2000	4227	3711	3711	3885	
50% slums under railway land							1921
Total – Slum Improvement	20733	2500	4727	3989	3711	3885	1921

Block Estimate for inadequate services in slums

Components	Details	Cost (Rs.)
W.C. block	One seat for 10 huts 1,855.00 Nos. Rs. 40,000/- per seat	Rs. 7,42,00,000/-
Gutter	10,466.50 Rmt. Rs. 450/- per rmt.	Rs. 47,09,925/-
C.C. Paving	10,500.00 sq.m. Rs. 330/- per sq.m.	Rs. 34,65,000/-
Electricity	451.00 Nos. Rs. 15,000/- per pole	Rs. 67,65,000/-
Roads	55,000.00 sq.m. Rs. 300/- per sq.m.	Rs. 1,65,00,000/-
Cultural centre	One unit for 360 huts 82.00 Nos. Rs. 5,00,000/- per centre	Rs.4,10,00,000/-
Water Supply	One unit for 30 huts 368.00 units Rs. 5,000/- per unit	Rs. 18,40,000/-
Balwadi	One unit for 360 huts 89 Units Rs. 2,00,000/- per unit	Rs. 1,78,00,000/-
Womens welfare Centre	One unit for 360 huts 132 Units Rs. 5,00,000/- per unit	Rs. 6,60,00,000/-
	Total	Rs. 23,22,79,925/-
		say Rs. 23.23 Crores



3.7. PROJECT DETAILS – SOCIAL INFRASTRUCTURE PROJECTS

Investment Plan for development of Social Facilities

Description	Total	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
	<i>Rs. lakhs</i>						
Urban Greening							
Tree plantation	1452	242	242	242	242	242	242
Gardens	2971	770	712	680	433	230	146
Total	4423	1012	954	922	675	472	388
River Front Development							
Construction of retaining wall	12500	2000	2500	3000	2500	2500	
Development Raiparian zone	1900	200	200	500	500	500	
Development of Morya Gosavi temple (pilgrimage centre)	500	100	100	100	100	100	
Disilting	3400	1200	200	200	1000	800	
Widening of bridge on Chinchwad-Thergaon road.	1800	1800					
Widening of Pimpri Saudager Gaothan bridge	700				700		
Construction of 45 m wide bridge at Boat club Thergaon	2500		2500				
Construction of 45 m wide bridge at Yashopuram Chinchwad	2500			2500			
Strengthening & up gradation of Ravet K.T. Wier	1100		500	600			
Public park at boat club Thergaon	1500		500	1000			
Public Buddha park at confluence of Pavana Mula river	2000				2000		
Up gradation of old crematorium	400				200	200	
New crematorium at Kalewadi bridges	500		500				
New crematorium at Pimpri waghare	500			500			
Development of open market area for seasonal & festive time	2000					2000	
Up gradation of secondary treatment plant	4000		1000	1500	1500		
Total	37800	5300	8000	9900	8500	6100	
International Cricket Sports Complex							
Main cricket stadium, cricket ground, Swimming pool, residential accommodation, etc.	8562			2997	2997	2568	
Grand total	50785	6312	8954	13819	12172	9140	388



Investment Plan for International Cricket Sports Complex

Sl.	Description	Approx. qty	Unit	Rate per Units	Amount	Total
I	MAIN CRICKET STADIUM-75000 Spectator					
A	CRICKET STADIUM					
1	General Spectator Gallery (First Level) 40000 Spectators	20500	Sqm.	7000	143500000	
2	Rooms Below Spectator Gallery	20500	Sqm.	5000	102500000	
3	General Spectator Gallery (Second Level) with Covered Roofing. 25000 Spectators	15500	Sqm.	12000	186000000	
4	V. I. P. Pavilion (North Stand - Building)					
	1500 Spectator. (Ground + 3 storied)	6400	Sqm.	8000	51200000	
	3500 Spectator. (V.I.P. Gallery)	1760	Sqm.	7000	12320000	
5	South Stand - Building					
	1500 Spectator. (Ground + 3 storied)	6400	Sqm.	8000	51200000	
	3500 Spectator. (V.I.P. Gallery)	1760	Sqm.	7000	12320000	
6	Necessary Furniture for V.I.P. Pavilion Bldg	L/s.		L/s.	5000000	
				Sub-total		564040000
B	CRICKET GROUND					
1	Cricket Ground with Turf Lawn & Gutter Barrier around the boundary	23000	Sqm.	550	12650000	12650000
C	INDOOR STADIUM					
1	Indoor Hall for three badminton courts or one Volleyball courts & for Indoor Games/ Matches.	1300	Sqm.	8000	10400000	
2	Synthetic flooring & Accosticle Treatment to the Hall.		L/s.		5000000	
3	Spectator Gallery - For 3000 Spectator with Changing Rooms below.	1200	Sqm.	6000	7200000	
4	Building for Other Indoor Games like Judo, Wrestling, Squash, Table Tennis etc. G+1 Storied Structure.	1500	Sqm.	6000	9000000	
				Sub-total		31600000
D	SWIMMING POOL COMPLEX.					
1	Main Swimming Pool (21.0m x 50.00m)	1050	Sqm.	4000	4200000	
2	Building for Shower Cubicals & Changing.	400	Sqm.	7000	2800000	
3	Filtration Plant.		L/s.		3500000	
4	Spectator Gallery with Roofing.	400	Sqm.	5000	2000000	



Sl.	Description	Approx. qty	Unit	Rate per Units	Amount	Total
5	Compound wall with Deck.	1275	Sqm.	800	1020000	
				Total		13520000
E	RESIDENTIAL ACCOMODATION.					
1	V.I.P. Suite	300	Sqm.	7000	2100000	
2	Residential Accomodation for Players.	700	Sqm.	6000	4200000	
				Total		6300000
F	ADMINISTRATIVE BUILDING.					
1	It includes Sports Office, Conference Hall, etc	300	Sqm.	6000	1800000	1800000
G	CAFETERIA.	160	Sqm.	5000	800000	800000
				Sub-total		630710000
II	SERVICES					
A)	Internal Electrification of Buildings.	6%			37842600	
B)	Electrification for Cricket Ground. Electrical Transfarmer, D.P. etc.	2%			12614200	
C)	External Electrification-for Roads,Parking and Land Scaped area.	2%			12614200	
D)	Internal Water Supply and Sanitary Arrangement for Building.	6%			37842600	
E)	External Water Supply and Sanitary Arrangement out side the buildings.	2%			12614200	
				Sub-total		113527800
III	INFRASTRUCTURES.					
A)	E.S.R. - 200000 lit.	200000	Per Lac	4	800000	
B)	G.S.R. - 400000 lit.	400000	Per Lac	2.5	1000000	
C)	Internal Roads.	125000	Sqm.	600	75000000	
D)	C.D. works and catch water drain along road side	L/s.		L/s.	500000	
E)	Parking & Footpath, Paving area.	31000	Sqm.	500	15500000	
F)	Compound wall around the land for complex	2100	Rmt.	1800	3780000	
				Sub-total		96580000
IV	LAND SCAPING & SITE DEVELOPMENT.					
A)	Levelling & Filling of Grounds retaining walls	L/s.		L/s.	5500000	
B)	Lawns, Shrubs, Flowering, Shading Trees, Water Fountain etc.	L/s.		L/s.	3000000	



Sl.	Description	Approx. qty	Unit	Rate per Units	Amount	Total
C)	Entrance Arch with Security Cabine.	L/s.		L/s.	500000	
				Sub-total		9000000
				Grand total		849817800
V]	LAND	65	Acre	100000	6500000	6500000
	Grand Total					856317800
					Say Rs. 85.63 crores	

3.8. PROJECT DETAILS – E-GOVERNANCE AND GIS

Yearly phasing of PCMC E-governance Project

Action Plan	2006-07	2007-08	2008-09
GIS based property tax and overall GIS for Engineering, Water & Building Permission department etc.	Connectivity to every office outside main building i.e. hospital, octroi offices, zonal offices, with wireless technology & digitisation of city survey map	Satellite imagery for 171 sq.km.area and Ground Survey & collection of nonspatial data	Property tax system linked with GIS & plotter scanner procurement
SAP for Engineering Department	Procurement of necessary hardware for Engg.dept and software designing work	Software development for Engineering dept. (SAP)	Replication and Implementation at 4 Ward office and other PCMC offices
E-Seva center – Multicenter	Multicenter/Call center with kiosks facility for citizen at H.O. and 4 ward office with online transactions	All sevas at 15 zonal offices and at 105 electoral wards	
Decentralisation of C.F.C	Design and development of Web based CFC software necessary infrastructure & Implementation in 4 ward offices as well as 15 zonal offices		



Financing Plan

It is necessary for PCMC to complete the project on time. The investment plan for has been accordingly been drafted by PCMC. This is detailed below:

Action Plan	2006-07	2007-08	2008-09	2009-10
	Rs. Lakhs			
GIS based property tax and overall web based GIS for Engineering, Water & Building Permission department etc.	317.00	120.00	52.00	-
SAP for Engineering Department	10.00	20.00	10.00	-
E-Seva center – Multicenter	60.00	120.00		-
Decentralisation of C.F.C	20.00		-	-

PCMC GIS project - Time Line for completion

Given the nature of reform, for effective utilisation of GIS, PCMC need to implement this reform in a time bound manner. The scheduling of various activities are detailed below:

Sl.	Description	Design & Development (Calendar Months)	Implementation (Calendar Months)
1	Acquisition of Quickbird satellite imagery	0 to 2	0 to 2
2	Citizens Facility Centre System.	0 to 6	7 to 10
3	Digitization, geo-referencing, ground survey and data updation of municipal data in to GIS server database	0 to 6	7 to 10
4	GIS Application Server	0 to 7	8 to 11
5	GIS based Asset & Works Management System	0 to 7	8 to 11
6	GIS based Water and Property Revenue Management System.	0 to 8	9 to 12



Project Services Cost for GIS

The following costs are estimated for the entire project.

Sl.	Description	Project cost (Rs. Lakhs)
1.	GIS Application Server	18.00
2.	GIS Application Server Implementation & Training.	3.60
3.	GIS based Asset & Works Management System.	15.00
4.	GIS based Asset & Works Management System Implementation & Training.	3.60
5.	GIS based Water and Property Revenue Management System.	24.00
6.	GIS based Water and Property Revenue Management System Implementation & Training.	4.80
7.	Data exchange API to exchange data between external CFC application and the GIS Application Server.	4.80
8.	Implementation of Data exchange API to exchange data between external CFC application and the GIS Application Server.	1.20
9.	Scanning, cleaning and Digitization of City Survey Maps Establishing grid pillars / and markers one per square kilometer Procurement and processing of either Quickbird or IKONOS Satellite Imagery Merging of Maps Field Survey and Collection of non-spatial data Field survey for Property Tax and data attachment. Mapping of Underground Utilities (from existing data and test surveys) and data attribution	200.00
10.	Acquisition of Hardware, Networking and Peripherals	600.00
	Total	875.00

Department wise Functionality Proposed under GIS

Sl	Department	GIS Applications
1.	Property Tax Department	<ul style="list-style-type: none"> ▪ Display of Property Maps Census Map and Parcel Map in a single window ▪ Facility to view property related data by clicking on parcel or by giving property code or by name of owner / occupier. ▪ To view information of any feature on the map by clicking object ▪ To locate particular property by its attribute data



Sl	Department	GIS Applications
		<ul style="list-style-type: none"> ▪ To view properties on the basis of outstanding payment ▪ To view properties area-wise, Zone-wise, block wise, office wise, tax type wise, user wise, etc. ▪ To generate reports by querying existing data.
2.	Water Supply Department	<ul style="list-style-type: none"> ▪ Proximity Analysis ▪ Querying on pipe network, size, age, material and valve data base. ▪ To display service area affected by closure of a particular valve ▪ Status reporting on work in progress ▪ Service Area & Population ▪ Area-wise Pipe Line Information ▪ Details of pumping stations, water treatment plants.
3.	Drainage Department	<ul style="list-style-type: none"> ▪ Proximity analysis ▪ Querying on pipe network, size, age, and material and manhole database. ▪ Status reporting on work in progress ▪ Network Tracing ▪ Service Area & Population ▪ Area-wise Pipe Line Information ▪ Complaint redressal
4.	Traffic and Roads	<ul style="list-style-type: none"> ▪ Queries on road network and chowk database. ▪ Queries on road quality and condition to apply quality checks ▪ Queries on roughness coefficient of roads ▪ Thematic on traffic Volumes. ▪ Identification of areas for traffic management. Thematic on P1 and P2 parking schemes ▪ Proximity analysis ▪ Status reporting on work in progress ▪ Optimal routing of any selected origin node to selected destination ▪ Thematic on accident data and identification of hazardous roads.
5.	Town Planning Department	<ul style="list-style-type: none"> ▪ Queries on Land use and tracking changes in land use pattern ▪ Queries and plots of demarcation of zones. ▪ Preparation of site plan ▪ Generation of department specific maps for land acquisition for traffic, electricity departments ▪ Queries on gazette ▪ Statistics of revenue generation from zone demarcation and site plan preparation.



Sl	Department	GIS Applications
6.	Land and Estate Department	<ul style="list-style-type: none"> ▪ Determination of property usage and status ▪ History of previous tenets. ▪ Queries on property in terms of Plot numbers, rent, lease paid, and defaulters etc. ▪ Statistics on revenue generated from property ▪ Generation of reminders of lease renewal / late payment. ▪ Queries on encroachment and original ownership details. ▪ Insurance Information ▪ Open land parcels, sports grounds, sports stadiums.
7.	Land Acquisition Department	<ul style="list-style-type: none"> ▪ Maintain records of road widening on city survey sheet ▪ Details of plots and persons affected by widening. ▪ Queries on court cases and property dispute
8.	Electrical, Wireless and Vehicle Department	<ul style="list-style-type: none"> ▪ Proximity analysis ▪ Status reporting on work progress ▪ Queries on street light database ▪ Pattern analysis for identification of abnormal maintenance. ▪ Electrical details for all administrative buildings. ▪ Traffic signals ▪ Location of wireless stations and details of officers and men. ▪ Location of vehicle depots with type and number of vehicles attached to each depot. ▪ Street lighting details.
9.	Slum and Rehabilitation Department	<ul style="list-style-type: none"> ▪ Status of slum i.e. declared / undeclared ▪ Queries on database of hutment. ▪ Ward name, Slum area name, Names of the slum dwellers with Details of service taxes paid by them. ▪ Queries on land properties held.
10.	Civil Department	<ul style="list-style-type: none"> ▪ Positions of different projects executed / under execution / proposed by the dept. ▪ Positions of Unauthorized Constructions. ▪ Constructions under Gunthewari Schemes. ▪ Time Period of unauthorized Construction ▪ Type of Constructions Residential, Commercial, Industrial
11.	Garden Department	<ul style="list-style-type: none"> ▪ Positions of existing and proposed gardens if any. ▪ Gardens and their boundaries. ▪ Area of garden, population served, and facilities available.



Sl	Department	GIS Applications
		<ul style="list-style-type: none"> ▪ Positions of trees in PCMC area ▪ Positions of Water Bodies. ▪ Positions of Public and Private Nurseries. ▪ Vacant Lands of Municipal Corporation ▪ Individual and ward wise information.
12.	Health Department	<ul style="list-style-type: none"> ▪ Positions of all municipal clinics, hospitals with facilities ▪ Positions of all small, medium, large dustbins in the city their lifting system ▪ Ward boundaries, area allotted to each officer in charge ▪ Area allotted to each officer no of staff available ▪ Solid waste management systems ▪ Sanitary management systems ▪ Environment plan
13.	Sky Sign and Licenses Department	<ul style="list-style-type: none"> ▪ Locations of all places in the city available for hoardings. ▪ Size available at each location ▪ Specific rules and regulations for particular site. ▪ Rate at each site. ▪ Ward wise, Street wise, Size wise information.
14	Disaster Management	<ul style="list-style-type: none"> ▪ Information of all the Road, Road Network & their width ▪ Information of water channels, rivers, their width , flows ,capacity , flow level. ▪ Blue line & Red line in Flood Affected Area. ▪ Population & Properties Located in Blue & Red Line Areas. ▪ Information of Government, Corporation Properties Can be used as shelters.
15	Building Permission Department	<ul style="list-style-type: none"> ▪ Type and category of building i.e. residential, commercial, industrial etc and RCC/ Load bearing etc ▪ Detail information i.e no of stories permitted, plinth area etc ▪ Detail plan ▪ Unauthorized Constructions
16.	Encroachment Department	<ul style="list-style-type: none"> ▪ Position and type of encroachments. ▪ Position of encroachments removed in past.
17	Sports Department	<ul style="list-style-type: none"> ▪ Positions of all sports complexes, stadiums, music academy, swimming pools. ▪ Positions of Sports Complexes under development. ▪ Their areas, capacity, facilities available, membership fees etc. ▪ Population Served.



SI	Department	GIS Applications
18	Election Department	<ul style="list-style-type: none"> ▪ List of Wards & its Census information ▪ Electoral Ward Map, ▪ Famous Places for Polling Booths (Schools, Colleges, Govt. offices, Private Offices, Religious Places & Auditoriums etc.)
19	Fire Department	<ul style="list-style-type: none"> ▪ Area wise information of routes / roads and its names with classification. ▪ Information of missing links with dead links. ▪ Shortest route for the destination. ▪ Area wise information of available water resources with numbers, types and quantities. ▪ Overhead filling points and their output capacity. ▪ Area wise information of Non-PCMC Industrial Fire Services with their names and contact numbers. ▪ Fire fighting resources available with their capacity. ▪ Area wise information of fire prone public habitats, eg. hutments, congested markets, LPG godowns, petrol pumps, major hotels, etc. ▪ Specific information of hazards and extinction facilities, shortest routes available. ▪ Area wise information of hazardous chemical industries with its names and classification. ▪ Information of chemicals used, stored with its hazards and action to be taken in emergencies. ▪ Information of fire fighting resources available with its capacity. ▪ Emergency contact person with names, telephone numbers and addresses. ▪ Information of concerned other corresponding agencies, eg. Police, Ambulances, Hospitals, Blood Banks, Cranes, Earth movers, Water supply, traffic, garden, NGO's, Civil Defence, Home Gaurds, Defence Rescue / Expertise services with their contact information. ▪ Contact information of senior nodal officers and concerned authorities. ▪ Area wise information of major places of assembly of persons with their strengths, eg. auditoriums, theatres, multiplexes, major religious places, wedding halls, etc.
20	Octroi Department	<ul style="list-style-type: none"> ▪ Positions of all Octroi check posts ▪ Area covered by each post ▪ Tax collected at each post.
21	Education Department	<ul style="list-style-type: none"> ▪ Locations of all the primary and secondary schools distributed in ward. ▪ Population served by each school ▪ Number of classes available, no of students, area of each school, Facilities provided i.e. Play ground, computer labs, sports materials, equipments available etc.



ANNEXURE 4. FINANCIAL OPERATING PLAN

Financial Year ----->	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
<i>Figures in Rs. Lakhs</i>	<i>Actuals</i>					<i>Estimate</i>	<i>Projection</i>						
SUMMARY													
i Opening balance	2281	150	-4893	1277	6235	11068	19983	38727	53780	72610	84189	103223	164236
ii Revenue Receipts	21697	21395	32860	36264	46138	63508	72225	85267	97906	111426	125617	142310	161987
iii Revenue Expenditure	14944	15927	17316	19441	21871	23808	25760	31242	37587	67559	85030	72865	65008
iv Municipal receipts	22231	21876	33427	36804	47241	64208	102973	158713	179280	179731	174822	162662	163393
v Municipal expenditure	24362	26919	27257	31846	42408	55292	84230	143661	160449	168153	155788	101650	65008
New Debt Servicing Exp.						0	0	332	685	685	685	1035	1035
New O&M Exp.						0	0	1548	3486	3560	3226	2390	1090
ULB contribution/ Rev. Surplus Transfer for Asset creation						0	28493	39823	42427	33326	22700	9702	0
vi Operating Surplus/ Deficit for the year						39699	46464	54024	60319	43867	40587	69446	96980
vii Overall Municipal Surplus deficit						19983	38727	53780	72610	84189	103223	164236	262621
viii Municipal Surplus/ Deficit for the year	-2131	-5043	6170	4958	4833	8916	18744	15053	18831	11578	19034	61012	98385
ix Closing balance	150	-4893	1277	6235	11068	19983	38727	53780	72610	84189	103223	164236	262621

REVENUE ACCOUNT**RECEIPTS****I Own Sources**

1 Octroi	14696	14917	25631	28968	37681	52472	60343	69394	79803	91774	105540	121371	139577
2 General Tax on Properties	1607	2131	2202	2332	2575	4237	4796	6849	8091	8718	8987	9106	9529
3 Water Taxes	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Sewerage Taxes	0	0	0	0	0	0	0	0	0	0	0	0	0
5 Other Taxes	32	32	35	31	21	33	35	38	41	44	48	52	56
6 Water & Sewerage Charges	600	497	742	847	894	2043	1955	3486	4035	4485	4130	4320	4772
7 Bulk Water Charges	0	0	0	0	0	0	0	0	0	0	0	0	0
8 Development Charges	259	215	296	417	472	358	387	418	451	488	527	569	614
9 Other realisations under Special Acts	57	13	12	27	18	27	30	32	35	37	40	44	47
10 Rent from Municipal Properties	139	194	106	124	133	150	162	175	189	205	221	239	258
11 Fees and Fines	51	63	50	56	56	55	55	55	55	55	55	55	55
12 Miscellaneous Income	3858	3020	3668	3215	3903	3815	4121	4450	4806	5191	5606	6055	6539
Total	21299	21082	32742	36017	45753	63192	71884	84899	97508	110996	125153	141809	161447

II Transfers & Revenue Grants

1 Motor Vehicle Tax	0	0	0	0	0	0	0	0	0	0	0	0	0
2 Central & State Government Grants	398	313	118	247	385	316	341	368	398	429	464	501	541
3 Local Funds/ Grants	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Other Sources/ Grants	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	398	313	118	247	385	316	341	368	398	429	464	501	541
Total Revenue Receipts	21697	21395	32860	36264	46138	63508	72225	85267	97906	111426	125617	142310	161987

Contd..



Financial Year ----->	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	
	Figures in Rs. Lakhs					Estimate	Projection							
EXPENDITURE														
III	Establishment													
	General Account	4828	5267	5925	6575	6806	7356	7951	9389	10148	10969	11856	12814	15132
	Water & Sewerage Account	624	702	687	828	854	923	998	1178	1273	1376	1487	1608	1898
	Urban Poor	3878	4091	4726	4921	5074	5485	5928	7000	7566	8178	8839	9554	11282
IV	O&M Expenses													
	O&M on Current Assets	4917	5263	5014	6636	7469	8216	8872	9583	10353	11188	12092	13073	14137
	1 General Administration & Tax Collection	713	848	773	1133	1265	1391	1502	1623	1752	1893	2044	2208	2384
	2 Water Supply	1691	1731	1515	1703	1861	2048	2170	2301	2439	2585	2740	2904	3079
	3 Sewerage & Sanitation	217	322	291	296	406	447	483	521	563	608	657	709	766
	4 Conservancy/ Solid Waste Management	346	424	527	664	727	800	864	933	1007	1088	1175	1269	1370
	5 Public Works (Roads, Drains & Bldgs)	24	22	20	34	55	61	67	73	81	89	98	108	118
	6 Street Lighting	837	612	526	568	683	752	797	845	895	949	1006	1066	1130
	7 Urban Poor	804	970	1037	1875	2075	2282	2511	2762	3038	3342	3676	4043	4448
	8 Town Planning	39	26	39	38	32	36	39	42	45	49	53	57	61
	9 Miscellaneous (Fire/ Libraries/ Gardens/ Markets/ Slat	248	309	287	325	364	400	440	484	533	586	645	709	780
	O&M on New Assets						0	0	1548	5127	8994	12759	15915	17960
	Phasing of Non-Debt Liabilities						0	0	0	0	0	0	0	0
V	Debt Servicing													
	Outstanding Debt Liabilities - Old	0	0	0	0	0	0	0	0	0	0	0	0	0
	Outstanding Debt Liabilities - New						0	0	332	685	685	685	1035	1035
VI	Contributions & Donations													
		37	24	55	16	40	38	42	46	50	55	61	67	74
VII	Transfers to PCMT													
		660	580	908	465	1628	1791	1970	2167	2384	2622	2884	3173	3490
VIII	Contribution to Revolving Fund/ SUIF													
	Contribution - Urban Infrastructure/ Governance Projects										22904	33829	15235	0
	Contribution - Urban Poor Projects										587	537	390	0
	Total Revenue Expenses	14944	15927	17316	19441	21871	23808	25760	31242	37587	67559	85030	72865	65008
CAPITAL ACCOUNT														
RECEIPTS														
I	Own Sources													
	1 Own Sources	462	478	471	330	500	484	523	565	610	659	711	768	830
	Total	462	478	471	330	500	484	523	565	610	659	711	768	830
II	Capital grants & Contributions													
	1 TFC/ EFC Grants	0	0	0	0	0	0	0	0	0	0	0	0	0
	2 Project Specific Grants	0	0	0	0	0	0	0	0	0	0	0	0	0
	3 JNURM Grants from Gol						0	21412	48694	54087	48049	34327	13631	0
	4 JNURM Grants from GoMH						0	8565	19477	21635	19219	13731	5452	0
	5 Other Grants	72	3	96	210	603	216	249	286	329	379	435	501	576
	Total	72	3	96	210	603	216	30226	68457	76051	67647	48494	19584	576
III	Loans													
		0	0	0	0	0	0	0	4425	4714	0	0	0	0
	Total Capital Receipts	534	481	567	540	1103	701	30749	73447	81375	68305	49205	20352	1405
IV	EXPENDITURE													
	CAPEX	9418	10992	9941	12405	20537	31484	58469	112419	122863	100594	70758	28785	0



ANNEXURE 5. PCMC REFORMS AGENDA & TIMELINES

5.1. MUNICIPAL ACCOUNTING

Desired objectives:

Note: JNNURM requires certain reforms to be undertaken by states/ cities in Municipal Accounting, with the objective of having a modern accounting system based on double-entry accrual principles, leading to better financial management, transparency and self-reliance.

I. Current Status

- a. Please provide a short note on the present method of accounting being followed in your city

At present, Pimpri-Chinchwad Municipal Corporation follows Computerised Cash based System of accounting. Double Entry Accrual Accounting system is commissioned from 1st April 2006.

- b. Please provide the status of completion and adoption of accounts, and if they have been audited and published in the last 3 years

Year	Adopted	Audited	Published
2002-2003	yes	yes	yes
2003-2004	yes	yes	yes
2004-2005	yes	In progress	Un-audited accounts published

** Above information pertains to single entry system. Audit is being conducted by Accountant General (AG) and local Audit Dept. & State Government.*

- c. Please state whether State/city has drawn up its own accounting manual Yes No

Yes No

- d. Please state whether State/city has adopted NMAM Yes

i. without modifications

ii. with modifications.

If NMAM has been adopted with modifications, please state these:



Accounting code is accepted as recommended by dept of Municipal Administration, Government of Maharashtra

e. Please state whether State has modified its current appropriate laws and regulations to be in compliance with the double-entry accrual principles. If yes, please provide date of such modification.

Yes No Date

 *

* State Govt. vide its G.R. UDD No.MAR-102003/22/P.R.No.23/03/UD-8 dated 25.7.2003 and (2) Lekhasu-102004/71/P.K.-5/04/UD-31 dt. 6.7.2005 has issued guidelines for implementation of D.E. System

f. If applicable, please provide current status of implementation of double-entry accrual system.

Training Programme for PCMC staff designed with support from AILSG. Implementation of Function & Accounting codes is also in progress. A software for Double Entry system is being designed by NIC, Pune and several modules of the same are already put to testing. PCMC has also invited tenders to appoint a Chartered Accountant/ Firm for recording all fixed & flexible assets and liabilities of PCMC; Bank Reconciliation works; Training of PCMC staff and preparation of OB statements. The system is planned to be completely implemented by 2007-08.

II. Timeline for Action on Reforms

a. Resolution by Government expressing commitment to establish modern municipal accounting system. (Note: This resolution should be passed within 6 months of signing of MOA under JNNURM and a copy submitted to MOUD.)

GR No. Lekhasu/102004/71/P.K.-5/04/ud-31 dt. 6.7.2005

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12

b. GO/Legislation/Modification of rules for migrating to double-entry accounting system

✓						
---	--	--	--	--	--	--

c. Appointment of consultants for development of State manual (either based on NMAM or independently)

✓						
---	--	--	--	--	--	--



	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
d. Completion and adoption of manual	✓						
e. Commence training of personnel	✓						
f. Appointment of field-level consultant for implementation at the city-level	✓						
g. Notification of cut-off date for migrating to the double-entry accounting system	✓						
h. Business Process Re-engineering (if required)							
i. Valuation of assets and liabilities	✓						
j. Drawing up of opening balance sheet (OBS):							
i. Provisional OBS	✓						
ii. Adoption of provisional OBS	✓						
iii. Finalization of OBS	✓						
k. Full migration to double-entry accounting system	✓						
l. Production of financial statements (income-expenditure accounts and balance sheet)	✓						
m. Audit of financial statements		✓					
n. Adoption of accounts							



	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
o. Preparation of outcome budget		✓					
p. Complete re-vamp of the Public Financial Management (PFM) cycle, which includes internal accounts		✓	✓				
q. Credit rating of ULB (if required)	✓	PCMC got AA+ rating (CRISIL)					
r. Any other reform steps being undertaken (please use additional space to specify)							
i Capacity building of all PCMC staff	✓	✓					
i Disclosures and public information	✓						



5.2. E-GOVERNANCE

DESIRED OBJECTIVES:

Note: JNNURM requires certain reforms to be undertaken by states/ cities in E-Governance, with the objective of having a transparent administration, quick service delivery, effective MIS, and general improvement in the service delivery link

I. CURRENT STATUS

a. Please provide a list of services covered by E-Governance applications

Types of Service	ULBs/ Parastatals involved	Remarks
Registration of Births and Deaths	Pimpri Chinchwad Municipal Corporation (PCMC)	<ul style="list-style-type: none"> ▪ The Birth & Death registration work is fully computerized with all data entry up-to-date. ▪ This system functionalities are – <ol style="list-style-type: none"> 1. Registration of Birth & Death. 2. Issuing Birth and Death Certificates. 3. Issuing duplicate copies of Birth & Death certificates. 4. Issuing Cremation passes. 5. Reports as per Central/State Govt. Format.
Public Grievance Redressal	Pimpri Chinchwad Municipal Corporation (PCMC)	<ul style="list-style-type: none"> ▪ This Center is Innovatively designed for giving services to citizens directly through this center so that they get the certificates and licenses in stipulated time. The center gives 67 services at present and citizen does not visit any department for any purpose for getting the services. ▪ Eleven departments are giving services through citizen facilitation center like Skysign, Octroi, Medical, Water Supply and Sewerage, Slum, Fire, Garden, Building Permission, Property Tax, Town Planning. ▪ Formats of the Application and Support for filling the application form is available. ▪ Scrutiny of the attachment is thoroughly done at the time of submission of application. The rejected application is given the reason and also the token number for further transaction. ▪ Expected date of completion of Work is mentioned in the acknowledgement so that he need not worry about the status. ▪ Free Enquiry 1913 toll free telephone line is made available.



Types of Service	ULBs/ Parastatals involved	Remarks
		<ul style="list-style-type: none"> ▪ Innovative Front End e-Governance Systems is implemented for CFC Facilitation. ▪ Department of Administrative Reforms & Public Grievances, Government of India, felicitated this activity at 8th National e-Governance Conference by Bronze Icon award.
Property Tax Management, including records Mgmt.	Pimpri Chinchwad Municipal Corporation (PCMC)	<ul style="list-style-type: none"> ▪ Property tax has been computerized since 1991 and tax bills are generated through computers. ▪ All necessary demand & assessment registers are made available on the computer. ▪ PCMCs 15 zonal offices are connected to head office through LAN and tax related work of each area will be done at the respective zonal office and citizens will get information from ▪ Web-based technology will be utilized enabling access of information about a property from anywhere on the globe
Municipal Accounting System	Pimpri Chinchwad Municipal Corporation (PCMC)	<p>The following aspects are already commissioned</p> <ul style="list-style-type: none"> ▪ All types of cash Book (Single & Double Entry) ▪ Employee & Contractors advance requirement ▪ Receipt & Expenditure ▪ General Provident Fund ▪ Vehicle Advance & Payment ▪ Pensioners Pension ▪ Cheque Honour and Dishonour ▪ Contractor and Employee all Taxes ▪ Bank Re conciliation(Related to all types of Cash book ▪ Establishment (general Administration) ▪ Payroll (All types of Emp. Pay bills ,Income tax with all necessary reports) ▪ House Building Advance Payment ▪ Cheque Printing initiated
Works Management System	Pimpri Chinchwad Municipal Corporation (PCMC)	Software design is yet to be initiated. System will be operationalised by 2006-07
E-Procurement	Pimpri Chinchwad Municipal Corporation (PCMC)	Interactive website for information on tenders of all departments is in place. E-Procurement process will be fully operational within a year's time.



Types of Service	ULBs/ Parastatals involved	Remarks
Personal Management, i.e., Personal Information System.	Pimpri Chinchwad Municipal Corporation (PCMC)	PCMC proposes to computerize and make available online the payroll & pension system by 2006-07.
Payment of Property Tax, Utility Bills and Management of Utilities that come under the ULBs	Pimpri Chinchwad Municipal Corporation (PCMC)	Online payment system for Property Tax & Water Bills will be introduced shortly. At present payment can be made at the Head Qtrs., zonal offices, Citizen Facilitation Centers of the PCMC and designated banks.
Building Plan Approval	Pimpri Chinchwad Municipal Corporation (PCMC)	Building plan permission process is fully automated and is to be made available online on the website of PCMC.
G.I.S.	Pimpri Chinchwad Municipal Corporation (PCMC)	PCMC embarked upon an ambitious plan to enable easy archival, retrieval and analysis of data pertaining to its various departments in the Corporation through GIS. <ul style="list-style-type: none"> ▪ The departments of Water Supply, Drainage, Roads & Traffic, DP planning, Land & Estate, Land Acquisition, Electricity, Slum improvement and rehabilitation have been incorporated into this project. ▪ Science and Technology Park is also involved for Remote Sensing data.
Web portal	Pimpri Chinchwad Municipal Corporation (PCMC)	<ul style="list-style-type: none"> ▪ www.pcmcindia.in ▪ The web portal contains details of all the departments and their zone offices ▪ It contains information of each department like working and services provided by that department to the citizens ▪ The web portal also has information about the entire city like hospitals, schools, transport, weather, hostels, theatres, blood banks, eye banks etc. ▪ The web portal also provides for complaint registry and citizen's can send their complaints directly to a particular department through web portal. The citizen can also view the status of their complaint on the portal itself. ▪ All tenders are also launched on the internet and getting good response
Yeshwantrao Chavan Memorial Hospital	Pimpri Chinchwad Municipal Corporation (PCMC)	A Hospital Management system is planned of which the first phase is in progress. In the first phase of automation of the hospital following seven departments of YCMH are covered: <ol style="list-style-type: none"> 1. Case paper Department (Registration, Billing And Cash Collection)



Types of Service	ULBs/ Parastatals involved	Remarks
		2. Patient Management System 3. Medical Superintendent Office 4. Laboratory 5. Pharmacy 6. Medical Record 7. Operation Theatre Management ■ IPD, OPD, Billing, Xray, Pharmacy, Drug Store, Lab, Patient History, Patient Searching etc. functions are computerized. Operation theatre booking, bed allocation & Ward occupancy are some important functionalities of this software.
Integrated Octroi Management	Pimpri Chinchwad Municipal Corporation (PCMC)	■ The octroi department has been computerized since 1998 and all 20 nakas are working online. ■ The necessary revenue figures are available easily and in time. ■ Computerized receipts are given to vehicles. Thus the work has become easy and accurate. ■ Connected to Central Server by leased line.
Slum Development	Pimpri Chinchwad Municipal Corporation (PCMC)	The slum department is computerized and billing of each slum dweller .is available and generated through systems. Demand Assessment Register and the status of arrears & recovery are also maintained.

II. TIMELINE FOR ACTION ON REFORMS

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12

- a. Appointment of State-level Technology Consultant as State Technology Advisor.

This is State Level Activity

- b. Preparation of Municipal E-Governance Design Document (MEDD) on the basis of National Design Document as per NMMP.

M.E.D.D. will be prepared by PCMC on the basis of National Design Document as per N.M.M.P

✓	✓					
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	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
c. Assessment of MEDD against National E- Governance Standards. (Scalability, intra-operability & security standards etc.)		✓					
d. Agreement on Municipal E-Governance Action Agenda.		✓					
e. BPR for migration to E-governance	✓	✓	✓				
f. Appointment of software consultant(s)	PCMC already has interactive web portal and system studies are in progress for other activities to be computerized						
	✓	✓					
g. Exploring PPP option for different E-Governance service (Public Private Participation.)	The CFCs are already outsourced and PMC will be expanding the network of CFC under PPP model						
	✓	✓					
h. Defining monitorable time table for implementation of each E-Governance initiative that is being taken up.		✓	✓				
i. Ongoing implementation of E- Governance initiatives, against monitorable time-table		✓	✓				
j. Any other reform steps being undertaken							
i Geographic Information System (GIS)	✓	✓					
ii IVRS (Interactive Voice Response System)			✓				
iii Municipal Area Networking (MAN)	✓	✓	✓				
iv Kiosk		✓					
v Document Management System (Document Scanning & Storage)			✓				
vi Web Portal of PMC	Web Portal of PMC - http://www.pcmcindia.in						



5.3. CITY PLANNING FUNCTIONS

DESIRED OBJECTIVES:

Note: JNNURM requires certain reforms to be undertaken by states/ cities in the area of city planning, with an objective to assign or associate elected ULBs with “city planning functions”. Over a period of seven years, the Mission aims to ensure that all special agencies that deliver civil services in urban areas to ULBs are transferred and accountability platforms are created for all urban service providers in transition.

I. CURRENT STATUS

a. Please indicate whether the ULB has been associated with city planning functions.

Yes	No
<input checked="" type="checkbox"/>	<input type="checkbox"/>

b. If a parastatal has been involved with city planning, please indicate whether it has been involved with the formulation of the City Development Plan. (CDP)

Yes	No
<input type="checkbox"/>	<input type="checkbox"/>

Not Applicable

The current sanctioned development plans and CDP is prepared by PCMC itself

c. Please indicate whether the master plan / CDP have been approved by the municipality / ULB.

Yes	No
<input checked="" type="checkbox"/>	<input type="checkbox"/>

d. Please indicate whether the city planning has been in accordance with the Metropolitan Planning Committee (MPC)/ District Planning Committee.

Yes	No
<input type="checkbox"/>	<input checked="" type="checkbox"/>

e. Please state which agency is responsible for the provision of water supply and sewerage services

PCMC

f. Please state which agency is responsible for the provision of public transport services

PCMC through its undertaking (PCMT)

g. Please state which agency is responsible for the provision of Solid Waste Management (SWM) services

PCMC



II. TIMELINE FOR REFORMS

- a. Resolution by Government expressing commitment to transferring responsibility of the delivery of municipal services to the ULBs. (Note: This can be done by way of unbundling of services. e.g. parastatals or others may operate, maintain, even own and collect user charges for the production and distribution facilities for these municipal services, so long as they are accountable to ULBs. Services levels should be fixed by ULBs. The ULBs shall ensure the delivery of services at the defined level by the service provider/s through the mechanism of contractual arrangement. This is consistent with the reform being required in the 74th Amendment)

All core municipal services are delivered by the ULB

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12

- b. Note : Master Plan / CDP can be prepared by professional body but in consultation and requires final approval of ULB. If the answer to (1-d) is no, please indicate a timeline of when the city planning will be in accordance with MPC/ DPC.

		✓				
--	--	---	--	--	--	--

- c. Please fill in the timeline for the following functions in months / years :

Function	Gov. Resolution	Cabinet Approval	Amendment of State / Municipalities Act	Implementation
City planning				- This is already an ULB function, hence Not Applicable
Water Supply & Sewerage				- This is already an ULB function, hence Not Applicable
Public Transport				- This is already an ULB function, hence Not Applicable
Solid Waste Management				- This is already an ULB function, hence Not Applicable
Others				- This is already an ULB function, hence Not Applicable

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12

- d. Any other reform steps being undertaken (please use additional space to specify).



5.4. PROPERTY TAX

DESIRED OBJECTIVES:

Note: JNNURM requires certain reforms to be undertaken by states/ cities in Property Taxes, with the broad objective of establishing a simple, transparent, non-discretionary and equitable property tax regime that encourages voluntary compliance. States/cities need to ensure that their desirable objectives for reforms include these reforms, but need not restrict themselves to these items

I. Current status

a. Please indicate if Property tax levied on the following types of properties:

i	Residential	✓
ii	Commercial	✓
iii	Industrial	✓

(In the existing system there are only two categories Residential/ Domestic and Non-residential/ non-domestic, Non-residential includes commercial and industrial properties)

b. Please indicate the Property tax being collected for year-ending 2005-2006

i	Domestic	Residential	Rs. 8881.09 Lakhs
ii	Non-Domestic/ Non-	Commercial	
iii	residential	Industrial	

c. Please Provide the Method of Property Tax Assessment being followed.

i	Self-Assessment	✓	Self Assessment to be introduced from current year. Both systems shall be followed
ii	Demand-based	✓	



d. Please provide the below information on Current coverage. (Year 2005-06)

No.	Name of Property	Estimated no. of properties (Total)	No. of properties in the records of the municipality	No. of properties paying property tax	Coverage ratio	Demand Raised	Demand Collected	Collection Ratio
	1	2	3	4	5 =(4)/(2)	6	7	8
1	Residential	192000	170371	170371	0.89	8881.09 Lakhs *	5564.42 Lakhs.	0.63
2	Commercial	34000	31042	31042	0.91			
3	Industrial	4000	3998	3998	0.99			

* Total Demand of the year 2005-2006 is Rs.13714.38 Lakhs, of which Rs. 4833.29 Lakhs is under Court case, Liquidation, BIFR, Closed Factories & PCNTDA Open lands. Hence the net (recoverable) demand is Rs. 8881.09 Lakhs

e. Please state the Exemption given to property owners

No.	Type of Exemption	Qualifying institution/ individual	Revenue implication of exemption
1	Exemption U/S 132 of BPMC Act for religious/educational/charitable properties	Mandir, Masjid, Church & Other Public Religious places	Demand not raised

f. Please provide the Basis of determination of property tax.

i	Capital Value	
ii	Rateable Value	✓
iii	Unit Area	
iv	Other (Please specify)	

g. Please provide the Use of technology in property tax management.

i	GIS of Property Tax Records	✓	An agreement has been signed in this respect for project preparation and the work on the same has commenced
ii	Electronic Database of Property Records	✓	
iii	Any software for compliance	✓	

h. Please describe the Level of discretionary power available with assessing authority

Discretionary powers as provided under B.P.M.C.Act 1949 to exempt penalty on tax. Also Municipal Commissioner has the powers to fix the rate table for property taxes



i. Please provide the last updation of property records and guidance values.

i	Last updation of Property Records	1/4/2002
ii	Last revision of guidance values	1/4/2002
iii	Frequency of revision of guidance values	As per Act ARV can't be revised for old properties. However under the new system the guidance value can be changed every year. Previously PCMC was revising this every 4 years. It is proposed to revise every year from the current year.

iv. Please indicate whether information from appropriate authorities on new building construction, or additions to existing buildings is being captured; how (e.g. development authority etc.)

Yes	No
<input checked="" type="checkbox"/>	<input type="checkbox"/>

The agencies/ authorities involved are MIDC, PCNTDA and PCMC (Building Permission Dept., & Town Planning Dept.). A person from PCMC is deputed to coordinate collect commencement & completion certificates from other agencies and update the same in the records of PCMC.

v. Please indicate whether information from appropriate authorities on change of ownership and land valuation is being captured; if so, how (e.g. Dept of Stamps and Registration)

Yes	No
<input checked="" type="checkbox"/>	<input type="checkbox"/>

Registrar & Sub-Registrar (Haveli)

II. TIMELINE FOR ACTION ON REFORMS

Please provide timelines for the following action items

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12

a. Extension of property tax regime to all properties

	<input checked="" type="checkbox"/>					
--	-------------------------------------	--	--	--	--	--

b. Elimination of exemption

Properties not eligible for exemption are already identified and eliminated



Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12

c. Migration to Self-Assessment System of Property Taxation

- i Setting up a Committee/Team to draft/amend legislation
- ii Stakeholder consultations
- iii Preparation of Draft Legislation
- iv Approval of Cabinet/ Government
- v Final Enactment of Legislation by legislature
- vi Notification
- vii Preparation and notification of appropriate subordinate legislation
- viii Implementation by municipality (ies)

	✓					
	✓					
	✓					
		✓				
			✓			
				✓		
				✓		
				✓		

d. Setting up a non-discretionary method for determination of Property Tax (e.g. unit area, etc)

- i Setting up a Committee/Team to draft/amend legislation
- ii Stakeholder consultations
- iii Preparation of Draft Legislation
- iv Approval of Cabinet/ Government
- v Final Enactment of Legislation by legislature
- vi Notification
- vii Preparation and notification of appropriate subordinate legislation
- viii Implementation by municipality (ies)

	✓					
	✓					
	✓					
	✓					
		✓				
		✓				
		✓				
		✓				

e. Use of GIS-based property tax system

- i Selection of appropriate consultant
- ii Preparation of digital property maps for municipality

	✓					
	✓					



	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
iii Verification of digital maps and preparation of complete database of properties			✓				
iv Full migration to GIS system			✓				
f. Next revision of guidance value (Unit Area Ratable Value)	✓						
g. Fix periodicity for revision of guidance values	Under current legislation, once ARV is fixed, it can't be changed for any building unless it is redeveloped or any change in use. However under the new system the guidance value can be changed every year, but will be applicable only for new properties						
i Periodicity to be adopted							
ii Deadline for adoption							
h. Establish Taxpayer education programme							
i Local camps for clarification of doubts and assistance in filling out forms		✓					
ii Setting up a website for property tax issues/ FAQs etc	This feature will be added onto the PCMC website						
		✓					
i. Establish Dispute Resolution Mechanism		✓					
j. Rewarding and acknowledging honest and prompt taxpayers			✓				
k. Achievement of 85% Coverage Ratio (CR) (see item I d above)	✓						
l. Achievement of 90% Collection Ratio (CR) (see item I d above)							✓
m. Any other reform steps being undertaken							



5.5. USER CHARGES

DESIRED OBJECTIVES:

Note: JNNURM requires certain reforms to be undertaken by states / cities in the levy of User Charges on different municipal services, with an objective of securing effective linkages between asset creation and asset maintenance and ultimately leading to self-sustaining delivery of urban services.

I. CURRENT STATUS

- a. Please provide a list of services being delivered by municipalities/ parastatals and the status of user charges being levied for each

Type of Service	Service Provider	Tariff Structure	Last Revision of Tariff
Water Supply	PCMC	Domestic - Metered	Rs. 3.30 per 1000 litres.
		Domestic - Unmetered	Rs. 792/- per annum
		Rs. 28.00 per 1000 ltrs. for metered commercial & industrial with minimum in the range of Rs. 652/- to Rs. 11358/- per annum depending on size of connection	
Sewerage	PCMC	At present no charge. Proposal to charge as part of property tax @ 4% of ARV	-
Solid Waste Management	PCMC	No other charges except for collection charges on canteens and hotel owners. PCMC appointed agencies to collect canteen and hotel waste separately and the collected waste is sent for vermin-composting. Collection charges are levied on the hotel, canteen owners. The charges are as follows " A " Grade - Rs 3000/- p.a " B " Grade - Rs 2000/- p.a " C " Grade - Rs 1000/- p.a	-
Public Transport Agencies	PCMC	Fare Collection and advertisement charges by PCMT, PCMC provides subsidy to PCMT under BPMC Act	
Others (please specify)			

- b. Please provide the costs for providing the following services (total cost as well as per unit cost) and the total and per unit charges collected in 2004-05

Type of Service	Total O&M Cost		Total user charges collected		Revenue Loss due to	
	Per Unit Cost	Total Cost	Per Unit Recovery	Total Recovery	leakage/ theft	free supply
Water Supply Dept.	Rs.3.24 / Cum	Rs. 2696 lakhs	Rs.1.12 / Cum	Rs.940 lakhs	Rs.263 lakhs	1493 lakhs
Sewerage Dept.	Rs.1940 / MLD	Rs. 779 lakhs	NIL	NIL	-	Rs. 779 lakhs
Solid Waste Management	Rs. 5.7 lakh / Ton	Rs. 2786 lakhs	Rs.332/ Ton	Rs. 1.63 lakhs	-	Rs. 2784 lakhs
Public Transport Agencies	PCMC provides about 10% of operational cost as subsidy					
Others (please specify)						



c. Please provide metrics and current services levels

For Water Supply

Gross Daily Per Capita Supply-Year 2005-06 (LPCD)	185 lpcd
System Coverage (% of Area)	95 %
Hrs. of Supply	4-5 hrs.
Quality	Potable
% Roads Covered with Distribution Network	95 %
% Elevated Storage capacity w.r.t Supply	29 %
% Total Storage capacity w.r.t Supply	32 %
% Treatment capacity available	100 %

For Sewerage:

Quantum of Sewerage generated (MLD)	180 MLD
% Roads Covered by UGD Network	81 %
% of Treatment capacity w.r.t water Supplied	69 %
% Population Covered by UGD (Year 2006)	50 %

For Solid Waste Management

Waste Generated per capita (2005-06)	398 gm
Waste reduction due to source segregation Tons	45 Tons
% Waste Collected	95 %
% Households covered by Door-to-Door Collection by Private Sector	60 %
% Households covered by Door-to-Door Collection by Municipality	5 %
% Rated Collection Capacity to waste Generated	62 %
Average No. of Trips per Vehicle/ day	2.5 Trips
Mode of Disposal	Dumping

Hotel waste, vegetable market waste, slaughter house waste is collected separately

Provision for composting of garden waste and tree cutting is made at various municipal gardens



II. Timeline for Action on Reforms

- a. The State/ ULB must formulate and adopt a policy on user charges which should include proper targeting of subsidies, if any, for all services, ensuring the full realization of O&M cost by the end of the Mission period. (Note : This resolution should be passed within 6 months of signing of MOA under JNNURM and a copy submitted to MOUD)

Year 1 2005-06	Year 2 2006-07	Year 3 2007-08	Year 4 2008-09	Year 5 2009-10	Year 6 2010-11	Year 7 2011-12
	✓					

- b. Establishment of proper accounting system for each service so as to determine the O&M cost separately. Please specify the timeline for each service separately

i. Water Supply and Sewerage

✓	The present cash based double entry accounting system as well as proposed Double Entry Accrual System (by 2008-09) provides for accounting of each of the services of water supply, sewerage, solid waste management, street lighting etc as well as respective individual heads of O&M costs
✓	
	Services are provided by PCMT an, undertaking of PCMC. For efficiency of Operations and Maintenance and improving the transport service merger of PCMT and PMT is proposed and is also approved by Government of Maharashtra

ii. Solid Waste Management

iii. Public Transport Services

iv. Others (Please specify)

- c. The State/ ULB should define service standards and timelines for achieving these

✓	Shall be achieved through Citizens charter which is in place
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- d. The State/ULB should define user charge structure and timelines for achieving these

i. Water Supply

PCMC proposes to revise user charges every 5 years by 25% starting 2007-08. Complete cost recovery shall be achieved by 2011-12



ii Sewerage

iii Solid Waste Management

iv Other Services (Specify)

e. The State should setup a body for recommending a user charge structure

f. State should quantify/study the impact of subsidies for each service on a periodic basis

g. Time table to achieve full recovery of O&M costs from user charges (Please indicate proposed recovery level for each year)

i Water Supply

ii Sewerage

iii Solid Waste Management

iv Other Services

h. Any other reform steps being undertaken (please use additional space to specify)

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
PCMC proposes to introduce sewerage tax as 4% of ARV during 2007-08. Complete cost recovery shall be achieved by 2011-12						
By 2011-12, PCMC shall achieve 100% cost recovery for domestic Municipal Solid Waste service. For biomedical waste, a PPP model in lines of PMC will be put in place by 2007-08 towards full cost recovery system. For waste from hotels etc levy of charges is in place						

State Level

State Level

35%	40%	55%	70%	85%	100%	
		50%	70%	85%	100%	
		50%	70%	85%	100%	

- Public stand posts in slums to be removed and individual connections to be provided. This will reduce losses considerably and eliminate free water supply.
- Sale of tertiary treated water to for non-potable uses like, irrigation
- Detection of illegal connections and authorizing them will be taken up.
- Introduction of Conservancy/ SWM cess on property tax from 2007-08
- Metering of water supply connections by 2007-08



5.6. INTERNAL EARMARKING FOR BASIC SERVICES FOR POOR

DESIRED OBJECTIVES

Note: JNNURM requires certain reforms to be undertaken by states / cities in the provision of basic services to the Urban Poor with an objective of providing security of tenure at affordable prices, improved housing, water supply and sanitation. In addition, delivery of other existing universal services of the government for education, health and social security is to be ensured.

I. CURRENT STATUS

a. Please indicate whether the State has identified all Urban Below-Poverty –Line (BPL) families/beneficiaries

Yes	No
<input checked="" type="checkbox"/>	<input type="checkbox"/>

b. If the answer to 1 (a) is yes, then please indicate what criteria have been adopted in this identification. **(for example Kerala model)**

- The criterion for identifying BPL families is monthly per capita income
- In year 1998, the monthly per capita income was fixed at Rs. 419.98 and for the current year it is fixed at Rs. 591.75 (per capita/month), the survey for identifying BPL families is completed and final list shall be published shortly

c. Please indicate the number of individuals/ families that have been identified as BPL

2,46 8 families

d. Please indicate how many BPL lists of the Urban Poor are being maintained by ULB/ different departments of the State? What is the overlap of BPL families among these lists?

Only one List

e. Please indicate the percentage of households living in squatter settlements/ temporary structures

- 13%



f. Please indicate the percentage of households living in squatter settlements/ temporary structures **without access** to :

i. Municipal water supply -

** The temporary structures are catered to by public stand posts and individual connection too*

ii. Sanitation -

A	Sewer	N.A
B	Drainage	13%
C	Community Toilets	50%
D	Solid Waste Management	NIL

iii. Primary education

iv. Primary Health

g. Please indicate if there is any internal earmarking within the municipal budget. Please provide the total amount earmarked and the percentage of the total budget in the last 3 years.

Year	Amount Budgeted- Rs. Crores	Actual Amount Spent- Rs. Crores	% of the total budget
2002-2003	69.58	65.65	24 %
2003-2004	82.06	76.69	24 %
2004-2005	88.29	83.29	20 %

The Amount includes revenue and capital expenditure; the services covered are slum improvement, internal roads for slums, primary education, primary health care, sanitation, solid waste management and street lighting and UCD activities.

II. TIMELINE FOR ACTION ON REFORMS

- a. The State/ULB must formulate and adopt an overarching , comprehensive policy on providing basis services for the Urban Poor which should include security of tenure at affordable prices, improved housing, water supply and sanitation. Delivery of other existing universal services of the government for education, health and social security should be ensured. This policy document must include the minimum budgetary earmarking in municipal budgets for the provision of these budgets (Note: This policy document should involve stakeholder participation and be released within 6-9 months of signing of MOA under JNNURM and a copy submitted to MOUD/EPEA



	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
b. Defining criteria for identification of urban poor	✓						
c. Fresh enumeration based on the above	✓						
d. Define threshold service levels for the Urban Poor across various services	✓						
e. Strategic document which outlines the requirements both physical and financial, timeframes, sources of funding and implementation strategies Including community participation, monitor able output indicators for each of the services, including outlining convergences, if any		✓					
f. Periodic impact evaluation by independent agencies appointed by the State Government	State Level						
g. Any other reform steps being undertaken (please use additional space to specify)	✓	✓	✓	✓	✓	✓	

Rehabilitation of slums under road winding, flood affected areas, green zones and existing T/S of sector No.22 and Railway land in total 11,000 T/S construction. Other slums will be rehabilitated as per SRA rules through market driven development

