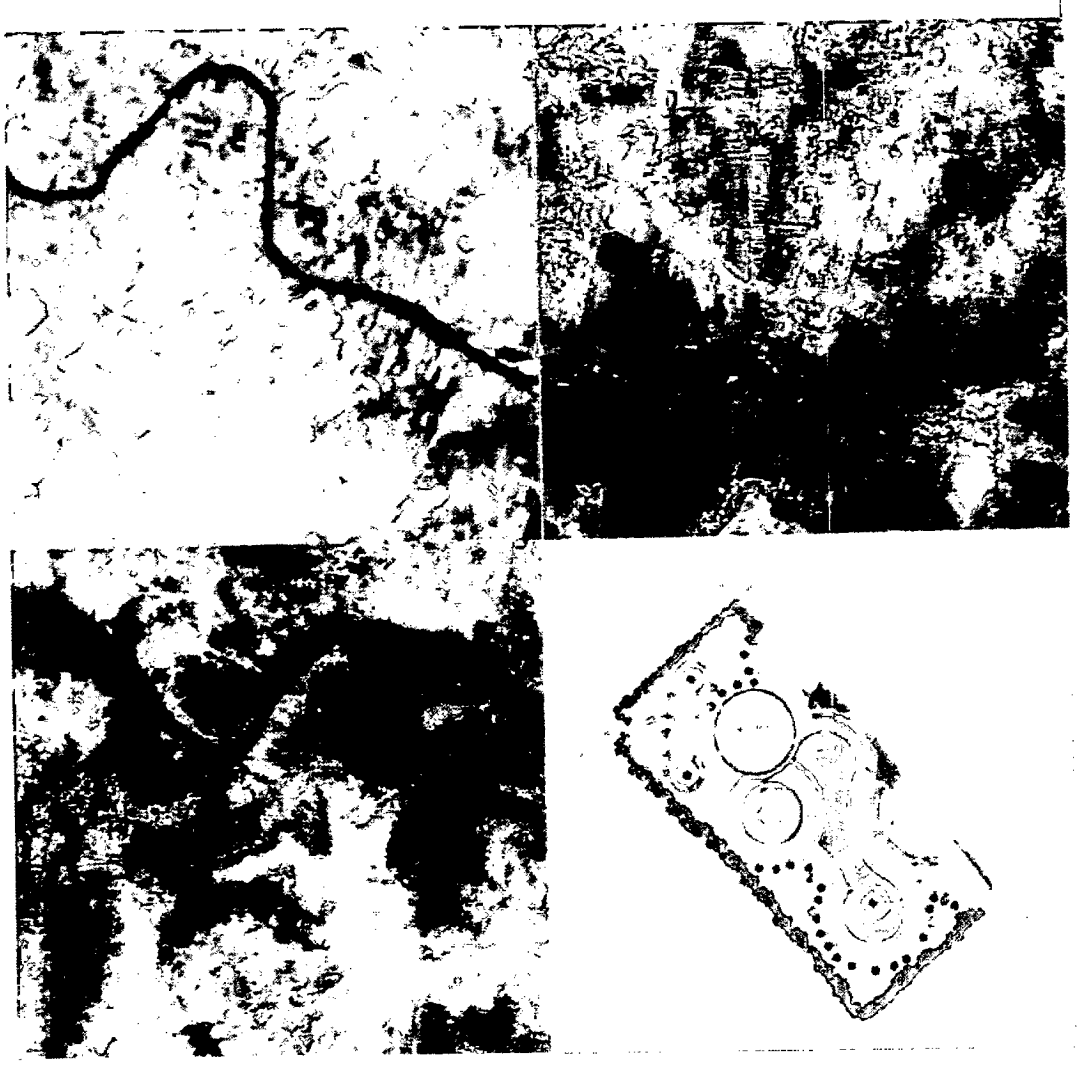
Chinchwad

Pimpri-Chinchwad Municipal Corporation

DEVELOPMENT PLAN - 2021 FOR NEWLY MERGED AREAS IN PIMPRI-CHINCHWAD MUNICIPAL CORPORATION

DRAFT DEVELOPMENT PLAN

FINAL REPORT



Prashant Patil

PIMPRI-CHINCHWAD MUNICIPAL CORPORATION

DEVELOPMENT PLAN – 2021 FOR NEWLY MERGED AREAS IN PIMPRI-CHINCHWAD MUNICIPAL CORPORATION

DRAFT DEVELOPMENT PLAN
FINAL REPORT

1, Mangaldas Road, Pune- 411 001

TATA

TATA CONSULTANCY SERVICES

May 2000

Table of Contents

		Page No.
List of Tables		
List of Exhibits		
List of Appendices		
Abbreviations		
PART I		
1	**INTRODUCTION**	
1.1	History of the Town	1-1
1.2	Existing Pimpri-Chinchwad Municipal Area	1-2
1.3	Newly Merged Area	1-2
1.4	Report Structure	1-4
2	**PHYSICAL CHARACTERISTICS, ENVIRONMENT AND NATURAL RESOURCES**	
2.1	Location of theArea	2-1
2.2	Topography and Landscape	2-1
2.3	Climate	2-2
2.4	Geology	2-2
2.5	Environmental Quality	2-3
	2.5.1 Air Quality	2-3
	2.5.2 Water Quality	2-4
3	**DEMOGRAPHIC CHARACTERISTICS**	
3.1	Introduction	3-1
3.2	Population Growth	3-1
3.3	Population Density	3-3
3.4	Distribution of Population	3-3
3.5	Households and Family Size	3-4
3.6	Age and Sex Ratio	3-5
3.7	Occupational Structure	3-6
3.8	Literacy	3-8
3.9	Migration	3-8
3.10	Income	3-9
3.11	Work Force Participation Rate (WFPR)	3-10
4	**DEVELOPMENT PLAN: OBJECTIVES AND PROCESS**	
4.1	Introduction	4-1
4.2	Objectives of the Development Plan	4-1

4.3	Main Stages of the Development Plan		4-2
4.4	Survey – Analysis and Findings		4-2
	4.4.1	Industrial Survey	4-3
	4.4.2	MIDC Industrial Areas	4-5
	4.4.3	Trade and Commerce	4-6
	4.4.4	Housing Survey	4-7
	4.4.5	Water Supply	4-9
	4.4.6	Sewage and Solid Waste Disposal	4-11
	4.4.7	Educational Facilities	4-12
	4.4.8	Health and Medical Facilities	4-13
	4.4.9	Shopping Facilities	4-13
	4.4.10	Recreational and Green Spaces	4-13
	4.4.11	Other Facilities	4-14
	4.4.12	Cremation Facilities	4-15
	4.4.13	Telecommunication and Infrastructure	4-15
	4.4.14	Power Supply	4-16
	4.4.15	Traffic and Transport Survey	4-16
	4.4.16	Preparation of Base and Existing Land Use (ELU)	4-24

5 SYSTEMS ANALYSIS

5.1	Introduction		5-1
5.2	Nominal Group Technique (NGT)		5-2
5.3	Cybernetic Influence Diagram (CID)		5-2
	5.3.1	Preliminary Classification	5-3
	5.3.2	Burst and Merge Points	5-5
	5.3.3	Feedback Loop Analysis	5-7
	5.3.4	Generic Conclusions	5-7
5.4	SNAC Analysis		5-9
	5.4.1	Objective Model for the Areas of PCMC	5-10
	5.4.2	Structure of the Objectives	5-10
	5.4.3	Conclusion	5-16

PART II

6 DEMOGRAPHIC PROJECTIONS

6.1	Introduction		6-1
6.2	Delineation of Sectors		6-1
6.3	Estimation of Future Population		6-2
	6.3.1	Constituents of Growth	6-2
	6.3.2	Methods of Population Projection	6-3
	6.3.3	Projected Population	6-9
	6.3.4	Sector-wise Projected Population	6-12
6.4	Employment Projection		6-13

7 PLANNING PROPOSALS OF DRAFT DEVELOPMENT PLAN

7.1	Structure Plan		7-1
7.2	Proposed Land Use Zoning		7-2

7.2.1 Residential Zone 7-2
7.2.2 Commercial Zone 7-4
7.2.3 Industrial Zone 7-4
7.2.4 Public and Semi-Public Zone 7-5
7.2.5 Public Utility 7-5
7.2.6 Traffic and Transportation 7-6
7.2.7 Recreation 7-6
7.2.8 No Development Zone 7-6
7.3 Development Controls 7-7
7.4 Planning Standards for Social Amenities 7-8

8 TRAFFIC AND TRANSPORTATION INFRASTRUCTURE
8.1 Introduction 8-1
8.2 Regional Context 8-1
8.3 Traffic and Transportation Surveys 8-1
8.4 Travel Demand Forecasting 8-1
8.4.1 Estimation of Person Trips 8-2
8.4.2 Combined OD Matrix 8-4
8.4.3 Trip Assignment 8-4
8.5 Proposed Traffic and Transportation Infrastructure 8-5
8.5.1 Regional Plan Proposals 8-5
8.5.2 General Planning Considerations 8-5
8.5.3 Hierarchy of Roads and Recommended Right of Ways (ROW) 8-7
8.5.4 Truck Terminals 8-9
8.5.5 Bus Terminals / Stands 8-9
8.5.6 Railway Proposals 8-10
8.5.7 Parking 8-10
8.5.8 Integration of Project Roads with Surrounding Areas 8-11
8.5.9 Costing of Proposed Road Network 8-11

9 SOCIAL AMENITIES AND UTILITY SERVICES
9.1 General 9-1
9.1.1 Planning Sectors 9-1
9.2 Recreational Facilities 9-2
9.3 Educational Facilities 9-3
9.3.1 Primary Schools 9-3
9.3.2 Secondary Schools 9-3
9.4 Health Facilities 9-4
9.5 Shopping Centre and Market 9-5
9.6 Community Centre and Library 9-6
9.7 Cremation Grounds / Burial Grounds 9-6
9.8 Fire Brigade Stations 9-7
9.9 Utility Services 9-7
9.9.1 Water Supply 9-7
9.9.2 Sewerage Facilities 9-8
9.9.3 Electricity 9-9

9.10	Miscellaneous		9-9
9.11	Colour Code		9-10
10	**ENVIRONMENTAL ISSUES**		
10.1	Introduction		10-1
10.2	Shopping Centres and Markets		10-2
10.3	Health Care Facilities		10-2
10.4	Recreation Facilities		10-3
	10.4.1	Riverfront Recreation Sites	10-3
	10.4.2	Quarry Area Development	10-4
10.5	Roads		10-5
10.6	Bus / Trucks Terminuses		10-5
10.7	Slaughterhouse		10-6
10.8	Water Treatment Plants		10-7
10.9	Sewage Treatments Plants		10-7
10.10	Solid Waste Management		10-9
10.11	Cremation Ghats and Burial Grounds		10-9
11	**IMPLEMENTATION OF DEVELOPMENT PLAN**		
11.1	Introduction		11-1
11.2	Financial Implications & Ways and Means of Effective Implementation of the Plan		11-2
11.3	Public Participation in Implementation		11-2
	11.3.1	Land Pooling and Redistribution Scheme (TP Scheme)	11-2
	11.3.2	Transfer of Development Rights (TDR)	11-3
	11.3.3	Accommodation Reservation	11-4
	11.3.4	Grant of Additional FSI in lieu of Compensation	11-4
	11.3.5	Public Participation	11-5
	11.3.6	Sharing of Cost	11-5
11.4	Cost of Implementation of Development Plan and Probable Net Cost to the Planning Authority		11-6
11.5	Role of Planning Authority (PCMC) in Shouldering the Financial Burden for the Implementation of the Development Plan		11-7
11.6	Need for Proper Monitoring		11-9
11.7	Programme		11-9
11.8	Determined Joint Efforts for Effective Implementation of the Development Plan		11-10

List of Tables

Table No.	Title
1.1	Inclusion of Newly Merged Areas in the Pimpri-Chinchwad Municipal Corporation (PCMC) as in Schedule I
2.1	Ambient Air Quality in the Newly Merged Villages of PCMC
2.2	Groundwater Quality in the Newly Merged Villages of PCMC
2.3	Surface Water Quality in the Newly Merged Villages of PCMC
3.1	Population Growth in Newly Merged Areas of PCMC
3.2	Population Growth Rate in the Newly Merged Areas of PCMC
3.3	Household Size
3.4	Age Sex Structure
3.5	Occupational Structure as in 1991 Census
3.6	Work Force Participation Rate (WFPR)
4.1	Total Number of Industries with the Year of Establishment in the Newly Merged Areas of PCMC
4.2	Total Number of Industries Classified Employment-wise in the Newly Merged Areas of PCMC
4.3	Total Number of Industries Classified Investment-wise in the Newly Merged Areas of PCMC
4.4	Total Number of Industries Classified Turnover-wise in the Newly Merged Areas of PCMC
4.5	Water Supply Provisions in the Newly Merged Areas
4.6	Details of Health and Medical Facilities (by Public Bodies) within the Newly Merged Areas of PCMC
4.7	Details of Power Supply Infrastructure
4.8	Composition of Traffic during 24 Hours at Outer Cordon Points and O-D Survey Sample Size
4.9	Speeds on Major Roads in the Study Area
4.10	Monthly Income and Trip Rates
4.11	Modal Shares and Mode-Wise Trip Lengths
4.12	Delay At Level Crossing
4.13	Summary of Existing Land-Use Analysis
5.1	List of Prioritised Ideas
5.2	List of Key Elements in CID
5.3	Objectives and their Key Performance Measures
6.1	Sector-Wise Distribution of Census Population in the Areas of PCMC
6.2A	Census Population and Population Ratios in Different Geographical Areas
6.2B	Census Population and Population Ratios in Different Geographical Areas
6.3	Projected Population in Areas of PCMC

6.4 Gross City-Level Density in Metropolitan Areas
6.5 Proposed Gross City-Level Density and Gross Residential Density in the Old Areas of PCMC
6.6 Sector-Wise Projected Population in the Newly Merged Areas of PCMC
6.7 Planning Unit-Wise Projected Population in the Newly Merged Areas of PCMC
6.8 Sector and Planning Unit-Wise Census Employment in the Newly Merged Areas of PCMC
6.9 Sector and Planning Unit-Wise Projected Employment in the Newly Merged Areas of PCMC

7.1 Statement of Proposed Residential Zones in the Newly Merged Areas of PCMC

8.1 Trip Generation Equation
8.2 Calibration Parameters
8.3 Modal Shares, Average Vehicle Occupancy and PCU Factor
8.4 Average Projected Traffic and Proposed ROW of Major Roads
8.5 Integration of Road Network with Surrounding Areas
8.6 Estimate of Implementation Cost of Road Network

List of Exhibits

Exhibit No.	Title
2.1	Location Map Showing Newly Merged Areas
2.2	Mean Monthly Temperature and Rainfall at Pune
2.3	Monthly Wind-Roses at Pune, recorded at 0830 hours
2.4	Monthly Wind-Roses at Pune, recorded at 1730 hours
3.1	Households by Family Size
3.2	Occupational Structure in 1999
3.3	Place of Migration
3.4	Reasons for Migration
3.5	Distribution of Households by Income Category
3.6	Place of Employment
4.1	Age of House
4.2	Type of House
4.3	Tenure Status
4.4	Households and Source of Water
4.5	Method of Sewage Disposal
4.6	Method of Garbage Collection
4.7	Existing Land Use Map of Newly Merged Villages of PCMC
5.1	Cybernetic Influence Diagram
5.2	Composite Feedback Loop 1
5.3	Composite Feedback Loop 2
5.4	Composite Feedback Loop 3
5.5	Composite Feedback Loop 4
5.6	Composite Feedback Loop 5
5.7	Composite Feedback Loop 6
5.8	Composite Feedback Loop 7
5.9	Composite Feedback Loop 8
5.10	Composite Feedback Loop 9
5.11	Composite Feedback Loop 10
5.12	Composite Feedback Loop 11
5.13	Structure of Urban Systems' Objectives through Interpretive Structure Modelling (ISM)
6.1	Location Map of Newly Merged Villages Showing Proposed Sectors and Planning Units
6.2	Ratio of Population of Pune District to Maharashtra State
6.3	Ratio of Population of Pune Metropolitan Region (PMR) to Pune District
6.4	Ratio of Population of Composite Area of PCMC to PMR

6.5 Ratio of Population of Existing Area of PCMC to PMR
6.6 Ratio of Population of Newly Merged Areas to PMR

7.1 Pimpri-Chinchwad Municipal Corporation (Extended Areas) – Structure Plan

8.1 Travel Demand Forecasting Methodology
8.2A Typical Cross Section of the Proposed PCMC Roads
8.2B Typical Cross Section of the Proposed PCMC Roads

9.1 Riverfront Recreation Site in Talwade
9.2 Riverfront Recreation Site in Moshi
9.3 Riverfront Recreation Site in Punawale
9.4 Proposed Land Use Map

List of Appendices

Appendix No.	Title
4-A	Details of Industries in Newly Merged Areas of PCMC
4-B	Details of Sample Industries Surveyed in the Newly Merged Areas of PCMC
4-C	Total Number of Industries Classified Product Group-wise in the Newly Merged Areas of PCMC
4-D	Product Group-wise Classification of Sample Industries surveyed in Newly Merged Areas of PCMC
4-E	Details of Educational Facilities within the Newly Merged Areas of PCMC
5-A	List of Participation in NGT Session
5-B	NGT Session I and II: Participants' Inputs
5-C	Stakeholders and their needs
5-D	The list of Alterables and Constraints for the local bodies in the areas of PCMC
6-A	Assumptions for Population Projection
7-A	Development Control Rules
9-A	Planning Standard Adopted for the Purpose of Present Development Plan
9-B	Details Showing Reservation of Site and Cost of Implementation of Amenity Sites in the Draft Development Plan
11-A	Phased Programme for Implementation of Amenity Sites in the Development Plan

ABBREVIATIONS

ACH	Aundh Chest Hospital complex
AI	Animal Incinerator
BG	Burial Ground
BK.	Budrukh
BPMC Act	The Bombay Provincial Municipal Corporation Act, 1949
BSD	Bus Stand
BT	Bus Terminus
CCBA	Christopher Charles Benninger & Associates
CCL	Community Centre-cum-Library
CG	Cremation Ghat
CID	Cybernetic Influence Diagram
CM	Crematorium
CME	College of Military Engineering
CPCB	Central Pollution Control Board
CS	Cattle Shed
CT	Census Town
DCB	Dehu Road Cantonment Board
DIC	District Industrial Center
DMH	Dispensary-cum-Maternity Home
DP	Development Plan
ELU	Existing Landuse
ES	Engineering Store
ESIS	Employees State Insurance Scheme
ESS	Electrical Sub-Station
ESR	Elevated Service Reservoir
EWS	Economically Weaker Sections
FS	Fire Station
FSI	Floor Space Index
G	Garden / Park amenity
GCP	Ground Control Point
GIS	Geographical Information System
GP	Gram Panchayat

GSI	Geological Survey of India
GSR	Ground Service Reservoir
H	Hospital
Ha	Hectare
HCMTS	High Capacity Mass Transport System
HDH	Housing for Dis-housed
HH	Household
HIG	Higher Income Group
IIIE	India International Infrastructure Engineers
IMD	Indian Meteorological Department
ISM	Interpretive Structure Model
KCB	Khadki (Kirkee) Cantonment Board
km	Length in kilometer
LIG	Lower Income Group
LPCD	Liters Per Capita per Day
LSI	Large Scale Industry
m	Length in meter
MASHAL	Maharashtra Social Housing & Action League
MCCIA	Mahratta Chamber of Commerce, Industries and Agriculture
MDR	Major District Roads
MHADA	Maharashtra Housing and Area Development Authority
MIDC	Maharashtra Industrial Development Corporation
MIDC STP	Maharashtra Industrial Development Corporation Software Technology Park
MIG	Middle Income Group
MLD	Million Liters per Day
MP	Municipal Purpose
MPCB	Maharashtra Pollution Control Board
MR&TP Act	The Maharashtra Regional and Town Planning Act, 1966
MSEB	Maharashtra State Electricity Board
MSL	Mean Sea Level
MSRDC	Maharashtra State Road Development Corporation
MUA&E	Ministry of Urban affairs and Employment

NA	Not Available / Applicable
NAAQS	National Ambient Air Quality Standards
NGO	Non-Governmental Organisation
NGT	Nominal Group Technique
NH	National Highway
NIUA	National Institute of Urban Affairs
NRSA	National Remote Sensing Agency
NV	New Village
O-D	Origin – Destination
ODR	Ordinary District Roads
OP	Octroi Post
P	Parking
P&T	Post and Telegraph
PCB	Pune Cantonment Board
PCMC	Pimpri-Chinchwad Municipal Corporation
PCMT	Pimpri-Chinchwad Municipal Transport
PCNTDA	Pimpri-Chinchwad New Town Development Authority
PCU	Passenger Car Unit
PG	Playground
PHC	Primary Health Center
PHS	Primary Health Sub-center
PMA	Pune Metropolitan Area
PMC	Pune Municipal Corporation
PMR Plan	Pune Metropolitan Regional Plan
PMT	Pune Municipal Transport
PO	Post Office
PS	Primary School
PSN	Police Station
PWD	Public Works Department
RFR	River Front Recreation
RM	Retail Market (for informal sector)
ROW	Right of Way
RP	Regional Plan

RPM	Respirable Particulate Matter
RS	Remote Sensing
SACC	Super Administrative-cum-Commercial Complex (at Moshi)
SCM	Shopping Centre-cum-Market
SH	Slaughter House
SS	Secondary School
SHSS	Secondary & Higher Secondary School
SNAC	Stakeholders-Needs-Alterables-Constraints analysis
SOI	Survey of India
SPG	Swimming Pool-cum-Gymnasium
SPM	Suspended Particulate Matter
sqkm	Area in square kilometer
sqm	Area in square meter
SRD Scheme	Slum Rehabilitation and Development scheme
SRS	Slum Rehabilitation Site
SSI	Small Scale Industry
SSP	Sewage Sump and Pump house
ST	State Transport
STP	Sewage Treatment Plant
SWT	Solid Waste Transfer site
TC	Telecom Centre
TCS	Tata Consultancy Services
TH	Town Hall
TPM	Total Particulate Matter
TP Scheme	Town Planning scheme
TTP	Truck Terminus and Parking
UDPFI	Urban Development Plan Formulation and Implementation guidelines
USC	Pune University Sub-Centre
WFPR	Work Force Participation Rate
WTP	Water Treatment Plant
ZO	PCMC Zonal Office
ZP	Zilla Parishad

Part - 1

INTRODUCTION 1
1.1 History of the Town 1
1.2 Existing Pimpri-Chinchwad Municipal Area 2
1.3 Newly Merged Area 2
1.4 Report Structure 4

CHAPTER 1

INTRODUCTION

1.1 History of the Town

The origins of Pimpri and Chinchwad can be traced back to two rural settlements situated on the outskirts of Pune. Pimpri was basically established as a centre for refugees from Pakistan. In 1948 the Government of India constructed 1,609 tenements, and prepared a layout plan of 299 independent plots on 203 acres of land. This area was known as Pimpri Camp. Industrialisation in the Pimpri area commenced with the establishment of the 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. The employment opportunity (skilled, semi-skilled and unskilled) has attracted a large work force from other parts of Maharashtra and from other states across the country. This unplanned migration along with the natural growth of population led to rapid increase in population in the Pimpri-Chinchwad during the last four decades. In order to plan, manage, and regulate development, the Pimpri-Chinchwad Municipal Council was formed in 1970 by merging four villages, namely Pimpri, Chinchwad, Bhosari and Akurdi, which led to the upgradation of civic life in the area.

In order to meet the problems of rapid industrialisation and the resulting need for better infrastructure and basic facilities, the Pune Metropolitan Regional Planning Board suggested the establishment of the Pimpri-Chinchwad New Township at a distance of approximately 15 kilometres from Pune City. As per the recommendations of the board, Pimpri-Chinchwad New Town Development Authority (PCNTDA) was established in 1970. The main objective was to create a planned environment for the working population in the vicinity of their work place.

Town Planning Officer
Pimpri-Chinchwad
Development Plan (Extended Area)
PCMC Bhawan, Pimpri – 411018

Commissioner
Pimpri-Chinchwad
Municipal Corporation
PCMC Bhawan, Pimpri – 411018

Following is the chronology of events, which led to the development of Pimpri and Chinchwad:

1975 - Status of Municipal Council was changed from "C" Class to "A" Class

1982 - Formation of a Municipal Corporation by merging seven surrounding villages in the Municipal Council, Sangavi, Rahatni, Thergaon, Wakad (part), Pimple Nilakh, Pimple Gurav, Pimple Saudagar and PCNTDA area covering a total area of 86 sq. km.

1997 - Further increase in the area of the municipal corporation by adding 18 new villages (extended area of 84.51 sq. km.), thus leading to a total of 170.51 sq. km. area under the jurisdiction of PCMC.

1.2 Existing Pimpri-Chinchwad Municipal Area

The Pimpri-Chinchwad township is the most developed industrial belt in the State of Maharashtra. It accommodates some of the most reputed industrial companies of the country such as Telco, SKF, Bajaj Auto, Garware Nylon, Phillips, Alfa Laval, Bajaj Tempo, etc.

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 facilities for industrialisation, the Pimpri-Chinchwad area attracted national and multi-national companies to set up establishments along the rail corridor. Due to rapid growth of industries in this area, there was a pressing need to cope with the demands for housing, social and physical infrastructure, and other amenities. Thus an independent township PCNTDA was created. Pimpri, Chinchwad, Akurdi, and Bhosari were associated with large-scale industrial development and technological advancement. In the transport world, this part of the Pune metropolis is now recognised as the Auto Nagar or the *Detroit* of India due to the presence of several automobile ancillary units. Rapid increase in the population of PCMC and pressure on existing basic services is a major consequence of its development and industrialisation.

1.3 Newly Merged Area

With the advent of rapid growth and expansion in the area, the

Department of Urban Development, Government of Maharashtra in September 1997, notified, under sub-section (3) of Section 3 of the Bombay Provincial Municipal Corporations Act, 1949 (Bom.LIX of 1949) the extension of the erstwhile Pimpri-Chinchwad Municipal Corporation (PCMC) limits by merging 18 fringe villages within the corporation limits. These villages are: Talwade, Chikhali (Remaining), Moshi (Remaining), Dudulgaon, Wadmukhwadi, Dighi (Remaining), Dapodi, Bhosari (Remaining), Sangavi (Aundh Chest Hospital), Pimple Nilakh (Remaining), Wakad (Remaining), Punawale, Kiwale (Remaining), Mamurdi (Remaining), Choviswadi (Remaining), Charholi BK. (Remaining), Bopkhel (Remaining) and Ravet (Remaining). Table 1.1 gives the details of the newly merged areas.

For legal formalities of dates regarding declaration of intention and award of work of preparation of development plan for extended area, etc. refer Appendix 1-A.

Table 1.1 Date of Inclusion of Newly Merged Areas in the Pimpri-Chinchwad Municipal Corporation (PCMC) as in Schedule I

S. No.	Name of revenue village	Date of inclusion
1.	Talwade	11-09-97
2.	Chikhali (Remaining)	11-09-97
3.	Moshi (Remaining)	11-09-97
4.	Dudulgaon	11-09-97
5.	Wadmukhwadi	11-09-97
6.	Dighi (Remaining)	11-09-97
7.	Dapodi	11-09-97
8.	Bhosari (Remaining)	11-09-97
9.	Sangavi (Aundh Chest Hospital)	11-09-97
10.	Pimple Nilakh (Remaining) – • Rakshak Co-operative Housing Society Private Ltd. • Bharat Electronics Ltd. Colony	11-09-97 05-01-00*
11.	Wakad (Remaining)	11-09-97
12.	Punawale	11-09-97
13.	Kiwale (Remaining)	11-09-97
14.	Mamurdi (Remaining)	11-09-97
15.	Choviswadi (Remaining)	29-01-98
16.	Charholi BK (Remaining)	29-01-98
17.	Bopkhel (Remaining)	29-12-97
18.	Ravet (Remaining)	27-12-97

Source: Maharashtra Shasan Rajpatra, 11th September 1997.

* This part of village was added in the Development Plan, on the said date, as per the notification provided by the Deputy Director Town Planning and Town Planning Officer (Extended Area), PCMC.

1.4 Report Structure

The report on Draft Development Plan is comprised of two important parts. Part I is divided into five chapters besides the introduction:

Chapter 2 describes the physical characteristics, environmental and natural resource issues

Chapter 3 highlights the demographic characteristics

Chapter 4 to a large extent emphasises the development plan, its objectives and process involved.

Chapter 5 focuses on systems analysis to understand the dynamics of planning, development and its management within an urban system.

Part II is divided into six chapters:

Chapter 6 estimates the growth of future population

Chapter 7 outlines planning proposals of Draft Development Plan

Chapter 8 highlights traffic and transportation infrastructure

Chapter 9 describes the reservation of sites for various public amenities

Chapter 10 focuses on environmental issues and

Chapter 11 illustrates the strategy for the implementation of development plan.

PHYSICAL CHARACTERISTICS, ENVIRONMENT AND NATURAL RESOURCES 1
2.1 Location of the Area 1
2.2 Topography and Landscape 1
2.3 Climate 2
2.4 Geology 2
2.5 Environmental Quality 3
2.5.1 Air Quality 3
2.5.2 Water Quality 4
Groundwater Quality 4
Surface Water Quality 4

CHAPTER 2

PHYSICAL CHARACTERISTICS, ENVIRONMENT AND NATURAL RESOURCES

2.1 Location of the Area

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

The total area of newly merged fringe villages is about 84.51 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. Exhibit 2.1 shows the newly merged areas of PCMC.

2.2 Topography and Landscape

The area within the PCMC limits is generally flat with altitudes varying from 530 m to 566 m above mean sea level (MSL). The east-west ridge running midway between Indrayani and Pavana rivers separates this area into two parts. The northern portion slopes towards Indrayani River while the southern portion slopes gradually towards Pavana River.

The base rock found throughout the planning area is Deccan trap basalt. Two types of basalts are commonly seen. The non-vesicular type, which is hard, compact, tough, and medium to fine grained is present in the areas around Chinchwad and Akurdi. Building stone is the only commercially important mineral available in this area and is extensively exploited. Weather traps and murum are used for roads. Along the riverbanks, the soil is fertile, and hence very suitable for agriculture. The soil in this area is generally brownish copper coloured towards the west and somewhat blackish in the east. The area is bounded by two rivers

namely river Indrayani in the north and river Pavana in the south which joins the river Mula near Dapodi. The total catchment area of Pavana is about 505 sq. km.

2.3 Climate

The PCMC area is situated on the eastern side of the Western Ghats and is about 530m to 566 m MSL. Due to the prevalence of western breeze, the general climate in the area is healthy and moderate. The area experiences three seasons: winter from October to January, summer from February to May and monsoon from June to September. The westerly monsoon winds bring rain to this area giving an average rainfall of around 850 mm spread over an average of 50 rainy days in a year.

The climate data has been collected from the India Meteorological Department (IMD), Pune for the past 10 years, *i.e.*, 1989 to 1998. The Pune station data can be considered representative for the study area, since Pune is less than 10 km away from Pimpri-Chinchwad.

Exhibit 2.2 shows the monthly mean maximum and minimum temperatures at Pune. Maximum temperatures exceeding 35°C are reported in summer season. These are comparatively lower than the summer temperatures normally recorded in inland areas in India. The monthly minimum temperatures reported in winter season are between 10 and 11°C.

Average annual rainfall at Pune is about 850 mm based on past 10 years' data. Most of the rainfall occurs in monsoon season, *i.e.*, June to September. Maximum rainfall is reported in June and July (> 200 mm). Little or no rainfall is recorded during January to April (< 10 mm).

Exhibits 2.3 and 2.4 show monthly wind-roses at Pune, recorded at 0830 hours and 1730 hours, respectively. It can be seen that the predominant wind direction is W to W-NW. Further, morning hours show occurrence of calm conditions for a significantly large time (>60% during 8 months). Evening hours show less frequent occurrence of clam conditions (<40% during all months).

2.4 Geology

The geology of the entire area consists of Deccan Traps with inter-trappean beds. These volcanic lava flows are spread out in the form of horizontal sheets or beds. The rocks are dark grey to greenish in colour and are generally of two types. The non-vesicular types are hard, tough,

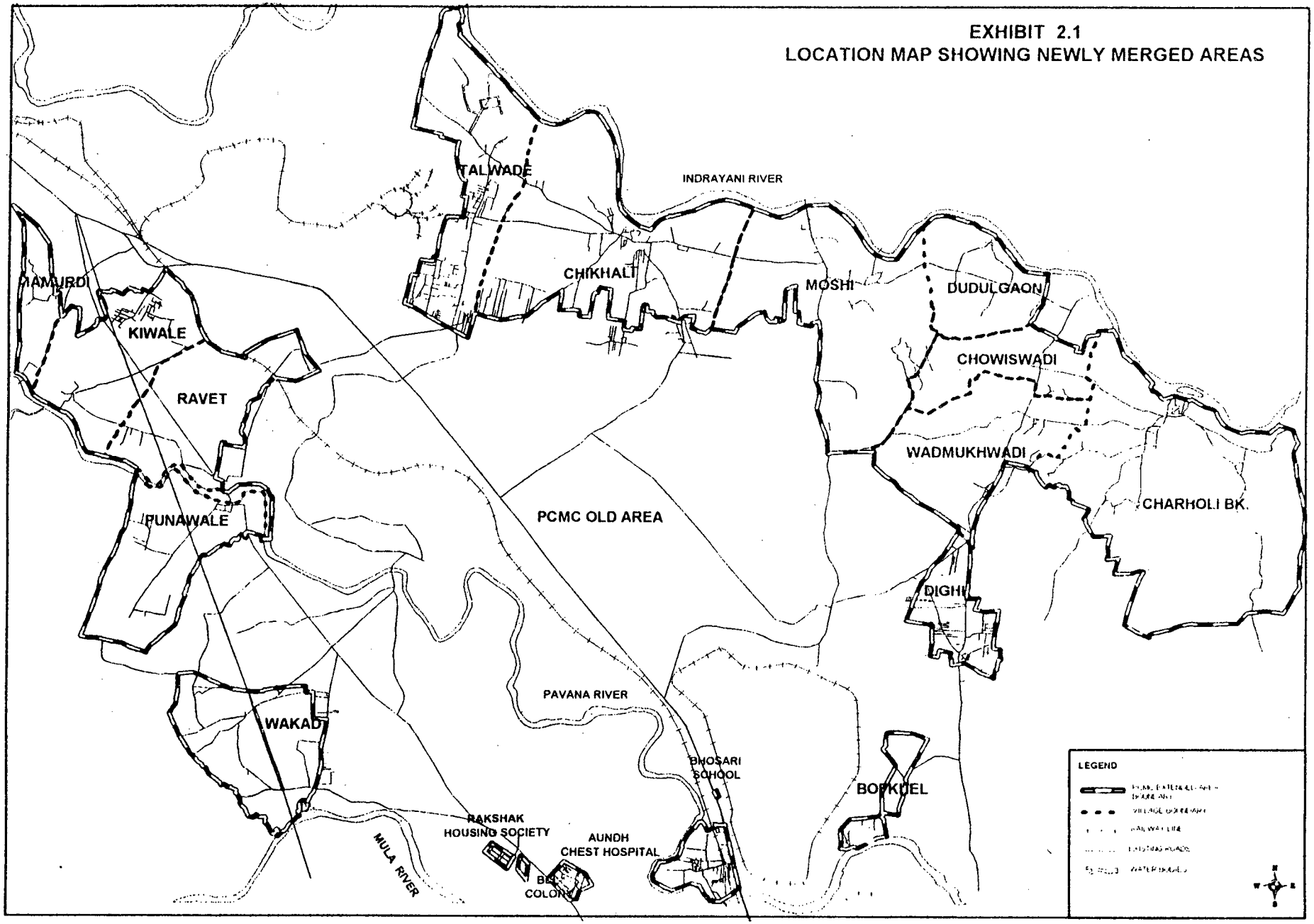
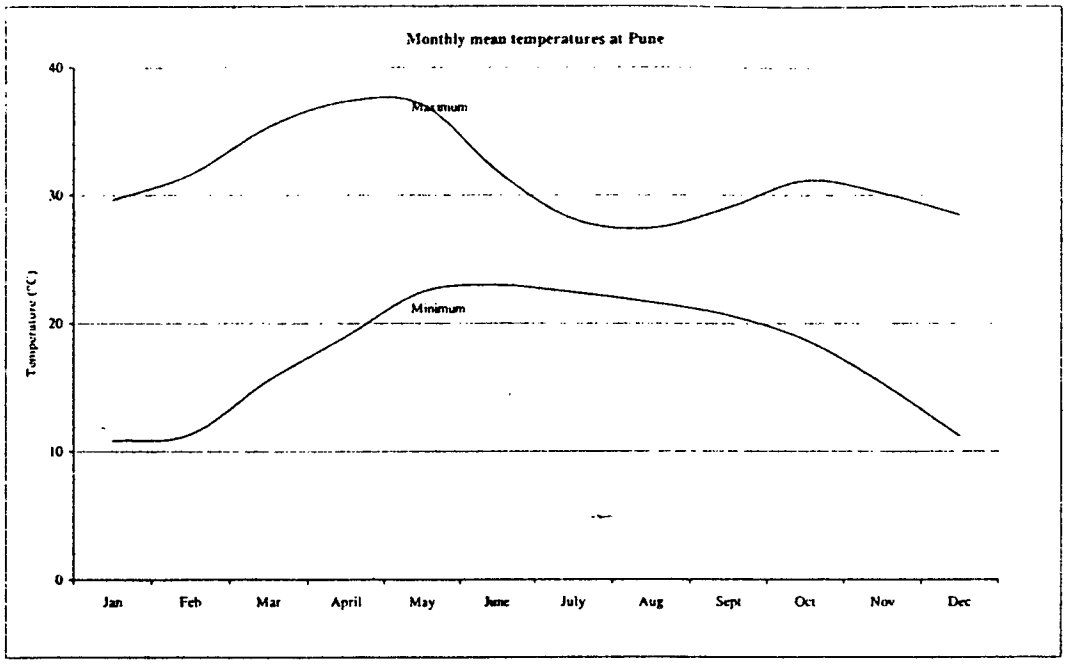


EXHIBIT 2.1
LOCATION MAP SHOWING NEWLY MERGED AREAS
TALWADE
INDRAYANI RIVER
CHIKHALI
MOSHI
DUDULGAON
CHOWISWADI
WADMUKHWADI
CHARHOLI BK.
DIGHI
KIWALE
RAVET
PUNAWALE
PCMC OLD AREA
PAVANA RIVER
WAKAD
BHOSARI SCHOOL
BOPKHEL
RAKSHAK HOUSING SOCIETY
AUNDH CHEST HOSPITAL
MULA RIVER
LEGEND



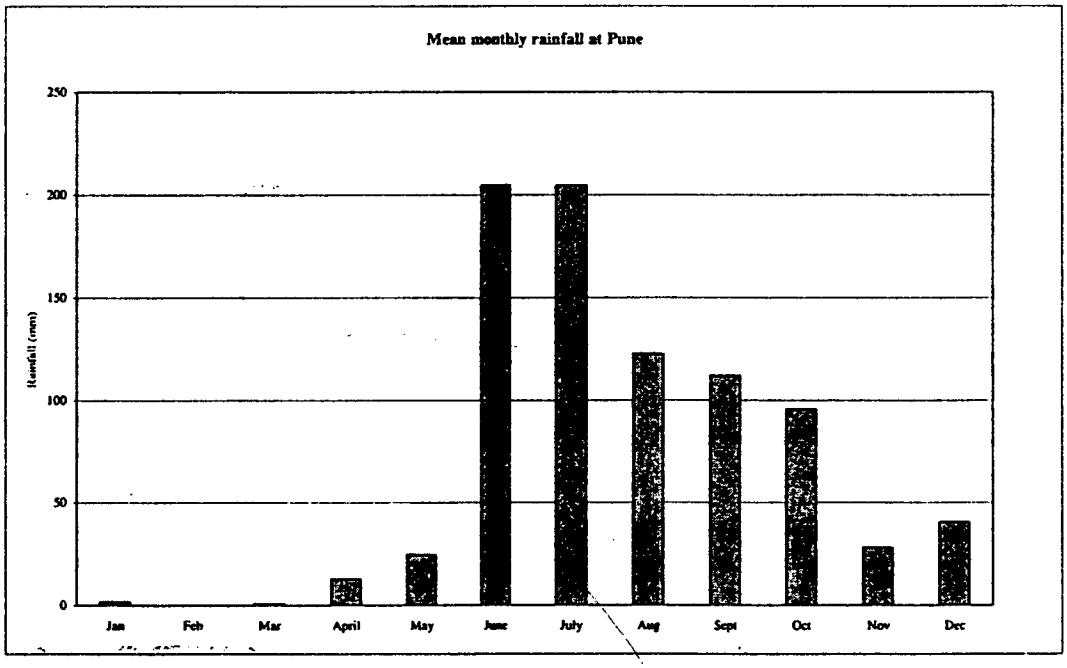


Exhibit 2.2. Mean monthly temperatures and rainfall at Pune

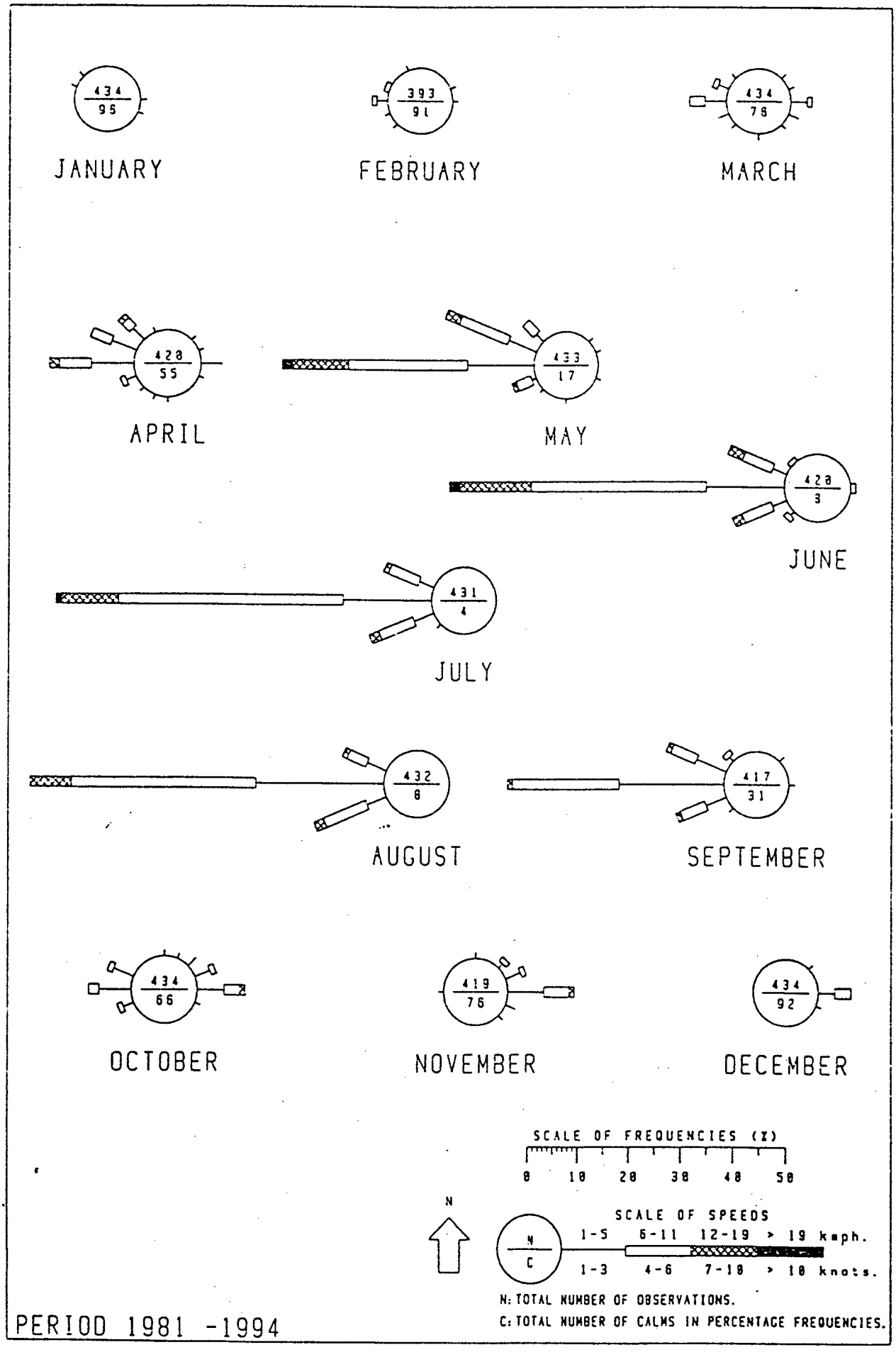


Exhibit 2.3. Monthly wind-roses at Pune, recorded at 0830 hours.

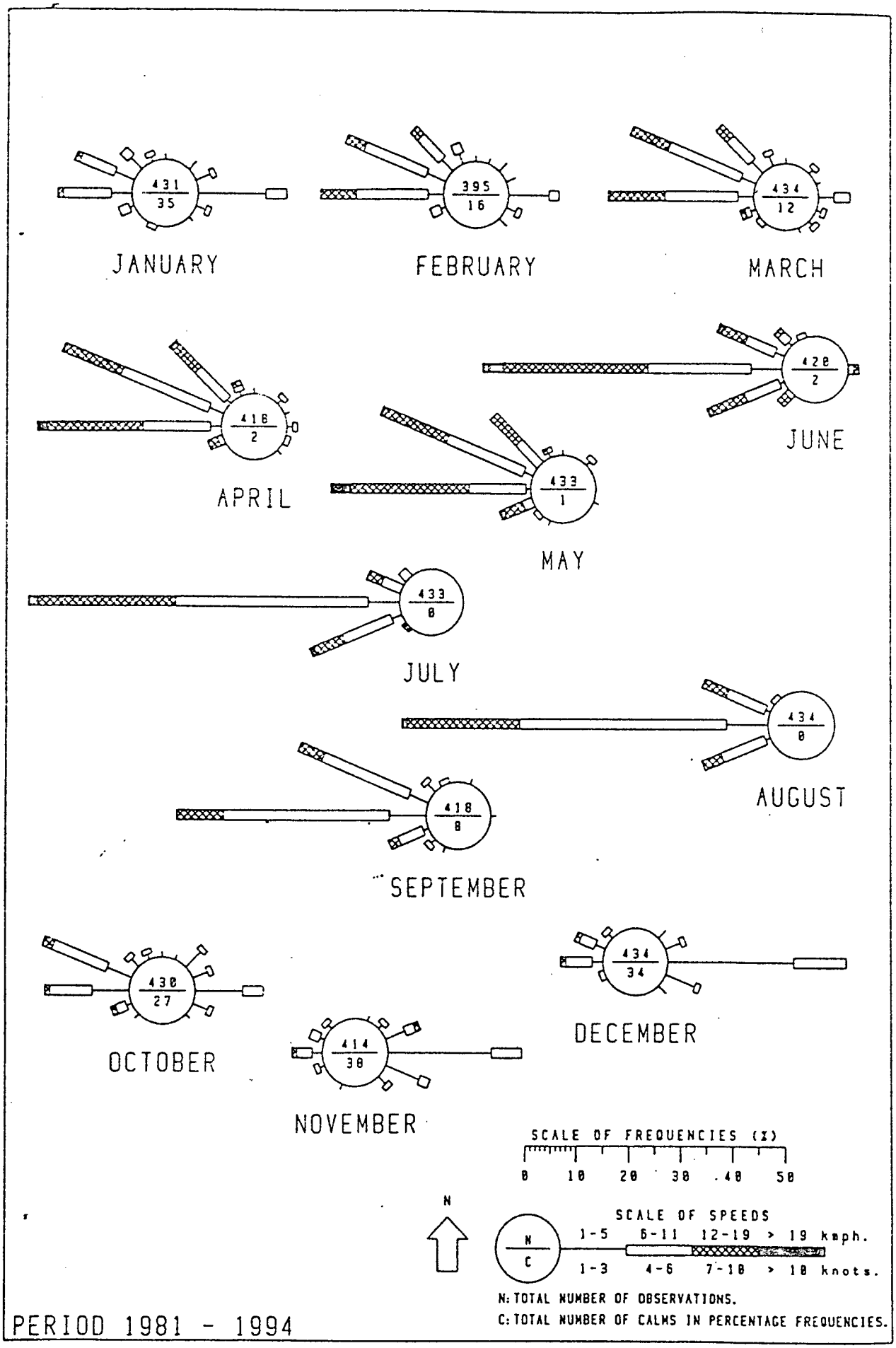


Exhibit 2.4. Monthly wind-roses at Pune, recorded at 1730 hours.

compact, and medium to fine grained, with conchoidal fracture. The vesicular types are comparatively brittle and break easily.

The rocks exhibit a tendency to spheroidal weathering by the exfoliation of roughly concentric shells and hence rounded weathered boulders are commonly found scattered along the foothills. Another structural feature of this region is the prismatic and columnar jointing.

Irregular nodules of kankar and gypsum occur in the soil at a number of places. Kankar on burning yields good lime and is locally used to manufacture lime for construction purposes.

2.5 Environmental Quality

2.5.1 Air Quality

In order to establish the air quality status in the newly merged areas of PCMC, air monitoring was undertaken at 15 different locations. The air quality was monitored for 24 hours continuously at each location. Table 2.1 gives the results of air quality monitoring.

The ambient air quality in the all newly merged villages except Moshi and Dapodi were within tolerable levels. Concentrations of all the pollutants were well below the limits of the National Ambient Air Quality Standards (NAAQS) specified by Central Pollution Control Board (CPCB). Average concentrations of total particulate matter (TPM) ranged between 78 and 149 $\mu g/m^3$ whereas the same for respirable particulate matter (RPM) ranged between 56 and 107 $\mu g/m^3$ against standards of 200 $\mu g/m^3$ and 100 $\mu g/m^3$, respectively. The concentrations of SO_2 ranged between 8 and 18 $\mu g/m^3$ and those of NO_x ranged between 8 and 24 $\mu g/m^3$, against standards of 80 $\mu g/m^3$.

Monitoring at villages Moshi and Dapodi showed a distinct impact of vehicular traffic on air quality. At Dapodi, concentrations of all the pollutants were found to be exceeding the prescribed level. The concentrations of TPM, RPM, SO_2, and NO_x were recorded as 370, 260, 135, and 244 $\mu g/m^3$ respectively. At Moshi, the concentrations of TPM (227 $\mu g/m^3$) and RPM (160 $\mu g/m^3$) were found to be exceeding the prescribed standards. The concentrations of SO_2 (54 $\mu g/m^3$), and NO_x (59 $\mu g/m^3$), though conforming standards, were much higher than those recorded in other villages.

2.5.2 Water Quality

Both surface water and groundwater quality were monitored in the newly merged areas. The monitoring locations were selected to cover either presently used or likely sources of water for these villages so that suitability of water for drinking could be assessed. Table 2.2 and 2.3 gives the results of groundwater quality and surface water quality monitoring.

Groundwater Quality

The groundwater at almost all the locations was found to be hard with number of parameters such as TDS, hardness, calcium exceeding the prescribed drinking water standards (IS 10500). The fluoride content was found to be exceeding the prescribed standards at some locations. The turbidity was also found to be exceeding the prescribed standards at all 15 locations. Overall, the groundwater is unsuitable for drinking without any treatment. Nevertheless, after proper treatment such as softening, the groundwater in the area may be used for drinking and household purposes. Other parameters such as pH, heavy metals, etc. were found to be conforming to the prescribed standards.

Surface Water Quality

The water quality was monitored in the rivers that are either running through or bordering the newly merged area. The monitoring was undertaken to assess the suitability of these rivers as possible source of water. The monitoring was carried out at the following locations:

River Mula	River Pavana	River Indrayani
• At Wakad • At Dapodi	• At Kiwale • At Punawale	• At Talwade • At Chikhali • At Moshi • At Dudulgaon • At Alandi

The water samples analysed from the river Mula at Wakad and Dapodi conform to class "C" of Central Pollution Control Board (CPCB) surface water classification. The river water is suitable as a drinking water source with conventional water treatment. Nevertheless, at Dapodi, the colour and odour of water are objectionable and hence the water at this location may not be acceptable as drinking water source. The location being downstream of the PCMC area, the impacts of discharges from these areas through Pavana River can be observed at this location.

Samples taken upstream at Kiwale and Punawale from the river

Table 2.1 Ambient Air Quality in the Newly Merged s of PCMC

S. No.	Location	Concentrations ($\mu g/m^3$)			
		TPM	RPM	SO_2	NO_x
1	Punavale	133	95	13	12
2	Ravet	103	74	12	11
3	Kivale	108	76	12	11
4	Mamurdi	100	73	14	11
5	Wakad	104	73	16	14
6	Chikhali	107	75	12	11
7	Talwade	95	68	12	11
8	Dudulgaon	79	56	9	8
9	Charholi (BK)	104	74	11	10
10	Choviswadi	80	56	9	9
11	Wadmukhwadi	81	59	9	9
12	Dighi	149	107	18	24
13	Bopkhel	103	72	15	12
14	Moshi	227	160	54	59
15	Dapodi	371	259	135	244
	CPCB Standard	**200**	**100**	**80**	**80**

Notes:

TPM: Total Particulate Matter

RPM: Respirable Particulate Matter

Table 2.2 Groundwater Quality In the Newly Merged Villages of PCMC

S. No.	Parameter	Units	Punavale	Ravet	Kivale	Mamurdi	Dudulgaon	Choviswadi	Wadmukhwadi	Bopkhel	Talwade	Chikhali	Moshi	Charholi (Bk)	Dighi	Wakad	Dapodi
1	Colour	-	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL
2	Odour	-	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL
3	Taste	-	Ag	Ag	Ag	Ag	Ag	Ag	Ag	Ag	Ag	Ag	Ag	Ag	Ag	Ag	Ag
4	Turbidity	NTU	22	18	15	19	28	22	28	20	21	19	18	18	22	32	26
5	Total Dissolved Solids	mg/L	960	805	745	841	503	539	593	670	601	592	571	599	718	1190	695
6	pH	-	7.55	7.78	7.91	8.05	7.57	7.32	7.22	7.52	7.71	7.63	7.8	7.56	7.6	7.71	7.59
7	Total Hardness as $CaCO_3$	mg/L	879	720	673	703	410	430	445	410	439	396	418	470	506	1100	484
8	Calcium as Ca	mg/L	595	521	490	543	228	396	400	341	296	369	301	362	398	573	343
9	Magnesium as Mg	mg/L	42.2	48.4	55.1	43	44.1	8.3	22.5	16.8	34.3	40	53.2	18.9	22.4	61.1	28
10	Copper as Cu	mg/L	0.008	0.012	0.01	0.009	0.01	0.012	0.002	0.012	0.009	0.008	0.016	0.009	0.01	0.011	0.01
11	Iron as Fe	mg/L	0.096	0.008	0.01	0.008	0.005	0.004	0.005	0.0074	0.005	0.005	0.008	0.0038	0.007	0.194	0.009
12	Mangenese as Mn	mg/L	0.03	0.054	0.039	0.051	0.018	0.016	0.01	0.018	0.02	0.015	0.012	0.008	0.02	0.057	0.015
13	Chlorides as Cl	mg/L	59	70	70	76	65	60	45	105	58.2	69.1	50.1	56.7	65.4	75	71.8
14	Sulphate as SO_4	mg/L	0.89	Nil	2.1	4.66	Nil	Nil	Traces	Nil	0.7	0.09	Traces	Nil	0.06	0.103	0.008
15	Nitrate as NO_3	mg/L	1.76	0.146	1.34	0.89	4.2	0.445	1.6	3.43	2.92	3	3.1	1.82	2.65	3.16	1.93
16	Fluoride as F	mg/L	1.06	1.29	0.96	1.12	1.1	1.29	1.03	1.31	1.2	1.11	0.9	1.09	1.01	1.5	0.95
17	Phenolic Compounds as C_6H_5OH	mg/L	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
18	Mercury as Hg	mg/L	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
19	Cadmium as Cd	mg/L	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
20	Selenium as Se	mg/L	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
21	Arsenic as As	mg/L	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
22	Lead as Pb	mg/L	0.003	0.02	0.009	0.007	0.016	0.013	0.015	0.016	0.009	0.013	0.019	0.011	0.009	0.008	0.012
23	Zinc as Zn	mg/L	0.46	0.35	0.5	0.41	0.05	0.35	0.19	0.28	0.21	0.36	0.41	0.26	0 19	0.54	0.25
24	Anoinic Detergents	mg/L	0.011	Nil	0.14	0.08	Nil	Nil	0.008	Nil	Traces	Nil	0.09	Traces	0.01	0.009	Traces

S. No.	Parameter	Units	Punavale	Ravet	Kivale	Mamurdi	Dudulgaon	Choviswadi	Wadmukhwadi	Bopkhel	Talwade	Chikhali	Moshi	Charholi (Bk)	Dighi	Wakad	Dapodi
25	Chromium as Cr^{+6}	mg/L	Traces	0.008	Traces	Traces	0.015	0.007	0.0004	0.0008	Traces	0.005	0.009	Traces	Traces	0.007	Traces
26	Polyaromatic Hydrocarbons (PAH)	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
27	Mineral Oil	mg/L	Traces	Traces	Traces	Traces	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
28	Residual Chlorine	mg/L	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
29	Pesticides	mg/L	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil

Notes:

Ag: Agreeable
ND: Not Detected
CL: Colourless
NS: Not Specified
OL: Odourless
UO: Unobjectionable

Table 2.3 Surface Water Quality in the Newly Merged Villages of PCMC

S. No.	Parameter	Units	Pawana river		Mula river		Indrayani river					CPCB Classification				
			at Kivale	at Punavale	at Wakad	at Dapodi	at Talwade	at Chikhili	at Moshi	at Dudulgaon	D/s Alandi	Class A	Class B	Class C	Class D	Class E
1	Colour	Hazen	CL	CL	CL	LB	CL	CL	CL	CL	CL	10	300	300	NS	NS
2	Odour	-	OL	OL	OL	Bad	OL	OL	OL	OL	OL	UO	NS	NS	NS	NS
3	Taste	-	Ag	Ag	Ag	ND	Ag	Ag	Ag	Ag	Ag	NS	NS	NS	NS	NS
4	Turbidity	NTU	26	23	49	49	29	40	35	38	57	NS	NS	NS	NS	NS
5	Total Dissolved Solids	mg/L	241	195	690	590	250	264	312	295	376	500	NS	2100	NS	2100
6	pH	-	7.3	7.27	7.77	7.27	7.87	7.91	7.96	7.88	8.03	6.5-8.5	6.5-8.5	6.5-8.5	6.5-8.5	6.5-8.5
7	Total Hardness as $CaCO_3$	mg/L	122	70	500	150	150	185	212	205	290	300	NS	NS	NS	NS
8	Calcium as Ca	mg/L	56	48.1	348	116.2	130.3	142.5	166	188.4	216.4	200	NS	NS	NS	NS
9	Magnesium as Mg	mg/L	10.6	5.32	36.9	8.2	4.79	3.9	4.53	4.04	17.9	100	NS	NS	NS	NS
10	Copper as Cu	mg/L	0.008	0.01	0.01	0.011	0.01	0.008	0.01	0.012	0.011	1.5	NS	NS	NS	NS
11	Iron as Fe	mg/L	0.006	0.008	0.003	0.028	0.008	0.006	0.009	0.009	0.019	0.3	NS	NS	NS	NS
12	Mangenese as Mn	mg/L	0.016	0.018	0.019	0.019	0.001	0.08	0.01	0.01	0.008	0.5	NS	NS	NS	NS
13	Chlorides as Cl	mg/L	35.1	50	119.9	70	41	42.2	43.6	45	50	250	NS	NS	NS	NS
14	Sulphate as SO_4	mg/L	0.008	Nil	0.156	0.074	Nil	Nil	Nil	Nil	Nil	400	NS	NS	NS	NS
15	Nitrate as NO_3	mg/L	0.031	0.045	0.292	0.175	0.05	0.038	0.041	0.045	0.01	20	NS	NS	NS	NS
16	Fluoride as F	mg/L	0.58	0.4	1.05	1.15	0.84	0.98	1.22	1.4	1.45	1.5	1.5	NS	NS	NS
17	Phenolic Compounds as C_6H_5OH	mg/L	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.002	0.005	NS	NS	NS
18	Mercury as Hg	mg/L	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.001	NS	NS	NS	NS
19	Cadmium as Cd	mg/L	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.01	NS	NS	NS	NS
20	Selenium as Se	mg/L	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.01	NS	NS	NS	NS
21	Arsenic as As	mg/L	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.05	0.2	NS	NS	NS

S. No.	Parameter	Units	Pawana river		Mula river		Indrayani river					CPCB Classification				
			at Kivale	at Punavale	at Wakad	at Dapodi	at Talwade	at Chikhili	at Moshi	at Dudulgaon	D/s Alandi	Class A	Class B	Class C	Class D	Class E
22	Lead as Pb	mg/L	0.001	0.002	0.012	0.012	0.012	0.009	0.013	0.016	0.017	0.1	NS	NS	NS	NS
23	Zinc as Zn	mg/L	0.006	0.004	0.028	0.025	0.025	0.019	0.008	0.002	0.025	15	NS	NS	NS	NS
24	Anoinic Detergents	mg/L	0.08	0.51	0.8	1.53	0.02	0.06	0.05	0.085	0.018	NS	NS	NS	NS	NS
25	Chromium as Cr^{+6}	mg/L	Traces	0.017	0.01	0.017	0.01	0.01	0.01	0.015	0.015	0.05	0.05	NS	NS	NS
26	Polyaromatic Hydrocarbons (PAH)	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS	NS	NS	NS
27	Mineral Oil	mg/L	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.01	NS	NS	0.1	NS
28	Residual Chlorine	mg/L	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	NS	NS	NS	NS	NS
29	Pesticides	mg/L	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	NS	NS	NS	NS	NS

Notes:

Ag: Agreeable
CL: Colourless
OL: Odourless
LB: Light black
ND: Not Detected
NS: Not Specified
UO: Unobjectionable

CPCB Classes:

A: Suitable for drinking without conventional treatment but after disinfection
B: Suitable for outdoor bathing
C: Suitable for drinking with conventional treatment
D: Suitable for fish culture and wildlife propogation
E: Suitable for irrigation, industrial cooling, or controlled waste disposal

Pavana conform to class "A" specification of CPCB. Nevertheless, the presence of detergents from the washing activities may affect its use as possible source of drinking water.

Water samples taken from the river Indrayani also conform to class "A" specification of CPCB. Here too, the presence of detergents from the washing activities may affect its use as possible source of drinking water.

DEMOGRAPHIC characteristics 1
3.1 Introduction 1
3.2 Population Growth 1
3.3 Population Density 3
3.4 Population Distribution 3
3.5 Households and Family Size 4
3.6 Age and Sex Ratio 5
3.7 Occupational Structure 6
3.8 Literacy 8
3.9 Migration 8
3.10 Income 9
3.11 Work Force Participation Rate (WFPR) 10

CHAPTER 3

DEMOGRAPHIC CHARACTERISTICS

3.1 Introduction

The anticipated population growth patterns drive most of the important planning policies. The predicted population level is an important input into forecasts of housing demand, and thus land requirements for housing. It is also important in creating local demand for goods and services, and thus affects the level of local economic activity. More generally, population assumptions underlie investment decisions on generating employment, provision of educational and health facilities, roads, recreational facilities, power, water supplies, and waste disposal. Clearly, as many of these facilities are restricted to a particular age group, not only are aggregate population forecasts required but also dis-aggregations according to age, sex, occupation, etc.

Population projections can be made only after analysing the past trends and the present conditions. The estimates of populations and households in the newly merged have been calculated based on different methods. The different methods for population projections are elaborated in chapter 6.

3.2 Population Growth

As per the 1991 Census, the total population of the newly merged villages of PCMC was 1,16,421. The growth in these urban fringes during the last three decades seems to be influenced by the growth rate of the existing PCMC area due to large-scale development along with rapid industrialisation.

Among the 18 villages the highest growth rate of population was observed in Talwade at 29.6 per cent during 1961–1971 and a steep growth rate of 212.5 per cent and 281.6 per cent during 1971–1981 and 1981-1991 respectively. The other villages, which registered an increasing growth rate than the average during 1981-1991 are Chikhali at 119.8 per cent, Dighi at 110.2 per cent, Kiwale at 97.4 per cent and Dapodi at 85.4 per cent Table 3.1 and Table 3.2 illustrates population growth and rate.

Table 3.1 Population Growth in Newly Merged Areas of PCMC

Name of revenue village	Population Growth			
	1961	1971	1981	1991
Talwade	947	1227	3835	14636
Chikhali (R)	3091	4215	6570	14439
Moshi (R)	2958	3915	4597	6524
Dudulgaon	519	663	1034	1303
Wadmukhwadi	N.A.	N.A.	N.A.	1278
Dighi (R)	1408	2013	2757	5794
Dapodi	9215	13492	21343	39574
Bhosari (R)	Not Required.	Not Required.	Not Required.	Not Required.
Sangavi (A.C. Hospital)	N.A.	N.A.	N.A.	N.A.
Pimple Nilakh (R.HS & BEL)	N.A.	N.A.	N.A.	N.A.
Wakad (R)	N.A.	N.A.	N.A.	N.A.
Punawale	1098	1355	1991	2668
Kiwale	2546	3341	5248	10359
Mamurdi (R)	N.A.	N.A.	N.A.	1529
Choviswadi (R)	N.A.	N.A.	N.A.	1385
Charholi BK. (R)	6094	7666	8860	7518
Bopkhel (R)	1657	3438	5522	7094
Ravet (R)	1205	1401	1615	2320
Total	**30738**	**42726**	**63372**	**116421**

Source: District Census Handbook 1961 – 1991

- During the 1991 Census, Newale Morwadi, Kudalewadi, and Jadhavwadi were identified as new villages (NV) within the revenue boundary of Chikhali village, Borhadewadi was identified as a new village within the revenue boundary of Moshi village and Charholi BK revenue boundary was divided into two additional villages: Choviswadi and Wadmukhwadi.
- The concerned remaining portion of Mamurdi includes a gaothan (Southern Mamurdi on the banks of river Pawana) that has been identified as a separate habitation, during the 1991 Census. The main gaothan (Northern Mamurdi) is within the limits of the Dehu Road Cantonment Board.
- The characteristics of village Wakad (including the gaothan) as enumerated till 1991 Census belong to a part of Wakad village which was already existing in the Pimpri-Chinchwad Municipal Corporation limits.
- The remaining portion of Bhosari village is a plot that does not have any habitation, but only primary and secondary school of the PCMC.
- The above table excludes the population of Aundh Chest Hospital, the Rakshak Housing Society and Bharat Electronics Ltd. Colony in 1961 to 1991. The reason for exclusion is: population figures for these areas could not be traced out from the census handbook due to non-availability of references of ward numbers or block numbers or village location and its location code. The population of Dapodi in the Census decades of 1971 and 1981 is roughly extrapolated based on ward divisions.

Table 3.2 Population Growth Rate in the Newly Merged Areas of PCMC

Name of revenue village	Growth Rate in Percent		
	1961-1971	1971-1981	1981-1991
Talwade	29.6	212.5	281.6
Chikhali (R)	36.4	55.9	119.8
Moshi (R)	32.3	17.4	41.9
Dudulgaon	27.7	56.0	26.0
Wadmukhwadi	NA	NA	NA
Dighi (R)	43.0	37.0	110.2
Dapodi	46.4	58.2	85.4
Bhosari (R)	Not Required	Not Required	Not Required
Sangavi (A.C. Hospital)	NA	NA	NA
Pimple Nilakh (RHS & BEL)	NA	NA	NA
Wakad (R)	NA	NA	NA
Punawale	23.4	46.9	34
Kiwale	31.2	57.1	97.4
Mamurdi (R)	NA	NA	NA
Choviswadi (R)	NA	NA	NA
Charholi BK. (R)	25.8	15.6	-15.1
Bopkhel (R)	107.5	60.6	28.5
Ravet (R)	16.3	15.2	43.6
Average	**40.6**	**49.4**	**83.7**

3.3 Population Density

The average population density in 1991 of the newly merged villages was 9.6 persons per hectare as compared to 60.1 persons per hectare in the existing PCMC area. The average population density at present estimates is about 14.6 persons per hectare. Within this area, however, there is a wide variation between the densities of population due to their proximity and locational characteristics. For example, Dapodi has the highest population density and Wadmukhwadi has the lowest.

3.4 Population Distribution

The population distribution in the newly merged areas is not uniform. This is mainly due to various factors, viz., proximity to the state highways / national highway / important roads, location of industries and / or economic activity, suitability of land for agriculture, etc. There are areas with very high population, such as Talwade, Chikhali, Dapodi, and Kiwale and there are also such areas, which have a very nominal population size such as Dudulgaon, Choviswadi, Wadmukhwadi, and Punawale.

The highest population as per the 1991 census estimates is in Dapodi

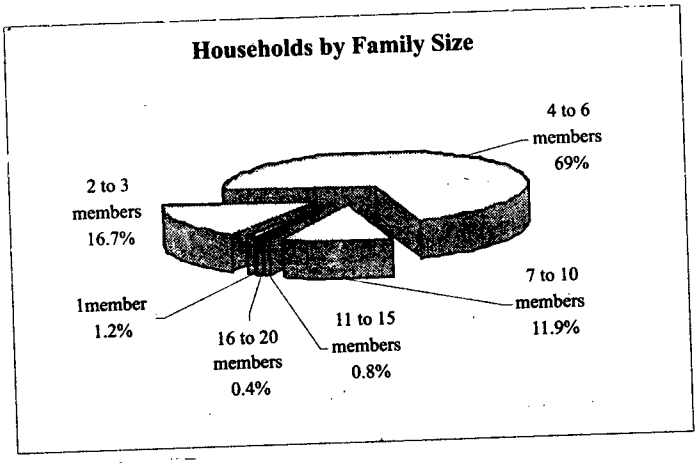
at 39,574 persons. Talwade follows this with 14636 persons and Chikhali with 14439 persons. The lowest population during 1991 is recorded in Wadmukhwadi followed by, Choviswadi, Dudulgaon and Wadmukhwadi with 1278, 1385, 1303 and 1278 respectively.

The vast differences in the distribution of population can be explained by the differences in the economic activities, the accessibility and availability of social and physical infrastructure facilities.

3.5 Households and Family Size

The total population of the newly merged villages is distributed in 35895 households. The maximum number of households as per the growth trend is in Dapodi, which is 11334, followed by Chikhali with 4590 and Talwade with 6250 households.

Exhibit 3.1 Households by Family Size



The household size varies from 4 in Pimple Nilakh (Rakshak Society) to 7.2 in Ravet. The average family size in the initial PCMC area as per the 1991 census was 4.66 persons. The corresponding average figures for Maharashtra State, Pune District, and Pune City were 5.29, 5.21, and 5.26 persons, respectively. The average family size for Pune Region for the same period was 5.42.

Table 3.3 Household Size

Name of revenue village	No. of persons per HH (1991)	No. of persons per HH (1999*)
Talwade	4.8	5.0
Chikhali (R)	4.6	4.5
Moshi (R)	5.1	4.7
Dudulgaon	5.5	5.8
Wadmukhwadi	6.1	4.7
Dighi (R)	4.6	4.5
Dapodi	5.0	4.9
Bhosari (R)	Not Required	Not Required
Sangavi (A.C. Hospital)	N.A.	4.2
Pimple Nilakh (RHS & BEL)	N.A.	4.0
Pimple Nilakh (BEL)	N.A.	4.0
Wakad (R)	N.A.	5.9
Punawale	5.4	4.2
Kiwale	5.0	4.8
Mamurdi (R)	4.7	4.2
Choviswadi (R)	5.8	4.5
Charholi BK. (R)	6.1	6.1
Bopkhel (R)	4.8	5.2
Ravet (R)	5.4	7.0
Average	**5.0**	**4.9**

* As per Sample Household Survey.

3.6 Age and Sex Ratio

The sample survey reveals that the sex ratio in the newly merged villages is 877 females for 1000 males. The average sex ratio of the planning area as per the 1991 census was approximately 880 females per 1000 males. The lowest sex ratio during 1991 census was recorded in Chikhali at 829. The highest for the same period in the newly merged villages was recorded in Punawale at 979 females per 1000 males. The sex ratio of Pune Region for both the 1991 and 1981 census has been more balanced at 977 females for 1000 males.

The age-sex structure in the study area as per the sample survey is observed to be as follows:

Table 3.4 Age Sex Structure

Age-group	Male	Male (%)	Female	Female (%)	Total	Total (%)
0 to 14 years	516	11.6	587	13.2	1103	24.8
15 to 24 years	485	10.9	509	11.4	994	22.3
25 to 34 years	373	8.4	465	10.3	838	18.7
35 to 44 years	299	6.7	313	7.0	612	13.7
45 to 59 years	266	6.0	293	6.6	559	12.6
60 years & above	143	3.2	208	4.7	351	7.9
Total	**2082**	**46.8**	**2375**	**53.2**	**4257**	**100.00**

A wide base in the age-group of 0 to 14 years and 15 to 24 years respectively will require adequate educational facilities of various order and employment opportunities as well. The percentage of old age residents is also high at around 8 per cent that will require adequate measures for health care and access to a barrier free environment.

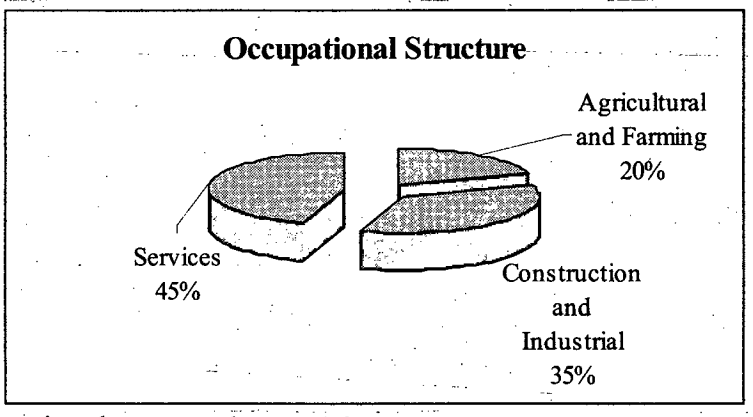
3.7 Occupational Structure

The occupational structure of the newly merged villages as per the 1991 census is depicted in the Exhibit 3.2. The dependency on agriculture and other activities in the primary sector is limited to only 20 per cent as against 49.83 per cent for the Pune region. About 43 per cent of the working population is engaged in the secondary sector, i.e., essentially the factories in the PCMC region and the remaining 37 per cent are engaged in the service (tertiary) sector.

Talwade and Chikhali have the highest percentage of working population in the secondary sector, 71.3 per cent and 57.31 per cent respectively, followed by 41 per cent in Ravet. The higher dependency on secondary and tertiary sector in the newly merged areas can be mainly due to concentration of industries and the supporting tertiary sector in the Pimpri-Chinchwad area and also due to unavailability of good agricultural land.

Refer Table 3.5 for village level details on the occupational structure as per the 1991 census. Also refer Exhibit 3.2 for occupational structure as observed through sample survey 1999.

Exhibit 3.2 Occupational Structure in 1999



The occupational pattern observed from the sample surveys in 1999 is as follows:

- The percentage population engaged in agricultural or primary sector is 20 per cent that is same as in the 1991 census.
- The percentage of workers in the secondary sector has decreased from 43 per cent in 1991 to 35 per cent in 1999, due to the recession in the real estate and construction sector.
- The percentage share of tertiary sector has increased to 45 per cent in 1999 owing to the increase in the supporting service sector.

Table 3.5 Occupational Structure as in 1991 Census

Name of revenue village	Occupational Structure in Sectors (1991)		
	Primary (%)	Secondary (%)	Tertiary (%)
Talwade	7.38	71.30	21.32
Chikhali (R)	26.17	57.31	16.52
Moshi (R)	36.49	36.79	26.72
Dudulgaon	59.26	26.23	14.51
Wadmukhwadi	46.44	31.17	22.39
Dighi (R)	1.82	37.23	60.95
Dapodi	1.59	40.41	58.00
Bhosari (R)	Not Required	Not Required	Not Required
Sangavi (A.C. Hospital)	N.A.	N.A.	N.A.
Pimple Nilakh (RHS & BEL)	N.A.	N.A.	N.A.
Wakad (R)	N.A.	N.A.	N.A.
Punawale	76.25	15.23	8.52
Kiwale (R)	20.94	40.70	38.36
Mamurdi (R)	38.55	34.74	26.71
Choviswadi (R)	45.57	28.10	26.33
Charholi BK. (R)	55.42	21.60	22.98
Bopkhel (R)	8.38	41.87	49.75
Ravet (R)	42.41	41.92	15.67
Total	**19.78**	**43.22**	**37.00**

3.8 Literacy

In 1991 the literacy rates in the study area were as follows:

- Female literacy: 68.3 per cent
- Male literacy: 88.5 per cent
- Total literacy: 79.1 per cent.

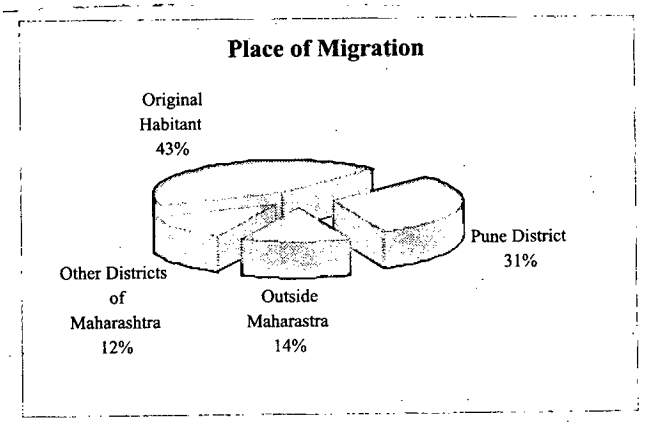
The literacy rate in the newly merged villages has been fairly good in comparison with the state and the district literacy rates. The literacy rate for the State and the Pune District were 64.9 per cent and 71.0 per cent, respectively. The total literacy rate for Pune region for this period was 60.3 per cent, 50.6 per cent for females and 67.7 per cent for males. Therefore, the literacy rates of the newly merged areas have been more than the Pune region's figures for both males and females.

The household sample surveys also reveal a similar scenario with respect to literacy in study area. The literacy rates as per the surveys is 82.1 per cent for total literates, 76.6 per cent for females and 84.5 per cent for males.

3.9 Migration

Migration to the new PCMC area has been essentially from within Maharashtra. Approximately 31 per cent of the households sampled had migrated from Pune District, 12 per cent from other districts of Maharashtra, 14 per cent from outside Maharashtra, and the remaining 43 per cent were original inhabitants of this area. Refer Exhibit 3.3 for distribution of households migrating from different areas.

Exhibit 3.3 Place of Migration

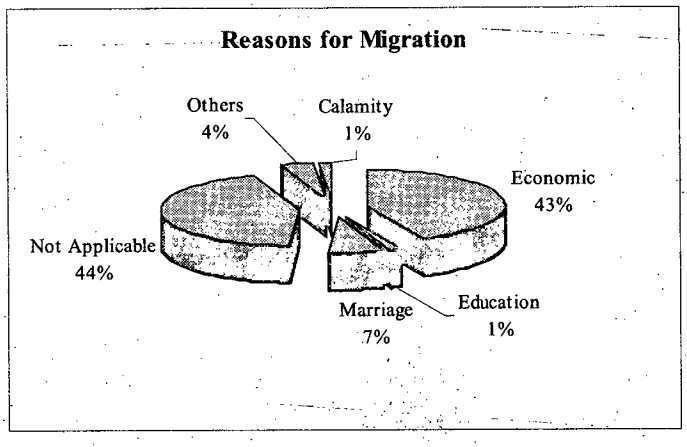


The main reason for migration to PCMC has been "economic", i.e. for employment. The location of large number of industries and the service sector had attracted most of the people to migrate to PCMC area. Forty three per cent of the sample size migrated to PCMC area for economic reasons.

The other reasons have been essentially social (marriage) which accounted for 7 per cent of the sample size.

There have also been cases where people have migrated to this area due to frequent occurrences of natural calamities (in the form of floods, drought, and earthquake) in the areas from where out-migration has taken place. 1 per cent of the sample size migrated to the PCMC area, due to frequent occurrence of natural calamities at their place of birth.

Exhibit 3.4 Reasons for Migration

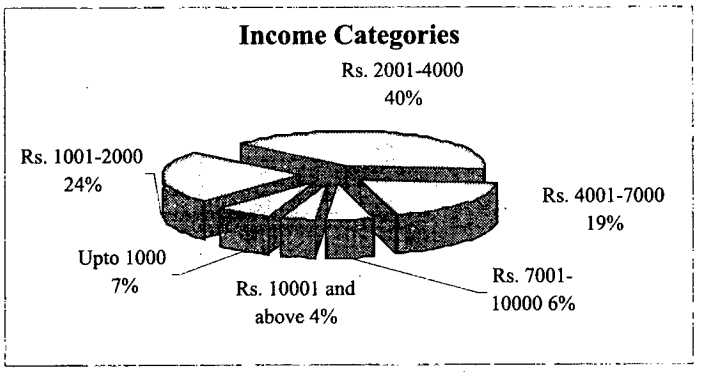


3.10 Income

The economic base of the PCMC area is essentially Middle Income Group (MIG) with approximately 59 per cent of the people having a monthly income in the range of Rupees 2000 to Rupees 7000. The Lower Income Group (LIG) constitutes approximately 31 per cent (monthly income in the range of less than Rupees 1000 to Rupees 2000). The Higher Income Group (HIG) constitutes 10 per cent of the total population. The economic profile of the study area is not bottom heavy with a greater percentage of people in the MIG than in the LIG. Refer Exhibit 3.5 for details on distribution of household by income categories.

The average household income and average per capita income at an overall level is Rupees 4174 and Rupees 869 respectively.

Exhibit 3.5 Distribution of Households by Income Category



3.11 Work Force Participation Rate (WFPR)

The average work force participation rate in the newly merged areas of PCMC as observed from the sample surveys is 28.3 per cent, which is less than the WFPR of 1991 census (30.9 per cent). The average dependent population to earning population in this area is 2.5 persons per earner.

The overall rate of unemployment in the study area is 11 per cent in the age group of 15 to 59 years.

The ideal work force participation rate, which is suggested for towns and cities is 33 per cent. Therefore for a region which is in the first phase of economic growth the participation rate is very favourable and is likely to increase with the initiation of more economic activities in this region. The study area has a large number of industries and the service sector (both private and the public sector), which provides jobs to a majority of people. Refer Table 3.6 for details of village wise WFPR as per the 1991 census and as per the Sample Survey conducted in April 1999.

Exhibit 3.6 Place of Employment

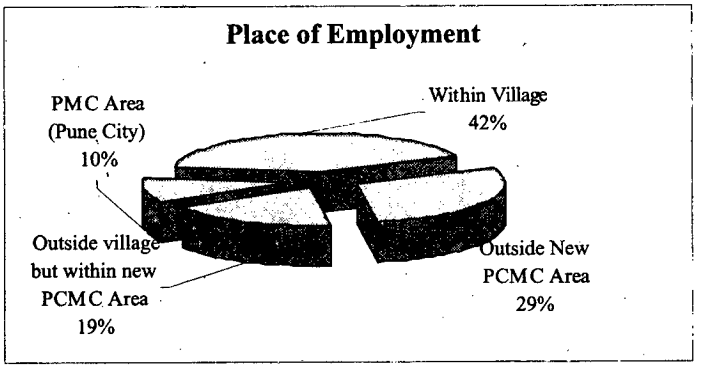


Table 3.6 Work Force Participation Rate (WFPR)

Name of revenue village	WFPR (%) 1991	WFPR (%) 1999*
Talwade	28.6	26.3
Chikhali (R)	33.7	27.8
Moshi (R)	36.0	25.4
Dudulgaon	24.9	21.1
Wadmukhwadi	37.4	32.1
Dighi (R)	26.6	28.4
Dapodi	28.8	30.7
Bhosari (R)	Not Required	Not Required
Sangavi (A.C. Hospital)	N.A.	34.7
Pimple Nilakh (R)	N.A.	50.0
Wakad (R)	N.A.	19.3
Punawale	45.8	25.4
Kiwale (R)	29.4	28.7
Mamurdi (R)	32.6	25.9
Choviswadi (R)	28.5	22.2
Charholi BK (R)	38.7	29.3
Bopkhel (R)	27.9	26.4
Ravet (R)	34.7	24.8
Total	**30.9**	**28.3**

* As per Sample Household Survey.

DEVELOPMENT PLAN: OBJECTIVES AND PROCESS 1
4.1 Introduction 1
4.2 Objectives of the Development Plan 1
4.3 Main Stages of the Development Plan 2
4.4 Survey – Analysis and Findings 2
4.5.1 Industrial Survey 2
4.5.2 MIDC Industrial Areas 5
4.5.3 Trade and Commerce 6
4.5.4 Housing Survey 7
4.5.5 Water Supply 9
4.5.6 Sewerage and Solid Waste Disposal 11
4.5.7 Educational Facilities 12
4.5.8 Health and Medical facilities 12
4.5.9 Shopping Facilities 13
4.5.10 Recreational and Green Spaces 13
4.5.11 Other Facilities 13
4.5.12 Cremation Facilities 15
4.5.13 Telecommunication and Infrastructure 15
4.5.14 Power Supply 16
4.5.15 Traffic and Transport Survey 16
4.5.16 Preparation of Base Map and ELU 24

CHAPTER 4

DEVELOPMENT PLAN: OBJECTIVES AND PROCESS

4.1 Introduction

The Pimpri-Chinchwad Municipal Corporation came into being with effect from 11-10-1982. Following constitution of the planning authority, Development Plan preparation for the entire area within the municipal limits is mandatory as per the provisions of Section 21 Maharashtra Regional Town Planning (MR&TP) Act, 1966. Accordingly, the Development Plan prepared for the PCMC Area had been sanctioned by Government on 18th September 1995 and the same has come into force with effect from 2nd November 1995. For the area included PCNTDA limits, Development Plan has also been made and is available for guiding development.

However, in September 1997, the Government of Maharashtra notified further extension of the erstwhile PCMC limits by merging 18 new villages within the corporation area. Therefore, the Development Plan for the newly merged area was necessary and Municipal corporation therefore declared its intentions to prepare the Development Plan and invited bids from several consultancy firms for undertaking the said work of preparation of Draft Development Plan under the provisions of MR&TP Act, 1966. After the selection process, in September 1998, the PCMC awarded this work to Tata Consultancy Services (TCS). The main thrust of the present work will be to assist PCMC in preparing development proposals for the newly merged area along with the outpacing growth in the old urban area in a balanced and integrated manner.

4.2 Objectives of the Development Plan

The development plan preparation exercise will enable PCMC to realise the following visionary goals such as to:

- Ensure proper utilisation of land in the interest of the residents of the area
- Provision of an efficient traffic and transportation network
- Make provisions for civic amenities and social facilities to cater to the present and future needs of the residents community

- Reserve sites for public utilities and services to meet present as well as future requirements of the area
- Preserve buildings and areas of historical, religious and cultural significance
- Improve existing living conditions, physical quality of life, and guide future development.

4.3 Main Stages of the Development Plan

The preparation of development plan has been structured into four major phases each corresponding with the required study expertise. The main phases identified for the exercise are as follows:

- Survey, analysis and findings
- Preparation of Base Map and Existing Land-use (ELU)
- Identification of problems
- Framing up the proposals i.e. Draft Development Plan

4.4 Survey – Analysis and Findings

Surveys are quintessential to perceive the newly merged areas for which the development plan is being prepared. They give the idea about the exact needs of the area and help the planning team in the formulation of proposals. The following surveys have been carried out for the purpose of the development plan of the 18 newly merged villages.

4.4.1 Industrial Survey

The Industrial survey gives an idea of the present trend of industrial growth, its distribution, the problems faced by the industrial units, the working force, their problems, the industrial potential of the area, etc. Information for industries in the study area has been collected through both primary and secondary sources. Information for 1726 industries has been collected from secondary sources (Mahratta Chamber of Commerce and Industry and District Industrial Centre) and primary survey has been conducted for 115 industries. Refer Appendix 4-A for the detailed list of these industries.

The details of the sample survey (refer Appendix 4-B) and the information collated from secondary sources, for industries in the newly merged villages in PCMC area is as follows:

Establishment

The process of industrialisation started in the study area in the late

1950's but the maximum numbers of industries have been established in this area during the last three years i.e. from 1996 to 1999. Refer Table 4.1 for industries and their year of establishment.

Registered Units

The number of industrial units registered in the study area is 1726 until 1st March 1999.

Table 4.1 Total Number of Industries* with the Year of Establishment in the Newly Merged Areas of PCMC

Year Of Establishment	Number Of Industries
Up to 1980	10
1981 – 1985	13
1986 – 1990	42
1991 – 1995	433
1996 – 1999	1215
Information not available	13
TOTAL	**1726**

* The number of industries includes the industries registered under DIC till 1st March 1999.

Product Category

Of the 1726 units at an overall level, 66.5 per cent of the industries are in the engineering sector (Fabrication of Metal Products industry accounted for 59 per cent of those sampled, 7.5 per cent Machinery). Similar findings were observed from the primary survey of 115 industries, where approximately 57 per cent of the industries are in the engineering sector (Fabrication of Metal Products industry accounted for 33 per cent of those sampled, 24.6 per cent Machinery). Refer Appendix 4-C and 4-D for the product-based classification of industries.

Average Employment

The average employment per industry as per the sample survey of 115 industrial units is 8.6 (the average employment per industry within 1726 units is 5.1). However, the range of workers employed in various industries in this region varies from 1 to more than 400 workers per industry. Of the 1726 units 98.2 per cent of the industries employed 1 to 20 workers and 0.6 per cent employed 21 to 50 workers. The only large-scale industry in the study area is the Kanbay Software India Private Limited with 400 employees. This industry was established in 1995 at the Talwade Software Technology Park. Refer Table 4.2 below.

Table 4.2 Total Number of Industries Classified Employment-wise in the Newly Merged Areas of PCMC

Employment	Number of Industries	Percentage
1 to 20	1695	98.2
21 to 50	10	0.6
More than 50	1	0.0
Information not available	20	1.2
TOTAL	**1726**	**100**

Average Investment

The average investment per industry is Rupees 7.0 lakhs. However, the investment range varies from Rupees 25,000 to Rupees 500 lakhs. Most of the registered units in the area are small scale, with an average investment of less than Rupees 3 crores per year. In the Pune Metropolitan Region, 80.32 per cent industries are small scale with an investment of less than Rupees 15 lakhs, 1.1 per cent medium scale with an investment of Rupees 1 crore to Rupees 10 crores, and 23.6 per cent are large scale with an investment of more than Rupees 10 crores (Source: Pune Metropolitan Regional Plan 1990 to 2011).

Table 4.3 Total Number of Industries Classified Investment-wise in the Newly Merged Areas of PCMC

Investment in Rupees	Number of Industries	Percentage
Upto 5 Lakhs	102	5.9
6 to 15 Lakhs	7	0.5
16 to 100 lakhs	1	0.0
101 to 300 Lakhs	0	0.0
More than 300 Lakhs	1	0.0
Information not available	1615	93.6
TOTAL	**1726**	**100**

Average Turnover

The average turnover per industry is Rupees 12.4 lakhs per annum. Maximum number of industries (65 per cent) had a turnover of upto Rupees 5 lakhs only. 11.4 per cent had a turnover of Rupees 6 to 15 lakhs and 3.8 per cent had a turnover of Rupees 16 to 100 lakhs per annum. Therefore around 80 per cent of the industries are in the small scale category.

Table 4.4 Total Number of Industries Classified Turnover-wise in the Newly Merged Areas of PCMC

Turnover in Rupees	Number of Industries	Percentage
Upto 5 Lakhs	1126	65.2
6 to 15 Lakhs	196	11.4
16 to 100 lakhs	65	3.8
101 to 300 Lakhs	2	0.1
More than 300 Lakhs	2	0.1
Information not Available	335	19.4
TOTAL	**1726**	**100**

Average Area

The average area per industry as per the sample survey of 115 units is 4094 square feet (380.3 square meters). The area per industry varies from 100 square feet to 174310 square feet. Of the 115 units only two units responded to that they would require additional land (1000 sft each) in future for expansion. Both these industries are in the product group of Fabrication of metal products, and Press parts.

Average Density of Workers

The average density of workers per hectare is 237 (The average density per industry suggested in the Pune Metropolitan Regional Plan and the UDPFI Guidelines is 40 workers per hectare of industrial zone and 100 to 112 persons per hectare respectively). In the Pune Region the Density of workers is 69 workers per hectare. In the electronic industries in the Pune Region the density is102, while in engineering industrial sector it is between 40 and 80 workers per hectare

Work Shifts

The total number of industries that have more than one work shift is 4, i.e. 3.5 per cent of the sample size. These industries have two work shifts and are in the product category of Plastics, Press parts and Machinery.

4.4.2 MIDC Industrial Areas

Industrial activity in the newly merged area of PCMC is mainly limited to Chikhali, Talwade, and Moshi. The other villages have industrial activity at a very small scale. The MIDC has identified areas for further industrial development in and around the villages that have been recently included in the PCMC area. The MIDC activities in the newly merged area and areas adjacent to the newly merged area, which can promote economic activities, are as follows:

- Software Technology Parks (MIDC STP) in Talwade (established in 1986-87) and Hinjewadi (established in January 1999)
- Software Engineering Export Promotion Zone (SEEPZ) status to be provided
- 600 line dedicated Electronic Exchange to be set up by Pune Telecom
- Videsh Sanchar Nigam Limited (VSNL) to provide a link of 2 Mbps in the initial phase of development which would be enhanced later
- 220 KVA sub station being established in the area, which would be fed by two separate feeders to ensure uninterrupted power supply
- Each plot to be provided water supply by MIDC (currently the water supply is available from Pavana River Water Works and the water storage capacity available in terms of a Ground Service Reservoir of 6,00,000 litres and a Elevated Service Reservoir of 4,50,000 litres)
- Connectivity to the bus and railway station
- Helipad to be provided
- Other services and amenities which would also be provided within the STP are commercial centre, bookshops, garage, courier agencies, travel agencies, clinics and health care centres, cafeteria, UPS/ genset supply centre, electrical and air conditioning consulting, etc.

The development of the MIDC STPs would not only generate

employment in the formal sector but shall also have a multiplier effect on the employment in the informal sector boosting the economy of this region.

MIDC has proposed 80 hectares of land in Hinjewadi (which is not a part of newly merged area in PCMC but is adjacent to the Wakad area and westerly Mumbai–Bangaloree Bypass Highway in PCMC) and is developing about 75 hectares of land in Talwade. The land in Talwade is yet to be completely developed. Of the total land of 75 hectares, the developed area accounts for 42.14 hectares that includes 29.66 hectares under 34 plots (ranging from 0.42 to 2.47 hectares in area), 7.16 hectares under roads, and 5.32 hectares for common facility centre and other amenities. The undeveloped area in the north-western portion measures 32.86 hectares. At present only a few industries are functioning in the Talwade MIDC STP. The Talwade MIDC STP was made accessible additionally through the Mumbai - Pune highway by connecting it with a pucca road of 3.5 km length and 9 m in width. However, the response at Hinjewadi STP in terms of occupation of plots seems to be far better, due to its fair proximity to the westerly Mumbai – Bangalore Bypass Highway, the sports complex at Balewadi, developing areas of PCMC, and the proposed development of an airport in the vicinity of Hinjewadi.

The MIDC functions as a Special Planning Authority for its area, as per the notification of state governments' gazette dated 14th October 1993. The MIDC has its own Development Control Rules (DCR) approved for application in the industrial areas under the jurisdiction of MIDC. The present Floor Space Index (FSI) permitted in the Talwade STP is 1.0, and the MIDC collects development charges from the industries at the rate of Rs. 10.00 per sqm. The water charges are being collected at the rate of Rs. 11.00 per cum of water supply recorded as per the individual meter readings.

MIDC does not have any other industrial estate in the newly merged areas of PCMC. Most of the industries in this area are outside the MIDC area.

4.4.3 Trade and Commerce

Pune and Pimpri-Chinchwad are the two most important commercial areas, which lie adjacent to the planning area. The important commodities traded in the merged area are vegetables, wheat, and sugarcane. Bopkhel and Kiwale among the merged areas export vegetables and sugarcane products and import wheat. The exported agriculture products are not only consumed within the state Maharashtra but are exported in large quantity to neighbouring states and countries.

4.4.4 Housing Survey

The objective of this survey is to collect information regarding the age, ownership, type of construction and condition of buildings, type of use, level of amenities, etc.

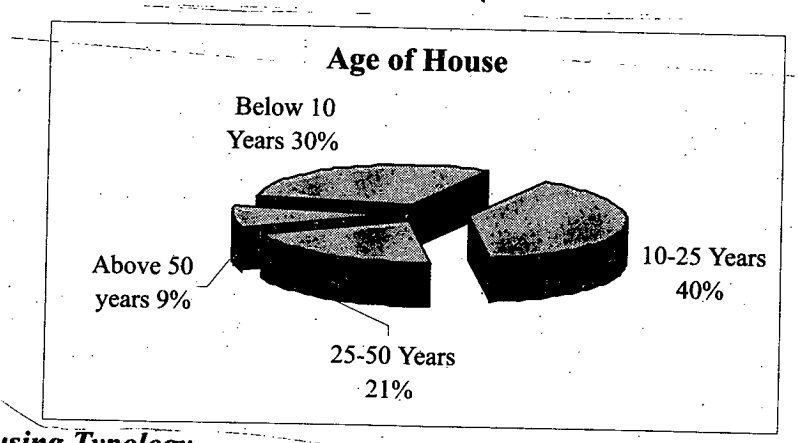
The number of households in 1999 was assessed based on the growth trend. The estimated households, for the newly merged villages in the PCMC area were 35,895. The overall sample size for the household survey was 910 households, approximately 2.5 per cent of the total households. The population densities of the villages determined the sample size for individual villages. Relatively larger samples were taken from villages having higher densities and relatively smaller samples were taken from villages with lower densities.

The detailed analysis of the housing sector gives an idea of the vulnerable areas needing immediate improvements by way of initiating renewal schemes, information about new housing needs, level of amenities, possibility of widening of existing roads in the congested areas, and alignment of new links to relieve pressure on the crowded streets.

Age of House

The sample survey revealed that approximately 30.2 per cent of the buildings are less than 10 years old, 39.7 per cent of the buildings are 10-25 years old and only 5 per cent of the buildings are more than 50 years old. Refer Exhibit 4.1.

Exhibit 4.1 Age of House



Housing Typology

A majority of the structures in the newly merged areas PCMC are pucca and semi-pucca in nature. Only 5 per cent of the sample size had kutcha buildings/ structures. Most of the old structures in villages have

upper storeys on stone foundations with bricks or mud walls and tiled roofs. The modern houses are built of RCC structures with burnt brick walls plastered with cement. Exhibit 4.2 shows the type of houses in the newly merged area.

Tenure Status

The sample survey results indicate that only 2.5 per cent of the residential buildings have institutional and/or government ownership. This situation was recorded mainly in Sangavi (Aundh Chest Hospital) and Dapodi villages. The tenure status in the remaining villages was essentially ownership (63.8 per cent), and only 33.6 per cent were on rental basis. Dapodi recorded the maximum percentage (52.65 per cent) of rental houses in the entire area. Refer Exhibit 4.3 for details on tenure.

Exhibit 4.2 Type of House

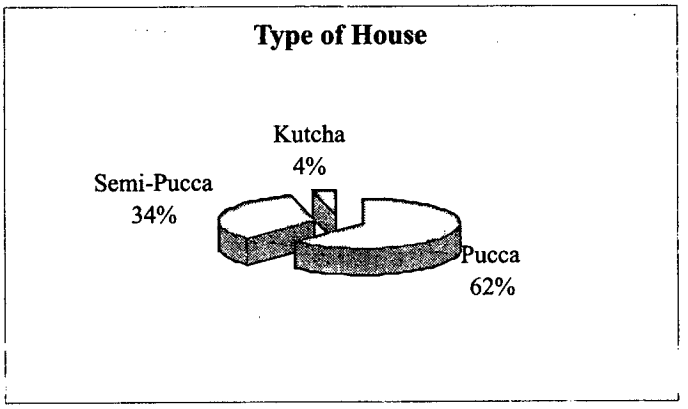
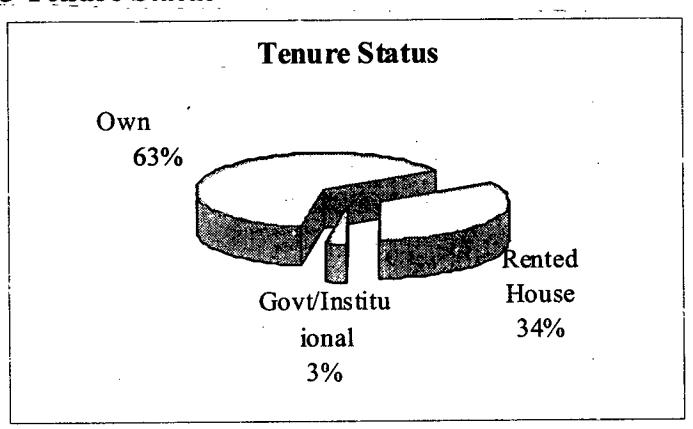


Exhibit 4.3 Tenure Status



Housing Stock

The number of houses estimated at present are 37,882 houses, which is more than the estimated households of 35,892 based on the growth trend method. This shows a surplus of 1,987 houses. However, it is

observed in the sample household survey, that about 24.1 percent of houses will presently require renewal so as to maintain a good standard of housing stock of pucca or semi-pucca houses.

4.4.5 Water Supply

The water demand for the Pimpri-Chinchwad Municipal Corporation area is mainly served by river Pavana. A quantity of 228 million litres per day (MLD) of water is supplied through the existing intake works at Ravet on Pavana River. The Irrigation Department has permitted Pimpri-Chinchwad Municipal Corporation to lift an additional 100 MLD recently. Thus, the total water permitted to be lifted from Pavana River is 328 MLD.

Out of the recently merged villages in the PCMC area, the water demand of Chikhali and Talwade is fulfilled by the MIDC, which has a supply of 30 MLD at its disposal. The villages of Dighi, Charholi BK, Choviswadi and Wadmukhwadi are covered under the Regional Rural Water Supply Scheme for Wagholi assisted by the World Bank. They receive a total of 2.46 MLD water supply under this scheme.

The current water demand at the overall level in all the newly merged areas based on the estimated population of 1.75 lacs in 1999 with a minimum need of 135 litres per capita per day (lpcd) to be met, is 23.6 MLD. The water supply to the rest of the villages is through bore wells or open wells. Refer Table 4.5 for details of water supply facilities in the 18 villages. It has been observed that most of the newly included villages in the Pimpri-Chinchwad Municipal Corporation area require a comprehensive water supply scheme. Some of these villages have tremendous development potential and are expected to grow rapidly in the coming years. Hence it becomes necessary to evaluate the existing waterworks capacity and seek for possible alternative sources of water.

The sample survey conducted in the newly merged villages reveals the following scenario with respect to water supply:

- An overall 58 per cent of the households have piped water supply through individual tap connections and 21 per cent of the sampled households have access to community taps. Refer Exhibit 4.4 for Source of Water Supplied.
- The remaining households depend on tanker water supply (3.5 per cent), tube wells (6 per cent), wells (6 per cent), hand pump (5 per cent) and river (0.5 per cent).
- Around 37 per cent households responded that the water supply was available on an average of 2 hours and 2 to 4 hours respectively.

- Most of the villages have potable water supplied through tankers.

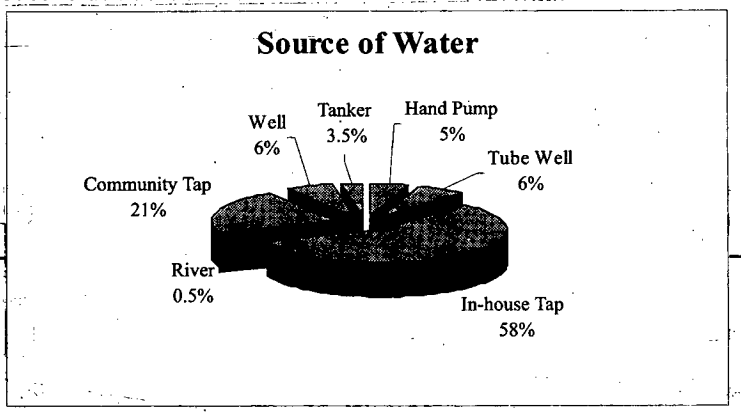
Table 4.5 Water Supply Provisions in the Newly Merged Areas

S. No.	Name of revenue village	Nature of Facility	Approx. supply (lpcd)	Status of Supply
1.	Chikhali	Piped Water Supply (by MIDC)	50	Not adequate
2.	Talwade	Piped Water Supply (by MIDC)	50	Not adequate
3.	Moshi	Piped Water Supply	50	Not adequate
4.	Dudulgaon	Well Water Supply	40	Not adequate
5.	Choviswadi	Bore Wells	40	Not adequate
6.	Wadmukhwadi	Bore Wells	40	Not adequate
7.	Charholi	Piped Water Supply	50	Not adequate
8.	Dighi	Piped Water Supply	70	Not adequate
9.	Bopkhel	Piped Water Supply	60	Not adequate
10.	Dapodi	By PMC	100	Not adequate
11.	Mamurdi	Bore Wells	50	Not adequate
12.	Kiwale	Piped Water Supply	60	Not adequate
13.	Ravet	Well Water Supply	50	Not adequate
14.	Punawale	Piped Water Supply	40	Not adequate
15.	Wakad	Bore Wells	30	Not adequate
16.	Aundh Chest Hospital	Piped Water Supply (By PCMC)	145	Adequate
17.	Rakshak Coop. Hsg. Society	Piped Water Supply (By PCMC)	145	Adequate

Source: Report on Master Plan of water Supply and Sewerage facility for the recently merged peripheral Villages in Pimpri Chinchwad Municipal Corporation Area, Task Consultants, Pune, December 1998.Location of the Area

- Around 3/4th (70.5 per cent) of the sampled households that do not have a water connection have potable water available within 10 meters. The remaining 17 per cent travel 10 to 50 meters, 7 per cent travel 50 to 100 meters and around 6 per cent travel more than 100 meters to avail of potable water supply.
- In terms of quality of water available, 75 per cent of the households responded that the quality of water was normal, 23 per cent responded that the water quality was turbid and required treatment.

Exhibit 4.4 Households and Source of Water



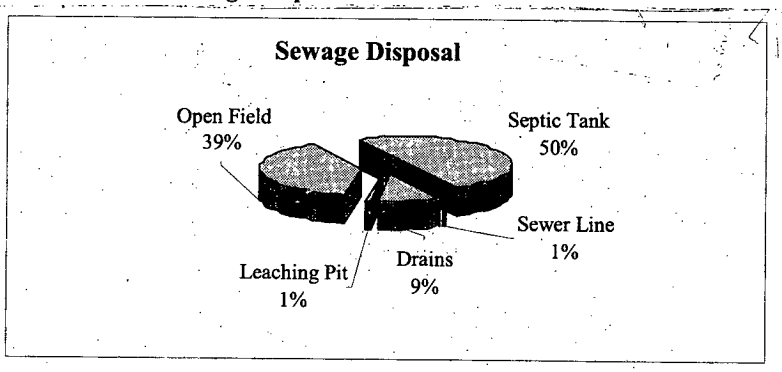
4.4.6 Sewage and Solid Waste Disposal

Of the total households surveyed in the newly merged areas, about 31 per cent of them responded to have access to in-house toilet facility and 41 per cent had access to public toilet facility. Remaining 28 percent of the households did not have access to any facility.

It is observed that most of the villages have open drainage system. On priority basis, the drainage system in Dapodi was implemented and the drainage is currently disposed of through sewer lines and drains to Kasarwadi Sewage Treatment Plant. Also Aundh Chest Hospital at Sangavi has a connection to the sewage facility under the jurisdiction of the Garrison Engineer, Khadki Cantonment.

For other large populated areas, such as Chikhali and Talwade, the proposal for sewage disposal is being prepared by Task Consultants, Pune.

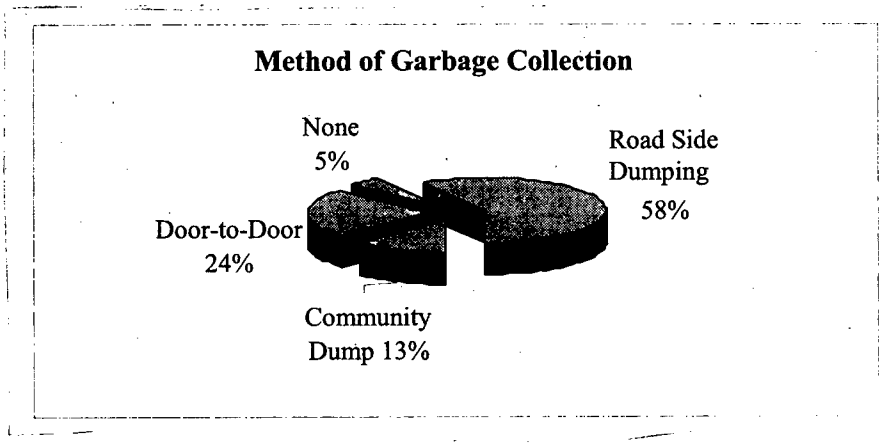
Exhibit 4.5 Method of Sewage Disposal



The results of the household sample survey shows that 50 per cent of the sample has the facility of septic tank, 1 per cent have sewer lines, 9 per cent have leaching pits. However 38 per cent of the sample size did not have any kind of sewage disposal mechanism functioning in their area. In the villages where sewage disposal system does not exist, the sewage is directly let off into the Indrayani River. More than 3/4th (87 per

cent) of the households stated the presence of an open drain system for sullage disposal. The remaining 8 per cent have covered drains for sullage disposal and 3 per cent do not have access to any kind of facility. Refer Exhibit 4.5.

Exhibit 4.6 Method of Garbage Collection



Around 58 per cent of the households responded that the solid waste is collected from the road side, 24 per cent is collected door to door, 13 per cent dump it in community garbage collection bins or dumps. The garbage collection frequency by the Pimpri-Chinchwad Municipal Corporation, in 75 per cent of the cases was on daily basis, whereas 10 per cent of the households responded that it was once a month. In the remaining cases it varied from once a week to twice a week (3 per cent each) and 6 per cent responded that the garbage was not collected from their village. Refer Exhibit 4.6.

4.4.7 Educational Facilities

There are a total of 59 (42 managed by the PCMC and 17 managed by private institutions) primary schools in the study area with a total number of 21213 students. There are 16 secondary and higher secondary schools in the newly merged areas, and thirteen out of these are managed by private institutions. The average number of students per school is 500. Only 31 buildings are available against the schools managed by Zilla Parishad (refer Appendix 4-E for details).

4.4.8 Health and Medical facilities

There is 1 Primary Health Sub-Centre (PHS) building at Charholi BK and 1 Dispensary/ Primary Health Centres (PHC) building at Moshi of PCMC in the newly merged villages. However, the existing medical

infrastructure is inadequate to cater to the requirements of the existing population.

The General Hospital facility is available as the Employees State Insurance Scheme (ESIS) Hospital with 320 beds, but the general, specialised and referral treatment at ESIS hospital is restricted only to employees of those factories that are covered under the ESIS. The specialised Hospital that is available to the general public is the Chest Hospital with 400 beds, specialised for the treatment of lung and heart cases only. Moreover both these hospitals are situated at a single isolated complex in Sangavi, located at a distance range of 1 to 15 km from the nearest and the farthest merged village respectively under the present study area (refer Table 4.6).

4.4.9 Shopping Facilities

Most of the villages are not independent in terms of planned shopping facilities, barring some roadside shops being available. They depend on the shopping areas of Pimpri-Chinchwad Municipal Corporation, Nigdi, Charholi (BK), Moshi, Bhosari, Alandi, Dehu Road, Khadki Bazar and Aundh (Pune City)

4.4.10 Recreational and Green Spaces

The study area in general does not have any formal space for parks and gardens. Whenever needed, the residents utilise the recreational facilities available in the existing PCMC areas. However, in an effort to green the areas and develop some open spaces within the newly merged villages, the PCMC has undertaken plantation schemes on pasture lands. The plantation area covers 36 hectares in Talwade with 2415 plants, 15.16 hectares in Chikhali with 7000 plants, 41.72 hectares in Moshi covering 4935 plants and 14.25 hectares in Dighi with 6519 plants. Also, the Aundh Chest Hospital complex which is already a planned area has a lot of scope for development and utilisation of existing open space for creating recreational and green areas.

4.4.11 Other Facilities

Community Halls

Community Halls and /or Mangal Karyalayas are available only in a few villages, viz. Talwade, Chikhali and Ravet. Most of the villages use school building and compounds, the temple premises, or playgrounds for this purpose.

Post Office

Dighi, Sangavi (ACH), Wakad (remaining), Choviswadi and Rakshak Co-operative Housing Society do not have a Sub Post Office and / or Post and Telegraph Offices. The residents of Sangavi (ACH) and Rakshak Co-operative Housing Society depend on the facilities available in Aundh. Choviswadi depends on Charholi (BK), Dighi on Vishrantwadi and Wakad on the Wakad old gaothan for availing postal services.

Police Post / Police Station

Most of the villages do not have a police station and or police post but depend on the Police stations of the PCMC area, Dehu Road, Charholi (BK), Wakad (old gaothan), Vishrantwadi , Dapodi, and Bhosari.

PCO/ STD Facility

Except Dudulgaon, Wadmukhwadi, Choviswadi, and Bopkhel, all other villages have PCO/ STD facility. Rakshak Co-operative Housing Society does not have an STD booth in its premises but is available just outside the society on the old Pune-Mumbai highway (via Aundh) junction.

Banks

Commercial and / or Co-operative Banks in the newly merged villages are available only in two villages: Chikhali and Charholi. The villages have to depend on the existing areas of PCMC, Wakad old gaothan area, Dehu Road, Nigdi, Charholi, Chikhali, Khadki, and Aundh (Pune City).

Bus Stops and Auto-rickshaw / Six Seater Stand

Bus stops are available in all villages except Dudulgaon, which has to depend on Moshi and Alandi for availing bus services. With respect to the auto rickshaw and / or the six seater stands, such facility is available only in Talwade, Chikhali, Moshi, Dighi, Kiwale, Charholi, and Bopkhel. The other villages do not have formal stands for auto rickshaws and six seaters but the service is available.

State Transport (ST) Bus Depot

All the newly merged villages have to depend on the ST facilities at Bhosari, Pimpri Chinchwad, Akurdi, Khadki, Talegaon, Swargate, and Shivaji Nagar (Pune City).

Railway Stations

Among the newly merged villages, only Dapodi has a railway station, as the railway line traverse through it. The other villages have to depend on Kasarwadi, Akurdi, Pimpri, Chinchwad, Khadki, Shivaji Nagar, Pune City, and Dehu Road.

Table 4.6 Details of Health and Medical Facilities within the Newly Merged Areas of PCMC

S. No.	Name of revenue village	Name of facility	Location	Ownership	Total Area in sqm	Built-up area in sqm	Number of beds	Remarks
1.	Moshi (R)	Primary Health Center (PHC)	G. No.	PCMC	1012	607	6	Run by PCMC
2.	Sangavi (ACH)	ESIS and Chest Hospital	P.O. - Aundh, Sangavi	PWD (Govt. of Maharashtra)	340100	*ESIS Hospital:* Non-residential = 17350.65 sqm Residential = 12432.46 sqm *Chest Hospital:* Non-residential = 21541.82 sqm Residential = 136898.12 sqm	*ESIS* = 320 beds *Chest* = 400 beds	Run by Maharshtra State government, maintained by PWD (except for water supply, drainage & sewerage, and garbage disposal facility run by PCMC)
3.	Charholi BK. (R)	Primary Health Sub-center (PHS)	Charholi Gaothan	PCMC	1012	607	4	Run by PCMC

Petrol Pumps

Among the newly merged villages, only Kiwale, Moshi, Wadmukhwadi and Dapodi have petrol pumps available on the highways that traverse within the village limits. The other villages depend on neighbouring villages such as Kiwale, Dehu Road, Moshi, Nigdi, Alandi, Kalewadi and Akurdi.

Fire Station

All 18 villages have to depend on the fire brigade services of existing PCMC, Dehu Road Cantonment, and Aundh (Pune City).

PCMC Zonal Offices

Within the newly merged villages, the PCMC zonal offices are available only at Charholi BK, Talwade, Chikhali, Moshi and Kiwale. The villages also have access to the PCMC zonal offices at Bhosari and Thergaon.

4.4.12 Cremation Facilities

In most of the villages the riverside is used for cremation. Proper cremation site and sheds are available in only 60 per cent of the villages. Of the remaining 40 per cent, 20 per cent of the villages use the riverside as a cremation ground, the other 20 per cent who do not have this option depend on the neighbouring villages for this facility.

4.4.13 Telecommunication and Infrastructure

Telephone network systems in the Pimpri-Chinchwad area is serviced by Chinchwad, Bhosari, and Wakad exchanges. The Chinchwad Division has an overall control on the area with its coverage ranging from the PCMC limits (including merged villages) upto Lonavala.

There are approximately 52,000 telephone lines and 5,000 waiting list (as on April 1999) connections in the PCMC and the merged areas. There are a total of 600 public telephone booths. In terms of the number of telephone lines in the planning areas, the density is relatively very high in Chikhali, Sangavi, Dapodi, and Talwade areas as compared to the other merged villages. Presently, the telephone cable connection extends from Chinchwad to the merged villages.

The nearest bill payment counters accessible to the newly merged villages are Pimpri, Chinchwad, Bhosari, Alandi, and Shivaji Nagar.

4.4.14 Power Supply

Maharashtra State Electricity Board (MSEB) supplies electricity to the newly merged areas through two sub-divisions that are MSEB Pimpri Division and MSEB Bhosari Division. The newly merged villages falling under the jurisdiction of Bhosari Division are Bhosari, Talwade, Moshi, Chikhali, Dudulgaon, Charholi, Choviswadi, Wadmukhwadi, and Mamurdi, whereas Pimpri Division has Dapodi, Sangavi, Pimple Nilakh, Wakad, Punawale, Kiwale, Bopkhel, and Ravet. The total number of transformer centres are 253 providing consumer services to residential, commercial, industrial, and agriculture sector. Street lights are available in most of the villages. Refer Table 4.7 for details of Power Supply Infrastructure in the newly merged villages.

Of the total households surveyed, 97.6 per cent of the houses had electricity connections. A majority of the households responded that the power supply is available for 18 to 24 hours. However, only 24 per cent households responded the quality of power supply to be normal, and of the remaining a majority responded that power cuts were frequent along with the problem of voltage fluctuation.

The nearest bill payment counters accessible to the newly merged villages are Dehu Road, Kalewadi, Pimpri, Chinchwad, Charholi BK, Khadki, Alandi and Shivaji Nagar.

4.4.15 Traffic and Transport Survey

Various consultants carried out several traffic and travel surveys in the past for Pune and PCMC areas. Most important studies were "Traffic and travel surveys & analysis for Pune" and "Feasibility study of HCMTS for PMA". However, travel characteristics of the newly merged areas would be different from the already well developed areas, therefore following traffic surveys are conducted by TCS to understand the travel characteristics of the population in the newly merged areas and to perceive the present traffic situation.

- Road Network Inventory
- Classified Traffic Volume Counts at Intersections
- Classified Traffic Volume Counts at Mid Blocks
- Origin-Destination Surveys
- Speed Surveys
- Parking Surveys

Table 4.7 Details of Power Supply Infrastructure

S. No.	Name of revenue village	H T Line	L T Line	Transformer Center	Number of Consumers				
					Residential	Commercial	Industrial	Agricultural	Total
1.	Talwade	18.5 km	54.58 km	51	2950	283	414	84	3731
2.	Chikhali*	10.6 km	70.06km	45	2807	425	421	91	3474
3.	Moshi	15 km	21.54 km	18	2351	431	35	102	2919
4.	Dudulgaon	5 km	18.08 km	5	288	5	2	158	453
5.	Wadmukhwadi	9 km	10 km	11	174	26	10	102	312
6.	Dighi	NA	NA	NA	NA	NA	NA	NA	NA
7.	Dapodi	11 KV, 7 km	30 km	28	3505	464	87	4	4060
8.	Bhosari	NA	NA	NA	NA	NA	NA	NA	NA
9.	Sangavi	22 KV, 16 km	30 km	17	3418	206	38	4	3666
10.	Pimple Nilakh	22 KV, 13 km	17 km	8	3665	303	67	30	4065
11	Wakad	22 KV, 6 km	32 km	18	1770	76	80	221	2147
12	Punawale	22 KV, 3 km	12 km	4	368	15	14	85	482
13	Kiwale	22 KV, 2.2 km	17.5 km	12	2095	44	44	90	2273
14	Mamurdi	2.85 km	13.18 km	9	984	50	170	23	1227
15	Choviswadi	11 km	12 km	12	180	12	23	85	300
16	Charholi BK.	5 km	17 km	4	798	56	10	62	926
17	Bopkhel	22 KV, 3 km	6.8 km	4	803	39	16	4	862
18	Ravet	22 KV, 2.6 km	18.82km	7	438	12	8	125	583

Note: *Chikhali includes figures of Jadhavwadi

Source: Pune Rural Circle (MSEB, Rasta Peth, Pune), for details of Talwade, Chikhali, Moshi, Dudulgaon, Wadmukhwadi, Choviswadi, Charholi and Mamurdi MSEB Pimpri Division for details of Dapodi, Sangavi, Pimple Nilakh, Wakad, Punawale, Kiwale, Bopkhel and Ravet.

- Household Travel Surveys
- Delay Survey at Level Crossing

Road Inventory Survey

The road inventory survey has been conducted to assess the quality and capacity of the major road network available in the study area. Major roads that are running through the project area have been identified and cross sectional measurements are taken at several locations on all these roads. The major roads passing through the study area are listed below:

- NH4 Bypass- Passing through Wakad, Punawale, Ravet, Kiwale and Mamurdi

- Mumbai-Pune Road via Aundh

- Mumbai-Pune Road via Aundh

- NH-50 running through Moshi

- A major east-west corridor state highway-58 running through Talwade, Chikhali, Moshi and Dudulgaon

- Pune-Alandi Road running through Dighi and Charholi BK.

All these major roads carry heavy traffic including inter-city goods traffic. Apart from these roads, there are many other access and feeder roads. All the access roads of the fringe villages are at present less than 7 meters wide. Nevertheless, road-widening work has already been initiated for access roads in some of the villages (e.g. Charholi BK). A detailed inventory of these roads is carried out along with the existing land use (ELU) survey. Widths of the existing roads in the planning area are depicted in the ELU.

Classified Traffic Volume Counts at Intersections

A wide variety of fast and slow moving vehicles ply on the roads of the newly merged area of PCMC. Overall, two-wheelers and three wheelers dominate the road space. Classified turning volume counts are useful in establishing the traffic flow characteristics at junctions such as traffic composition, turning volumes, hourly variations and peak/ off peak traffic volumes. Classified turning volume counts surveys were conducted at 6 major intersections in the study area for a duration of 16 hrs (from

6.30 AM to 10.30 PM) covering both morning and evening peak hours on a normal working day. The survey locations are as listed below.

- Triveni Nagar Chowk in Talwade
- Intersection of SH58 and Kudalewadi Road at Chikhali
- Intersection of NH50 and SH58 at Moshi
- Nehru Chowk at Dapodi
- Intersection of Mumbai-Pune Road and Sangavi Road at Aundh Chest Hospital
- Intersection of NH4 Bypass and Pimple Nilakh Road.

All the vehicles are converted to equivalent Passenger Car Units (PCU) while estimating the peak hour using the PCU values proposed by the India Road Congress (IRC-106). It was noticed that the traffic mix is dominated by two-wheelers followed by cars/jeeps except at Triveni Nagar Chowk and NH4 bypass. In places like Moshi, Chikhali, and Aundh hospital, the percentage of six-seaters in the traffic mix is significant. Additionally, the NH4 bypass intersecting old and new Wakad area there is heavy congestion of heavy vehicles largely due to the existing Octroi Naka (station) which has a very minuscule space for operation and also owing to non-existence of traffic lights.

Classified Traffic Volume Counts at Mid-Block

Mid block counts were conducted at 4 locations at outer cordon and 5 inner points in the newly merged areas on normal working day. This data is used to analyse the traffic characteristics such as the traffic volumes, traffic mix and peak hours. The survey locations are as listed below.

- Dighi octroi naka on Alandi Road
- Access Road to Mamurdi from NH4 Bypass
- Access Road to Punawale from NH4 Bypass
- Access Road to Ravet from NH4 Bypass
- Road towards Pimpri-Chinchwad in Wakad.

The directional volumes in terms of PCUs during morning and evening peak hours, the composition of the traffic during the peak hour along with the directional peak hour were calculated. These peak hour volumes helped in identifying the sufficiency of the existing carriageway widths at mid block. It is observed that the capacities of the major corridors are sufficient to meet the existing traffic demand.

It was noticed that the traffic composition is mostly dominated by personal modes (namely two-wheeler and cars) followed by six seaters. It clearly indicates the inadequacy of the public transport.

Origin-Destination Survey

Traffic volume counts and Origin-Destination (O-D) surveys were conducted on a normal working day for duration of 24 hours at 4 major entry points into the study area. Simultaneous classified volume counts for both the directions were carried out for the whole duration of 24 hours. This information was used to expand the O-D survey data. The sample size of O-D information that was collected for each location is presented in Table 4.8.

From the data presented in Table 4.8, it can be noticed that the goods movement is significant. Especially on the Mumbai-Pune Road the through traffic is 96.7 per cent in case of incoming traffic to project area and 96.4 per cent in case of outgoing traffic from project area. That means only around 3.4 per cent of the truck traffic are destined to the project area. Goods movement of construction material is found to be significant, as much as 50 per cent. This shows that considerable developmental activities are already taking place in the merged areas. Average vehicle occupancies reveal that there are cases with overloading of the passengers in the vehicles especially six seaters.

Table 4.8 Composition of Traffic during 24 Hours at Outer Cordon Points and O-D Survey Sample Size

Location	Bus	Car/ Jeep	Two-Wheeler	Three-Wheeler	Six-Seater	Cycle	Truck	LCV	% of Survey Sample
Alandi Octroi naka	822	2647	4383	678	309	1310	1717	963	15%
Mumbai Pune Road	2475	6330	4797	613	650	177	12228	2947	6%
Nashik Octroi naka	837	3697	3691	510	177	279	2624	1097	10%
Talwade Octroi naka	36	432	2941	351	359	2405	476	349	17%

Speed Survey

The speed surveys were carried out along all the major roads in the study area during the peak hour and off peak hours. The journey speeds are tabulated in Table 4.9. The delays and its causative factors on various sections of the road were recorded in order to identify the major bottlenecks on the road network.

NH 4 bypass is having high-speed profile all along except at octroi nakas. This is because the access roads to this bypass are limited in number and most of the traffic is through traffic. Also, the abutting land use is mostly either agriculture or barren lands. Mumbai-Pune Roads via Aundh and Dapodi are mostly running through residential areas and industrial land uses connecting major developments in PMC and PCMC. Therefore, during the peak hours, there is a significant reduction in the speeds. The major bottleneck that bears direct impact on the roads of Dapodi is the junction opposite to College of Military Engineering (CME). Reduction in speeds of vehicles was observed on Alandi Road due to the parking of trucks at Dighi Octroi Naka.

Table 4.9 Speeds on the Major Roads in the Study Area

Name of the Road	Off peak Hour Speeds (Kmph)	Peak Hour Speeds (Kmph)
NH 4 Bypass – Passing through Wakad, Punawale, Ravet, Kiwale and Mamurdi	50.5	46.7
Mumbai-Pune Road via Aundh	38.1	32.2
Mumbai-Pune Road via Dapodi	37.2	23.2
NH 50-running through Moshi	42.6	35.4
A major east-west corridor SH 58-running through Talwade, Chikhali, Moshi and Dudulgaon	40.5	38.1
Alandi road running through Dighi and Charoli BK	40.9	37.1

Parking Survey

On street parking surveys were conducted on two road stretches in Dapodi and parking accumulation of different vehicles was recorded at every half an hour interval for a period of 12 hours from 8.00 am to 8.00 p.m. on both left and right hand sides of the following road stretches.

- Ambedkar Chowk to Railway Level Crossing
- Railway Level Crossing to Nehru Chowk.

Abutting land use in these road stretches is mostly roadside commercial vendors and hawkers encroaching almost one fourth of the carriageway. Due to these roadside commercial activities and retail business, short duration parking of the vehicles alongside the road are observed. Nevertheless, parking of these vehicles is adding to the existing congestion during peak hours. Parking of two-wheelers for a short duration is more prominently seen. Similarly three wheelers are stopped momentarily for boarding and alighting the travellers. Also the queues developed at level crossing during the closure of the railway gate create traffic chaos. All these activities add to the increasing congestion in these stretches.

Household Surveys

Household surveys are conducted to bring out the socio-economic aspects of the resident population and travel characteristics in terms of household size, income, vehicle ownership, household trip rates, modal split etc. Household survey gives the information on the traffic generated within the study area.

The average sample size was 2.5 per cent of the total number of households in the newly merged area. Based on the total number of households in each newly merged village, proportionate sampling procedure was adopted to assess the number of houses to be covered in each village. The households in each village were selected in such a manner to cover varied socio-economic characteristics. The data collected by the enumerators were cross-checked randomly by the supervisors to ensure the quality of the data.

The traffic characteristics were analysed based on planning area divisions. Sector 1 comprises Talwade, Chikhali, Moshi and Dudulgaon, all located on Dehu-Alandi Road, thus constituting the northern portion of the planning area. The area of this sector falls in the Sector "A" of the

Pune Metropolitan Regional Plan 1990 – 2011. Sector 2 comprises Wakad, Punawale, Ravet, Kiwale, and Mamurdi, all located on westerly Mumbai-Bangalore bypass highway, thus constituting the western portion of the planning area. The area of this sector falls in the Sector "B" of the Pune Metropolitan Regional Plan 1990 – 2011. Sector 3 comprises Choviswadi, Wadmukhwadi, Charholi (BK), Dighi, and Bopkhel, all having access through Pune-Alandi Road, thus constituting the eastern and south-east portion of the planning area. The area of this sector falls in the Sector "H" of the Pune Metropolitan Regional Plan 1990 – 2011. Dapodi located on Mumbai-Pune highway and being separate from the boundaries of other sectors has been considered as Sector 4. Similarly, Bhosari School on Mumbai-Pune Road, and Aundh Chest Hospital, Rakshak Housing Society and Bharat Electronics Limited colony located on old Mumbai-Pune highway via Aundh, have been considered as separate isolated pockets respectively.

Vehicle ownership of sector plays an important role in understanding the extent level of mobility of which mainly depends on their economic status. Vehicle ownership levels in these newly merged villages are less by 50 per cent compared to the average vehicle owning of people in the developed areas of PMC and PCMC (Source: City report of Pune 1995).

It was observed that with rising income levels vehicle ownership levels also increase. Similarly from Table 4.10 it can be observed that as the income levels are increasing the number of trips are also increasing reflecting increased mobility especially in the higher income group.

Table 4.10 Monthly Income and Trip Rates

Income Category	Trip Rate per Household					
	Sectors / Pockets					
	1	2	3	4	5	6
Upto Rs. 1000	2.3	1.67	1.00	3.06	-	-
Rs. 1001-2000	2.5	2.36	2.67	2.71	-	-
Rs. 2001-4000	2.5	2.59	2.99	3.16	3.00	-
Rs. 4001-7000	2.9	3.88	2.78	3.13	-	-
Rs. 7001-10000	4.0	2.25	4.00	3.61	4.8	-
Rs. 10001 and Above	6.0	-	4.33	4	4.67	3.5
Average	**2.6**	**2.74**	**2.95**	**3.15**	**4.27**	**3.5**

Table 4.11 presents the modal shares and mode-wise averages trip lengths in terms of trip distance (km) and travel time (min). Average trip lengths of the different types of travel modes are estimated from the response provided by the households. As most of the trips are within the village boundaries, the share of walk trips is highest followed by bicycle trips. Among the mechanised modes city bus and two-wheelers constitute a greater percentage. Average trip lengths are found to be high for the high-income group population.

Table 4.11 Modal Share and Mode-wise Trip Lengths

Travel Mode	Sector 1			Sector 2		
	Modal Share (%)	Distance (Km)	Time (Min.)	Modal Share (%)	Distance (Km)	Time (Min.)
Auto Rickshaw	1.70	6.50	20.00	2.25	4.60	14.00
Bicycle	14.43	6.21	25.68	14.09	4.40	16.46
Chartered Bus	0.63	6.63	30.00	3.00	17.67	.33.33
City Bus	7.64	12.11	36.39	7.89	13.55	25.42
Company Car	0.17	15.00	40.00	0.19	10.00	30.00
Private Car	2.04	10.18	32.73	1.50	6.00	15.00
6 seater	9.93	6.10	24.47	10.71	6.69	21.14
Two-wheeler	5.26	8.86	26.36	7.14	8.82	23.75
Walk	58.15	1.35	14.93	53.19	1.83	14.76
Average	-	4.10	20.18	-	4.58	17.66
	Sector 3			Sector 4		
Auto Rickshaw	3.30	4.40	14.40	5.74	3.81	9.86
Bicycle	19.97	8.05	23.35	6.14	3.92	12.7
Chartered Bus	0.49	33.50	35.00	0.93	10.28	27.14
City Bus	20.95	12.73	28.12	17.7	8.0	23.03
Company Car	0.24	25.00	45.00	-	-	-
Private Car	-	-	-	1.4	5.82	20.5
6 Seater	1.10	6.33	16.72	1.2	7.71	25.5
Two-wheeler	7.10	10.00	25.36	7.94	6.38	18.05
Walk	46.56	1.42	13.90	58.91	1.66	12.05
Average	-	6.07	19.74	-	3.71	14.71
	5			6		
Auto Rickshaw	4.29	11	30	-	-	-
Bicycle	10.00	9.6	30	-	-	-
Chartered Bus	2.86	25	60	33.33	6	20
City Bus	8.57	11.6	35	16.6	10	35
Company Car		-	-	-	-	-
Private Car	8.57	9.25	35	25	10	20
6 seater	17.3	7.4	20	-	-	-
Two-wheeler	32.9	6.5	27.75	16.6	20	25
Walk	18.6	0.87	9.61	8.33	-	-
Average	-	-	-	-	13.4	23.5

Delay Survey at Railway Level Crossing

Traffic delay survey was conducted to assess the delay to the road traffic at the level crossing at Dapodi. Analysed results of the survey data are presented in terms of delay for each type of vehicle category during peak hour in Table 4.12. In the total traffic mix major part is shared by the two-wheelers. Accordingly the delay in terms of vehicle-hrs and vehicle-min for two-wheelers are found to be more.

In the present situation, the traffic condition in terms of speed and congestion is observed to have good level of service except at Dapodi. New proposals to ease the traffic movement at Dapodi are recommended.

Table 4.12 Delay at Level Crossing

Vehicle Type	Delay in 16 Hrs		Delay in Peak Hour	
	Vehicle-Hrs	PCU-Hrs	Vehicle-Min	PCU-Min
Bus	0.04	0.1	0.2	0.8
Car/Jeep	1.53	1.5	9.2	9.2
Two-Wheeler	18.59	13.1	111.6	78.9
Three-Wheeler	5.33	10.7	32.0	63.9
Six-Seater	1.43	0.7	8.6	4.3
Cycle	10.94	5.5	65.6	32.8
Slow Others	1.24	0.5	7.4	2.9
Truck	1.46	1.5	8.8	8.7
LCV	0.86	1.7	5.1	10.3
Others	0.15	0.3	0.9	1.9
Total	41.56	35.6	249.4	213.7

4.4.16 Preparation of Base Map and ELU

Base Map

For the purpose of preparing "Development Plan" a base map precisely showing the limits of the planning area, along with the important physical features such as existing roads, water bodies, hillocks, contours, etc. thereon, is a must. As per the rules framed under the Maharashtra Regional and Town Planning (MR&TP) Act. 1966, a combined map on a scale not smaller than 1: 10,000, is required to be prepared in this regard. However, having due regard to the terms of reference for the consultancy assignment in the present case, the base map to a scale of 1: 5000 is required to be drawn. Further, such map is expected to be prepared with the help of remote sensing satellite imageries, obtainable from NRSA. Every built-up land feature having dimensions more than 3m x 3m is also required to be brought on the base map to facilitate proper planning of the area. Accordingly a combined base map of the planning area, to the scale of 1: 5000 has been now prepared on the basis of the details recorded from the satellite imageries. For the purpose of showing built-up area on the base map both from village gaothan and outside, detailed survey based on plane table and total station technique has been carried out. The cadastral details about the property boundaries obtained from revenue village maps, showing survey numbers or gat numbers (S. Nos. / Gat. Nos.), are also superimposed on the base map, duly verifying their correctness with the help of suitable ground control points.

Review of Existing Data and Reports

Remote Sensing Data

Satellite images of IRS 1C and LISS-III are procured from NRSA for the PCMC region. Various features such as rivers / streams, water bodies, forests, agricultural lands, barren lands, limits of settlements etc., have been extracted from these images. The extraction process makes use of latest classification technique. Required numbers of ground checks have been carried to determine the accuracy of classified features. Any modification, if required, has been then done. The output of these processes has been then classified land cover map. From the satellite imagery various congested pockets within the village have been identified for the purpose of detailed survey. The classified land cover map has been integrated with the base map, which is the first step in preparation of ELU map.

Collateral Data

SOI Toposheets

SOI toposheets of 1:50,000 scale have been procured from the maps division of SOI, Pune. These maps have been digitised to GIS-compatible format. Then the maps have been integrated with each other and area of interest has been extracted. This map becomes the initial base map and will help in registration of satellite images and incorporation of detailed cadastral and village maps.

Village / Cadastral Maps (Newly Merged 18 Villages)

Maps of the newly merged 18 villages have been procured from the District Inspector of Land Record (DILR) Office. The scale of the procured maps is 1:10,000.

Maps of Regional Plan

Maps of regional plans have been collected from the Town Planning Office of Pune. These maps are already in the GIS-compatible digital format.

Sanctioned Regional Plans of Pune District

Sanctioned regional plans for the Pune District has been collected from the office of the Assistant Director of Town Planning. There are two parts in the report.

Regional Plan Report Part-I (ELU)

Regional Plan Report Part-II (Proposed Land Use)

Existing Development Plans for the Old City (86 sq.Km.)

Approach and Methodology

Based on the input data available and the review of the data, the following approach has been followed for various activities under the scope of preparation of base map / ELU map.

Study of Planning Area

The planning area has been studied using Survey of India (SOI) toposheets. The SOI toposheets no. 47 F/10 and 47 F/14 on 1:50,000 have been procured from SOI for planning work. Initial field visits have been conducted to study the general topography of the area.

Scanning and Digitising of Main Features from SOI Toposheets

SOI toposheets no. 47 F/10 and 47 F / 14 have been scanned and digitised for the following features:

- Latitude / longitude grids
- Contours
- Road network
- Railways
- Village polygons (at least for 18 villages)
- Village names
- Rivers and streams
- Ponds / Lakes.

Edge-Matching of Vector Data from SOI Toposheets

A quality check and modification on the individual toposheet vector data have been done after digitisation of various features and finally all the toposheets have been edge-matched to get one digital map for the project area.

Digitisation of Village Maps / Cadastral Maps

Village maps for all the 18 villages under the project area obtained from the DILR Office / PCMC are already in the GIS-compatible format. The details available in these maps are

- Village boundary
- Cadastral plot boundary
- Survey number / cadastral number
- Roads.

Integration of Regional Plans Maps

Regional Plan maps obtained from PCMC has been integrated with the village maps of the newly merged area. This RP map will serve as guideline for framing proposals for the DP of newly merged area.

Creation of Initial Base Map

Map of SOI toposheets, cadastral maps, and RP maps will be integrated to form a base map of the study area.

Remote Sensing Data

Browsing and procurement of Satellite Image from NRSA

IRS satellite PAN digital image has been identified and procured from NRSA, Hyderabad for the minimum cloud period. For land use classification, IRS LISS-III images will also be procured from NRSA.

Collection of Ground Control Points (GCPs) and Registration of Satellite Image into Project Database

Ground control points will be collected with the help of Satellite Image and digital base maps prepared. Well-distributed GCPs (e.g. road, railway intersection, intersection, of roads, bridges and river confluence's etc.) have been selected over the area. GCP has been verified and extended by using Global Positioning System (GPS). IRS 1C LISS-III and PAN have been registered using a number of GCPs over the SOI toposheets. All the images have been merged to get a single one. Various image enhancement techniques have been applied to increase the visibility for visual interpretation.

Remote Sensing Data Interpretation

Initial Image Interpretation

Visual interpretation has been carried out to study the digitally enhanced satellite image. This has been done on the various image characteristics such as shape, size, texture, pattern, tone, association, etc. Depending on these keys, various land use / cover classes have been identified.

Ground Truth Data Collection

Ground truth verification has also been conducted for verifying the land uses classes and accordingly incorporated into the map. GPS has been used for ground truth verification. The output of this work has helped in developing an interpretation key.

Land Use Classification from Satellite Image

False colour composite (FCC) has been prepared using IRS LISS-III multi-spectral image to identify the land use classes. For better identification of the land use classes, IRS PAN data has also been merged into the IRS LISS-III data. The minimum level of accuracy has been 85 to 90 percent.

Creation of Plan Database

A database has been created to store the satellite image data and the vector data of the base maps.

Import of Base Map into Database
All the vector layers have been imported into the vector segments of the database created. It will be imported into separate layers.

Import of Satellite Images into Database
IRS 1C PAN and LISS-III digital images will be imported to the plan database.

Updation of Base Map
Base map of the planning area has been updated for the features, obtainable from the satellite image. All the roads and linear features have been updated using satellite image in the base map. Prominent buildings identified from the satellite image have also been transferred to the base map.

Detailed Survey of the Planning Area
With the help of the base map prepared using satellite image, the exact amount of congested pockets of settlement have been identified. Gaothan / habitation and new development have been market on the map. Incorporation of missing features such as power line, telephone line, transmission line, main water supply lines, overhead tanks, other prominent public and semi-public buildings, commercial and industrial land, etc., have been surveyed and market on the map.

Integration of Survey Details into the Base Map / ELU
Details obtained from the survey have been integrated and shown on the maps. The entire maps and satellite image have been integrated into MapInfo GIS.

ELU Map Preparation
ELU map has been prepared using the information from base map, satellite image classification and information from the detailed survey. The following layers of information have been used in preparaing the ELU map:

- Agricultural land
- Barren land
- Forest land
- Open spaces
- Plantation
- Play ground / stadium
- Cremation ground

- Residential land
- Commercial land
- Industrial land
- Water body
- Lakes / ponds
- Public / semi-public buildings, post office, police station, town halls, park, dispensary, schools, banks, cultural / religious buildings, educational buildings
- Transportation network details
  - Roads
  - Railways
  - Bus / Railway station
  - Truck terminus
- Miscellaneous features
  - Well, overhead tank, etc.

Creation of 3D Model

Using SOI contour information, contours have been interpolated for 5-10 m contour interval and a 3D-digital terrain model has been created using the contour information. The map information has been then overlaid onto the 3D model.

Existing Land-Use (ELU)

According to the section 25 of the M.R & TP Act. 1966, it is obligatory on the part of the Planning-Authority to carry out a survey of the lands within the planning area for preparing the existing land-use map thereof.

The existing land-use survey is the basic fundamental and most important survey. It shows the use or uses to which each and every piece and parcel of land is put. This survey is the best indicator of the character of the area to be planned. Its analysis helps in determining the optimum and most beneficial distribution of the land uses in the interest of the community, which in turn leads to the zoning and detailed proposals of the "Draft Development Plan". The detailed investigation and analysis of this survey also gives idea about:

- existing trend of land uses.
- the position of conforming and non-conforming uses
- intensity of land uses
- the relative importance of the activity and deficiencies, if any.

The newly merged area of the Pimpri Chinchwad Municipal Corporation (PCMC), which is the planning area in the present case, admeasures about 84.51 sq. kms. The said area which is mostly in the form of outer ring around the old PCMC area extends from Talwade to Dudulgaon on north, from Charholi (BK) to Dighi on east and from Mamurdi to Wakad on west. Dapodi village, which was previously within PMC area, has been now included in the PCMC limits and forms part of the present planning area. Small portions of villages Sangavi, Pimple Nilakh, Bopkhel and Bhosari which now stand included in the PCMC limits are in scattered form, surrounded mostly by the defence-lands.

The existing land-uses of the planning area are shown on the Exhibit 4.7. The detailed land-use analysis has also been shown in tabular form in Table 4.13.

The analysis shows that the total developed area is about 31.76 % of the total planning area. It is evident therefrom that vast area thereof is either undeveloped or under agriculture. The area under cultivation is about 39.37 % of the total area. Out of the developed area, the main user is residential, which constitute 26.35 % and next to it is transport and communication, which is 2.81 %. The MIDC industrial area, at Talwade, though falls within the limits, its cognisance has not been taken in the land-use analysis and shown only a MIDC area, in as much as the MIDC constitute a Special Planning Authority for its area, for the purpose of the M.R & TP Act. 1966.

The existing land-use analysis also indicates that there is ample undeveloped land available within the planning area, which can be suitably brought under non-agricultural use, to meet the demand of the increasing population. The good quality agricultural lands mostly lie within the village limits of Kiwale, Ravet, Punawale etc. (portion near the Pavana river), village Wakad (portion beyond highway diversion and along the river Mula), villages Chikhali, Moshi, Dudulgaon, Charholi, etc. (northern portion near river Indrayani).

The recent non-agricultural development is taking place mostly along the main traffic routes rendering the interior lands in undeveloped state for want of necessary infrastructures. Commercial activities are mostly concentrated on main roads in the form of roadside shopping. The village Dapodi from the PMC limit has now been merged with the PCMC. It is a fully developed village lying on the Mumbai-Pune rail as well as road link. The main East West road linking the vast premises of State Transport (S.T.) workshop and the PWD workshop with the Mumbai-Pune Highway is full of commercial activities. Residential pockets out of village Bopkhel and Pimple Nilakh (Rakshak Co-operative Housing Society) are

surrounded by defence-lands (College of Military Engineering, Dapodi and Military Farm, Pimpri respectively). The small portion of village Bhosari falling within the planning area includes a Primary and High School run by PCMC. The public semi-public uses (PSP) constitute 3.06 % of the developed area. Public amenities such as schools, dispensaries and other public premises fall under this land-use. The recreational activities are mostly absent, particularly in the newly merged fringe villages.

Table 4.13. Summary of Existing Land-Use Analysis

Sr. No.	Land-Use Category	E.L.U. area in Ha.	% to developed area	% to total area
	1	2	3	4
1.	Residential	2226.29	82.94	26.35
2.	Commercial	19.20	0.72	0.23
3.	Industrial	78.19	2.91	0.93
4.	Public and Semi-public	82.25	3.06	0.97
5.	Public Utility	39.45	1.47	0.47
6.	Transport and Communication (Road and Railways)	237.71	8.86	2.81
7.	Recreational area (parks and gardens, playfields, fair ground etc.)	1.26	0.05	0.01
	Sub-total (Developed Area)	**2684.35**		**31.77**
8.	Agricultural	3326.98		39.37
9.	Forest and Hillocks	246.12		2.91
10.	Water-bodies	95.3		1.11
11	Quarry	108.04		1.28
12.	Vacant / Barren Land	1920.50		22.73
	Total	**8380.07**		
	MIDC Software T Park	69.71		0.82
	Grand Total	**8451.00**		**100.00**

It has been observed that the existing land use in some of the areas have deviated from the sanctioned land use proposals of the Pune Metropolitan Regional Plan (1990-2011). Some of the major deviations are as below:

In village Talwade of Sector-1, the actual area and layout of the MIDC's Software Technology Park is in deviation of the layout and area as shown in the above regional plan and due to which the sanctioned public and

semi-public use shown in the north-west tip of Talwade is reduced to about 37 hectares as compared to the original allocation of about 64 hectares. Due to change in above industrial layout in Talwade some portion to the north of Gaothan is now seen under the tree plantation use by the PCMC. Similarly, the other industrial use in Talwade and Chikhali is seen to be beyond the sanctioned allocations of the regional plan. The residential use and other use in all the villages of Sector-1 is also seen to be growing beyond the sanctioned residential zones as in the regional plan.

Similarly in Sector-2 in Dighi, the residential zone in the north also includes a substantial portion (20 hectares) under industrial use, and restricted zones (due to defence requirements) in the north-west have been seen to have industrial and residential uses. In the agriculture / no development zone of Bopkhel, the north most portion of about 36 hectares is now under public and semi-public use (VSNL area) and the remaining part has come under residential use in a scattered form.

In Sector – 4, in all villages it is observed that the residential and other uses have taken place in the areas shown as agriculture / no development zone in the regional plan.

SYSTEMS ANALYSIS 1
5.1 ..... Introduction 1
5.2 ..... Nominal Group Technique (NGT) 2
5.3 ..... Cybernetic Influence Diagram (CID) 2
5.3.1 ..... Preliminary Classification 3
State Variables 3
Control Variables 4
Disturbance Variables 4
5.3.2 ..... Burst and Merge Points 5
Burst Points 5
Merge Points 6
5.4.1 ..... Feedback Loop Analysis 7
5.4.1 ..... Generic Conclusions 7
5.4 ..... SNAC Analysis 9
5.4.1 ..... Objective Model for the Areas of PCMC 10
5.4.2 ..... Structure of the Objectives 10
Objectives at Level 4 11
Objectives at Level 3 14
Objectives at Level 2 15
Objectives at Level 1 15
5.4.3 ..... Conclusion 15

CHAPTER 5

SYSTEMS ANALYSIS

5.1 Introduction

Systems analysis aims at understanding the present system under study, its environment and the relationship between the two. Such an understanding is essential to identify interventions and develop plans that would be effective for a longer time period. In this study the *systems approach* adopted by TCS is presented below which highlights findings of the Nominal Group Technique (NGT) sessions and its analysis of the system and its environment. This exercise has been carried out from two perspectives: the cybernetic perspective and the stakeholder perspective.

The cybernetic perspective is developed using the Cybernetic Influence Diagram (CID). It provides a dynamic understanding of the system in focus by capturing and assessing the character of the fundamental feedback loops through which the system responds to its environment. This analysis not only throws light on the cybernetic character within the system, i.e., its ability to change, but also highlights areas with scope for change.

The stakeholder perspective is captured by SNAC (Stakeholders, Needs, Alterables, Constraints) analysis. This method explores the needs of different stakeholders. SNAC analysis is essentially done to identify the stakeholder requirements. It helps translating the met or unmet stakeholder needs into a set of objectives to be pursued by the local body. By incorporating these views while preparing proposals for the development plan, it enhances its effectiveness. Such an analysis also helps in the preparation of the development plan proposals that are balanced and not biased in favour of any particular stakeholder or interest group.

The findings from each of these perspectives are then synthesized to arrive at a broader understanding of the urban system in focus (i.e. the areas of Pimpri-Chinchwad and its surrounding environment). The final objectives of the system are then structured using the Interpretive Structure Model (ISM).

5.2 Nominal Group Technique (NGT)

NGT is primarily an idea generation technique. The process of NGT ensures greater attention to idea generation, increased attention to each idea and a greater likelihood of balanced participation and representation of each member in the group. A group is formed to generate ideas on an issue without any negative group dynamics of domination, striking down ideas, etc. Hence the group is nominal or namesake and not interactive.

Several stakeholders took part in the two NGT sessions (list of participants is shown in Appendix 5-A). The sessions were conducted by the consultants to generate ideas for the trigger question ***"what are the effective planning and development interventions for the newly merged areas of PCMC? "***

The lists of ideas generated in both the sessions are mentioned in Appendix 5-B. The ideas, as prioritised by the participants, were analysed, and the ideas that fall in the top three ranking ranges are listed in Table 5.1.

The result of the rank analysis shows that one session brought out the top priority for the agenda of holistic, sustainable and realistic planning. While the other session's top priority is related to the efficient administration of the development through latest technological means, like use of satellite imagery and geographical information system (GIS) database. These important ideas have been considered during the systems analysis and will serve as a guideline in the formulation of development proposals.

5.3 Cybernetic Influence Diagram (CID)

The CID is a representation of the '*situation as it is*' in a diagrammatic form. The first step in constructing the model is the identification of a set of key elements or factors, which influence each other and represent the urban system. The factors as perceived by the consultants are listed in Table 5.2 and CID is shown in Exhibit 5.1.

The second step involved is identification of relationships or influences among these elements. These influences could be either strong or weak and can be categorised depending on the data available. Whilst preparing the diagram three types of analysis were carried out: (i) preliminary classification of elements, (ii) identification of burst and merge points, and (iii) feedback loop analysis. These analyses are discussed in the following sections.

Table 5.1 List of Prioritised Ideas

Rank Range	Idea Description
NGT Session - I	
1	Planning for these merged villages should not be carried out in an isolated manner, but in congruence with Pune urban agglomeration.
	Availability of drinking water over a long run should govern the sustainability of future development.
	Planning standards should be reviewed to achieve the realistic projections.
2	Population projection should be calculated according to the migration trend.
	Zoning proposals should be liberal and not strictly as per recognised density pattern so as to avoid unauthorised development.
	There should be maximum utilisation of land owned by planning authority and the government. Lands belonging to the planning authority and the government should be utilized for implementing the planning proposals, so as to avoid acquisition of private land.
	Infrastructure development should be implemented within two years of sanctioning of the DP. Adequate land should be designated and adequate resources should be invested in infrastructure facilities in advance or immediately after implementation of the DP begins.
3	The existing PCMC DP should be reviewed and a comprehensive structure plan for newly merged area should be prepared. There should be co-ordination between existing plans and proposals for new DP.
	Proposals should be implementation oriented.
	Planning should be undertaken in a homogenous unit and integrated with other planning authorities.
	Villages should be developed as satellite towns, connected and linked with the core area through efficient road network..
	No agriculture zone and no development zone should not be included in a town plan (agriculture land-use can be permitted to continue).
	Development control regulation should provide a list of "NOs" rather than "what is permitted".
	Ring road can be provided for internal circulation so as to avail six-seater rickshaw.
NGT Session - II	
1	GIS based planning and administration systems should be considered.
	Land-use maps should be prepared using satellite imagery and should identify sites for landfills and waste disposal.
2	Adequate land should be earmarked for composite housing to be developed by public agencies.
	Zoning should ensure minimum air, water and land pollution.
	Hospitals with 25-100 beds should be provided in the newly merged areas.
	DP of the newly merged area should be consistent with the existing land-use patterns of PCMC area.
	Land developers should be required to surrender a portion of their land to the planning authority and this land may be reserved at a later date.
3	Water supply and drainage pipelines should be adequately provided, permanent digs should be provided for network services, positioning of electric wires and of tree plantation should be done in a co-ordinated manner.
	The plan prepared by MIDC should be consulted during preparation of DP. Urban planning and industrial planning should go hand in hand.
	Land reservation for primary schools, high schools should adjoin reservation for gardens and open space.
	Zoning in the DP should take into account geological and geomorphological features of the area.
	Planning zones should be in terms of units of "neighbourhood".
	Environment-friendly river-front development by private sector may be considered.
	Mixed use of land may be considered for SSI, service and non-polluting units.

Table 5.2: List of Key Elements in CID

S. No.	Key Element	Description
1.	Population growth	It is the rate of change in population.
2.	Cultural significance	Importance given by the community to cultural activities.
3.	Demographic / socio-economic characteristics	It represents the diverse nature of population and household.
4.	Occupational structure	The nature of occupation of the household for their earnings.
5.	Migration pattern	The changing characteristics of permanent inflow and outflow of population in the region.
6.	Community participation	The level of participation of the household (as a whole) in development activities.
7.	Land suitability	Indicates the suitability of land for development activities.
8.	Resource availability	The amount of resources (land and other natural resources, and also includes material, finance and workforce) that are available and being used for production related activities.
9.	Land values	Indicates the monetary value of the land for transfer of ownership.
10.	Changes in land-use	The changes in land-use towards urbanisation or within the existing urbanised area.
11.	Development pattern	The trend of development (spatial spread and use of land) in the area.
12.	Relative growth factors	The relative growth of PCMC (in terms of population, development initiatives, employment, revenue generation and environmental stability) as compared to other areas under PMC, Khadki , PCB, Dehu Rd.
13.	Dependence on town level facilities	It is the dependence of the household on towns / bigger settlements for obtaining services like education, recreation and finances, and for trade and commerce.
14.	Carrying capacity	It is the capacity of the newly merged areas to take the cater to the needs of the existing and future population, along with other developmental initiatives taken at the corporation level.
15.	Development controls	These are the controls brought in by the local bodies to regulate the nature of development.
16.	Housing stock	It represents the number of houses that are available for occupation by household.
17.	Quality of housing stock	represents the quality of housing stock in the area based on structural conditions.
18.	Housing gap	Represents the gap in the housing stock based on the housing demand that is required by household for shelter.
19.	Spread of Squatter settlements	Indicates the extent of unauthorised / slum like settlements in the area.
20.	Living / working conditions	Represents the status of living or work conditions in settlements (in terms of social, health and sanitation requirements)
21.	Quality of environment	Represents the overall quality of environment available for civic life in the area.
22.	Natural calamities	These are the natural occurrences (like floods, epidemics, etc.) that create disturbances in the area.
23.	Provision of services	Indicates how much of the demanded services are provided by the local bodies and other agencies.
24.	Gap in services	It is the gap based on the demand by the households and other stakeholders and provisions made for, civic amenities, utilities

S. No.	Key Element	Description
		and other services.
25.	Urban preservation	Indicates the efforts towards preservation of sensitive areas, which are important from culture and environment.
26.	Level of technology deployed	Indicates use of advanced technology in development activities.
27.	Quality of services	Represents the quality of various services provided in the area.
28.	Nature of traffic flow	Traffic characteristics in the area.
29.	Accessibility	Indicates the circulation in the area, and also the accessibility of settlements through various modes of transportation.
30.	Congestion	Indicates the hurdles for smooth traffic.
31.	Regional economic scenario	Indicates the status and direction of the economic activities in the regional perspective.
32.	Local economic activity	Indicates the status and direction of the economic activities in the local perspective (newly merged areas).
33.	Industrial development	Indicates the status and direction of industrial development.
34.	Informal sector growth	Indicates the growth of informal activities (commercial, industrial, etc.).
35.	Demand for goods	Indicates the local demand created for goods (produced within and outside).
36.	Revenue generation pattern	Indicates the pattern of revenue generated in the area in terms of amount and source.
37.	Employment potential	Indicates the potentiality of generating employment in the area.
38.	Volume of trade	It is the volume of trade conducted.
39.	Level of commercialisation	Indicates the creation of commercial environment.
40.	Co-ordination among agencies	Indicates the level of co-ordination among various agencies to implement and monitor all aspects of development in the urban area.
41.	Law and order	Indicates the status of law and order situation in the area.
42.	PCMC policies	These are the policies adopted by PCMC for local development.
43.	Government policies	These are the policies adopted by State and Central government that influence the local development.
44.	Administrative structure	The existence of multiple agencies in planning and implementing developmental activities.
45.	Investments	Indicates the type, and amount of investments in the area.
46.	Level of productive output	It is the indicator of productivity in the area, out of the operations carried in the area.
47.	Public awareness	Indicates the awareness among the household and other stakeholders about the issues and civic problems of the area.
48.	Regional initiatives	The number, type and importance of development initiatives taken at regional basis that would affect the newly merged areas.

Source:

1. Inception Report for Preparation of Development Plan for Newly Merged Areas of PCMC, Tata Consultancy Services (TCS), February 1999.
2. Summary of Findings Report for Preparation of Development Plan for Newly Merged Areas of PCMC, Tata Consultancy Services (TCS), May 1999.
3. Discussions with PCMC officials during preparation and submission of above reports.
4. NGT Sessions, June 1999.
5. Maharashtra Regional and Town Planning Act, 1966.
6. Revised Development Plan, PCMC, 1996 – 2 016.
7. Revised Development Plan, PCNTDA, 1993.
8. Pune Metropolitan Regional Plan, 1990 – 2011.
9. India's Urban Sector profile, National Institute of Urban Affairs (NIUA), January 1998.

5.3.1 Preliminary Classification

In order to get a better understanding of the nature of the system, the key elements are classified into three categories – state, control and disturbance, so as to understand the set of elements which need to monitored, which can be controlled and which are out of the control of the system.

State Variables

The state variables typically depict the status or health of the system (urban system) which need to be monitored on a regular basis. The key elements, which fall under this category, are listed below (in the order of declining centrality - density of relationships).

1. Local economic activity
2. Industrial development
3. Demographic and socio-economic characteristics
4. Informal sector growth
5. Change in land use
6. Migration pattern
7. Quality of environment
8. Law and order
9. Congestion
10. Gap in services
11. Housing gap
12. Employment potential
13. Nature of traffic flow
14. Level of productive output
15. Revenue generation pattern
16. Carrying capacity
17. Living / working conditions
18. Land values
19. Volume of trade
20. Population growth
21. Occupational structure
22. Urban preservation
23. Cultural significance
24. Demand for goods.

Control Variables

Control variables are the elements through which change can be introduced in the system. The following key elements represent areas of control:

1. Development pattern
2. Resource availability
3. Investments
4. PCMC policies
5. Spread of squatter settlements
6. Community participation
7. Level of commercialisation
8. Accessibility
9. Housing stock
10. Land suitability
11. Provision of services
12. Dependence on town level facilities
13. Development controls
14. Population growth
15. Level of technology deployed
16. Quality of services
17. Public awareness
18. Quality of housing stock
19. Co-ordination among agencies.

Disturbance Variables

These are elements that are not within the control of the system but which have an impact on the system. The key elements that fall under this category are as follows:

1. Natural calamities
2. Government policies
3. Regional economic scenario
4. Regional initiatives
5. Relative growth factors
6. Administrative structure.

The above classification shows that there are a number of elements under state and control categories. The presence of such large number of elements in the state category indicates the difficulty involved in

monitoring them and taking corrective action on a regular basis. The presence of a significant number of elements in the disturbance category is also a concern since they are all outside the control of the urban system.

5.3.2 Burst and Merge Points

Burst and merge points help in identifying the criticality and importance of the key elements.

Burst Points

Burst points are the nodes from which a lot of arrows diverge compared to the number coming in. These elements provide greater leverage to the system in implementing change, if they are within the control of the local body or urban administration. The following are the important burst points identified in the CID (in terms of density of relationships).

- Spread of squatter settlements
- Industrial development
- Population growth
- Land suitability
- Government policies
- Community participation
- Natural calamities
- Development controls
- Housing stock
- Level of technology deployed
- Administrative structure
- Regional initiatives
- Occupational structure
- PCMC policies
- Demographic and socio-economic characteristics.

The above list shows that four of the elements (government policies, natural calamities, administrative structure, and regional initiatives) are variables, which are beyond the control of the local body (which is the main agency to implement and monitor the development in the urban system). Presence of elements such as spread of squatter settlements, land suitability, development controls, PCMC policies indicate the factors that

are within the possible control of the local body. These factors if properly administered or addressed may initiate changes in the desired direction.

Merge Points

Merge points are those nodes where convergence of a lot of arrows takes place compared to the number of arrows going out. In the case of merge points a number of other factors need to be acted on before achieving desired change with respect to this element. Alternatively this can be seen as the output or the goals of situation. The following are the important merge points.

- Living / working conditions
- Local economic activity
- Change in land use
- Nature of Traffic flow
- Employment potential
- Revenue generation pattern
- Gap in services
- Development pattern
- Investments
- Dependence on town level facilities
- Urban preservation
- Migration pattern
- Housing gap
- Law and order
- Informal sector growth.

Change in land use, development pattern, revenue generation pattern, gap in services, housing gap and urban preservation are the some of the factors within the purview of local body, and on which several factors exercise their influence. These being merge points, indicate that the local bodies have less leverage in making desired changes. Hence, these are the factors on which the local bodies need to continuously monitor in order to ensure that the desired changes in the system are achieved.

Again, elements like living / working conditions, local economic activity, employment potential, nature of traffic flow, migration pattern and informal sector growth are merge points and outside the of the local body. Nevertheless elements such as living / working conditions, nature of traffic flow and informal sector growth need to be and can be continuously monitored by the local body because of their criticality.

5.3.3 Feedback Loop Analysis

The analysis of feedback (cyclic) loops helps in understanding the ability of the system to respond to changes within and in its environment. Several feedback loops have been observed in the CID which underlines the vitality of the existing system. However, the discussion in the subsequent paragraphs would be restricted to understanding the nature and strength of feedback loops affecting important variables. The nature of any feedback loop can be positive (reinforcing in nature in terms of either acceleration or deceleration of results) or negative (balancing or stabilising in nature). Refer Exhibits 5.2 to 5.12 for the main composite feedback loops identified and their inferences as interpreted by the consultants.

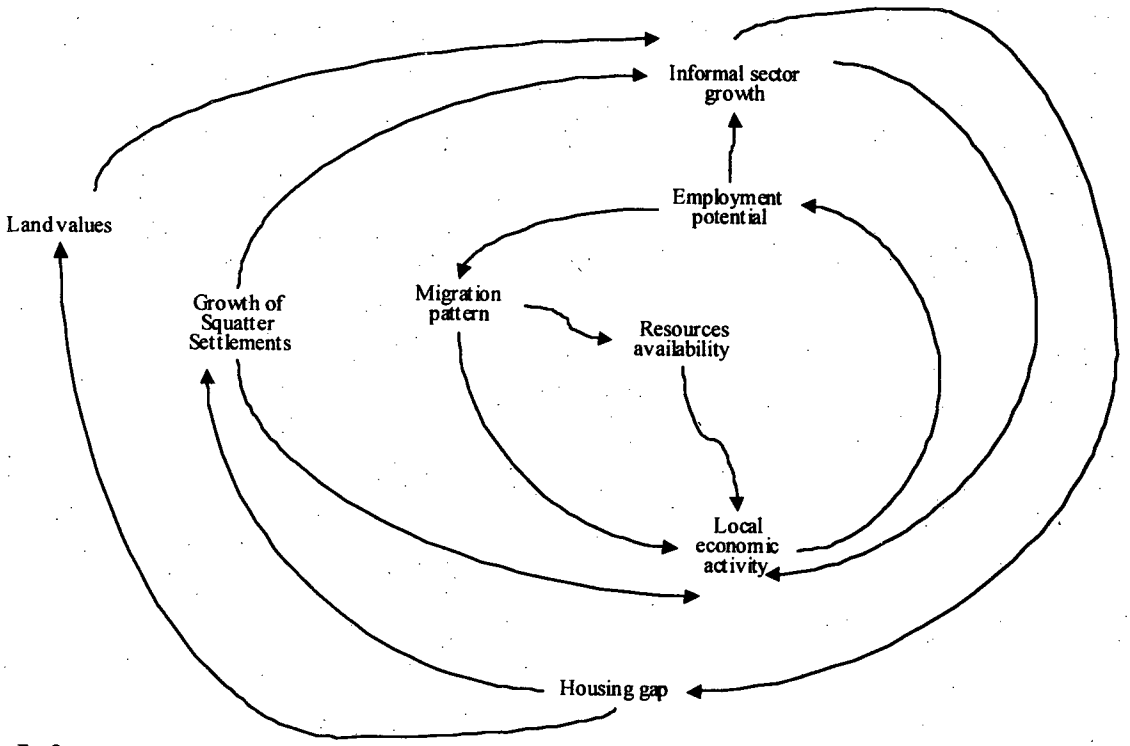
5.3.4 Generic Conclusions

The feedback loops explain the dynamic nature of the setup of various key elements and their relationships. It illustrates how a change in one of these elements brings a favourable or undesirable change to the other elements. The understanding of the influence relationships and the feedback loops within the urban system under study, is concluded with the following observations, and the interventions that may need to be undertaken so as to allow the system to achieve its objectives are:

- The majority of the feedback loops were observed to be positive (reinforcing in nature) apart from being lengthy (generally involving more than four elements). Only a few feedback loops were short (involving three or four elements). The presence of adequate short and negative (balancing or stabilising) feedback loops is normally desirable because in only such loops the elements that represent *limits to growth* can be identified and addressed. But the presence of majority of positive feedback loops as observed in our context is also not undesirable as long as the state of the elements in such loops is continuously monitored by the concerned local bodies or urban administrators within the urban system, to achieve the results in the desired direction.
- The local bodies or urban administrators shall try to shorten the feedback lop closure to control and regulate the results in these loops. This means various authorities should be aware of various situations that may arise during the growth in the urban system, and the system demands regular intervention by these authorities to meet such situations. These are discussed in the following paragraphs.

- The informal sector activities are normally at the level of the economic weaker sections (EWS) and grows with the subservient level needs of the society that is economically better off. The growth of the informal sector cannot be stopped and contributes immensely to the growth of the economic base and generates further employment potential within the informal sector. Hence, it would be desirable if the informal sector needs could be accommodated adequately in a planned manner, either for the purpose of economic activities or for residential needs. Such a planned development at the informal sector level will definitely improve the standard of living for the EWS. The other benefits could be several like, increased revenue base for the local body, avoiding encroachment over vacant government or private lands, avoiding congestion and minimsing law and order problems, avoiding inconvenience to the other formal users of the land or infrastructure, and the existence of hygienic surroundings.
- For an efficient transportation network, the concerned authorities shall have adequate carrying capacity in terms of funds, skills, and technology to tackle traffic and transportation bottlenecks and their causes. They may provide alternate options (like relocation of settlements and economic activities or decongestion, diversion of traffic through existing or new routes, widening of existing routes or traffic management techniques, exploring the possibility of new routes over land under restricted ownership, like defence, etc.) to address these needs.
- The areas of Pimpri-Chinchwad act as engines of growth attracting significant in-migration, As population increase the rise in the demand for goods and services stimulate the economy and generates employment potential, thus attracting in-migration. However, there are dual situations that normally arise during the growth of urban areas. One is that the existing trend of population growth may be affected if the carrying capacity of the system is not in a position to meet the demands of the existing housing, industrial development, and other services satisfactorily. Secondly, if the growth continues (as the area is an engine of growth and offers opportunity to those in other areas) and carrying capacity of the system to provide civic infrastructure is not commensurate with the growing demand / gap, then though the economy of the area might be strong, the quality of environment available for civic life will definitely plummet. All this will influence the productivity and rate of returns in the area in the longer run. This may then affect the overall competitiveness of the area to attract investments and its ability to generate employment.
- The development control rules (DCR) is a main tool and a constituent of carrying capacity of the local body for managing development. It

Exhibit 5.2 Composite Feedback Loop 1

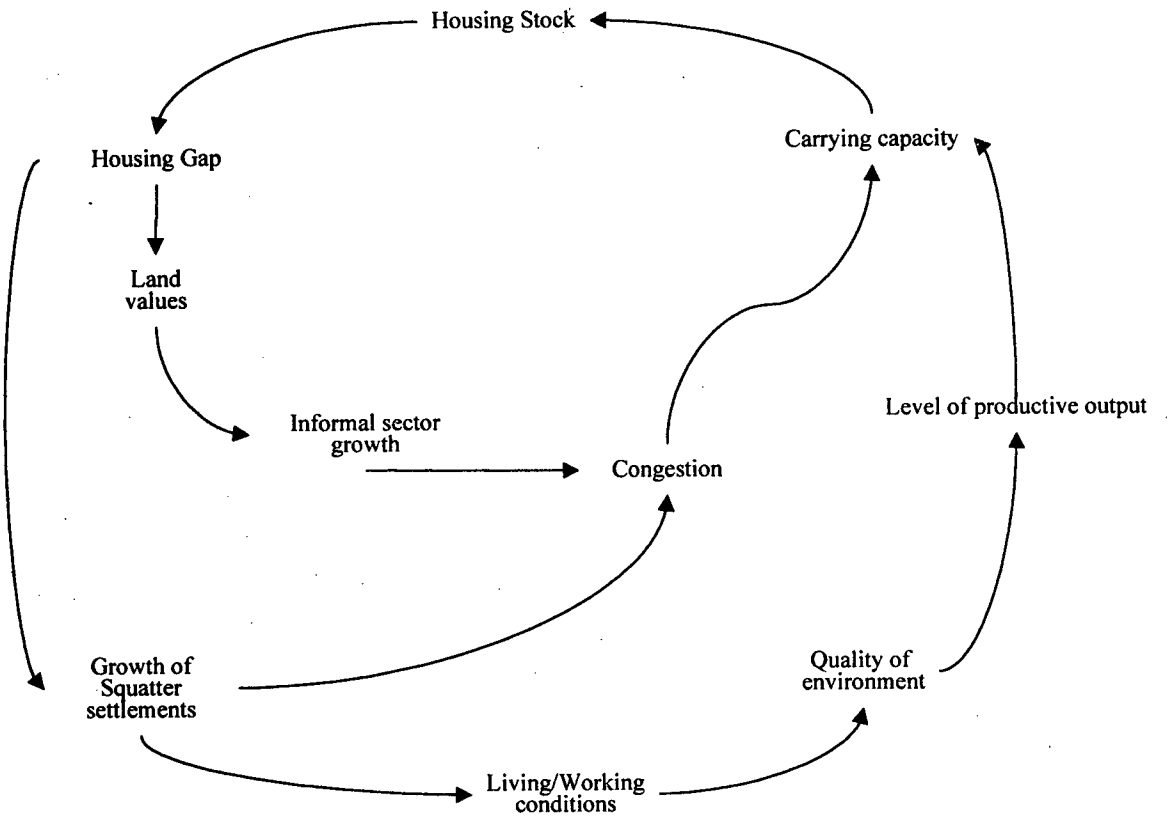


Inferences:

This loop explains the relation between economic factors that are prevailing in the urban growth context. All the loops that operate here are positive feedback (reinforcing in nature), thereby creating a situation where the informal activities are increasing. Over a period of time, the informal sector appears to become part of the urban context. The growth of squatter settlements due to widening of housing gap leads to an increase in informal sector activities. Also, the widening of housing gap increases the land values creating a dependency on informal sector, which is normally unauthorised and unplanned. But, this informal activity directly contributes to the economy of the region.

In order to streamline economic activity, and at the same time maintain high economic base, interventions need to be taken to formalise the economic activities. The control variables in the loop are resources availability and employment potential. The critical state variables are housing gap and land values. There is a need to weaken the link of employment potential attracting informal sector that comes in an unplanned manner. The variable employment potential has greater influence over migration leading to changes in economic activity and thus employment in the region. This triggers the growth of informal sector owing to its dependence on local economic activities. The need is to plan and formalise the informal economy (spatial needs and type of activity) as far as possible, which will continue to provide employment opportunities, attract migration, and mobilise resources in terms of manpower, disposable income and municipal financing. And this may also contribute to provision of formal housing and related employment.

Exhibit 5.3 Composite Feedback Loop 2



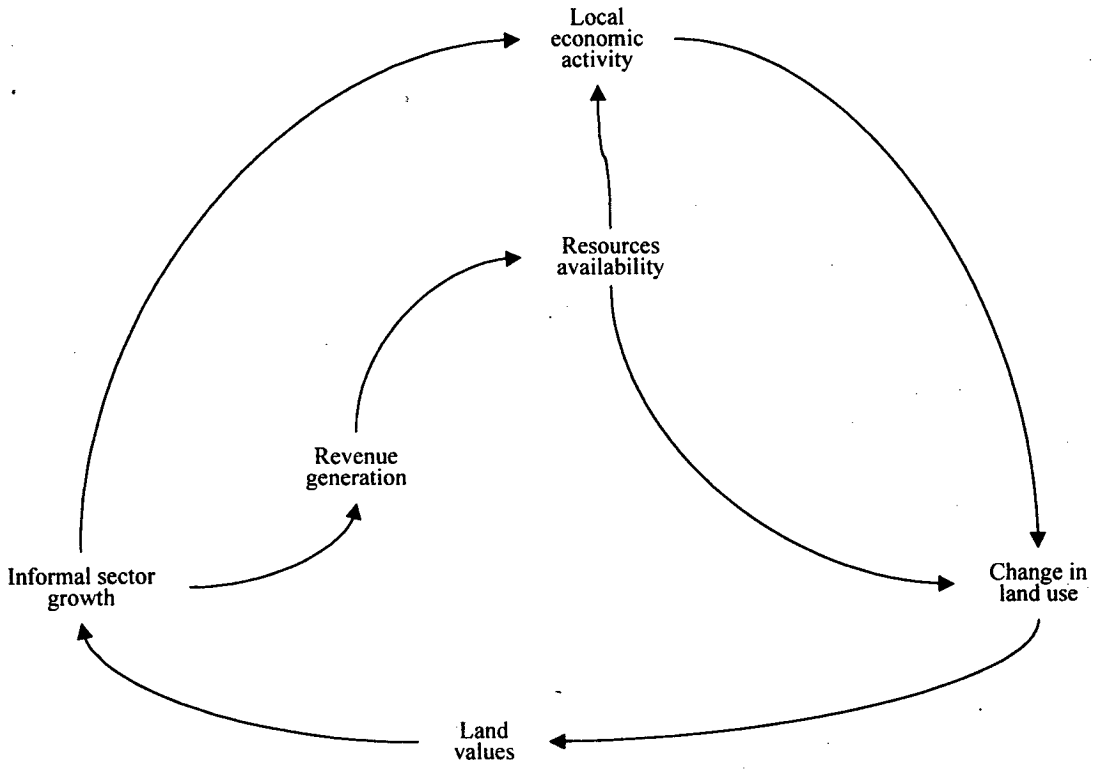
Inferences:

This composite loop indicates the status of the overall environment in the area. It explains the capacity of the area to absorb the demand for land caused due to pressures on housing, living conditions and the environmental quality. The carrying capacity is referred to the capacity of the administrative authorities in terms of effective administration and its' capability to mobilise resources required for developing and maintaining the area as planned. These positive feedback loops indicate a continuous process of uni-directional changes in environmental carrying capacity of the region. An uni-directional change (on the positive side) reflects on the ability of the authorities to maintain the carrying capacity at the required level.

If the carrying capacity is strained, the loop indicates the growth of squatter settlements due to widening of the housing gap and subsequently effects the quality of environment and the level of productivity in the area, which further constrains the carrying capacity. The carrying capacity is also constrained through congestion if the growth of informal sector and squatter settlements is not contained. It is hence imperative for the local body to maintain and ensure that this loop operates in the desired direction and not allow the loop to decelerate. Any deceleration would contribute to urban decay in the longer run.

From the loop, it is seen that strengthening the link between carrying capacity and housing stock will positively contribute to the desired direction that benefits the overall quality of environment. The situation in the loop can be strengthened by continuous development in phases.

Exhibit 5.4 Composite Feedback Loop 3



Inferences:

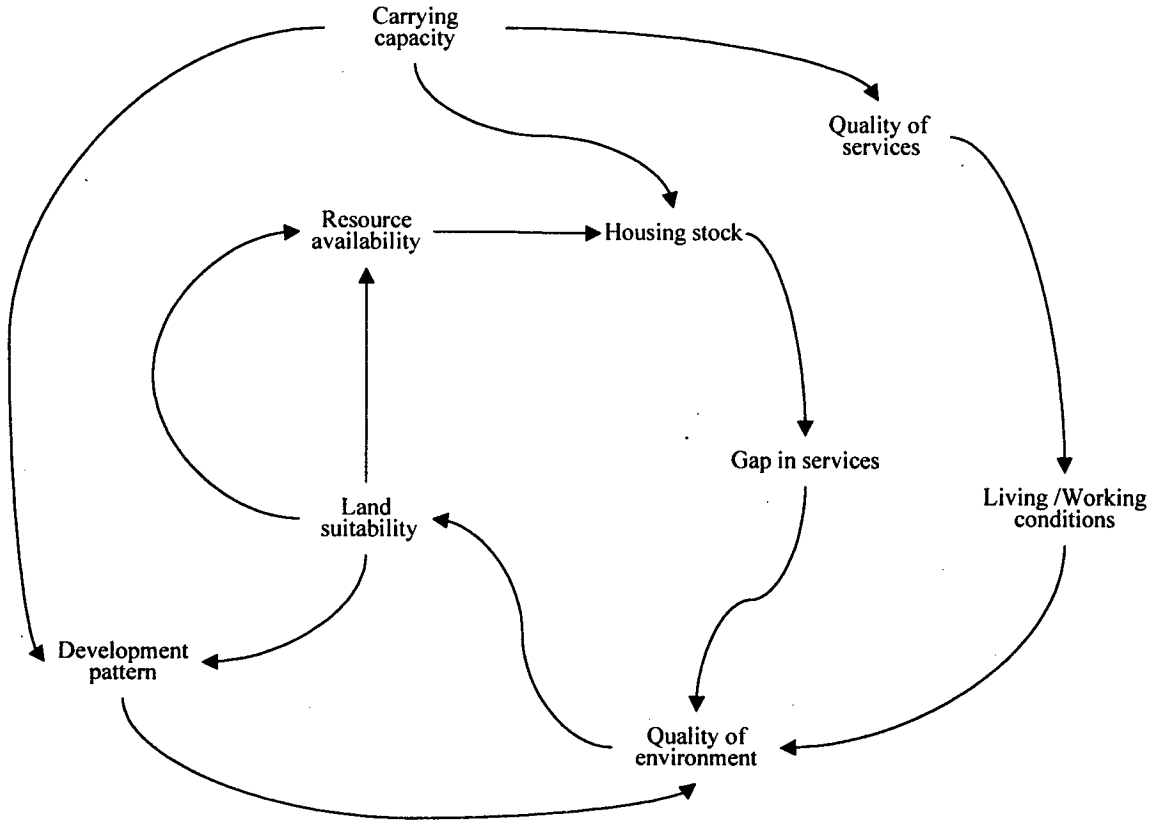
This loop explains the relationship between the informal sector growth and resources of the local body. Positive feedback nature is reflected in the loops with the informal sector continuously growing due to economic activities and local body interventions. It is suggested to take a proactive view of spatial planning needs of the informal sector.

As the informal sector grows, lesser revenue will be collected and if regularised, the collected revenue would not be compatible to the activity (if the area would have been developed as planned). This change in available resources with the local body necessitates the decision of changes in land use wherever appropriate, thus impacting the land values, and still attracting the informal sector.

To address the situation of spatial needs of the informal sector, the link between informal sector growth and revenue generation needs to be strengthened. This can be done through planning for the informal sector needs appropriately, as this will continue to operate at subsistent level (this is something natural to societal needs like availability of goods and services at a low cost associated with convenience).

Such planning, apart from generation of revenue through economic activities at subsistent levels, would also maintain good civic conditions.

Exhibit 5.5 Composite Feedback Loop 4



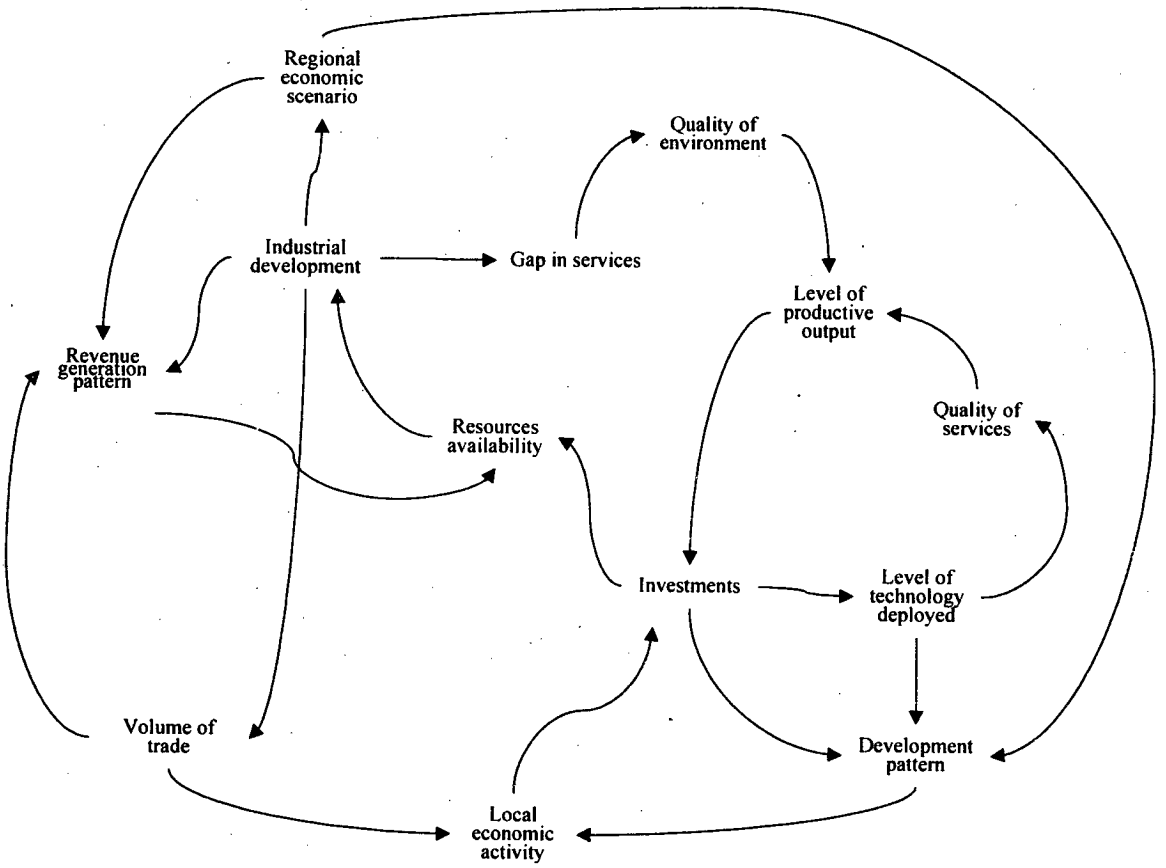
Inferences:

This explains the relation between the importance of services, the control over land development and the quality of environment.

The presence of negative (balancing in nature) and positive feedback loops operate in this situation, which regulate the quality of environment. This regulation is triggered by the provision and quality of services respectively. The controlling factor is the carrying capacity of the local body.

The loops reflects the need for a strong linkage between the carrying capacity of the local body to provide services (in quantity as well as quality) commensurate with the growth of housing stock, and thus maintain a good quality of environment for civic life. Another area of concern which needs to be addressed is, by weakening the linkage between the existence of suitable land often utilised unauthorised, thus affecting development pattern (in terms of unplanned growth). Any utilisation of land shall only be as planned by the local body (within the carrying capacity framework).

Exhibit 5.6 Composite Feedback Loop 5



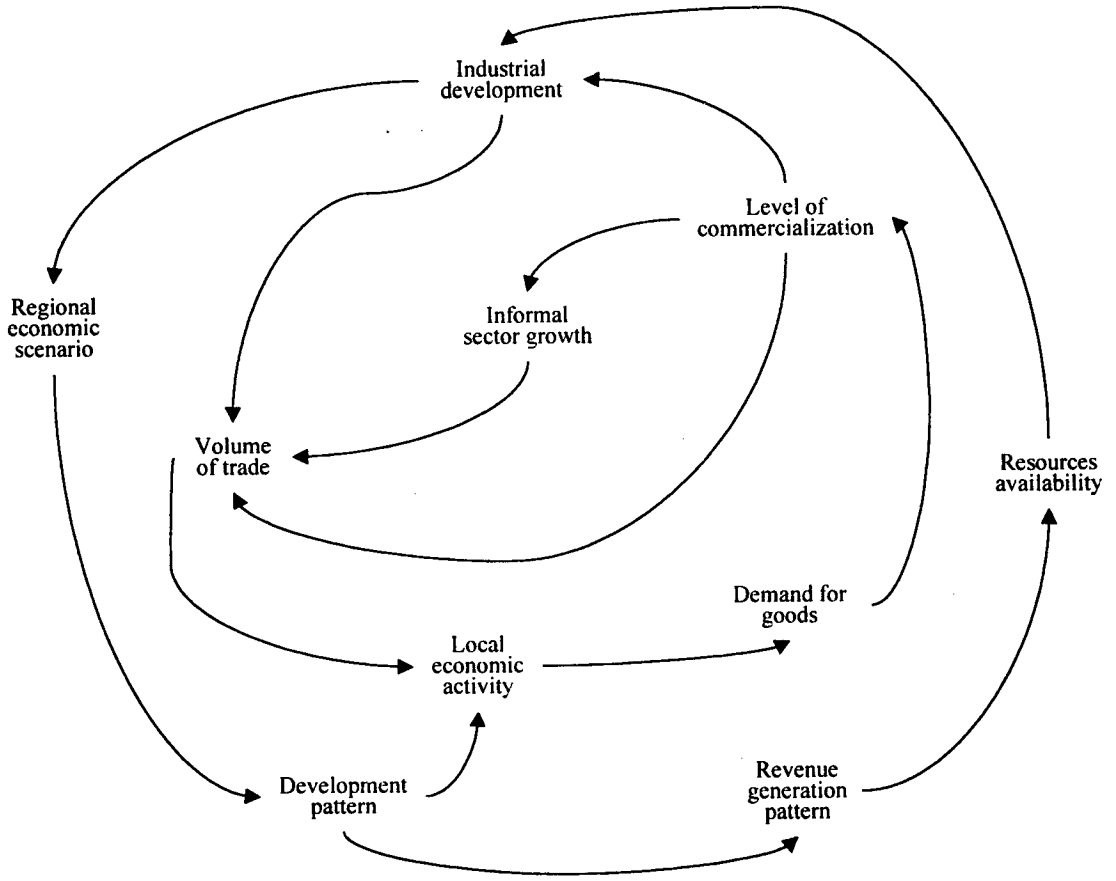
Inferences:

This explains the relation between the financing options and infrastructure services. It focuses on mobilisation of financial resources through industrial development, revenue collected by local bodies, booming local economic activity, and higher productivity creating investment attractiveness in the area.

The industrial development in the area could trigger more trade and thus revenue to the local body leading to more resources available with the local body. The investments focusing at local area development can stimulate the local economic activity, which in turn can attract more investments. The deployment of investments on technology can improve the quality of services which in turn can improve the productivity. The economy in the region will get a boost through industrial development, and projects like the Mumbai-Pune- Expressway which will1 connect areas under the PCMC and will contribute towards municipal revenue in terms of octroi, increase in urbanisable areas, etc.

PCMC has to ensure the provision of services (in quantity as well as quality) commensurate with the demand created by industrial development, and thus maintain a good quality of environment for civic life. Any deceleration in the reducing the gap of services may affect the quality of environment, the productivity and ultimately may affect the competitiveness of the area to attract investments.

Exhibit 5.7 Composite Feedback Loop 6

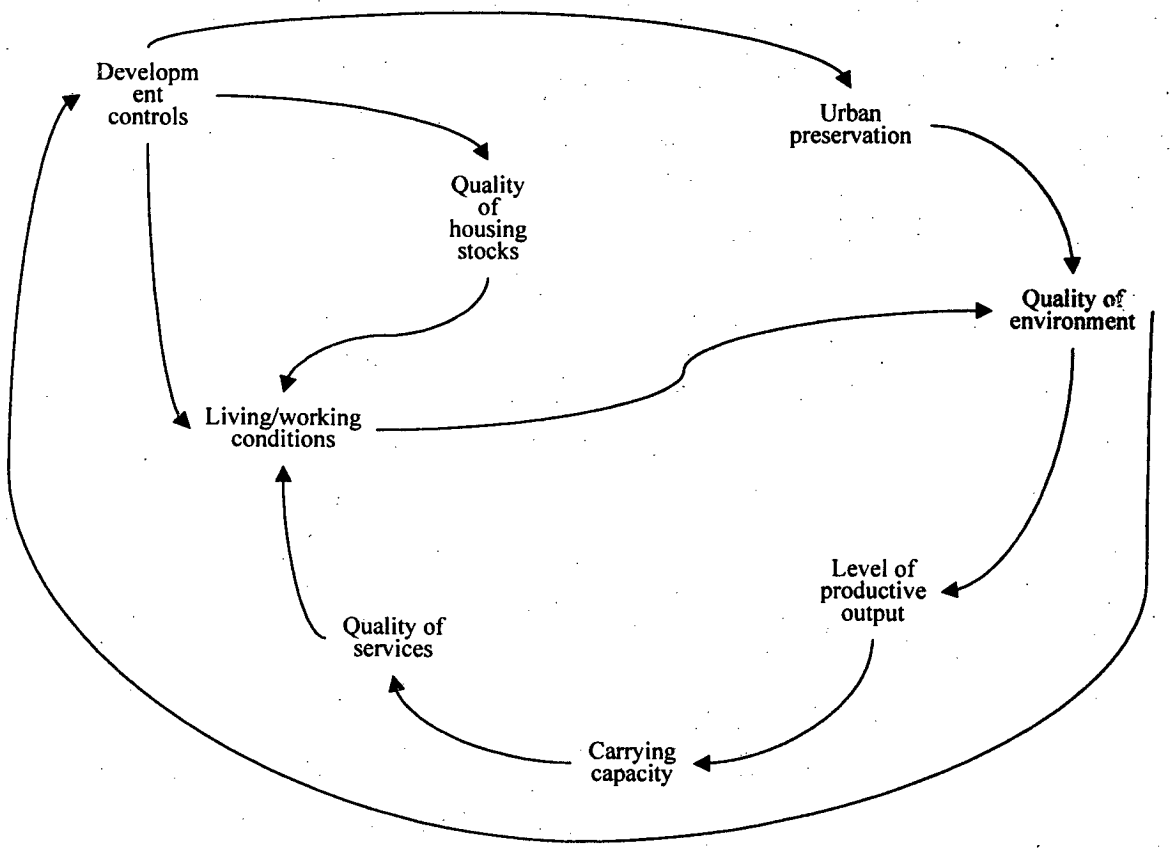


Inferences:

This explains the potential of the area to attract migration. The presence of positive feedback loops through economic activities is observed which causes in-migration. The increase in population due to migration creates a demand for goods. This demand forces the dependency on higher order town level facilities, thereby stimulating the economic activity in the area, and creates more employment and business opportunities, leading to increase in-migration. In-migration may usher in a change in the occupation structure (towards predominantly non-agricultural) leading to a better demographic and socio-economic profile. This may also contribute towards employment opportunities (at formal and subsistent levels) and in turn more in-migration.

On the other hand, a negative feedback loop is operating which may reduce the in-migration flow in the long run. A desired effect to continue the area as an engine of growth on this loop hinges on the effective provision of services required for meeting the demands of growing population.

Exhibit 5.8 Composite Feedback Loop 7

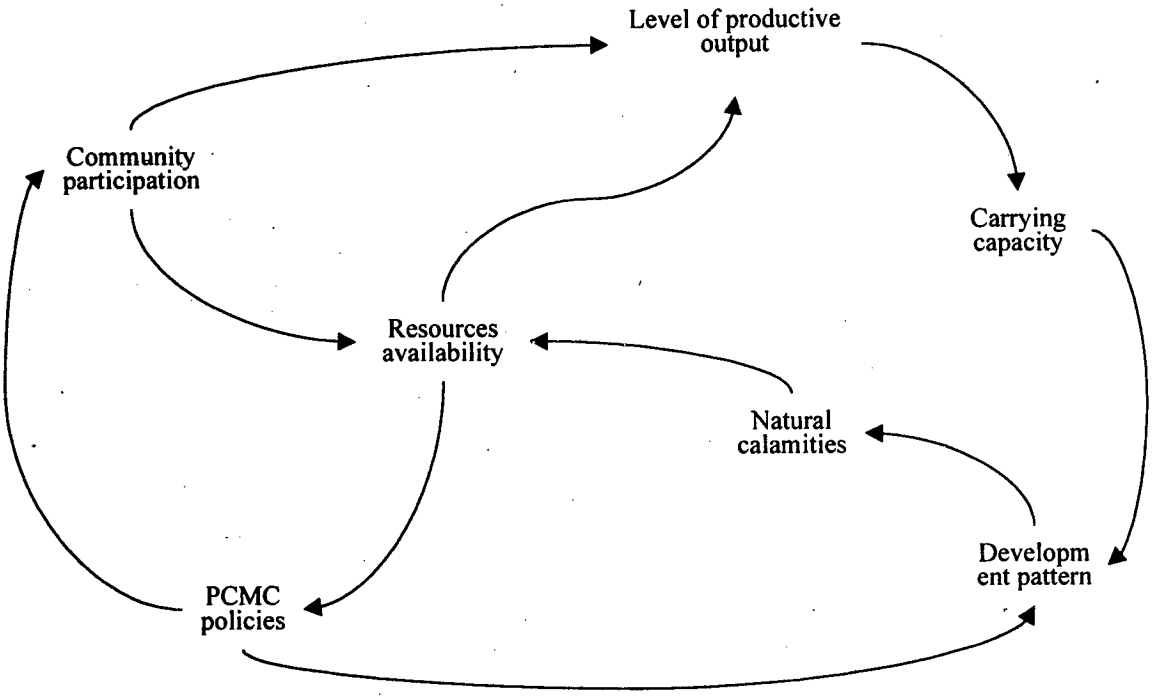


Inferences:

This loop explains the influence of effective development control rules on the overall quality of environment available for the civic life, be it in terms of the quality of living or working conditions directly or through quality building stock or through the ability of the local body to provide quality services. Development control rules will also influence the quality of urban preservation, thus influencing the quality of environment.

There exists a positive feedback loop through which quality of services and living conditions affect and / or effected by the quality of environment in the area. There is a negative feedback loop through which the development is controlled by the local body in order to regulate and maintain the required quality of environment. Hence development control rules, acts in this loop as a control factor thus any laxity in the effectiveness of development control rules may lead to deterioration in the quality of environment.

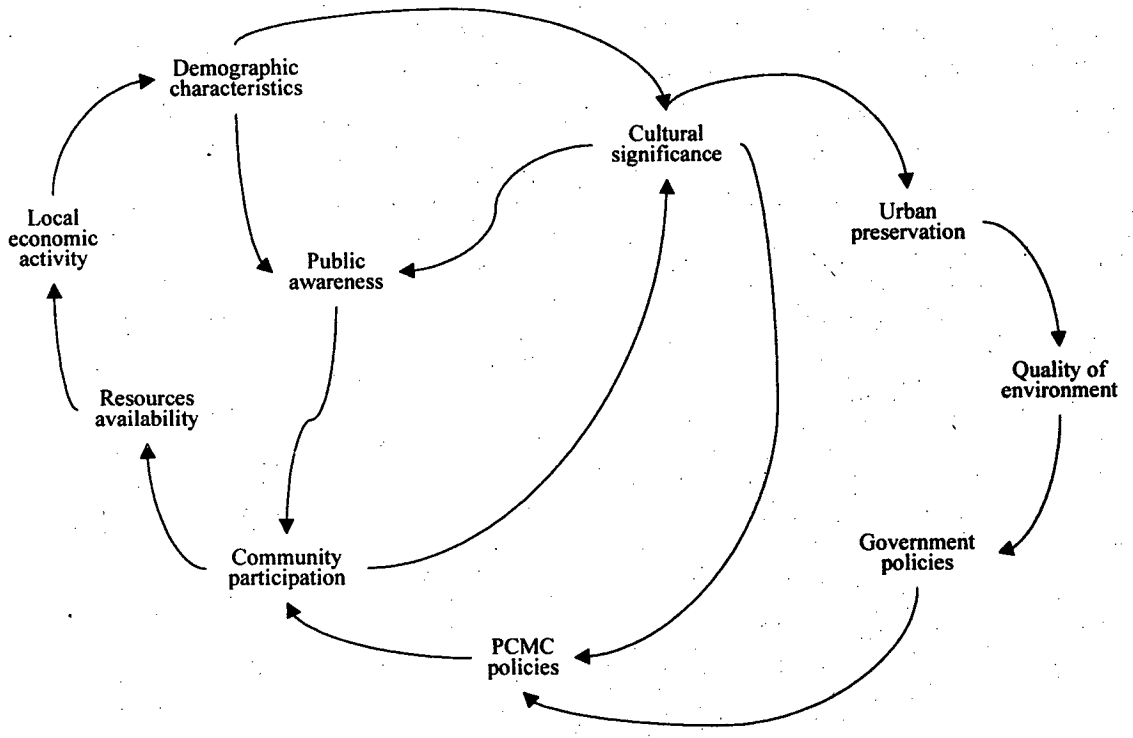
Exhibit 5.9 Composite Feedback Loop 8



Inferences:

This loop explains the role of community participation in contributing to the development of the area. As the loops are positive in nature, PCMC policies influences community participation, which in turn contributes to the resource base and can lead to high productivity. In order to generate a desired development pattern, PCMC policies should trigger local community participation in all various stages of development activities, like identification of the priority of developmental works, monitoring the time-schedule of their execution, tariff-fixation, collection and payment by users, keeping vigil over any misuse or encroachment of civic property, environmental cleanliness, etc. Such a development pattern may also avoid or minimise the possibility of natural calamities (flooding, epidemics, etc.) which if takes pace may contribute towards reduction in resource base.

Exhibit 5.10 Composite Feedback Loop 9

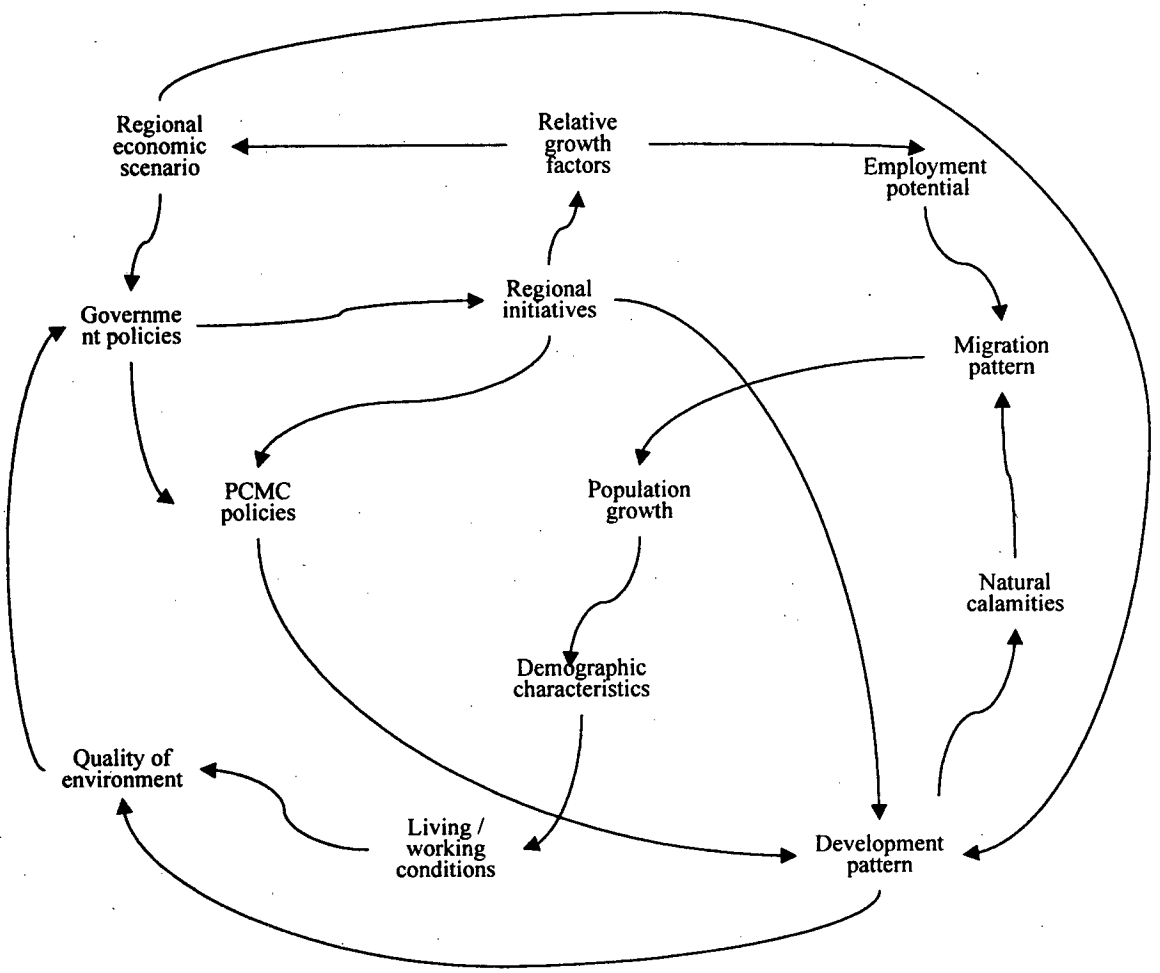


Inferences:

This loop explains the impact of changing socio-economic characteristics of the population, on the cultural importance of the area and the role of community participation. The large scale in-migration (primarily, for economic needs) changes the population characteristics, thereby influencing the cultural significance associated with the area. Though the awareness levels may improve with improving socio-economic characteristics, the awareness may not be equally strong in terms of cultural significance. This affects the community participation, which is influenced by the awareness levels of the public apart from the policies of the local body.

Thus, it is expected that the local body play an important role through its suitable policies to conserve the balance of the cultural significance in the city, where a significant population is a one that has migrated. Such steps will help the migrant population to blend with the local culture, and contribute towards effective community participation. The local body should also remember that a vigilant community having a strong inclination towards cultural and heritage issues will thwart of any effort that is made by the local body for meeting the requirement of urban development over such properties. Thus, it is desired that the local body play a model role when it comes to conserving the culture and heritage of the city.

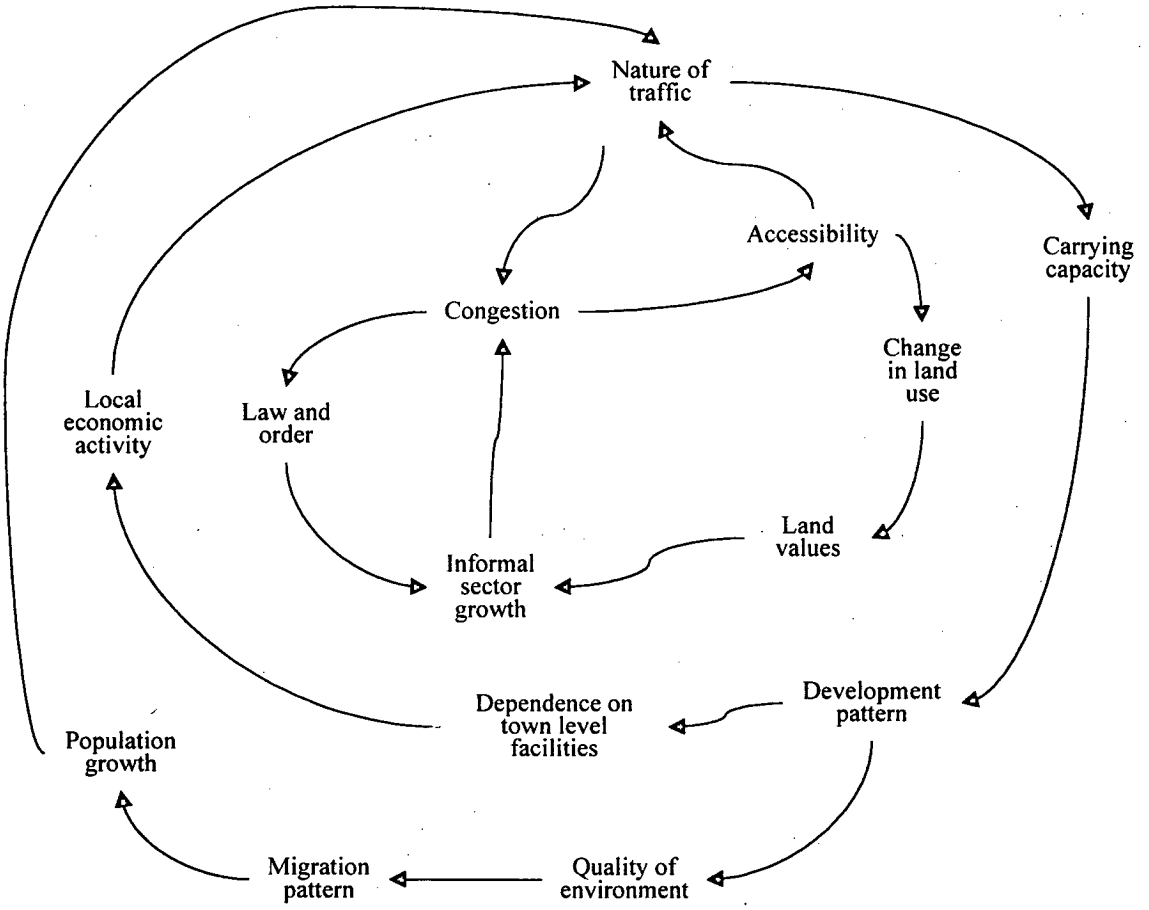
Exhibit 5.11 Composite Feedback Loop 10



Inferences:

This loop indicates the influence of external economic factors on the development of the area. The external loop of regional development through government policies and regional initiatives, influences the policies of the local body and the development pattern in the area. The development pattern, apart from the growth in the regional economy attracts population. The growth in population and the development pattern influences the government polices, which in turn alters the regional initiatives. The external loop (related to regional economy) and the internal loop (related to local development) hinges on the government, whose policies for the urban areas shall be based on the feedback on the status of quality of environment available to civic life.

Exhibit 5.12 Composite Feedback Loop 11



Inferences:

This loop depicts the urban transport situation in the context of population growth and development of the area. Loops through informal sector growth, growth in the local economic activity and the population growth respectively contribute to the diverse nature of traffic and subsequently affect the flow of traffic.

The positive feedback loops facilitate congestion, which alters accessibility, and over a period of time affects change in land use and this may further contribute towards informal sector growth. Also, the congestion through the increase in informal sector growth would cause difficulties in implementing law and order leading to further proliferation of informal sector. This may lead to increase in traffic related problems.

There exist negative feedback loops that attempt to regulate the carrying capacity of the area to bring about desirable changes in the development pattern. These loops attempt to regulate the traffic flow. This regulation could be in terms of the change in traffic flow due to natural process of saturation in the existing carrying capacity, and could also be due to intervention by the local body by providing alternate options (options like, relocation of settlements and economic activities or decongestion, diversion of traffic through existing / new routes or traffic management techniques, exploring the possibility of new routes passing through land under restricted ownership (like defence), etc.

shall be effectively implemented and shall be revised if required from time to time, to ensure that the provisions made through development activities do not conflict with the goal of good quality of civic life. The carrying capacity of the system through its implementers should be adequate enough at all times to ensure that the provisions of housing and economic base meets the demand / gap, and the provision of utilities and services meets the subsequent demand / gap. These interventions have to be pro-active, and if not, at least parallel in nature. All this will contribute towards a healthy environment available for civic life.

- The policies of the local body during development for urban growth shall take into account cultural significance appropriately, even if public awareness despite improving socio-economic characteristics does not do so. This will bear fruit in terms of active community participation, like identifying priority for developmental workers, mobilisation of manpower resource, monitor the time-schedule of execution of works, improve the productivity level, and timely completion developmental works will in turn help in the realisation of increased revenue for the local body. The community can also take adequate measure on any misuse or encroachment of civic property and can help in implementing and monitoring a development pattern that may avoid or minimise the possibility of likely natural calamities (flooding, epidemics, etc.) which if not controlled might contribute towards reduction in the resource base.
- The urban system through its local bodies or administrators shall provide regular feedback to the policy makers (including government) on the state of the system and its internal well being. This will ensure that policies made are in consonance with the requirements of the regional economy and the local development, thus facilitating the availability of a higher quality of environment for civic life and ensuring overall development of the region.

5.4 SNAC Analysis

The areas of PCMC have several stakeholders or interest groups within the newly merged area and outside the area whose needs have to be considered for smooth functioning of the urban system under study. The following stakeholders that have been identified are listed below:

- Residents of the newly merged areas of PCMC
- Residents of areas surrounding the newly merged areas of PCMC

- Future settlers in the new PCMC area
- Floating population consisting of
- Through traffic
  - Work force
  - Others (for education, shopping, recreation etc.,)
- Administrative authorities
- PCMC
- Others (PCNTDA, MIDC, State Town Planning Department)
- Others (PMC, Alandi Municipal Council and Dehu Road Cantonment Board / Station head quarters, Dehu road, Station Head Quarters, Khadki / CME and Bombay Engineering Group, Ammunition Factory, Khadki, Indian Air Force, Military Farm)
- Other institutions (PWD, MSEB, Telecom, P& T, Police, Central Railway, PMT, PCMT, MSRDC, State Forestry Department, corporate houses Industrial, Medical, Financial, Educational, Religious and Private agencies / service providers, NGOs)
- Govt. of Maharashtra (including Collectorate)
- Govt. of India.

The needs of the above mentioned stakeholders are listed in Table 5C.1 in Appendix 5-C. The alterables (areas of intervention) and constraints for PCMC are listed in Table 5C.2 of Appendix 5-C.

5.4.1 Objective Model for the Areas of PCMC

The needs, alterables and constraints identified are suitably combined (to achieve a need by using an alterable under a constraint) apart from the inferences of the feedback loops to form a set of objectives to be pursued by various agencies in the urban system. Table 5.3 illustrate the list of objectives and performance measures (more can be added as perceived by the concerned authority) to monitor the effectiveness of the urban system.

5.4.2 Structure of the Objectives

The objective model as of the urban system discussed above has been structured to bring out a distinct hierarchy through an interpretive structure model (ISM) exercise. The ISM model considers the *facilitative* relationship between the objectives and the concept of *transitivity* to depict the hierarchy. In our case, the ISM methodology is slightly modified, because it is not necessary that only one objective when achieved will facilitate the achievement of another objective. The objective at any level above another level may be achieved through partial

Table 5.3. Objectives and their key performance measures

S. No.	Objectives	Performance Measures
1.	To enable employment generation through planned activities	• No. of planned activities • Employment generated in terms of number, per skills, per area • Unemployment rate
2.	To provide timely and reasonable amount as compensation for acquiring land	• No. of times market rate is paid • Percent of legal cases related to land acquisition. • No. of cases delayed
3.	To permit environment friendly economic activities only in residential areas	• No. of environment friendly industries established • % of non-conforming (hazardous industries) to total industries in residential areas • No. of complaints on industrial activity in residential areas. • No. of hazardous industries shifted from residential areas. • Turnover (employment, production ,and revenue) per industry and per area • % of industrial waste to total waste generated in the area.
4.	To ensure affordable and quality housing for all	• % of household without proper housing • % of earnings spent on housing • Change in price of developed land (for housing) • Proportionate changes in market rates of real estate / rentals vs. household earnings. • % of residential land designated for composite housing (to be developed by public agencies) • % of land allocated for EWS at appropriate locations
5.	To ensure only authorised / permitted activities take place in residential areas	• % of area under unauthorised establishments / encroachments and squatter settlements • No. of complaints on unauthorised activities and encroachments in residential areas • No. of cases detected / registered • No. of times public and enforcing authorities gained control
6.	To provide adequate and regular civic amenities and utilities for the users in the area. (other than social infrastructure, roads and transportation)	• % of land allocated for provision of civic amenities and utilities • % of household having access to in-house / community potable water supply and toilet facilities. • % of household provided with water supply as per standards • % of area covered with piped water supply system • % of total water demand met • % of waste water treated • % of area covered by drainage / sewerage system • % of area covered under daily municipal solid waste collection and disposal system • % of household electrified • telephone density • % of road length covered under street lights • No. of complaints on non-functioning of services • % of complaints addressed satisfactorily • No. of cases detected and controlled on the misuse of services.

S. No.	Objectives	Performance Measures
7.	To provide adequate and equitable spatial distribution of social infrastructure and other community facilities for the users in the area.	• % of land allocated for provision of social infrastructure and community facilities by PCMC • % of land allocated for provision of social infrastructure and community facilities by other institutions • % of sectoral population dependent on other sectors for facilities like education, health, community purposes and recreation • % of household depending on facilities outside newly merged areas of PCMC. • Rate of utilisation of services.
8.	To provide adequate circulation the region.	• Length of all weather roads in the area. • Minimum distance from settlements to nearest road (ODR / SH / NH) • No. of locations / length of the road which are effected by poor drainage at any point of time • No. of locations / length of the road which are effected by maintenance activities carried by other utility providers at any point of time. • No. of locations where traffic jams occur. • No. of road related accidents
9.	To make available efficient transportation system	• Minimum waiting time for availability of transport for passenger / cargo movement. • No. of trips in which occupancy in each vehicle has exceeded the limits. • Cost of transportation
10.	To provide a healthy living environment in the area	• No. of epidemic cases reported • No. of unhygienic locations • % of hygiene related complaints attended • No. of settlements affected by air, noise and water pollution • No. of pollution related health problems reported • No. and type of pollution abatement measures taken. • % of land area under vegetation and open spaces (in the area and in settlements) • % of population living in squatter settlements or sub standard housing • % of household with room density of more than 2 persons / room • % of actions taken on pollution related complaints.
11.	To facilitate law and order in the area	• % of land allocated for institutions maintaining law and order • No. of major crimes reported and % solved
12.	To facilitate development of commercial activities	• % of land allocated for commercial activities • % of land / road width under utilisation by hawkers / unorganised vendors. • No. of commercial spots/ commercial zones / hawking zones developed. • No. of specialised commercial centres (like agriculture produce, timber, steel) • Volume of trade • % of volume of trade with external agencies (ie outside newly merged areas of PCMC)

S. No.	Objectives	Performance Measures
		• % of commercial land under warehousing • Loan amount dispersed. • No. of entrepreneurs trained • No. of unsafe establishments (from occupational hazards or users point of view)
13.	To encourage the industrial development the area	• % of land allocated for industrial activities • No. of industrial spots/ zones developed. • Volume of production • % of land allocated for vocational training centres • Volume of Investments • No. of entrepreneurs trained • Employment turnover (per industry/ hectare) • No. and type of incentives offered • No. of sick / closed units • No. of unsafe units (from occupational hazards point of view) • No. of non-conforming / polluting units
14.	To facilitate agricultural and farming activity in the area	• % of land under agriculture • % age of land under livestock / poultry farming • % age of land under cash crops • % age of land under horticulture • rate of production and revenue per hectare • % of agricultural land put to non-agricultural use • No. and type of incentives offered • Loan amount dispersed. • Ratio of local production to local consumption
15.	To ensure proper utilisation of land available for development	• Proportionate allocation of land for development as per projected demands • delays in development w.r.t plan • % of land utilised by various agencies • % of land under unauthorised control • % of land developed as per development plan • % change in viability of projects
16.	To create an international image of the city	• % of development activities adhered to international standards • Volume of foreign investments / joint ventures • No. of foreign tourists/ visitors • Overall level of urban competitiveness • Quality of environment
17.	To contribute to the overall development of the region	• No. of Pune metropolitan region level projects initiated • Volume of trade
18.	To ensure coordination among agencies for implementing development related activities	• No. of projects delayed for want of coordination • No. of coordination committees involving external agencies • % of land unutilised for want of coordination • % of complaints from public unresolved • Timeliness of Information flow among agencies
19.	To mobilise resources for development related activities	• % of land acquired as scheduled • % of government land available for development • Internal Revenue generated

S. No.	Objectives	Performance Measures
		• Volume of investments • % of generated revenue available for development related activities • No. of projects funded under external sources (grant- in-aid and other financial assistance) • Manpower available for municipal functions • Capacity of Support infrastructure for municipal functions
20.	To encourage community participation in developmental activities	• No. of projects completed through local community involvement • No. of public awareness programmes • No. of agencies / NGOs involved in public awareness programmes • % of land under community development schemes • No. of persons employed in community development schemes
21.	To generate an effective database for planning and management of developmental activities.	• % of existing spatial and non-spatial data available in the form of electronic database • Rate of use of information in implementation, monitoring and cost recovery • Frequency of updating database
22.	To create an investor friendly environment	• Rate of returns on investment • No. of projects where repayment made on time • Speed of investment proposal clearances • Overall level of urban competitiveness • Volume of investments • No. of projects with action plans
23.	To increase the revenue generation	• % increase in collection of taxes • % increase in non-tax revenue • % increase in external revenue (transfers) • No. of cases of tax evasion • % increase in sources of revenue base
24.	To maintain ecological balance in the area	• % change in area under flora and no. of fauna • % age increase / decrease in forest area • Intensity of calamities due to natural and human activities • Changes observed in climatic conditions • Changes observed in environmental quality • % area declared as ecologically sensitive • % change in natural resources availability
25.	To preserve areas and buildings of importance and heritage sites	• No. of structures /sites declared for protection • % structures under preservation out of declared sites • No. of complaints from public on status of buildings/ sites • % of area under heritage zone
26.	To ensure sustainability of future development	• % change in carrying capacity of land supporting population in terms of local food production, local economic activity, shelter, water availability and waste disposal • % change in financial resources of PCMC
27.	To improve urban aesthetics in the area	• No. of dilapidated buildings renovated. • No. of slum rehabilitation and development (SRD) schemes • No. of locations with consistent facades

S. No.	Objectives	Performance Measures
		• No. of areas with signboards/ signage with international standards • No. of aesthetically designed street elements (for projecting city image)
28.	To encourage tourism in the area	• % of area used for river front development • % of area under tourism related development (aqua sports complex, amusement parks, organising city specific festivals or religious festivals, etc.) • % change in tourist inflow • No. of persons employed in tourism related activities • Volume of tourism based business

contributions from the individual achievement of many other objectives at the lower level. Hence, all such facilitative relationship representing partial contributions of many objectives are shown in the diagram of hierarchy, thus making this diagram look like a dense one (a diagram of hierarchy derived purely by using the concept of transitivity will exhibit far fewer relationships and will be less dense). The structured hierarchy in our case is represented in Exhibit 5.13. The structure can be perceived in the following **four levels** of achievement.

Objectives at Level 4

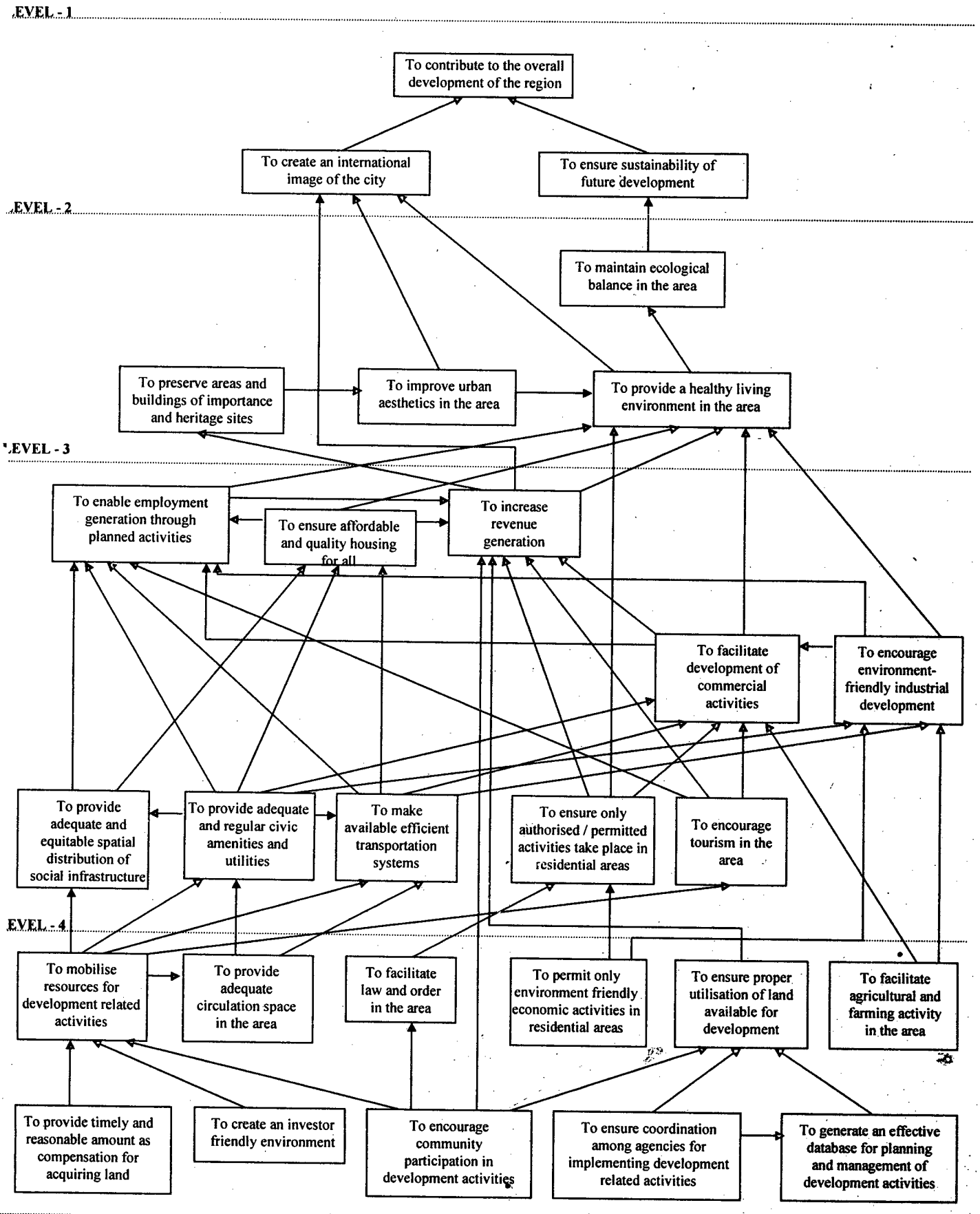
Level 4 is constituted of those objectives which are essential as a base to move upwards in the hierarchy of achievement of various objectives. These objectives represent activities at the planning level, e.g. simplified and user-friendly development controls, efficient computerised information system and database, co-ordination, and existence of an investor friendly environment. These needs to be addressed at the planning level and would be indicated as sub-objectives (which though are not shown in Exhibit 5.13, but are essential to improve the carrying capacity of the local body). These sub-objectives could be like,

- To have a single window project approval mechanism or the period between proposing and sanctioning of plans shall be reduced
- To have appropriate legal support through MR&TP and BPMC Acts towards conformity to the provisions of the 74th Constitutional Amendment Act, 1992, and building the carrying capacity (resource mobilisation, effective administration, etc.) like
    - authority to adopt modern methods for acquisition and disposal of land
    - authority to adopt innovative mechanisms for financing urban infrastructure and services apart from broadening the existing tax-base or financial instruments
    - authority to create a separate cell for the implementation of DP and outsource certain municipal functions to utilise the manpower effectively for works of implementation, monitoring, quality control, and cost-recovery. The agency to whom the work has been outsourced will act on behalf of the local body (the works of such an agency shall be regularly monitored by the local body) such works could be,
        - sanctioning of housing layout plans as per the provisions of the relevant land-use / zoning regulations and DCR

- management of sewerage and drainage, and solid waste disposal system
- regular evaluation and reporting of environmental status of the concerned urban area
- conservation of heritage sites and structures
- project management coordination consultancy (single window project planning and approval mechanism) for large size works. The scope of such works can include,
  - preparation of town planning schemes and infrastructure design as per the provisions of the relevant land-use / zoning regulations and DCR along with their estimates and tender documents
  - managing process of tendering and award of work to selected bidders
  - monitoring the work of implementation along with quality control
  - to coordinate relevant matters between the awarded bidder and the local body or other government agencies till the stage of no objection certificate for occupying the building or commissioning the infrastructure, etc.

- authority to create public awareness campaigns and public forums for involving the participation of the residents and workers of the community and non governmental organisations for the purpose of
  - awareness on environmental cleanliness of the city
  - involvement in aspects related to prioritisation of development works, tariff-fixation, collection and payment by users, involvement in coverage and operation aspects of water-supply-sanitation-solid waste collection systems, monitoring the time-schedule of developmental works, etc.
  - awareness on the provisions of land-use / zoning proposals of DP and thereby alertness for ensuring that no encroachment or unauthorised establishment / misuse or change in land-use or degradation of the environment takes place, by protesting on site and bringing such cases on time to the notice of the local body or concerned departments, etc.
- to make mandatory the pre-treatment of municipal wastes and industrial effluents by the local body before their discharge into natural water bodies

Exhibit 5.13 Structure of Urban Systems' Objectives through Interpretive Structure Modelling (ISM)



- to include the principle of "polluters pay" (apart from users pay and beneficiaries pay) to enforce the regeneration and restoration of the environmentally degraded areas on those who degrade the environment

- To use advanced remote sensing and GIS technology for preparing and updating database and easy dissemination of information

- To holistically explore the development potential of fringe areas and have realistic land-use / zoning proposals (covering formal and informal sector requirements) along with transportation network. These zoning proposals shall be liberal and not strictly as per recognised density pattern, so as to avoid unauthorised development in the expanded urban areas

- To propose utilisation of all vacant lands under the government ownership before identifying vacant lands under private ownership for development purposes

- To have simplified development control rules that are user friendly and transparent, and shall be revised from time to time so they do not conflict with the goal of good quality of civic life as well as sustainable development

- To have annual action plans as per the phasing of DP, specifying projects and schemes with costing and cash flow for both new projects as well as projects-in-progress. These shall be coordinated and regularly monitored

- To adopt coherent training and skill upgradation programs to orient the elected municipal representatives or municipal staff in all respects of planning, monitoring and implementation of DP and action plans

- To enable transparency through enacting appropriate legislation at the local level to inform the public about municipal decisions and their consequences.

The objectives at Level 4 are:

- To create an investor friendly environment
- To provide timely and reasonable amount as compensation for acquiring land
- To ensure coordination among agencies for implementing development related activities

- To generate an effective database for planning and management of development activities
- To encourage community participation in development activities
- To permit only environment friendly economic activities in residential areas
- To facilitate agricultural and farming activity in the area
- To mobilise resources for development related activities
- To provide adequate circulation space in the area
- To facilitate law and order in the area
- To ensure proper utilisation of land available for development.

There is a special emphasis on providing adequate circulation space (right of way for roads) where physical infrastructure or utilities have to be laid down first, prior to construction of roads. The objectives at Level 4 when achieved will then facilitate the achievement of the objectives at Level 3.

Objectives at Level 3

Level 3 objectives represent the activities at the *level of implementation* of the development plan, monitoring and cost recovery. This includes housing, physical and social infrastructure, transportation systems, employment and economic base, and revenue generation. The objectives at Level 3 are:

- To provide adequate and regular civic amenities and utilities
- To provide adequate and equitable spatial distribution of social infrastructure
- To make available efficient transportation system
- To ensure only authorised / permitted activities take place in residential areas
- To ensure affordable and quality housing for all
- To encourage environment-friendly industrial development
- To encourage tourism in the area
- To facilitate development of commercial activities

- To enable employment generation through planned activities
- To increase revenue generation.
- These objectives when achieved will then facilitate the achievement of the objectives at Level 2.

Objectives at Level 2

These objectives are the ones that are related to the *quality of life* in the areas of Pimpri-Chinchwad. These will be achieved when the objectives at Level 3 are met. These are:

- To preserve areas and buildings of importance and heritage sites
- To improve urban aesthetics in the area
- To provide a healthy living environment in the area
- To maintain an ecological balance in the area.

Objectives at Level 1

The Level 1 represents the objectives at the highest level that are concerned with the *overall development and image of the region* constituting of the agglomeration of Pune and Pimpri-Chinchwad areas. These will be achieved when the objectives at Level 2 are achieved. The objectives at the top Level 1 are:

- To ensure sustainability of future development
- To create an international image of the city
- To contribute to the overall development of the region.

5.4.3 Conclusion

Theoretically, these objectives when achieved will in turn continuously act as a desired feedback of the Level 4 objectives, but this relationship is not shown in the ISM structure as it is meant for representing the hierarchy and not the feedback structure. The continuous function of these objectives at various levels in the system and their

monitoring through the earlier mentioned list of performance measures (the list may be revised adding more indicators if any or by modifying the existing ones if found appropriate by the concerned authorities) will ensure a healthy state of the urban system under study during implementation and further planning in future.

Part - 2

DEMOGRAPHIC PROJECTION AND PLANNING NORMS & STANDARDS 1
6.1Introduction 1
6.2Delineation of Sectors 1
6.3Estimation of Future Population 2
6.3.1Constituents of Growth 2
6.3.2Methods of Population Projection 3
6.3.3Projected Population 8
6.3.4 Sector-wise Projected Population 12
6.4Employment Projection 13

CHAPTER 6

DEMOGRAPHIC PROJECTIONS

6.1 Introduction

The future population of the study area within the newly merged villages of PCMC is projected based on the past population trends as recorded by the District Census Handbook. Wherever, the distinct Census data is not available for the village which is partly merged, the projections have considered the base figures of population either as the

- population roughly extrapolated based on ward divisions, or
- the population projected based on density proposals of the Pune Metropolitan Regional Plan (1990-2011), or
- the population derived from the number of residential structures observed in the existing land-use (ELU) survey.

For further references on the assumptions made during the population projections are enclosed in the Appendix 6-A.

6.2 Delineation of Sectors

Each village has been treated as a planning unit, and a combination of units comprise a sector for the purpose of distributing projected population and formulating proposals within the newly merged areas of PCMC (refer Exhibit 6.1 for delineation of planning area). These have been delineated as follows.

- Sector 1 comprises of planning units 1–4 representing villages Talwade, Chikhali, Moshi and Dudulgaon respectively. These are located on the Dehu-Alandi Road, thus constituting the northern portion of the planning area. The area of this sector falls in Sector "A" of the Pune Metropolitan Regional (PMR) Plan, 1990 – 2011.
- Sector 2 comprises of planning units 5–9 representing villages Choviswadi, Wadmukhwadi, Charholi (BK), Dighi, and Bopkhel respectively. These are having access through the Dighi-Alandi Road, thus constituting the eastern and south-east portion of the planning

area. The area of this sector falls in Sector "H" of the Pune Metropolitan Regional (PMR) Plan, 1990 – 2011.

- The village Dapodi located on Mumbai-Pune highway and being separate from the boundaries of other planning units has been considered as planning unit 10 and is treated as a separate sector 3.

- Sector 4 comprises planning units 11–15 representing villages Wakad, Punawale, Ravet, Kiwale, and Mamurdi respectively. These are located on westerly Mumbai-Pune bypass, thus constituting the western portion of the planning area. The area of this sector falls in Sector "B" of the Pune Metropolitan Regional (PMR) Plan, 1990 – 2011.

- The extended area of PCMC also includes separate pockets of a Municipal school plot at Bhosari on the Mumbai-Pune highway, and the State owned Aundh Chest Hospital at Sangavi, Rakshak Co-operative Housing Society Pvt. Ltd. and Bharat Elcetronics Ltd. Colony at Pimple Nilakh village on the old Mumbai-Pune highway (via Aundh). As these small independent pockets of land do not demand further planning proposals, these have not being designated as any planning unit or a sector.

Refer Table 6.1 for sector-wise distribution of the census population in the newly merged areas and the population of the old area of PCMC since 1961 to 1991.

6.3 Estimation of Future Population

6.3.1 Constituents of Growth

Before undertaking the exercise for the estimation of future population of the newly merged villages of Pimpri-Chinchwad Municipal Corporation it is necessary to know the constituents of this study area. The eighteen villages merged are – entire village of Dudulgaon, Wadmukhwadi, and Punawale, and parts portions of Talwade, Chikhali, Moshi, Choviswadi, Charholi BK, Dighi, Bopkhel, Dapodi, Bhosari, Sangavi (Aundh Chest hospital), Pimple Nilakh (Rakshak Co-operative Housing Society Pvt. Ltd. and Bharat Electronics Ltd. Colony), Wakad, Ravet, Kiwale, and Mamurdi. The villages of Wadmukhwadi and Choviswadi were part of village Charholi BK before 1991. As per 1991 census the main Gaothan area of Mamurdi is under the Dehu Cantonment Board and a small portion of it is included within the new area of PCMC.

Table 6.1 Sector-wise distribution of Census Population in the areas of PCMC

Sector as in PMR Plan	Proposed Sector No.	Proposed Planning Unit No.	Name of revenue village	Census Population			
				1961	1971	1981	1991
A	1	1	Talwade	947	1227	3835	14636
		2	Chikhali (Remaining)	3091	4215	6570	14439
		3	Moshi (Remaining)	2958	3915	4597	6524
		4	Dudulgaon	519	663	1034	1303
			Sub-Total of Sector 1	**7515**	**10020**	**16036**	**36902**
H	2	5	Choviswadi (Remaining)	*	*	*	1385
		6	Wadmukhwadi	*	*	*	1278
		7	Charholi BK (Remaining)	6094	7666	8860	7518
		8	Dighi (Remaining)	1408	2013	2757	5794
		9	Bopkhel (Remaining)	1657	3438	5522	7094
			Sub-Total of Sector 2	**9159**	**13117**	**17139**	**23069**
-	3	10	Dapodi	**9215**	**13492**	**21343**	**39574**
B	4	11	Wakad (Remaining)	*	*	*	*
		12	Punawale	1098	1355	1991	2668
		13	Ravet (Remaining)	1205	1401	1615	2320
		14	Kiwale	2546	3341	5248	10359
		15	Mamurdi(Remaining)	*	*	*	1529
			Sub-Total of Sector 4	**4849**	**6097**	**8854**	**16876**
		-	Bhosari (Remaining)	*	*	*	*
		-	Sangavi (Aundh Chest Hospital)	*	*	*	*
		-	Pimple Nilakh (Rakshak Housing Society and Bharat Electronics Ltd. Colony)	*	*	*	*
			Total (Newly merged areas of PCMC)	**30738**	**42726**	**63372**	**116421**
			Old area of PCMC	**39654**	**98572**	**251769**	**517083**
			Total (Composite area of PCMC)	**70392**	**141298**	**315141**	**633504**

Note:
Source: The District Census Handbook, Pune District 1961, 1971, 1981, 1991 data.
* Not Applicable / Available for the Newly Merged Areas of PCMC.

The entire population of village Wakad is also recorded within the old PCMC area and only the remaining land area is included within the new limits of PCMC.

The projections have been undertaken considering the composite population in the past decades, of the newly merged areas of PCMC and the old area of PCMC.

6.3.2 Methods of Population Projection

In the beginning, the population projections were calculated adopting the following methods –

- Arithmetical increase method
- Geometrical increase method
- Incremental increase method
- Growth trend method
- Linear trend method
- Decrease growth rate method
- Ratio method

Arithmetical Increase Method

This method is based on the assumption that the population is growing at a constant rate with respect to time.

$P_N = P_O + N * R$

Where, P_N = population in N decades

P_O = present population

N = number of decades and

R = increase in population per decade.

Geometrical Increase Method

This method is based on the assumption that the percentage increase in population from decade to decade remains constant. In this method the average percentage of growth of the last few decades is determined, and the population is projected assuming that the percentage increase per decade will be the same.

$$P_N = P*(1+I_G / 100)$$

Where, P_N = population at the end of N decade

P = present population and

I_G = average percentage growth.

Incremental Increase Method

In this method, the average increase in the population is determined as in the arithmetical method and is added to the average of the net incremental increase once for each future decade.

$$P_N = P_O + N * I + N (N + ½) * R$$

Where, P_O = population at the beginning of the time period

N = number of decades (time period)

I = average increase of population per decade

R = average incremental increase and

P_N = population after N decades.

Growth Trend Method

This method calculates the predicted exponential growth by using existing data. It returns the values of population for a series of new decade-values that is specified by using existing decade-values and population-values.

$$P_N = B * (P_0)^N$$

Where P_N = population after N decades

P_0 = population of the base year and

B = constant.

Linear Trend Method

In this method the populations of the last few decades are plotted as a line by joining the population figures of the previous years using the method of least squares.

$P_N = P_0 + m * N$

Where P_N = population after N decades

P_0 = population of the base year and

m = slope of the line.

Decrease Growth Rate Method

In this method calculations are conducted on the assumption that the population in the composite area has grown at an increasing rate and future growth is likely to be at a decreasing rate, due to factors like, stabilisation of the industrial growth in the area. But, in the case of population growth in the newly merged areas the population will grow at a higher rate in the future decade. In this method, the average decrease in the percentage increase over each decade is worked out and is then subtracted from the latest percentage increase for each successive decade. The balance percentage increase is then added to the latest population for each successive decade.

The composite population in the area has been growing at a decadal rate of 100.73 percent during 1961-71, 123.03 percent during 1971-81 and at 101.02 percent during 1981-91 showing a decline in rate of growth. The population in the newly merged areas shows a decadal growth rate of 39.00 percent during 1961-71, 48.32 percent during 1971-81, and 83.71 percent during 1981-91, showing an upward trend. Whereas the population in the old area of PCMC is growing at a decadal rate of 148.58 percent during 1961-71, at 155.42 percent during 1971-81 and at 105.38 percent during 1981-91, showing a downward trend. The population in the newly merged areas in the future decade will grow initially faster than the population growth rate in the old area of PCMC.

However, the composite population can be considered to grow initially at a decreased average rate of 11.07 percent from the year 1991 till 2001. For the later years of 2011 and 2021, this decrease is assumed to be double of what was during 1981-1991, on an account of stabilisation of population after a faster initial growth with time. Thus, the composite population of the PCMC areas as projected by the decrease growth rate method is 12,03,356 souls in 2001, 20,19,381 souls in 2011, and the population by 2021 is 29,41,680 souls.

Ratio Method

The ratio method calculates population projection based on the assumption that, the growth in population of a smaller geographical unit is a function of growth experienced in a wider area of which the smaller unit is a part. It also assumes that the change is slow over time at different geographical area levels. This method can be adopted for metropolitan cities. Projections for a shorter duration (10-15 years) offer fairly acceptable estimates considering the assumptions that effect on a smaller geographical area (e.g. composite area of PCMC). Factors such as fertility rates, mortality rates and net inmigration would be similar as in the larger geographical area (Maharashtra State). Thus in the present analysis, the ratio of population of Pune district to Maharashtra State, ratio of population of Pune Metropolitan Region (PMR) to Pune district, ratio of population of Composite PCMC area to PMR, ratio of population of old PCMC area to PMR, ratio of population of newly merged areas of PCMC to PMR, and the ratios of other areas like PMC, Cantonment Boards, etc. to PMR are studied and their projections were calculated.

The time series population data for these different geographical areas is collected from the Census data based on the constituents of that area, and the forecast for the larger area, i.e the population forecasts for Maharashtra State is taken as the projection calculated by the Registrar General, Census Operations of India. The Registrar General has furnished three estimates – high, medium and low for the population of India and major States. The medium estimates have been generally recommended for official purposes and accordingly the population estimate for Maharashtra for 1996 is 8,80,31,000 souls. This forecast of population for Maharashtra State calculated by using the component method considers the effect of change in mortality rates, change in fertility rates, along with the effect of inter-state migration. However, due to complexity and lack of data on rates of fertility, mortality, and migration, and birth and death rates in study area of the newly merged villages, component method has not been adopted for projecting the population considering natural growth or net immigration in the newly merged areas of PCMC.

The ratio of population of Pune district to Maharashtra State is growing progressively due to the district's pivotal role outside the Mumbai region regarding the industrial development in the state. The trend shows a minor decadal rate of growth at 1 percent during 1961-71, but after 1971 the trend shows faster decadal rate of growth at 5.21 percent and only slightly more at 5.27 percent during 1971-81 and 1981-91 respectively. The ratio grew initially faster due to the addition of industrial areas of MIDC, other agencies and institutional areas around Pune, taken up as per the provisions of Pune Metropolitan Regional Plan, but beyond 1991 it is assumed to grow at a declining rate of change. For the period of 1991-96 the ratio when the trend is extrapolated would be 7.15 percent and thus the population estimate of Pune district as 7.15 percent ratio of 8,80,31,000 population of Maharashtra State in 1996 would be 62,94,217 souls. The ratio of population of Pune district to state is likely to be nearly 8 percent by 2021. Similarly, the ratio of population of Pune Metropolitan Region (PMR) to Pune district is changing progressively and despite a lower rate of change during 1981-91when extrapolated it is assumed to grow faster to be 61.63 percent in 2001, but will decline beyond 2001 and is expected to be 65.34 percent and 68.30 percent in 2011 and 2021 respectively. Thus, the estimated population of PMR based on the ratio of population of Pune district's growth would be about 43.91 lakhs and 57.27 lakhs by 2001 and 2011 respectively. These figures are found to be slightly higher to the population figures of 41.42 lakhs and 51.35 lakhs by 2001 and 2011 respectively as projected in the Pune Metropolitan Regional Plan.

The ratio of population of the composite area of PCMC to the PMR is observed to be growing but is heading towards stabilisation as the rate of change of ratio is lowering since 1981-91. It is assumed to lower rapidly beyond 1991 due to the ratio of the old area of PCMC to PMR which is likely to stabilise by 2021 and the ratio of newly merged areas is likely to rise initially marginally but later slightly more by 2021 as the old area gets saturated. The rate of change of this ratio is likely to be 27.91 percent by 2001, with a declined rate of growth the ratio is likely to be 31.56 percent, and 33.50 percent by 2011, and 2021 respectively. Thus, the estimated population figures of the composite area of PCMC based on the projected ratio to the PMR would be 12,25,603 souls, 18,07,566 souls and 23,28,938 souls by 2001, 2011, and 2021 respectively.

The ratio of population of the old PCMC area to PMR has been increasing but with a lowering rate of change, and that is expected to lower rapidly beyond 2001, and stabilise as the designated land-uses are

being consumed completely. Hence, the ratio to the old area of PCMC to PMR would be 22.99 percent, 26.14 percent and 27.04 percent by 2001, 2011, and 2021 respectively. The population in the old area of PCMC thus would be 10,06,517 souls, 14,92,201 souls, and 18,74,895 souls by 2001, 2011, and 2021 respectively. Similarly, the ratio of the newly merged areas of PCMC to PMR has been reducing rapidly during 1961-81, but the decline has slowed as observed during 1981-91. It could be due to the fact that lot of development in the residential and small-scale ancillary industrial sector has taken place in the areas adjacent to the old developed area of PCMC and PCNTDA. Also as the development in the sanctioned industrial zones (as per the PMR Plan) within and adjacent to the newly merged areas is in progress during this decade, the ratio of population of the newly merged areas of PCMC to PMR is likely to grow at a lower rate to 24.01 percent and 10.16 percent by 2001 and 2011 respectively. But it is likely to grow at slightly higher rate of 19.19 percent beyond 2011 as the old area of PCMC gets saturated. Thus, the estimated population figures of the newly merged areas of PCMC based on the projected ratio to PMR would be 2,19,086 souls, 3,15,365 souls and 4,54,043 souls by 2001, 2011 and 2021 respectively (including the population of Aundh chest Hospital at Sangavi village, Rakshak Housing Society and Bharat Electronics Ltd. Colony at Pimple Nilakh village).

Similarly, the ratio of the composite area of the Pune Municipal Corporation (including 38 fringe villages) within the PMR is assumed to grow at a lesser rate of decline due to the assumption that the fringe areas would rise, though marginally. The population of Cantonment Boards of Pune (PCB) and Kirkee (KCB) will also not grow beyond the additional 10 percent of their population in 1991 due to their limited area for civilian purposes and land-use controls applicable within the cantonment limits. However, the population of Dehu Road Cantonment Board may grow by 25 – 30 percent of its population in 1991 by 2021 due to a relatively larger area under its control than the PCB and KCB. The population of the remaining area of PMR constituting other towns and villages is assumed to stabilise by 2011 with the growth of the main cities of Pune and Pimpri-Chinchwad.

Refer Table 6.2A and 6.2B, and Exhibits 6.2 to 6.6 for the ratio of population of different geographical units. Refer Table 6.3 for the projected population using above methods.

6.3.3 Projected Population

It can be seen that the figures derived from the above methods vary a lot. For example, the projected composite population figures in the areas

Table 6.2A Census Population and Population Ratios in different Geographical Areas

Population Component	Census Population (Figures in lakhs)				Rate of Change in Ratio		
	1961	1971	1981	1991	1961-71	1971-81	1981-91
Maharashtra State	395.54	504.12	627.84	789.37	-	-	-
Pune District	24.68	31.78	41.64	55.11	-	-	-
Pune Metropolitan Region (PMR*)	9.93	14.00	20.88	29.49	-	-	-
Composite Area of PCMC	0.70	1.41	3.15	6.34	-	-	-
Old Area of PCMC	0.39	0.98	2.52	5.17	-	-	-
Newly Merged Areas of PCMC	0.31	0.43	0.63	1.17	-	-	-
Composite Area of PMC including 38 fringe villages	6.50	9.43	13.80	18.78	-	-	-
Area of Pune Cantonment Board (PCB)	0.66	0.78	0.86	0.82	-	-	-
Area of Kirkee Cantonment Board (KCB)	0.58	0.65	0.81	0.78	-	-	-
Area of Dehu Road Cantonment Board (DCB)	0.19	0.25	0.33	0.41	-	-	-
Area of remaining towns and villages of PMR	1.30	1.48	1.93	2.36	-	-	-
Ratio of Pune District to Maharashtra State (%)	**6.24**	**6.30**	**6.63**	**6.98**	1.04	5.21	5.27
Ratio of PMR to Pune District (%)	**40.24**	**44.05**	**50.14**	**53.51**	9.48	13.83	6.71
Ratio of Composite Area of PCMC to PMR (%)	**7.05**	**10.07**	**15.09**	**21.50**	42.87	49.79	42.51
Ratio of Old Area of PCMC to PMR (%)	**3.93**	**7.00**	**12.07**	**17.53**	78.23	72.41	45.26
Ratio of Newly Merged Areas of PCMC to PMR (%)	**3.12**	**3.07**	**3.02**	**3.97**	-1.62	-1.76	31.49
Ratio of Composite Area of PMC including 38 fringe villages to PMR	**65.46**	**67.36**	**66.09**	**63.68**	2.90	-1.88	-3.65
Ratio of Pune Cantonment Board (PCB) to PMR	**6.65**	**5.57**	**4.12**	**2.78**	-16.18	-26.07	-32.50
Ratio of Kirkee Cantonment Board (KCB) to PMR	**5.84**	**4.64**	**3.88**	**2.64**	-20.51	-16.45	-31.82
Ratio of Dehu Road Cantonment Board (DCB) to PMR	**1.91**	**1.79**	**1.58**	**1.40**	-6.67	-11.49	-11.42
Ratio of Area of remaining towns and villages of PMR to PMR	**13.09**	**10.57**	**9.24**	**8.00**	-19.25	-12.56	-13.42

* PMR includes areas of PMC including 38 fringe villages, PCMC including newly merged areas, areas of PCB, KCB, DCB, Talegaon-Dabhade and Alandi Municipal areas, and other towns and villages within the PMR limits.

Table 6.2B Census Population and Population Ratios in different Geographical Areas

Population Component	Projected Population and Projected Ratios						Change in Ratios		
	1996	2001	2006	2011	2016	2021	1991-2001	2001-11	2011-21
Maharashtra State	88031000	97339000	106343000	114732000	122117000	128034000	-	-	-
Pune District	6294217	7125215	7954456	8765525	9525126	10178703	-	-	-
Pune Metropolitan Region (PMR)	3623580	4391270	5050284	5727394	6364689	6952054	-	-	-
Composite Area of PCMC	**895024**	**1225603**	**1478218**	**1807566**	**2070433**	**2328938**	-	-	-
Old Area of PCMC	**731089**	**1006517**	**1213138**	**1492201**	**1687430**	**1874895**	-	-	-
Newly Merged Areas of PCMC	161249	216050	261100	310425	378063	449103	-	-	-
Sangavi (Aundh Chest Hospital)	2386	2386	3160	3940	3940	3940	-	-	-
Pimple Nilakh (RHS & BEL)	300	650	820	1000	1000	1000	-	-	-
Total Newly Merged Areas of PCMC	**163935**	**219086**	**265080**	**315365**	**383003**	**454043**	-	-	-
Composite Area of PMC including 38 villages	2263651	2690531	3049362	3407799	3761531	4080856	-	-	-
Area of Pune Cantonment Board (PCB)	86241	87386	88380	86484	89106	89681	-	-	-
Area of Kirkee Cantonment Board (KCB)	85516	90899	90400	87056	87833	86901	-	-	-
Area of Dehu Road Cantonment Board (DCB)	46744	52256	56563	60138	62374	63959	-	-	-
Area of remaining towns and villages of PMR	266333	294215	307562	313861	312506	301719	-	-	-
Ratio of Pune District to Maharashtra State (%)	**7.15**	**7.32**	**7.48**	**7.64**	**7.80**	**7.95**	4.85	4.37	4.06
Ratio of PMR to Pune District (%)	**57.57**	**61.63**	**63.49**	**65.34**	**66.82**	**68.30**	15.17	6.02	4.53
Ratio of Composite Area of PCMC to PMR (%)	**24.70**	**27.91**	**29.27**	**31.56**	**32.53**	**33.5**	29.82	13.08	6.15
Ratio of Old Area of PCMC to PMR (%)	**20.25**	**22.99**	**24.10**	**26.14**	**26.59**	**27.04**	31.14	13.70	3.44
Ratio : Newly Merged PCMC Areas to PMR (%)	**4.45**	**4.92**	**5.17**	**5.42**	**5.94**	**6.46**	24.01	10.16	19.19
Ratio of Composite Area of PMC to PMR	**62.47**	**61.27**	**60.38**	**59.50**	**59.10**	**58.70**	-3.79	-2.89	-1.34
Ratio of Pune Cantonment Board (PCB) to PMR	**2.38**	**1.99**	**1.75**	**1.51**	**1.40**	**1.29**	-28.42	-24.12	-14.57
Ratio of Kirkee Cantt. Board (KCB) to PMR	**2.36**	**2.07**	**1.79**	**1.52**	**1.38**	**1.25**	-21.74	-26.57	-17.76
Ratio of Dehu Rd Cantt. Board (DCB) to PMR	**1.29**	**1.19**	**1.12**	**1.05**	**0.98**	**0.92**	-15.00	-11.76	-12.38
Ratio : Area of remaining towns/villages to PMR	**7.35**	**6.70**	**6.09**	**5.48**	**4.91**	**4.34**	-16.28	-18.21	-20.80

Census Population and Projected Population

Population Component	Census Population				Projected Population		
	1961	1971	1981	1991	2001	2011	2021
Sector 1	**7515**	**10020**	**16036**	**36902**	**127263**	**257504**	**376009**
Sector 2	**9159**	**13117**	**17139**	**23069**	**90561**	**168094**	**208228**
Sector 3 (Dapodi)	**9215**	**13492**	**21343**	**39574**	**73500**	**91000**	**105000**
Sector 4	**4849**	**6097**	**8854**	**16876**	**70940**	**136962**	**196323**
Bhosari (Remaining)	*	*	*	*	*	*	*
Sangavi (Aundh Chest Hospital)	*	*	*	*	2386	3940	3940
Pimple Nilakh (Rakshak Housing Society and Bharat Electronics Ltd. Colony)	*	*	*	*	650	1000	1000
Total (Newly **merged areas of PCMC)**	30738	42726	63372	116421	365300	660500	890500
Old area of PCMC	**39654**	**98572**	**251769**	**517083**	**865000**	**1150000**	**1440000**
Total (Composite area of PCMC)	**70392**	**141298**	**315141**	**633504**	**1230300**	**1810500**	**2330500**

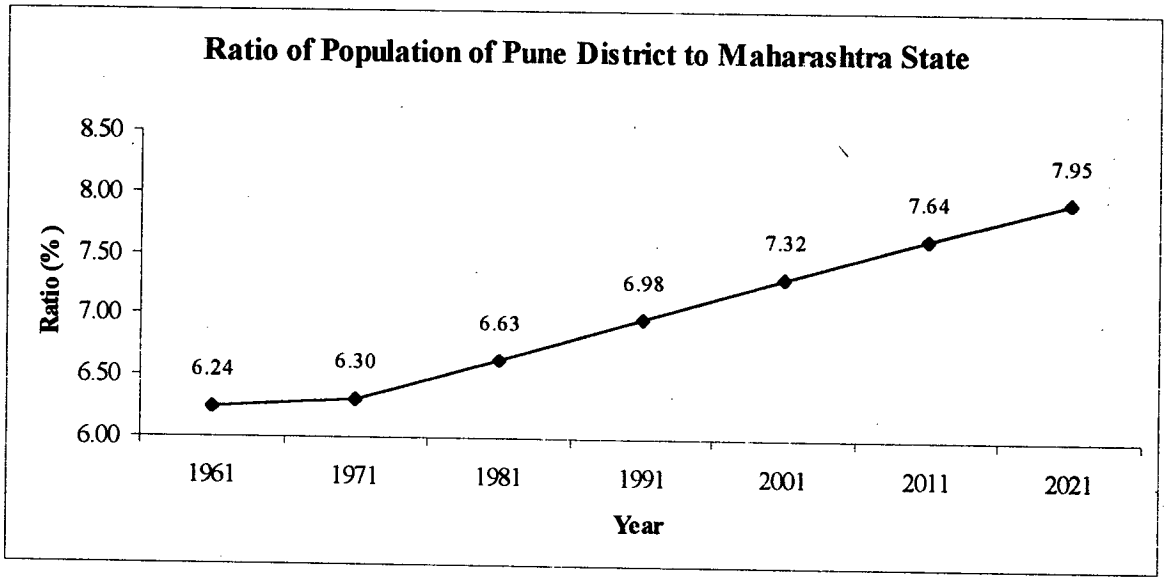


Exhibit 6.2 Ratio of Population of Pune District to Maharashtra State

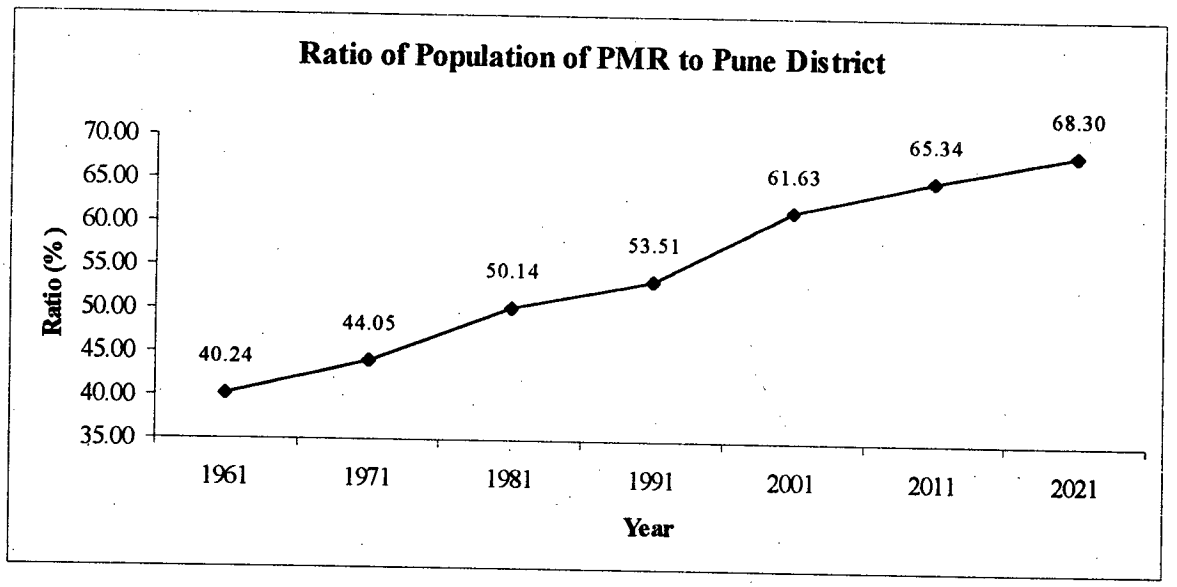


Exhibit 6.3 Ratio of Population of Pune Metropolitan Region (PMR) to Pune district

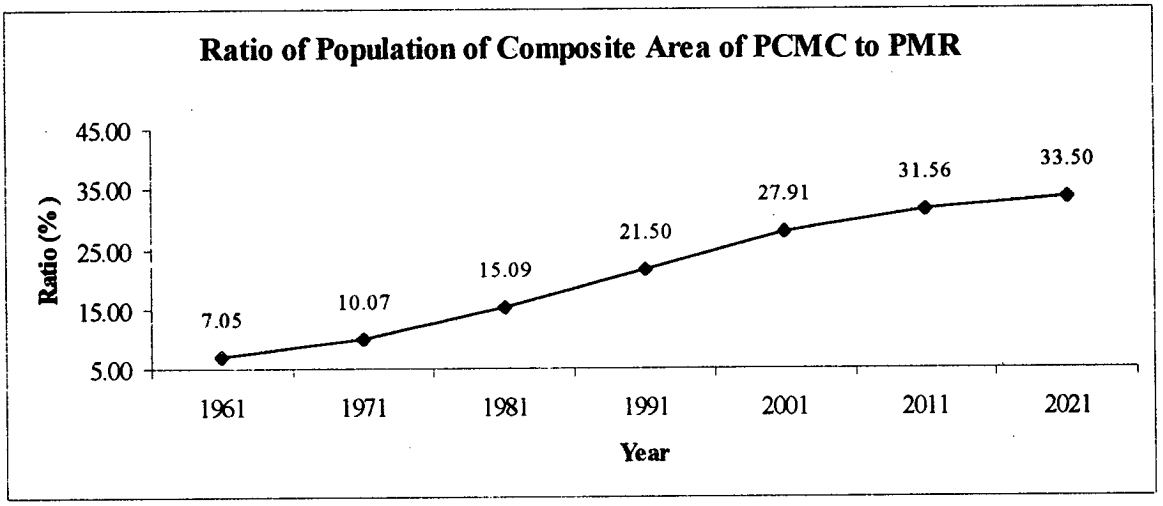


Exhibit 6.4 Ratio of Population of Composite Area of PCMC to PMR

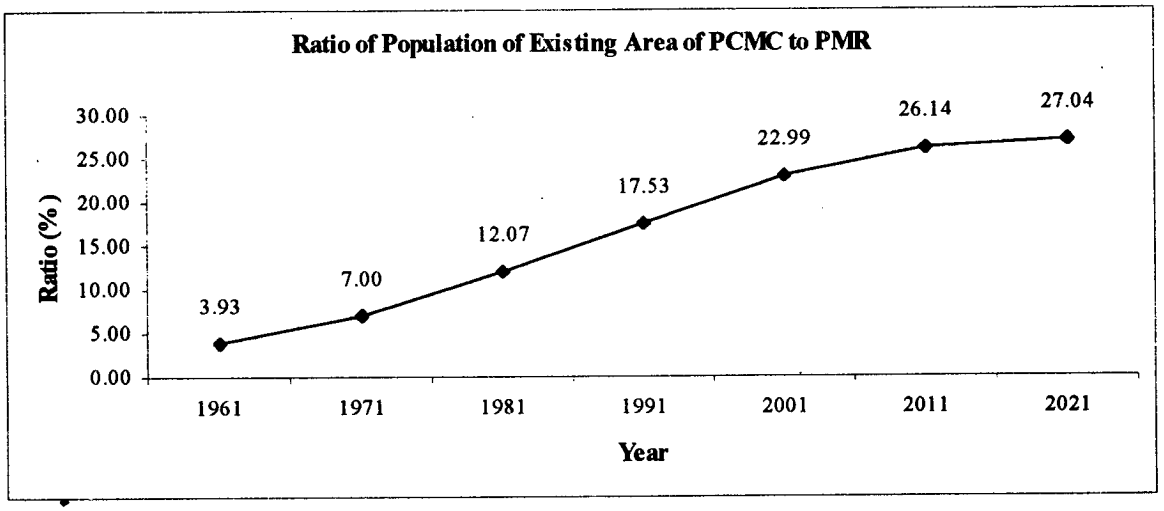


Exhibit 6.5 Ratio of Population of Existing Area of PCMC to PMR

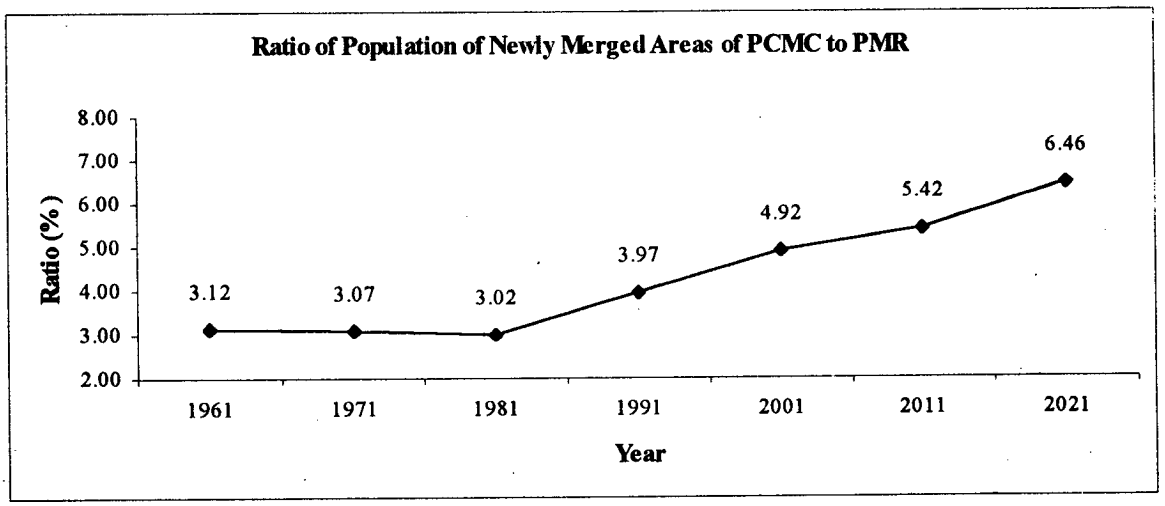


Exhibit 6.6 Ratio of Population of Newly Merged Areas to PMR

Table 6.3 Projected Population in Areas of PCMC

Area	Year	Arithmetical increase method	Geometrical increase method	Incremental increase method	Growth trend method	Linear trend method	Ratio method	Decrease growth rate method	Old DP report of PCMC	RITES report (Feb. 1998)	Task Consultant's report (Dec. 1998)
Composite Area of PCMC	**1996**	727356	976425	789220	986961	694691	895024	918430	-	-	-
	2001	821208	1319347	944937	1340418	755879	1225603	1203356	-	-	-
	2006	915060	2033522	1100653	2074040	849038	1478218	1611368	-	-	-
	2011	1008912	2747696	1256369	2807662	942197	1807566	2019381	-	-	-
	2016	1102764	4235049	1412085	4344320	1035356	2070433	2480530	-	-	-
	2021	1196616	5722402	1567802	5880978	1128514	2328938	2941680	-	-	-
Old Area of PCMC	**1996**	596654	-	648253	-	570111	731089	733689	801534	762924	-
	2001	676226	-	779424	-	623141	1006517	950294	993302	1083967	-
	2006	755797	-	910595	-	702415	1213138	1245739	1232598	1345438	-
	2011	835369	-	1041765	-	781689	1492201	1541183	1456250*	1561273	-
	2016	914940	-	1172935	-	860964	1687430	1853886	1633978*	1749644	-
	2021	994512	-	1304106	-	940237	1874895	2166588	1736301*	1834420	-
Total Newly Merged Areas of PCMC	**1996**	130702	-	140967	-	124580	163935	186075	-	-	-
	2001	144982	-	165513	-	132738	219086	253062	-	-	190260
	2006	159263	-	190058	-	146623	265080	365622	-	-	-
	2011	173543	-	214604	-	160508	315365	478198	-	-	362830
	2016	187824	-	239150	-	174392	383003	626645	-	-	-
	2021	202104	-	263696	-	188277	454043	775092	-	-	536368

* The population of Old area of PCMC as in Old DP is further projected by decrease growth rate method for the years 2011, 2016, and 2021.

of PCMC by 2001 vary from 7,55,879 to 13,19,347 souls, and by 2021 projected population figures vary from 11,28,514 to 58,80,978 souls.

Further, there are some projections in the areas of PCMC undertaken in other reports. The population as projected in the old development plan of the PCMC is available only till 2001 and 2006 with figures of 9,93,002 souls and 12,32,598 souls respectively. The RITES report on the "Travel Demand Forecast for Feasibility of High Capacity Mass Transport System for the Pune Metropolitan Area" show the said population figures as 10,83,967 souls by 2001, 15,61,273 souls by 2011, and 18,34,420 souls by 2021. Similarly, the population projections only for the newly merged villages is available in the report "Master Plan of Immediate Stage Works of Water Supply Project for year 2011" regarding the proposals for water supply and sewerage facilities in the newly merged areas of PCMC, made by M/s. Task Consultants, Pune. This report shows the said figures as 1,90,260 souls by 2001, 3,62,830 souls by 2011, and 5,36,368 souls by 2021.

Projections have also been carried out for the population of the old area of PCMC by the 'decrease growth rate method' over the census population of the past four decades. It is observed that the population in this area has been growing at a decadal rate of 148.58 percent during 1961-71, at 155.42 percent during 1971-81 and at 105.38 percent during 1981-91. The population has been declining and if the population in this area is considered to steadily grow at a decreased average rate of 21.6 percent from each successive decade, then the population in this area would grow at the rate of 83.78 percent during 1991-2001, at 62.18 percent during 2001-11, and at 40.58 percent during 2011-21. Thus, the population figures in the old area of PCMC would then be 9,50,294 souls, 15,41,183 souls, and 21,66,588 souls in 2001, 2011, and 2021 respectively.

The population projections in the existing Development Plan of the old area of PCMC is calculated as 4,03,469 souls, 6,47,605 souls, 8,01,534 souls, 9,93,302 souls and 12,32,598 souls in 1986, 1991, 1996, 2001, and 2006 respectively. This is further projected for the years 2011, 2016 and 2021 by the decrease growth rate method, then at an average decrease of 5.94 percent for each successive decade the population of the old area of PCMC would be 14,56,250 souls, 16,33,978 souls, and 17,36,301 souls by 2011, 2016, and 2021 respectively. If these population figures of the old area of PCMC are deducted from the population figures derived by the ratio method, then the balance population of the newly merged areas of PCMC would be 2,32,301 souls by 2001, 2,45,640 souls

by 2006, 3,51,315 souls by 2011, 4,36,456 souls by 2016, and 5,92,637 souls by 2021.

However, taking a holistic view in the present case, firstly the capacity of the old development plan and their designated land-uses have been scrutinised to assess what share of the projected population of old area of PCMC can be accommodated by it. The gross density of the old area of PCMC and PMC in 1991 was 60 persons / hectare and 107 persons / hectare. The overall average gross density of the metropolitan cities in India as per 1991 is found to be 78 persons / hectare (it varies from as low as 31 persons / hectare at Visakhapatnam to 221 persons / hectare at Madras) as shown in Table 6.4. However, UDPFI guidelines suggest a gross density at city level to be within 125 to 175 persons / hectare. The DP of old area of PCMC has assumed a gross residential density of 200 persons per hectare for the provision of residential land-use. As shown in Table 6.5, based on the acceptable increase in gross residential density to an extent of 400 persons / hectare (Delhi Master Plan – 2001 has a suggested gross residential density of 350 to 400 persons / hectare) by 2021 in the old area of PCMC, the population that can be accommodated within the designated residential land-use of 3598 hectares would be 7.20 lakh souls in 1996, 8.65 lakh souls in 2001, 10.80 lakh souls in 2006, 11.50 lakh souls in 2011, 13.00 lakh souls in 2016, and 14.40 lakh souls in 2021. The gross residential density is suggested to be increased gradually from 200 persons / hectare in 1996 to 400 persons / hectare, as the designated land-use share in the old area of PCMC is already 41.83 percent and which is more than 35 to 40 percent as what is suggested in UDPFI guidelines. The gross city level density of the old PCMC area by 2021would then be about 167 persons / hectare and this is within the range of 125 to 175 persons / hectare as suggested by UDPFI guidelines.

The balance population that is surplus of the existing capacities as above with respect to the population figures of the old area of PCMC as derived by the ratio method, is then added to the population figures of the newly merged areas of PCMC as derived by the ratio method. The total population that may have to be accommodated within the newly merged areas of PCMC is 1.80 lakhs souls, 3.65 lakhs souls, 4.00 lakhs souls, 6.60 lakhs souls, 7.70 lakhs souls, and 8.90 lakhs souls by 1996, 2001, 2006, 2011, 2016 and 2021 respectively (refer Table 6.6). Similarly, the balance population that is surplus of the existing capacities with respect to the population figures of old area of PCMC as in the old DP and projected beyond by the decrease growth rate method is also worked out and added to the population figures of the newly merged areas of PCMC as derived by the ratio method. Then, the total population that may have to be accommodated within the newly merged areas of PCMC is 1.64 lakhs

Table 6.4 Gross City Level Density in Metropolitan Areas

Population Range	Name of Area	1991		
		Census Population	Area (Ha)	Density (P/Ha)
50 - 100 lakhs	Greater Mumbai (U)	9925891	60300	165
	Delhi (U)	8471625	68534	124
	Calcutta-Howrah-Hughli (U)	7607184	57153	133
	Average			**140**
25 - 50 lakhs	Bangalore (U)	4169253	45713	91
	Madras (U)	3841396	17400	221
	Ahmedabad (U)	3586685	56387	64
	Hyderabad (U)	3145939	21700	145
	Average			**104**
15 -25 lakhs	Kanpur (U)	2037333	30766	66
	Jaipur (U)	1866639	52477	36
	Coimbatore (U)	1844993	93441	20
	Surat (U)	1718121	24940	69
	Lucknow (U)	1669204	33750	49
	Nagpur (U)	1624752	21717	75
	Pune (PMC)	1566651	14611	107
	Madurai (U)	1542123	30240	51
	Average			**46**
10 - 15 lakhs	Patna (U)	1376701	19691	70
	Vadodara (U)	1328064	25003	53
	Varanasi (U)	1322248	15975	83
	Visakhapatnam	1308583	42492	31
	Indore (U)	1274518	25578	50
	Ludhiana (U)	1242781	19719	63
	Bhopal (U)	1080802	29889	36
	Kalyan (MC)	1014557	22526	45
	Average			**50**
	Overall Average			**78**

Table 6.5 Proposed Gross City Level Density and Gross Residential Density in the Old Area of PCMC

Area / Year	Projected Gross Residential Density (P/Ha)	Residential Land-use (Ha)	Projected Population* Accommodated	Total Area (Ha)	Projected Gross City Level Density (P/Ha)
Old Area of PCMC		**Equivalent to 41.83% of Total Area**			
1996	200	3598	720000	8601	84
2001	240	3598	865000	8601	101
2006	280	3598	1080000	8601	126
2011	320	3598	1150000	8601	134
2016	360	3598	1300000	8601	151
2021	400	3598	1440000	8601	167

* Population figures as obtained by ratio method and based on the suggested density has been rounded off.

souls, 2.37 lakhs souls, 2.65 lakhs souls, 3.53 lakhs souls, 4.36 lakhs souls, and 5.94 lakhs souls by 1996, 2001, 2006, 2011, 2016 and 2021 respectively.

Thus, the population figures for the newly merged areas that have been adopted are those balance figures that are on the higher side and those which satisfy meeting the requirements of accommodating the surplus population (deduced after applying enhanced densities) of old area of PCMC from the figures as derived by ratio method. These figures as in the Table 6.6 are 1.80 lakhs souls, 3.65 lakhs souls, 4.00 lakhs souls, 6.60 lakhs souls, 7.70 lakhs souls, and 8.90 lakhs souls by 1996, 2001, 2006, 2011, 2016 and 2021 respectively.

The distribution of the adopted projected population within the newly merged areas of PCMC is calculated on the basis of the ratio of the population in each sector to the total population and the ratio of population of each village (planning unit) to the ratio of its respective sector. This has been calculated for the past four decades and projected based on the rate of change, increase of ratio, its trend and the capacity of the area.

It can be observed from the general trend of development, direction, and growth due to proximity to developed land-uses, the location of upcoming industrial and public and semi-public work centres, the traffic linkages, and the availability of land, the inferences that can be generated are that:

The ratio of population in sector-3 of Dapodi is likely to saturate to about slightly above 11.86 percent of the total by 2021. Sector-1 will have a high ratio of population of about 35 percent, 39 percent and at a slower rate 42.46 percent of the total by 2001, 2011, and 2021 respectively due to all favourable factors as above. Whereas the ratio of population in sector-4 will also be high in 2001 due to some of the above factors including addition of spill over population beyond Gaothan in village Wakad and Mamurdi, by 2021 to about 22.17 percent of the total. Similarly, the sector-2 will also gradually develop to having ratio of population by 2021 to about 23.51 percent of the total.

Refer Table 6.6 and 6.7 for the sector-wise and planning unit-wise distribution of projected population in the newly merged areas of PCMC.

6.3.4 Sector-wise Projected Population

Based on the earlier discussed delineation of sectors, the sector-wise projected population is as follows:

- Sector 1 comprising of village's Talwade, Chikhali, Moshi and Dudulgaon shows a rapid increase in rate of change of ratio of population. The trend shows that the current ratio of 31.7 percent in 1991 will gradually increase but is likely to stabilise at 42.46 percent by 2021. Thus it would have population by 2001 of 1,27,263 souls, 2,57,504 souls by 2011, and 3,76,009 souls by 2021.

- Sector 2 comprising of villages Choviswadi, Wadmukhwadi, Charholi (BK), Dighi, and Bopkhel indicates a gradual decline in the ratio of population it shares. Though the trend is declining it will increase to 23.51 percent by 2021 due to saturation of population in Bopkhel and Dighi. These two areas lie adjacent to defence restricted zones. Wadmukhwadi and Choviswadi have limited development of area as they lie along the Dighi-Alandi road. Thus, it would have population of 90,561 souls by 2001, 1,68,094 souls by 2011, and 2,08,228 souls by 2021.

- Sector 3 constitutes the village of Dapodi shows a nominal increase in the ratio of population it shares. Due to limitation of size of the village in terms of area available, the ratio is likely to stabilise at 11.86 percent by 2021. Thus, it would have population of 73,500 souls by 2001, 91,000 souls by 2011, and 1,05,000 souls by 2021.

- Sector 4 comprising of villages Wakad, Punawale, Ravet, Kiwale, and Mamurdi currently shows a nominal increase in the share of population. However, the ratio is likely to steadily increase to 22.17 percent by 2021 due to influences like, the upcoming STP at Hinjewadi to the south-west of this sector, new traffic linkage of Mumbai-Pune Expressway with the existing Mumbai-Bangalore bypass highway within this sector, and the saturation of population in other areas, etc. Thus, it would have population of 70,940 souls by 2001, 1,38,962 souls by 2011, and 1,96,323 souls by 2021.

- The remaining three pockets of Aundh Chest Hospital at village Sangavi, Rakshak Co-operative Housing Society Private Limited and Bharat Electronics Limited Colony at Pimple Nilakh village where residential use exists, the population is considered to saturate by 2021 the population figures would be 3940 souls, 500 souls and 500 souls respectively. The single plot that comes under Bhosari and which is

Table 6.6 Sector-wise Projected Population in the Newly Merged Areas of PCMC

Village / Sector	Ratio of sector population to total population (%)				Projected Ratio (%)			Projected Population		
	1961	1971	1981	1991	2001	2011	2021	2001	2011	2021
Sector-1	24.45	23.45	25.30	31.70	35.13	39.28	42.46	127263	257504	376009
Sector-2	29.80	30.70	27.05	19.82	25.00	25.64	23.51	90561	168094	208228
Sector-3	29.97	31.58	33.68	33.98	20.29	12.34	11.86	73500	91000	105000
Sector-4	15.78	14.27	13.97	14.50	19.58	21.20	22.17	70940	136962	196323
Bhosari (R)	*	*	*	*	*	*	*	*	*	*
Sangavi (Aundh Chest Hospital)	*	*	*	*	*	*	*	2386	3940	3940
Pimple Nilakh (Rakshak Housing Society & Bharat Elect. Ltd. Col)	*	*	*	*	*	*	*	650	1000	1000
Newly merged areas of PCMC								**365300**	**660500**	**890500**
Old area of PCMC								**865000**	**1150000**	**1440000**
Composite area of PCMC								**1230000**	**1810000**	**2330000**

* Not Applicable / Available for the Newly Merged Areas of PCMC.

Table 6.7 Planning Unit-wise Projected Population in the Newly Merged Areas of PCMC

Village / Sector	Ratio of village population to sector population (%)				Projected Ratio (%)			Projected Population		
	1961	1971	1981	1991	2001	2011	2021	2001	2011	2021
Talwade	12.60	12.25	23.91	39.66	42.56	45.90	48.06	54163	118193	180710
Chikhali	41.13	42.07	40.97	39.13	39.05	38.16	37.21	49696	98264	139913
Moshi	39.36	39.07	28.67	17.68	15.09	13.96	12.95	19204	35948	48693
Dudulgaon	6.91	6.62	6.45	3.53	3.30	1.98	1.78	4200	5099	6693
Sector-1								**127263**	**257504**	**376009**
Choviswadi	*	*	*	6.00	9.22	9.82	10.39	8352	16500	21629
Wadmukhwadi	*	*	*	5.54	8.78	88.89	9.41	7566	14947	19594
Charholi BK.	66.54	58.44	51.69	32.59	36.67	38.83	41.30	33212	65610	86005
Dighi	15.37	15.35	16.09	25.12	28.25	27.50	26.89	25583	46226	56000
Bopkhel	18.09	26.21	32.22	30.75	17.50	14.76	12.01	15848	24811	25000
Sector-2								**90561**	**168094**	**208228**
Sector-3 (Dapodi)								**73500**	**91000**	**105000**
Wakad	*	*	*	*	8.46	17.63	20.37	6000	24500	40000
Punawale	22.64	22.22	22.49	15.81	22.01	17.77	15.29	15615	24696	30022
Ravet	24.85	22.98	18.24	13.75	15.28	11.41	10.99	10843	15866	21577
Kiwale	52.51	54.80	59.27	61.38	49.63	48.28	48.15	35207	67100	94524
Mamurdi	*	*	*	9.06	4.79	4.89	5.20	3400	6800	10200
Sector-4								**70940**	**138962**	**196323**
Bhosari (R)	*	*	*	*	*	*	*	*	*	*
Sangavi (ACH)	*	*	*	*	*	*	*	2386	3940	3940
Pimple Nilakh (Rakshak Housing Society and Bharat Electronics Ltd. Colony)	*	*	*	*	*	*	*	650	1000	1000
Newly merged areas of PCMC								**365300**	**660500**	**890500**

* Not Applicable / Available for the Newly Merged Areas of PCMC.

included within the newly merged areas is under the use for educational facility, and hence no population is expected to reside there in.

6.4 Employment Projection

The workforce participation rate (WFPR) in the newly merged areas of PCMC has been steadily growing since 1971. The WFPR in these areas was 29.61 percent in 1971, 30.20 percent in 1981, and 30.92 percent in 1991 as compared to the WFPR in the old PCMC area with figures of 30.52 percent, 32.15 percent, and 32.30 percent respectively in the period.

The employment in the industries as per the information collected from MCCIA and DIC till March 1st, 1999 shows figures of 8,850 workers, which comprises of 7,885 workers (89.1 percent ratio) in sector-1, 246 workers (2.78 percent ratio) in sector-2, 339 workers (3.83 percent ratio) in sector-3, and 380 workers (4.29 percent ratio) in sector-4. Also as per the Pune Metropolitan Regional Plan (1990-2011) the provision for industrial zones will not be augmented. However, as the PCMC has already requested the state government for additional industrial zone in Talwade to act as spot zone for permitting non-polluting and service type industries, similar additional zones are further proposed in sector 1, 2, and 4 at appropriate locations and as observed in the ELU. The area in the regional plan and the additional area as proposed above aggregates to about 315 hectares located in sector-1 (in villages Talwade, Chikhali and Choviswadi, Dighi, Wakad, and Kiwale). Out of this about 70 hectares is under Talwade Infotech Park of MIDC, and 245 hectares is under other industrial use. Though the regional plan suggests industrial worker density at the rate of 40 workers per hectare, it is assumed to consider industrial worker density of about 125 persons / hectare as in the UDPFI guidelines (the sample industrial survey in the planning area conducted earlier shows even higher density). Thus the estimated industrial employment is 39000 workers which is about 50 percent of the total industrial workforce in the planning area (based on the assumption that the WFPR will be 33 percent and industrial workforce will be 25 percent of the total workforce). The remaining industrial workforce is assumed to work in other industrial areas in and around Pimpri-Chinchwad in the PMR.

The total employment is also projected by extrapolating the past trend of the work force participation rate in the newly merged areas and then distributed amongst the sector and planning units based on their projected

ratios. The total employment projected in the planning area is 1,15,253 workers, 2,12,213 workers and 2,91,591 workers and the workforce participation rate is expected to be 31.55 percent, 32.21 percent and 32.81 percent by 2001, 2011, and 2021 respectively. By 2021, the expected figure of 32.81 percent is close to the workforce participation rate of 33 percent normally desired (that means an average household shall have only two dependent per earner).

The sector-wise and planning unit-wise distribution of past census employment and the projected employment is shown in Table 6.8 and 6.9 respectively.

The WFPR in Sector 1 is expected to grow, as its ratio of employment is likely to increase due to existence of major planned work centres in this sector. The projected employment in Sector 1 is 40,524 workers, 83,155 workers, and 1,23,967 workers by 2001, 2011, and 2021 respectively. Thus the projected WFPR in Sector 1 is 31.84 percent, 32.29 percent and 32.97 percent by 2001, 2011, and 2021 respectively.

The WFPR in Sector 2 is also expected to grow only moderately, as its ratio of employment is likely to stabilise due to limited opportunities of growth. The projected employment in Sector 2 is 30,425 workers, 56, 801workers, and 69,036 workers by 2001, 2011, and 2021 respectively. Thus the projected WFPR in Sector 2 is 33.60 percent, 33.79 percent and 33.15 percent by 2001, 2011, and 2021 respectively.

The WFPR in Sector 3 that is the area of Dapodi is also expected to stabilise, due to limited opportunities of growth. The projected employment in Sector 3 is 22,287 workers, 28,084 workers, and 32, 687 workers by 2001, 2011, and 2021 respectively. Thus the projected WFPR in Sector 2 is 30.32 percent, 30.86 percent and 31.13 percent by 2001, 2011, and 2021 respectively.

The WFPR in Sector 4 is expected to grow moderately, due to opportunities of growth along the Mumbai-Bangalore bypass highway in this sector but will stabilise by 2021. The projected employment in Sector 4 is 21,053 workers, 43120 workers, and 64852 workers by 2001, 2011, and 2021 respectively. Thus the projected WFPR in Sector 2 is 29.68 percent, 31.48 percent and 33.03 percent by 2001, 2011, and 2021 respectively.

Table 6.8 Sector and Planning Unit-wise Census Employment in the Newly Merged Areas of PCMC

Village / Sector	Census Employment				Workforce participation Rate (%)				Ratio of Employment (%)			
	1961	1971	1981	1991	1961	1971	1981	1991	1961	1971	1981	1991
Talwade	419	326	1394	4185	44.24	26.57	36.35	28.59	3.35	2.58	7.28	11.63
Chikhali	1616	1317	2189	4868	52.28	31.25	33.32	33.71	12.94	10.41	11.44	13.52
Moshi	1197	1377	1379	2346	40.47	35.17	30.00	35.96	9.58	10.87	7.21	6.52
Dudulgaon	268	144	404	324	51.64	21.72	39.07	24.87	2.15	1.14	2.11	0.90
Sector-1	**3500**	**3164**	**5366**	**11723**	**46.57**	**31.58**	**33.46**	**31.77**	**28.02**	**25.00**	**28.04**	**32.57**
Choviswadi	*	*	*	395	*	*	*	28.52	*	*	*	1.10
Wadmukhwadi	*	*	*	478	*	*	*	37.40	*	*	*	1.33
Charholi BK.	2900	2311	2979	2907	47.59	30.15	33.62	38.67	23.21	18.26	15.57	8.08
Dighi	599	531	742	1539	42.54	26.38	26.91	26.56	4.80	4.20	3.88	4.27
Bopkhel	518	1027	1533	1980	31.26	29.87	27.76	27.91	4.15	8.12	8.01	5.50
Sector-2	**4017**	**3869**	**5254**	**7299**	**43.86**	**29.50**	**30.66**	**31.64**	**32.16**	**30.58**	**27.46**	**20.28**
Sector-3 (Dapodi)	**3135**	**3811**	**5536**	**11411**	**34.02**	**28.25**	**25.94**	**28.83**	**25.10**	**30.12**	**28.93**	**31.70**
Wakad	*	*	*	*	*	*	*	*	*	*	*	*
Punawale	398	527	751	1221	36.25	38.89	37.72	45.76	3.19	4.17	3.92	3.39
Ravet	602	401	430	804	49.96	28.62	26.63	34.66	4.82	3.17	2.25	2.23
Kiwale	840	881	1799	3042	32.99	26.37	34.28	29.37	6.71	6.96	9.40	8.45
Mamurdi	*	*	*	498	*	*	*	32.57	*	*	*	1.38
Sector-4	**1840**	**1809**	**2980**	**5565**	**37.95**	**29.67**	**33.66**	**32.98**	**14.72**	**14.30**	**15.57**	**15.45**
Bhosari (R)	*	*	*	*	*	*	*	*	*	*	*	*
Sangavi (ACH)	*	*	*	*	*	*	*	*	*	*	*	*
Pimple Nilakh (Rakshak Housing Society and Bharat Electronics Ltd. Colony)	*	*	*	*	*	*	*	*	*	*	*	*
Total	**12492**	**12653**	**19136**	**35998**	**40.64**	**29.61**	**30.20**	**30.92**				

* Not Applicable / Available for the Newly Merged Areas of PCMC.

Table 6.9 Sector and Planning Unit-wise Projected Employment in the Newly Merged Areas of PCMC

Village / Sector	Projected Ratio of Employment (%)			Projected Employment			Projected WFPR (%)		
	2001	2011	2021	2001	2011	2021	2001	2011	2021
Talwade	13.75	16.67	19.98	15715	35200	58052	29.02	29.78	32.12
Chikhali	14.90	16.46	16.77	17035	34757	48714	34.28	35.37	34.82
Moshi	5.65	5.50	5.20	6460	11614	15109	33.64	32.31	31.03
Dudulgaon	1.15	0.75	0.72	1314	1584	2092	31.29	31.06	31.26
Sector-1	**35.46**	**39.38**	**42.67**	**40524**	**83155**	**123967**	**31.84**	**32.29**	**32.97**
Choviswadi	2.15	2.42	2.47	2457	5110	7177	29.42	30.97	33.18
Wadmukhwadi	2.48	2.64	2.30	2834	5575	6683	37.46	37.30	34.11
Charholi BK.	11.31	11.37	9.95	12927	24008	28910	38.92	36.59	33.61
Dighi	6.40	6.79	6.20	7315	14337	18014	28.59	31.02	32.17
Bopkhel	4.28	3.68	2.84	4892	7771	8252	30.87	31.32	33.01
Sector-2	**26.62**	**26.90**	**23.76**	**30425**	**56801**	**69036**	**33.60**	**33.79**	**33.15**
Sector-3 (Dapodi)	**19.50**	**13.30**	**11.25**	**22287**	**28084**	**32687**	**30.32**	**30.86**	**31.13**
Wakad	1.25	3.50	4.62	1429	7392	13424	23.81	30.17	33.56
Punawale	3.71	3.34	3.40	4240	7053	9879	27.16	28.56	32.91
Ravet	2.98	2.37	2.50	3406	5005	7264	31.41	31.54	33.66
Kiwale	9.50	10.15	10.65	10858	21432	30944	30.84	31.94	32.74
Mamurdi	0.98	1.06	1.15	1120	2238	3341	32.94	32.92	32.76
Sector-4	18.42	20.42	22.32	21053	43120	64852	29.68	31.48	33.03
Bhosari (R)	*	*	*	*	*	*	*	*	*
Sangavi (ACH)	*	*	*	788	788	788	*	*	*
Pimple Nilakh (Rakshak Housing Society and Bharat Electronics Ltd. Colony)	*	*	*	176	265	265	*	*	*
Total				**115253**	**212213**	**291595**	**31.55**	**32.21**	**32.81**

- Not Applicable / Available for the Newly Merged Areas of PCMC.

PLANNING PROPOSALS OF DRAFT DEVELOPMENT PLAN 1
7.1 Structure Plan 1
7.2 Proposed Land Use Zoning 2
7.2.1 Residential Zone 2
7.2.2 Commercial Zone 4
7.2.3 Industrial Zone 4
7.2.4 Public and Semi-public Zone 5
7.2.5 Traffic and Transportation 6
7.2.6 Green Belt Zone 6
7.2.7 No Development Zone ..... **Error! Bookmark not defined.**
7.2.8 Hillocks ..... **Error! Bookmark not defined.**
7.2.9 Forest / Plantation ..... **Error! Bookmark not defined.**
7.2.10 Restricted Zone 7
7.3 Development Controls 7
7.4 Planning Standards for Social Amenities 8

CHAPTER 7

PLANNING PROPOSALS OF DRAFT DEVELOPMENT PLAN

7.1 Structure Plan

Preparation of a structure plan is an important step in the overall planning process and is necessary to serve as a broad guiding framework for formulating detailed proposals of the Draft Development Plan. This plan includes broad land use zoning and major traffic-transportation network, connecting the various parts of the area to be planned. The broad road network includes important traffic corridors mainly highways, arterial and sub-arterial roads. In addition to the land use zoning and broad circulation pattern, the structure plan also envisages the direction in which sites will be reserved for public purposes. The proposals of the structure plan for the present study are framed on the following lines:

- Determination of the extent and physical form of future urbanisable area on the basis of the population projection, trend of development (as observed in the ELU survey) and suitability of land for non-agriculture purposes
- Determination of proposed broad land-use zoning of the said urbanisable area
- Framing proposals with due considerations to the circulation pattern and other traffic-transportation requirements
- Establishment of standards or guidelines for framing proposals in-respect of designation of sites for public amenities and in-respect of various other problems faced by the area.

The determination of future urbanisable area and its physical form, for the purpose of Structure Plan is based on the following parameters:

- Projected population of the study (planning) area for the year 2021
- Planning constraints and guidelines.

In identifying the future urbanisable area on the basis of the projected population of 2021, the following constraints / guidelines have been considered.

- Existing and committed major work centres
- Physiography of the planning area
- Availability of water supply

- Availability of transportation facilities
- Availability of land for non-agricultural use and desirability / practicability of converting agricultural lands into non-agricultural lands
- Zoning of the sanctioned Regional Plan and the relevant guidelines spelt out therein
- Compactness of development so as to ensure maximum possible utilisation of infrastructural facilities.

Structural Plan being a policy plan does not take into account detailed micro-level considerations. The land-use-zoning in respect of residential, industrial, commercial, public and semi-public, green-belts or no development zones have been delineated as shown in Exhibit 7.1.

7.2 Proposed Land Use Zoning

The total newly merged villages within the Pimpri-Chinchwad Municipal Corporation limits has been divided into four sectors and four separate planning pockets (Please see Exhibit 6.1 in chapter 6). The projected population of the year 2021 (next 20 years) and that of 2011 (next 10 years) have been distributed amongst these sectors and separate planning pockets for framing zoning and detailed planning proposals respectively.

7.2.1 Residential Zone

The land requirement for residential purposes has been worked out for each sector on the basis of the projected population of the year 2021 The following points have been considered for this purpose.

- Capacity of the existing residential areas to absorb additional population.
- Identification of the extent and form of new residential areas on the basis of :
  - zoning of the sanctioned Regional Plan and the broad policies spelt out there in.
  - quality of soil, flood hazard area, slope of terrain and feasibility of converting agricultural land to non-agricultural use.
  - compactness of future development
  - Availability of civic infrastructure within a reasonable period of time.

For the purpose of identifying new residential zones in the fringe areas of PMR, the sanctioned Regional Plan has suggested a gross residential town density of 125 to 150 persons per hectare. The Regional Plan has stressed the need of including most of the developable land in the residential zone, barring forest land, hill tops or hill slopes (steeper than 1:5), the areas required to be kept open from the security point of view of the Defence Department and good agricultural lands of perennial and eight monthly bagayat (irrigated) category. This will increase the percentage of residential land and at the same time control unauthorised development in agricultural and no-development zones.

In the sanctioned Development Plan of PCMC (old area), the land requirement for residential zone has been worked out on the basis of an overall density of 200 persons per hectare. However, considering the fact that the present planning area is comprised mainly of virgin land from the newly merged fringe villages except the developed village of Dapodi, and moreover the planning area has to accommodate the surplus population of the old area of PCMC, the prescribed gross residential density in the sanctioned Regional Plan is reasonably extended to 200 persons per hectare, in deciding the new residential zones in the newly merged areas of PCMC. However, the areas, which already exhibit high residential densities, like Dapodi, Dighi, Bopkhel will continue to do so till 2021. The extent and form of the residential zone has accordingly been proposed in the structure plan. Refer Table 7.1 for the sector and planning unit-wise distribution of the proposed residential zones.

Residential Zone (R1) is the normal residential area where only residential and allied uses as permissible under the development control rules could be developed. In addition to the uses under R1 zone, shopping and other commercial activities as prescribed under the development control rules, would be permissible on the lands in R2 zone i.e. the lands fronting on roads of 9 m. and wider in the gaothan areas and 12m. and wider in the remaining areas. Lands included in R1 and R2 zones have been washed yellow on the structure plan and wherever the land in addition to the sanctioned regional plan proposals has been considered for residential zone the yellow wash is also shaded. Further, to allow the natural growth of the village gaothans, land falling within 200 m from the gaothan limit need to be allowed for residential development, even if they are not washed yellow on the plan. But lands falling within the green belt area located along the watercourses shall not be allowed to be developed for residential purposes.

The residential land-use zone requirements proposed are on the higher side as compared to the requirements, based on the projected population requirements of the year 2021 and the expected gross residential density of

200 persons / hectare. This is considering the fact that all the suitable land in each sector will come under development due to the existing trend of development, the transport linkages and their potential for development. The additional land that was zoned for agricultural use in the regional plan and which has been now designated under residential zone in the structure plan can always be utilised for agricultural purposes till the owner finds it economically beneficial, and by designating so such residential lands cannot be utilised for any other use without the approval of change in the land-use. Thus it will avoid occurrence of illegal / unplanned urban development.

7.2.2 Commercial Zone

Under the standard Development Control Rules (DCR), the commercial zone has been considered under two types viz. C1 and C2. The convenience shopping and other allied commercial activities would be permissible in R1 zone. Regular larger shops/commercial users would be permissible in properties on wider roads in R2 zone. C1 zone or the local commercial zone would comprise of the area in which, in addition to the activities permissible in R2 zone, higher order commercial activities would also be permissible.

Commercially active areas (existing as well as perspective) from other villages have also been shown as C1 land in the structure plan with a wash of dark blue colour. Other potential land at strategic locations having commercial proneness of higher order, have been proposed to be included in C2 zone and are thus shown with sky blue wash on the structure plan.

7.2.3 Industrial Zone

As regards the industrial location policy, the sanctioned Regional Plan has expressed that so far as the PCMC area is concerned there should be no addition to the existing industrial zone area. However with a view to meet the inevitable demand of small and service type non polluting industrial units in the fringe villages of the Pimpri-Chinchwad area, (some of which are already included in the PCMC area), the Regional Plan has earmarked industrial zones in villages Chikhali, Talwade (Software Technology Park) etc. The Regional Plan mentions that new industries as well as modernisation and expansion of existing industries should be governed according to the industrial location policy of the Government as applicable from time to time. The industrial zones in the present Planning Area, as suggested in the Sanctioned Regional Plan, are shown in the Structure Plan. The industrial zone which is intended to be developed for

service type small-scale industries has also been shown "violet" on the structure plan.

The PCMC has proposed some additional industrial area of about 47 hectares in Talwade taking into account the existing industrial development and the observed trend of development. This proposal of the industrial zone has also been shown on the structure plan.

However, considering the assumption that about 25 percent of the total workforce (based on 33 percent WFPR) is industrial and even if 50 percent of that industrial workforce is assumed to work in the planning area, the remaining workforce are employed in the other industrial areas located in and around Pimpri-Chinchwad within the PMR. Then based on industrial workers density of 125 persons / hectare a total of 315 hectares of industrial land would be required in the planning area. Accordingly the additional proposed industrial zoning, for small and service type non-polluting industries has been shown in "violet" colour on structure plan, duly taking into consideration the trend of industrial development and suitability of land thereof.

7.2.4 Public and Semi-Public Zone

This zoning covers premises under public use, as also the land belonging to the Government or other public authorities. This zoning includes the large premises of Aundh Chest Hospital at village Sangavi, admeasuring about 34 hectares located within the Planning Area. The land included in the existing public amenities such as educational, medical, cultural etc., though fall in this category, are not distinctly shown in the Structure Plan. This is because it is only a broad policy plan and such minute details are not expected to find place therein. The draft development plan exhibits these details including the VSNL premises located at Bopkhel. The Public and Semi-public zones have been washed red on the Structure Plan. In the sanctioned regional plan, lands allocated for public and semi-public use were meant for uses like industrial exhibition centre, university sub-centre, and other local level amenities. A total of about 265 hectares of land is shown under the active use of public and semi-public purpose.

7.2.5 Public Utility

This zone includes the premises under utilities like water supply works, sewerage system, power supply, cremation grounds, slaughterhouse, etc. provided by either planning authority or other public bodies. These have been shown in burnt sienna colour.

7.2.6 Traffic and Transportation

Considering the importance of Traffic-Transportation proposals for an orderly and disciplined development of the town, necessary studies in this regard have been undertaken to identify the problems. After analysis of the survey findings and detailed site inspection, the major traffic network including link roads connecting the developed and developing parts of the area, radial roads serving as feeder roads etc., are finalised. The traffic network mostly included the proposals of major roads viz. arterial and sub-arterial roads required for providing accessibility to new potential areas.

7.2.7 Recreation

This landuse includes the provision of gardens / park, playgrounds, Moshi safari park, recreational area in the existing quarry zone at Moshi, river front recreation sites, and a stadium site. These have been shown in dark green colour in the development plan.

7.2.8 No Development Zone

This zone has been shown in light green colour (as compared to the dark green colour of recreation facility). This zone includes the land strips / area restricted as setback in the form of green belt of 100 – 200 meters wide along either side of the river (to avoid direct water pollution and flood hazard) and about 12.5 meters on either side of major nallas (to provide access for cleaning purposes). Also, good agricultural land having perennial and eight monthly bagayat quality are included in this zone. However, isolated pockets of good agricultural land surrounded by developed or developing localities are not considered for inclusion in this zone so as to avoid possible unauthorised non-agricultural development therein. Further, those remote lands which are not likely to be required for non-agricultural activities from the view point of the trend of development, the projected population and availability of infrastructure etc. are also included in the no- development zone. Some quarrying area near Indrayani river at Chikhali is also included in this zone.

As per the sanctioned regional plan the southern most hillock located at Charholi BK. was identified and separately considered for no development. In the proposed development plan some more hillocks have been identified and designated separately for no development in Dudulgaon, Chowiswadi, and Wadmukhwadi.

As per the sanctioned regional plan, one site of about 23 hectares at

the south-west tip of Punawale was shown for forest use and the same has been shown in this plan as no development zone.

In the sanctioned regional plan, some sensitive areas have been proposed as a no development zone due to defence restrictions in and around the Dighi Magazine at Bhosari. The same has been continued as a no development zone in this plan.

Refer Table 7.1 for the summary of the proposed land-use provisions in the newly merged areas of PCMC. Table 7.2 illustrates the deviation statement on account of changes made from the provisions of the sanctioned regional plan and the sanctioned development plan of PMC (in case of village Dapodi).

Table 7.1 Summary of Proposed Land-Use (PLU) Analysis in the newly merged areas of PCMC

Sr. No.	Land-Use Category	PLU Area in Ha.	% with Proposed Development Area	% with Total Area
1.	Residential	4727.52	67.92	55.94
2.	Commercial	267.62	3.85	3.17
3.	Industrial	251.92	3.60	2.98
4.	Public-Semi Public	265.79	3.82	3.15
5.	Public Utility	96.53	1.39	1.14
6.	Transportation	1094.47	15.74	12.95
7.	Recreational	255.90	3.68	3.03
	Sub Total (Proposed Development Area)	**6959.75**	**100.00**	**82.36**
8.	No Development Zone (Green Belt / Hillock / Defence Restricted Area)	1288.50	-	15.25
9.	Water -bodies	133.04	-	1.57
	Total	**8381.29**	-	**99.18**
	MIDC Software Technology Park	69.71	-	0.82
	Grand Total	**8451.00**	-	**100.00**

7.3 Development Controls

For the purpose of controlling the development within the fringe villages of the then PCMC limit, the Sanctioned Regional Plan has recommended the use of standardised building by-laws and Development

Control Rules for 'A' Class Municipal Councils, as amended from time to time. However, some of these fringe villages, are now included in the PCMC limits and constitute the present Planning Area. In case of such areas forming part of the Municipal Corporation, the Regional Plan has suggested that the development therein shall be governed by the Development Control Rules of the respective corporations. The Government has recently sanctioned the Development Plan of the old PCMC area. The Sanctioned Development Plan report contains a set of regulations according to which the development within the area is expected to be controlled. Considering the recommendations of the sanctioned Regional Plan and with a view to maintain uniform rules and regulations in the entire area under the jurisdiction of the Planning Authority, it has been considered appropriate to follow the same set of regulations with necessary modifications wherever required of the sanctioned Existing Development Plan of the old area to the newly merged villages, constituting the present Planning Area.

The land uses in the different zones described above will be controlled on the basis of permissible uses in their respective zones. Development of land and building activity in the plots along with their layouts will also be regulated according to the provisions laid down in the said sanctioned Development Control Rules and some Amendment in the DCR as mentioned in Appendix 7-A.

7.4 Planning Standards for Social Amenities

One of the important components of the Development Plan is to designate sites for various public purposes. As mentioned in section 22 of the MR&TP Act 1966, sites for government departments and other public bodies are also required to be designated in the Development Plan as per their requirements. The State Government has prescribed the planning standards for the purpose of the Development Plan. However, taking into account the high land-values prevailing in the PCMC area and considering the character of development therein the said standards prescribed by the government have been slightly modified and which is duly approved by the steering committee for the present planning area. (Appendix 9A)

Table 7.2 Deviation Statement

Sector No.	Sr. No.	Present Proposal as per Sanctioned Regional Plan / Development Plan	New Proposal	Remarks
1		**Talwade**		
	1.	Public – Semi Public zone in the north-west corner	Partly reserved for University Sub-Center (Site No. 1/73), partly falls in existing MIDC Software Technology Park and partly under green belt	To suit the site conditions and meet the requirements of the University.
	2.	Agricultural zone to the north of existing MIDC Software Technology Park	Partly converted to industrial zone and partly reserved for amenity sites except 100 m wide green belt along Indrayani river.	To suit the site conditions and potentiality of land and meet the requirements of amenity.
	3.	Industrial zone to the east of existing MIDC Software Technology Park	Partly reserved for municipal purpose and for other amenity sites.	To meet the requirements for amenity sites.
	4.	Residential zone	The residential zone to the north of Dehu-Alandi road near gaothan is partly reserved for garden and other amenities and partly for C1 zone.	To meet the requirements and site potentiality.
	5.	Residential zone to the west of MIDC Software Technology Park	Partly shown under MIDC Software Technology Park use and partly reserved for amenity sites and necessary road network.	To meet the requirements and to suit the site conditions.
	6.	Agricultural zone to the south of Dehu-Alandi road	Partly zoned for residential purpose with amenities and necessary road networks.	To meet the requirements of residential land and amenities as per population projection and to suit the potentiality of land.
	7.	Agricultural zone to the south of gaothan beyond Dehu-Alandi road and along Rupeenagar Talwade road	Partly converted into residential zone with necessary amenity site, road network, partly for industrial zone, partly for C1 zone	To meet the requirements of residential land and amenities as per population projection and to suit the potentiality of land.
	8.	Residential zone	Partly reserved for amenity sites with necessary road network and partly for C1 local commercial zone.	To meet the requirements of residential land and to suit the potentiality of land.
		Chikhali		
	1.	Agricultural zone	Partly converted to residential zone with necessary road network and amenities except for 100 m and more under green belt along river Indrayani.	To meet the requirements of residential land and site conditions.
	2.	Public-Semi Public zone to the north-west of Gaothan	Reserved partly for municipal purpose and partly for amenity sites such as Secondary School (Site No. 1/89), EWS housing (Site No.	To meet the requirements and site conditions.

Sector No.	Sr. No.	Present Proposal as per Sanctioned Regional Plan / Development Plan	New Proposal	Remarks
			1/90), PCMC Zonal Office (Site No. 1/91) with necessary road network. Existing Secondary School has been also shown.	
	3.	Residential zone adjacent to both sides of Public-Semi Public zone	Partly reserved for various amenity sites and necessary road network, except for 100 m green belt along river Indrayani.	To meet the requirements and suit the site conditions.
	4.	Residential zone to the east of Gaothan and north of Dehu-Alandi road	Partly reserved for amenity sites and necessary road network except for 100 m green belt along river Indrayani.	To meet the requirements and suit the site conditions.
	5.	Residential zone between Dehu-Alandi road and 30 m wide road to the south of Dehu-Alandi road	Partly converted to C1 local commercial zone, C2 higher order commercial zone and industrial zone and partly reserved for amenity site.	To meet the requirements, to suit the site conditions and potentiality of land.
	6.	Agricultural zone on both sides of More Vasti-Chikhali Gaothan road	Partly converted into C1 zone and partly converted into residential zone with reservations for amenity sites and necessary road network except for existing nallah and 12.5 m green belt along it.	To meet the requirements of residential land and amenities as per population projection and suit the site conditions and potentiality of land.
	7.	Residential zone in the south-west corner of Chikhali	Partly reserved for amenity sites, while 24 m road was shifted slightly northwards.	To meet the requirements and suit site conditions.
	8.	Residential zone to the south of sanctioned industrial zone	Partly reserved for amenity sites and necessary road network.	To meet the requirements.
	9.	Agricultural zone to the east of Gaothan and north of Dehu-Alandi road	Partly converted to residential zone with necessary amenities with road network except for 100 m green belt along river Indrayani.	To meet the requirements of residential land and amenities as per population projection and suit the site conditions.
	10.	Agriculture zone to South of Dehu-Alandi road on both sides of the Chikhali-Jadhavwadi road	Partly converted to C1 zone and remaining converted to residential zone with amenity sites with necessary road network.	To meet the requirements of residential land and amenities as per population projection and suit the site conditions.
		Moshi		
	1.	Agriculture zone to the north of Dehu-Alandi road and west of Pune-Nashik road	Partly converted to C2 zone, partly to industrial zone and partly to residential zone with amenities along with necessary road networks.	To meet the requirements of residential land and amenities as per population projection and suit the site conditions and potentiality of land.
	2.	Agriculture zone to the south of Dehu-Alandi road and west of Pune-Nashik road	Partly converted to C1 zone, and partly residential zone with amenities and necessary road network.	To meet the requirements of residential land and amenities as per population projection and suit the site conditions and potentiality of land.
	3.	Residential zone adjacent to Gaothan	Partly reserved for amenity sites and necessary road network except for existing nallah and 12.5	To meet the requirements and suit the site conditions.

Sector No.	Sr. No.	Present Proposal as per Sanctioned Regional Plan / Development Plan	New Proposal	Remarks
			m green belt along it.	
	4.	Public-Semi Public to the eouth of Dehu-Alandi road and East of Pune-Nashik road	Partly reserved for fair ground, parking, municipal purpose and safari park.	To meet the requirements and suit the site conditions.
	5.	Residential zone to the south of Public-Semi Public zone	Partly reserved for various amenity sites with necessary roads.	To meet the requirements of amenities.
	6.	Agricultural zone to the east of Public-Semi Public zone and south of Dehu-Alandi road	Partly reserved for Recreational Complex, Super Administrative-cum-Commercial Complex, C2 zone, residential zone with amenities and necessary road network except for portions of hillock designated as no development zone..	To meet the requirements and suit the site conditions and potentiality of land..
	7.	Agricultural zone to north of Dehu-Alandi road and East of Gaothan	Partially converted to residential zone with amenity sites, and necessary road network along river Indrayani.	To meet the requirements of residential land and amenities as per population projection suit site conditions.
		Dudulgaon		
	1.	Agriculture zone to north of Dehu-Alandi road	Partly converted to industrial zone and partly to residential zone with amenities, necessary road network, except for 100 m wide green belt along river Indrayani.	To meet the requirements of residential land and amenities as per population projection suit site conditions potentiality of land.
	2.	Agriculture zone to south of Dehu-Alandi road	Partly converted to C1 zone and partly to residential zone with amenities, necessary road network except for portions of hillock which continues as no development zone.	To meet the requirements of residential land and amenities as per population projection suit site conditions potentiality of land.
2		**Chowiswadi**		
	1.	Agriculture zone to west of Pune-Alandi road	Partly converted to industrial zone, partly to C1 zone and partly to residential zone with amenities, necessary road network except for portions of hillock, which is proposed as no development zone.	To meet the requirements of residential land and amenities as per population projection suit site conditions potentiality of land.
	2.	Agriculture zone to east of Pune-Alandi road	Converted to residential zone with necessary amenity sites except for existing nallah and 12.5 m green belt along it.	To meet the requirements of residential land and amenities as per population projection suit site conditions potentiality of land.
		Wadmukhwadi		
	1.	Agriculture zone to west of Pune-Alandi road	Partly converted to industrial zone, partly to C1 & C2 zone, and partly to residential zone with	To meet the requirements of residential land and amenities as per population projection suit site

Sector No.	Sr. No.	Present Proposal as per Sanctioned Regional Plan / Development Plan	New Proposal	Remarks
			amenities, necessary road network except for portions of hillock which is proposed as no development zone and existing nallahs with 12.5 m green belt along it.	conditions potentiality of land.
	2.	No development zone due to defence restrictions S. No. 177, 178, 179, 180, etc. South of 90 m, HCMTR	Converted partly to residential zone, C2 zone and industrial zone.	As per new boundaries of the restricted zone provided by the Defence Authorities.
	3.	Residential zone to west of Pune-Alandi road and to east of defence restricted zone	Converted to industrial zone and partly reserved for amenity sites with necessary road network.	To meet requirement and suit site conditions
	4.	Agriculture zone to west of Pune-Alandi road and at the southern tip of Wadmukhwadi	Partly converted to defence restricted zone, partly to residential zone with existing Secondary School is also shown.	To meet the requirements of new restricted zone boundary provided by the defence authority and to suit site conditions.
	5.	Proposed 60 m widening of Pune-Alandi road at the southern tip of Wadmukhwadi	The alignment has been slightly shifted towards west with reservation of site for garden and parking.	To meet the site conditions and to meet the requirements of parking.
	6.	Agriculture zone to east of Pune-Alandi road	Converted to residential zone partly with amenities, necessary road network except the portions of hillock and 12.5 m green belt along nallah on the village boundary.	To meet the requirements of residential land and amenities as population projection and suit the site conditions.
		Charholi BK.		
	1.	Agriculture zone to North of 90 m HCMTR alignment	Partly converted to C1 zone, industrial zone, and residential zone with amenities, necessary road network except 100 m wide green belt along river Indrayani, existing nallahs & 12.5 m green belt along it and a portion of hillock as no development zone.	To meet the requirements of residential land and amenities as population projection and suit the site conditions.
	2.	Agriculture zone to South of 90 m HCMTR alignment	Partly converted to residential zone with amenities, necessary road network except for existing nallahs & 12.5 m green belt along it.	To meet the requirements of residential land and amenities as population projection and suit the site conditions.
	3.	Residential zone to the south of 90 m HCMTR alignment	Partly reserved for various amenity sites with necessary road network.	To meet the requirements of amenity sites.
		Dighi		
	1.	No development zone due to defence restrictions	Partly reserved for Garden with modified road network.	To include the plantation done by PCMC in the reservation of garden and to suit site conditions.
	2.	Residential zone	Partly converted to defence restricted zone, partly industrial (abutting Pune-Alandi road)	To meet the requirements for amenities, suit site conditions to include new boundary of defence

Sector No.	Sr. No.	Present Proposal as per Sanctioned Regional Plan / Development Plan	New Proposal	Remarks
			and partly reserved for amenity sites with necessary road network.	restrictions provided by defence authority.
		Bopkhel		
	1.	Agriculture zone in the Northern portion of Bopkhel	Inclusion of Public and Semi-Public zone (VSNL Premises) and remaining land converted to residential with amenity sites and necessary road network.	To meet the requirements of residential land and amenities as population projection and suit the site conditions.
	2.	Agriculture zone in the Southern portion of Bopkhel	Partly converted to residential zone with amenities and necessary road network except for 100 m wide green belt along river Mula and existing nallahs with 12.5 m green belt along it.	To meet the requirements of residential land and amenities as population projection and suit the site conditions.
3		**Dapodi**		
	1.	Brick kiln zone and the green belt reservations surrounding it for the purpose of separating it from residential zone.	Residential zone and partly used for the purpose of amenity reservations and C1 commercial zone.	The brick kiln zoning of the sanctioned DP is not considered to be suitable from the environmental point of view as also from the prospective residential development near by.
	2.	Present reservation Primary School (Site No. 78)	The reservation is deleted and the land is included in residential zone.	In view of the existing structures falling within the said site, the same is not considered to be feasible.
	3.	Playground (Site No. 42)	The reservation is deleted and the land is included in residential zone.	In view of the existing structures falling within the site, the same is not considered to be feasible.
	4.	Shopping Centre (Site No. 31)	The site has been shifted towards west in the previous reservation (Site No. 36) proposed for EWS and changed to ESR.	The location of the said Site No. 31 is not considered to be suitable for the purpose of shopping centre in view of the surrounding development.
	5.	Green belt to the west of Dapodi along Pavana river	Partly reserved for Burial Ground (Site No. 3/4) and partly for Garden (Site No.)	To meet the requirements for the said amenity.
	6.	EWS (Site No. 38)	Partly reserved for Garden (Site No. 3/1), SS (Site No. 3/2), ESR (Site No. 3/3), PS (Site No. 3/7), PG (Site No. 3/8)	To meet the requirements for the said amenity.
	7.	EWS (Site No. 37)	Existing church premises in S. No. 14 pt. has been shown in the said site and partly reserved for Housing for Dis-housed (Site No. 3/10)	To meet the requirements and suit the site conditions.
	8.	Residential Zone	Partly reserved for Telecom Centre (Site No. 3/21), Shopping Center & Market (Site No.	To meet the requirements for the said amenities.

Sector No.	Sr. No.	Present Proposal as per Sanctioned Regional Plan / Development Plan	New Proposal	Remarks
			3/22), Parking (Site No. 3/23), Community Centre & Library (Site No. 3/24), Retail Market (Site No. 3/28), Dispensary-cum-Maternity Home (Site No. 3/29) and Primary School (Site No. 3/30), along with widening of roads and new roads.	
	9.	Parking (S. No. 12 pt., 13 pt.)	Partly reserved for Shopping Center & Market (Site No. 3/11), Retail Market (Site No. 3/12).	To meet the requirements for the said amenities.
4		**Wakad**		
	1.	Truck Terminus (S. No. 122, 111 pt, 112 pt, etc.)	Small portion from the southern part of the said designation has been partly converted into service industrial zone and partly C1commercial zone.	To provide frontage on highway to the proposed commercial zone.
	2.	Agricultural zone to the west of Mumbai-Bangalore bypass highway and to the north of 36 m wide RP road	The land comprised of S. No. 108, 109, 110, 111 pt, 112 pt, 113 pt, etc. has been converted into service industrial zone.	To suit the existing site conditions and potentiality of the land.
	3.	Residential zone to the west of Mumbai-Bangalore bypass highway	The land bearing S. No. 114 and 283 converted to C1 commercial zone.	To suit the existing site conditions and potentiality of the land.
	4.	Agricultural zone	The S. Nos. 85, 90, 91, 115, etc. converted to local commercial zone C1.	To suit the existing site conditions and potentiality of the land.
	5.	Agricultural zone	Rest of agricultural land to the west of Mumbai – Bangalore Bypass highway except 100 m green belt along the Mula river to the south is converted to residential zone with amenity sites and necessary road network.	To fulfill the requirement of residential land on the basis of population projection and C1 commercial zone was proposed to account for sanctioned layout.
	6.	Residential zone	The residential zone in S. Nos. 133pt, 134 pt, 135 pt, 143 pt, 145 pt, 146 pt, 153 pt, 167 pt, 170 pt to the east of Mumbai-Bangalore bypass highway is converted to local commercial zone C1.	To suit the existing site conditions and potentiality of the land.
	7.	Residential zone in S. Nos. 121, 130pt, 131 pt, etc.	Partly reserved for Parking (Site No. 4/28) purpose.	To meet the requirements of adjacent C1 zone
	8.	Rest of the residential zone to the east of Mumbai – Bangalore highway	Partly reserved for amenities and necessary road network.	To meet the requirements for the said amenities.
		Punawale		
	1.	Agricultural zone to north of Mumbai-	Part of S. Nos. 10, 11, 52, 53, 54 to the east and	To suit the existing site conditions and

Sector No.	Sr. No.	Present Proposal as per Sanctioned Regional Plan / Development Plan	New Proposal	Remarks
		Bangalore bypass highway	S. Nos. 12, 13, 14 to the west of Mumbai Bangalore Highway has been converted to C1 commercial zone and industrial zone respectively	potentiality of the land and to meet the requirements.
	2.	Agricultural zone to south of Mumbai-Bangalore bypass highway	Remaining part of agricultural zone is partly converted to residential zone with necessary amenities and road network except for about 200 m wide green belt set back along the Pavana river.	To fulfil the requirements of residential land and amenities as per population projection and suit the site conditions.
		Ravet		
	1.	Public – Semi Public zone	Reserved for amenity sites such as Water Treatment Plant (Site No. 4/99), Primary School (Site No. 4/101) and EWS housing (Site No. 4/102).	To meet the requirements for the said amenities.
	2.	Residential zone	Partly converted to industrial zone (S. No. 74) and reserved partly for various amenity sites and necessary road network.	To meet the requirements for the said amenities.
	3.	Agricultural zone	Partly converted to C1zone, C2 zone, and residential zone with amenities, and necessary road network except for about 200 m wide green belt along river Pavana.	To meet the requirement of residential zone and amenities as per population projection and suit side conditions and potentiality of land.
	4.	No proposal shown in S. Nos. 156, 157, 158, 159, 160, 161, 177, etc.	The said land is partly shown under residential use in S. No. 156 pt, some portion of S. Nos. 156 pt, 158, 159 and 177 pt is under use of existing MIDC Ravet Water Works and is shown as public utility, and remaining land under defence use by Dehu Road Cantonment is shown as no development zone..	To suit site conditions and existing use.
		Kiwale		
	1.	Residential Zone to the north of Mumbai-Bangalore bypass highway	Partly reserved for various amenity sites and necessary road network.	To meet the requirements of the said amenities.
	2.	Agricultural zone to the south of Mumbai-Bangalore bypass highway	Partly converted to C1 zone, C2 zone, industrial zone, and residential zone with amenities along with necessary road network except for about 100-200 m wide belt along Pavana river.	To meet the requirement of residential land and amenities as per population projection and to suit the site conditions and potentiality of land.

Sector No.	Sr. No.	Present Proposal as per Sanctioned Regional Plan / Development Plan	New Proposal	Remarks
		Mamurdi		
	1.	Agricultural zone	Partly converted to industrial zone (S. No. 5) and remaining converted to residential zone with amenities and necessary road network except for about 100 m wide green belt along Pavana river.	To meet the requirement of residential zone and amenities as per population projection and to suit the site conditions.

TRAFFIC AND TRANSPORTATION INFRASTRUCTURE 1
8.1 Introduction 1
8.2 Regional Context 1
8.3 Traffic and Transportation Surveys 1
8.4 Travel Demand Forecasting 1
8.4.1 Estimation of Person trips 2
8.4.2 Combined OD matrix 4
8.4.3 Trip Assignment 4
8.5 Proposed Traffic and Transportation Infrastructure 5
8.5.1 Regional Plan Proposals 5
8.5.2 General Planning considerations 5
Regional Traffic 5
Connectivity to Village Gaothans 6
Site constraints and existing Structures 6
Accessibility to proposed residential areas and work centres 6
8.5.3 Hierarchy of Roads and Recommended Right Of Ways (ROW) 7
National Highways 7
Major Arterial Roads 8
Sub-arterial roads 8
Collector and Distributor roads 8
8.5.4 Truck Terminals 9
8.5.5 Bus Terminals/Stands 9
8.5.6 Railway Proposals 10
8.5.7 Parking 10
8.5.8 Integration of Project Roads with Surrounding Areas 11
8.5.9 Costing of Proposed Road Network 11

CHAPTER 8

TRAFFIC AND TRANSPORTATION INFRASTRUCTURE

8.1 Introduction

The transportation network is the lifeline of the urban area. It acts as a catalyst for development and determines the degree of accessibility of various land-uses such as residential areas, work centres and facilities. For a city to function efficiently, the transportation network needs to be well planned, efficient and cost effective. In order to assess the future requirements related to traffic and transportation infrastructure, it is necessary to estimate the future travel demand. This section describes the approach and methodology for traffic demand estimation, findings and proposals relating to traffic and transportation in the Planning area.

8.2 Regional Context

The traffic and transportation system for 18 newly merged villages of the Pimpri-Chinchwad municipal area should not be perceived in isolation and restricted to the limits of the proposed areas, rather it needs to be studied comprehensively with respect to the linkages with the existing PCMC area, regional traffic on National and State highways passing through the area and the entire Pune Metropolitan Area (PMA) at a broader level. This is important for effectively integrating the newly merged areas with the existing PCMC area in particular and the entire PMA region in general.

8.3 Traffic and Transportation Surveys

In order to gain a thorough understanding of the travel characteristics in the planning area, the consultants had conducted the traffic and transportation surveys as already discussed earlier.

8.4 Travel Demand Forecasting

It is a known fact that travel is a derived demand from the landuse distribution pattern. Therefore, travel demand and the travel pattern are

guided by the governing factors such as population, employment distribution, accessibility, vehicle ownership etc. In other words it can be said that future travel demand can be derived from the future distribution of population, employment and the characteristics of transportation facilities.

A comprehensive travel demand-forecasting model for projecting trip generation, trip distribution, modal split and trip assignment in the planning area has been used by the consultants. As the planning area including the existing PCMC area is an integral part of the greater Pune Metropolitan Area, the findings of a recent study on 'Feasibility of High Capacity Mass Transport System (HCMTS) for Pune Metropolitan Area 1998' have been adopted as the basis for developing the travel demand forecasting methodology for the planning area. The overall methodology is depicted in Exhibit 8.1.

8.4.1 Estimation of Person trips

The consultants have used a specialised transportation software package 'SATURN' to derive zone to zone travel time matrix, shortest paths, trip generation and trip assignment. Relationships between planning parameters (population, employment and education enrolment) and travel demand as established in the HCMTS study have been adopted for generating the Origin-Destination matrix in terms of the number of person trips.

Traffic Zone Scheme

In order to build an Origin-Destination (OD) matrix the area under consideration is divided into smaller geographic units. Accordingly, the planning area (newly merged villages) was divided into 20 traffic zones and remaining area of the PMA was consolidated into 34 zones.

Road Network Details

As discussed earlier, travel demand is function of the road network characteristics. A detailed road network (consisting of links, nodes, traffic zones and centroids) including their characteristics such as speed, length and widths was prepared for the entire planning area.

Trip Generation (Trip Productions and Attractions)

The equation system that was developed for work, education and other

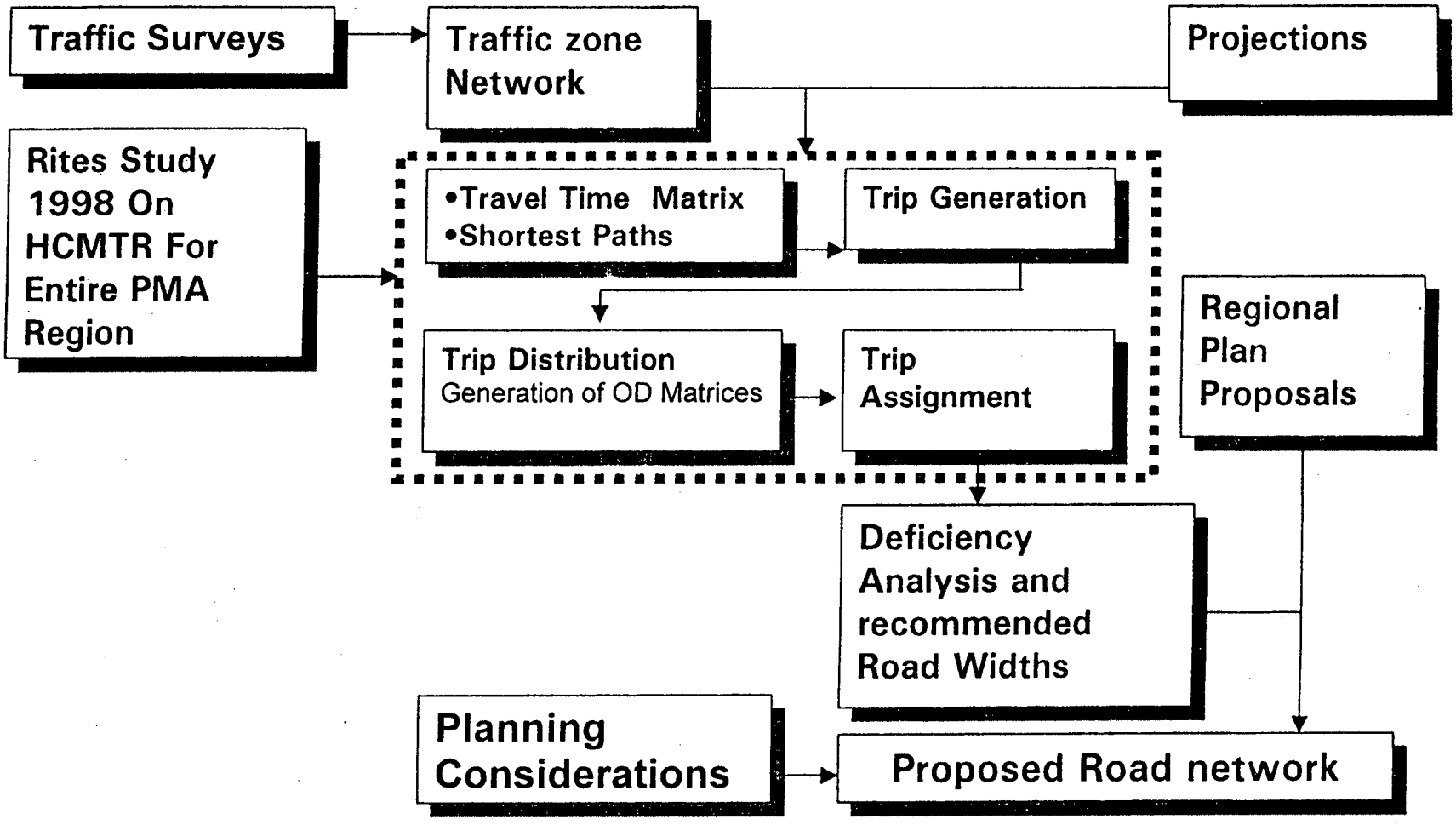


Exhibit 8.1 Travel Demand Forecasting

purpose trips in terms of person trips during HCMTS (1998) was applied to estimate the future trip productions and attractions of the traffic zones. Table 8.1 presents the equation system for ready reference.

Table 8.1 Trip Generation Equations

Trip Category	Dependent Variable (x)	Equation
Work Production	Population	Y= -104.7+0.534x
Work Attraction	Employment	$Y=1271.4+1.897x-6.735E-05x^2+4.9238E-09x^3$
Edu. Production	Population	$Y=-173.6+0.380x+1.070E-06x^2$
Edu. Attraction	School Enrolment	Y= 281.9+2.153x
Other Production	Population	Y= -1387.6+0.248x
Other Attraction	Employment	$Y= 1380.8-0.17357x+4.803E-05x^2$

Trip Distribution

Trip distribution is a process of estimating OD (Origin-Destination) matrix from trip ends (trip productions and attractions). The model adopted for trip distribution is a doubly constrained negative exponential model.

The form of the model is:

$T_{ij}= A_i B_j O_i D_j e^{-\beta t_{ij}}$
T_{ij}= Trips from zone i to j
A_I= Balancing factors for column total
$= \Sigma (B_j D_j e^{-\beta t_{ij}})^{-1}$
B_j= Balancing factors for row total
$= \Sigma (A_i D_j e^{-\beta t_{ij}})^{-1}$
O_i, D_j = Productions and Attractions respectively
β= Calibration parameter
t_{ij}= Travel time from zone i to zone j (deterrence factor)

The calibration parameters used are listed in Table 8.2.

Table 8.2 Calibration Parameters

Trip Purpose	Calibration Parameter
Work	7.431996E-002
Education	1.639802E-001
Other	9.672503-002

The future purpose-wise OD matrices for person trips during 24 hours was estimated using the above equation system and the trip ends. These OD matrices when added together resulted in a total OD matrix for person trips. The modal share and the average occupancy of the vehicles observed during HCMTS study were applied to the person OD matrix to develop mode-wise OD matrices and then mode-wise PCU factors were applied to these matrices to express the OD matrix in terms of PCUs. The modal shares, average vehicle occupancies and the PCU factors considered are listed in Table 8.3.

Table 8.3 Modal shares, average vehicle occupancies and the PCU factor

Mode	Modal Share (%)	Average Vehicle Occupancy	PCU Value
Car	2	2.4	1
Two-wheeler	18	1.7	0.5
Auto-Rickshaw	6	2.7	0.75
Bus	26	60	3.5

Estimation of Goods Traffic

The goods OD matrix in terms of PCUs was developed based on the traffic surveys that were conducted as part of this study in April 1999. From the past studies, it was observed that there is a growth of around 8% per annum in the truck movement. The goods OD matrix in terms of PCUs is updated using this growth rate for the horizon year.

8.4.2 Combined OD matrix

The goods and the person trip matrices were added together to generate the combined OD matrix in terms of PCUs in 24 hours. In practice, the major road network is designed to meet the peak hour demand that is generally taken as 10% of the 24 hour traffic.

8.4.3 Trip Assignment

The horizon year-2021 peak hour origin-destination (OD) matrix derived from zones-wise trip productions and attractions was then assigned to the shortest zone to zone paths in order to estimate traffic loading on individual road links in terms of PCU during peak hour per direction for the horizon year. The deficiency of the link capacity was evaluated using the future traffic on the road links.

8.5 Proposed Traffic and Transportation Infrastructure

Transport network proposals for the development plan have been formulated on the basis of future traffic projections, proposed road network of the regional plan, present accessibility of land parcels and site factors.

8.5.1 Regional Plan Proposals

According to the sanctioned Regional Plan for the Pune Metropolitan area, the alignment of new roads shown shall be considered as tentative and necessary changes in alignment, if warranted, could be made at local level. This should be done after studying the site conditions and after consultation with the Planning authority. As per section 27 of the MR& TP Act 1966, it is necessary to have due regard to the proposals of the Regional Plan, while framing the proposals of draft development plan. Giving due consideration to both the above requirements, the consultants have carefully studied the Pune Metropolitan Area regional plan proposals relating to the planning area and have incorporated major proposals relating to the alignment of the section of the new Mumbai-Pune expressway and other major arterial and sub-arterial roads in the proposals. However, additions and alterations have been made according to site conditions and results of the travel demand-forecasting model.

8.5.2 General Planning considerations

Regional Traffic

The Mumbai -Pune National Highway along with the Pune-Nashik and Pune-Alandi highways passes through the Planning area and carry heavy regional traffic. It is important to control and restrict access to these highways from traffic generated from abutting land uses within the planning area. The proposed road network along the highways has been designed to minimise access and avoid unnecessary delays and congestion. Service roads have been recommended along all stretches of highways passing through the Planning area and have been incorporated in the proposed Right of Way (ROW).

Connectivity to Village Gaothans

Gaothans are centres of concentration of the village population and are likely to act as important growth nuclei within the planning area. Providing proper connectivity to village Gaothans has been an important planning criteria in the design of the proposed road network. Collector/ distributor roads have been proposed to provide effective connectivity to Village Gaothans in the Planning area. As far as possible, roads are proposed along the village boundaries. Advantage with this type of arrangement is that physical boundaries are clearly defined for any administrative purpose.

Site constraints and existing Structures

Existing land use information depicts the location of the structures, water bodies and other site conditions. While proposing new alignments/extra widening of roads and ROW, site constraints such as topography and the presence of existing built-up structures have been given important considerations.

Accessibility to proposed residential areas and work centres

The proposed residential areas and work centres would act as generators and attractors of trips within the Planning area. The proposed road network of arterial and sub-arterial roads is designed to provide effective connectivity between these areas. The internal network of roads within the residential areas would however seek to prevent through traffic.

Road Intersections

Care has been taken to avoid the staggered and skewed junctions while proposing new roads as this type of junctions offer deterrence to the smooth movement of traffic. In most of the proposed road network, grid pattern with right-angled junctions is adopted, as this type of pattern presents a good level of accessibility to the neighbourhood land parcels. Though it is not taken as mandatory, a minimum distance of 250 m between two junctions on the National and State Highways has been adopted while proposing new roads.

8.5.3 Hierarchy of Roads and Recommended Right of Ways (ROW)

National Highways

These roads mostly carry heavy interstate traffic. Therefore, they need to cater to provide high-speed profiles and good capacity levels. NH4 and NH50 (to Nashik) are the National Highways passing through the newly merged areas.

Within the study area, NH4 splits into two different roads.

i) NH4 Bypass (Mumbai-Bangalore Highway)

ii) NH4 via Dapodi (Mumbai-Pune Highway)

NH4 bypass road passes through villages Ravet, Kiwale, Punawale and Wakad. At present, through traffic is predominant on this road. A 90 metre wide high speed Mumbai-Pune Expressway joins this road at Kiwale village. Due to this reason, there will be heavy and high-speed traffic on this road. Also local traffic consisting of two-wheelers and cars can be anticipated due to future developments in the villages adjacent to this road. This leads to vast heterogeneity in the traffic mix that may aggravate the possibilities of fatal accidents. In order to avoid the accidents due to the varied speeds and sizes of vehicles in the traffic mix and to provide a facility for the internal movement of local traffic, roads with 12 metres ROW are proposed on both sides of the NH4 bypass road and Mumbai-Pune Expressway. These parallel roads will be constructed and maintained by PCMC. Therefore, effective ROW for NH4 bypass becomes 84 metres (60+2*12).

NH4 via Dapodi is a main line road running across the PMC and PCMC areas mostly passing through densely developed residential and commercial areas. Therefore, mixed traffic consisting of heavy trucks and lighter traffic such as two-wheelers and cars can be observed on this road. Keeping in mind the future developments in the area and constraints on the land availability, 42 metres right of way at Dapodi is adopted as proposed in the existing DP of PCMC. However, beyond CME area this road is proposed to achieve 61 m ROW. Therefore, to maintain uniformity in the total capacity of the road in that direction, an additional parallel road with 30 metres ROW is proposed. This parallel road meets at a place where the NH4-via Dapodi becomes 61 metres.

NH50 Pune-Nashik road is proposed to have 60 m ROW that includes service roads.

Major Arterial Roads

Major Arterial roads will be primary carriers of inter-city and inter-regional traffic. Existing Pune-Alandi, and East west connection (SH 58) passing through Talwade connecting Nashik road and Alandi Road fall in this category. As proposed in the Regional Plan, 60 metres ROW is considered for these roads. These roads carry regional traffic and local traffic. Therefore, service roads are proposed on both sides within the 60 metres ROW to segregate the local traffic from interfering with through traffic.

Sub-arterial roads

Sub arterial roads form the next level of hierarchy of roads in the Planning area. Old Mumbai-Pune Road via Aundh Chest Hospital falls in this category. These roads generally allow the inter-sectoral movements within the planning area. For this category of roads ROW of 30 metres and 45 metres are proposed depending upon the situation. Most of the RP roads in this category are with 30 metres ROW.

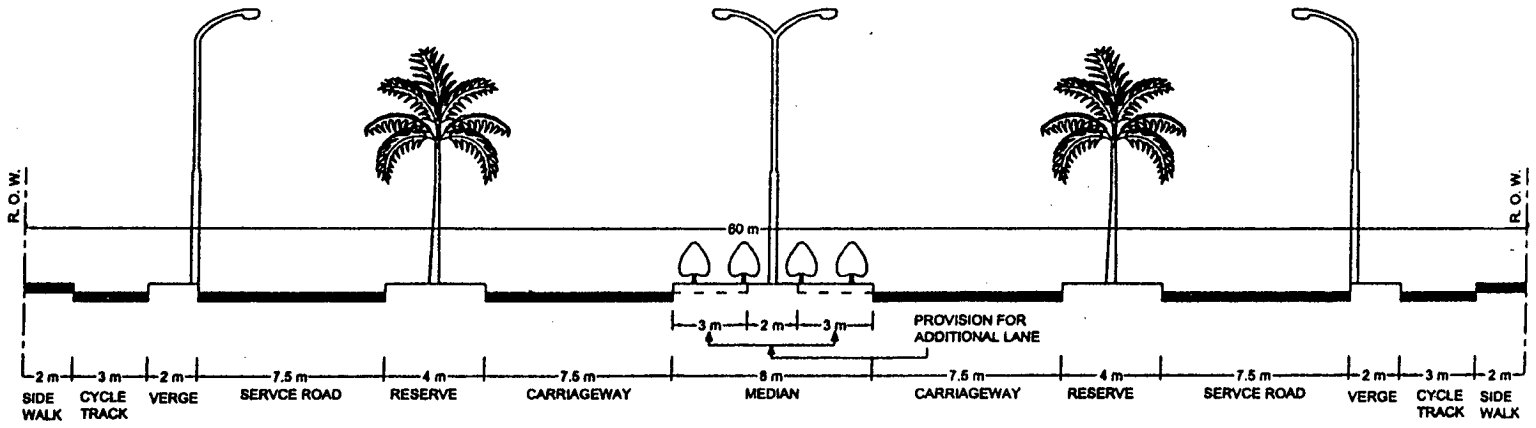
Collector and Distributor roads

The collector and distributor roads would be the principal approach roads serving the residential neighbourhoods and village Gaothans. Proposed ROW for this type of roads are 24 metres and 18 metres based on the situation.

Access roads

The access roads will provide access to individual plots within the residential neighbourhoods. The proposed 12 ROW will have a 2-lane wide carriageway with 2m wide shoulder on either side.

Table 8.4 gives the ranges of existing and projected traffic on the roads according to their hierarchies within the planning area. Proposed cross sections of the roads are depicted in Exhibit 8.2 (A) and 8.2 (B).



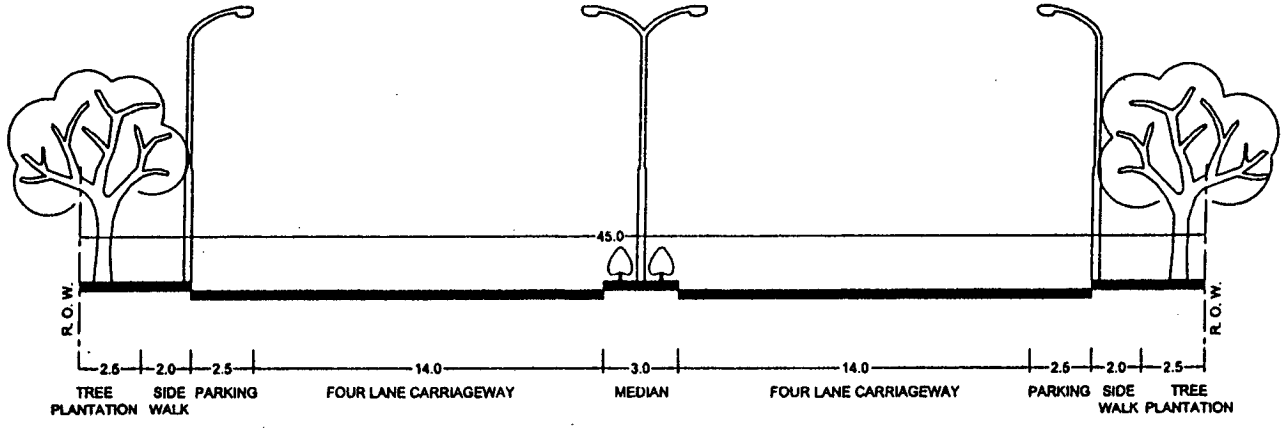
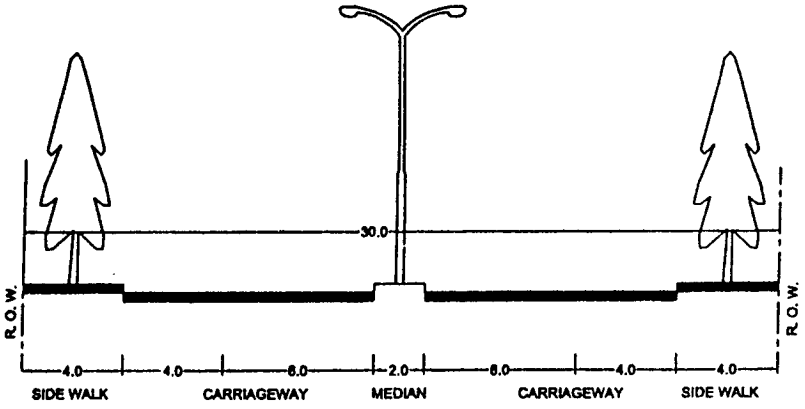
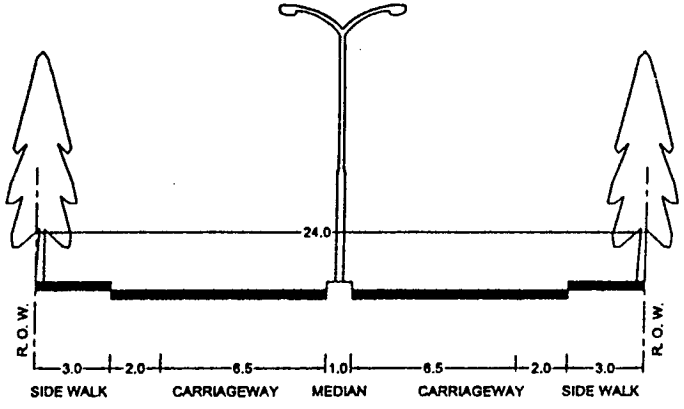


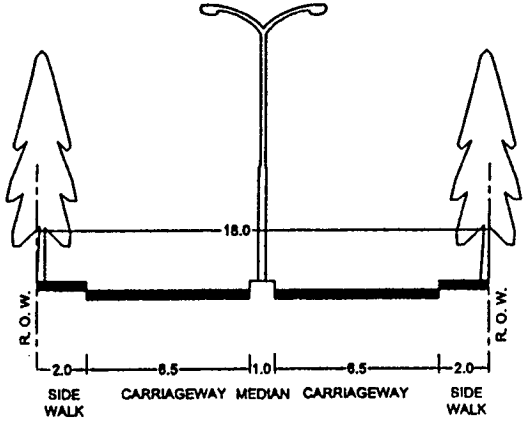
EXHIBIT 8.2 (A) - TYPICAL CROSS-SECTION OF THE PROPOSED PCMC ROADS

0 5.0 m

All Dimensions are in metre







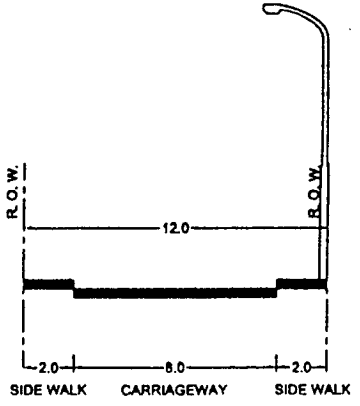


EXHIBIT 8.2 (B) - TYPICAL CROSS-SECTION OF THE PROPOSED PCMC ROADS

0 5.0 m

All Dimensions are in metre

Table 8.4 Average projected traffic and proposed ROW of major roads

Type of Road	Present Traffic (1999) (PCUs/Hr)	Projected Traffic (2021)	Average Projected Traffic (2021) (PCUs/Hr)	Proposed ROW (m)
Collector/ Distributor	100-500	1200-1800	1500	18 &24
Sub Arterial	500-1000	1800-2400	2100	30 & 45
Arterial & NH	1000-5000	2400-11000	2800	60 & (60+24) =84

8.5.4 Truck Terminals

Proposals for truck terminal facility locations as suggested in the regional plan have been adopted and earmarked. However, a truck terminal that was previously proposed at Dapodi is withdrawn due to the pressure for the land for other uses. However regarding the need of truck terminals in the planning area the other locations have been retained. The locations of truck terminals have been shown in the proposed landuse map.

8.5.5 Bus Terminals / Stands

In the present situation, public transport facilities in these fringe areas are very poor. However, usage of 6-seaters and jeeps reveals that there is a latent demand for bus transport in future. Moreover, in future, according to the projected population and traffic figures it is mandatory to provide proper public transport facilities, otherwise there will be threat of steep increase in the vehicle ownership levels in these areas leading to unhealthy traffic conditions.

All the villages are provided with either bus terminals or major bus stands. Adequate area (0.15-0.20 ha) is allocated for this purpose based on the request from Pimpri-Chinchwad Municipal Transport (PCMT). Bus terminals are located in the vicinity of developments. A typical Bus terminal should accommodate the following facilities.

(i) Post box (ii) Garbage/Waste box (iii) Rest room for driver/conductor (iv) Drinking water facility (v) Toilet

Some shopping and second order commercial activities may be allowed for commercial exploitation by property development. By leasing/selling the built-up space within the bus terminal area would give financial support in constructing and maintenance of the bus terminals.

8.5.6 Railway Proposals

There is a significant interaction in terms of passenger and goods movement between Nashik, Lonavala and Pune at the regional level. In this regard, there is a proposal from the Central Railway to provide a rail connection between Nashik and Pune. The proposed alignment follows the existing Pune-Lonavala railway line upto Begdewadi and beyond that deviates from the main line towards east. Due to this new railway connection, there will be additional pressure in terms of extra rail traffic on the main line between the stretch of Pune and Begdewadi. In order to handle this extra traffic and to provide better mobility between Pune and Lonavala, Central Railway has proposed quadrapulation of the present railway line between Pune and Lonavala. Therefore, in certain stretches, additional land is required for extra railway tracks. In our planning area, Mumbai-Pune railway track passes through Dapodi, Kiwale and Ravet. As the exact land requirement for railway purpose is not yet finalised for acquisition at survey plot levels, a buffer of 25 metres land strip along the present railway track on the southern side is reserved for railways in the planning area.

8.5.7 Parking

Vegetable markets and places of commercial and recreational activities attract pedestrian and vehicular traffic. In such places, on-road parking is commonly observed in urban areas reducing the effective width and capacity of the carriageway and causing a hindrance to safe movement of vehicles and pedestrians. In order to minimise congestion at market areas and to allow proper traffic management, off-road parking areas are proposed and adequate space is reserved in the vicinities of high traffic attractors. However, in the higher order commercial (C2 type) and industrial zones, it is recommended that they should be self sufficient to meet the parking requirements on their own. Therefore, exclusive off-road parking areas are not planned in these areas. It is suggested that off-road parking facilities may accommodate the rickshaw stands also.

Off-road parking provision for private and public vehicles are made especially in the vicinity of Dapodi railway station, concentrated shopping centres-cum-market, other commercial complexes, and other traffic generators at the rate of 25 sqm per P.C.U.

8.5.8 Integration of Project Roads with Surrounding Areas

In order to have safe and continuum in the traffic movement between the surrounding areas and the fringe villages, it is essential to integrate the roads with the existing/proposed roads of the adjoining areas. The present planning area is surrounded by the old PCMC area, PMC area, Defence land, PCNTDA area and natural boundaries like Indrayani, Mula and Pavana rivers. To ensure the connectivity and proper accessibility of the newly merged areas with the adjoining areas, consultants have studied the proposals made by Regional Plan, PCMC DP, PMC DP and other relevant proposals. Proposals in the present DP for major roads connecting different geographical units are guided by the aforesaid proposals. Table 8.5 presents the right of ways of the road connections proposed to the adjoining areas and their compatibility.

8.5.9 Costing of Proposed Road Network

In the present study, preliminary estimates of implementation cost of the road network within the planning area have been carried out and are presented in Table 8.6. These values basically act a guideline to understand the cost of road infrastructure at village level since these estimates are done at a macro level using block costs. Therefore, it is recommended that detailed cost estimation should be done before the actual implementation of a particular road.

The estimated cost of the proposed roads in the entire planning area is approximately Rs. 788 crores. Out of which, the land acquisition cost is estimated to be Rs. 95 crores and construction cost as approximately Rs. 693 crores. In general, 8-9 % of total study area is considered to be accommodating a good circulation system. However, in the present case the gross area reserved for road purpose is around 9.66 Sq. Km that represents 11.5% of the total study area ensuring sufficient land reservation for safe and smooth traffic movement.

Table 8.5 INTEGRATION OF ROAD NETWORK WITH SURROUNDING AREAS

Village	Surrounded by	ROW (metres)	Remarks	Proposal of
Wakad	PMC, PCNTDA, Hinjewadi, Tathawade and PCMC	45	Connecting Hinjewadi Software Technology Park to Old Mumbai Pune Road across PCMC	MSRDC
		30	To Hinjewadi	Regional Plan
		30	To Hinjewadi	Regional Plan
		36	To Hinjewadi	Regional Plan
		18	To PCNTDA	Regional Plan and PCNTDA
		18	To PCNTDA	Regional Plan
		84(60+24)	Mumbai-Pune NH4 bypass	Regional Plan and PMC DP
		24	Towards Gaothan of Wakd from PCMC	PCMC DP
		45	Connecting to Old Mumbai PuneHhighway	Regional Plan
		45	Connecting to Old Mumbai Pune highway along the boundary of PCNTDA within Wakad	Regional Plan
Punawale	PCNTDA, Tathawade and PCMC	30	Across Pavana River towards PCNTDA area in Ravet	PCNTDA
		84(60+24)	Mumbai-Pune NH4 bypass	Regional Plan
		30	Old Mumbai-Pune road	Regional Plan
		30	To Marunje village	Regional Plan
Ravet	PCMC, PCNTDA	45	To proposed 90 m ring road	MSRDC
		90	Ring Road	PCNTDA
		24	PCNTDA	PCNTDA
		30	Old Mumbai-Pune road	Regional Plan
Mamurdi	Dehu Road, PCMC	114 (90+24)	Mumbai-Pune Expressway	MSRDC
		18	Dehu Road	Regional Plan
Kiwale	PCMC, PCNTDA, Dehu Road	114 (90+24)	Mumbai-Pune Expressway	MSRDC
		84(60+24)	Mumbai-Pune NH4 bypass	Regional Plan and PMC DP

Village	Surrounded by	ROW (metres)	Remarks	Proposal of
Talwade	PCNTDA, Dehu Road, Indrayani River	30	Dehu-Alandi Road	Regional Plan
		30	To Dehu Road	Regional Plan
		18	Connecting to Dehu Alandi Road in Talwade	Regional Plan
		24	Connecting to 90 m ring road	Regional Plan
		24	Connecting to Mumbai-pune highway in PCNTDA	PCNTDA
Chikhali	PCNTDA, Indrayani River	30	Connecting PCNTDA near Morevasti	PCNTDA
		30	Connecting PCNTDA near Kudalewadi	PCNTDA
		30	Connecting PCNTDA near Jadhavwadi	PCNTDA
		30	Across Indrayani river to Moi village	Regional Plan
Moshi	PCNTDA, Indrayani River	60	Pune Nashik Road across Indrayani river and PCNTDA	Regional Plan
		30	From Pune Nashik Road to PCNTDA	PCNTDA
		30	From Pune Nashik Road to PCNTDA	PCNTDA
		45	Along the boundary of Moshi and Bhosari to PCNTDA	PCNTDA
Dudulgaon	Indrayani River	30	Dehu-Alandi Road to Alandi	Regional Plan
Choviswadi	PCNTDA	60	Pune-Alandi Road to Alandi	Regional Plan
Charholi	Indrayani River, Defence Area	24	To Dhanore across Indrayani river	Regional Plan
		90	Ring road to Wadgaon Shinde	Regional Plan
		30	To Lohegaon	Regional Plan
		30	To Lohegaon	Regional Plan
		24	To Dhanori	Regional Plan
Dighi	Defence Area, PCNTDA	24	To Dhanori	Regional Plan
		60	Pune Alandi Road	Regional Plan
		15	To PCNTDA in Bhosari	Regional Plan
		24	To PCNTDA in Bhosari	Regional Plan
Dapodi	PMC and existing PCMC area	42	Mumbai-Pune Highway via Dapodi	Old PMC DP
		30	Across Mula	Old PMC DP
		20	To Sanghvi	Old PMC DP
Rakshak Society		18	Connected to Pimple Nilakh	PCMC DP

Table 8.6 Estimate of Implementation Cost of Road Network

Revenue Village	Length (m)	Total Area (Sq. m)	Acquisition Cost (Rs. Lacs)	Construction Cost (Rs. Lacs)	Total Cost (Rs. Lacs)
Talwade	40959	801793	768	5499	6266
Chikhali	52383	1144464	1086	7725	8811
Moshi	42786	1242524	1210	8770	9980
Dudulgaon	17121	354175	350	2567	2917
Wadmukhwadi	28389	728581	760	5754	6514
Dighi	14171	300333	290	2083	2373
Dapodi	6532	168962	129	762	891
Wakad	25196	814652	761	5356	6118
Punawale	20981	546948	534	3873	4407
Kiwale	24998	811558	692	4522	5214
Mamurdi	11395	243340	264	2047	2311
Chowiswadi	14542	358914	384	2957	3341
Charholi BK.	47959	1460861	1551	11870	13421
Bopkhel	6542	100356	102	760	862
Ravet	20910	586341	621	4746	5367
Total	**374864**	**9663801**	**9502**	**69292**	**78794**

SOCIAL AMENITIES AND UTILITY SERVICES....1
9.1 General....1
9.11 Planning Sectors....1
9.2 Recreational Facilities....2
9.3 Educational Facilities....3
9.3.1 Primary Schools....3
9.3.2 Secondary Schools....3
9.4 Health Facilities....4
9.5 Shopping Centre and Market....5
9.6 Library and Community Centre....6
9.7 Cremation Grounds / Burial Grounds....6
9.8 Fire Brigade Stations....7
9.9 Utility Services....7
9.9.1 Water Supply....7
9.9.2 Sewerage Facilities....8
9.9.3 Electricity....9
9.10 Colour Code....10

CHAPTER 9

SOCIAL AMENITIES AND UTILITY SERVICES

9.1 General

While ensuring orderly development by prescribing land use zoning, by proposing traffic - transportation network and by exercising development control, the Development Plan also aims at creating an environment, enabling the residents to enjoy the desired standard of living conditions. The social amenities and the basic infrastructure facilities play an important role in this regard. The Government has accordingly laid down certain norms or standards for various social amenities comprising of educational, health, recreational facilities in terms of area and the number of sites to be provided for the probable projected population in the next ten years, to be distributed amongst the different sectors in the planning area. The planning standards as approved by the Steering Committee, are being adopted for the purpose of reservation of sites for various public amenities, as shown in Appendix 9-A annexed hereto.

9.1.1 Planning Sectors

The total planning area comprising of the newly merged villages has been divided into four sectors, as already described in the earlier chapter. Barring village Dapodi, which was previously within the Pune Municipal Corporation area and now in the Planning area, for which the Sanctioned Development Plan already exists, all the other villages will be covered, for the first time, by the Statutory Development Plan provisions, once the present Draft Development Plan is published and subsequently sanctioned by the Government. While deciding various planning proposals for Dapodi, comprising of reservations of sites and circulation pattern, they are mostly retained with slight modifications, wherever considered necessary. Some additional proposals have also been made in this sector keeping in mind the projected population of the year 2011 and the approved planning standards. Although applicability of the planning standards cannot be achieved to fullest extent, in Dapodi due to its limited area and the congested nature of development in this sector, in respect of other sectors, efforts have been made to make various proposals on the basis of the approved planning standards, duly honouring sectorwise population distribution, site conditions and proper spatial distribution of the amenities. Appendix 9-B annexed hereto gives the details about every site, reserved in

the Draft Development Plan. The table also gives details about the S. No. /Gat No. of the site, its area, approximate cost of its procurement and probable cost of its development. The Appropriate Authority, for whom the site is reserved in the Development Plan, in terms of allocation of responsibility for acquisition and development of the site, has also been shown in the said table. Each of the sites so reserved has been distinctly shown on the draft Development Plan, with red verge, indicating the purpose and its number corresponding to that shown in the table of reservations. All the sites have also been washed in specific colours as per the standard colour code described in heading 9.10 given below.

9.2 Recreational Facilities

This provision includes public parks, play grounds other small open spaces like children's park, children's playgrounds, nature reserves, places of scenic beauty, riverfront development, etc. In the present planning area, recreational facilities in the form of gardens/parks, public playgrounds, etc., are totally absent except a small garden developed by PCMC at village Wakad, to the west of the gaothan. It is generally observed that small size sites of a few hundred sq. m. or so, situated in scattered manner for tot lots or Children's parks/playgrounds, may not prove to be of much use from the utility point of view and are mostly misused for dumping household waste or encroached by anti-social elements, in the absence of proper control. In these circumstances, it is considered proper to provide this facility in the form of Gardens / Parks, playgrounds of a sizable area, of atleast one each for the smallest planning unit (each village), in a well distributed manner to ensure/achieve optimum utilisation. As regards the small recreational spaces, the layout open spaces could be conveniently used for the purpose of Children's park, children's playgrounds, etc., and as such no separate reservations for such small sites are considered necessary. The areas enjoying the potential of being developed as places of scenic beauty or such other locationally important sites along the rivers having special potential of attracting people for their recreational requirements have been earmarked for the purpose of recreational sites or riverfront recreational cum picnic centres, etc., (refer Exhibit 9.1, 9.2 and 9.3 for these sites in Talwade, Moshi and Punawale respectively).

9.3 Educational Facilities

9.3.1 Primary Schools

Primary School going children generally constitute 15% of the total population. Although the Municipal body is mainly responsible for providing this facility, private institutions also play a major role in this regard. Moreover, according to the provisions of land use classification and permissibility of activities in various zones, educational facilities are permissible in residential zones and as such there is every possibility that interested parties can develop suitable plots in residential zones for primary schools. Considering this fact reservation of sites for primary schools are made in the Development Plan, on the basis of 75% of the primary school students, worked out at 15% of the population.

In almost all the newly merged villages, primary schools run by PCMC or private institutions exist in gaothans or in close vicinity thereof. The schools, previously run by the Zilla Parishad are now under the control of the Municipal Corporation. However this facility in its present form is inadequate in terms of their number, area, play grounds facilities, etc. Further most of these schools are either run in shifts. In order that primary school going children can have access to cultural and extra curricular activities including physical training, etc., it is necessary to have sites of adequate size (barring schools in congested areas where availability of vacant sites of the prescribed size is remote) so as to have an attached playground and as far as possible they are run in one shift.

The planning standards as adopted for this facility include the area of the school building at the rate of 5 sq.m. per student as well as an attached playground of the size of 3 sq.m. per student. As such every site so reserved will be a composite site for the school building and an attached playground and only the part of the site relating to the building needs to be considered for the purpose of construction of school building. The Planning Authority will be mainly responsible for developing the primary school sites. However reputed institutions engaged in the educational field could be allowed by the Planning Authority to develop such sites on the terms and conditions mutually acceptable.

9.3.2 Secondary Schools

Secondary School going students are considered at the rate of 10% of the population. In view of the fact that secondary school education does

not form an obligatory duty of the Municipal Corporation this facility is expected to be provided and catered by private institutions. However, with a view to achieve proper distribution of sites, and to make adequate facilities available within reasonable walking distance, necessary sites at suitable locations have been reserved in the Development Plan. Further, looking to the role played by private institutions in developing secondary schools, only 50% requirement is considered for reservation of these sites. Though such reservations are shown in favour of PCMC as the appropriate authority, in the Development Plan, the same after acquisition could be made available to interested reputed educational institutions on lease for the construction of school building, subject to the terms and conditions mutually acceptable. Alternatively, PCMC can issue a "No Objection Certificate" to such interested private bodies for acquisition and development of secondary school sites. The residents would then be ensured of the amenity at appropriate locations, without any appreciable cost to the planning authority. As regards the remaining 50% requirement, the private bodies could have a choice to select suitable plots from the residential zone, in consultation with the planning authority for the purpose of this facility.

At present a few secondary schools exist in the planning area. Secondary schools located at Wakad and Bhosari are run by the PCMC. Since the school complex at Bhosari, located on the Mumbai-Pune Highway is quite isolated with respect to the present planning area, it is of little use as an amenity to the same. There is one secondary school located within the premises of the Aundh Chest Hospital Colony and one adjacent to it which are also of not much use to the remaining planning area, in view of their remote location therefrom. Private secondary schools exist at Dapodi, Bopkhel, Dighi, Charholi BK., Moshi, Kiwale, etc., but their premises are mostly inadequate in terms of their size, playground facility, etc.

Reservations of sites for secondary schools have been made on the basis of 15 sq.m. per student (4 sq.m. for school building and 11 sq. m. for play ground) The number of students per school would be 1000 to 1200 and the site area would be about 1.8 Ha.

9.4 Health Facilities

Health facilities have been considered under the categories of dispensaries, maternity homes, and hospitals run by public bodies. These facilities are mostly absent in the planning area. The Aundh Chest Hospital at village Sangavi run by State Govt. offers specialised as well as

general medical facilities to the residents. However, considering its isolated and remote location with reference to almost the entire planning area, the same is of very little use to the existing as well as the projected population thereof. There are also two Health Centres located at Charholi BK. and Moshi run by the Zilla Parishad.

As in the case of educational facilities, the role played by private institutions is quite large in the provision of health facilities and such for the purpose of making reservations in the Development Plan, only 50% of the population has been considered for being catered by the public bodies.

It has been assumed that a hospital will include the provision of a maternity home and a dispensary. Most of the reservations in the Development Plan for health facilities, other than hospitals have been made for the composite user of dispensary and maternity home, at the rate of one site of .25 Ha for 20,000 population or of a slightly lesser size for the small planning units of a few thousand population. As regards hospitals, one General Hospital, of about 2 to 2.5 Ha has been proposed for 1,50,000 population.

9.5 Shopping Centre and Market

The city has been expanding in all directions during the last few years and the present planning area which is in the form of an outer ring of the old area, is experiencing tremendous pressure of population growth. However, in the absence of any organised shopping facilities catering to the day to day needs of the residents, they are required to depend largely on the existing facilities in the congested parts of the city. This leads to long trips for the residents from the peripheral areas to the already congested central part for their shopping and marketing facilities.

With a view to provide these facilities in the peripheral developing areas and also to create job opportunities for the educated unemployed, it is proposed to develop sites for shopping centres and markets in different parts of the planning area, at suitable locations. Composite reservations for "Shopping Centre and Market" have generally been made in the Development Plan, which will provide for vegetable and fruit market / mutton market, and other pucca shops. In addition to providing this badly needed facility for the residents of the area the same would also allow a rightful new place for persons carrying out business by encroaching upon roads, etc. A separate site for parking purposes is also reserved adjacent to each shopping centre and market site.

At the rate of 0.2 ha per site, this reservations has been made for every

50,000 population. For small planning units slightly smaller sites have also been proposed. Though not specifically mentioned in the planning standards, it could be assumed that the Shopping Centre and market would respectively share 50% of the reservation area, allowing a slight variation in the above proportion depending upon the site conditions and circumstances. The shopping centre part of the reservations would be subject to the provisions of accommodation reservations, wherein the landowner would be entitled to develop the reservation on the terms and conditions as specified.

To avoid encroachments on roads for informal sector economic activities, one retail market site of about 0.1 ha is suggested for each formal shopping centre and market of 0.1 ha / C1 commercial zone. The location of such sites is sligthly away from the road junctions to avoid traffic congestion. At the time of development, this site is to be laid out with proper internal movement space and small shop layouts and the space utilisation will only be at the ground floor level (the size of shops could be either as per provisions of UDPFI guidelines or as decided by the planning authority). These units of shops can then be either sold or rented or leased to ensure income from the informal sector commercial activities.

9.6 Community Centre and Library

Adopting the standard of one site for 20000 population, such sites for the combined user of "Community Centre and Library" have been proposed in the Draft Development Plan in a well distributed manner, so as to serve the prospective population spread over 4 sectors and 15 planning units. The buildings could be used as a multipurpose community meeting place cum library. For smaller planning units with a population less than 20,000, small size sites of 0.05 Ha (as against the normal size of 0.1 Ha) have been proposed so that a multipurpose hall in such sites would serve various cultural needs of the community.

In respect of bigger planning units, with population more than 50,000 or so reservation for a Town Hall combined with a central library having a site area of 0.5 ha has been proposed. Social, cultural, recreational needs of the people will be taken care of by such reservations.

9.7 Cremation Grounds / Burial Grounds

It is generally observed that lands along rivers /nallahs near the village gaothans are used for cremation purposes. At some places sheds with

burning facility exist but they are either inadequate or inaccessible, particularly in the rainy season. Suitable sites of 0.1 ha each (site layout to include sheds, small garden, and parking), at proper location in keeping with the present practice in this regard, have been reserved in the Development Plan so as to make this facility available to every planning unit of the planning area. As regards burial grounds, reservations have been made in the Development Plan, on the basis of demands so received in this regard.

Also from the environmental improvement perspective, it would be good to encourage the residents to avail facilities of electric creamatorium, and hence one in each sector are proposed at Moshi, Charholi BK, Dapodi and Ravet. These sites are suggested to be about 0.4 ha in size (site layout to include crematorium building, garden, toilets, and parking).

9.8 Fire Brigade Stations

Adequate number of sites for Fire Brigade Stations with residential accommodation for essential staff have been provided in different parts of the planning area on the basis of one site of 0.4 Ha to 0.6 Ha per one lakh population. Specific requirements of the PCMC have also been taken care-of while selecting the locations to enable the fire fighting squad to reach the desired spot within the shortest possible time.

9.9 Utility Services

9.9.1 Water Supply

With the inclusion of vast areas in the PCMC limits, by way of the newly merged villages, the aspirations of the people, residing therein have increased many folds to avail of better infrastructural facilities and accordingly pressure is mounting on the Civic authority to get them fulfilled. With a view to improve the existing water supply facilities and to bring the entire extended area within its ambit, PCMC has prepared a comprehensive scheme with the help of M/s. Task Consultants. Such a scheme is prepared and has been submitted to PCMC in April 1999.

The PCMC Water Supply Scheme –III intended for identifying immediate works of water supply for the newly merged villages was reportedly necessitated due to following two developments:

(i) Merger of 18 villages within the PCMC limits and therefore the provision of water supply became the responsibility of PCMC

(ii) Irrigation Departments agreement to spare another 100 mld. of water from river Pavana (in addition to 228 mld. already allocated).

Thus the new project aims at:

(i) using optimally the quota of 328 mld. from river Pavana in entire PCMC area

(ii) extending the water supply scheme works to the newly merged villages.

The project accordingly includes the following main works:

(i) New intake works to draw 100 mld water from river Pavana

(ii) Raw water pumping machinery

(iii) Raw water pumping main

(iv) New water treatment plant (WTP)

(v) Clear water conveyance from this WTP to integrate the new works with the existing system.

(vi) Extending water supply to the merged villages from the integrated water supply scheme of PCMC.

Out of the newly merged villages, some of them are situated on the bank of the river Pavana and some on the river Indrayani. Considering the location and topography, the villages have been arranged in six groups for the purpose of the water supply project, so that it will be possible to supply water to most of the villages from the nearby water districts of PCMC. On the basis of the above groups and taking into account the projected population distribution amongst them, Group-wise detailed proposals for the extension of water supply have been made, in the report prepared by Task Consultants.

So far as the present draft Development Plan is concerned, it deals with reservations of sites for various water supply scheme components such as raw water works, water treatment plants, ground and elevated water reservoirs, etc. On the basis of actual requirements in this regard, the PCMC has communicated their demand for land reservations. Suitable reservations have accordingly been made in the Development Plan.

9.9.2 Sewerage Facilities

M/s. Task Consultants have also prepared a detailed Scheme in respect of the proposed sewerage facilities for the newly merged village and they

have accordingly submitted the report to PCMC in April 1999.

The villages of Wakad, Kiwale, Dapodi, Talwade, Chikhali and Dighi have been identified for the provision of immediate sewerage facilities in as much as these villages are either already developed or are likely to be developed upto the year 2011. As regards other villages, it has been assumed that they may continue with their rural character and will not need a regular sewerage scheme until 2011. Local disposal of human waste through pit latrines or septic tanks and sullage through open drains are considered to be sufficient for these villages.

Reservation of sites for sewerage purposes like sewage sump and pump house and sewage treatment plant, as communicated by the PCMC, have been made in the Development Plan.

9.9.3 Electricity

MSEB is contemplating reorganisation of their power supply network to cater to future needs of their residential as well as non-residential consumers from the newly merged villages. Their requirements for reservations of sites for receiving stations, sub-stations, other power installations, etc., as received from them, has duly been considered and sites have accordingly been reserved in the Development Plan.

9.10 Miscellaneous

Apart from the proposals for standard basic amenities, reservation of sites is also made for various other types of purposes on actual demand. This includes reservation of site for economically weaker section housing, housing for dis-housed, slum rehabilitation, swimming pool cum-gymnasium, fair ground, safari park, stadium, bus stands and terminus, truck terminus, parking, cattle sheds, slaughter house, animal incinerator, solid waste transfer, octroi posts, post offices, police stations, telecom centres, municipal engineering stores and zonal offices, etc.

The Gairan lands under the administrative control of PCMC, and which are not reserved for any specific purpose, are reserved as "Municipal Purpose" in the draft Development Plan. The uses that are permitted under the reservation of municipal purpose include the following:

- Rehabilitation of Shopkeepers, and Retail Market (for informal sector)

- Parking
- Library, Cultural Centre, Town Hall, and Multipurpose Hall
- PCMC Zonal Office
- Dispensary and Maternity Home
- Primary School
- Garden, and Playground
- Fire Station.

9.11 Colour Code

All the sites as reserved in the draft development plan, for various public purposes have been washed in specific colour as shown below:

Sr. No.	Purpose	Colour
1.	Educational facilities, health facilities, community centres, town halls, library, octroi post, police chowkey/station, telecom centre, post office etc.	Red
2.	Recreational facilities	Green
3.	Shopping Centres, markets	Blue
4.	Transportation	Grey
5.	Public utility – water supply, sewerage, solid waste disposal, fire stations, cremation ghat, burial ground, electric sub station, etc.	Burnt Sienna
6.	Housing – for economically weaker sections, for dis-housed, slum rehabilitation	Yellow

For detailed provisions of planning proposals (i.e. various land-use zones and reservations) refer Exhibit 9.4 which illustrates the Proposed Land Use of the Draft development plan.

ENVIRONMENTAL ISSUES 1
10.1 Introduction 1
10.2 Shopping Centres and Markets 2
10.3 Health Care Facilities 2
10.4 Recreation Facilities 3
10.4.1 Riverfront Recreation Sites 3
10.4.2 Quarry Area Development 4
10.5 Roads 5
10.6 Bus/Truck Terminuses 5
10.7 Slaughterhouse 6
10.8 Water Treatment Plants 7
10.9 Sewage Treatment Plants 7
10.10 Solid Waste Management 9
10.11 Cremation Ghats and Burial Grounds 9

CHAPTER 10

ENVIRONMENTAL ISSUES

10.1 Introduction

The development proposals given in this development plan cover the following major areas:

- Infrastructure: roads, bus/truck terminuses, educational facilities, health care facilities, water/sewage treatment, solid waste transfer sites, etc.
- Community services: town halls, shopping centres and markets, slaughterhouse, cremation ghats, burial grounds, etc.

Recreation facilities: gardens, playgrounds, riverfront development, quarry area development, etc.

Even though most of the proposals are relatively small in scale, some impact can be expected due to these developments on the surrounding environment. The potential negative impacts of various development proposals range from negligible to significant. The proposals that have negligible impact are not discussed here. The proposals whose impacts would need to be mitigated or managed are as follows:

1. Shopping centres and markets
2. Health care facilities
3. Recreation facilities (riverfront recreation sites, quarry area development)
4. Roads
5. Bus/Truck terminuses
6. Slaughterhouse
7. Water treatment plants
8. Sewage treatment plants (STPs)
9. Solid waste management
10. Cremation ghats and burial grounds

The salient environmental issues concerning the above proposals are discussed in this chapter and appropriate management measures are suggested.

10.2 Shopping Centres and Markets

Shopping centres and markets are major sources of solid wastes. The wastes are typically generated from stores, offices, restaurants, vegetable/fruit shops, fish/meat shops, etc. These wastes contain relatively higher fractions of organic material and high moisture content. The wastes are rapidly degradable, which can lead to pests, odour, and diseases. Generation of leachates from the collected wastes can cause water pollution problems, especially during the rainy season. Proper waste management can, however, minimise the negative impact. The measures that are recommended are as follows:

Indiscriminate dumping of waste around shopping areas and market places should not be allowed. Appropriate waste storage facilities should be provided in the markets. All waste storage areas should be properly protected to prevent access to stray animals and ragpickers. Recovery of recyclable waste should not be allowed near market places; this facility could be provided before final disposal under controlled conditions. Waste collection bins should be completely emptied when the garbage is collected to prevent carry-over of waste. Burning of waste should not to be allowed in waste storage areas, since it generates air pollution, odour, and other problems. Roof covers should be provided over waste collection areas to minimise saturation of the waste by rainwater.

The transportation of wastes from the storage bins to final/intermediate disposal areas should be regular and efficient. Waste should not be hauled in open trucks and special care should be taken to ensure no spillage occurs during the transport and transfer of the waste. Schedule of waste transportation should not coincide with peak traffic period.

10.3 Health Care Facilities

Health care facilities such as dispensaries and hospitals, maternity and nursing homes, diagnostic laboratories, etc. are likely to generate potentially hazardous wastes. These wastes typically include the following:

- Human anatomical waste
- Blood and body fluids
- Waste sharps such as needles, syringes, scalpels, blades, glass, and such other discarded medical equipment

- Soiled cotton, dressings, and bed linen
- Outdated, contaminated, and discarded medicines
- Glassware
- Solid waste
- Liquid waste
- Incineration waste
- General waste that are non-hazardous, domestic in nature, originating from canteen and administrative offices

The Ministry of Environment and Forests (MoEF) has brought out a Gazette notification on Bio-Medical Waste (Management and Handling) Rules in July 1998 under the Environment (Protection) Act, 1986. The rules are applicable to all persons who generate, collect, receive, store, transport, treat, dispose of, or handle bio-medical waste. The Central Pollution Control Board (CPCB) has set up the environmental standards and guidelines for management of hospital wastes during 1996 under the Environment (Protection) Act, 1986. These guidelines recommend the types of containers and colour coding for collection of different classes of waste and treatment method for each waste class. The above standards and guidelines should be strictly adhered to.

A centralised waste treatment and disposal facility is recommended to cater to the villages in the extended area. This could be integrated with slaughterhouse waste incineration facilities within the PCMC area. The capacity of the system should be adequate to handle both slaughterhouse and medical wastes.

Transport of medical waste to the central treatment/disposal facility must be carried out in specially designed dedicated vehicles. The vehicles for transportation must be labelled as given in Schedule III (biohazard symbol), and Schedule IV of the Bio-Medical Waste (Management and Handling) Rules 1998.

10.4 Recreation Facilities

10.4.1 Riverfront Recreation Sites

For developing recreation facilities, three locations have been identified: Punawale on Pavana river and Talwade and Moshi on Indrayani river. The present landuse of these areas is mostly agricultural. Some parts, particularly in Talwade, are barren.

The site at Punawale is close to the existing Mumbai-Bangalore highway. The sites at Talwade (near Software Technology Park) and Moshi will also have good accessibility from the proposed Regional Plan roads meeting the existing Dehu-Alandi Road. All these sites are likely to attract outstation travellers. Generally these types of recreational areas have potential to generating solid wastes consisting of waste food, packaging/wrapping materials, wastes from unauthorised hawkers, etc. In absence of adequate waste collection and disposal system, the waste could end up in the river water.

Along with the development of the recreational area, appropriate solid waste collection and disposal systems also should be implemented. Public amenities such as drinking water points, toilets, etc., should be provided and drainage from these should be connected to the municipal sewerage network to avoid contamination of river water. Mechanised boats may be prohibited to prevent contamination of river by oil and grease.

10.4.2 Quarry Area Development

Extensive quarrying is presently being carried out in Moshi. Blasting, crushing, and transporting stone and gravel generate considerable amounts of dust. The area is sparsely populated and relatively barren; hence the impacts are not very significant, except on the workers at the location. The development proposals around this area are safari park and residential areas, which could potentially be affected by the quarrying activities. Therefore, by the time the development proposals are implemented, the quarrying activities will have to be discontinued. It is recommended that this be carried out in a phased manner so that there is no sudden loss of employment and/or relocation for the people employed in this activity.

The topsoil in the area is presently being carried away from the area. This should be discontinued immediately. The topsoil should be collected and preserved so that it could be used when developing greenery in this area.

There is a small rain-fed lake in the quarrying area at present. The capacity of this lake could be enhanced by appropriate bunding as a part of recreational area development. This would not only enhance the aesthetic appeal of the area, but would also lead to groundwater recharging. Appropriate catchment area protection measures (tree/grass plantation) should be taken so that runoff from the area does not affect the water quality of this lake.

10.5 Roads

Rehabilitation and resettlement is one of the major negative impacts of road development. Since most of the proposed new roads are in the thinly populated areas, this impact is likely to be minimal. Widening of existing roads can affect existing buildings. While planning the alignments, however, maximum attention has been paid to minimise the number of buildings that would be affected. The landlords whose legitimate buildings are affected will be compensated as per applicable government guidelines/legislation.

Improperly designed roads could affect drainage and could also lead to water logging. Therefore, while constructing new roads, proper stormwater drainage must also be constructed.

During the construction/widening of a road, traffic in the area can be affected resulting in congestion and consequent air pollution due to vehicular exhaust from idling vehicles. Proper traffic management measures – such as one way traffic – should be implemented to minimise this impact. Also, efficient construction management, which would ensure timely completion of construction/widening, can result in considerable reduction in this impact. Construction equipment and vehicles transporting men and material can also give rise to fugitive emissions. Regular maintenance of equipment and vehicles would considerably reduce emissions. Adequate water sprinkling and commencement of earthwork just after monsoon season would help reduce resuspension of dust.

Vehicular exhausts and noise pollution are the typical environmental concerns related to roads during their operational phase. Development and maintenance of a greenbelt along the road mitigates these impacts. Accordingly, most major roads that are likely to attract traffic have provision of greenbelt. The trees for the greenbelt must be chosen in such a way that the right of way of the road be protected.

10.6 Bus/Truck Terminuses

Bus/truck terminuses can potentially affect water and soil quality, since dripping and leaking of oil and grease from automobiles is common. Near truck terminuses, auto repair workshops are normally established, which also drain oil and grease. All drainage from this area must be collected through proper drainage network into a sump. The floating oil and grease should be removed and could be sold for recycling. The sump should be cleaned periodically and the sludge from its bottom should be sent to

municipal landfill.

If the area near the terminuses is not paved, resuspension from loose soil can lead to dust and air pollution. The area must therefore be covered with tar/concrete and cleaned periodically to prevent air pollution problems. The same is applicable to parking areas near commercial centres as well.

10.7 Slaughterhouse

The water pollution loads from medium- and small-scale slaughterhouses are typically as follows:

Type of animal	Water consumption (m^3/TLWK)	Wastewater generation (m^3/TLWK)	Pollution load (kg/TLWK)			
			Biochemical oxygen demand (BOD)	Chemical oxygen demand (COD)	Total suspended solids (TSS)	Oil and grease
Bovines (medium)	0.5	0.5	5.0	9.8	1.0	0.6
Bovines (small)	1.0	1.0	6.6	14.3	2.6	1.0
Sheep/Goat	3.3	3	8.1	16.0	6.3	0.4
Pigs	7.1	6.1	21.7	47.2	6.5	0.9

TLWK: total live weight killed

Wastes such as blood, skins, guts, etc., which can be used in the manufacture of pharmaceuticals/chemicals, cattle feed, manure etc., should be carefully segregated. This would in turn reduce the pollution load in the wastewater.

The wastewater from slaughterhouse should be subjected to physico-chemical treatment followed by single-stage activated sludge process. Since the effluent from the wastewater treatment plant will be easily biodegradable, it can be discharged to municipal sewer. As per Central Pollution Control Board (CPCB) general standard, effluent to the municipal sewer should meet following standard:

- BOD (max) 300 mg/L
- TSS (max) 600 mg/L
- Oil/grease (max) 20 mg/L

The average solid waste generation from slaughterhouses is as follows:

Type of animal	Solid waste generation (kg/TLWK)

Bovines (medium)	275
Sheep/Goat	170
Pigs	40

In absence of proper solid waste collection and disposal system, the waste might be scattered around the slaughterhouse and consumed by scavengers. The remaining solid waste might decompose and create public health and odour problems. Thus it is essential to have proper solid waste collection and disposal system in the slaughterhouse. An incinerator is planned for the disposal of solid waste at the slaughterhouse. This could also cater to the medical waste generated within the PCMC limits. It is recommended that the incinerator be located sufficiently away from the slaughterhouse so that wastes do not contaminate the meat that is processed for human consumption.

10.8 Water Treatment Plants

Water treatment plants typically result in sludge and filter backwash water that need to be disposed of. The sludge can be hauled to low-lying areas for disposal. Filter backwash water could be discharged to municipal sewers subject to a maximum TSS content of 600 mg/L.

10.9 Sewage Treatment Plants

Sewerage infrastructure consisting of sewerage sumps and pump-houses, and STPs are designed to have a direct positive impact on environment, by reducing water pollution and hence impacts on public health and ecosystems. These must be properly planned, designed, constructed, operated, and maintained to avoid any potential negative impacts.

STPs are planned on the riverbanks. This would reduce the need for pump-houses, since the treatment plants will be at a relatively lower altitude and sewage would flow by gravity to the extent possible. Proper operation and maintenance of the STPs must be ensured. Sludge from the STPs, after sun drying, could be used as manure. This could be given to farmers or could be used by PCMC for maintaining gardens/roadside greenbelts. Treated effluent can be discharged to the river or used for irrigation of the fields in the nearby areas. The effluent quality must meet the following discharge standards for municipal sewage:

Parameter	**Standard**

	Discharge to river	Land discharge for irrigation
Colour and odour	All efforts should be made remove colour and unpleasant order	
Total Suspended Solids	100	200
Dissolved Solids	2100	2100
pH (pH units)	5.5 to 9.0	5.5 to 9.0
Oils & Grease	10	10
Total residual chlorine	1	-
Ammonia-Nitrogen (as N)	50	-
Total Kjeldahl Nitrogen (as N)	100	-
Free Ammonia (as NH_3)	5	-
Biochemical Oxygen Demand	30	100
Chemical Oxygen Demand	250	-
Arsenic (as As)	0.2	0.2
Mercury	0.01	-
Lead	0.1	-
Cadmium	2	-
Hexavalent Chromium	0.1	-
Total Chromium	2	-
Copper	3	-
Zinc	5	-
Selenium	0.05	-
Nickel	3	
Boron	2	2
Percent of sodium	-	60
Residual sodium carbonate	-	5
Cyanide	0.2	0.2
Chloride	1000	600
Fluoride	2	-
Dissolved Phosphates (as P)	5	-
Sulphate (as SO_4)	1000	1000
Sulphide (as S)	2	-
Pesticides	Absent	Absent
Phenolic Compounds (as C_6H_5OH)	1	-
Radioactive materials. Alpha emitters μC/mL	10^{-7}	10^{-7}
Radioactive materials. Beta emitters μC/mL	10^{-6}	10^{-6}

(All units are in mg/L unless otherwise indicated)

The land identified for the STP at Punavale is prime agricultural land. Converting this land into STP site will result in loss of productivity. To compensate this loss, sludge and treated effluent may be offered to affected landowner free of cost.

10.10 Solid Waste Management

The only solid waste management infrastructure planned within the PCMC limits is solid waste transfer stations. These should be fenced to prevent access to stray animals and ragpickers. Modern operational practices should be followed, which would minimise objectionable features of the transfer station. The station should be enclosed and constructed of materials that can be maintained and cleaned easily. Any spilled waste must be collected promptly. Recycling and reuse of solid wastes, anaerobic digestion (biogas/power generation), fuel pelletisation, and composting may be considered for effective reuse of the solid waste.

10.11 Cremation Ghats and Burial Grounds

Conventional cremation ghats are suggested in most of the villages along the river. The cremation and associated religious activities generate considerable amount of solid wastes. These solid wastes may finally end up in the river, which would increase pollution levels. Proper solid waste collection and disposal system should be implemented along with the development of new ghats to minimise the pollution. The waste from ghats could be composted nearby and reused as manure in the nearby fields.

Firewood is commonly used for cremation in the conventional cremation ghats. As the population increases, the requirements of firewood for cremation would also increase, which may lead to unauthorised felling of trees. For reducing wood consumption, electric crematoria are proposed at selected villages like Moshi in Sector – 1, Charholi BK in Sector – 2, Dapodi (Sector –3) and Ravet in Sector – 4.

IMPLEMENTATION OF DEVELOPMENT PLAN 1
10.1 Introduction 1
10.2 Financial Implications & Ways and Means of Effective Implementation of the Plan 2
10.3 Public Participation in Implementation 2
10.3.1 Land Pooling and Redistribution Scheme (Town Planning Scheme) 2
10.3.2 Transfer of Development Rights (TDR) 3
10.3.3 Accommodation Reservation 4
10.3.4 Grant of Additional FSI 4
10.3.5 Sharing of Cost 5
10.4 Cost of Implementation of Development Plan and Probable Net Cost to the Planning Authority 6
10.5 Role of Planning Authority (PCMC) in Shouldering the Financial Burden for the Implementation of the Development Plan 8
10.6 Need for Proper Monitoring 9
10.7 Programme 9
10.8 Determined Joint Efforts for Effective Implementation of the Development Plan 10

CHAPTER 11

IMPLEMENTATION OF DEVELOPMENT PLAN

11.1 Introduction

For the purpose of balanced and integrated development of a city or town, a comprehensive "Development Plan" is a prerequisite. It ensures the best possible use of land and makes the town a better place to live in, by improving the quality of living for the citizens. But mere preparation of such a plan is not sufficient, in as much as its success depends on the extent of its implementation. All the proposals of the plan are therefore required to be implemented within a reasonable time period, which under the provisions of the Maharashtra Regional & Town Planning Act 1966, has been prescribed to be 10 years from the date of coming into force.

This Draft Development Plan has been prepared for the horizon year of 2021 and contains zoning proposals for the projected population of 8.90 lakhs. It also contains sites for public purposes for the estimated population of 6.60 lakhs for the year 2011. Traffic and transportation proposals, being long term plans, are however not expected to be completed, to the fullest extent, within the said 10 year period.

Land is the governing factor in the physical planning process. Without land planning is not possible. The rising land-values in the cities and the resulting heavy compensation liabilities pose severe constraints to the Planning Authority's efforts relating to town improvement and town development. Implementation of the Development Plan proposals requires procurement of land either by private negotiations or through Land Acquisition Acts. Land procurement through such means naturally requires huge investment. Due to lack of adequate financial support, acquisition of sites for public purposes is normally not achieved satisfactorily and the plan, more or less, remains a paper plan.

It is therefore necessary that urban land needs to be considered as an asset and should be utilised for generating the required resources for its development. The planning commission is also of the view that the plans for the development of cities must be on a self-financing basis. For effective implementation of any town-planning scheme, the same should, self-financing and should not financially burden the Planning Authority.

11.2 Financial Implications & Ways and Means of Effective Implementation of the Plan

The cost of various proposals of the Development Plan has to be worked out. For this purpose, the cost of land and development costs needs to be considered on the basis of market value of land and the rates of construction. Though the Development Plan contains proposals in respect of various social amenities, sites for various public-purposes for Government / Semi-government departments etc., implementation of each and every proposal will not be the sole responsibility of the Planning Authority. The various Government departments, for whom the sites are reserved in the Development Plan, will have to bear the cost of acquisition and development of the sites, meant for them. Further with the help of various ways and means, as available under the provisions of the Maharashtra Regional & Town Planning Act 1966, as also under the Government directions / guidelines issued from time to time and by making utmost efforts for resource mobilisation wherever possible, the net cost of implementation of Development Plan, to the Planning Authority, could considerably be reduced.

11.3 Public Participation in Implementation

In the context of making the implementation of the Development Plan, somewhat self-financing, so as to reduce the burden of payment of compensation by the Planning Authority, for land acquisition etc., some serious thinking in this regard has already been made. Grant of F.S.I in lieu of compensation, Land Pooling & Redistribution System (i.e. Town Planning Schemes, under Chapter V of the M.R & T.P Act 1966), the mechanism of Transfer of Development Rights, System of Accommodation Reservations are considered to be some of the useful techniques in this regard. The main aim is to secure land without incurring much expenditure on the cost of acquisition. In this context people's participation in the implementation process is of immense importance.

11.3.1 Land Pooling and Redistribution Scheme (Town Planning Scheme)

Town Planning Scheme is considered to be the best tool for implementation of the Development Plan. Under the Maharashtra Regional & Town Planning Act 1966, the Town Planning Scheme is a joint land development project undertaken by the owners and the Planning Authority wherein the owners lands are pooled to secure a good layout thereof. After taking away the lands

required for reservations and roads of the Development Plan, the remaining land is distributed amongst the owners in the form of reconstituted developed final plots. When the Town Planning Scheme is finally sanctioned, the land meant for public purposes, vests with the Planning Authority free from encumbrances. Under such schemes, the entire cost of acquisition of sites and the cost of works, included in the scheme, are charged to the owners subject to 50% of the incremental contribution estimated for their respective holdings. This procedure not only ensures quick possession of the amenity sites and road lands, almost without or with very little financial burden on the Planning Authority but also helps it in mopping up unearned income by ways of betterment levy and eliminates the usual lengthy / cumbersome land acquisition proceedings. Town Planning Scheme is therefore rightly called "land acquisition without tears".

For effective implementation of the present Development Plan, use of Town Planning Schemes, for at least one each for fast developing areas of various villages will prove to be very helpful. Once the Development Plan is sanctioned by the Government, areas admeasuring 50 to 60 hectares each could be identified for this purpose, preferably from villages Talwade, Chikhali, Moshi, Kiwale, Dighi etc., in the first instant. This process can then be extended to other villages in a phased manner, depending upon the trend, growth, extent and pressure of development.

11.3.2 Transfer of Development Rights (TDR)

The concept of Transfer of Development Rights is a recent one, wherein participation of the landowner is sought for the purpose of implementation of planning proposals. Till recent times, lands reserved for public amenities, social facilities and utilities, in the Development Plan, prepared under the provisions of M.R & T.P Act. 1966, were being generally acquired under Section 126 of the said Act. With rising land-values, especially in Metropolitan Towns and big cities, it has not been possible for the Planning Authority to keep up the pace of implementation at the desired level. With a result implementation of plans and projects generally lagged behind. To overcome this problem of paying monetary compensation to the concerned landowners, the Maharashtra Government has formulated this concept of TDR, which has now been included in the Development Control Rules of the Pimpri-Chinchwad Municipal Corporation. Section 126 of the M.R. & T.P Act. 1966 has also been amended for enabling compulsory acquisition of lands, reserved for public purposes, by granting TDR, in lieu of monetary compensation.

In the TDR concept, the potential of a plot is separated therefrom and made available to the owner of land in the form of FSI. The landowner is not normally allowed to use the FSI so received, in the congested area or in the

inward direction of the city. They are required to go outwards. It is therefore necessary to identify the originating and receiving zones to be shown on the Development Plan.

This concept which enables the Planning Authority to grant FSI in lieu of compensation, is reportedly working well in Greater Mumbai (formerly Bombay). It is hoped that the same would also prove to be helpful in implementing this Development Plan of PCMC.

11.3.3 Accommodation Reservation

The land owners affected due to the proposals of the Development Plan are generally unwillingly to part with the land by accepting monetary compensation. But it does not mean that they are non-cooperative in the implementation process. In so far as public responses for planning proposals are concerned, the owner's involvement and participation in the development process, as generally experienced are fairly positive and favourable or at least not violently unfavourable as in case of bulk acquisition. The concept of accommodation reservation, in the above context allows the land owners to develop their reserved sites, subject to agreeing to hand over the built-up area of such an amenity to the Planning Authority free of cost. The owner in return is then allowed to use the full permissible FSI on the plot, without taking into account the area utilised for the amenity. This mechanism has considerably relieved the Planning Authority from huge expenses otherwise required to be incurred for the purpose of acquisition of lands. The concept of accommodation reservation has now been included in the Development Control Rules of PCMC, and it is hoped that the same would open out new avenues in achieving the necessary co-operation of the landowners in implementing the Development Plan Proposals.

11.3.4 Grant of Additional FSI

This provision in the Development Control Rules, allows the owner to enjoy additional FSI in lieu of compensation payable to them for acquisition of land required for new roads or road widening, provided they hand-over the said land to the Planning Authority free of cost. It is quite possible thereby to have the land required for road proposals of the Development Plan, almost at no cost.

11.3.5 Public Participation

In the context of public participation in the implementation process, it is also

possible that the Municipal Corporation, instead of assuming the role of the sole benefactor, could allow reputed willing private institutions, which are engaged in similar activities to develop various amenity sites under the terms and conditions mutually acceptable, keeping in mind the welfare and interest of the common citizens. Thus a large number of schools, dispensaries and similar sites vested with the corporation could be leased out to such institutions for developing and running the said activities (by charging a premium) in lieu of certain rights etc., under the terms and conditions acceptable to both. Some of the sites such as Garden / Park, Recreational Complexes etc., similarly can be allowed to be developed by Commercial / Industrial Houses. Social organisations such as the Rotary Club, the Lion's Club etc., would also certainly be willing to extend their helping hand in implementation of some of the proposals of the Development Plan.

11.3.6 Sharing of Cost

The sites to be developed and the facilities to be provided consist of two types:

those for which the PCMC is the appropriate authority and is also responsible for providing the amenity

those which could be provided by other institutions, where the said activity does not fall under the obligatory duty of the Planning Authority

The amenities of the type (a) consist of primary schools, dispensaries / maternal homes, gardens / playgrounds, markets, shopping centres, road proposals etc., are required to be provided primarily by the Corporation. However, while doing so, help of the various provisions like TDR, Accommodation Reservation / Public Participation, FSI in lieu of compensation etc., could be availed of to reduce the financial burden. In fact, by developing sites such as markets, shopping centres etc., earning of surplus is quite possible through disposal of commercial & office spaces. The PCMC by developing such lucrative sites can divert the surplus funds so received to finance other non-remunerative projects of the Development Plan.

As regard to the category (b), which includes the sites for secondary schools etc., could be allowed to develop by interested reputed institutions, even though in the statement of reservations, PCMC has been shown as the appropriate authority. The PCMC can either acquire the site and hand over the same to the interested institution on lease (by charging full premium with nominal rent) for development or can give a "no objection certificate" to the said institution for acquisition and development of the site. In either case there will be no financial burden on the Planning Authority, in respect of such sites.

11.4 Cost of Implementation of Development Plan and Probable Net Cost to the Planning Authority

Cost of implementation of various proposals of the Development Plan, relating to amenity sites, has been worked out as shown in Appendix 9-B appended hereto. So far as the Planning Authority is concerned, the total cost of mere acquisition of the amenity sites, for which the PCMC is the appropriate authority, comes to Rs. 55 crores. Another Rs. 67 crores will be required towards the cost of development / construction as envisaged in these sites. Thus the total cost of acquisition and development of sites, to the Planning Authority, will be around Rs. 122 crores. The cost of acquisition / construction of roads will be around Rs. 788 crores. The cost of the plan including possible escalation of land-values and rise in the rates of construction during the decade of the plan period will then be about Rs. 1365 crores. However, by choosing the right techniques and using suitable ways and means, the costs to the Planning Authority can be considerably reduced. The probable net cost to the Planning Authority would then be as shown below:

A. Total cost of acquisition and development of amenity sites for which PCMC has been shown as the appropriate authority (refer Appendix 9-B)

Provision of secondary school facilities is expected to be dealt with mostly by the private institutions. Their cost of acquisition and development to be deducted (-) (14.5 crores)

By initiating Town Planning Schemes, in a phased manner, for areas admeasuring 50 to 60 hectares, which in the course of development, reduction of about 10% in the cost of acquisition and development of amenity sites can be assumed (-) (12.2 crores)

By taking recourse to the new provisions of the Transfer of Development Rights (TDR), the cost of acquisition of the sites for public amenities can be reduced by 10%. (-) (5.5 crores)

By using the new technique of Accommodation Reservation, the cost of acquisition and development in respect of some of the sites covered by the said provision, will considerably be reduced. Say 5% of the cost of acquisition and development. (-) (0.9 crores)

Services of Commercial / Industrial Houses, Social Organisations could be involved in developing some of the sites meant for Parks / Gardens, Recreational Complexes, Riverside Development, Swimming Pool etc.

Development cost of such sites could suitably be reduced on this account by 50%. (-) (3.9 crores)

Net cost of acquisition and development of amenity sites = Grand Total (122 crores) - Total deduction (37 crores) = Rs. 85 crores

B. The cost of acquisition / development for Development Plan roads:

In respect of the roads covered by the proposed Town Planning Schemes, their acquisition and development cost will be taken care of by the Scheme, with practically no financial burden on the Planning Authority. Say 20% of the total cost (788 crores) could be reduced. Therefore, reduction in the total cost is Rs. 158 crores.

Transportation Plans being long term ones, even going beyond the planning period, their implementation can be phased over a longer period of time.

For resource mobilisation and implementation of major arterial roads, the planning authority can also avail of Government grants and Private sector participation.

By availing the facility of additional FSI in lieu of compensation, the cost of acquisition could assumed to be reduced by 50% (0.5*95.02) of the acquisition cost, Rs. 47 crores.

Where the land owners get their layouts approved, duly incorporating the Development Plan roads therein, the road land can then be acquired by the Planning Authority by paying a nominal compensation of Rs. 1/-, which is bound to reduce the cost of acquisition of road land to a great extent. Say by 10 % of acquisition cost representing Rs. 1.0 crores.

Net cost of acquisition and development for roads = Total cost (788 crores) – Total deduction (Rs. 206 crores) = Rs. 582 crores

So the total reduced cost (i.e. **A** + **B**) comes to Rs. 667 crores.

Thus, by effectively using the various ways and means, in the best possible manner, the net cost of implementation of the Development Plan, to the Planning Authority would be around **Rs. 667 crores**.

11.5 Role of Planning Authority (PCMC) in Shouldering the Financial Burden for the Implementation of the Development Plan

According to Section 31 of the Maharashtra Regional & Town Planning Act. 1966, proposals of the Sanctioned Development Plan are required to be implemented by the Planning Authority within 10 years from the date of coming into force. A phased programme of implementation, on the basis of priorities, spreading over 10 years, is therefore required to be chalked out. Such a tentative programme has been prepared as shown in Appendix 11-A of this report. For the purpose of its implementation, the Planning Authority can make the necessary financial provision, as suggested below:

Use of Development Charges (Development Fund) for the purpose of providing public amenities, within the jurisdiction of Planning Authority: Under the newly added provision of "Recovery of Development Charge" as per Chapter VI A of the Maharashtra Regional & Town Planning Act. 1966, the Planning Authority has to levy "development charges" on the use, change of use of any land or building, development of any land or building, for which permission is required under the Act, at the rates specified therein. Further, the money so received by the Planning Authority as development charge, together with interest thereon, if any, shall have to be credited to a separate fund called "Development Fund" and to be used only for the purpose of providing public amenities in the area under the jurisdiction of the Planning Authority. The average annual recovery on account of the Development Fund is reportedly around Rs. 1.50 crores. It may be true that the share of the newly merged villages, which constitutes the present planning area, would be considerably low, in view of the fact that the same is at present in the initial stages of development. However, considering the fact that the "Development Fund" is meant for the entire area within the jurisdiction of the Planning Authority and also considering the urgent need of the newly merged villages for amenities, some generous allocation of Development Fund to the said area on a priority basis would definitely be desirable. It would then be quite possible to set aside Rs. 1 crore annually for the purpose of implementation of the Development Plan, which in turn will provide the necessary amenities to the area, as anticipated under the provision of the Act.

Provision to be made in Annual Budget: The corporation can very well make adequate provisions in its annual budget to wipeout the short fall in the required funds. The budget, which at present amounts to about Rs. 312 crores is bound to increase substantially during the coming years. With its reputation as one of the richest Municipal Corporation, it would not be difficult for the PCMC to provide adequate funds, say Rs. 15 crores annually, if necessary with

suitable efforts on resource mobilisation, to fulfil the task of Development Plan implementation, within the stipulated time-limit, so as to improve the quality of living for the citizens

11.6 Need for Proper Monitoring

With the help of a proper land management policy, supported by adequate financial provisions, the implementation process would definitely be a smooth one. It would then go long way in averting the possible crisis. It is imperative to have a special cell, responsible for monitoring the implementation of the Development Plan and to keep a watch on resource mobilisation. Presently the corporation has different wings engaged in various aspects of the implementation process. The Town Planning wing looks after the general control of the development activities on the basis of the Development Plan Proposals and Development Control Rules. This wing also deals with matters relating to modifications to the Development Plan, initiating land acquisition proposals for Development Plan sites / road land etc. The Land Acquisition Wing deals with actual land acquisition work. The Engineering Wing looks after the construction work involved in buildings in Development Plan sites as also road construction works, as and when possession of land thereunder is received and funds are made available. The Budget Wing of the Corporation allocates provision of funds for various activities. Thus, it is not possible to get a comprehensive picture at any single spot as to what is the stage of implementation of Development Plan, what is the position of availability of funds, how they are to be chanelised, what should be the sequence of operation etc. A monitoring cell is therefore absolutely necessary to exclusively look after all the aspects (physical and financial) of the implementation process, so that effective results with possible solutions to the problems, if any, could be achieved.

11.7 Programme

A phased programme for implementation of the reservation of amenity sites in the Development Plan, for various civic amenities have been given in Appendix 11-A. This programme has been prepared after taking into consideration the urgency of the amenity and the possible availability of funds to meet the expenditure. In addition, the Municipal Corporation may also simultaneously take up the work of constructing new roads as also widening of the existing roads, according to the needs of the area and people.

11.8 Determined Joint Efforts for Effective Implementation of the Development Plan

The Pimpri-Chinchwad Municipal Corporation with its relatively sound financial position, endowed with ample natural resources and infrastructural facilities, has been in the forefront in every field of civic life. Certainly there is now ample opportunity to set an example of the determined joint effort on part of the Planning Authority, other authorities, organisations / individual residents and people's representatives to ensure full implementation of the Development Plan, so as to guarantee the citizens benefits of a planned and healthy environment in the shortest possible period.

Town Planning Officer
Pimpri-Chinchwad
Development Plan (Extended Area)
PCMC Bhawan, Pimpri – 411018

19/8/2000

Commissioner
Pimpri-Chinchwad
Municipal Corporation
PCMC Bhawan, Pimpri – 411018

LEGAL FORMALITIES AND OTHER IMPORTANT EVENTS

Preparation of the Development Plan of Extended Area of the Pimpri-Chinchwad Municipal Corporation, under the Maharashtra Regional and Town Planning (MR&TP) Act, 1966

1. Constitution of Municipal Corporation	Pimpri-Chinchwad Municipal Corporation was established vide Govt Notification No. PCC/210(1) UD-20, dated 05/10/1982 and came in force from 11/10/1982
2. Inclusion of Extended Area	As per Govt. Notification No. PCC-3096/ 1809/CR-261/96/UD-22, dated 11/09/1997
3. Time limit under section 21 of MR&TP Development Plan for the extended area to the Maharashtra State Government	Three years from the date of the inclusion of the extended area, i.e. up to 10/09/2000
4. Declaration of Intention under section 23 read with section 34 and 38 of MR&TP Act, 1966 to prepare the Development Plan for the extended area	Vide PCMC Resolution No. 3615, dated 10/11/1997
5. Appointment of Town Planning Officer under section 24 of MR&TP Act, 1966 for preparation of ELU map and formulation of proposals of Development Plan for submission to Planning Authority	Vide PCMC Resolution No. 3616, dated 10/11/1997
6. Constitution of Steering Committee to guide and review the work of preparation of Development Plan for the extended area	As per PCMC meeting dated 26/11/1997
Other Events	
7. Tender Notice for undertaking the work of preparation of Development Plan for the extended area by an external party	Issued in the newspapers the Indian Express and the daily Samna, as per the PCMC meeting dated 03/12/1997 and subsequent PCMC Letter No. MRV/323/98 dated 12/02/1998

8. Award of work of preparation of Development Plan	Work was awarded to M/s. Tata Consultancy Services (TCS) vide PCMC Standing Committee Resolution No. 3361, dated 28/07/1998 and the Memorandum of Understanding (MoU) between PCMC and TCS for the said work was executed on 16/09/1998
9. Issue of Work Order	Work Order vide PCMC Letter No. TPS/ WS/14/99, dated 11/01/1999 was issued to TCS to commence work from 12/01/1999 and the duration of completion of work was 1 year from the date of commencement
10. Extension of time limit for completion of work by the external party	As per PCMC Letter No. TPS/WS/1486/ 99 dated 24/06/1999, extension of three months time was granted, thus revising project duration to 1 year 3 months
11. Submission of Existing Landuse map to the Planning Authority	09.09.1999 and 28.01.2000 (submission with some corrections to suit the observations of PCMC)
12. Number of meetings of the Steering Committee	4
13. Number of other Technical Meetings	5
14. Training for officials of Planning Authority to manage Remote Sensing and Geographical Information System database of the Development Plan	A 3-day training programme (from 05.05.2000 to 07.05.2000) was conducted for 15 officials from Town Planning Department of PCMC, by M/s. Tata Consultancy Services, 1, Mangaldas Road, Pune 411 001.

Details of Industries in the Newly Merged Areas of PCMC

Source: Industrial and Commercial Directory of Pune – 1995, published by Mahratta Chamber of Commerce, Industries and Agriculture (MCCIA), and District Industrial Centre (DIC), Pune.
Note: The following list of industries includes the industries registered under DIC till 1st March 1999.

S. No.	Name of the Industry	Year of Estb.	Location - Gatt No. / Survey No. / Plot No. / Milkat No. / House No.	Scale / Type of Industry	No. of Workers	Investment / Turnover (Rs.)
A.	**Name of Village: CHIKHALI (Remaining)**					
1.	A B Enterprises	1996	G. No. 769, Pawar Vasti, Kudalewadi	Engineering Jobs	5	N.A. / N.A.
2.	A G Enterprises	1997	G. No. 784, Pawar Vasti, Kudalewadi	Engineering jobs	5	N.A. / 5,000
3.	A H Enterprises	1998	G. No. 696, Siddhi Vinayak Industrial Estate, Kudalewadi	Sheet metal jobs	4	N.A. / 250,000
4.	A H Steel	1998	S. No. 716, Kudalewadi	Engineering Jobs	3	N.A. / 68,000
5.	A N C Enterprises	1996	G. No. 769, Kudalewadi	Press parts products	5	N.A. / 3,000,000
6.	A P Engineering	1997	S. No. 768 B, P.No. 25813, Pawar vasti, Kudalewadi, Chikhali	Engineering jobs	3	N.A./ 350,000
7.	A S Enterprises	1996	S. No. 1330, More Vasti	Engineering Jobs	3	N.A. / 40,000
8.	Aarish Bakery Items & Sweet Manufacturing	1995	S. No. 23/9, Dehu-Alandi Rd.	Bakery & confectionery	5	N.A / 275,000
9.	Abbay & Co.	1995	G.No. 769, Kudalewadi	Engineering Jobs	4	N.A./N.A.
10.	Abbi Praj Enterprises	1997	350, near Panchavati, Chikhali road, Chikhali	Plastic moulding	3	N.A./ 196,000
11.	Abhijit Engineering Works	1996	G. No. 752, Patilnagar	Engineering jobs	2	N.A. / 50,000
12.	Abhijit Industries	1988	943, Kudalewadi	Trim gear and SY Ring	5	N.A. / 150,000
13.	Abratech	1997	S. No. 784, Pawar Vasti, Kudalewadi	Manufacturing grinding wheels	7	N.A. / 1,600,000
14.	Accurate Engineering	1997	S. No. 671, Kudalewadi	Press parts	8	N.A. / 690,000
15.	Accurate Engineering Co.	1998	G. No. 671	Engineering jobs	4	N.A. / 200,000
16.	Accutech Engrs.	1995	S. No. 745, Khandu Aher Chawl, Jadhavwadi	Auto spares	3	N.A./ 50,000

APPENDIX 4-A

S. No.	Name of the Industry	Year of Estb.	Location - Gatt No. / Survey No. / Plot No. / Milkat No. / House No.	Scale / Type of Industry	No. of Workers	Investment / Turnover (Rs.)
17.	Ace-En Graphic	1998	G. No. 2258, More Vasti, Akurdi-Chikhali Rd.	Printing jobs	N.A.	N.A. / 300,000
18.	Active Control Systems	1995	S.No.3, Kudalewadi	Rubberjob work	2	N.A./ 137,000
19.	Adhav Fabrication & Welding Works	1997	S. No. 345, Tamhane Vasti	Fabrication jobs & welding	2	N.A. / 10,000
20.	Aditya Engineering Works	1995	G.No.1303, Chikhali	Auto spare parts	8	N.A./ 400,000
21.	Agarwal Concrete Products	1996	G. No. 102/1, Dehu-Alandi Rd.	Cement pipes, drain covers	10	N.A. / 2,300,000
22.	Agarwal Plastic	1989	G. No. 837, Kudalewadi	Plastic Granules	6	500,000 / 950,000
23.	Aher Pressing Works	1996	G. No. 371, Aherwadi	Press parts	11	N.A / N.A
24.	Ajay Enterprises	1987	1285/1, Kudalewadi	Machinery parts	6	200,000 / 200,000
25.	Ajinkya Engineering Company	1997	G.No.769, Chikhali	Engineering job works	1	N.A./ 300,000
26.	Ajinkya Engineers	1997	G. No. 1303-1	Engineering jobs	5	N.A. / 500,000
27.	Ajinkaya Fabricators	1997	G. No. 1323, Sane Colony	Fabrication jobs	3	N.A. / 73,000
28.	Ajit Industries	1995	S.No. 711, Kudalewadi	Engineering and fabrication jobs	3	N.A./ N.A.
29.	Akar Studio	1999	G. No. 53	Model & prototype works	2	N.A. / 300,000
30.	Akash Industries	1996	S. No. 1318, P. No. 15	Manufacturing of auto parts	4	N.A./ 200,000
31.	Akash Industries	1996	G. No. 1557, At + post Chikhali	Engineering jobs	5	N.A. / N.A.
32.	Akash Industries	1998	S. No. 738, Kudalewadi	Engineering Jobs	5	N.A. / 300,000
33.	Akash Plastic	1997	S. No. 1979, Kudalewadi	Plastic moulding	8	N.A. / 325,000
34.	Akash Technocrats	1998	Pawar Vasti, Kudalewadi	Engineering Jobs	5	N.A. / 130,000
35.	Akshay Engineers	1995	G. No. 813, Pawar Vasti, Kudalewadi	Oil filtration unit & assembly of control panels	2	N.A./ 420,000
36.	Akshay Engineers	1998	G. No. 813, Pawar Vasti, Kudalewadi	Crank shafts	N.A.	N.A. / 300,00
37.	Akshay Enterprises	1999	S. No. 3/132	Fabrication of doors & windows	3	N.A. / 125,000
38.	Akshay Enterprises	1998	S. No. 1450, Madhavnagar, Mhetrewadi	Screen printing jobs	1	N.A. / 80,000
39.	Akshay Garments	1996	S. No. 1430, Mhetre Vasti, Chikhali Rd.	Ready-made garments	2	N.A. / 200,000
40.	Akshay Industries	1996	G. No. 1671, Patilnagar	Manufacturing of machine parts, shafts, bushes	5	N.A. / 330,000

APPENDIX 4-A

S. No.	Name of the Industry	Year of Estb.	Location - Gatt No. / Survey No. / Plot No. / Milkat No. / House No.	Scale / Type of Industry	No. of Workers	Investment / Turnover (Rs.)
41.	Akshay Industries	1996	G.No. 769, Pawarvasti, Kudalewadi, Chikhali	Manufacturing press parts and fabricators	6	N.A./ 190,000
42.	Alfa Engineering Works	1998	G. No. 1165, Kudalewadi	Jobs of machine parts	4	N.A. / 600,000
43.	Alfa Oil Traders	1996	S. No. 127, Kudalewadi	Rust preventive oils & chemicals	2	N.A. / 120,000
44.	Allwin Press Tools	1995	3436, Pawar Vasti, Kudalewadi	Engineering jobs	4	N.A / N.A
45.	Amar Enterprises	1998	G. No. 765, P No.178/8, Kudalewadi	Electric. & Electronic Equipments	2	N.A. / N.A.
46.	Amar Industries	1996	G. No. 917, Kudalewadi	Engineering jobs	11	N.A. / N.A.
47.	Ambika Engineering Co.	1997	G. No. 812, Pawar Vasti, Kudalewadi	Engineering jobs	2	N.A. / 150,000
48.	Ambika Industries	1992	Kudalewadi	Wheel Shaft & Flange	15	N.A. / 500,000
49.	Ambika Industries	1995	M. No. 1640, Kudalewadi	Engineering jobs & die works	8	N.A / 270,000
50.	Ambika Plastics	1997	G.No. 1538, Chikhali	Plastic moulding	4	N.A./ 95,000
51.	Ambika Sweet Home	1998	G. No. 1323, Jyoti Complex, More Vasti	Sweets	2	N.A. / 90,000
52.	Amit Engineering works	1995	M.No. 608, Chikhali	Engineering jobs	10	N.A./ 8,000
53.	Amit Engineers	1993	S. No. 769, Pawar Vasti, Kudalewadi	Precision press, projection welding	5	N.A. / 300,000
54.	Amit Engineers	1995	1378, Chikhali	Manufacturing of job work	6	N.A. / 12,000
55.	Amol Engineering Works	1995	M. No. 2296, Kudalewadi	Engineering jobs	8	N.A / N.A
56.	Amol Fabrication	1996	G. No. 1457, Mhetrewadi	Fabrication jobs	5	N.A. / 350,000
57.	Amol Industries	1997	S. No. 677/1, Opp. Landge Chawl, Kudalewadi	Engineering Jobs	4	N.A. / 50,000
58.	Anand Engineering	1998	S. No. 1284, Shop No. 11, Shanti Complex	Engineering Jobs	2	N.A. / 20,000
59.	Anand Industries	1996	S.No. 1463, Kudalewadi, Chikhali	Jigs, fixture and other industrial items	4	N.A./ 350,000
60.	Anant Heat Treaters & Engineering	1992	1854, Kudalewadi	Fabrication of doors & window	5	N.A. / N.A.
61.	Aniket Washing and Greasing	1996	G. No. 786, Pawar Vasti, Kudalewadi	Engineering Jobs	5	N.A. / N.A.
62.	Anil Engineering Works	1983	G. No. 849, Plot 3, Kudalewadi	AS & PG Coupling, Crown wheels	N.A.	200,000 / 200,000

APPENDIX 4-A

S. No.	Name of the Industry	Year of Estb.	Location - Gatt No. / Survey No. / Plot No. / Milkat No. / House No.	Scale / Type of Industry	No. of Workers	Investment / Turnover (Rs.)
63.	Anil Provision Stores	1997	G.No. 482, Jadhavwadi, Chikhali	Manufacturing pickles, papads	1	N.A./ 132,000
64.	Aniruddha Engineering Works	1996	G. No. 181, Dehu-Alandi Rd.	Engineering jobs	6	N.A. / N.A.
65.	Anirudh Enterprises	1997	G. No. 694, Dehu-Alandi Rd., Jadhavwadi	Ready-made garments	2	N.A. / 145,000
66.	Ansom and Co.	1997	G.No.52, Chikhali	Engineering works	4	N.A./ N.A.
67.	Ansuman Industries	1997	M.No. 895, G.No. 673, Kudalewadi	Engineering and fabrication	9	N.A./ 2,200,000
68.	Anu Electroshine	1998	G. No. 744, Pawar Vasti, Kudalewadi	Engineering Jobs	5	N.A. / 90,000
69.	Anuradha Engineering Industries	1997	G. No. 784, Pawar Vasti, Kudalewadi	Engineering jobs	10	N.A. / 55,000
70.	Anuradha Enterprises	1998	S No. 11/2, Pawar Vasti, Kudalewadi	Engineering Jobs	3	N.A. / 300,000
71.	Archana Enterprises	1997	g. No. 849, Kudalewadi	Wooden & steel furniture	4	N.A. / 330,000
72.	Ardent Fabricators & Erectors	1995	G. No. 765, Kudalewadi	Fabrication jobs	5	N.A./ 270,000
73.	Art Fab Engineers	1998	G. No. 879, P. No. 15, Kudalewadi	Fabrication jobs	5	N.A. / 620,000
74.	Arun Industries	1995	S.No. 782, Pawar Vasti, Chikhali	Engineering jobs	7	N.A./ 50,000
75.	Ashapura Industries	1994	S. No. 769, Kudalewadi	Shell cores, shell moulds	8	N.A. / 500,000
76.	Asha Puree Shell Auto	1996	G. No. 769, Pawar Vasti, Kudalewadi	Engineering jobs	4	N.A. / N.A.
77.	Ashirwad Controls India	1995	M.No. 240, Chikhali	Engineering jobs	6	N.A./ 40,000
78.	Asho Polymer Pvt. Ltd.	1998	S. No. 114/315, G. No. 1323, P. No. 1, More Vasti	Rubber moulding	10	N.A. / N.A.
79.	Ashok Enterprises	1991	At + Post: Chikhali	Thread rolling & centreless grinding	6	35,000 / 50,000
80.	Ashok Industries	1996	G. No. 745, Kudalewadi	MS press parts for auto	8	N.A / 900,000
81.	Ashu Auto Parts	1997	G. No. 766, Pawar Vasti, Kudalewadi	Engineering jobs	2	N.A. / N.A.
82.	Ashu Engineering	1995	Jadhavwadi	Engineering jobs	5	N.A / N.A
83.	Ashu Enterprises	1995	S. No. 1165, At + post Chikhali	Fabrication jobs	4	N.A./ 25,000
84.	Ashu Fabricators	1998	G. No. 1430	Fabrication jobs	5	N.A. / 650,000
85.	Ashwini Industries	1995	G. No. 680	Wooden boxes	4	N.A / 55,000

APPENDIX 4-A

S. No.	Name of the Industry	Year of Estb.	Location - Gatt No. / Survey No. / Plot No. / Milkat No. / House No.	Scale / Type of Industry	No. of Workers	Investment / Turnover (Rs.)
86.	Ashwini Industries	1996	S.No.707, M.No. 4010, Kudalewadi, Chikhali	Engineering job works	5	N.A./ N.A.
87.	Ashwini Industries	1998	G. No. 680	Engineering jobs	3	N.A. / 1,100,000
88.	Atif Enterprises	1996	G. No. 675, Kudalewadi	Rust preventive & cutting oil	3	N.A. / 595,000
89.	Atul Enterprises	1995	G.No. 769, Kudalewadi	Engineering jobs	3	N.A./ 100,000
90.	Auco link	1994	1861, Pawar Vasti, Kudalewadi	Turning	N.A.	N.A. / 400,000
91.	Auto Mech Industries	1995	769, Pawar Vasti, Kudalewadi	Engineering jobs	7	N.A. / N.A.
92.	Autoline Tube Industries	1995	G. No. 769, Kudalewadi, At + post Chikhali	Industrial Engineering jobs	8	N.A. / 350,000
93.	Avinash Enterprises	1994	At + Post: Chikhali	Precision job work	2	65,000 / N.A.
94.	B B Engineering works	1995	G.No. 769, Pawar vasti, Kudalewadi	Machinery parts	3	N.A./ N.A.
95.	B C M Precision Engineering	1997	G. No. 1264, Shanti Complex Bldg., Shop-9	Automobile component	4	N.A./ 2,800,000
96.	B H G Enterprises	1995	1254, Kudalewadi	Engineering jobs	9	N.A./ N.A.
97.	B K Enterprises	1995	M.No. 2304, Morevasti, Chikhali	Engineering jobs	4	N.A./ 270,000
98.	B V Engineering Works	1997	S. No. 92, P. No. 6	Turning, drilling & welding	5	N.A. / N.A.
99.	B V More	1997	G. No. 707, Kudalewadi	Engineering jobs	5	N.A. / N.A.
100.	Baga Industries	1996	S. No. 1254, Kudalewadi	/ Engineering jobs	7	N.A. / N.A.
101.	Balaji Engineering Works	1996	S. No. 1634/2	Engineering Jobs – Turning, drilling	4	N.A. / N.A.
102.	Balaji Enterprises	1997	S. No. 825, Kudalewadi	Press components	3	N.A. / 300,000
103.	Basavraj Engineering Works	1996	G. No. 559, At + Post Chikhali	Engineering jobs	3	N.A. / N.A.
104.	Beco Engineering	1995	S. No. 839	Fabrication & machining jobs	2	N.A / 190,000
105.	Belectro-Tech. Power Control System	1998	G. No. 1663, Plot –1, Patilnagar	Control panel, Elec. m/c	13	N.A. / 212,000
106.	Bhagwan Enterprises	1998	Near Talegaon temple	Fabrication of doors, furniture	5	N.A. / 360,000
107.	Bhagyodaya Engineering Works	1987	G. No. 769, Kudalewadi	Adaptors, Nipple, Spacers	10	450,000 / 600,000
108.	Bhagyashree Engineering Works	1998	G No. 720, M. No. 1491, Kudalewadi	Fabrication of Engineering Goods	12	N.A. / 350,000
109.	Bhagyashree Enterprises	1995	S.No. 1641, Chikhali	Engineering job works	4	N.A./N.A.

APPENDIX 4-A

S. No.	Name of the Industry	Year of Estb.	Location - Gatt No. / Survey No. / Plot No. / Milkat No. / House No.	Scale / Type of Industry	No. of Workers	Investment / Turnover (Rs.)
110.	Bhagyashree Enterprises	1997	G/192/195, Chikhali Nasik Road, Chikhali	Manufacturing of paints	5	N.A./ 335,000
111.	Bhagyashree Enterprises	1998	1602, More Vasti	Rubber moulding	2	N.A. / 125,000
112.	Bhagyashree Enterprises	1998	G No. 735, Kudalewadi	Cement bricks	4	N.A. / 200,000
113.	Bhairav Industries	1997	S.No. 884, Chikhali	Manufacturing Steel furniture and machinery	3	N.A./ 55,000
114.	Bhairavnath Industries	1997	G. No. 710, S. No. 127/3, Kudalewadi	Engineering jobs	3	N.A. / 200,000
115.	Bhanudas Enterprises	1998	G. No.143	Engineering Jobs	3	N.A. / 200,000
116.	Bharat Automat Pvt. Ltd.	1997	G. No. 1326-A	Sheet metal pressing components	9	N.A. / 5,000,000
117.	Bharat Automat Pvt. Ltd.	1997	G.No. 1326, 47 Chikhali	Press component	9	N.A./ 5,000,000
118.	Bharat Industries	1996	G. No. 1492, Kudalewadi	Rubber moulding	2	N.A. / 260,000
119.	Bharati Rubber Works	1998	G. No. 1650, Patilnagar	Job of rubber parts	4	N.A. / 200,000
120.	Bhaskar Industries	1998	G. No. 837, Kudalewadi	Engineering Jobs	2	N.A. / 500,000
121.	Bhavani Enterprises	1994	Plot No. 22/61, Pawar Vasti, Kudalewadi	Third party jobs	4	150,000 / 100,000
122.	Bhavani Plastics	1997	G.No. 695, S.No.128/2, Jadhav wasti, Chikhali	Polythene bags	1	N.A./ 240,000
123.	Bhimashankar Engineering Industries	1997	G. No. 19, Behind Dnyaneshwar Super Market, Sane Colony, More Vasti	Fabrication jobs	2	N.A. / 46,000
124.	Bhosale Fabrication Works	1997	S. No. 1504-A, Gore Building, Near Ganapati Mandir, Hanumannagar	Industrial fabrication jobs	4	N.A. / 180,000
125.	Bhujbal Enterprises	1996	G. No. 594, Jadhavwadi	Press components	2	N.A. / 340,000
126.	Bimita Enterprises	1995	G. No. 803, Shed – 2, Pawar Vasti, Kudalewadi	Engineering jobs	9	N.A / 700,000
127.	Bind Brothers Enterprises	1995	S.No. 932, G.V. Yadav Building, Kudalewadi	Engineering and Fabrication jobs	3	N.A./160,000
128.	Bitusha Industries	1997	G. No. 1415, More Vasti	Press components	5	N.A. / 250,000
129.	Bombay Metal Industries	1997	G. No. 769, Pawar Vasti, Kudalewadi	Engineering jobs	4	N.A. / 2,000,000
130.	Bombay Pressings	1998	G. No. 76 Y, Behind Old Naka	Automobile press parts	4	N.A. / 360,000

APPENDIX 4-A

S. No.	Name of the Industry	Year of Estb.	Location - Gatt No. / Survey No. / Plot No. / Milkat No. / House No.	Scale / Type of Industry	No. of Workers	Investment / Turnover (Rs.)
131.	Bombay Steel	1995	S. No. 179, G. No. 769, Pawar Vasti, Kudalewadi	Engineering jobs	8	N.A./ 500,000
132.	Broadway Engineering	1998	G. No. 769, Pawar Vasti, Kudalewadi	Dyes & press parts	4	N.A. / 300,000
133.	C H Enterprises	1998	G. No. 476, MM 2, Sai Nivas, Jadhavwadi	M S Fabrication	5	N.A. / N.A.
134.	C M Engineers	1998	G. No. 812, Kudalewadi	Machine job Works	5	N.A. / 500,000
135.	CAD Industries	1998	G. No. 1559-1560, S. No. 561, Near Newale Vasti	Engineering jobs	4	N.A. / 360,000
136.	Cambridge Engineering	1997	S.No. 20, Pawar vasti, Kudalewadi, Chikhali	Engineering jobs	5	N.A./ 400,000
137.	Chaitanya Engineering Works	1998	G. No. 815, P. No. 2, Chikhali	Engineering jobs	2	N.A. / N.A.
138.	Chandrakant Enterprises	1998	S. No. 2/396, Ramdasnagar	Food products	1	N.A. / 71,000
139.	Changdeo Industries	1996	G.No. 767, Kudalewadi, Chikhali	Engineering jobs	5	N.A./N.A.
140.	Chaudhary Enterprises	1996	G. No. 796, Kudalewadi	Engineering & fabrication jobs	7	N.A / 1,700,000
141.	Chetan Plastics	1995	S.No. 1238, Kudalewadi	Manufacturing polythene bags	3	N.A./ 125,000
142.	Chikhali Auto Products	1995	G. No. 769, Kudalewadi, At + post Chikhali	Industrial Engineering jobs & auto components	9	N.A. / 350,000
143.	Chikhali Industries	1982	At + Post: Chikhali	All type of job works	10	20,000 / 450,000
144.	Chitra Fabricators	1997	S.No. 1323, Chikhali	Fabrication jobs	7	N.A./ 7,840,000
145.	Choudhary & Choudhary Enterprises	1997	G. No. 102, M. No. 651, Moshi Rd.	Engineering & fabrication jobs	9	N.A. / 2,500,000
146.	Colour Plast Coatings	1990	1196, Ambika Industrial Estate	Acrocoat	6	N.A. / 500,000
147.	Corugraphic	1991	S. No. 169, Kudalewadi	Manufacturing Paper, Corrugated boxes	19	650,000 / 3,600,000
148.	Cu-built	1998	S. No. 813, Pawar Vasti, Kudalewadi	Welding machine & Material moulding system	N.A.	N.A. / 1,200,000
149.	D T Chavan	1997	S.No. 1246, Chikhali	Fabrication jobs	1	N.A./ 75,000
150.	D T M Enterprises	1995	M.No. 2901, Chikhali	Fabrication job work	7	N.A./ 60,000
151.	D Hasmukhbhai & Co.	1995	G. No. 813, Kudalewadi, At + post Chikhali	Engineering jobs	5	N.A./ N.A.
152.	D A Shinde Construction	1997	G. No. 1401, More Vasti	Cement bricks	5	N.A. / 600,000

APPENDIX 4-A

S. No.	Name of the Industry	Year of Estb.	Location - Gatt No. / Survey No. / Plot No. / Milkat No. / House No.	Scale / Type of Industry	No. of Workers	Investment / Turnover (Rs.)
153.	D B Engineering Works	1995	S. No. 489, Pawar Vasti, Kudalewadi	Engineering jobs	2	N.A / N.A
154.	D P Industries	1997	S. No. 189, M. No. 2005, Kudalewadi	Engineering jobs	3	N.A. / 150,000
155.	Datakripa Enterprises	1995	S. No. 1329, More Vasti	Spray painting & repairing of furniture works	3	N.A / 100,000
156.	Datta Industries	1996	G. No. 768, Pawar Vasti, Kudalewadi	Engineering jobs	4	N.A / 100,000
157.	David Fabricators	1999	S. No. 769	Engineering Jobs	2	N.A. / 60,000
158.	Dayal Industries	1997	G. No. 104	Screen printing	2	N.A. / 85,000
159.	Deck	1998	S. No. 471, Kudalewadi	Diesel engine parts	1	N.A. / 700,000
160.	Deep Engineers	1998	G. No. 680, Kudalewadi	Engineering Jobs	5	N.A. / 180,000
161.	Deep Enterprises	1998	G. No. 680, Kudalewadi	Engineering Jobs	4	N.A. / 140,000
162.	Deep Laxmi	1995	837, Yadav Chawl, Kudalewadi	Pneumatic cylinders valves	8	N.A / 390,000
163.	Deepak Engineers	1997	S. No. 816, Kudalewadi	Engineering & fabrication jobs	4	N.A. / N.A.
164.	Deepali Engineering Works	1996	G. No. 905, Kudalewadi	Engineering jobs	12	N.A. / N.A.
165.	Delite Industries	1995	G.No. 763, Kudalewadi	Heavy duty fabrication	7	N.A./ 95,000
166.	Deosheshna Auto Industries	1998	G. No. 781, Pawar Vasti, Kudalewadi	MS press parts & Fabrication	9	N.A. / 9,500,000
167.	Devendra Industries	1994	S. No. 76, Kudalewadi	Milling, Turning	4	N.A. / 200,000
168.	Dewasi Pendhas Bhandhar	1996	M. No. 330, H. No. 628, Telco-Chikhali Rd., Kudalewadi	Sweets	2	N.A. / 48,000
169.	Dhananjay Enterprises	1995	S. No. 837, Kudalewadi	Engineering jobs	4	N.A / N.A
170.	Dhanashri Engineering Works	1997	S. No. 1890, Kudalewadi	Engineering jobs	3	N.A. / 240,000
171.	Dhanashri Felting & Sporting Works	1990	S. No. 179, G No. 768, Kudalewadi	Cutting	9	N.A. / N.A.
172.	Dhanpriya AutoUdyog	1997	S. No. 798, P. No. 7, Pawar Vasti, Kudalewadi	Pressure dye casting & Auto parts	7	N.A. / 1,800,000
173.	Dhayanraj Engineering Works	1998	G. No. 1365, Kudalewadi	Engineering Jobs	5	N.A. / 400,000
174.	Digital Engineering	1995	G. No. 769, Pawar Vasti	Engineering & fabrication jobs	5	N.A / N.A

APPENDIX 4-A

S. No.	Name of the Industry	Year of Estb.	Location - Gatt No. / Survey No. / Plot No. / Milkat No. / House No.	Scale / Type of Industry	No. of Workers	Investment / Turnover (Rs.)
175.	Dinesh Enterprises	1996	G. No. 767, Kudalewadi	Engineering jobs	10	N.A. / N.A.
176.	Divine Engineers	1995	Shop 6 , S.No. 926, Sant Dnyaneshwar Indusrial estate, Kudalewadi	Engineering jobs	2	N.A. / N.A.
177.	Dnyaneshwar Brick Products	1999	At + Post: Chikhali	Bricks	6	N.A. / 200,000
178.	Dnyaneshwar Welding Works	1996	S. No. 482, Jadhavwadi	Fabrication jobs	3	N.A. / 18,000
179.	Dnyanraj Industries	1996	G. No. 769, Pawar Vasti, Kudalewadi	Fabrication jobs	9	N.A. / 80,000
180.	Dodia Industries	1997	G. No. 1599, Kudalewadi	Manufacturing of nuts & bolts	7	N.A. / 500,000
181.	Dulect Industries	1997	G. NO. 1323, More Vasti	Auto spare parts	7	N.A. / 250,000
182.	Durga Enterprises	1995	S. No. 871, Kudalewadi	Engineering jobs	4	N.A. / N.A.
183.	Durga Enterprises	1997	G. No. 784, Pawar Vasti, Kudalewadi	Engineering jobs	5	N.A. / 10,000
184.	Durga Mata Enterprises	1997	S. No. 1446, Mhetre Vasti	Fabrication jobs	3	N.A. / 1,120,000
185.	Durga Plastics	1998	G. No. 715, Kudalewadi	Plastics moulding	1	N.A. / 325,000
186.	Durga Plastic	1998	G. No. 715, Kudalewadi	Plastics moulding	1	N.A. / 98,000
187.	Durga Plastic Centre	1998	G. No. 715, Kudalewadi	Re-processing of plastic granules	4	N.A. / 150,000
188.	Dwarka Engineering Works	1996	G. No. 839, Shed – 3, Kudalewadi	Shafts, pulleys, gears, machines	4	N.A. / 145,000
189.	Dyanraj Engineering	1995	M.No. 1365,Kudalewadi	Engineering works	3	N.A. / N.A.
190.	Dynamic Engineers	1996	G. No. 769, M. No. 1754, Kudalewadi	Engineering jobs	2	N.A. / N.A.
191.	Dynamic Enterprises	1998	G. No. 439, Pawar Vasti, Kudalewadi	Rubber moulding	3	N.A. / 350,000
192.	Dynamic Industries	1996	G.No. 786, Kudalewadi	Fabrication jobs	5	N.A. / 550,000
193.	Eagle Metals	1998	S. No. 1334, More Vasti	Ferrous casting	6	N.A. / 600,000
194.	Elcon System	1998	1305, More Vasti, Sane Industrial Estate	Instruments (displays - temperature, pressure)	9	N.A. / 600,000
195.	Ekta Engineering System	1996	G.No. 812, Pawarvasti, Kudalewadi	Machinery spare parts	12	N.A. / 942,000
196.	Electrochem Industries	N.A.	1492, Kudalewadi	Electroplating press job work	2	N.A. / N.A.
197.	Electro Pab Engineering	1998	S. No. 927, Walwadi	Industrial material handling Equipment	5	N.A. / 700,000

APPENDIX 4-A

S. No.	Name of the Industry	Year of Estb.	Location - Gatt No. / Survey No. / Plot No. / Milkat No. / House No.	Scale / Type of Industry	No. of Workers	Investment / Turnover (Rs.)
198.	Electroplators	1996	G.No. 372, Pawar vasti, Kudalewadi	Electroplating	3	N.A. / 250,000
199.	Elite Engineers	1997	CTS No. 1997, Morewadi	Fabrication of steel goods	5	N.A. / 350,000
200.	Elora Steel Corporation	1995	G.No. 769, H.No. 212, Pawar Vasti	Stainless steel products	3	N.A./185,000
201.	Enfab Engineering	1996	G. No. 711, Kudalewadi	Industrial & domestic fabrication	7	N.A. / 540,000
202.	Engineering Enterprises	1996	G.No. 1599, Kudalewadi, Chikhali	Engineering job works	8	N.A. / 400,000
203.	Enjoy Foods	1998	S. No. 884	Milk & food products	3	N.A. / 27,000
204.	Esquire Syndicate	1997	G. No. 707, Kudalewadi	Paper cutting	4	N.A. / 1,200,000
205.	Essel Engrs.	1995	810, Kudalewadi	Cable trays & Structural fabrication	8	N.A./ 1,500,000
206.	Excel Corporation	1990	G. No. 768, Pawar Vasti, Kudalewadi	Press tools, Press parts, Jigs & Fixtures	13	100,000 / 120,000
207.	Excel Enterprises	1996	S. No. 107, G. No. 769, Kudalewadi	Manufacturing of machine spare parts	2	N.A. / 50,000
208.	Excel Machines	1996	G. No. 769, S. No. 10, Kudalewadi	Manufacturing of machine spares	3	N.A. / 50,000
209.	Faiz Industries	1998	G. No. 769, Kudalewadi	Plastic bags & boxes	4	N.A. / 200,000
210.	Ferro-Liners	1991	G. No. 769, Kudalewadi	Foundry chemicals	11	200,000 / 500,000
211.	Fire Aid Engineers	1997	S. No. 797, Pawar Vasti, Kudalewadi	Fire Extinguishers	3	N.A./ 260,000
212.	G D Enterprises	1996	G. No. 1246	Engineering jobs	4	N.A. / N.A.
213.	G K Enterprises	1995	G. No. 785, Kudalewadi	Engineering jobs	5	N.A. / N.A.
214.	G R Enterprises	1996	S. No. 309, G. No. 1518, Tamhane Vasti	Engineering jobs	4	N.A. / 10,000
215.	Gadge Enterprises	1998	G. No. 1415, Vasti	Cement blocks	3	N.A. / 600,000
216.	Gadsing Industries	1997	G. No. 781, Kudalewadi	Auto press parts	9	N.A. / N.A.
217.	Gajanan Ice and Cold storage	1997	P.No. 122, G.No. 1466, Chikhali	Ice	5	N.A. / 250,000
218.	Gajanan Industries	1997	G.No.813, Kudalewadi, Chikhali	Engineering Jobs	4	N.A. / 90,000
219.	Gajanan Industries	1996	G.No. 769, Pawar vasti, Kudalewadi	Job works	11	N.A./ 1,200,000
220.	Gajraj Fabricators	1994	Pawar Vasti, Kudalewadi	Welding	3	125,000 / N.A.
221.	Gajraj fabricators	1996	S. No. 782, Pawar Vasti	Engineering jobs	6	N.A. / 100,000
222.	Galaxy Industries Pvt. Ltd.	1996	G. No. 52	Engineering Jobs	5	N.A. / N.A.
223.	Ganesh Engineering	1992	At + Post: Chikhali	Pin, Bush, Ring	8	50,000 / 60,000

APPENDIX 4-A

S. No.	Name of the Industry	Year of Estb.	Location - Gatt No. / Survey No. / Plot No. / Milkat No. / House No.	Scale / Type of Industry	No. of Workers	Investment / Turnover (Rs.)
224.	Ganesh Engineering Works	1996	G. No. 1182, Room – 4, Ramdasnagar	Engineering jobs	11	N.A. / 270,000
225.	Ganesh Engineering Works	1996	S. No. 810, Near PCMC Octroi Naka, Kudalewadi	Engineering jobs	4	N.A. / N.A.
226.	Ganesh Engineering Works	1996	G. No. 1334, Chikhali	Engineering jobs	2	N.A. / N.A.
227.	Ganesh Engineers	1998	G. No. 769, Pawar Vasti, Kudalewadi	Crank shafts	12	N.A. / 1,500,000
228.	Ganesh Fabrication	1996	S. No. 3476, More Vasti	Engineering & fabrication jobs	5	N.A. / 30,000
229.	Ganesh Industries	1993	769, Pawar Vasti, Kudalewadi	Engine job work	5	N.A. / N.A.
230.	Ganesh Plastic and Engineering works	1995	G.No.2/10,Vishnunagar, Kudalewadi	Plastic works	3	N.A./ 190,000
231.	Garage Engineering Pvt. Ltd.	1995	G. No. 776	MS press parts	12	N.A / 1.675,000
232.	Garbhagni Designing	1998	G. No. 707, Near Bhairavnath temple Kudalewadi	Engineering Designing	2	N.A. / 180,000
233.	Garbhagni Industry	1996	G. No. 707, Gala – 4, Kudalewadi	Jigs & fixtures, Press tools, and Dyes	3	N.A. / 325,000
234.	Gauri Enterprises	1997	G. No. 24, S. No. 56	Engineering & Fabrication jobs	4	N.A. / N.A.
235.	Gayatri Enterprises	1991	2069, Kudalewadi	Moulded rubber goods, Polymer	8	1,000,000 / 1,200,000
236.	Gayatri Timber Market	1995	S. No. 1335, At + post Chikhali	Furniture	5	N.A. / 130,000
237.	Geeta Industries	1996	G. No. 815, Pawar Vasti	Engineering jobs	3	N.A. / N.A.
238.	Geeta Industries	1998	G. No. 162, P No. 101, Kudalewadi	Electroplating	4	N.A. / N.A.
239.	Glass Fibre Industries	1990	G. No. 720, S. No. 1419, Kudalewadi	FRP table tops, Paddle boats, Water-scooter	9	N.A. / 1,100,000
240.	Gora Kashinath Engineering Works	1996	S. No. 1184, Vihan Chawl	Manufacturing of Engineering & Auto parts	3	N.A / 144,000
241.	Gorakhnath Papad Udyog	1998	G. No. 619/ 20, Jadhavwadi	Papads	N.A.	N.A. / 72,000
242.	G N S S Enterprises	1992	S. No. 825, Kudalewadi	Tool holder, slide, lever	10	500,000 / 1,200,000
243.	Godse Pressing	1997	781/2, G. No. 784, Pawar Vasti, Kudalewadi	Auto parts	6	N.A. / 420,000
244.	Gold Star Enterprises	1998	G. No. 695, P No.8-9, Kudalewadi	Plastic moulding	9	N.A. / 2,400,000
245.	Golden Enterprises	1998	G. No. 203	Fabrication jobs	3	N.A. / 60,000

APPENDIX 4-A

S. No.	Name of the Industry	Year of Estb.	Location - Gatt No. / Survey No. / Plot No. / Milkat No. / House No.	Scale / Type of Industry	No. of Workers	Investment / Turnover (Rs.)
246.	Golden Industries	1996	G. No. 796, Kudalewadi	Engineering & Fabrication jobs	9	N.A. / 630,000
247.	Goldman Precision Works	1996	G. No. 1274, More Vasti	Engineering Jobs	3	N.A. / N.A.
248.	Good Luck Steel Traders	1997	G. No. 769, Kudalewadi, Chikhali	Press parts	9	N.A. / 2500,000
249.	Govinda Enterprises	1998	S. No. 8/ O, Block 928, Yadav Estate, Kudalewadi	Engineering Jobs	3	N.A. / 180,000
250.	Grace Engineering Works	1998	S. No. 769/4, Pawar Vasti, Kudalewadi	Engineering Jobs	4	N.A. / 150,000
251.	Grace Enterprises	1996	769,Kudalewadi	Engineering jobs	2	N.A. / N.A.
252.	Green Star Steels	1998	G. No. 768, Pawar Vasti, Kudalewadi	Engineering Jobs	2	N.A. / 16,000
253.	Grind All	1998	S No. 837, Near Agarwal Plastics, Kudalewadi	Engineering Jobs	1	N.A. / 300,000
254.	Gunjan Enterprises	1995	G.No. 637, Kudalewadi	Glass works	5	N.A. / 600,000
255.	Gurav Associates	1998	S. No. 769, More Vasti	Fabrication of centering plates	4	N.A. / 170,000
256.	Guru Krupa Industries	1995	M. No. 1541, Chikhali	Engineering Jobs	5	N.A. / 50,000
257.	Guru Krupa Enterprises	1998	S. No. 1228, Vishnu Industrial Estate, Kudalewadi	Engineering Jobs	5	N.A. / 250,000
258.	Gurunanak traders	1996	S.No. 769, Kudalewadi, Chikhali	Engineering Jobs	2	N.A. / N.A.
259.	Gururaj Industries	1996	G. No. 785, Kudalewadi	Engineering Jobs	2	N.A. / 10,000
260.	H B Associates	1998	G. No. 162/1, Jadhavwadi	Boilers cleaning & Piping works	9	N.A. / 1,500,000
261.	H E Traders	1995	G.No. 720, Chikhali	Plastic products	6	N.A. / 60,000
262.	H H Steel	1998	G. No. 808, M. No. 996, Chikhali Telco Rd.	MS Fabrication & Engineering jobs	8	N.A. / 1,200,000
263.	H & R Engineering Co.	1997	G. No. 1559, P. No. 8 & 15	MS Fabrication jobs	8	N.A. / 510,000
264.	H S Industries	1995	G.No.738,Kudalewadi	Engineering Job Work	4	N.A. / 850,000
265.	H T Engineers	1996	G.No.769, Pawar vasti, Kudalewadi	Engineering Job Works	N.A.	N.A. / N.A.
266.	Hans Enterprises	1996	G. No. 1555, Dehu-Alandi Rd.	Engineering Jobs	6	N.A. / N.A
267.	Hans Enterprises	1997	G. No. 1556, AT + Post Chikhali	Press component	4	N.A. / 150,000
268.	Harish Industries	1997	G. No. 52 Dehu-Alandi Rd.	Cement bricks	6	N.A. / 455,000
269.	Hebbal Engineering	1996	S. No. 815, M. No. 1, Pawar Vasti	Engineering Jobs	5	N.A. / N.A.
270.	Hemal Traders	1997	M. No. 1824, At + post Chikhali	Manufacturing of Wooden boxes	3	N.A. / 300,000
271.	Hind Steel Coprporation	1995	G.No. 1012, Moshi Road, Chikhali	Manufacturing Press components	4	N.A. / 220,000

APPENDIX 4-A

S. No.	Name of the Industry	Year of Estb.	Location - Gatt No. / Survey No. / Plot No. / Milkat No. / House No.	Scale / Type of Industry	No. of Workers	Investment / Turnover (Rs.)
272.	Hiranand Engineering Works	1997	S. No. 227, Near Jai Prakash Narain Sanstha	Engineering goods	5	N.A. / 230,000
273.	Hrishikesh Industries	1998	G. No. 686, Kudalewadi	Engineering Jobs	3	N.A. / 55,000
274.	Hydrotech Engineering Co.	1995	S. No. 839, Kudalewadi	Engineering Jobs	5	N.A. / 460,000
275.	I M Engineering	1994	Near Sant Dnynaeshwar Industry, Kudalewadi	Spokets	4	100,000 / 70,000
276.	India Engineering Works	1995	S. No. 810, Block-927, Kudalewadi	Engineering Jobs	3	N.A. / N.A.
277.	India Enterprises	1998	S. No. 832, Kudalewadi	Engineering Jobs	11	N.A. / 100,000
278.	Indoplast Industries	1998	G. No. 704, Kudalewadi	Plastic granules	5	N.A. / 600,000
279.	Indrayani Engineering Works	1998	G. No. 1652, Patilnagar, Dehu - Alandi Rd.	Engineering jobs	3	N.A. / 300,000
280.	Indrayani Fabrication	1998	S. No. 179, 903, Kudalewadi	Table, chairs & windows	4	N.A. / 220,000
281.	Indrayani Fabricators	1997	G.No. 165, M.No. 166, Chikhali	Engineering and Fabrication jobs	7	N.A./ 150,000
282.	Indrayani Industries	1998	G. No. 695, Kudalewadi	Engineering Jobs	4	N.A. / 98,000
283.	Indrayani Plastic Industries	1997	G.No.165, M.No. 166, Chikhali	Plastic moulding	11	N.A. / 2,000,000
284.	Industrial Care Unit	1996	G.No. 689, Kudalewadi	Engineering Jobs	5	N.A. / 26,000
285.	J D Industries	1995	G. No. 784, Kudalewadi	Engineering Jobs	5	N.A. / N.A.
286.	J K Engineering	1996	G. No. 784, Pawar Vasti, Kudalewadi	Pressing Jobs	4	N.A. / N.A.
287.	J K Industries	1995	M. No. 2034, Kudalewadi	Engineering Jobs	4	N.A. / N.A
288.	J M Engineering works	1995	S.No. 926, Shop. No. 3, Kudalewadi	Engineering Job	2	N.A. /N.A.
289.	J P Industries	1995	G. No. 797, Pawar Vasti, Kudalewadi	Engineering & Fabrication jobs	5	N.A. / 275,000
290.	J P Trading Co.	1998	G. No. 696, Kudalewadi	Plastic moulding	4	N.A. / 700,000
291.	J S Engrs. & Fabricators	1995	S. No. 637, Jadhavwadi	Engineering & Fabrication jobs	3	N.A. / N.A.
292.	J V Plastics	1996	G. No. 707, Kudalewadi	Reprocessing of Plastic granules	2	N.A. / 100,000
293.	Jagdamba Mat.	1998	S. No. 1323, Jyoti Complex, More Vasti s	Spices	N.A.	N.A. / 45,000
294.	Jai Industries	1998	Shop-3, Ganage Lane, Pawar Vasti, Kudalewadi	Electroplating	6	N.A. / 100,000
295.	Jaideep Industries	1995	S. No. 711, Kudalewadi	Engineering Jobs	9	N.A. / N.A.

APPENDIX 4-A

S. No.	Name of the Industry	Year of Estb.	Location - Gatt No. / Survey No. / Plot No. / Milkat No. / House No.	Scale / Type of Industry	No. of Workers	Investment / Turnover (Rs.)
296.	Jaiswal Industries	1995	S. No. 1635, Dehu-Alandi Rd., Chikhaligaon	Engineering Jobs	4	N.A. / N.A.
297.	January Engineers	1996	S. No. 812, Kudalewadi	Engineering Jobs	3	N.A. / 290,000
298.	Jay Balaji Engineering & Fabrication Works	1995	M. No. 2248, Kudalewadi	Engineering & Fabrication jobs	3	N.A./ 200,000
299.	Jay Tee Engineering Works	1991	S. No. 849, P. No. 5, Kudalewadi	Hydraulic hose pipe	2	N.A. / N.A.
300.	Jeet Rubber & Plastic Industries	1985	Kudalewadi	O Rings, Gaskets, Packings, Oilseals	4	85,000 / 168,000
301.	Joliprint Engineering works	1997	S.No. 42/2, Telco Base, Jadhavwadi, Chikhali	Engineering job works	2	N.A. / 150,000
302.	Jove Industries	1997	G. No. 111, Shop-3, Pawar Vasti, Kudalewadi	Electroplating of Auto parts	4	N.A. / 100,000
303.	Julius BrothersWelding Works	1997	G.No.769, Pawar vasti, Kudalewadi	Fabrication job	2	N.A./ 130,000
304.	Jyoti Enterprises	1993	G. No. 769, Pawar Vasti, Kudalewadi	Nut-bolt	5	N.A. / 800,000
305.	Jyoti Fibre Glass and Furniture works	1995	G.No. 1323, M.No. 1916, More vasti	Glass fabrication job	5	N.A. / 112,000
306.	K D Industries	1995	S. No. 1254, P. No. 769, Shop – 6, Dajibhavan, Kudalewadi	Machining of Engine foundation	5	N.A / 25,000
307.	K R Enterprises	1995	1065, More Vasti	Engineering Jobs	3	N.A. / N.A
308.	Kadambari Engineering (Pune) Pvt. Ltd.	1996	G. No. 52, At + post Chikhali	Engineering Jobs	2	N.A. / N.A.
309.	Kailash Engineering Works	1996	S. No. 784, Pawar Vasti	Engineering & Fabrication jobs	4	N.A. / 540,000
310.	Kailash Engineering Works	1997	G. No. 262/3	Engineering Jobs	6	N.A. / 200,000
311.	Kalpak Industries	1995	G. No. 786, Pawar Vasti, Kudalewadi	Copper coiled MS wire	4	N.A. / 1,214,000
312.	Kalpana Glass & painting Works	1998	G. No. 165, Patilnagar	Sliding doors & Spray painting	2	N.A. / 260,000
313.	Kanchan Enterprises	1998	G. No. 684, Jadhavwadi	Fabrication & Engineering jobs	7	N.A. / 200,000
314.	Kanchan Industries	1995	S.No. 768, Pawar vasti, Kudalewadi	Engineering jobs	2	N.A. / N.A.
315.	Kanchan Industries	1996	G. No. 812, Pawar Vasti, Kudalewadi	Engineering jobs	7	N.A. / N.A.

APPENDIX 4-A

S. No.	Name of the Industry	Year of Estb.	Location - Gatt No. / Survey No. / Plot No. / Milkat No. / House No.	Scale / Type of Industry	No. of Workers	Investment / Turnover (Rs.)
316.	Kanchenjanga Impex	1996	G. No. 1583, At + Post: Chikhali	Processing ferrous & iron scraps	10	N.A. / 96,000
317.	Kanika Enterprises	1996	G.No. 1264,Gala No. 12, Chikhali	Fabrication job	8	N.A. / 1,025,000
318.	Karpe Brothers Wood Works	1976	Patilnagar	Furniture works	3	N.A. / 20,000
319.	Kasat Enterprises	1998	S. No. 1, More Vasti	Wooden furniture	4	N.A. / 150,000
320.	Kaushal Enterprises	1995	1523/1420, Pawar Building, Kudalewadi	Engineering and fabrication jobs	5	N.A. / N.A.
321.	Kedarling Enterprises	1998	Near Jyotiba Temple	Wooden boxes	5	N.A. / 100,000
322.	Kemiyan Engineering agency	1997	P.No. C-25, G.No. 1559, Chikhali	Fabrication jobs	4	N.A. / 200,000
323.	Kiran Industries	1995	S. No. 678, Kudalewadi, At + post Chikhali	Engineering jobs	4	N.A. / 40,000
324.	Kishen Enterprises	1996	M. No. 3514, G. No. 857, Kudalewadi	Precision & Sheet metal press components	4	N.A / 600,000
325.	Kishore Engineering Works	1995	G. No. 813, Pawar Vasti	Engineering & Fabrication jobs & Press parts	6	N.A. / 100,000
326.	Kisty Auto Parts	1998	S. No. 678, Shop 1, Kudalewadi	Fabrication jobs	3	N.A. / 180,000
327.	Kokate Enterprises	1996	G. No. 1130, H. No. 1380, More Vasti	Engineering & Fabrication jobs	5	N.A. / 240,000
328.	Komal Enterprises	1997	G.no. 52, Chikhali	Engineering jobs and works	3	N.A. / N.A.
329.	Koosen Engineers Pvt. Ltd.	1996	S. No. 1503	Plastic components	3	N.A. / 344,000
330.	Koyna Engineering Works	1993	Kudalewadi	Turning, Boring & Threading job Works	7	N.A. / N.A.
331.	Krishna Engineering job works	1995	S.No. 32, D.No. 12, Chikhali	Engineering jobs	2	N.A. / N.A.
332.	Krishna Printers	1998	G. No. 496, Jadhavwadi	Printing & Binding	N.A.	N.A. / 18,000
333.	Kriya Fasteners	1990	Pawar Vasti, Kudalewadi	Spring washers	5	200,000 / 1,200,000
334.	Kuber Engineering Pvt. Ltd.	1998	G. No. 796, Pawar Vasti, Kudalewadi	Auto parts	5	N.A. / N.A.
335.	Kuber Industries	1999	S. No. 769, Kudalewadi	Fabrication of door & windows	4	N.A. / 450,000
336.	Kumar Industries	1998	S. No. 1164, Kudalewadi	Engineering goods	2	N.A. / 280,000
337.	Kunal Engineering	1999	S. No. 767, Kudalewadi	Auto parts & engine jobs	5	N.A. / 200,000
338.	Kunal Industries	1997	G. No. 765/29, Pawar Vasti, Kudalewadi	Engineering jobs	4	N.A. / 80,000

APPENDIX 4-A

S. No.	Name of the Industry	Year of Estb.	Location - Gatt No. / Survey No. / Plot No. / Milkat No. / House No.	Scale / Type of Industry	No. of Workers	Investment / Turnover (Rs.)
339.	Lalit Enterprises	1996	G. 769, Pawar Vast, Telco-Chikhali Rd.	Fabrication jobs	1	N.A. / N.A.
340.	Laser Tech Engineering	1987	1638, Kudalewadi	Pollution Control Equipment	6	150,000 / 900,000
341.	Laxmi Enterprises	1998	G. No. 837, Gala 5, Janaki Industrial Estate, Kudalewadi	Fabrication & Engineering jobs	2	N.A. / 400,000
342.	Laxmi Fabrications	1998	G. No. 165, Patilnagar	Fabrication of doors & rolling shutters	2	N.A. / 120,000
343.	Laxmi Enterprises	1995	G.No. 165, S.No. 81, Jadhavwadi	Engineering job work	3	N.A. / 80,000
344.	Laxmi Pooja Enterprises	1996	G. No. 1331, H. No. 2491, More Vasti	MS Engineering & Fabrication jobs	4	N.A. / N.A.
345.	Laxmi Printers	1994	Pawar Vasti	Industrial printing	2	N.A. / 20,000
346.	Laxmi Printing Press	1996	M.No. 1, Kudalewadi, Chikhali	Printing and Book binding	3	N.A. / N.A.
347.	Laxmi Steel Traders	1995	S. No. 768, Pawar Vasti, Kudalewadi	MS scrap baling	3	N.A./ 2,500,000
348.	Laxmi Vijay Printers	1996	G. No. 769, Pawar Vasti, Kudalewadi	Engineering jobs	4	N.A. / 75,000
349.	Laxmi Vijay Printers	1997	G. No. 769, Pawar Vasti, Kudalewadi	Commercial Printing and Binding	5	N.A. / 200, 000
350.	LNIK Pressings	1995	S.No. 64, Chikhali	Engineering jobs	6	N.A. / N.A.
351.	Lokah B Engineering Works	1994	1254, Kudalewadi	Crown wheel, RA shaft	4	N.A. / 200,000
352.	M A Enterprises	1996	G. No. 223, Kudalewadi	Engineering jobs	5	N.A. / N.A.
353.	M B Plastic Industries	1995	G.No. 706, H.No. 1157, Kudalewadi	Engineering jobs	4	N.A. / 900,000
354.	M B Rapse	1998	G. No. 1264, Shop. 12, Shanti complex	Engineering goods	4	N.A. / 130,000
355.	M G Fabricators	1995	G.No. 119, at Bohadewadi, Chikhali	Milk containers	8	N.A. / 292,000
356.	M G M Industries	1998	G. No. 1323, Shop 3, More Vasti	Press parts & Electrical assembly	9	N.A. / 20,000
357.	M M Industries	1998	G. No. 2248, Pawar Vasti, Kudalewadi	Engineering Components	3	N.A. / 200,000
358.	M M Lokokare	1998	S. No. 1194, Jadhavwadi	Auto press parts	4	N.A. / 610,000
359.	M P Enterprises	1996	S.No. 2378, Kudalewadi, Chikhali	Engineering job works	4	N.A. / N.A.

APPENDIX 4-A

S. No.	Name of the Industry	Year of Estb.	Location - Gatt No. / Survey No. / Plot No. / Milkat No. / House No.	Scale / Type of Industry	No. of Workers	Investment / Turnover (Rs.)
360.	M P Enterprises	1997	S.No. 782, Pawar Vasti, Kudalewadi, Chikhali	Engineering jobs	6	N.A. / 600,000
361.	M S Enterprises	1997	G. No. 817/A, Kudalewadi	Engineering jobs	3	N.A. / 200,000
362.	M S Rubber Enterprises	1985	923, Behind TELCO, Kudalewadi	Soiled packing, bushes	9	N.A. / N.A.
363.	Madhuri Industries	1995	G. No. 1182, Ramdanagar	Engineering jobs	4	N.A 40,000
364.	Mahajan Fabricators	1998	G. No. 767, Kudalewadi	Industrial & Domestic Fabrication	5	N.A. / 126,000
365.	Mahalaxmi Industries	1988	1195, Kudalewadi	Machining of gear blanks	3	N.A. / 200,000
366.	Maharashtra Cane Furniture	1993	Near Octroi office, Kudalewadi	Manufacturing of Cane furniture & decor.	6	130,000 / 120,000
367.	Mahavir Engineers	1996	G.No. 791, Kudalewadi	Engineering job works	6	N.A. / 70,000
368.	Mahesh Engineering Works	1997	S. No. 313, More Vasti	Fabrication jobs	3	N.A. / 300,000
369.	Mahesh Enterprises	1997	S. No. 146, Patilnagar	Engineering jobs	3	N.A. / N.A.
370.	Mahesh Industries	1997	S. No. 146, Patilnagar	Engineering jobs	3	N.A. / N.A.
371.	Mala Enterprises	1996	G.No. 796, Kudalewadi, Pawar vasti	Fabrication job	4	N.A. / N.A.
372.	Malekar Industries	1995	M. No. 2237	Engineering jobs	5	N.A. / N.A.
373.	Malik Steel Traders	1996	S.No. 1855, Pawar Vasti, Kudalewadi	Sheet metal works	4	N.A. / 50,000
374.	Malpune Industries	1996	G. No. 1323, P. No. 320, More Vasti	Engineering & Fabrication jobs	6	N.A. / 75,000
375.	Malvi Industries	1995	S.No. 1677/1, Kudalewadi, Chikhali	Engineering jobs	4	N.A. / N.A.
376.	Mamta Engineering Works	1998	G. No. 929, Kudalewadi	Engineering jobs	6	N.A. / 200,000
377.	Mamta Steel Traders	1998	G. No. 802, Property No. 5/379, Kudalewadi	MS strips & Fabrication	4	N.A. / 400,000
378.	Manas Udyog	1996	G. No. 869, Kudalewadi	Turning and Grinding jobs	4	N.A. / 220,000
379.	Mangala Enterprises	1996	G.No.796, Pawar Vasti, Kudalewadi	Engineering and Fabrication jobs	2	N.A. / 90,000
380.	Manju Industries	1996	G. No. 396, P. No. 20014, Aaherwadi, At + Post: Chikhali	Engineering jobs	7	N.A. / N.A.
381.	Manjunath Engineering	1996	S.No.796, Pawar vasti, Kudalewadi	Engineering jobs	5	N.A. / N.A.
382.	Manjusha Rubber & Engineering Works	1998	G. No. 765, P. No. 26, Kudalewadi	Rubber goods	4	N.A. / 220,000

APPENDIX 4-A

S. No.	Name of the Industry	Year of Estb.	Location - Gatt No. / Survey No. / Plot No. / Milkat No. / House No.	Scale / Type of Industry	No. of Workers	Investment / Turnover (Rs.)
383.	Manoj Enterprises	1995	702, Kudalewadi	Engineering & Fabrication jobs	4	N.A / 175,000
384.	Manoj Enterprises	1997	S. No. 97/1, More Vasti	Sweets	1	N.A. / 46,000
385.	Manu Enterprises	1995	M.No. 1890, Kudalewadi	Engineering job work	3	N.A. / N.A.
386.	Manpreet Engrs.	1995	G. No. 784, Pawar Vasti, Kudalewadi	Manufacturing of Motorcycle components	5	N.A. / 102,000
387.	Maruti Entps	1997	S. No. 459, Pawar Vasti, Kudalewadi	Engineering jobs	2	N.A. / 195,000
388.	Master Fabrication Inc.	1998	G. No. 107, Jadhavwadi	Boiler cleaning & Piping works	11	N.A. / 2,300,000
389.	Matrix Engrs.	1995	G. No. 785, Kudalewadi	Engineering jobs	6	N.A / N.A
390.	Maya Engineers	1997	G. No. 1303	Engineering jobs	7	N.A. / 125,000
391.	Maya Industries	1996	G. No. 812, Pawar Vasti, Kudalewadi	Engineering jobs	4	N.A / N.A
392.	Maya Industries	1998	G. No. 709, Kudalewadi	Wire nails	6	N.A. / 3,000,000
393.	Maya Mini Market	1997	G. No. 1334, More Vasti,	Manufacturing of spices	2	N.A. / 100,000
394.	May Enterprises	1996	G. No. 707, Kudalewadi	Manufacturing of Jigs & Fixtures	3	N.A. / 20,000
395.	Mayur Concrete Products	1997	G. No. 793, At + Post Chikhali	Cement drainage, chambers & covers	9	N.A. / 800,000
396.	Mayur Enterprises	1995	G. No. 640	Steel coat & Grill	3	N.A. / 55,000
397.	Mega Engineers	1997	S. No. 711, P. no. 17, Kudalewadi	Jigs & Fixtures	9	N.A. / 1,205,000
398.	Megha Engineers	1998	S. No. 8/ O, Block 929, Yadav Estate, Kudalewadi	Engineering jobs	3	N.A. / 200,000
399.	Meghana Industries	1995	G. No. 752	Engineering jobs	4	N.A. / N.A.
400.	Meena Industries	1996	G.No.673, Kudalewadi, Chikhali	Engineering jobs	4	N.A. / N.A.
401.	Meenakshi Manufacturers & Fabricators	1997	G. No. 769, Pawar Vasti, Kudalewadi	MS Fabrication jobs	6	N.A. / 440,000
402.	Meher Enterprises	1995	G. No. 766, S. No. 179, Pawar Vasti, Kudalewadi	Engineering jobs	5	N.A. / 250,000
403.	Metallica	1997	S. No. 767, Pawar Vasti, Kudalewadi	Machining & Fabrication jobs	10	N.A. / 2,050,000
404.	Meta Plastics	1994	179, Pawar Vasti, Kudalewadi	Sheet metal, Pressed components	5	100,000 / N.A.
405.	Metro Steel Corporation	1998	G. No. 680, Kudalewadi	Engineering jobs	4	N.A. / 200,000
406.	Metro Tech	1996	G. No. 712, P. No. 34, Kudalewadi	Engineering jobs	2	N.A. / 70,000

APPENDIX 4-A

S. No.	Name of the Industry	Year of Estb.	Location - Gatt No. / Survey No. / Plot No. / Milkat No. / House No.	Scale / Type of Industry	No. of Workers	Investment / Turnover (Rs.)
407.	Modern Enterprises	1997	G. No. 796, P. No. 1, Pawar Vasti, Kudalewadi	Engineering & Fabrication jobs	9	N.A. / 1,400,000
408.	Modern Enterprises	1991	G. No. 769, Kudalewadi	Axle shaft	9	200,000 / 800,000
409.	Modern Metal Works	1997	G. No. 671, Kudalewadi	Engineering Jobs	4	N.A. / 300,000
410.	Mohaniraj Industries	1990	Pawar Vasti	Dies, moulds, jigs & fixtures	7	N.A. / 200,000
411.	Morsons Industries	1996	G. No 785, Kudalewadi	Engineering jobs	4	N.A. / N.A.
412.	Murgipa Steel Pvt. Ltd.	1998	G. No. 704, S No. 126, Kudalewadi	Engineering jobs	4	N.A. / 300,000
413.	N K Industries	1997	G. No. 765, Pawar Vasti, Kudaewad	Engineering & Fabrication jobs	4	N.A. / 400,000
414.	N R Industries	1997	S. No. 1303, Near Octroi Post, Sane Vasti	Auto parts	3	N.A. / 65,000
415.	N S Engineering works	1996	G. No. 2289, Jadhavwadi, Chikhali	Engineering and Fabrication jobs	3	N.A. / 196,000
416.	N S Enterprises.	1995	G. No. 810, Pawar Vasti, Kudalewadi	Engineering & Fabrication jobs	6	N.A / 125,000
417.	N.S. Industries	1997	G.No. 987, AP Chikhali	Engineering jobs	3	N.A. / 60,000
418.	Nanak Fabricators	1995	H.No. 13871, Chikhali	Fabrication jobs	5	N.A. / 40,000
419.	Nanda Enterprises	1997	S.No.1176, H.No. 522, Ganeshnagar, Chikhali	Manufacturing Readymade Garments	N.A.	N.A. / 38,000
420.	Napple Shri Ganesh Electricals	1995	S.No. 680, Morevasti, Chikhali	Engineering jobs	3	N.A. / 40,000
421.	National Enterprise	1996	S.No. 767, Pawarvasti, Kudalewadi	Engineering jobs	3	N.A. / N.A.
422.	National Metal industries	1995	S.No. 705, P.No. 183, Kudalewadi	Engineering and Fabrication jobs	4	N.A. / 250,000
423.	National Metal Works	1995	S. No. 769, Near Jakat Naka, Kudalewadi	Aluminium goods	4	N.A. / 534,000
424.	National Trading Co.	1995	P. No. 2033, G. No. 769, Pawar Vasti	Engineering jobs	2	N.A. / N.A.
425.	Navjiwan Packaging	1999	G No. 678/79, S. No. 124, Kudalewadi	Corrugated boxes	5	N.A. / 360,000
426.	Navnath Engineering Works	1992	1254, Kudalewadi	Job Works	4	N.A. / 120,000
427.	Navnath Industries	1995	G. No. 1567, Shelar Vasti, Talwade Rd.	Plastic moulded Auto parts	6	N.A./ 3,500,000
428.	Neelam Engineering Works	1996	G. No. 1652	Fabrication jobs	4	N.A / 165,000

APPENDIX 4-A

S. No.	Name of the Industry	Year of Estb.	Location - Gatt No. / Survey No. / Plot No. / Milkat No. / House No.	Scale / Type of Industry	No. of Workers	Investment / Turnover (Rs.)
429.	New Asha Puree Industries	1996	G. No. 769, Pawar Vasti, Kudalewadi	Engineering jobs	4	N.A. / N.A.
430.	New Maharashtra Scrap	1996	G.No. 1/6, Chikhali Moshi road	Plastic granules	4	N.A. / 130,000
431.	New Manikmoti Plastics	1997	S. No. 1190, Kudalewadi	Plastic moulding	3	N.A. / 325,000
432.	Nikhil Enterprises	1997	G. No. 765, Pawar Vasti, Kudalewadi	Zinc plating	4	N.A. / 150,000
433.	Nilesh Engineering	1996	S. No. 765, Pawar vasti, Chikhali	Engineering jobs	N.A.	N.A. / N.A.
434.	Nilesh Engineering works	1997	G.No. 131, More Vasti, Chikhali	Engineering jobs	4	N.A. / 160,000
435.	Nilesh Industries	1996	G. No. 912, Kudalewadi	Engineering jobs	5	N.A. / N.A.
436.	Nilesh Industries	1996	M.No. 931, Chikhali	Engineering jobs	4	N.A. / N.A.
437.	Nilesh Plastics	1996	M. No. 931	Plastic granules	3	N.A. / N.A.
438.	Nirmal Engineering & Fabricators	1997	S. No. 903, H. No. 915, Behind Dnyaneshwar Industries, Kudalewadi	Engineering & Fabrication jobs	1	N.A. / 75,000
439.	Nirmala Enterprises	1992	Patilnagar	Turning	2	N.A. / 60,000
440.	Nirmal Industries	1996	G. No. 769, Pawar Vasti, Kudalewadi	Engineering jobs	4	N.A. / 50,000
441.	Nirmiti Enterprises	1997	G.No. 1228, Gala No. 5, Kudalewadi	Sheet metal parts	8	N.A. / N.A.
442.	Niteen Engineers	1995	M.No. 2531	Engineering jobs	5	N.A. / N.A.
443.	Nitin Engineering Works	1998	S. No. 179, Pawar Vasti, Kudalewadi	Engineering Jobs	4	N.A. / 200,000
444.	Nitiraj Enterprises	1998	G. No. 848	Plastic re-processing	3	N.A. / 280,000
445.	OM Engrs.	1995	G. No. 1635, At + post Chikhali	Engineering jobs	4	N.A / 25,000
446.	Om Enterprises	1996	S. No. 686, Jadhavwadi	Sheet metal press components	4	N.A. / 500,000
447.	OM Fabrication	1997	S.No. 1372, Chikhali	Fabrication jobs	3	N.A. / 315,000
448.	OM Sai Engineering Works	1995	M. No. 1-A, Kudalewadi	Engineering jobs	3	N.A / N.A
449.	Om Sai Enterprises	1995	S.No. 179, Kudalewadi, Chikhali	Fabrication jobs	13	N.A. / N.A.
450.	OM Sudeep Enterprises	1995	M. No. 1930, Pawar Vasti, Kudalewadi	Engineering goods & fabrication	4	N.A. / 180,000
451.	Omega Plastics	1997	G. No. 769, Pawar Vasti	Plastic moulding	4	N.A. / 100,000

APPENDIX 4-A

S. No.	Name of the Industry	Year of Estb.	Location - Gatt No. / Survey No. / Plot No. / Milkat No. / House No.	Scale / Type of Industry	No. of Workers	Investment / Turnover (Rs.)
452.	Omkar Electroplating & Surface Treatments	1996	S. No. 422, Patilnagar	Electro-plating & Zinc-plating	5	N.A. / 60,000
453.	Omkar Engineers	1997	G. No. 765/36, Pawar Vasti, Kudalewadi	Engineering jobs & Press parts	4	N.A. / 140,000
454.	Omkar Sale Corporation	1995	G.No. 812, Chikhali	Engineering job work	3	N.A. / 500,000
455.	Om Engineering Works	1996	G.No. 812, Pawar vasti, Kudalewadi	Engineering jobs	12	N.A. / N.A.
456.	Om Sai Enterprises	1998	G. No. 1183, Ramdasnagar	Food products	1	N.A. / 69,000
457.	Om Sai Fabrication	1998	G. No. 882	Fabrication of doors & windows	4	N.A. / 250,000
458.	Om Shree Industries	1994	769, Pawar Vasti, Kudalewadi	Turning & Drilling	7	150,000 / N.A.
459.	Omkar Engineering Works	1986	Kudalewadi	Job works & Turning	6	N.A. / N.A.
460.	Omkar Pressings	1998	G No. 765, Pawar Vasti,	Engineering jobs	2	N.A. / 145,000
461.	Onkar Engineering	1997	S.No. 677/1, Near Bhairavnath Temple, Kudalewadi, Chikhali	Engineering jobs	5	N.A. / 250,000
462.	Onkar Engineering	1998	S. No. 769, Pawar Vasti, Kudalewadi	Fabrication jobs	5	N.A. / 500,000
463.	Opel Metal Industries	1997	S. No. 710, Kudalewadi	Engineering jobs	4	N.A. / 450,000
464.	Orient Enterprises	1996	G.No. 1555, Dehu-Alandi Road, Chikhali	Fabrication job	4	N.A. / 170,000
465.	P K Engineers	1996	G.No. 1651, M.No. 376, Patil Nagar, Chikhali	Engineering and Fabrication jobs	4	N.A. / 440,000
466.	P K Press Tools	1982	Kudalewadi	Fabrication jobs	3	N.A. / 300,000
467.	P P Enterprises	1997	S. No. 812, Pawar Vasti	Fabrication jobs	5	N.A. / N.A.
468.	P R Enterprises	1997	G. No. 197-98	Engineering jobs	5	N.A. / N.A.
469.	P S Enterprises	1998	G. No. 1458, Mhetrewadi	Engineering jobs	2	N.A. / 150,000
470.	P T Industries	1998	G. No. 712, P No. 34, Kudalewadi	Engineering jobs	2	N.A. / 60,000
471.	Palm Aries	1996	G. No. 769	Polythene bags	7	N.A. / 95,000
472.	Panchratna Plastic Industries	1997	G. No. 1928, Dehu-Alandi Rd.	PVC granules	5	N.A. / 905, 000
473.	Parag Enterprises	1997	G. No. 1332, More Vasti	Fabrication jobs	2	N.A. / N.A.
474.	Param Industries	1997	G. No. 695, P. No. 15, Kudalewadi	Auto parts	5	N.A. / 240,000
475.	Param Shaas Industries	1997	G. No. 849, Kudalewadi	Engineering Jobs	3	N.A. / N.A.

APPENDIX 4-A

S. No.	Name of the Industry	Year of Estb.	Location - Gatt No. / Survey No. / Plot No. / Milkat No. / House No.	Scale / Type of Industry	No. of Workers	Investment / Turnover (Rs.)
476.	Parichya Entps	1996	S. No. 585, Kudalewadi, Near Jakat Naka	Engineering jobs	4	N.A. / 60,000
477.	Parmar Mechanical Works	1997	S. No. 781/3, Pawar Vasti, Kudalewadi	Cranes & trolleys	4	N.A. / 150,000
478.	Parshuram Enterprises	1997	G.No. 210, Chikhali	Fabrication jobs	2	N.A. / 130,000
479.	Pathare and Brothers	1997	S.No. 216, More Vasti, Chikhali	Assembly of tapes	2	N.A. / 150,000
480.	Pavan Engineers	1997	G. No. 1415, S. No. 306, Mahadeonagar	Auto parts	2	N.A. / 225,000
481.	Pentagon Engineering	1997	G.No. 796, H.No. 1432, Pawar Vasti	Auto Components, Job work	3	N.A. / 480,000
482.	Perfect Engineers	1997	S. No. 1164, Kudalewadi	Jigs & Fixtures	6	N.A. / 150,000
483.	Perfect Engineers & Suppliers	1997	G. No. 767, Pawar Vasti, Kudalewadi	Engineering jobs	4	N.A. / 50,000
484.	Perfect Metal Processor	1997	S. No. 784, Pawar Vasti, Kudalewadi	Electroplating & Spray painting	5	N.A. / 625,000
485.	Phoenix Engineers	N.A.	923, Kudalewadi	Job Works & Cover plates	4	N.A. / N.A.
486.	Poly Coat Industries	1995	S.No. 282, P.No. 4, Kudalewadi, Pawar vasti	Painting job work	3	N.A. / 20,000
487.	Pooja Printers	1998	G. No. 1465, Hanumannagar, Mhetere Vasti	Printing & Book binding	3	N.A. / 160,000
488.	Poona Engineers	1997	G. No. 718, S. No.162, Kudalewadi	Engineering & Fabrication jobs	4	N.A. / 300,000
489.	Poornima Enterprises	1997	G.No. 218, At + Post: Chikhali	Engineering jobs	3	N.A. / 400,000
490.	Prabhu Industries	1996	S. No. 815, M. No. 2, Pawar Vasti	Engineering jobs	4	N.A. / N.A.
491.	Prachi Engineers	1996	S.No. 707, Kudalewadi	Engineering jobs	5	N.A. / N.A.
492.	Prajyo Industrial & Chemical Equipments	1996	S. No. 671, Kudalewadi	Fabrication of chemical vessels & tanks	7	N.A. / 800,000
493.	Pragati Engineering Works	1997	G. No. 262/4	Engineering jobs	4	N.A. / N.A.
494.	Pragati Precision Works	1995	M. No. 1541, Chikhaligaon	Precision job works	4	N.A. / 60,000
495.	Prajay Engineering	1995	M.No. 923, Kudalewadi	Sheet metal and Press components	6	N.A. / 61,000
496.	Prakash Engineering	1996	G. No. 720, S. No. 1491, Kudalewadi	Engineering jobs	5	N.A. / 25,000
497.	Prasad Enterprises	1995	S. No. 711, Kudalewadi	Repairing & welding of transformer	2	N.A. / N.A.

APPENDIX 4-A

S. No.	Name of the Industry	Year of Estb.	Location - Gatt No. / Survey No. / Plot No. / Milkat No. / House No.	Scale / Type of Industry	No. of Workers	Investment / Turnover (Rs.)
498.	Prasanna Automobiles	1996	S. No. 179, Shop – 1, Pawar Vasti	Auto parts	2	N.A. / 185,000
499.	Prashad Engineering & Fabricators	1998	S. No. 714, Kudalewadi	Engineering jobs	26	N.A. / 238,000
500.	Prashant Departments	1999	Kudalewadi	Papad	3	N.A. / 100,000
501.	Prashant Engineering	1998	G. No. 676, Tamahane Vasti	Engineering jobs	2	N.A. / 159,000
502.	Prashant Engineering Works	1996	G. No. 1532, Chikhali	Engineering jobs	6	N.A. / N.A.
503.	Prashant Engineering Works	1998	G. No. 812, Pawar Sani, Kudalewadi	Engineering jobs	4	N.A. / 220,000
504.	Prashant Industries	1998	G. No. 1644	Fabrication jobs	5	N.A. / 1,125,000
505.	Pratik Enterprises	1996	G. No. 695, Kudalewadi	Engineering jobs – turning, milling & drilling	2	N.A. / 52,000
506.	Pravin Fabricators & Erectors	1995	S. No. 768, Kudalewadi	MS Fabrication jobs	3	N.A. / 45,000
507.	Pravin Industries	1995	S.No. 1323, Morevasti, Chikhali	Engineering jobs	6	N.A. / 32,000
508.	Prachi Furniture	1995	M. No. 1368	Steel furniture	5	N.A / 400,000
509.	Precision Engineering	1996	G.No. 768, Pawaravsti, Kudalewadi	Fabrication jobs	4	N.A. / 280,000
510.	Precision Engineering Works	1996	707, Kudalewadi	Engineering jobs	6	N.A. / 19,000
511.	Precision parts	1996	G.No.905, Kudalewadi, Chikhali	Engineering job works	4	N.A. / 10,000
512.	Preet Industries	1994	Pawar Vasti, Kudalewadi	Facing & Centering	3	150,000 / 120,000
513.	Preet Industries	1995	G.No. 769, Azadnagar, Kudalewadi, Chikhali	Engineering jobs	5	N.A. / 440,000
514.	Preety Engineering Works	1989	229, Ambike Industrial Estate	Mechanical brackets	7	N.A. / 1,000,000
515.	Prerna Industries	1995	G. No. 1182, Bonkar Chawl, Ramdasnagar	Engineering jobs	4	N.A. / 20,000
516.	Presitech Engrs.	1995	S. No. 769, Pawar Vasti, Kudalewadi	Sheet metal products	5	N.A / 210,000
517.	Press Fabrication Engineering India Pvt. Ltd.	1995	G.No. 837, Kudalewadi, Chikhali	Fabrication and Engineering jobs	7	N.A. / 400,000
518.	Prime Colours	1997	S. No. 812, Pawar Vasti	Synthetic & enamel paints	3	N.A. / 1,250,000
519.	Priya Dies Casters & Engineers	1998	798, Pawar Vasti, Kudalewadi	Aluminium casting & Auto parts	5	N.A. / 80,000
520.	Priyanka Engineering Works	1998	H. No. 229	Engineering jobs	4	N.A. / 300,000

APPENDIX 4-A

S. No.	Name of the Industry	Year of Estb.	Location - Gatt No. / Survey No. / Plot No. / Milkat No. / House No.	Scale / Type of Industry	No. of Workers	Investment / Turnover (Rs.)
521.	Progressive Engineers	1997	G. No. 769, M. No. 642, Kudalewadi	Press component	7	N.A. / 750,000
522.	Proja Corrugators	1995	P. No. 241	Paper corrugated boxes	4	N.A. / N.A.
523.	Protech Engrs.	1996	G. No. 711, P. No. 24	Press component	2	N.A. / 400,000
524.	Pruchi Enterprises	1997	G. No. 1308, P. No. 1, More Vasti	Testing of chemicals & minerals	3	N.A. / 120,000
525.	Pugatila Engineers Pvt. Ltd.	1998	G. No. 705, P No. 33, Pawar Vasti, Kudalewadi	Auto & Machinery components	7	N.A. / 300,000
526.	Punam Engineering Works	1996	G. No. 786, Pawar Vasti, Kudalewadi	Engineering jobs	3	N.A. / 50,000
527.	Qual Cast Pattern Shop	1984	H. No. 1361, Pawar Vasti, Kudalewadi	Welding & Fabrication works	14	N.A. / 1,748,073
528.	Quality Rubber Products	N.A.	H. No. 402, At + Post FF	Industrial products	7	400,000 / 300,000
529.	R-Tow	1998	S. No. 825, Kudalewadi	Engineering jobs	3	N.A. / 125,000
530.	R G Engineering Works	1998	S. No. 13/9, Shop 5, Raghunath Mane Complex, More Vasti	MS Fabrication & Engineering Jobs	1	N.A. / 180,000
531.	R H Enterprises	1996	G. No. 784, Kudalewadi	Fabrication & Pressing jobs	5	N.A. / N.A.
532.	R K Engineering Works	1995	S.No. 1332, Morevasti, Chikhali	Engineering Jobs	5	N.A. / 41,000
533.	R M Enterprises	1996	H. No. 929, Yadav Estate, Kudalewadi	Engineering jobs	4	N.A. / 10,000
534.	R P Industries	1998	G. No. 785, Pawar Vasti, Kudalewadi	Engineering jobs	5	N.A. / 600,000
535.	R R Industries	1996	G. No. 1556, Dehu-Alandi Rd.	Engineering & Fabrication jobs	9	N.A. / 78,000
536.	R S Engineering Works	1997	G.No. 769, S.No.179, Pawar Vasti, Chikhali	Engineering job works	4	N.A. / 150,000
537.	Rahul Enterprises	1990	S. No. 849, Kudalewadi	Press products	3	N.A. / N.A.
538.	Rahul Industries	1996	G. No. 123, Kudalewadi	Engineering products	4	N.A. / 200,000
539.	Rainbow Engineers	1998	1651, Patilnagar	MS & SS Fabrication	7	N.A. / 12,000
540.	Rajani Industries	1996	S. No. 1640, Kudalewadi	Engineering goods – dyes	2	N.A. / 185,000
541.	Raj Auto Enterprises	1998	1503, Yadav Building, Kudalewadi	Wiring harners	12	N.A. / 1,750,000
542.	Raj Engineering Works	1995	G. No. 1323, S. No. 3148/315, Yashwant N., More Vasti	Cement concrete blocks	3	N.A. / 90,000

APPENDIX 4-A

S. No.	Name of the Industry	Year of Estb.	Location - Gatt No. / Survey No. / Plot No. / Milkat No. / House No.	Scale / Type of Industry	No. of Workers	Investment / Turnover (Rs.)
543.	Raj Enterprises	1996	G. No. 805, S. No. 1164, Kudalewadi	Engineering jobs	10	N.A. / N.A.
544.	Raj Enterprises	1997	G.No. 781/2, Pawarwasti, Kudalewadi, Chikhali	Manufacturing Auto parts	9	N.A. / 2,200,000
545.	Raj Hardware & Electricals	1999	G. No. 130	Wooden boxes & Electrical items	3	N.A. / 75,000
546.	Rajdeep Enterprises	1998	G. No. 1649, Patilnagar	Safety shoes & gloves	3	N.A. / 120,000
547.	Rajdeep Industries	1993	678, Kudalewadi	Job Works	6	N.A. / N.A.
548.	Rajbhor Fabricators	1995	S. No. 309, G. No. 1398, H. No. 2612, More Vasti	Engineering Fabrication jobs	2	N.A. / 155,000
549.	Rajesh Engineering Works	1987	Donkar Chowk	Job Works & Gear	4	82,000 / 200,000
550.	Rajesh Enterprises	1995	714, Siddheswar Indl. Estate, Kudalewadi	Engineering jobs	4	N.A. / N.A.
551.	Rajesh Industries	1988	S. No. 634, Kudalewadi	Gears	11	150,000 / 360,000
552.	Raj Gears	1996	G.No. 905, Kudalewadi, Chikhali	Engineering and Fabrication jobs	3	N.A. / 110,000
553.	Rajhans Industries	1994	S. No. 678, Kamiakar Balghat Building, Kudalewadi	Engine gears	1	100,000 / 90,000
554.	Rajhans Leather Works	1998	G. No. 1649	Safety shoes & Gloves	3	N.A. / 200,000
555.	Raj Packaging and Industries	1997	G. No. 1228, Vishnu Industrial Estate, Kudalewadi, Chikhali	Manufacturing of Corrugated boxes	8	N.A./ 3,500,000
556.	Rakesh Industries	1996	G. No. 837, Gala-3, Kudalewadi	Engineering jobs	4	N.A. / N.A.
557.	Rama Profiles	1994	G. No. 769, Pawar Vasti, Kudalewadi	Profile cutting & MS plate	6	N.A. / 20,000
558.	Rama Steel Centre	1997	G. No. 785, Kudalewadi	Engineering jobs	4	N.A. / 50,000
559.	Ramesh Hardwares & Electricals	1998	H. No. 438, Jyoti Complex, Sane Chowk	Switch boards	1	N.A. / 55,000
560.	Ramesh Provisional and General Store	1997	G.No.916, Harpude vasti, Chikhali	Food products	2	N.A. / 70,000
561.	Ramkrishna Engineering Industries	1998	S. No. 677/1, Kudalewadi	Plastic goods	3	N.A. / 1,550,000
562.	Ravi Engineers	1988	1240, Kudalewadi	Industrial & Foundry Equipment	4	250,000 / 1,500,000
563.	Ravi Enterprises	1997	S. No. 216, Sane Colony, More Vasti	Fabrication jobs	3	N.A. / 190,000

APPENDIX 4-A

S. No.	Name of the Industry	Year of Estb.	Location - Gatt No. / Survey No. / Plot No. / Milkat No. / House No.	Scale / Type of Industry	No. of Workers	Investment / Turnover (Rs.)
564.	Ravi Kiran Entps	1996	G. No. 791, Pawar Vasti, Kudalewadi	Engineering products & Auto parts	3	N.A./ 650,000
565.	Rekha Industries	1995	M. No. 2252	Engineering jobs	5	N.A. / N.A.
566.	Renu Foundary and Engineering	1996	M.No. 1393, Chikhali	Engineering job works	5	N.A. / 635,000
567.	Renuka Enterprises	1998	1330, Kudalewadi	Engineering jobs	3	N.A. / 150,000
568.	Rise Enterprises	1997	G. No. 763, Kudalewadi, Chikhali	Engineering job works	4	N.A. / 300,000
569.	Riya Industries	1995	G. No. 796, Pawar Vasti, Kudalewadi	Sheet metal press component	6	N.A / 282,000
570.	Rohan Steels	1998	S. No. 879, Kudalewadi	Fabrication jobs	1	N.A. / 135,000
571.	Rohini Enterprises	1995	S. No. 425, Patil Nagar	Engineering jobs	2	N.A. / N.A.
572.	Ruby Enterprises	1996	S. No. 810, Near PCMC Octroi Naka, Kudalewadi	Auto parts	2	N.A / N.A
573.	Ruchika Engineering Works	1996	1295, Akurdi-Chikhali Rd.	Cutting of gears	2	N.A. / N.A.
574.	Ruma Balaji More	1995	M. No. 922	Engineering jobs	5	N.A / N.A
575.	Rupali Coatings	1995	M.No. 2247,More vasti, Chikhali	Coating jobs	16	N.A. / 700,000
576.	Rupali Enterprises	1995	G. N. 1419, M. No. 1105, Mhetrevasti	Fabrication jobs	5	N.A. / 70,000
577.	S A Engineering	1996	S. No. 671, Kudalewadi	Press components	9	N.A. / 890,000
578.	S A Industries	1998	G. No. 879, P No. 16A	MS Fabrication jobs	5	N.A. / N.A.
579.	SAM Industries	1991	G. No. 797, Pawar Vasti, Kudalewadi	Tool bags & Floor mats	6	20,000 / 2,500,000
580.	S A Steel	1997	S. No. 769, Pawar Vasti, Near Jakat Naka, Kudalewadi	Engineering jobs	3	N.A. / 250,000
581.	S B Industries	1998	H. No. 1316	Engineering jobs	2	N.A. / 150,000
582.	S D Industries	1997	G. No. 102, M. No. 44	Steel furniture	2	N.A. / 200,000
583.	S G Enterprises	1998	G. No. 815, Pawar Vasti, Kudalewadi	Engineering jobs	4	N.A. / 750,000
584.	S G Industries	1995	S.No. 1323, Morevasti	Plastic components	6	N.A. / 1,200,000
585.	S G Industries	1996	S. No. 179, Shop - 2, Pawar Vasti	Auto parts	2	N.A. / 150,000

APPENDIX 4-A

S. No.	Name of the Industry	Year of Estb.	Location - Gatt No. / Survey No. / Plot No. / Milkat No. / House No.	Scale / Type of Industry	No. of Workers	Investment / Turnover (Rs.)
586.	S G R Engineers	1996	G. No. 769, Gala – 8, Daji Bahawan, Pawar Vasti, Chikhali Rd.	Fabrication jobs	6	N.A. / 260,000
587.	S K Enterprises	1995	G. No. 849, Kudalewadi	Engineering jobs	4	N.A./ 50,000
588.	S K Enterprises	1998	P. No. 19, Shop 712, Siddhivinayak Industries Estate, Kudalewadi	Engineering jobs	1	N.A. / 200,000
589.	S K Industries	1989	Laxmi Road	Job Works	9	N.A. / 500,000
590.	S M Engineering Industries	1996	g. No. 1559, Dehu-Alandi Rd.	Engineering & fabrication	3	N.A / 78,000
591.	S M Engineering Works	1991	Pawar Vasti, Kudalewadi	Turning & Drilling	5	100,000 / 80,000
592.	S M Engineering works	1996	S.No. 768, Pawar Vasti, Kudalewadi	Manufacturing bolts and nuts	7	N.A. / 45,000
593.	S M Engineering Works	1998	G. No. 1025, Kudalewadi	Press parts & Fabrication	4	N.A. / 500,000
594.	S M Enterprises	1996	S. No. 13/7, Morewadi	Engineering & fabrication jobs	2	N.A. / 150,000
595.	S M Enterprises	1998	G. No. 879, Kudalewadi	Engineering & Fabrication jobs	2	N.A. / 100,000
596.	S M Grinding & Co.	1998	G. No. 769, Kudalewadi	Automobile parts	3	N.A. / 220,000
597.	S M Pressing Works	1995	M. No. 910, At + post Chikhali	MS press parts	5	N.A / 200,000
598.	S P Engineering Works	1995	M. No. 772, G. No. 1181, At + post Chikhali	Engineering jobs	4	N.A. / N.A
599.	S R Engineering	1995	P. No. 819, H. No. 932, Kudalewadi	Engineering & fabrication jobs	3	N.A. / 182,000
600.	S R Engineering Works	1998	G. No. 764, S No. 179, Pawar Vasti, Kudalewadi	Fabrication	4	N.A. / 150,000
601.	S R M Enterprises	1996	G. No. 796, Kudalewadi	Engineering jobs	12	N.A. / N.A
602.	S S Engineering works	1995	G.No.923, Kudalewadi	Engineering works	5	N.A. / 28,000
603.	S S Enterprises	1995	G. No. 776, S. No. 199/1, Kudalewadi	Fabrication & Machining jobs	9	N.A. / 650,000
604.	S S Enterprises	1995	G. No. 803, Shed – 3, Telco-Chikhali Rd., Pawar Vasti	Fixtures, jacks & bearing housing	6	N.A / 1,150,000
605.	S S Enterprises	1996	G. No. 695, P. No. 8&9, At + Post: Chikhali	Pollution control equipments	3	N.A. / 200,000
606.	S. S. Enterprises	1997	P.No. 9-B, G-1318, More Vasti, Chikhali.	Engineering job work	2	N.A. / 72,000
607.	S V Enterprises	1999	G. No. 677, Kudalewadi	Engineering jobs	3	N.A. / 3,000,000

APPENDIX 4-A

S. No.	Name of the Industry	Year of Estb.	Location - Gatt No. / Survey No. / Plot No. / Milkat No. / House No.	Scale / Type of Industry	No. of Workers	Investment / Turnover (Rs.)
608.	S V Industries	1995	S.No. 923, G.No. 781, Kudalewadi	Automobile parts	10	N.A. / 265,000
609.	S V S Corporation	1997	S. No. 671, Kudalewadi	Press component	6	N.A. / 230,000
610.	Sabina Enterprises	1998	32, Kudalewadi	Engineering jobs	3	N.A. / 200,000
611.	Sachin Engineering Works	1995	Patil Nagar	Engineering jobs	2	N.A. / N.A.
612.	Sachin Engineering Works	1996	G.No. 598, Jadhavwadi	Engineering jobs	11	N.A. / 100,000
613.	Sachin Fabrication work	1996	S.No. 1, Jadhav vasti, Chikhali	Fabrication job	5	N.A. / N.A.
614.	Sadeshwar Engineering works	1995	G.No. 812, Chikhali	Engineering jobs	3	N.A. / N.A.
615.	Sagar Engineering Works	1995	M. No. 1254, Chikhali	Engineering jobs	5	N.A. / 320,000
616.	Sagar Engineering Works	1997	S. No. 782/2, Pawar Vasti, Kudalewadi	Engineering jobs	3	N.A. / 150,000
617.	Sagar Engineers	1996	G. No.815, Kudalewadi	Engineering Jobs	5	N.A. / N.A.
618.	Sagar Enterprises	1996	G. No. 596, Jadhavwadi	Engineering jobs	6	N.A. / N.A.
619.	Sagar Industries	1995	G. No. 784, Kudalewadi	Engineering jobs	7	N.A. / N.A.
620.	Sagar Industries	1996	G. No. 703, Kudalewadi	Engineering Jobs	5	N.A. / N.A.
621.	Sagar Neel Enterprises	1993	825, Kudalewadi	Job Works	2	7,000 / 60,000
622.	Sagar Plast	1995	G. No. 673	Plastic granules	4	N.A. / 200,000
623.	Sahyog Auto Parts Pvt. Ltd.	1995	S. No. 813, Pawar Vasti, Kudalewadi	Engineering jobs	14	N.A. / N.A.
624.	Sahyog Enterprises	1998	923, Kudalewadi	Engineering Jobs	5	N.A. / 102,000
625.	Sai Engineering	1998	G. No. 769, Kudalewadi	Fabrication jobs	4	N.A. / 1,400,000
626.	Sai Engineering Industries	1996	G. No. 837, 9, Janaki Industrial Estate, Kudalewadi	Auto components	7	N.A. / 400,000
627.	Sai Engineers	1996	G.No.712, Kudalewadi	Engineering jobs	5	N.A. / N.A.
628.	Sai Fabricators	1996	S.No. 707, Kudalewadi	Fabrication jobs	5	N.A. / 120,000
629.	Sai Furniture	1997	G. No. 494, Jadhavwadi	Wooden furniture	3	N.A. / 500,000
630.	Sai Industries	1997	S. No. 688	Plastic Moulding	3	N.A. / N.A.
631.	Sai Industries	1997	S. No. 707, Kudalewadi	Engineering jobs	3	N.A. / N.A.
632.	Sai Industries	1998	S. No. 5/846, Kudalewadi	Tooth powder & coffee powder	1	N.A. / 25,000
633.	Sai Lifters	1998	S. No. 927, Shop-1, Kudalewadi	Material handling equipments	3	N.A. / 200,000
634.	Sai Puja Plastics	1998	S. N0. 1505, Kudalewadi	Plastics granules	10	N.A. / 2,400,000
635.	Sai Sweet Mart	1998	S. No. 210, Chikhali-Dehu rd.	Sweets	3	N.A. / 300,000
636.	Saibaba Plastic Industries	1996	G. No. 1928, Dehu-Alandi Rd.	PVC Granules	6	N.A. / 925,000

APPENDIX 4-A

S. No.	Name of the Industry	Year of Estb.	Location - Gatt No. / Survey No. / Plot No. / Milkat No. / House No.	Scale / Type of Industry	No. of Workers	Investment / Turnover (Rs.)
637.	Saileela Enterprises	1998	G. No. 812, Pawar Vasti, Kudalewadi	Industrial & domestic Fabrication	3	N.A. / 150,000
638.	Sainath Fabricators	1992	1837, Kudalewadi	Fabrication	2	N.A. / N.A.
639.	Sainath fabricators	1996	1254, Kudalewadi	Fabrication jobs	4	N.A. /120,000
640.	Sainath Industries	1989	1254, Kudalewadi	Job Works	9	N.A. / 240,000
641.	Sainath Industries	1998	125/4, Kudalewadi	Engineering Jobs	5	N.A. / 400,000
642.	Sai plastics	1996	M.No. 1739, Chikhali	Plastic moulding	5	N.A. / N.A.
643.	Sai Tech	1998	G. No. 680, Kudalewadi	Engineering Jobs	7	N.A. / 1,400,000
644.	Salag Industries	1993	P. No. 768, Kudalewadi	Turning & Drilling	5	150,000 / 250,000
645.	Salyashri Enterprises	1996	G. No. 714, M. No. 982, Kudalewadi, Chikhali	Fabrication jobs	3	N.A. / 52,000
646.	Samadhan Industries	1997	G. No. 695, P. No. 10, Kudalewadi	Manufacturing of Precision tools	6	N.A. / 532,000
647.	Samarth Engineering Works	1995	G. No. 769, Pawar Vasti, Kudalewadi	Scooter gears & kick starters	5	N.A. / 350,000
648.	Sam Leather and Plastic Works	1995	G.No. 797, Pawar vasti	Rubber and plastic moulding	4	N.A. / 800,000
649.	Samruddha Industries	1996	G. No. 110, Dehu-Alandi Rd.	Fabrication of tanks	9	N.A. / 2,400,000
650.	Samson Plastics Industries	1998	S. No. 812, Pawar Vasti, Kudalewadi	Plastic moulding	4	N.A. / 550,000
651.	Sandeep Enterprises	1996	G. No. 711, Kudalewadi	Engineering jobs	6	N.A. / N.A.
652.	Sandeep Fabrications	1997	G. No. 769, Kudalewadi	Industrial & domestic Fabrication	5	N.A. / 126,000
653.	Sandhya Engineering Works	1997	S. No. 441, Jadhavwadi	Engineering Jobs	2	N.A. / N.A.
654.	Sane Industries	1996	G. No. 1303, More Vasti	Engineering Jobs	5	N.A. / N.A.
655.	Sangam Printing press	1995	G.No. 1323, More vasti, Chikhali	Commercial printing	1	N.A. / 49,000
656.	Sanjay Engineering Works	1995	M. No. 2044, Aherwadi	Engineering jobs	5	N.A / N.A
657.	Sanjay industries	1995	G.No.633, Chikhali	Engineering job work	6	N.A. / 50,000
658.	Sanjay Trading Corporation	1995	G.No. 715, Kudalewadi, Chikhali	Plastic	8	N.A./ 40,000
659.	Sanjay Udyog	1996	S.No. 27, Kudalewadi, Chikhali	Manufacturing of machine items	5	N.A. / 23,000
660.	Sankratri Industries	1994	G. No. 768, Pawar Vasti, Kudalewadi	Turning & drilling	3	N.A. / N.A.
661.	Santhukaram Steel Corp.	1995	S. No. 823, Kudalewadi	MS steel sheet & Job works	8	N.A. / 1,700,000
662.	Sant Kripa Industries	1996	G.No. 752, Chikhali	Fabrication jobs	5	N.A. / N.A.

APPENDIX 4-A

S. No.	Name of the Industry	Year of Estb.	Location - Gatt No. / Survey No. / Plot No. / Milkat No. / House No.	Scale / Type of Industry	No. of Workers	Investment / Turnover (Rs.)
663.	Santkrupa Electronics	1997	G. No. 316, Santkrupa Building Laxmi Road	Electronic goods	4	N.A. / 90,000
664.	Santosh Enterprises	1997	S. No. 52, 6, Shamula Chaudhary Estate, Pawar Vasti, Kudalewadi	Food products	2	N.A. / 75,000
665.	Santosh Industries	1997	S. No. 1164, Kudalewadi	Engineering Jobs	4	N.A. / 98,000
666.	Sant Tukaram Industries	1996	M.No. 921, Chikhali	Engineering job works	5	N.A. / N.A.
667.	Saraswati Concrete Products	1997	G.No.709, Kudaleadi, Chikhali	Hollow bricks	8	N.A. / 100,000
668.	Sarathi Enterprises	1998	G. No. 815, Kudalewadi	Engineering Jobs	4	N.A. / 750,000
669.	Sarita Engineers	1990	Kudalewadi	Rubber products	1	50,000 / N.A.
670.	Saroj Enterprises	1996	G. No. 769, Near Octroi Naka, Kudalewadi	Press parts for auto	9	N.A / 1,850,000
671.	Satish Pressing Industries	1995	G. No. 813, Kudalewadi	Manufacturing of auto press parts	4	N.A / 290,000
672.	Saurabh Products	1992	G. No. 769, Pawar Vasti, Kudalewadi	Rubber components	2	200,000 / 180,000
673.	Sayali Hydraulics	1995	S>No. 13/8, Chikhali, Kudalewadi	Hydraulic press	6	N.A. / 85,000
674.	Seema Engineering Works	1995	M. No. 1844, Kudalewadi	Engineering jobs	5	N.A./N.A.
675.	Shah Enterprises	1997	S. No. 1814, Kudalewadi	Engineering jobs	3	N.A. / 200,000
676.	Shakambhari Enterprises	1996	M.No. 935, Kudalewadi	Fabrication jobs	4	N.A. / N.A.
677.	Shalimar Steel	1998	G. No. 225, Kudalewadi	Fabrication jobs	3	N.A. / 200,000
678.	Shanti Foundry Services	1995	G. No. 785, P. No. 4 & 5, Kudalewadi	Core making for foundries	4	N.A. / 324,000
679.	Shanti Industries	1995	G.No. 1556, Chikhali	Engineering jobs	6	N.A. / 100,000
680.	Shanti Industries	1996	G.No. 1264, Shanti Complex, Chikhali Akurdi Road, Chikhali.	Engineering jobs	8	N.A. / 100,000
681.	Shantikrupa Brick Works	1998	G. No. 752,	Bricks	5	N.A. / 190,000
682.	Sharada Engineering Works	1995	S.No. 837, Kudalewadi, Chikhali	Engineering and Fabrication industry	1	N.A. / 2,000
683.	Sharad Industries	1998	G. No. 680, Kudalewadi	Engineering jobs	4	N.A. / 60,000
684.	Sharada Agency	1997	G.No.52, Chikhali	Engineering Jobs and Works	3	N.A. / 88,000
685.	Sharam Enterprises	1995	G.No. 13/8	Engineering jobs	3	N.A. / 8,000
686.	Sharp Graphics	1998	S. No.14, Sudarshannagar, More Vasti	Creasing dyes	5	N.A. / 500,000
687.	Sharp Industries Products	1990	Kudalewadi	Light Fabrication	N.A.	N.A. / N.A.

APPENDIX 4-A

S. No.	Name of the Industry	Year of Estb.	Location - Gatt No. / Survey No. / Plot No. / Milkat No. / House No.	Scale / Type of Industry	No. of Workers	Investment / Turnover (Rs.)
688.	Sharukh Enterprises	1996	G. No. 597, Jadhavwadi	Engineering jobs	1	N.A. / 50,000
689.	Sheetal Enterprises	1998	G. No. 606, Jadhavwadi	Engineering Jobs	7	N.A. / 600,000
690.	Shilpa Engineering Jobs	1998	G No. 769, S No. 179, Pawar Vasti, Kudalewadi	Engineering jobs	4	N.A. / 275,000
691.	Shilpa Engineering Works	1997	S. No. 837, Kudalewadi	Engineering Jobs	1	N.A. / N.A.
692.	Shilpa Enterprises	1997	G. No. 1378, Kudalewadi	Jigs and Fixtures	4	N.A. / 151, 000
693.	Shingade Garments	1997	G. No. 681/14, At + Post: Chikhali	Garments	6	N.A. / 90,000
694.	Shiv Ganesh Industries	1997	S. No. 64, Kudalewadi	Engineering jobs	5	N.A. / N.A.
695.	Shiv Kailash Pressings	1994	923, Kudalewadi, Near Sant Dnyaneshwar Industry	Reinforcement & cover plates	3	400,000 / 1,200,000
696.	Shivam Plastics Moulding Industries	1998	G. No. 711, P No. 9, Kudalewadi	Plastic moulding	6	N.A. / N.A.
697.	Shiven Enterprises	1998	G No. 203	Fabrication jobs	3	N.A. / 72,000
698.	Shivraj Engineering Works	1996	G. No. 812, Kudalewadi	Press parts	3	N.A. / 17,000
699.	Shivshakti Fabricators	1998	S No. 13/9, Sudarshannagar, More Vasti	Industrial & domestic Fabrication	3	N.A. / 350,000
700.	Shobha Enterprises	1997	G. No. 779, Jadhavwadi	Ready-made garments	2	N.A. / 158,000
701.	Shraddha Industries	1997	S. No. 2402,Shraddha Industries, Chikhali	Industrial Fabrication	10	N.A. / 530,000
702.	Shree Balaji Enterprises	1996	S. No. 1523, Pawar Vasti	Engineering jobs	2	N.A. / 20,000
703.	Shree Chaitanya Enterprises	1995	G.No. 849, Kudalewadi	Engineering jobs	3	N.A. / N.A.
704.	Shree Dutt Electricals	1996	G.No.790, Pawar Vasti	Fabrication job	5	N.A. / 168,000
705.	Shree Engineering Works	1996	S. No. 313, 2583, More Vasti, At + Post: Chikhali	Engineering jobs	3	N.A. / N.A.
706.	Shree Enterprises	1997	S.No.769, Pawar Vasti, Chikhali	Fabrication job	6	N.A. / 1,500,000
707.	Shree Enterprises	1998	G. No. 1559, P. No. 653	Engineering jobs	4	N.A. / 360,000
708.	Shree Gajanan Enterprises	1996	G.No. 596, Jadhavwadi	Engineering jobs	4	N.A. / 210,000
709.	Shree Ganesh Engineers	1996	G. No. 790, Pawar Vasti	Engineering jobs	4	N.A. / N.A.
710.	Shree Gurudatta Enterprises	1998	G. No. 1397 A, More Vasti	MS Fabrication & Engineering Jobs	9	N.A. / 1,200,000
711.	Shree Industries	1997	G. No. 803, At + Post, Chikhali	Engineering jobs	12	N.A. / 250,000
712.	Shreeram Industries	1998	P. No. 769, Pawar Vasti	Press components	2	N.A. / 200,000
713.	Shree Mahaveer Erectors	1996	G. No. 769, M. No. 1461	Industrial & domestic fabrication	5	N.A. / N.A.

APPENDIX 4-A

S. No.	Name of the Industry	Year of Estb.	Location - Gatt No. / Survey No. / Plot No. / Milkat No. / House No.	Scale / Type of Industry	No. of Workers	Investment / Turnover (Rs.)
714.	Shree Mahaveer Industries	1997	G. No. 784, Pawar Vasti, Kudalewadi	Industrial & domestic fabrication	6	N.A. / 475,000
715.	Shree Polymers	1995	G. No. 803, Shed – 2, Pawar Vasti, Kudalewadi	Plastic boxes, busts & grommet	6	N.A. / 1,360,000
716.	Shree Ram Engineering works	1996	G.No. 705, Kudalewadi	Engineering job	4	N.A. / N.A.
717.	Shree Rewan Enterprises	1995	G.No. 677, Kudalewadi	Engineering job	11	N.A. / 90,000
718.	Shree Rubber Products	1997	S. No. 810, Yadav Chawl, Kudalewadi	Rubber moulding	3	N.A. / 150,000
719.	Shree Sadguru Industries	1995	S. No. 65/3, Opp. Durga Hotel, Kudalewadi	Auto spare parts	3	N.A / 45,000
720.	Shree Sai Krupa Industries	1995	M.No. 1467, Chikhali	Engineering jobs	4	N.A. / 270,000
721.	Shree Sai Udyog	1998	G. No. 686, Jadhavwadi	Engineering Jobs	7	N.A. / 150,000
722.	Shree Sai Windows	1995	G. No. 813, Kudalewadi, At + post Chikhali	Engineering jobs	5	N.A. / N.A.
723.	Shree Samarth Engineering Works	1990	923, Kudalewadi	Machining of gears	2	N.A. / 200,000
724.	Shree Samarth India	1995	G.No.849, Kudalewadi	Engineering jobs	3	N.A. / N.A.
725.	Shree Sant Dnyaneshwar Industries	1980	Kudalewadi, Behind Telco	Motor parts	29	500,000 / 1,200,000
726.	Shree Sant Tukaram Industries	1995	G. No. 857, Kudalewadi	Engineering jobs	5	N.A. / N.A.
727.	Shree Trimurti Industries	1996	P. No. 164	Engineering jobs	4	N.A. / N.A.
728.	Shree Yash industries	1995	923, Kudalewadi, Chikhali	Engineering jobs	5	N.A. / 26,000
729.	Shridatt Engineering Works	1994	At + Post: Chikhali	Turning	6	N.A. / 60,000
730.	Shri Ganesh Industries	1997	G. No. 52, Dehu-Alandi Rd.	Non-ferrous coating & Auto parts	3	N.A. / 250,000
731.	Shri Gurudatta Engineering Works	1991	At + Post: Chikhali	Precision Works	4	N.A. / 80,000
732.	Shri Sadguru Engineering.	1995	G. No. 867	Engineering jobs	4	N.A. / N.A.
733.	Shriram Engineering Works	1995	S.No. 837, Kudalewadi	Manufacturing plugs	3	N.A. / 358,000
734.	Shriram Enterprises	1996	G. No. 603, Jadhavwadi	Engineering Works	3	N.A. / N.A.
735.	Shriram Furnitures	1996	G. No. 1629, P. No. 718, Dehu-Alandi Rd.	Wooden & Steel Furniture	4	N.A. / 600,000

APPENDIX 4-A

S. No.	Name of the Industry	Year of Estb.	Location - Gatt No. / Survey No. / Plot No. / Milkat No. / House No.	Scale / Type of Industry	No. of Workers	Investment / Turnover (Rs.)
736.	Shriram Transmission	1998	P. No. 9, Shanti Complex .	Welding & Engineering Jobs	4	N.A. / 3,100,000
737.	Shri. Sadguru Engineering	1986	1822, Kudalewadi	Machinery Parts	13	N.A. / 190,000
738.	Shri Sant Yadav Baba	1998	G. No. 796, Kudalewadi	Auto & press parts	7	N.A. / 600,000
739.	Shri Sai Plastic Industries	1998	G. No. 1625, Dehu-Alandi Rd.	PVC Granules	4	N.A. / 1,800,000
740.	Shri Vipra Engineering Industries	1998	G. No. 1443, Kudalewadi	Machinery jobs	4	N.A. / 600,000
741.	Shriram Printing Press	1995	M. No. 764	Printing press jobs	3	N.A. / 175,000
742.	Shruti Enterprises	1995	M.No. 1854, Kudalewadi	Wooden boxes	4	N.A. / 1,335,000
743.	Shruti Food Products	1997	S.No.1164, Kudalewadi, Chikhali	Manufacturing food products	2	N.A. / 80,000
744.	Shubhangi Industries	1996	G.No. 1303, Chikhali-Akurdi road, Chikhali	Fabrication jobs	4	N.A. / 70,000
745.	Siddhi Corporation	1996	G. No. 813	MS & Aluminium Fabrication jobs	5	N.A. / N.A.
746.	Sidhivridhi Engineering Works	1987	S. No. 913, Kudalewadi	Scooter parts	8	N.A. / 550,000
747.	Sind Electroplast	1996	G.No.680, Chikhali	Manufacturing plastic goods	4	N.A. / 300,000
748.	Sneha Industries	1996	S. No. 815, M. No. 3, Pawar Vasti	Engineering jobs	5	N.A. / N.A.
749.	Sokha Industries	1995	G. No. 767	Engineering jobs	3	N.A. / N.A
750.	Solagurukrupa Enterprises	1996	S. No. 1614, At + Post: Chikhali	Electroplating	7	N.A. / N.A.
751.	Somnath FabricationJobs	1997	S. No. 1012, Patilnagar, Chikhali	Fabrication jobs	3	N.A. / 315,000
752.	Sonali Fabrication	1997	G. No. 1334, More Vasti	Fabrication jobs	2	N.A. / 100,000
753.	Srinath Engineering	1991	Kudalewadi	Job Works & Auto rubber product	6	N.A. / 400,000
754.	Sriram Furniture	1992	At + Post: Chikhali	Furniture work	3	N.A. / N.A.
755.	Sriroz Consultants Pvt. Ltd.	1998	S. No. 228, Ambika Chawl, Near Gram Panchayat	Agricultural Equipments	5	N.A. / 2,500,000
756.	Star Enterprises	1995	S.No. 800, Kudalewadi	Engineering and fabrication jobs	4	N.A. / N.A.
757.	Star Industries	1998	G. No. 876, Pawar Vasti, Kudalewadi	Engineering jobs	4	N.A. / 500,000
758.	Streamline Pressing Ltd.	1999	G. No. 796, Kudalewadi	Manufacturing of Sheet metal parts	7	N.A. / 600,000
759.	Steel Enterprises	1999	G. No. 110/1	Auto press parts & Fabrication	5	N.A. / 120,000
760.	Steel Press Industries	1995	M. No. 3414, Kudalewadi	Engineering jobs	8	N.A / N.A
761.	Subh Enterprises	1990	1329, Kudalewadi	Paints & coating	4	N.A. / 1,200,000
762.	Subashree Meta Power	1998	S. No. 981, Chikhali-Akurdi Rd.	Copper powder	7	N.A. / 225,000

APPENDIX 4-A

S. No.	Name of the Industry	Year of Estb.	Location - Gatt No. / Survey No. / Plot No. / Milkat No. / House No.	Scale / Type of Industry	No. of Workers	Investment / Turnover (Rs.)
763.	Subhas Enterprises	1998	G. No. 1323, More Vasti, Chikhali Rd.	Centering plates	3	N.A. / 120,000
764.	Subhas Industries	1996	G. No. 1493, Kudalewadi	Engineering Jobs – turning & grinding	2	N.A. / 16,000
765.	Suharne Enterprises	1995	837, Kudalewadi, Chikhali	Engineering jobs	4	N.A. / N.A.
766.	Suhthwada Engineering Works	1997	G. No. 785, Kudalewadi	Engineering jobs	4	N.A. / 50,000
767.	Sujali Enterprises	1997	G. No. 769	Sheet Metal Press Parts	11	N.A./ 2,400, 000
768.	Sujata Enterprises	1998	G. No. 769, Kudalewadi	Engineering jobs	5	N.A. / 300,000
769.	Sukal Enterprises	1997	G. No. 878, Chikhaligaon	Engineering jobs	4	N.A. / 100,000
770.	Sumangal Enterprises	1996	G. No. 1295 & 1994	Commercial printing	3	N.A / 31,000
771.	Sumeet Enterprises	1997	G.No.1323, P.No. 4, "Shree Ganesh", More Vasti, Chkhali	Readymade garments	1	N.A. / 45,000
772.	Sumitra Engineering Works	1997	S. No. 995, Kudalewadi	Engineering jobs	6	N.A. / 80,000
773.	Sundra Engineers and Body Builders	1995	S.No. 825, Kudalewadi	Fabrication jobs	4	N.A. / N.A.
774.	Sunil Engineering Works	1996	G.No.776, Pawar vasti, Kudalewadi	Engineering jobs	4	N.A. / N.A.
775.	Sunil Engineering Works	1996	G. No. 1559, At + post Chikhali	Engineering jobs	3	N.A. / 50,000
776.	Sunita Enterprises	1997	G. No. 325, Jadhavwadi	Packed foods	2	N.A. / 120,000
777.	Sunny Engineers	1996	G. No. 677/1, Kudalewadi	Engineering jobs	2	N.A. / 50,000
778.	Sunray Engineering Works	1994	Pawar Vasti, Kudalewadi	Job Works	6	50,000 / N.A.
779.	Super Enterprises	1995	G. No. 525	Electroplating & powder coating	12	N.A. / N.A.
780.	Super Pressings	1998	G. No. 194-198, Dehu-Moshi rd.	Auto press parts	4	N.A. / 300,000
781.	Super Pressings	1989	1330, Kudalewadi	Auto parts	8	35,000 / 1,600,000
782.	Super Spark Industries	1996	S. No. 1164, Kudalewadi	Engineering jobs	6	N.A. / 10,000
783.	Supertech Industries	1996	G. No. 1556, Dehu-Alandi Rd.	Fabrication jobs	15	N.A. / 78,000
784.	Suraj Electronics	1997	G.No. 1504, Hanuman Nagar, Chikhali	Manufacturing of electronics items	3	N.A. / 492,000
785.	Suraj Pattern Works	1997	S. No. 1319, P. No. 2140, Sudarshan Housing Society	Engineering jobs	3	N.A. / 400,000
786.	Surat Steel Corporation	1998	G. No. 769, near old Naka, Kudalewadi	Engineering jobs	2	N.A. / 80,000

APPENDIX 4-A

S. No.	Name of the Industry	Year of Estb.	Location - Gatt No. / Survey No. / Plot No. / Milkat No. / House No.	Scale / Type of Industry	No. of Workers	Investment / Turnover (Rs.)
787.	Surekha Enterprises	1996	S. No. 1559, P. No. 3144, Mhetrewadi	Fabrication jobs	3	N.A. / 130,000
788.	Sunrise Industries	1995	S. No. 705, Kudalewadi	Engineering jobs	4	N.A. / N.A.
789.	Surshtee Painting Pvt. Ltd.	1998	G. No. 1303, M No. 144, Sane Industries Estate	Paints & enamels	3	N.A. / 115,000
790.	Sushil Enterprises	1998	G. No. 767, Pawar Vasti Kudalewadi	Fabrication & Sheets metal Works	4	N.A. / 250,000
791.	Suvarna Engineering	1996	S. No. 1323, More Vasti	Engineering jobs	5	N.A. / N.A.
792.	Suyash Engineering Works	1994	Mahadev Mandir	Job Works	2	90,000 / 50,000
793.	Suyog Enterprises	1996	G. No. 767, Kudalewadi	Fabrication jobs	12	N.A. / 132,000
794.	Suyog Enterprises	1993	Near Sant Dnyaneshwar Industry, Kudalewadi	Tool room work	2	45,000 / 100,000
795.	Swapnil Inds.	1994	Pawar Vasti, Kudalewadi	Turning & drilling	6	3,000,000 / N.A.
796.	Swaraj Enterprises	1998	G. No. 1556/17, Dehu-Alandi Road	Engineering jobs	3	N.A. / 950,000
797.	Swati Poymers	1998	G. No. 1682, Patilnagar	PVC Granules	4	N.A. / 720,000
798.	T S Fabricators	1996	Hanumannagar, Chikhali	Fabrication job	5	N.A. / 50,000
799.	T Y Engineering Works	1996	S. No. 707	Engineering jobs	4	N.A. / N.A.
800.	Techno Flow Engrs.	1995	S. No. 1254, Kudalewadi	Engineering jobs	2	N.A. / N.A.
801.	Tegasuri Industries	1997	H. No. 241, At + Post: Chikhali	Engineering jobs	3	N.A. / N.A.
802.	Tejas Engineers	1997	S. No. 782, P. No. 6, Pawar Vasti, Kudalewadi	Engineering jobs	3	N.A. / 300,000
803.	Tejshree Enterprises	1996	S. No. 277, More Vasti	Fabrication jobs	6	N.A. / N.A.
804.	Texcore	1999	At + Post: Chikhali	Paper cones	4	N.A. / 300,000
805.	The Prena Industries	1998	S No. 140, More Vasti	Sheets metal & press parts	3	N.A. / N.A.
806.	Tirupati Machine	1999	G. No. 869, Kudalewadi	Engineering jobs	3	N.A. / 300,000
807.	Trans Fabrication Engineering	1999	S. No. 1981, Jadhavwadi	Transformer & Fabrication	3	N.A. / 100,000
808.	Trimurti Corporation	1998	H. No. 3/560, More Vasti, Near Sane Chowk	Detergents	2	N.A. / N.A.
809.	Trimurti Engineering Works	1995	G. No. 813	Engineering jobs	5	N.A. / 8,000
810.	Trimurti Engineering Works	1996	G. No. 929, At + Post: Chikhali	Engineering jobs	4	N.A. / N.A.
811.	Trimurti Engineering Works	1997	S. No. 747, Jadhavwadi	Engineering jobs	6	N.A. / N.A.

APPENDIX 4-A

S. No.	Name of the Industry	Year of Estb.	Location - Gatt No. / Survey No. / Plot No. / Milkat No. / House No.	Scale / Type of Industry	No. of Workers	Investment / Turnover (Rs.)
812.	Trimurti Enterprises	1995	S. No. 1329, More Vasti	Manufacturing of Wooden boxes	4	N.A / 55,000
813.	Trimurti Enterprises	1996	S. No. 1323, More Vasti	Manufacturing of Wooden boxes	4	N.A. / 55,000
814.	Trimurti Fabricators	1997	M. No. 796, Pawar Vasti, Kudalewadi	Fabrication jobs	5	N.A. / 350,000
815.	Trimurti Rubber Products	1999	G. No. 8/2, Kudalewadi	Rubber garments & seats	6	N.A. / 600,000
816.	Tushar Steel Traders	1997	S.No. 1021, Chikhali-Moshi Road, Chikhali	Fabrication jobs	4	N.A. / 350,000
817.	Udyam Sagar	1997	G. No. 1303/ 2, More Vasti, Chikhali Rd.	Stainless steel items	6	N.A. / 1,404,000
818.	Uma Mahesh Enterprises	1995	M. No. 932, Kudalewadi	Engineering jobs	5	N.A. / N.A.
819.	Umesh Engineering	1993	Laxmi Road	Turning	3	N.A. / 100,000
820.	Universal Engineering Corp.	1995	G. No. 691, Kudalewadi, Chikhali Rd	Fabrication of vessels, tanks & pipelines	5	N.A / 302,000
821.	Usha Enterprises	1989	1365, Kudalewadi	Compression moulds & Jigs	18	100,000 / 2,000 ,000
822.	V K Enterprises	1996	G. No. 161, Newale Vasti	Fabrication jobs	8	N.A. / 1,200,000
823.	V N Enterprises	1996	G. No. 769, Pawar Vasti	Engineering jobs	3	N.A. / 50,000
824.	V P Engineering Works	1995	G. No. 1258, More Vasti	Engineering & Fabrication jobs	4	N.A. / 50,000
825.	V V Industries	1987	At + Post: Chikhali	Precision job works	5	N.A. / 90,000
826.	Vaibhav Engineering	1994	Pawar Vasti, Kudalewadi, Near Chikhali Weigh Bridge	Machining job works	2	90,000 / N.A.
827.	Vaibhav Engineering	1995	G.No. 769, Kudalewadi	Engineering and Fabrication jobs	2	N.A. / 55,000
828.	Vaibhav Laxmi Enterprises	1994	G. No. 849, Kudalewadi	Gears	3	N.A. / 140,000
829.	Vaibhav Laxmi Enterprises	1995	G. No. 849, Kudalewadi	Turning & cutting job works	2	N.A. / 55,000
830.	Varsha Enterprises	1995	M. No. 553	Rubber moulding	4	N.A / N.A
831.	Vash Engineers	1998	G. No. 695, Kudalewadi	Precision tooling	2	N.A. / 600,000
832.	Veljo Automatics	1998	G. No. 803, Shop-1, Pawar Vasti, Kudalewadi	Auto parts	5	N.A. / 300,000
833.	Venkateshwara Electronic & Electric Industries	1997	P. No. 1319, Gala 2&3, Near Vrindavan Society, Sane Vasti, Chikhali-Akurdi Rd.	Electrical control panels & micro-processor based electronics	2	N.A. / 100,000
834.	Venkat Eshwara Micropans Pvt.	1998	P. No. 1323, Sudarshannagar	Electrical control panels	3	N.A. / 500,000

APPENDIX 4-A

S. No.	Name of the Industry	Year of Estb.	Location - Gatt No. / Survey No. / Plot No. / Milkat No. / House No.	Scale / Type of Industry	No. of Workers	Investment / Turnover (Rs.)
835.	Viganhar Fabrications	1999	S. No. 412	Fabrication of doors & windows	1	N.A. / 28,000
836.	Vijayant Engineering	1996	M.No. 1500, G.No.312, Pawar Vasti	Engineering job work	11	N.A. / N.A.
837.	Vijaya Pressing works	1996	G.No. 1162, More Vasti, Chikhali	Auto press fabrication	4	N.A. / 510,000
838.	Vijay Industries	1995	H. No. 1415, Kudalewadi	Engineering jobs	5	N.A. / N.A.
839.	Vijay Industries	1995	710, Kudalewadi	Engineering & Fabrication jobs	4	N.A / 120,000
840.	Vijay industries	1997	G-693, Kudalewadi, Chikhali	Engineering jobs	4	N.A. / 90,000
841.	Vijay Paints	1997	S. No. 929, Yadav Estate, Kudalewadi	Synthetic paints & primers	2	N.A. / 100,000
842.	Vijay Paints	1998	S. No. 929, Yadav Estate, Kudalewadi	Paints & thinners	2	N.A. / 600,000
843.	Vijaya Enterprises	1996	G. No. 677/1, Kudalewadi	Engineering jobs	2	N.A. / 50,000
844.	Vikas Engineering	1997	Mhetre Vasti	Engineering jobs	3	N.A. / 10,000
845.	Vikash Auto	1997	S.No. 768, P. No. 255 B, Pawar Vasti, Chikhali	Engineering jobs	4	N.A. / 400,000
846.	Vikash Engineering Works	1998	S. No. 1607, Dehu - Alandi Rd.	Fabrication of doors & windows	4	N.A. / 100,000
847.	Vikash Industries	1992	Pawar Vasti, Kudalewadi	Auto parts	7	100,000 / 200,000
848.	Vikash Industries	1997	S. No. 768, Pawar Vasti, Kudalewadi	Engineering jobs	11	N.A. / 4,000,000
849.	Vikram Engineering Works	1995	M. No. 1565, Kudalewadi	Engineering jobs	4	N.A. / N.A.
850.	Vilas Enterprises	1990	935, Kudalewadi	Turning	3	N.A. / 200,000
851.	Vilas Enterprises	1995	P.No.1173, Hanuman Nagar, Chikhali	Engineering job works	2	N.A./ 40,000
852.	Vilas Enterprises	1995	S.No. 208,Pawarvasti, Kudalewadi	Automobile spare parts	3	N.A. / 378,000
853.	Vinay Engineering & Fabricators	1995	M. No. 2320, G. No. 213	Engineering & Fabrication jobs	6	N.A / 400,000
854.	Vinesh Engineering	1996	H.No. 938, Chikhali	Engineering job work	N.A.	N.A. / N.A.
855.	Vipul Industries	1997	G.No. 1445, Mhetrevasti, Chikhali	Engineering Jobs	3	N.A. / 120,000
856.	Viraj Engineering	1997	S.No. 821/22, 44 Sai Industrial Estate, Chowiswadi	Engineering and Fabrication industry	11	N.A./210,000
857.	Vishakha Engineering Works	1995	G. No. 869, Shop-409/A, Jadhavwadi	Engineering jobs	9	N.A / 25,000

APPENDIX 4-A

S. No.	Name of the Industry	Year of Estb.	Location - Gatt No. / Survey No. / Plot No. / Milkat No. / House No.	Scale / Type of Industry	No. of Workers	Investment / Turnover (Rs.)
858.	Vishal Enterprises	1995	G. No. 197	Engineering jobs	9	N.A. / N.A.
859.	Vishal Enterprises	1997	G. No. 1496, H. No. 1230, Tamhane Vasti	Engineering jobs	1	N.A. / 100,000
860.	Vishali Enterprises	1997	S. No. 1264, 98 More Vasti, Chikhali	Fabrication	3	N.A./ 108,000
861.	Vishal Industries	!995	G. No. 641	Gear & Bearing blains	8	N.A / 5,000s
862.	Vishal Industries	1996	G. No. 714, Kudalewadi	Engineering jobs	5	N.A. / N.A.
863.	Vishal Pressing Works	1995	M. No. 189	Automobile press parts	3	N.A / 135,000
864.	Vishwakarma Air Systems	1997	G. No. 784, Pawar Vasti, Kudalewadi	Air blowers	5	N.A. / 200,000
865.	Vishwanath Industries	1995	G.No. 1333, Vaibhavsadan, More Vasti	Engineering and Fabrication industry	3	N.A. / 43,000
866.	V.Raj Enterprises	1996	G.No. 769, M.No. 2092, Pawarvasti, Kudalewadi	Engineering jobs	5	N.A. / N.A.
867.	Vrinda Engineers	1996	G. No. 812, Pawar Vasti, Kudalewadi	Engineering jobs	17	N.A. / N.A.
868.	Vrinda Engineers	1998	G. No. 769, Pawar Vasti, Kudalewadi	Engineering jobs	14	N.A. / 85,000
869.	Warade Industries	1997	879/10, Kudalewadi, Chikhali	Manufacturing Dyes and Press components	9	N.A. / 3,460,000
870.	Weldtech Equipments (I.) Pvt.	1998	G. No. 1803, More Vasti	Welding machine	5	N.A. / 1,100,000
871.	Wood Packers	1997	G. No. 704, Kudalewadi	Wooden packing cases	3	N.A. / 200,000
872.	Yadav Engineering Works	1996	M. No. 1504, Kudalewadi	Engineering jobs	5	N.A. / N.A.
873.	Yash Enterprises	1996	G. No. 115, M.No. 1550, Kudalewadi.	Manufacturing Corrugated boxes	4	N.A. / 417,000
874.	Yash Enterprises	1998	G. No. 1319, Gala 15-16, Akurdi – Chikhali Rd.	Foundry chemicals	5	N.A. / 75,000
875.	Yashodeep Enterprises	1996	G. No. 796, Pawar Vasti, Kudalewadi	Auto parts	4	N.A. / 70,000
876.	Yashshri Enterprises	1996	G. No. 1308/1, Laxmi Society, More Vasti	Engineering & Fabrication jobs	4	N.A. / N.A.
877.	Yashwant Industries	1998	G. No. 680, Jadhavwadi	Engineering jobs	2	N.A. / 112,000

APPENDIX 4-A

S. No.	Name of the Industry	Year of Estb.	Location - Gatt No. / Survey No. / Plot No. / Milkat No. / House No.	Scale / Type of Industry	No. of Workers	Investment / Turnover (Rs.)
878.	Yathiraj Industries	1996	G. No. 795, Kudalewadi	Engineering jobs	4	N.A. / N.A.
879.	Yogesh Engineering works	1996	839, Kudalewadi	Automobile job work	2	N.A. / 140,000
880.	Yuva Industries	1996	G. No. 686	Engineering jobs	5	N.A. / N.A.
881.	Zion Engineering	1995	G.No. 769, Shop. No. 3, Chikhali	Engineering jobs	2	N.A. / N.A.
882.	Zope Engineering	1998	G. No. 1297, S No.17, P No. 43	Engineering jobs	3	N.A. / 38,000
883.	Zubeir Oil Trading & Manufacturing	1997	G. No. 769, Pawar Vasti, Kudalewadi	Groundnut oil	9	N.A. / 1,200,000

Details of Industries in the Newly Merged Areas of PCMC

Source: Industrial and Commercial Directory of Pune – 1995, published by Mahratta Chamber of Commerce, Industries and Agriculture (MCCIA), and District Industrial Centre (DIC), Pune.

Note: The following list of industries includes the industries registered under DIC till 1st March 1999.

S. No.	Name of the Industry	Year of Estb.	Location - Gatt No. / Survey No. / Plot No. / Milkat No. / House No.	Scale/ Type of Industry	No. of Workers	Investment / Turnover (Rs.)
B.	**Name of Village: TALWADE (Remaining)**					
1.	A–1 Enterprises	1998	S. No. 21/85, Jyotibanagar	Auto parts	4	N.A. / 240,000
2.	A A Fabricators & Contractors	1995	G. No. 90	Engineering jobs	5	N.A. / N.A.
3.	A G Associates	1997	G. No. 169	Sheet metal component	8	N.A. / 1,200,000
4.	A J Enterprises	1998	S. No. 26, Rupeenagar	Engineering Jobs	3	N.A. / 150,000
5.	A R Industries	1996	G. No. 162/A, Triveninagar	Engineering jobs	5	N.A. / N.A
6.	A S U Process Control	1995	G. No. 233, H. No. 56, Rupeenagar	Electrical & Electronic control equipments	5	N.A. / 55,000
7.	Abhaya Plastic & Packaging	1998	G. No. 90, opp. Jyotiba Temple, Jyotibanagar	Plastic moulding	5	N.A. / 595,000
8.	Abhijit Enterprises	1995	895, Rupeenagar	Manufacturing Coil spring wire	4	N.A. / 250,000
9.	Abhishek Engineering	1997	P. No. 14, Ajinkya Housing Society, Rupeenagar	Engineering & Fabrication jobs	2	N.A. / 195,000
10.	Abhishek Enterprises	1997	G. No. 160, H. No. 443, Triveninagar	Engineering & Fabrication jobs	2	N.A. / 200,000
11.	Abner Engineering works	1995	2384, Gurudutta Housing Society, Sahyognagar	Engineering & Fabrication jobs	2	N.A. / N.A.
12.	Acama Engineering	1996	S. No. 69, P. No. 4, Jyotibanagar	General fabrication & Fabrication of sheet metal parts	7	N.A. / 295,000
13.	Accurate Enterprises	1996	S. No. 255/A, Jyotibanagar	Industrial Fabrication	11	N.A. / 2,400,000
14.	Agarwal Cement Pipes	1998	G. No. 166, 1090, Talwade Main Rd.	RCC cement pipes	5	N.A. / 510,000
15.	Aim Industries	1996	S. No. 69 (old No. 29/3)	Engineering &Fabrication jobs	5	N.A. / 1,200,000
16.	Air Care Duct Fabricators	1997	M. No. 467/3, Rupeenagar	Ducting & Fabrication jobs	5	N.A. / N.A.
17.	Air Link Cable	1995	G. No. 90, Gala – 6, Jyotibanagar	Electrical cables	4	N.A. / 940,000

S. No.	Name of the Industry	Year of Estb.	Location - Gatt No. / Survey No. / Plot No. / Milkat No. / House No.	Scale/ Type of Industry	No. of Workers	Investment / Turnover (Rs.)
18.	Ajay Engineering Works	1999	G. No. 165, S No. 46/1	Fabrication Jobs	4	N.A. / N.A.
19.	Akash Engineering Works	1996	G. No. 90, Jyotibanagar	Engineering Jobs	7	N.A. / N.A
20.	Akbar fabrication Works	1997	S. No. 219/B, Sahyognagar	Fabrication jobs	2	N.A. / N.A.
21.	Akshaya	1997	G. No. 69, S. No. 29/3, P. No. 7, Jyotibanagar	Auto parts & Steel metal fabrication	5	N.A. / 1,750,000
22.	Akshaya Enterprises	1996	G. No. 169, Triveninagar	Engineering jobs	7	N.A. / N.A
23.	Akshay Industries	1996	G. No. 162, Triveninagar	Engineering jobs	4	N.A. / N.A.
24.	Akshay Industries	1996	S. No. 13, Rupeenagar	Engineering jobs	2	N.A / 320,000
25.	Alankar Industries	1996	S. No. 234, Laxminagar, At + Post: Talwade	Fabrication jobs	2	N.A / N.A
26.	Alex Enterprises	1998	G. No. 199, P. No. 16	MS Fabrication & Engineering jobs	8	N.A. / 2,500,000
27.	Alfa Engineering Corp.	1997	G. No. 165, Nandadeep Industrial Complex, Talwade	Auto parts	13	N.A. / 3500,000
28.	Alif Enterprises	1998	G. No. 218, P. No. 19/73, Banskar Society, Rupeenagar	Paper files & envelopes	4	N.A. / 150,000
29.	Alliance Fabrications	1996	G. No. 78	Fabrication of tanks & vessels	4	N.A. / 460,000
30.	All Well Products	1997	G.No.219, H.No.752, Rupeenagar, Talwade	Manufacturing of Auto parts	4	N.A. / 600,000
31.	Al-hadid Engineering Corporation	1998	G. No. 255B	Engineering Jobs	4	N.A. / 250,000
32.	Al-riz Coatings	1998	G. No. 73, Jyotibanagar	Powder coating	14	N.A. / 219,000
33.	Al-riz Coatings	1998	G. No. 255/A Building /477	Powder & liquid coating	5	N.A. / N.A.
34.	Amardeep Enterprises	1995	G. No. 18, P. No. 1169, Rupeenagar	Box files, flat files	2	N.A. / 16,000
35.	Ambika Engineering	1995	M.No. 55, G. No. 94, Jyotibanagar	Engineering jobs	2	N.A. /33,000
36.	Ambika Fabricators & Enterprises	1998	G. No. 228, Navnirman Housing Society	Fabrication jobs	3	N.A. / 150,000
37.	Ambika Industries	1996	M. No. 701, Rupeenagar	Auto parts – carriers, footrests	2	N.A. / 125,000
38.	Ameya Enterprises	1997	G. No. 90, Jyotibanagar	Engineering & Fabrication jobs	2	N.A. / 100,000
39.	Amit Enterprises	1995	G. No. 255/A, Talwade	Engineering job works	5	N.A. /100,000
40.	Amol Enterprises	1997	G. No. 102, M.No. 349, Jyotibanagar, Talwade	Engineering & Fabrication jobs	7	N.A. /1.300,000

S. No.	Name of the Industry	Year of Estb.	Location - Gatt No. / Survey No. / Plot No. / Milkat No. / House No.	Scale/ Type of Industry	No. of Workers	Investment / Turnover (Rs.)
41.	Anand Electronics & Enterprises	1996	S. No. 69, G. No. 218, P. No. 14, Rupeenagar	Assembly of TV & audio sets	2	N.A. / 90,000
42.	Anand Industries	1996	S. No. 255/A, Jyotibanagar	Fabrication jobs – doors, grills	6	N.A. / 480,000
43.	Andrew Engineering	1999	S. No. 77, Shed No. 3	Engineering Jobs	3	N.A. / 200,000
44.	Aniket General Stores & Stationery	1998	G. No. 155, Sai colony, Triveninagar	Papad	1	N.A. / 74,000
45.	Aniket Industries	1995	H. No. 917, G. No. 234, Rupeenagar	Engineering jobs	1	N.A. / N.A.
46.	Anil Industries	1997	S. No. 215, P. No. 13, Siddhnath Society, Rupeenagar	Engineering jobs	2	N.A. / N.A.
47.	Anshuman Industries	1996	G. No. 83, Talwade	Engineering & fabrication jobs	4	N.A. / 75,000
48.	Anubhavs Autos Pvt. Ltd.	1998	G. No. 73, Jyotibanagar	Auto parts	10	N.A. / 500,000
49.	Anusuya Engineering Works	1995	P. No. 21, G.No.85, Jadhavnagar, Talwade	Engineering jobs	5	N.A. /20,000
50.	Aparna Engineering	1997	G.No.166,Triveni Nagar, Talwade	Manufacturing electrical transformer	9	N.A. / 2,000,000
51.	Aplas Engineers	1995	G. No. 255/A, P. No. 31	Engineering & Fabrication jobs	9	N.A. / 300,000
52.	Apollo Enterprises	1995	P. No. 228, Triveninagar, Talwade	Press parts	3	N.A. / N.A.
53.	Are Vee Industries	1997	G. No. 252, Jyotibanagar	Fibre Reinforced Plastic body building	5	N.A. / 820,000
54.	Arkay Industries	1995	S. No. 84, P. No. 244, Jyotibanagar	Wooden boxes	5	N.A / 1,050,000
55.	Arkay Enterprises	1997	G. No. 90, Jyotibanagar	Engineering & Fabrication jobs	2	N.A. / 100,000
56.	Arhti Enterprises	1997	G. No. 85, P. No. 1, Jyotibanagar	Engineering jobs	1	N.A. / 250,000
57.	Arnika Steel Industries	1996	S. No. 252, Jyotibanagar	Plates profile and cutting	5	N.A. / 2.400,000
58.	Aroma Enterprises	1996	G. No. 140, Ganeshnagar, Talwade road, Talwade	Engineering works	1	N.A. / N.A.
59.	Arun Enterprises	1996	H. No. 333, Hanuman Co-op Housing Society, Rupeenagar	Engineering jobs	2	N.A. / N.A
60.	Arun Industries	1994	Talwade	Chemicals	5	200,000 / 60,000
61.	Arun Industries	1997	G. No. 103, Jyotibanagar	Engineering & Fabrication jobs	4	N.A. / 62,000
62.	Asha Engineering Works	1996	G. No. 174, M. No. 1129, Satashrungi Housing Society, Rupeenagar	Engineering jobs	2	N.A / 60,000

Contd.: APPENDIX 4-A

S. No.	Name of the Industry	Year of Estb.	Location - Gatt No. / Survey No. / Plot No. / Milkat No. / House No.	Scale/ Type of Industry	No. of Workers	Investment / Turnover (Rs.)
63.	Asha Enterprises	1996	G. No. 255-B, Jyotibanagar	Auto & press parts	7	N.A / 750,000
64.	Ashirwad Enterprises	1997	S. No. 485, Triveni nagar, Talwade	Assembly of electronics watches	2	N.A. / 230,000
65.	Ashirwad Enterprises	1998	G. No. 69, P No. 1, Jyotibanagar	Hot Blasting & Spray Works	4	N.A. / 600,000
66.	Ashok Enterprises	1997	G. No. 156, M. No. 1549, Parag Niwas, Gurudatta Society, Triveninagar	Pickles & Papads	4	N.A. / 150,000
67.	Ashutosh Industries	1997	S. No. 252, Jyotibanagar	Engineering jobs	2	N.A. / 200,000
68.	Ashutosh Pressings	1996	G. No. 2555B, P.No. 23&24, Talwade	Press components	6	N.A. / 1,000,000
69.	Atlas Engineering	1995	M. No. 228, Triveninagar	Engineering & Fabrication jobs	5	N.A. / N.A.
70.	Atul Engineering Works	1997	G. No. 1, P. No. 40A, Talwade	Engineering Job work	3	N.A. / 300,000
71.	Atul Enterprises	1996	G.No.165, Triveninagar, Talwade	Engineering job works	2	N.A. / N.A.
72.	Avinash Industries	1995	G. No. 90	Engineering jobs	5	N.A. / N.A.
73.	Azad Kishore Singh & Mukhtar Singh	1999	G. No. 671	Plastic goods	4	N.A. / 400,000.
74.	B L Enterprises	1995	G. No. 87, P. No. 9, Jyotibanagar	Cutting tools & M/C parts	4	N.A. / 75,000
75.	B.K Engineering Works	1988	Siddhnath Housing Society, Rupeenagar,	Fabrication of Transformer	8	100,000 / 1,000,000
76.	B P Enterprises	1997	G. No. 223, Vijayanand Housing Society, Rupeenagar	Jigs & fixtures	3	N.A. / 550,000
77.	B S Engineering	1998	G. No. 52, Talwade-Chikhali Rd.	Engineering Jobs	6	N.A. / 1,000,000
78.	B S Engineers & Contractors	1996	G. No. 255/B	Mfg. of Distribution boards, HT & LT line materials	4	N.A. / 800,000
79.	B S Enterprises	1998	G. No. 199, P. No. 2, Jyotibanagar	Printing jobs	8	N.A. / 2,500,000
80.	Baba Enterprises	1998	G. No. 230, Ganesh colony, Rupeenagar	Screen printing	3	N.A. / 300,000
81.	Baig Engineering & Fabrication Works	1996	M. No. 279, Near Pawana Medical Stores, Hanuman Society, Rupeenagar	Engineering jobs	3	N.A. / N.A.
82.	Bajrang Pattern Works	1996	S. No. 3, Laxmi Smruti Building, Triveninagar	Wooden Patterns	2	N.A. / 60,000
83.	Balaji Enterprises	1995	G. No. 241, P. No. 38, Rupeenagar	Engineering jobs	4	N.A. / 50,000

S. No.	Name of the Industry	Year of Estb.	Location - Gatt No. / Survey No. / Plot No. / Milkat No. / House No.	Scale/ Type of Industry	No. of Workers	Investment / Turnover (Rs.)
84.	Bansal Fabricators	1997	G. No. 306, Ganeshnagar	Fabrication jobs	2	N.A. / 55,000
85.	Bhagyalaxmi Plastic Industries	1997	M. No. 16/2, Ganeshnagar	Plastic moulding	6	N.A. / 600,000
86.	Bhairavnath Enterprises	1999	G. No. 238	Engineering Jobs	2	N.A. / 125,000
87.	Bhairavnath Enterprises	1999	G. No. 400	Auto press parts & Fabrication job	3	N.A. / 84,000
88.	Bhalekar Industries	1996	M.No. 514, G. No. 169, Rupeenagar	Auto frames and carriers	4	N.A. / 55,000
89.	Bhalekar Industries	1997	12/1, Jyotibanagar, Talwade Rd.	Fabrication jobs	2	N.A. / 200,000
90.	Bhalekar Industries	1997	G. No. 88, Jyotibanagar	Engineering & fabrication jobs	7	N.A. / 215,000
91.	Bharat Engineering Ind	1994	G. No. 255A, Jyotibanagar,	Job Work	10	800,000 / 2,000,000
92.	Bharat Enterprises	1988	551, Kamal Kunj, Triveninagar	Job Work	6	200,000 / 350,000
93.	Bhate Engineering works	1996	980, Rupeenagar	Engineering jobs	1	N.A. / 13,000
94.	Bhavani Plastics	1994	P. No. 560, Gurudatta Society, Sahyognagar	Automobile & General products	3	100,000 / N.A.
95.	Bhavi Industries	1997	G. No. 1, S. No. 170, Shri Gurudatta Industrial Complex	Engineering & Fabrication jobs	3	N.A. / 500,000
96.	Bhujbal Engineering	1996	G. No. 203, Rupeenagar	Auto-Engineering parts	6	N.A. / 1,440,000
97.	Bhupal Industries	1996	M. No. 703, Rupeenagar	Fabrication jobs	4	N.A. / 60,000
98.	C R Engineering	1997	G. No. 249/A, Jyotibanagar	Engineering jobs	3	N.A. / 245,000
99.	C S Enterprises	1996	S. No. 473, Chaitanyanagar	Engineering jobs	3	N.A. / N.A.
100.	Cantotage Tech	1995	P. No. 40, Talwade	Engineering job works	2	N.A. / 30,000
101.	Chandra Enterprises	1997	G.No.455, Room 1, Jyotibanagar, Talwade	Plastic and rubber moulding	4	N.A. / 175,000
102.	Chandra Erectors	1997	G. No. 455, Room 2, Jyotibanagar, Talwade	Fabrication job	3	N.A. / 150,000
103.	Chavan Engineering	1997	G. No. 237, Sangam Society, Rupeenagar,	Engineering & Fabrication jobs	5	N.A. / 130,000
104.	Chetan Industries	1995	S. No. 203, P. No. 8, Talwade	Engineering job	4	N.A. / N.A.
105.	Chitra Fabricators & Engineering	1993	Triveninagar	Fabrication & Engineering jobs	3	80,000 / 300,000

S. No.	Name of the Industry	Year of Estb.	Location - Gatt No. / Survey No. / Plot No. / Milkat No. / House No.	Scale/ Type of Industry	No. of Workers	Investment / Turnover (Rs.)
106.	Classic FRP Products	1997	Shed No. 2&3, G. No. 170, Bhalekar Industrial Estate, Ganesh nagar, Talwade	Manufacturing of FRP bodies	1	N.A. / 500,000
107.	Classic Grinding Tools	1998	G. No. 170, Ganeshnagar	Engineering Jobs	9	N.A. / 500,000
108.	Craft Systems	1991	672, Sahyognagar Near Ganapati Mandir	Press tools, Dies, Jigs fixtures, Prototype waves soldering	5	200,000 / 225,000
109.	Crystal Enterprises	1997	G. No. 460, Dehu-Alandi Rd.	Fibre reinforced plastic products	1	N.A./ 300,000
110.	D V Fabricators	1998	S. No.235, P. No. 1046, Ajinkyatra Housing Society, Rupeenagar	Engineering Jobs	5	N.A. / 400,000
111.	Deepak Fabrications	1998	G. No. 231, Vikas Ho. Society, Rupeenagar	Fabrication of doors, windows	4	N.A. / 132,000
112.	Deepak Industries	1995	P. No. 509	Plastic components	8	N.A. / 200,000
113.	Deepak Industries	1995	G. No. 215-1-2,Sahayognagar	Compressor parts and Regulator wheels	2	N.A. / 80,000
114.	Deepak Plastics	1997	S. No. 58, G. No. 252, Gala – 4, Sahyognagar	Plastic auto parts	4	N.A. / 140,000
115.	Dhanraj Pantograph Engraving	1995	G. No. 230, Rupeenagar, Main Rd.	Aluminum name plates	5	N.A. / 95,000
116.	Dhanvantari Industries	1997	G. No. 118, Jyotibanagar, Talwade	Engineering job works	2	N.A. / 100,000
117.	Dhiraj Industries	1995	P. No. 509, Jyotibanagar	Plastic moulding & components	8	N.A. / 200,000
118.	Dhiraj laboratories	1996	S. No. 43, Ward No. 4, Talwade	Engineering job works	6	N.A. / N.A.
119.	Diamond Plastics	1996	G. No. 252, Jyotibanagar	Polythene bags	4	N.A. / 128,000
120.	Dias-c Tools & Components	1992	895, Panchaganga Housing Society, Rupeenagar	'u' contacts, spring clips, brass contact	14	500,000 / 550,000
121.	Dilawar Enterprises	1998	G. No. 22, S. No. 68, H. No. 451, Panchganga Housing Society, Rupeenagar	Engineering Jobs	1	N.A. / 50,000
122.	Dinesh Enterprises	1995	G. No. 53	Press component & M/C jobs	10	N.A. / 520,000
123.	Dinesh Enterprises	1999	G. No. 52	Press parts	10	N.A. / 1,200,000
124.	Diwakar Industries	1997	G. No. 258, Jyotibanagar	Press components	3	N.A. / 230,000
125.	Doshi Engineering works	1996	G. No. 170, Ganeshnagar, Talwade	Engineering job works	7	N.A. / 675,000
126.	Dosti Engineering Works	1995	S. No. 160, Near Ram Mandir	Engineering jobs	4	N.A. / 20,000

S. No.	Name of the Industry	Year of Estb.	Location - Gatt No. / Survey No. / Plot No. / Milkat No. / House No.	Scale/ Type of Industry	No. of Workers	Investment / Turnover (Rs.)
127.	Durga Auto & Gears	1997	G. No. 255A, P. No. 277, Jyotibanagar	Automobile parts	7	N.A. / 3,300,000
128.	E R B Enterprises	1998	S. No.160, H. No. 443, Triveninagar	Engineering Jobs	1	N.A. / N.A.
129.	Elite Enterprises	1997	P. No. 14, G. No. 400, Talwade	Engineering Job	18	N.A. / 2,500,000
130.	Emco Engineering Works	1995	S. No. 21, G. No. 85, M. No. 501	Engineering & Fabrication jobs	5	N.A. / 425,000
131.	Emmanuel Engineers & Fabricators	1996	H. No. 904	Engineering & Fabrication jobs	4	N.A. / 50,000
132.	Emanuel Services	1997	G. No. 218, H. No.570, Shop-7, Rupeenagar	Engineering & Fabrication jobs	5	N.A. / 450,000
133.	Engineering Enterprises	1997	G. No. 68, P. No. 13, Jyotibanagar	Press component	7	N.A. / 1,200,000
134.	Esteem Engineering Works	1995	G. No. 169, Gala – 10, Prashad Indl. Complex, Rupeenagar	Engineering & Industrial Fabrication jobs	3	N.A ./ 310,000
135.	Firdos Bakery	1999	G. No. 227	Bakery products	3	N.A. / 195,000
136.	Fourteen Enterprises	1997	G. No. 188, Jyotibanagar, Talwade	Engineering Job	4	N.A. / 355,000
137.	Foutech Engineering	1999	S. No. 170	Electrical control panels	2	N.A. / 300,000
138.	G K technical Services	1997	G. No. 199, P. No. 105, Jyotibanagar	Engineering jobs	3	N.A. / 480,000
139.	Gadsing Engineering Works	1995	G. No. 231, M. No. 104, Rupeenagar	Engineering jobs	5	N.A. / N.A.
140.	Gajanan Engineering and Fabrication	1997	S. No. 43, Triveninagar, Talwade	Industrial fabricators	6	N.A. / 120,000
141.	Gajanan Engineering Works	1995	G. No. 255/B, Jyotibanagar	Sheet metal dyes & component assembly	3	N.A. / 270,000
142.	Gajanan Industries	1995	S. No. 1678, Saraswati Gale Society, Rupeenagar	Rubber moulding	5	N.A. / 155,000
143.	Ganesh Enterprises	1995	S. No. 190, Jyotibanagar	Fabrication jobs	2	N.A. / N.A.
144.	Ganesh Enterprises	1996	S. No. 102, Jyotibanagar	Fabrication jobs	2	N.A. / N.A.
145.	Ganesh Enterprises	1997	G. No. 164/B, Triveninagar	Engineering & Fabrication jobs	3	N.A. / 84,000
146.	Ganesh Enterprises	1998	G. No. 162, Triveninagar	Men's wear items	3	N.A. / 250,000
147.	Ganesh Industries	1996	G. No. 27, Jyotibanagar	Automobile machine jobs	5	N.A. / N.A.
148.	Ganesh Mosaic / Tiles Industry	1999	S. No. 158/4	Mosaic tiles	10	N.A. / 400,000
149.	Ganesh Motor rewinding	1998	G. No. 235, H. No. 1165, Ajinkyatra Housing Society, Rupeenagar	Motor rewinding	4	N.A. / 120,000

S. No.	Name of the Industry	Year of Estb.	Location - Gatt No. / Survey No. / Plot No. / Milkat No. / House No.	Scale/ Type of Industry	No. of Workers	Investment / Turnover (Rs.)
150.	Ganesh Polishing	1998	S. No. 402/6, Triveninagar	Polishing jobs	7	N.A. / 600,000
151.	Ganga Food Products	1997	772, Vikash Housing Society, Near Shri Krishna Mandir, Rupeenagar	Food products	5	N.A. / 135,000
152.	Gauri Nandan Enterprises	1997	S. No. 258, Jyotibanagar	Press parts	4	N.A. / 1,050,000
153.	George Enterprises	1998	G. No. 199, P. No. 3, Jyotibanagar	Rubber parts & Tyre re-moulding	13	N.A. / 2 crores
154.	Ghatge Bonders	1997	G. No. 255/B	Press sheet metal parts	9	N.A. / 600,000
155.	GirishKumar and Co.	1997	G. No. 1, P. No. 34C, Talwade	Manufacturing of Textile spare parts	6	N.A. / 1200,000
156.	Glueklich Engineering Co.	1995	G. No. 255/A, P. No. 40/2, Jyotibanagar Industrial Estate	Boilers pans & sugar boards	4	N.A. / 100,000
157.	Godwage Automobiles & Engineers	1998	G. No. 308 (Old S. No. 167/14), Talwade Main Rd.	Engineering jobs	25	N.A. / 295,000
158.	Gomantak Enterprises	1995	G.No.174, H. No. 771, Rupeenagar	Fabrication jobs	6	N.A. / 1,430,000
159.	Gopal Industries	1987	P. No. 4, Vijayanand, Rupeenagar	Press components, Bracket, washers, Clamp job Works	8	200,000 / 2,800,000
160.	Gouray Engineering	1998	G. No. 199, P. No. 9, Jyotibanagar	Machinery parts & Engineering jobs	9	N.A. / 1,500,000
161.	Govas industries	1996	S. No. 338, Gala – B-5, Nandadeep Industrial Complex, Sahyognagar	Moulding of dies and auto spare parts	9	N.A. / 1,600,000
162.	Goyal Enterprises	1996	G. No. 252, Jyotibanagar, Talwade	Fabrication and Engineering job work	14	N.A. / 182,000
163.	Grace industries	1997	G. No. 78/6040, Talwade	Engineering jobs	3	N.A. / 225,000
164.	Grindwell Industries	1996	G. No. 165, Gala – B/7, Sahyognagar, Nandadeep Industrial Estate	Engineering jobs	3	N.A. / 30,000
165.	Gurudatta Fabricators	1995	S. No. 170, Ganeshnagar	Manufacturing machine parts	2	N.A. / 50,000
166.	Gurudatta Industries	1997	G. No. 170, Ganeshnagar	Engineering jobs	3	N.A. / N.A.
167.	H G Engineering	1998	G. No. 199, P. No. 1, Jyotibanagar	Machine parts	6	N.A. / 1,500,000
168.	Hagwane Industries	1998	G. No. 257	Engineering jobs	3	N.A. / 800,000
169.	Hallmark Electricals & Electronics	1996	P. No. 1, G. No. 77, Jyotibanagar	Electrical Control Panels	9	N.A. / 550,000

S. No.	Name of the Industry	Year of Estb.	Location - Gatt No. / Survey No. / Plot No. / Milkat No. / House No.	Scale/ Type of Industry	No. of Workers	Investment / Turnover (Rs.)
170.	Hallmark Electricals & Electronics	1998	G. No. 77, P. No. 1, Jyotibanagar	Control Panels	5	N.A. / 1,200,000
171.	Hans Industries	1995	S. No. 239, Jyotibanagar	Fabrication job	4	N.A. / 40,000
172.	Hasmukhrai and Co.	1997	G. No. 1, P. No. 34B, Talwade	Manufacturing of textile spare parts	6	N.A. / 900,000
173.	Hemant Engineering Works	1996	M. No. 358, Near Ram Mandir, Triveninagar	Fabrication jobs	2	N.A. / 150,000
174.	Hemant Industries	1995	G. No. 1A, Atul Industrial Premises	MS fabrication jobs	6	N.A. / 770,000
175.	High Tensile Fastnuts (India) Pvt. Ltd.	1996	G. No. 87, P. N0. 13, M. No. 2458, Jyotibanagar	High tensile nuts & bolts	10	N.A. / 1,650,000
176.	Hind Engineering Works	1995	S. No. 164, Triveninagar	Engineering & fabrication jobs	2	N.A. / 25,000
177.	Hindustan Fabrication Works	1995	S. No. 578, Triveninagar, Talwade Rd.	MS fabrication jobs	6	N.A. / 620,000
178.	I P Engineering Works	1997	G. No. 227, Rupeenagar	Engineering Jobs	8	N.A. / 740,000
179.	Ideal Enterprises	1997	G. No. 169, Khata No. 78, Ganeshnagar	Rubber parts	3	N.A. / 66,000
180.	Inder Engineers	1996	G. No. 239/A/2, Rupeenagar	Electrical control panels	4	N.A. / 118,000
181.	Industrial Fabripress	1996	G. No. 218, S. No. 1, Rupeenagar	Press components	4	N.A. / 480,000
182.	Innotech Auto India Pvt. Ltd.	1998	G. No. 255/B & 87, Jyotibanagar	Auto parts	7	N.A. / 6,000,000
183.	J B Pressings	1995	G. No. 169, H. No. 78, Ganeshnagar	Press components	5	N.A. / 720, 000
184.	J M Plastic Industries	1996	G. No. 255, Rupeenagar	Plastic products	3	N.A. / 125,000
185.	J S Industries	1997	S. No. 163, P. No. 178, Trimurti Society, Triveninagar	Engineering jobs	3	N.A. / 100,000
186.	J V C R Packaging Industry	1996	G. No. 96, Building – 55, Jyotibanagar	Corrugated boxes	8	N.A. / 1,200,000
187.	Jai Bhavani Enterprises	1998	G. No. 215, S. No. 68, Rupeenagar	Engineering Jobs	3	N.A. / 150,000
188.	Jain Cement Paint Industries	1998	G. No. 166, Triveninagar	Cement paints	3	N.A. / 200,000
189.	Jaishree Filtration	1997	G. No. 2580, Jyotibanagar, Talwade	Engineering and Fabrication job	3	N.A. / 250,000
190.	Jamuna Transport Corporation	1999	255N.A.13, Talwade	Engineering Jobs	3	N.A. / 80,000
191.	Jakay Industries	1998	S. No. 84. P. No. 24, Jyotibanagar	Wooden boxes	5	N.A. / 1,200,000
192.	Jayalagi Constructions	1997	G. No. 214, Main Road Rupeenagar	Cement bricks, gutter pipes	3	N.A. / 185,000

S. No.	Name of the Industry	Year of Estb.	Location - Gatt No. / Survey No. / Plot No. / Milkat No. / House No.	Scale/ Type of Industry	No. of Workers	Investment / Turnover (Rs.)
193.	Jayalaxmi Enterprises	1997	M. No. 665, Dehu Rd., Talwadegaon	Engineering & fabrication jobs	2	N.A. / 295,000
194.	Jayshree Industries	1995	G. No. 220, Sahyognagar	Machinery parts	2	N.A. /N.A.
195.	Jayshree Metal Perforators	1998	G. No. 258, Jyotibanagar	Sheet metal parts	5	N.A. / 485,000
196.	Jay Engineering	1993	Near Ram Mandir, Triveninagar	Job Works, Jigs fixtures	3	150,000 / 100,000
197.	Jeo Pressings	1995	G. No. 169, Hissa No. 78	Press component & press parts	5	N.A. / 50,000
198.	Joel Enterprises	1995	G. No. 1, Talwade	Fabrication jobs	8	N.A. / 432,000
199.	Jones Engineering Works	1996	Sector – 240, P. No. 1, Sahyog Housing Complex, Rupeenagar	Engineering jobs	6	N.A. / 225,000
200.	Jyotiba Engineers	1996	G. No. 90, At + Post: Talwade	Engineering Jobs	4	N.A. / N.A.
201.	Jyotiba Enterprises	1993	Near Gagangiri Maharaj Math, Triveninagar	Job work, cutting, drilling, slotting	3	60,000 / N.A.
202.	Jyotiba Enterprises	1995	S. No. 146/9, Gangagiri Maharaj Nath, Triveninagar	Jigs & fixtures	5	N.A. / 155,000
203.	K K Industries	1997	G. No. 68, P. No. 15, S. No. 29/2, Jyotibanagar	Water tanks, chillers & condensers	9	N.A. / 1,900,000
204.	Kadam Industries	1998	G. No. 169, Prasad Industrial Complex, Sahyognagar	Engineering jobs	3	N.A. / 100,000
205.	Kalavishwa Patterns	1995	G. No. 218, Indrayani Housing Society, Rupeenagar	Aluminium & wood pattern	5	N.A. / 85,000
206.	Kalpak Enterprises	1997	G. No. 68, P. No. 14, Jyotibanagar	Press component	8	N.A. / 1,600,000
207.	Kalpur Engineers	1999	G. No. 1264	Engineering Jobs	4	N.A. / 600,000
208.	Kamal Engineers	1996	G.No.239, Jyotibanagar, Talwade	Engineering jobs	9	N.A. /N.A.
209.	Kamdhenu Enterprises	1997	P.NO.921, S. No. 164, Shop No.1, Talwade	Engineering job works	4	N.A. /200,000
210.	Kanbay Software (India) Pvt. Ltd.	1996	P. No. A-1, MIDC Talwade Software Technology Park	LSI / Software Development	400	5 crores / About 25 crores
211.	Kanchan Enterprises	1996	S. No. 345, Gala –6, Jyotibanagar	Engineering jobs	5	N.A. / N.A.
212.	Kaptik Industries	1995	S. No. 227, Navnirman Housing Society, Rupeenagar	Press component & fabrication jobs	2	N.A. / 75,000
213.	Kardelwar Engineers	1998	G. No. 90, P. No. B-255/1, near Jyotiba temple	Press parts for auto industry	6	N.A. / 2,400,000

S. No.	Name of the Industry	Year of Estb.	Location - Gatt No. / Survey No. / Plot No. / Milkat No. / House No.	Scale/ Type of Industry	No. of Workers	Investment / Turnover (Rs.)
214.	Kaushal Auto Engineering Works	1998	G. No. 166	Engineering Job	7	N.A. / 400,000
215.	Ketshel Enterprises	1996	B. No. 259, E.No.252, Jyotibanagar, Talwade	Lead oxide	3	N.A. / 300,000
216.	Khalsa Engineering works	1997	G. No. 163	Engineering Jobs	10	N.A. / 700,000
217.	Kimaya Engineers	1996	G. No. 255, P. No. 49/1, Jyotibanagar	MS fabrication jobs – grills	4	N.A. / 350,000
218.	Kiran Enterprises	1994	S. No. 240, Post Office Near Rupeenagar	Kapat, Showcase, Shutters	5	100,000 / N.A.
219.	Kiran Provision Stores	1998	G. No. 90, Jyotibanagar	Spices	N.A.	N.A. / 36,000
220.	Knot Engineering Works	1998	G. No. 69, S. No. 29/13, H. No. 273, Jyotibanagar	Engineering & fabrication jobs	8	N.A. / N.A.
221.	Komal Engineering & Fabrication	1997	S. No. 101, Shram Society, Near Gharjai Temple, Rupeenagar	Engineering & fabrication jobs	5	N.A. / 240,000
222.	Kumbhar Printing Press	1998	S. No. 76, G. No. 225, Hanuman Society, Talwade Main Rd.	Printing jobs	3	N.A. / 600,000
223.	Kwality Industrial Services	1995	G.No.258, Talwade	Engineering jobs	6	N.A. / N.A.
224.	Kwality Steel Centre	1998	G. No. 252, Jyotibanagar	Engineering Jobs	2	N.A. / 100,000
225.	L B Electricals	1998	G. No. 78, Jyotibanagar	Motor rewinding	N.A.	N.A. / 200,000
226.	L S Engineers	1997	G.No.1 Pno. 39B, Talwade	Fabrication	4	N.A. / 450,000
227.	L S Precision	1996	G. No. 78, Talwade	Engineering jobs	3	N.A. / N.A.
228.	Laxmi Enterprises	1996	G. No. 95, Sonavane Vasti	Engineering jobs	4	N.A. / N.A.
229.	Laxmi Enterprises	1998	S. No. 163, Triveninagar Talwade Rd.	Engineering Jobs	2	N.A. / 100,000
230.	Laxmi Industries	1997	G. No. 489, Triveninagar	Fabrication jobs	5	N.A. / 85,000
231.	Laxmi Packaging	1997	S. No. 58, G. No. 252, Gala – 3, Sahyognagar	Corrugated boxes	2	N.A. / 50,000
232.	Laxmi Packaging Industries	1995	G. No. 397, M. No. 1465	Wooden boxes, base plates & holding clamps	4	N.A./ 85,000
233.	Laxmi Packers	1995	S. No. 47, Bhagrathi Society, Rupeenagar	Mfg. of wooden packaging boxes	6	N.A./ 634,000
234.	Laxmi Plastic Industries	1993	Ganeshnagar	Plastic Scrips	5	500,000 / 350,000

S. No.	Name of the Industry	Year of Estb.	Location - Gatt No. / Survey No. / Plot No. / Milkat No. / House No.	Scale/ Type of Industry	No. of Workers	Investment / Turnover (Rs.)
235.	Laxmi Plastic Industries	1997	M. No. 835, Bhairavnath Gruha Rachna Society, Rupeenagar	Plastic Scrips reprocessing	5	N.A. / 240,000
236.	Leisa Rubber Products	1998	G. No. 169, Ganeshnagar, Talwade Rd.	Engineering Jobs	3	N.A. / 50,000
237.	Leopolly Enterprises	1997	G. No. 218, H. No. 1261, Ganesh Colony, Sainath Nagar Housing Society, Rupeenagar	Leather bags & purses	5	N.A. / 200,000
238.	Levangore Store mart	1995	S. No. 29/B, H.No. 462, Sahayognagar	Utility store	4	N.A. / 145,000
239.	Limson Engineering Pvt. Ltd.	1996	G. No. 252, Jyotibanagar	MS fabrication jobs	19	N.A. / 10,800,000
240.	Lokash Industries	1996	G. No. 2/5 At + Post: Talwade	Auto seats, carriers & foot-rests	3	N.A. / 95,000
241.	M B Engineers	1999	S. No. 162	Engineering & Fabrication jobs	4	N.A. / 325,000
242.	M K Plastics	1995	G. No. 255/A, Jyotibanagar	Polythene bags	5	N.A. / 500,000
243.	M R B Industries	1997	S. No. 255/B, P. No.1, Jyotibanagar	Fabrication jobs	7	N.A. / 70,000
244.	M S P Work	1995	H. No. 306, Triveninagar	Machinery works	5	N.A. /150,000
245.	Madhuwanti Engineering	1998	G. No. 90, Jyotibanagar	Engineering Jobs	4	N.A. / 300,000
246.	Madhuban Trade Steel Pvt. Ltd.	1998	G. No. 90	Iron scrap	25	N.A. / 120,000
247.	Mahalaxmi Furniture Works	1997	G. No. 160, Triveninagar	Mfg. Of wooden furniture	3	N.A. / 100,00
248.	Mahalaxmi Plastic Industries	1997	M. No. 16/1, Ganeshnagar	Plastic granule reprocessing	7	N.A. / 1,150,000
249.	Mahesh Industries	1998	Shop No. 23 / 263, Ram Mandir, Triveninagar	Machinery spares & Engineering Jobs	2	N.A. / 250,000
250.	Mams Caterers	1997	G. No. 1425, Rupa Housing Society, Rupeenagar	Food products	3	N.A. / 175,000
251.	Manisha Enterprises	1996	P.No.3&4, G.No.86, Jyotibanagar	Engineering and fabrication jobs	11	N.A. /200,000
252.	Manisha Industries	1997	G. No. 171, M.No.435, Rupeenagar, Talwade	Sheet metal part	5	N.A. / 200,000
253.	Manoj Metal Traders	1995	G. No. 9	Black coating	5	N.A. / 35,000
254.	Mary Industrial Corp.	1995	G. No. 255/B	FRP covers of auto & auto components	5	N.A. / 300,000
255.	Mattitech Engineers	1996	S. No. 252, P. No. 218,Jyotibanagar	SSI?Engineering works	2	N.A. / N.A.

S. No.	Name of the Industry	Year of Estb.	Location - Gatt No. / Survey No. / Plot No. / Milkat No. / House No.	Scale/ Type of Industry	No. of Workers	Investment / Turnover (Rs.)
256.	Mauli Industries	1996	M. No. 261, At + post Talwade	Fabrication jobs	3	N.A. / 160,000
257.	Mawli Industries	1996	M. No. 542/1, Rupeenagar	Auto parts	2	N.A. / 90,000
258.	Mayfair Industries	1997	P. No. 15, G. No. 400, Talwade	Plastic Moulding	12	N.A. / N.A.
259.	Mayur Chemical Industries	1997	G. No. 990, Jyotibanagar, Talwade Rd.	Paints & distempers	N.A.	N.A. / 500,000
260.	Mayur Engineering Works	1997	S. No. 143, G. No. 160, H. No. 335/3, Triveninagar	Engineering Jobs	3	N.A. / 70,000
261.	Mehtre Industries	1997	G. No. 170, Ganeshnagar, A/P Talwade	Engineering Jobs	2	N.A. / 150,000
262.	Metal Pipes Industries	1997	G.No.1, P. No. 34 A, Talwade	Manufacturing Textile spareparts and fabrication jobs	7	N.A. / 1,300,000
263.	Metal Tech Industries	1998	G. No. 199, P. No. 7	Domestic Fabrication	3	N.A. / 300,000
264.	Mhalsakant Engineering Works	1997	G. No. 187, At + Post Talwade	Fabrication	4	N.A. / 105,000
265.	Mhetre Industries	1997	G. No. 84, Jyotibanagar	Engineering jobs	5	N.A. / 500,000
266.	Mhetre Workshop	1994	Triveninagar	Job Works	5	125,000 / 200,000
267.	Microfine Industry	1998	G. No. 239, Jyotibanagar	Lime powder	7	N.A. / 1,800,000
268.	Micro-mech Engineers	1999	G. No. 53, Talwadegoan	Engineering Jobs	5	N.A. / 150,000
269.	Micron Engineering	1997	S. No. 90, Bhalekar Chowk, Jyotibanagar	MS job works	2	N.A. / N.A.
270.	Milind Enterprises	1996	G. No. 218, Rupeenagar	Fabrication job work	12	N.A. / 100,000
271.	Minal Enterprises	1997	S. No. 160, Near Ram Mandir, Triveninagar	Fabrication jobs	3	N.A. / 250,000
272.	Minerva Engineers	1997	G. No. 14, P. No. 33-A, Atul Industrial Premises Co-operative Society Ltd.	Pipe fabrication	9	N.A. / 900,000
273.	Mittal Paints	1996	G. No. 165, M. No. 918, Triveninagar	Industrial Paints	5	N.A. / 400,000
274.	Modern Enterprises	1997	G. NO. 170	Engineering jobs	1	N.A. / N.A.
275.	Mokashi Printers Pvt. Ltd.	1999	G. No. 87	Printing & binding	9	N.A. / 1,000,000
276.	Monica Enterprises	1997	G. No. 165, Sahyognagar	Engineering & fabrication jobs	5	N.A. / 105,000
277.	Moraya Industries	1998	G. No. 165, Sahyognagar	Engineering Jobs & auto parts	2	N.A. / 600,000

S. No.	Name of the Industry	Year of Estb.	Location - Gatt No. / Survey No. / Plot No. / Milkat No. / House No.	Scale/ Type of Industry	No. of Workers	Investment / Turnover (Rs.)
278.	Moraya Printing Press	1994	Indrayani Housing Society, Rupeenagar	Commercial printing jobs	1	35,000 / 12,000
279.	Morya Engineering Works	1996	G. No. 163, Triveninagar	Engineering jobs	5	N.A. / 80,000
280.	Morya Printing	1995	M.No.670, Indrayani Housing Society	Printing work	2	N.A. / 35,000
281.	Mrunal Enterprises	1999	G. No. 228	Fabrication Of doors, windows	4	N.A. / 250,000
282.	Mudai Enterprises	1995	G.No.70, Jyotibanagar, Talwade	Engineering jobs	10	N.A. / N.A.
283.	NR Plastic Works	1991	P. No. 170 Ganeshnagar	Job Works	15	300,000 / 400,000
284.	N V Precision	1997	M. No. 470, Rupeenagar	Press component	5	N.A. / N.A.
285.	Nandini Controls	1997	M. No. 434, G. No. 238-B, Rupeenagar	Electrical control panels	2	N.A./ 100,000
286.	Nand Krupa Stone Co.	1997	S. No. 87, Chowiswadi	Stone metal	4	N.A. / 743,000
287.	Nand Kumar Industries	1995	G. No. 715-1, Sahayognagar	Auto axels and parts	3	N.A. / 30,000
288.	Narmadeshwar Industries	1996	G. No. 300, Ganeshnagar	Engineering job works	12	N.A. / N.A.
289.	Neha Enterprises	1997	G. No. 255/A, Jyotibanagar	Auto parts	N.A.	N.A. / N.A.
290.	Nehal Enterprises	1999	G. No. 94	Engineering Jobs	4	N.A. / 200,000
291.	Nevase Industries	1996	M. No. 454, G. No. 85, Jyotibanagar	Engineering jobs	4	N.A. / N.A.
292.	New Alankar Men's Wear	1998	S. No. 990, Waruthe Chawl, Hanuman Society, Rupeenagar	Men's wear items	3	N.A. / 60,000
293.	New Suraj Industries	1996	G. No. 719, Kudalewadi	Fabrication job	2	N.A. / 200,000
294.	Nine Plast Industries	1996	M. No. 1041, Rupeenagar	PVC cables & wires	5	N.A. / 150,000
295.	Nikul Enterprises	1999	G. No. 1319	Plastic items & electronic items	10	N.A. / 1,000,000
296.	Nippon Engineering Works	1995	S. No. 839	Rollers, locks, pivots & hardware products	9	N.A./ 1,550,000
297.	Niranjan Industries	1997	G. No. 83, Jyotibanagar	Engineering & Fabrication jobs	4	N.A. / 275,000
298.	Nitin Electricals & General Stores	1998	G. No. 218, Rupeenagar	Assembly of elect. door belt	2	N.A. / 80,000
299.	Nitin Industries	1995	S. No. 12, Triveninagar, Talwade	Fabrication job	5	N.A. / N.A.
300.	Oluluezie Packaging	1999	G. No. 94	Corrugated boxes	2	N.A. / 25,000
301.	Om Enterprises	1996	G. No. 83, Jyotibanagar, Talwade	Engineering job works	4	N.A. / N.A.
302.	Om Enterprises	1997	S. No. 252, P. No. 3, Jyotibanagar	Engineering Jobs	8	N.A. / N.A.

S. No.	Name of the Industry	Year of Estb.	Location - Gatt No. / Survey No. / Plot No. / Milkat No. / House No.	Scale/ Type of Industry	No. of Workers	Investment / Turnover (Rs.)
303.	Om Sequence Engineering Works	1996	M. No. 236, Rupeenagar	Engineering Jobs	3	N.A. / 95,000
304.	Omkar Engineering Works	1997	G. No. 241, P. No. 38, Rupeenagar	Engineering jobs	4	N.A. / N.A.
305.	Omkar Enterprises	1996	M. No. 443, Triveninagar	Auto spare parts	6	N.A. / 95,000
306.	Omkar Fabricators	1995	G. No. 214, H. No. 1102, Rupeenagar	Engineering & fabrication jobs	5	N.A. / 50,000
307.	Omkar Industries	1996	G. No. 166, (old S. No. 46), Talwade Rd.	Engineering Jobs	5	N.A. / 100,000
308.	Omkar Pressing Pvt. Ltd.	1999	G. No. 879	Press & auto parts	6	N.A. / 1,200,000
309.	P M Associates	1997	S.No. 928, Rashtra Bhushan Society Rupeenagar, Talwade	Fabrication jobs	4	N.A. / 400,000
310.	P P Enterprises	1997	G. No. 227, Ganesh Colony, Rupeenagar	Rubber moulding	4	N.A. / N.A.
311.	P S Engineering Works	1997	S. No. 43, G. No. 160, H. No. 335/4, Triveninagar	Plastic moulding	3	N.A. / 112,000
312.	Palace Enterprises	1995	S. No. 255/A, Jyotibanagar	Heavy duty machining, sand & shot blasting	9	N.A. / 590,000
313.	Pankaj Chem. Industries	N.A.	850, Rupeenagar	Pressing & painting of auto parts	8	100,000 / 400,000
314.	Pankaj Industries	1997	H. No. 140, Triveninagar	Press tool moulds	2	N.A. / 215,000
315.	Paramount Engineering Works	1998	G. No. 252, S. No. 57, Jyotibanagar	Engineering Jobs	8	N.A. / 1,200,000
316.	Parag Enterprises	1996	G. No. 252, H. No. 953, Panchganga Housing Society, Rupeenagar	Plastic moulded goods	5	N.A. / N.A.
317.	Pardesi Engineering & Fabrication Works	1988	Triveninagar	Job Works & gears	2	200,000 / 50,000
318.	Parfact Engineers	1995	G. No. 2271, Rupeenagar	Nuts, bolts & washers	3	N.A. / 50,000
319.	Parinita Garments	1998	M. No. 2358, Ajinkyatra Housing Society, Rupeenagar	Ready-made garments	3	N.A. / 115,000
320.	Patil Fabrication Engineers	1991	Triveninagar, near Ram Mandir	Job Works	4	80,000 / 400,000
321.	Pavan Industries	1997	G. No. 90, Jyotibanagar	Engineering & fabrication jobs	2	N.A. / N.A.
322.	Pavlin Enterprises	1997	G. No. 227/1896, Navnirman Housing Society, Rupeenagar	Engineering jobs	5	N.A. / 610,000

S. No.	Name of the Industry	Year of Estb.	Location - Gatt No. / Survey No. / Plot No. / Milkat No. / House No.	Scale/ Type of Industry	No. of Workers	Investment / Turnover (Rs.)
323.	Pawan Industries	1995	G. No. 252, Jyotibanagar	Engineering jobs	8	N.A. / N.A.
324.	Pearl Power Laundry	1997	G. No. 164, Triveninagar, Talwade Rd.	Washing & dry-cleaning of industrial clothes	6	N.A. / 110,000
325.	Perfect Engineering Works	1996	M. No. 647, Siddhnath Housing Society, Rupeenagar	Engineering goods, auto seat carriers	2	N.A. / 80,000
326.	Perfect Fabricators	1997	255B, Jyotibanagar, Talwade	Fabrication job	3	N.A. / 200,000
327.	Phoenix Industries	1997	G. No. 207-208/151, Saraswati Housing Society, Rupeenagar	Engineering Jobs	4	N.A. / 115,000
328.	Pinnacle Equipments	1997	S. No. 189, Jyotibanagar	Chemicals & pharmaceuticals equipments	10	N.A. / 1,000,000
329.	Platinus Engineering Pvt. Ltd.	1996	G. No. 255/A, Jyotibanagar	Electrical control panels	10	N.A. / 730,000
330.	Polite Plastic Industries	1997	S. No. 1041, Jyotibanagar, Talwade	Plastic moulding	6	N.A. / 1500
331.	Poly-Tech Engineers	1996	G. No. 252, Jyotibanagar	Assembly of machine	7	N.A. / 230,000
332.	Pooja Plastics	1999	G. No. 157	Plastics items	1	N.A. / 200,000
333.	Poona Food products	1998	G. No. 89, Jyotibanagar	Food products	10	N.A. / 1,200,000
334.	Poona Switch Gear Pvt. Ltd.	1996	G. No. 162A, Triveninagar	HT & LT switch gears	10	N.A. / 3,650,000
335.	Poonam Provision Stores	1998	H. No. 894, Triveninagar, Talwade Rd.	Spices	N.A.	N.A. / 36,000
336.	Power Insulation System	1997	G. No. 576, Triveninagar, Talwade	Manufacturing jigs and fixtures	4	N.A. / 500,000
337.	Pradeep Foods	1998	G. No. 166, Triveninagar	Sweets	5	N.A. / 1,000,000
338.	Pradeep Industries	1995	S. No. 227, Navanirman Housing Society, R. No. 835, Rupeenagar	Press components	5	N.A. / N.A.
339.	Pradeep Poly Print	1997	G. No. 164, S. No. 44/45	Polythene bags & Printing	9	N.A. / 450,000
340.	Pradeep Poly Print	1997	G. No. 164, S. No. 44/42	Polythene bags & Printing	9	N.A. / 600,000
341.	Pradeep Poly Print	1996	G. No. 252, Bldg. No. 245, Jyotibanagar	Plastic products	3	N.A. / 120,000
342.	Pradnya Enterprises	1996	S. No. 162, P. No. 20, Triveninagar	Engineering jobs	6	N.A. / 20,000
343.	Pradyna Chemicals	1996	S. No. 169, Prasad Industrial Complex, Rupeenagar	Foundry Chemicals	3	N.A. / 120,000
344.	Pragati Engineering Works	1997	G. No. 218, H. No. 928, Bajaj Transport Society, Rupeenagar	Engineering jobs	3	N.A. / 150,000

S. No.	Name of the Industry	Year of Estb.	Location - Gatt No. / Survey No. / Plot No. / Milkat No. / House No.	Scale/ Type of Industry	No. of Workers	Investment / Turnover (Rs.)
345.	Pragati India Ltd.	1996	G. No. 90, Jyotibanagar	Rubber press jobs	5	N.A. / 185,000
346.	Pragati Plastic Industries	1997	G. No. 90, Jyotibanagar, Talwade	Plastic moulding	2	N.A. / 100,000
347.	Praisisa Tools	1995	G. No. 53, Dehu-Alandi Rd	Jigs & fixtures	5	N.A. / 420,000
348.	Prajakta Engineering works	1996	M.No. 1000, Rupi Housing Society, Talwade	Engineering job work	4	N.A. / N.A.
349.	Prajyoti Enterprises	1995	G. No. 231,Rupeenagar	Fabrication jobs	4	N.A. / 45,000
350.	Prakash Auto India	1998	G. No. 90, Jyotibanagar	Auto Parts	6	N.A. / 2,000,000
351.	Prakash Auto Pvt. Ltd.	1999	G. No. 90, Jyotibanagar, Talwade	Auto parts	10	N.A. / 2,500,000
352.	Prakash Machine Tools	1998	G. No. 169, Prashad Industrial Complex, Main Rd.	Engineering Jobs	3	N.A. / 300,000
353.	Prasad Industries	1996	G. No. 169, Sahyognagar	Engineering & fabrication jobs	3	N.A./ 35,000
354.	Prasanna Compuforms	1995	G. No. 258	Computer stationary & printing	6	N.A./ 1,200,000
355.	Prateek Plastics	1996	P.No.2, G. No. 252, Jyotibanagar	Polythene bags	4	N.A. / 120,000
356.	Pratibha Granite	1996	S. No. 164/B, Vishwamala	Engineering & fabrication jobs	4	N.A. / 230,000
357.	Pravin Enterprises	1997	G. No. 218, P. No. 1, Near Dharjai Mandir	Engineering & fabrication jobs	4	N.A. / 550,000
358.	Pravin Industries	1997	G. No. 164/B, Triveninagar	Electric heaters	2	N.A. / N.A.
359.	Precision Industries	1995	S. No. 90, Jyotibanagar, Talwade Rd.	Engineering jobs	6	N.A. / N.A.
360.	Prem Furniture Works	1997	H. No. 236, Main Rd., Rupeenagar	Wooden furniture	2	N.A. / 260,000
361.	Prem Industries	1995	G. No. 255/A, Jyotibanagar Industrial Estate	Engineering & fabrication jobs	6	N.A. / 95,000
362.	Premium Moulding & Pressing Pvt. Ltd.	1998	S. No. 163/14, G. No.308, Talwadegaon	Plastic moulding	5	N.A. / 370,000
363.	Prerana Industries	1995	G. No. 89, P. No. 3, Jyotibanagar	Boilers, pressure vessels, heavy machining jobs	17	N.A. / 1,260,000
364.	Presspack Engineers	1997	G. No. 235, H. No. 1056, Gala – 2, Main Rd., Rupeenagar	PP caps	3	N.A. / 1,565,000
365.	Presswell Industries	1998	G. No. 169, Near Kashar Mangal Karyalaya	Press parts	5	N.A. / 900,000
366.	Priya Electricals	1995	G. No. 53	Control panels	7	N.A. / 700,000
367.	Priya Enterprises	1988	P. No. 23/21, Trimurti Society, Triveninagar	Scooter parts	12	250,000 / 600,000

S. No.	Name of the Industry	Year of Estb.	Location - Gatt No. / Survey No. / Plot No. / Milkat No. / House No.	Scale/ Type of Industry	No. of Workers	Investment / Turnover (Rs.)
368.	Priya Enterprises	1996	M. No. 921, Triveninagar	Engineering Jobs	4	N.A. / N.A.
369.	Priya Medical & general Stores	1999	G. No. 293	Ayurvedic Medicines	3	N.A. / 150,000
370.	Priyanka Enterprises	1996	S. No. 315, M. No. 225, Ganeshnagar, At + Post: Talwade	Engineering jobs	5	N.A. / N.A.
371.	Priyanka Industries	1997	G.No.1, P. No. 39A, Talwade	Engineering Job work	4	N.A. / 600,000
372.	Promptech Chemicals Pvt. Ltd.	1997	G. No. 89, S. No. 33	Chemicals	3	N.A. / 60,000
373.	Puja Spring & Engineering Works	1996	1555, Triveninagar	Mfg. of Springs	4	N.A. / 85,000
374.	Purva Enterprises	1997	G. No. 253/B, Talwadegaon	Engineering & fabrication jobs	6	N.A. / 500,000
375.	Pushpak Enterprises	1997	G. No. 225 A, Jyotibanagar, Talwade	Manufacturing Auto parts	5	N.A. / 110,000
376.	R B Industries	1997	S. No. 58, G. No. 252, Gala-1, Sahyognagar	Engineering jobs	2	N.A. / N.A.
377.	R K Enterprises	1998	G. No. 87, P. No. 9, Jyotibanagar	Fabrication jobs	2	N.A. / 200,000
378.	R P Engineering & Fabrication Works	1997	S. No. 164, Triveninagar	MS fabrication jobs	3	N.A. / 110,000
379.	R P Enterprises	1995	S. No. 79	Fabrication jobs	15	N.A. / 234,000
380.	R S S Moulding Works	1997	G. No. 170, Rameshnagar, Talwade	Plastic job works	5	N.A. / 914,000
381.	Raghwender Electricals	1998	G. No. 89, P. No. 2, Jyotibanagar	Cabling & electricals items	2	N.A. / 125,000
382.	Rahul Engineering Works	1995	G. No. 219B, Sahyognagar, Talwade	Auto seats and frames	4	N.A. / 20,000
383.	Rahul Engineering Works	1996	G. No. 1A, At + Post Talwade	Engineering jobs	8	N.A. / N.A.
384.	Rahul Enterprises	1997	G. No. 162, Triveninagar, Talwade	Fabrication jobs	3	N.A. / 200,000
385.	Raja Construction Pvt. Ltd.	1997	P.No.4, G. No. 78, Talwade	Steel Fabrication	4	N.A. / N.A.
386.	Rajani Industries	1995	87	Special A/C component & Engineering jobs	10	N.A. / 120,000
387.	Rajas Graphics	1995	S. No. 11/12, P. No. 9, Ganeshnagar	Commercial printing	3	N.A. / 55,000
388.	Rajesh Engineering Works	1993	Triveninagar	Job Works	3	100,000 / 25,000
389.	Rajesh Engineering Works	1995	M. No. 440, Triveninagar	Auto gears, levers & other spare parts	1	N.A. / 150,000
390.	Rajesh Enterprises	1997	G. No. 255/8, Jyotibanagar	Boiler base plates & tanks	6	N.A. / 395,000

S. No.	Name of the Industry	Year of Estb.	Location - Gatt No. / Survey No. / Plot No. / Milkat No. / House No.	Scale/ Type of Industry	No. of Workers	Investment / Turnover (Rs.)
391.	Rajput Engineering & Manufacturing Co.	1998	S. No. 220, M. No. 560, Gurudatta Society, Rupeenagar	Press parts	7	N.A. / N.A.
392.	Rajyog Enterprises	1996	G. No. 255, P. No. 20, Jyotibanagar	MS fabrication jobs – grills	4	N.A. / 300,000
393.	Ram Industries	1997	G. No. 223, Vijay Anand Housing Society, P. No. 12, Rupeenagar	Engineering and Fabrication Industry	11	N.A. / 210,000
394.	Ramshyam Agency (P) Ltd.	1996	G.No.253, Jyotibanagar	Bookbinding	3	N.A. / 120,000
395.	Rashmi Intechcion	1995	G. No. 234, Opp. Dnyandeep High School, Rupeenagar	Jigs & fixtures	3	N.A. / 50,000
396.	Ratnadeep Printing Press	1993	Near Bus Stop, Rupeenagar	Commercial printing & binding	1	75,000 / 60,000
397.	Ravi Industries	1996	G. No. 69, P. No. 6, Sonawane Vasti, Jyotibanagar	Fabrication jobs	9	N.A. / 5,000,000
398.	Ravi Raj Enterprises	1996	G. No. 255, P. No. 26 & 27, Jyotibanagar	MS fabrication jobs - grills	4	N.A. / 360,000
399.	Reliance Engineering Works	1998	G. No. 53, S. No. 17	S Tools & dies	5	N.A. / 60,000
400.	Renuka Plastic Industries	1995	G. No. 227, M. No. 510, Rupeenagar	Plastic items & polythene bags	3	N.A. / 70,000
401.	Retal Painters	1998	G No. 121, Rupeenagar	Spray painting	6	N.A. / 200,000
402.	Rohan Enterprises	1995	S. No. 227, H. No. 252, Navnirman Housing Society, Rupeenagar	Press component & fabrication jobs	2	N.A. / 128,000
403.	Rohitech Enterprises	1995	P. No. 27, G. No. 255B, Jyotibanagar	Storage tanks	7	N.A. / 600,000
404.	Rolex Allied Components	1997	G. No. 73, Jyotibanagar	Powder coating and sheet metal parts	7	N.A. / N.A.
405.	Rolex Sheets Metal Works	1998	G. No. 223, S. No. 68, Rupeenagar	Press parts & Engineering jobs	2	N.A. / 80,000
406.	Rollwell Industries	1994	579, Triveninagar Talwade Road	Wheels, trolleys & Fabrication	2	25,000 / N.A.
407.	Rotodynamic Associates	1996	G. No. 166, Triveninagar	Rubber goods	7	N.A. / 900,000
408.	Rubean Engineers	1997	G. No. 199, P. No. 4, Jyotibanagar	Engineering Jobs	5	N.A. / 800,000
409.	S A Industries	1997	G. No. 255/B, Talwadegaon	Engineering & fabrication jobs	6	N.A. / 400,000
410.	SAAM Projects	1999	P. No. 2, G No. 69	Fabrication jobs	1	N.A. / 14,000
411.	S D Fabrication	1990	Rupeenagar, Vikasnagar	Job Works & building	4	50,000 / 100,000
412.	S J Enterprises	1997	G. No. 234, 409, P. No. 456, Bhagirath Society, Rupeenagar	Engineering jobs	4	N.A. / 120,000
413.	S K Enterprises	1997	S. No. 140, Navnirman Housing Society, Rupeenagar	Plastic parts	3	N.A. / 150,000

S. No.	Name of the Industry	Year of Estb.	Location - Gatt No. / Survey No. / Plot No. / Milkat No. / House No.	Scale/ Type of Industry	No. of Workers	Investment / Turnover (Rs.)
414.	S P Industries	1996	S. No. 221/13, H. No. 660, Siddhnath Housing Society, Rupeenagar	Engineering Goods	5	N.A. / 86,000
415.	S R Engineering	1996	G. No. 170, Ganeshnagar	Engineering & fabrication jobs	10	N.A. / 145,000
416.	S R Engineering Works	1996	S. No. 221/13, Siddhnath Housing Society, Rupeenagar	Engineering jobs	5	N.A. / N.A.
417.	S R Engineering Works	1997	Siddhnath Housing Society, Rupeenagar	Tractor trailers	3	N.A. / 400,000
418.	S R Industries	1995	G. No. 252, Jyotibanagar	Mfg. of polythene bags	7	N.A. / 105,000
419.	S S Enterprises	1997	G. No. 160, H. No. 21, Talwade	Engineering Jobs	3	N.A. / N.A.
420.	S S Enterprises	1998	G. No. 166, Triveninagar Talwade Rd.	Air pollution test Equipments	3	N.A. / 350,000
421.	Sachin Enterprises	1992	P. No. 163, Trimurti Society, Triveninagar	Job Works	6	180,000 / 150,000
422.	Sachin Enterprises	1996	S. No. 44, Jyotibanagar	Fabrication jobs	2	N.A. / N.A.
423.	Sachin Industries	1995	G. No. 252/A, Jyotibanagar	Manufacturing of plastic rolls	7	N.A. / 1,000,000
424.	Sach-N-Sney Industries	1997	G. No. 258, At + Post :Talwade	Fabrication jobs	4	N.A. / 350,000
425.	Sagar Enterprises	1995	G. No. 90, Jyotibanagar	Fabrication jobs	9	N.A. / N.A.
426.	Sagar Fabrication	1998	G. No. 228, Rupeenagar	Fabrication & Engineering jobs	3	N.A. / 150,000
427.	Sahane Jewelers	1997	S. No. 165, Triveninagar	gold & silver ornaments	3	N.A. / 390,000
428.	Sahil Enterprises	1997	G. No. 237, Sangam Society, Rupeenagar	Plastic moulding	2	N.A. / 37,000
429.	Sai Engineers	1996	G. No. 255, P. No. 50, Jyotibanagar	MS fabrication jobs – grills	5	N.A. / 410,000
430.	Sai Enterprises	1997	G.No.1, P. No. 6, Talwade	Manufacturing press components	4	N.A. / 325,000
431.	Sai Industries	1997	S. No. 58, G. No. 252, Gala - 2, Sahyognagar	Engineering jobs	4	N.A. / 390,000
432.	Sai Industries	1998	A- 3/52	Air dryers	3	N.A. / 200,000
433.	Sai Prasad Enterprises	1997	G. No. 87, Jyotibanagar	Engineering Jobs	2	N.A. / N.A.
434.	Sandeep Engineering Works	1997	S. No. 435,	Engineering Jobs	2	N.A. / N.A.
435.	Sandeep Engineering Works	1998	G. No. 238, Rupeenagar	Engineering & Fabrication jobs	4	N.A. / 200,000
436.	Sandeep Enterprises	1996	G. No. 236, S. No. 90, Rupeenagar	Auto sheet metal components	6	N.A. / 760,000
437.	Sandeep Flour Mills	1997	G. No. 90, Jyotibanagar	Mfg. Of spices	4	N.A. / 120,000

S. No.	Name of the Industry	Year of Estb.	Location - Gatt No. / Survey No. / Plot No. / Milkat No. / House No.	Scale/ Type of Industry	No. of Workers	Investment / Turnover (Rs.)
438.	Sandeep General Stores	1998	G. No. 612, Navnirman Housing Society, Rupeenagar	Papad	1	N.A. / 63,000
439.	Sandhu Winding Works	1995	G. No. 163, S. No. 44 & 45	All types of electric motors rewinding & repairs	6	N.A. / 570,000
440.	Sandya Engineering Enterprises	1997	S. No. 71, Jyotibanagar	Engineering Jobs	2	N.A. / N.A.
441.	Sanjay Engineering Works	1997	S. No. 221/13, Rupeenagar	Engineering Jobs	5	N.A. / 250,000
442.	Sanjiwani Plastics	1995	Rajguru Peth, Ward No. 2, S. No. 70/60	LDP & HDP plastic bags	1	N.A. / 20,000
443.	Sanjay Industries	1997	G. No. 220/174, Talwade Gaon	Engineering Jobs	3	N.A. / 415,000
444.	Sanju Industries	1996	G. No. 398, Dehu-Alandi Rd.	Engineering jobs	10	N.A. / N.A.
445.	Sankalp Fabrication	1997	S. No. 2/9/B, Sahyognagar	Fabrication jobs	2	N.A. / 160,000
446.	Sanket Enterprises	1997	G. No. 68, P. No. 12, Jyotibanagar	Press component	8	N.A. / 750,000
447.	Sankul Engineering Works	1996	G. No. 227, Rupeenagar	Engineering Jobs	3	N.A. / 95,000
448.	Santosh Engineering Works	1980	Rupeenagar	Job Works	8	500,000 / 2,000,000
449.	Santosh Engineering Works	1991	Triveninagar	Job Works	2	40,000 / 75,000
450.	Santosh Engineering Works	1997	G. No. 226, Rupeenagar	Engineering jobs	3	N.A. / N.A.
451.	Santosh Enterprises	1995	H. No. 472,G.No. 163, Triveninagar	Garments	1	N.A. / N.A.
452.	Sanpra Computer Forms Pvt. Ltd.	1997	G. No. 281/1, Talwade	DTP Computer works	6	N.A. / 265,000
453.	Sany Amps	N.A.	1171, near Dnyandeep School, Rupeenagar	Electrical control panels	3	65,000 / 1,000,000
454.	Sarika Welding Works	1999	At + Post: Talwade	Engineering Jobs	3	N.A. / 150,000
455.	Sarket Industries	1998	S. No. 47, H. No. 590, Rupeenagar	Industrial & domestic Fabrication	2	N.A. / 300,000
456.	Sarotech Engineers	1997	G. No. 78/2, P. No. 2	Engineering jobs	3	N.A. / 460,000
457.	Sattya engineers	1997	G. No. 8, P. No. 7, Jyotibanagar	Engineering & fabrication jobs	2	N.A. / 65,000
458.	Sauvarma Garments	1998	G. No. 228, Navnirman Housing Society, Rupeenagar	Ready-made garments	3	N.A. / 150,000
459.	Savita Engineering Works	1998	G. No.221, Siddharth Housing Society, Rupeenagar	Fabrication of doors & windows	2	N.A. / 90,000

S. No.	Name of the Industry	Year of Estb.	Location - Gatt No. / Survey No. / Plot No. / Milkat No. / House No.	Scale/ Type of Industry	No. of Workers	Investment / Turnover (Rs.)
460.	Sawant Engineering	1997	G. No. 82, Jyotibanagar	Fabrication jobs	5	N.A. / 1,200,000
461.	Sealtec Industries	1995	G. No. 162, Bhalekar Chawl, Behind Ram Temple, Triveninagar	Mfg. of packaging motorcycles	5	N.A. / 325,000
462.	Sealtec Machines	1997	G. No. 162, Triveninagar, Talwade	Packing Machine	6	N.A. / 300,000
463.	Seema Enterprises	1998	G. No. 215, Sahyognagar	Fabrication jobs	3	N.A. / 198,000
464.	Shaikh Constructions	1996	G. No. 218, P. No. 38, Indrayani Housing Society, Rupeenagar	Profile cutting	3	N.A. / 71,000
465.	Shailesh Electronics	1996	G. No. 218, P. No. 9, Koyana Sahakari Society, Rupeenagar	Assembly of TV & audio sets	6	N.A. / 2,750,000
466.	Sharad Industries	1996	S. No. 65, Ganeshnagar	Fabrication jobs	2	N.A. / N.A.
467.	Sharp Engineering Services	1995	P. No. 2, G. No. 89, Jyotibanagar	Boilers, pressure vessels, heavy machining jobs	31	N.A. / 6,100,000
468.	Sharp Industries	1997	S. No. 240, 1051, Shramiknagar Housing Society, Rupeenagar	Clutch wires &gears	6	N.A. / 95,000
469.	Shekhawat Industries	1996	G. No. 79-80, S. No. 19, Jyotibanagar	Engineering jobs	4	N.A. / N.A.
470.	Shikalgar Engineering & Fabricator	1995	G. No. 252, Jyotibanagar	fabrication jobs	5	N.A. / 60,000
471.	Shivaji Steel Furnitures	1995	Bldg. 826, Rupeenagar	MS furnitures	4	N.A. / 400,000
472.	Shivdatta Industries	1997	M. No. 470, Rupeenagar	Engineering Jobs	5	N.A. / N.A.
473.	Shiv Enterprises	1995	G. No. 238/A/1/Block No. 609, Bhairavnath Society Rupeenagar	Assembly of machinery	2	N.A. / 5,000
474.	Shiv Plastics	1995	H. No. 860, Gurudutta Society	Plastic granules	4	N.A. / 275,000
475.	Shivram Engineering Works	1996	M. No. 526, Panchaganga Housing Society, Rupeenagar	Engineering jobs	4	N.A. / N.A.
476.	Shobha Enterprises	1996	G. No. 2390, M. No. 1271, P. No. 51, Rupeenagar	Auto spare parts	7	N.A. / 800,000
477.	Shradh Industries	1998	G. No. 169, Rupeenagar, Talwade Rd.	Engineering Jobs	4	N.A. / 400,000
478.	Shradha Enterprises	1998	G. No. 90, Jyotibanagar	Rubber parts	1	N.A. / 80,000
479.	Shradha Plastic Industries	1998	G. No. 90, Jyotibanagar	Polythene bags & sheets	5	N.A. / 1,500,000

S. No.	Name of the Industry	Year of Estb.	Location - Gatt No. / Survey No. / Plot No. / Milkat No. / House No.	Scale/ Type of Industry	No. of Workers	Investment / Turnover (Rs.)
480.	Shree Bhairavnath Engineering Works	1985	Shree Siddhnath Housing Society, Rupeenagar	Piping & welding Works	8	650,000 / 1,800,000
481.	Shree Datta Engineering Works	1996	G. No. 231, Rupeenagar	Engineering jobs	6	N.A. / 235,000
482.	Shree Datta Printing Press	1992	Main Road, Rupeenagar	commercial & general printing	3	50,000 / N.A.
483.	Shree Dutta Engineering works	1995	S. No. 218, Shivashambhu Society, Rupeenagar	Engineering job	3	N.A. / 150,000
484.	Shree Engineering Enterprises	1996	M. No. 466, Triveninagar	Auto parts – carriers	2	N.A. / 55,000
485.	Shree Engineering Works	1995	S. No. 162, Triveninagar	Engineering jobs	5	N.A. / 75,000
486.	Shree Engineering Works	1996	S. No. 641, Siddhnath Housing Society, Rupeenagar	Auto parts	4	N.A. / 100,000
487.	Shree Engineering Works	1996	M. No. 123, Near Ram Mandir, Triveninagar	Auto parts	2	N.A. / 70,000
488.	Shree Ganesh Enterprises	1997	G. No. 78, S. No. 68, Jyotibanagar	Engineering jobs	4	N.A. / 600,000
489.	Shree Ganesh Paper Works	1998	M. No. 134	paper envelopes	1	N.A. / 80,000
490.	Shree Guru Krupa Fabricators	1997	G. No. 82, Jyotibanagar	Engineering & fabrication jobs	3	N.A. / 500,000
491.	Shree Krishna Fabrication	1998	S. No. 863, Navnirman Society, Rupeenagar	Fabrication jobs	3	N.A. / 150,000
492.	Shree Niwas Engineering Works	1998	G. No. 762/ 219A, Sahyognagar	Engineering Goods & job Works	4	N.A. / 350,000
493.	Shreeram Industries	1997	G. No. 225	Engineering Jobs	2	N.A. / N.A.
494.	Shree Sai Industries	1993	Jyotibanagar	Polythene bags & sheets	8	800,000 / 1,000,000
495.	Shree Sastha Enterprises	1997	G. No. 837, Kudalewadi	Engineering Job	3	N.A. / 200,000
496.	Shri Bhairavnath Engineering Works	1995	S. No. 221/13, P. No. 10B Sahyognagar, Rupeenagar	Engineering jobs	7	N.A. / 400,000
497.	Shri Bhairavnath Engineering Works	1996	M. No. 29, Ganeshnagar	Engineering jobs	1	N.A. / N.A.
498.	Shri Dutta Engineering works	1995	G.No.6, Triveninagar, Talwade	Boiler box plates	2	N.A. / 45,000

S. No.	Name of the Industry	Year of Estb.	Location - Gatt No. / Survey No. / Plot No. / Milkat No. / House No.	Scale/ Type of Industry	No. of Workers	Investment / Turnover (Rs.)
499.	Shriesh Enterprises	1997	S.No.23, G. No. 165, Sahyognagar, Talwade	Manufacturing of dies, fixtures, machinery	5	N.A. / 800,000
500.	Shri Ganesh Fabritek Works	1998	G. No. 239, H. No.1044, Rupee Housing Society	Fabrication of FRP tanks & cooling tanks	5	N.A. / 400,000
501.	Shri Ganesh Industries	1995	S. No. 72, Triveninagar	All industrial types of jobs	1	N.A. / 28,000
502.	Shri Gurudatta Paper Works	1996	G. No. 152/B, Triveninagar	Paper envelopes	2	N.A. / 21,000
503.	Shri Krishna Engineering Works	1995	G. No. 241, H. No. 813, Rupeenagar	Mechanical products	5	N.A. / 95,000
504.	Shri Krishna Enterprises	1995	G. No. 216, M.No.6, Triveninagar	Machinery job work	3	N.A. / 40,000
505.	Shrikant Bricks	1997	S. No. 2/1, A/p Ravet	Clay bricks	23	N.A. / 1,200,000
506.	Shrikant Plastic Industries	1997	G. No. 103, Jyotibanagar	Plastic moulding	7	N.A. / 1,000,000
507.	Shriram Enterprises	1997	G. No. 160, S. No. 43, H. No. 1441, Triveninagar	Mfg. of auto parts	4	N.A. / 300,000
508.	Shriram Industries	1995	S. No. 43, G. No. 160, H. No. 335, Triveninagar	Engineering goods & press parts	5	N.A. / 110,000
509.	Shri Sai Enterprises	1997	G. No. 166, Triveninagar	Engineering jobs	8	N.A. / 50,000
510.	Shubham Cables	1998	G No. 191, Jyotibanagar	Cables	4	N.A. / 163,000
511.	Shubham Enterprises	1998	G. No. 90, Jyotibanagar	Fabrication of grills & booths	5	N.A. / 1,000,000
512.	Shubham Ready-made Garments	1998	G. No. 227, Navnirman Housing Society, Rupeenagar	Ready-made garments	3	N.A. / 150,000
513.	Shyama Enterprises	1997	G. No. 227, Near Rameswar Temple, Rupeenagar	Engineering jobs	4	N.A. / 485,000
514.	Sidcim Engineering	1995	M. No. 557, G. No. 53, At + post Talwade	Engineering jobs	5	N.A. / N.A.
515.	Siddheswar Welding Works	1992	Navnirman Housing Society, Rupeenagar	Job Works & general Fabrication	3	40,000 / 40,000
516.	Siddhivinayak Enterprises	1996	S. No. 252, P. No. 14, Jyotibanagar	Fabrication of engineering jobs	2	N.A. / N.A.
517.	Sita Industries	1995	S. No. 258, P. No. 16, Jyotibanagar	Engineering & fabrication jobs	9	N.A. / N.A.
518.	Smitha Enterprises	1997	G. No. 218, S. No. 70, Rupeenagar	Engineering & fabrication jobs	2	N.A. / 165,000
519.	Sneha Bearings Pvt. Ltd.	1996	G. No. 78, At + Post: Talwade	Structural bearings & machine components	8	N.A. / 930,000
520.	Snehal Plastics	1995	G. No. 226,H.No. 430, Rupeenagar	Plastic components	2	N.A. / 72,000

S. No.	Name of the Industry	Year of Estb.	Location - Gatt No. / Survey No. / Plot No. / Milkat No. / House No.	Scale/ Type of Industry	No. of Workers	Investment / Turnover (Rs.)
521.	Sneh Polymers	1995	156/2, Siwanjalii, Rupeenagar	Plastic products	8	N.A. / 165,000
522.	Snehdeep	1996	255A, Jyotibanagar Industrial Estate	Mfg. of jigs & fixtures	5	N.A. / 300,000
523.	Sonac Industries	1998	G. No. 169, Rupeenagar	Fabrication & Engineering Job Works	10	N.A. / 100,000
524.	Sopra Engineers	1997	S. No. 165, Rupeenagar	Electrical & control panels	9	N.A. / 402,000
525.	Spardek Control	1998	1090, Samarth Society Rupeenagar	Electrical control panel	6	N.A. / 600,000
526.	Sraddha Industries	1995	G. No. 252, Talwade	Manufacturing Industrial rubber products	7	N.A. / 100,000
527.	Star Automobiles	1995	P. No. 18, G. No. 87, Talwade	Engineering jobs	11	N.A. / N.A.
528.	Star Engineering	1998	G. No. 169, Gala 9, Prasad Industries Complex	Engineering Jobs	1	N.A. / 300,000
529.	Star Enterprises	1996	S. No. 88, P. No. 271, Jyotibanagar	Plastic moulding	3	N.A. / 200,000
530.	Subhash Engineering works	1995	1393, Triveninagar, Talwade	Engineering jobs	7	N.A. / 50,000
531.	Suchi Engineering Pvt. Ltd.	1998	G. No. 252, Bldg.-25, Jyotibanagar	Sheet metal parts	22	N.A. / 1,582,000
532.	Subin Enterprises	1997	S. No. 935, Ganeshnagar	Engineering jobs	2	N.A. / N.A.
533.	Sumi Electrical Services	1998	G. No. 38, P No. 24, Rupeenagar	Fabrication & Engineering jobs	3	N.A. / 250,000
534.	Sumit Engineering Pvt. Ltd.	1997	G. No. 255/B	Engineering & Fabrication jobs	5	N.A. / 500,000
535.	Summodh Enterprises	1995	H. No. 282, Rupeenagar	Welding & fabrication jobs	6	N.A. / N.A.
536.	Suneet Engineering Works	1996	G. No. 255A, Jyotibanagar	Engineering jobs	5	N.A. / N.A.
537.	Sunflower Information Technologies Pvt. Ltd.	1996	A-1, MIDC Software Technology Park	Software Development	28	N.A. / N.A.250,000
538.	Unny Enterprises	1995	G. No. 87, Jyotibanagar	Engineering & fabrication jobs	7	N.A. / 560,000
539.	Sunny Industries	1997	G. No. 166, P. No. 23 & 32, Triveninagar, Talwade Rd.	Fabrication jobs	6	N.A. / 120,000
540.	Sunpushp Engineering Pvt. Ltd.	1998	G. No. 255A, Jyotibanagar	MS & SS Auto parts	7	N.A. / 2,334,000
541.	Sunrise Industries	1997	G. No. 169, Triveninagar	MS fabrication jobs	4	N.A. / 200,000
542.	Supreme paper Products	1996	G. No. 90, Talwade Rd., Jyotibanagar	Paper note books, Registers	4	N.A. / 75,000
543.	Suraj Engineering Works	1997	S. No. 255/B, P. No. 204	Engineering jobs	4	N.A. / 300,000
544.	Suraj Enterprises	1997	G. No. 174, Ganeshnagar	Fabrication jobs	7	N.A. / 203,000
545.	Sural Enterprises	1998	P. No. 28, Sai Colony, Triveninagar	Engineering Jobs	7	N.A. / 109,000

S. No.	Name of the Industry	Year of Estb.	Location - Gatt No. / Survey No. / Plot No. / Milkat No. / House No.	Scale/ Type of Industry	No. of Workers	Investment / Turnover (Rs.)
546.	Surendra Industries	1995	G. No. 252, Jyotibanagar	Plastic processing	8	N.A. / N.A.
547.	Suroshan Industries	1998	G. No. 199, P. No. 6, Jyotibanagar	MS Fabrication Jobs	7	N.A. / 20, 000
548.	Suvidha Industries	1996	G. No. 255-A, M. No. 249, Jyotibanagar	Fabrication of aluminum windows	7	N.A. / 20,000
549.	T P Grip Fasteners	1998	S. No. 258, Jyotibanagar	Nuts, bolts & fasteners	4	N.A. / 1,000,000
550.	Techno King Enterprises	1986	Siddhnath Housing Society, Sahyognagar	Casting dies & plastic moulding	5	120,000 / 145,000
551.	Technocrafts	1998	G. No.160, Triveninagar	Switch gears & panels	8	N.A. / 1 crore
552.	Teknofab Industries	1997	S. No. 230, Jyotibanagar, Talwade	Engineering jobs	2	N.A. / 400,000
553.	Thakur Electronics	1990	S. No. 90, Jyotibanagar, Talwade Rd.	Switches & plugs caps	12	1,000,000 / 2,500,000
554.	The Shalu Agency	1995	M. No. 801, S. No. 165, Sahyognagar	Sign boards, fluorescent indicators	2	N.A. / 100,000
555.	Trans Erectors Pvt. Ltd.	1998	G. No. 252, Jyotibanagar	Steel & process Equipments	27	N.A. / 2.122 crores
556.	Trimurti Arts	1998	M.No. T-124, Triveninagar	Commercial printing	3	N.A. / 365,000
557.	Trimurti Engineering Works	1992	Rupeenagar	Job work	4	150,000 / 50,000
558.	Trimurti Fabrication	1995	2428, Ganeshnagar	Engineering jobs	3	N.A. / N.A.
559.	Trimurti Industrial Products Co. Pvt. Ltd.	1996	G. No. 78/1, At + Post: Talwade	Fabrication of tanks, vessels, valves & machines	7	N.A. / 1,000,000
560.	Trimurti Industries	1996	S. No. 21/85, P. No. 13	MS fabrication & sheet metal press parts	9	N.A. / 100,000
561.	Trimurti Plastics	1998	G. No. 226, Rashirabhun Housing Society, Rupeenagar	Plastic moulding	2	N.A. / 62,000
562.	Trinetra Enterprises	1998	G. No. 321, Triveninagar	Plastic dies	2	N.A. / 1,000,000
563.	Triveni Engineering Works	1996	G. No. 162/A, Triveninagar	Engineering jobs	4	N.A. / N.A.
564.	Tushar Enterprises	1995	P. No. 80, Talwade	Engineering jobs	2	N.A. / 30,000
565.	Tushar Enterprises	1996	S. No. 1488, Rupeenagar	Engineering jobs	4	N.A. / 10,000
566.	Uighanhatra Arts	1998	G. No. 225, Navnirman Housing Society, Rupeenagar	Screen Printing	4	N.A. / 100,000
567.	Umesh Constructions	1998	G No. 228, Dwarka Housing Society, Rupeenagar	Fabrication of centering plates & cement bricks	7	N.A. / 350,000
568.	Unitech Industries	1998	G. No. 83, Jyotibanagar, Talwade Rd.	Engineering & fabrication jobs	8	N.A. / 2,800,000

S. No.	Name of the Industry	Year of Estb.	Location - Gatt No. / Survey No. / Plot No. / Milkat No. / House No.	Scale/ Type of Industry	No. of Workers	Investment / Turnover (Rs.)
569.	United Pressing	1997	G. No. 68, P. No. 16, Jyotibanagar	Press component	8	N.A. / 3,300,000
570.	Universal Forces Industries	1997	G. No. 78, P. No. 7/8, At + Post: Talwade	Mfg. of industrial equipments and vessels	11	N.A. / 1,500,000
571.	Unnati Engineering Works	1998	G. No. 154, Jyotibanagar	Press parts & auto parts	5	N.A. / 1,000,000
572.	Uttam Tools	1998	S. No. 1762, Rupee Housing Society, Rupeenagar	Engineering Tools	3	N.A. / 400,000
573.	V K Packaging	1997	G. No. 90, S. No. 33, P. No. 5, Jyotibanagar	Corrugated boxes	6	N.A. / 250,000
574.	V S Enterprises	1996	M. No. 901, Rupeenagar	Engineering jobs	17	N.A. / N.A.
575.	V Tronics	1998	598, Triveninagar	Generator & emergency lights	3	N.A. / 450,000
576.	Vaibhav Fabricators & Engineering Works	1996	S. No. 45/B, G. No. 241, Rupeenagar	Fabrication jobs	2	N.A./ 336,000
577.	Vaishali Enterprises	1995	M. No.468, Rupeenagar	Moulded goods	4	N.A. / N.A.
578.	Valco Gauges & Tools	1997	G. No. 1A, P. No. 10, Atul Industrial Premises Co-op. Society, Dehu-Talwade Rd.	Mfg. of machine parts & gauges	7	N.A./ 1,500,000
579.	Vakkanlu Engineers & Fabricators Pvt. Ltd.	1997	G. No. 307, Dehu-Alandi Rd.	MS steel tanks	6	N.A. / 120,000
580.	Vardhan Enterprises	1997	G. No. 68, P. No. 14, Jyotibanagar	Steel tubes & plates	8	N.A. / 1,900,000
581.	Varsha Engineering Works	1997	M. No. 1134, Jyotibanagar	Fabrication jobs	3	N.A. / 158,000
582.	Varsha Industries	1994	1408, Rupeenagar	Job work	3	85,000 / N.A.
583.	Venkatesh Enterprises	1998	G. No. 174, H. No. 62, Rupeenagar	Fabrication & Engineering jobs	7	N.A. / 1,200,000
584.	Venkatesh Packaging	1996	G. No. 235, P. No. 1056	Pilfer prost caps	5	N.A./ 27,000
585.	Versatile Engineering Works	1990	1555, Triveninagar	Fabrication & machining	2	200,000 / 12,000
586.	Vijay Engineering works	1995	G. No. 231, Rupeenagar, Talwade	Engineering Jobs	2	N.A. / 20,000
587.	Vijay Enterprises	1997	S. No. 10, Jyotibanagar	Ready-made garments	2	N.A. / 110,000
588.	Vijay Equipments	1997	G. No. 90, Jyotibanagar Industrial Society	Fabrication Jobs	5	N.A. / 380,000
589.	Vijaylaxmi Engineering	1998	G. No. 83	Engineering Jobs	3	N.A. / 70,000
590.	Vikram Engineering works	1997	S. No. 219B, Sahyognagar, Talwade	Engineering job work	2	N.A. / 600,000
591.	Vikrant Engineering Works	1994	Triveninagar	Job Works	6	100,000 / 150,000

S. No.	Name of the Industry	Year of Estb.	Location - Gatt No. / Survey No. / Plot No. / Milkat No. / House No.	Scale/ Type of Industry	No. of Workers	Investment / Turnover (Rs.)
592.	Vinayak Engineers	1995	G. No. 89, P. No. 6	Sheet metal & fabrication jobs	8	N.A. / 434,000
593.	Vinayak enterprises	1996	M. No. 265, Triveninagar	Engineering jobs	3	N.A. / N.A.
594.	Vinayak Industries	1995	S. No. 42, Rupeenagar	Auto Parts	7	N.A. / 300,000
595.	Vinayak Industries	1997	G. No. 165, Nandadeep Industrial Complex, Sahyognagar	Engineering jobs	5	N.A. / N.A.
596.	Vinayak Printers	1996	S. No. 164, Triveninagar	Commercial printing & binding	3	N.A. / 47,000
597.	Vinvee Inc.	1995	S. No. 21	Heat exchanges, coolers & battery	3	N.A. / 160,000
598.	Vipool Plastics	1997	G. No. 90, P. No. 3, Jyotibanagar Industrial Society, Talwade Road	Mfg. of plastic items	5	N.A. / 370,000
599.	Vishwakarma Body Builder	1999	G. No. 228	Automobile body building	3	N.A. / 100,000
600.	Vishwakarma Iron Works	1996	G. No. 70, S. No. 30, Jyotiba Industrial Estate, Jyotibanagar	MS press parts & fabrication jobs	6	N.A. / 225,000
601.	Vitarag Foundry Works	1998	G. No. 70, P. No. 30, Jyotibanagar	Casting & alloy making	1	N.A. / 250,000
602.	Vyankatesh Industries	1996	S. No. 87, Jyotibanagar	Steel furnitures	3	N.A. / 120,000
603.	Walkin Fluid System	1997	G. No. 185, Gala-19, Nandadeep Industrial Complex, Sahyognagar	Engineering & fabrication jobs	4	N.A. / 160,000
604.	Western Auto Ancillaries	1995	H. No. 908, G. No. 165/166, Sahyognagar	Auto press parts	2	N.A. / 50,000
605.	Y M Engineering & Co.	1996	G. No. 162A, Triveninagar	Switch boards panels	9	N.A. / 3,600,000
606.	Yande Engineering & Fabricators	1996	G. No. 163, Trimurti Society, Triveninagar	Fabrication jobs – doors, grills	2	N.A. / 130,000
607.	Yashashri Engineers	1996	G. No. 255, P. No. 49, Jyotibanagar	MS fabrication jobs – grills	6	N.A. / 600,000
608.	Yash Enterprises	1989	3, Ganeshnagar	Job Works	7	N.A. / N.A.
609.	Yash Industries	1997	G. No. 223, Rupeenagar	Engineering Jobs	7	N.A. / N.A.
610.	Yashwant Fabricators	1995	Plot – 70, H. No. 1053, Rupeenagar Housing Society	MS fabrication jobs	6	N.A. / 290,000
611.	Yogesh Enterprises	1998	G. No. 255B	Fabrication of Engineering goods	15	N.A. / 300,000
612.	Yogesh Fabrication Works	1997	G. No. 73	Fabrication jobs	2	N.A. / 60,000
613.	Yogesh Job Works	1997	G.No.1 P. No. 40B, Talwade	Engineering job works	2	N.A. / 200,000
614.	Zoga Industries	1996	G. No. 1/A, At + Post: Talwade	Engineering jobs	6	N.A. / N.A.
615.	Zoom	1997	G. No. 14, Jyotibanagar	Mfg. of cold & soda drinks	6	N.A. / 180,000

Details of Industries in the Newly Merged Areas of PCMC

Source: Industrial and Commercial Directory of Pune – 1995, published by Mahratta Chamber of Commerce, Industries and Agriculture (MCCIA), and District Industrial Centre (DIC), Pune.
Note: The following list of industries includes the industries registered under DIC till 1st March 1999.

S. No.	Name of the Industry	Year of Estb.	Location - Gatt No. / Survey No. / Plot No. / Milkat No. / House No.	Scale / Type of Industry	No. of Workers	Investment / Turnover (Rs.)
C.	**Name of Village: DIGHI (Remaining)**					
1.	Agma Engineers	1995	S. No. 81/1/2, Dighi	Engineering jobs	8	N.A. / 225,000
2.	Ashirwad Printers	1987	Dighigaon, Dighi	Printing	2	200,000 / 100,000
3.	Ashirwad Printers	1998	S. No. 183, Alandi Road	Screen printing	2	N.A. / 126,000
4.	Bansod Patil Construction	1997	S. No. 69/1, G. No. 69/1/1/8, Dighigaon	Cement hollow blocks	4	N.A. / 125,000
5.	Deelip Enterprises	1997	S. No. 82/3, At + Post: Dighi	Fabrication jobs	3	N.A. / 80,000
6.	Deepmaya Engineering	1995	S. No. 108, Chaudhary Park	Jigs & fixtures	6	N.A./ 250,000
7.	Grindwell Engineering	1996	S. No. 81/1, Dighigaon	Magnets, washers & bearing	N.A.	N.A./ N.A.
8.	Jai Bhawani Garments	1998	S. No. 81/1, Dattanagar	Ready-made garments	6	N.A. / 450,000
9.	Kamal & Sons	1984	Dighi-Alandi Road	Fabrication & Welding	2	400,000 / 200,000
10.	Kapila Kadaba Kutti	1984	Dighi-Alandi Road	Kadaba Kutti	6	N.A. / 800,000
11.	Kunal Fab. Tech	1995	Plot – 1, S. No. 1A, Alandi Rd.	Press component	2	N.A. / 80,000
12.	MSD Fabricators	1997	S. No. 2/7, Dighigaon	Engineering goods	3	N.A. / 87,000
13.	Mitra Sahakar Printers	1985	Pune- Alandi Road	Printing	4	160,000 / 800,000
14.	Nayan Electronics	1995	S. No. 82/5, P. No. 10	Electric materials	3	N.A. / 33,000
15.	OK Engineering Woks	1996	S. No. 20, Dighi-Alandi Rd.	Engineering & Fabn. jobs	5	N.A. / N.A.
16.	Sai Krupa Fabricators	1996	M. No. 546, At + Post: Dighi	Fabrication jobs	4	N.A. / 40,000
17.	Tak Enterprises	1998	S. No. 212/2, Dighi-Alandi Road	Cement hollow blocks	3	N.A. / 340,000
18.	V.V. Engineering	1995	31/A, Dighi	Fabrication job	3	N.A. /722,000
19.	Venkatesh Fabricators	1997	S. No. 382, Dighigaon	Fabrication jobs	3	N.A. / N.A.
20.	Yashwant Engineering Works	1993	Pune-Alandi Road	Metal Fabrication work	8	300,000 / 400,000
D.	**Name of Village: DAPODI (Part)**					
1.	Auto Clamps	1996	S. No. 337, P. No. 1, Karnawat Building	Hydropneumatic Cylinders	8	N.A. / 80,000

Contd.: **APPENDIX 4-A**

S. No.	Name of the Industry	Year of Estb.	Location - Gatt No. / Survey No. / Plot No. / Milkat No. / House No.	Scale / Type of Industry	No. of Workers	Investment / Turnover (Rs.)
2.	Basant Engineering & Auto Works	1974	31 A/32, Bombay-Poona Road	Nipple & Flange Stud	N.A.	50,000 / N.A.
3.	Beemac Engineering Pvt. Ltd.	N.A.	Bombay-Poona Road	Trailers	24	1,000,000 / 2,800,000
4.	Bharat Wood Product	N.A.	35/2, Bombay-Poona Road	Cable drum, Wooden boxes, Crates pallet	10	700,000 / 2,500,000
5.	Chana Engineering Works	N.A.	89, Bombay-Poona Road	Job Works	N.A.	108,000 / 120,000
6.	Channa Udyog	N.A.	34/11, Bombay-Poona Road	Grass cutting machine	5	300,000 / 500,000
7.	Clear Tech System	1998	S. No. 91, Bombay-Poona Road	Filters	5	N.A. / 1,800,000
8.	Deccan Paper Box Manufacturing Co.	N.A.	31/1 A, Bombay-Poona Road	Corrugated Boxes	6	200,000 / 350,000
9.	DNA's Udyog	1994	377, Karnawat Building	MS Flanges Plain, Agricultural Implements	13	1,200,000 / 4,500,000
10.	Dyna-Tech	1997	S. No. 80, Super-House	Engineering & Fabrication jobs	7	N.A. / 2,000,000
11.	Electronic photo fabricators	1995	S. No. 411/1/11, opp. Alfa Laval	Printed Circuit Board	9	N.A. / 3222,000
12.	Ganesh Engineering	1995	S. No. 13/113, Panna Chambers	Manufacturing Corrugated boxes	3	N.A. / 92,000
13.	Gems Roadlines	1995	S. No. 93,Behind TCR, Bombay Pune road, Dapodi	Body building	4	N.A. / 75,000
14.	Goodmaters Engineering Services	1995	Nayanagiri, P. No. 7B, BP Rd.	Servicing of water purification & filtration	3	N.A. / 300,000
15.	Irfan Engineering Works	N.A.	Shop No. 25, Old Ward No. 3	Machining job works	6	25,000 / 45,000
16.	K K Engineering Works	1996	S. No. 187, Kokate Building, State Transport Workshop Road	MS Fabrication jobs – doors, grills	4	N.A. / 40,000
17.	Koteshwar Timbers	1979	412/2, Bombay-Poona Road	Wooden boxes & pallets, Cable drums	9	300,000 / 3,500,000
18.	M D Kulkarni	1981	C S No. 1176, Bombay-Poona Road, Behind Arun Talkies	Repairing, servicing & sale of spare parts	5	300,000 / 1,500,000
19.	Machine Tools and Spares	1997	391/1, Opp. Sandvik Asia, Bombay-Poona Road, Dapodi	Machinery spare parts	12	N.A. / 700,000
20.	Malhotra Controls	1995	411/1A, opp. Vulcan Laval	Control panels	6	N.A. / 355,000
21.	Malhotra Engineers	1995	411/1, off Vulcan Laval	Nut and bolts	5	N.A. / 1,600,000

Contd.: **APPENDIX 4-A**

S. No.	Name of the Industry	Year of Estb.	Location - Gatt No. / Survey No. / Plot No. / Milkat No. / House No.	Scale / Type of Industry	No. of Workers	Investment / Turnover (Rs.)
22.	Metro Fabrication Works	N.A.	GS Naik Chawl, Near TCI	Rolling shutters & Fabrication	4	153,355 / 259,115
23.	Modern Engineering & Co.	1959	13 A/32, Bombay-Poona Road	Hydraulic presses & surfaces	9	250,000 / 1,200,000
24.	N J Electricals	1996	S. No. 2/2/4/14/B, Shop-14, Sapphire Complex, Bombay-Poona Road	Electric motor winding	3	N.A. / 170,000
25.	Nagoda Industries	1987	170, State Transport Workshop Road	Electrical wire cords & metal parts	5	400,000 / 500,000
26.	National Engineering Works	1965	Bombay-Poona Road	Repairs of electrical motors	6	100, 000 / 1,500,000
27.	New Maharashtra Bakery	1960	Bombay-Poona Road	Bakery products	7	400,000 / 1,200,000
28.	Nilesh Enterprises	1998	S. No. 418, Kanse Chawl	Ready- made garments	2	N.A. / 200,000
29.	Nine Star Products	N.A.	34/11	Wooden boxes	3	200,000 / 250,000
30.	Om-Tech Enterprises	1995	S. No. 32, Mantri Complex, Dapodi	Engineering jobs	3	N.A. / 215,000
31.	Packwell Corporation	1970	30/A, Bombay-Poona Road	Wooden boxes	15	500,000 / 350,000
32.	Probodh Nirman	1998	S. No. 32/B/6, near Auto Zones Workshop	Machines & Equipments	6	N.A. / 594,000
33.	R K Enterprises	1995	S. No. 56/2, Plot – S-24	Fabrication & machining jobs	7	N.A. / 65,000
34.	Ravi Deshpande Sewpcrom Electronline	1998	446, Senapati Bapat Chowk	Electronic & electrical goods	9	N.A. / 275,000
35.	Renuka Enterprises	1998	S. No. 411/1, Kundannagar	Wooden boxes	2	N.A. / 175,000
36.	S K Enterprises	1998	S. No. 3/1, Baba Kate Chawl	Envelopes	2	N.A. / 135,000
37.	Sai Baba Engineering	1996	S. No. 63/5, Bombay Pune Road, Siddhartha Nagar, Dapodi	Engineering jobs	4	N.A. / N.A.
38.	Samarth Engrs.	1995	S. No. 411/1, Plot No. 11	Engineering goods – tools & motorcycle base assembly	3	N.A. / N.A.
39.	Semi Cron Electrodyne	1996	S. No. 9/3, Gudo Buildings, Bombay Colony	UPS system	3	N.A. / 500,000
40.	Shakil Engineering Works	1996	S. No. 65-66, Nehru Chowk	Dyes & press parts	3	N.A. / 150,000
41.	Shariff Enterprises	1995	471, Azad Chowk, Wakhare Chawl	Readymade garments	4	N.A. / 184,000
42.	Shree Plastics	1997	M. No. 14/B/1	Plastic moulding	3	N.A. / 85,000
43.	Sodhi Engineering Works	1963	31/32, Bombay-Poona Road	General job works	2	75,000 / 120,000
44.	Spirex Packaging	1990	89, Bombay-Poona Road	Round paper containers & tubes	12	400,000 / 3,200,000

S. No.	Name of the Industry	Year of Estb.	Location - Gatt No. / Survey No. / Plot No. / Milkat No. / House No.	Scale / Type of Industry	No. of Workers	Investment / Turnover (Rs.)
45.	Star Enterprises	1993	187, Kokate Chawl, State Transport Workshop Road	Tops support & Adopter Plates	3	100,000 / 70,000
46.	Star Enterprises	1997	H. No. 187	Engineering Jobs	3	N.A. / N.A.
47.	Sumeet Engineers	1984	35/B, Bombay-Poona Road	Job Works	8	500,000 / 360,000
48.	Suyash Engineering	N.A.	24/11, Near Bank of Maharashtra, Bombay-Poona Road	Fabrication Works	30	250,000 / 750,000
49.	Topaz Enterprises	1998	P. No. 39/A /2, Shed No. 58A, Ghulewadi	Engineering & Fabrication jobs	4	N.A. / 2,000,000
50.	UP Tawakal Bakery	N.A.	63/64, Bombay-Poona Road	Bakery products	3	100,000 / 500,000
51.	Utility Products	1994	377, Karnawat Building	Detergents	8	150,000 / 600,000
52.	Versatile Marketing Co.	1995	103/1, Sokhi Building, B P Road	Soaps, detergents & phenyl	4	N.A. / 140,000
53.	Vijay Chalk Products	1998	S. No. 29/1, Anandvan Kurta Ashram	Chalk sticks	4	N.A. / 65,000
E.	**Name of Village: MOSHI (Remaining)**					
1.	Amar Steel Arts	1998	G. No. 627, Alandi Road	Fabrication jobs	2	N.A. / 300,000
2.	Anand Kirana & General Stores	1998	S. No. 104	Engineering jobs	2	N.A. / 120,000
3.	Borhade Enterprises	1998	S. No. 115, Gokulniwas, Borhadewadi	Ready made garments	3	N.A. / 300,000
4.	Creative Arts	1995	G. No. 566, At + post Moshi	Mfg. of Plastic show, Statues, Articles, etc.	3	N.A. / 80,000
5.	D S Engineering Works	1997	G. No. 272, Near Shankar Mandir	Engineering jobs	5	N.A. / 450,000
6.	Dhimesh Industries	1998	Near Moshi High School	Engineering jobs	4	N.A. / 120,000
7.	Finix Enterprises	1998	G. No. 1402, S. No. 150/A , H. No. 723	Electrical & Engineering goods	8	N.A. / 380,000
8.	G K Industries	1997	G. No. 1399, H. No. 653, At + Post Moshi	Flanges & shaft for auto mobiles	6	N.A. / 900,000
9.	Glass Fibre Industries	1998	G. No. 272/1/4, S. no. 149, Borhadewadi	Fibre glass products	8	N.A. / 4,500,000
10.	Hegde Packaging Pvt. Ltd.	1996	S. No. 150/A, Pune-Nashik Road, At + Post: Moshi	Wooden boxes	9	N.A. / 15,100,000
11.	Hrushikesh Stone Metal Works	1998	G. No. 325, 327/1, P. No. 15	Stone metal crushing	12	N.A. / N.A.

Contd.: **APPENDIX 4-A**

S. No.	Name of the Industry	Year of Estb.	Location - Gatt No. / Survey No. / Plot No. / Milkat No. / House No.	Scale / Type of Industry	No. of Workers	Investment / Turnover (Rs.)
12.	Imitiyaz Enterprises	1998	G. No. 245, Borhadewadi	Mfg. of Artificial sand	5	N.A. / 1,500,000
13.	Indrayani Industries	1996	S. No. 292/3, Borhade Vasti	Fabrication jobs	3	N.A. / N.A.
14.	J K Associates	1995	S.No.1, Borhadewadi, Moshi	Engineering jobs	5	N.A. / N.A
15.	Jalinder Enterprises	1997	G. No. 283, Moshi	Readymade garments	1	N.A. / 78,000
16.	Kailash Enterprises	1997	G. No. 283, At + Post: Moshi	Ready-made garments	2	N.A. / 250,000
17.	Kapileshwar Industries	1995	S. No. 272, H. No. 1142, Moshi	Engineering and Fabrication job	5	N.A. / 140,000
18.	Kausdha Industries	1998	M. No. 1052, Borhadewadi	Plastic products	3	N.A. / 120,000
19.	Kaycee Industries	1996	G. No. 245, Borhadewadi	Engineering Jobs	5	N.A. / N.A.
20.	Koura Engineering	1995	G. No. 281, S. No. 150, Nageshwar Nagar	Engineering jobs	5	N.A. / N.A.
21.	Mans Industries	1999	G. No. 542	Machinery parts	2	N.A. / 600,000
22.	Nageshwar Spray Painting	1995	G. No. 328, H. No. 135, Borhadewadi, Moshi	Engineering jobs	7	N.A. /220,000
23.	Nanekar Stone metal works	1996	G 312, Moshigaon	Stone crushing	6	N.A. / 2,100,000
24.	Neeraj Pharma	1998	S. No. 453	Medicines	10	N.A. / 180,000
25.	Om Enterprises	1998	G. No. 317, Behind Nayeshwar High School	Fabrication jobs	5	N.A. / 250,000
26.	Padmavati Packaging	1996	S. No. 452/1/1, At + Post: Moshi	Corrugated boxes & sheets	13	N.A. / 870,000
27.	Pancham Auto Industries	1984	At + Post: Moshi	Crown hill axle	8	N.A. / 300,000
28.	Petrofining Industries Ltd.	1995	M.No. 908	Refining and Lubrication work	5	N.A. / 450,000
29.	Pooja Industries	1996	G. No. 70/2, At + Post: Moshi	Engineering & fabrication jobs	8	N.A. / 944,000
30.	Ram Engineers	1998	M. No. 125, near Borale Talim	Engineering jobs	4	N.A. / 98,000
31.	Rohit Industries	1995	H. No. 208, Moshi	Engineering jobs	4	N.A. / 120,000
32.	Sai Auto Parts	1996	S. No. 272, Borhadewadi	Engineering jobs	5	N.A. / N.A.
33.	Sai Woodworks	1997	S.No.1084, Nageshwar Nagar, Moshi	Wooden furniture	6	N.A. / 375,000
34.	Saste Industries	1996	G.No.651, Moshi	Engineering jobs	3	N.A./ N.A.
35.	Shiv Enterprises	1998	S. No. 273, Nageshwar	PCB Assembly	3	N.A. / 150,000
36.	Shree Ganesh Engg. Works	1995	S. No. 1249, Dehu-Alandi Rd.	Engineering jobs	6	N.A./ N.A.
37.	Shree Nageshwar Engineering Works	1996	G. No. 452, S. No. 50, At + Post: Moshi	Engineering jobs - grinding, turning, drilling	2	N.A. / N.A.

S. No.	Name of the Industry	Year of Estb.	Location - Gatt No. / Survey No. / Plot No. / Milkat No. / House No.	Scale / Type of Industry	No. of Workers	Investment / Turnover (Rs.)
38.	Shree Samarth Stone Company	1997	G. No. 327, P. No. 39/40, At + Post Moshi	Stone metal	9	N.A. / 128,000
39.	Shriram Industries	1997	M. No. 170/1	Engineering Spare parts	4	N.A. / 200,000
40.	Sun Industries	1997	S. No. 541 & 542, Moshi, Opp. Alandi Road		1	N.A. / 300,000
41.	Suresh Engineering Works	1996	H. No. 967, Dehu Road, At + Post: Moshi	Engineering Jobs	3	N.A. / 200,000
42.	Tanna Products	1998	S. No. 452, Nashik Highway	HDPE bags & covers	10	N.A. / 3.6 crores
43.	Vivek Engineering Works	1995	1082, Pune Nashik Road, Near Indrayani River	Fabrication jobs	4	N.A. / 125,000
44.	Vakhare Industries	1996	G. No. 150, S. No. 1399, Opposite Nageshwar Vidyalaya	Forging & casting jobs	10	N.A./ 525,000
F.	**Name of Village: KIWALE (Remaining)**					
1.	Adnet Technologies	1998	12, Meera Colony, Vikasnagar	Computer hardware developer	2	N.A. / 200,000
2.	Beena Enterprises	1998	G. No. 291/1	Engineering	3	N.A. / 100,000
3.	Bindu Engineering	1998	S. No. 43, P. No. 156, Vikasnagar	Engineering jobs	7	N.A. / 170,000
4.	Conweld Engineering Services	1998	S. No. 40/2	Engineering jobs	2	N.A. / 200,000
5.	Erect Enterprises	1996	S. No. 77, P. No. 1	Industrial & domestic Fabrication	9	N.A. / 1,400,000
6.	Ganesh Enterprises	1999	G No. 112/5, Kiwalegoan, Dehu Road	Engineering jobs	4	N.A. / 300,000
7.	Ganesh Wood Center	1996	S. No. 41/1-B, P. No. 3, Pendare Colony, Dehu Road	Wood cutting saw mill	5	N.A. / 1,200,000
8.	Girija Enterprises	1998	G. No. 227B	Engineering jobs	3	N.A. / 300,000
9.	Gopi Enterprises	1997	G. No. 259, Netke Colony.. Vikasnagar, Dehu Road	Engineering jobs	4	N.A. / 200,000
10.	Jyoti Engineering works	1996	S. No. 38, Kiwale	Fabrication job	3	N.A. / 30,000
11.	Kalje Enterprises	1998	G. No. 13/1/2	Engineering jobs	4	N.A. / 100,000
12.	Lata Entps	1998	G. No. 13/1/2	Garments	6	N.A. / 200,000
13.	Mahalaxmi Engineering Works	1996	S. No. 272/1, Borhadewadi	Engineering jobs	5	N.A. / 105,000
14.	Mali Farm	1998	G. No. 112/3/2	Fruit jelly	5	N.A. / 50,000

Contd.: **APPENDIX 4-A**

S. No.	Name of the Industry	Year of Estb.	Location - Gatt No. / Survey No. / Plot No. / Milkat No. / House No.	Scale / Type of Industry	No. of Workers	Investment / Turnover (Rs.)
15.	Motwani Enterprises	1997	G. No. 149, Dehu Road, At + post Kiwale	Fab jobs	5	N.A. / 300,000
16.	Nageshwar Welding Works	1996	G. No. 1402, Nageshwarnagar	Engineering jobs	5	N.A. / N.A.
17.	Nutan Techno Fab	1997	S. No. 277, Moshi-Dehu Road	Fabrication jobs	6	N.A. / 100,000
18.	Omkar Clothing Inc.	1998	M. No. 134, H. No. 136, Vikasnagar, Dehu Road	Ready-made garments	2	N.A. / 60,000
19.	Pandey Enterprises	1998	G. No. 1121	Engineering jobs	3	N.A. / 300,000
20.	Pawar Enterprises	1998	G. No. 112/1	Engineering jobs	3	N.A. / N.A.
21.	Pushpam Enterprises	1998	G. No. 256	Engineering jobs	3	N.A. / 200,000
22.	R K Fabricators & Engineers	1998	S. No. 43/3/E, near Telco building, Vikasnagar	Steel structures, grills &pipes	2	N.A. / N. A.
23.	Radheshyam Enterprises	1998	G. No. 112/3/1	Cement blocks	3	N.A. / 700,000
24.	Rasika Fabrication Works	1998	M. No. 330, Navanth Apartments, Vikasnagar	Domestic & Industrial Fabrication	4	N.A. / 300,000
25.	SM Fabricators & Engineers	1998	S. No. 43/4/5/E, Radhaniwas, Vikasnagar	Steel structures, grills & pipes	3	N.A. / 264,000
26.	Sagar Enterprises	1997	G. No. 112, Netke Colony, Vikasnagar, Dehu Road	Fabrication jobs	5	N.A. / 300,000
27.	Shree Siddheswar Fabricators	1998	S. No. 401/B, Dehu Road	Domestic & industrial fabricators	4	N.A. / 270,000
28.	Vanaraz Enterprises	1998	G. No. 21	Ready-made garments	7	N.A. / 100,000
29.	Vidya Oil Mill	1995	G. No. 712, Kiwale	Edible oil & soaps	5	N.A. / 290,000
30.	Vimal Lubricants	1998	S. No. 62, Bldg. No. 81, Meera Colony, Vikasnagar	Edible oils	1	N.A. / 500,000
G.	**Name of Village: CHARHOLI BK. (Remaining)**					
1.	Annapurna	1995	S. No. 355/3, At + Post: Charholi BK	Fabrication jobs	7	N.A. / 90,000
2.	Dnyaneshwar Stone Metal	1999	S. No. 76/2	Stone metal crushing	4	N.A. / 600,000
3.	Easter India Lubricants	1999	G. No. 812	Refining of used lubricants	3	N.A. / 700,000
4.	Innovative Engrs.	1996	S. No. 82/1	Storage stand & pressure vessels	8	N.A./ 225,000
5.	Power Lubs and Specialization	1995	S. No. 739, 1B	Blending of lubricants	7	N.A./ 650,000

S. No.	Name of the Industry	Year of Estb.	Location - Gatt No. / Survey No. / Plot No. / Milkat No. / House No.	Scale / Type of Industry	No. of Workers	Investment / Turnover (Rs.)
6.	Santosh Enterprises	1996	S. No. 87/6	Fabrication jobs – grills, shutters	3	N.A. / 120,000
7.	Seva Enterprises	1997	S. No. 944/1	Engineering & Fabrication Jobs	5	N.A./ 170,000
8.	Sohan Enterprises	1998	S. No. 62 (1/1)	Electric motor rewinding	N.A.	N.A. / 36,000
9.	Suyog Engineering	1998	S. No. 138/398	Nut, bolt & plates	6	N.A. / 1,300,000
10.	United Engineers & Rubber Liners	1998	S. No.821/2, P. No. 11A	Engineering & Fabrication jobs	3	N.A. / 400,000
11.	Z Fabricators & Erectors	1998	S. No. 822, P. No. 54	Fabrication & erection jobs	5	N.A. / 800,000
H.	**Name of Village: CHOVISWADI (Remaining)**					
1.	Aditya Stone Metal Works	1996	S.No.66/1, Choviswadi	Stone, metal products	7	N.A. / 400,000
2.	Atul Stone Co.	1995	826/4	Stone crushing	11	N.A. / 30,000
3.	Dhanshree Corporation	1996	S. No. 58/23	Fabrication jobs	4	N.A. / 105,000
4.	Nanekar Stone Metal Works	1997	5-810, Choviswadi	Stone rubble	7	N.A. / 400,000
5.	Nikhil Enterprises	1998	S. No. 59/2, P. No. 657	Engineering Jobs	2	N.A. / 300,000
6.	Pranav Engineers	1997	S. No. 58 (Old No. 822), P. No. 22	Engineering jobs	10	N.A. / N.A.
7.	Ravi Enterprises	1996	S. No. 827, Choviswadi	Stone and metal products	13	N.A. / 20,000
8.	Rishin Stores Co.	1998	S. No. 62/5	Stone metal crushing	6	N.A. / 400,000
9.	Sachin Stone Co.	1997	S. No. 826/4	Stone metal crushing	11	N.A. / 250,000
10.	Shriram Sales Corporation	1997	CTS. No. 58, At + Post: Choviswadi	Mfg. of sensitized photographic paper	7	N.A. / 2,850,000
11.	Sonu Enterprises	1998	S. No. 61/2	Stone metal crushing	7	N.A. / 7,200,000
12.	Vivekanand Enterprises	1998	S. No. 916 (New No. 110)	Cement blocks, Stone cutting & polishing	5	N.A. / 198,000
I.	**Name of Village: WADMUKHWADI**					
1.	Ajay Engineering Works	1996	S. No. 80 (old No. 688)	Engineering & Fabrication jobs	8	N.A. / 1,290,000
2.	K K Industries	1998	S. No. 121, Alandi Road	Fabrication of grills & windows	3	N.A. / 100,000
3.	Nikhil Enterprises	1997	S. No. 145, Wadmukhwadi	Automobile parts	4	N.A. / 700,00
4.	Parvati Plastic Industries	1998	G. No. 131	Plastic moulding	2	N.A. / 80,000

Contd.: **APPENDIX 4-A**

S. No.	Name of the Industry	Year of Estb.	Location - Gatt No. / Survey No. / Plot No. / Milkat No. / House No.	Scale / Type of Industry	No. of Workers	Investment / Turnover (Rs.)
5.	Vinayak Enterprises	1997	S. No. 731/1/1/1, Sai Nagar, Alandi Road	Robber Moulding	3	N.A. / 500,000
J.	**Name of Village: WAKAD (Remaining)**					
1.	Akshay Brick Suppliers	1997	S. No. 85, Vinode Vasti	Bricks	6	N.A. / 80,000
2.	Ambika Brick Works	1996	S. No. 153/33, At + Post: Wakad	Clay Bricks	10	N.A. / 155,000
3.	Amul Enterprises	1996	S. No. 277/4, M.No. 106, Wakad	Manufacturing of Switch board	2	N.A. / 80,000
4.	Aparna Copiers	1995	S. No. 165, Wakad	Stationery job works	2	N.A. / 127,000
5.	Auto Gasket Industries	1998	S. No. 26, Vishalnagar	Gasket & Press parts	3	N.A. / 300,000
6.	Bhojling Bricks	1997	S. No. 108, At + Post: Wakad	Clay bricks	20	N.A. / 130,000
7.	Colourman	1995	S. No. 127/2B/O	Bricks	9	N.A. / 31,000
8.	G D Tonje	1997	S. No. 111	Bricks	5	N.A. / 150,000
9.	Heranbh Enterprises	1995	S. No. 115/3, Bhumikarnagar	Engineering jobs	5	N.A. / 80,000
10.	Hotel Chandan Palace	1997	S. No. 121/3, Bhumikarnagar, Wakad	Lodging and food	3	N.A. / 121,000
11.	Jai Malhar Fabrication	1997	S.No.127, Wakad	Fabrication work	4	N.A. / 155,000
12.	Jethani Enterprises	1997	S. No. 121/1/3, Wakad Police Station	Commercial Screen Printing	2	N.A. / 120,000
13.	Kamal Enterprises	1997	S. No. 50/3, H. No. 174	Ready-made garments	1	N.A. / 65,000
14.	Kamalti Bricks	1995	S. No. 127/2, A/4, Wakad	Manufacturing bricks	6	N.A. / 25,000
15.	Kaspate Engineering works	1997	S. No. 228/2, Kaspatwadi, Wakad	Electrical and mechanical engineering works	3	N.A. / 25,000
16.	L G Enterprises	1998	S. No. 27, Govindniwas, Bhumikar Vasti	Food products	5	N.A. / 400,000
17.	M A Engineering Works	1998	M. No. 47/2, Sawatamali Vasti, Wakad-Hinjewadi Road	Industrial & domestic Fabrication	4	N.A. / 100,000
18.	Mahalaxmi Traders	1998	S. No. 165	Fabrication jobs	3	N.A. / 180,000
19.	Manjay Engrs.	1995	S. No. 151/2, Bhumkar Vasti	Auto spare parts	6	N.A. / 75,000
20.	Meghdoot Electricals	1996	S. No. 166/2	Current & potential transformer	2	N.A. / 60,000
21.	National Automobiles	1998	S. No. 123/1/5, Bhumikar Vasti	Auto press parts	3	N.A. / 48,000
22.	Nirankari Suppliers	1997	H. No. 712, Wakad	Data Processing and Hardware store	1	N.A. / 75,000

Contd.: **APPENDIX 4-A**

S. No.	Name of the Industry	Year of Estb.	Location - Gatt No. / Survey No. / Plot No. / Milkat No. / House No.	Scale / Type of Industry	No. of Workers	Investment / Turnover (Rs.)
23.	Novatech Enterprises Pvt. Ltd.	1995	S. No. 1	Car seats for two wheelers	5	N.A. / 4,000,000
24.	Poonam Bricks	1997	S. No. 93	Clay bricks	6	N.A. / 220,000
25.	Ranjeet Enterprises	1997	M. No. 555, Bhumikar Vasti	Engineering jobs	3	N.A. / 40,000
26.	Reliance Electricals Works	1996	176/1/2/1	Electrical control panels	4	N.A. / 310,000
27.	Sachin Industries	1996	S. No. 126/1/1, H. No. 504	Engineering Jobs	3	N.A. / 30,000
28.	Sachin Wooden Cases	1997	S. No. 231, Wakad	Manufacturing wooden cases	2	N.A. / 230,000
29.	Sahayadri Enterprises	1995	S. No. 125	Engineering Jobs	3	N.A. / 20,000
30.	Sai Fabricators & Erectors	1998	S. No. 427/4, Bhumkar vasti	Fabrication of grills & windows	3	N.A. / 180,000
31.	Sai Fabrics	1995	S. No. 17, Behind Wakad Jakat naka, Wakad	Bricks	5	N.A. / 184,000
32.	Sai Stamping	1995	S. No. 114/1, Bhumikar Nagar	Manufacturing transformers and laminators	5	N.A. / 140,000
33.	Sanjay Fabricators	1995	S. No. 165, Wakad	Fabrication jobs	4	N.A. / 154,000
34.	Sham Enterprises	1997	S. No. 165/4, Shop-7, At + Post: Wakad	Screen printing	2	N.A. / 19,000
35.	Sharad Stone Polish and Cutting Co.	1996	S. No. 26, Nishnagar	Stone polishing and cutting	3	N.A. / 200,000
36.	Shriram Electricals	1996	S.No.129, H.No.1A/14, P.No.47, Wakad	Transformer assembly	8	N.A. / 1350,000
37.	Siddhivinayak Fabrication	1998	S. No. 29/4, Vishalnagar, Wakad Road	Fabrication of grills & shutters	6	N.A. / 600,000
38.	Sina Electronics	1997	H. No. 410, Wakad	Manufacturing power supply units	2	N.A. / 75,000
39.	Spark Electrical	1997	S. No. 75/B, Hinjewadi-Chinchwad Road	Electrical items	9	N.A. / 2,300,000
40.	Stabifox Technology	1997	S. No. 174/1/5	Transformers	13	N.A. / 130,000
41.	Sunita Sudam	1998	H. No. 412	Ready-made garments	1	N.A. / 40,000
42.	Suvarna Engineering Works	1996	S. No. 125/1/1/10	Engineering Jobs	4	N.A. / N.A.
43.	The Naitech Industries	1997	S. No. 159	Wire-nails assembly	2	N.A. / 400,000
44.	Vasant	1997	H. No. 415/2,Wakad	Cushion covers	1	N.A. / 55,000

S. No.	Name of the Industry	Year of Estb.	Location - Gatt No. / Survey No. / Plot No. / Milkat No. / House No.	Scale / Type of Industry	No. of Workers	Investment / Turnover (Rs.)
45.	Venkatesh Auto Body Builders	1998	S. No. 98, Bhumkar Vasti	Auto body building	4	N.A. / 240,000
46.	Vishvatej Engineering Works	1996	G. No. 254/2, Kaspate Vasti	Engineering & fabrication jobs	6	N.A. / 10,000
47.	Yash Industries	1996	S. No. 159/8	Wire nails	1	N.A. / 400,000
K.	**Name of Village: PUNAWALE**					
1.	Chandgadkar Bricks	1998	S. No. 14, Ramkhamb Vasti	Bricks	9	N.A. / 500,000
2.	Katankar Vasant Ganpatrao	1998	585, Punawale	Parts of Silencers	2	N.A. / 24,000
3.	Oval Bricks	1998	S. No. 211/2	Bricks	6	N.A. / 390,000
L.	**Name of Village: BOPKHEL (Remaining)**					
1.	Jitesh Enterprises	1996	S. No. 78, At + Post: Bopkhel	Engineering jobs	2	N.A. / 15,000
2.	Shri Siddhnath Plastic Moulding	1995	58/52, BP Road, CME	Plastic moulding	3	N.A. / N.A.
M	**Name of Village: RAVET (Remaining)**					
1.	Dabhade Bricks Manufacturers	1996	G. No. 184/1B	Clay bricks	8	N.A. / 90,000
2.	Dosti Veet Utpadak	1997	S.No.25/1, 237/2, At + Post: Ravet	Clay bricks	20	N.A. / 1,000,000
3.	Peakall Petroleum Corporation	1995	S. No. 81/1, Ravet	Lubricant oil	3	N.A. / 368,000

Details of Sample Industries Surveyed in the Newly Merged Areas of PCMC

Sr. No.	Name of the Industry	Year of Estb.	Location, Gutt No. / S. No. / P. No. / M. No. / H. No.	Scale/ Type of Industry	Land Area	No. of Workers		Invest-ment / Turn-over (Rs.)	Hor-se Po w-er	Work-ing Seaso n in the Year	No. of Work Shift s	Manufa c-turing goods quantit y	Processe d goods quantity	Industria l disposal, if any, & method adopted	Lab-our Hou-sing	Expa - nsion Progr -am, Whe n	Future Land Area, if reqd.
						Skilled / Unskille d	Tota l										
A.	Name of Village: CHIKHALI (Remaining)																
1.	ANN Engineering	1996	769, Kudalewadi	SSI / Job works	1089 sft	2 / 1	3	N.A.	-	Full	1	-	-	-	-	None	None
2.	Abhi Enterprises	-	760, Kudalewadi	SSI/ Engg. works	500 sft	3 / 1	4	N.A.	-	Full	1	-	-	None	-	None	None
3.	Agarwal Industries	1996	Kudalewast i	SSI / Press compo-nent	2000 Sft	5 / 3	8	N.A.	-	Full	1	-	-	Scrap sale	-	None	None
4.	Amit Engineers	1993	S. No. 769, Pawar Vasti, Kudalewadi	SSI/Preci -sion press, projectn. Welding	700 sft	3 / 2	5	N.A. / 300,000	10 HP	Full	1	500000 Nos.. capacity	-	-	-	-	-
5.	Balaji Enterprises	1996	780, Kudalewadi	SSI / Wheel drums press parts	3000 sft	6 / 16	22	N.A.	40 HP	Full	2	-	3000 Nos.	Scrap sale	-	-	-
6.	Bhagwat Enterprises	1998	Kudalewadi	SSI / C.C. Rod Drilling	100 sft	3 / -	3	N.A.	3H P	Full	1 (12 hour)	-	15000 Nos.	Scrap sale	-	-	-
7.	Bhavani Enterprises	1994	Plot No. 22/61, Pawar Vasti, Kudalewadi	SSI/ Third party job	1089 sft	2 / 5	7	150,000 / 100,000	15 HP	Full	1	-	5000 Nos.	Scrap sale	-	-	-
8.	Broadway Engineering	1998	G. No. 769, Pawar Vasti, Kudalewadi	SSI/ Dies & press parts	300 sft	2 / 2	4	N.A. / 300,000	-	Full	1	-	-	-	-	-	-

APPENDIX 4-B

Sr. No.	Name of the Industry	Year of Estb.	Location, Gutt No. / S. No. / P. No. / M. No. / H. No.	Scale/ Type of Industry	Land Area	No. of Workers		Invest-ment / Turn-over (Rs.)	Hor-se Po w-er	Work-ing Seaso n in the Year	No. of Work Shift s	Manufa c-turing goods quantit y	Processe d goods quantity	Industria l disposal, if any, & method adopted	Lab-our Hou-sing	Expa-nsion Progr-am, Whe n	Future Land Area, if reqd.
						Skilled / Unskille d	Tota l										
9.	Chandrama Printing Press	1997	Chikhali	SSI / Printing	600 sft	1 / 1	2	N.A.	-	Full	1	-	-	-	-	None	None
10.	Creative Engineers	1998	769, Pawar Vasti	SSI / Dies & fabricatio n	200 sft	4 / 3	7	N.A.	2 HP	Full	1	-	-	-	-	-	-
11.	Dalare Industries	1996	269, Kudalewadi	SSI / Mfg. press part	1000 sft	4 / 1	5	N.A.	-	April - May	1	4000	-	Scrap sale	-	None	None
12.	Dhanashri Felting & Spoting Works	1990	S. No. 179, G No. 768, Kudalewadi	SSI/ Cutting	2000 sft	- / 9	9	4,000,0 00 / 1,800,0 00	-	NR	1	-	-	-	-	Yes	None
13.	Friend Enterprises	1996	Kudalewast i	SSI / fabricatio n	600 Sft	2 / 1	3	N.A.	-	Full	1	-	-	None	-	None	None
14.	Grace Industries	1997	Kudalewast i	SSI / Press compo-nent	1000 Sft	2 / 1	3	N.A.	-	Full	1	-	-	None	-	None	None
15.	H.P. Engineering	1994	769, Pawar Vasti	SSI / Machine compone nts	1500 sq.ft	2 / 4	6	N.A.	23 HP	Full	1 (12 hour)	-	8000 Nos.	Scrap sale	-	-	-
16.	Jain Enterprises	1998	Plot No.11, Kudale wadi	SSI / Empty barrel supply	N.A.	- / 2	2	N.A.	-	Full	1	-	250 Nos.	-	-	-	-
17.	Jay Engineering	1997	Kudalewast i	SSI / Forging	1000 sft	2 / 2	4	N.A.	-	Full	1	10 Nos.	-	None	-	-	-
18.	Joseph Engineering	1998	710, Kudalewadi	SSI / Engg. job works	500 sft	2 / -	2	N.A.	6 HP	Full	1	-	6000 Nos.	-	-	-	-
19.	Jyoti Enterprises	1993	G. No. 769, Pawar Vasti, Kudalewadi	SSI / Nut-bolt	1089 sft	2 / 3	5	N.A. / 800,000	5 HP	Full	1	-	3 Nos.	Scrap sale	-	-	-

APPENDIX 4-B

Sr. No.	Name of the Industry	Year of Estb.	Location, Gutt No. / S. No. / P. No. / M. No. / H. No.	Scale/ Type of Industry	Land Area	No. of Workers		Invest-ment / Turn-over (Rs.)	Hor-se Po w-er	Work-ing Seaso n in the Year	No. of Work Shift s	Manufa c-turing goods quantit y	Processe d goods quantity	Industria l disposal, if any, & method adopted	Lab-our Hou-sing	Expa - nsion Progr -am, Whe n	Future Land Area, if reqd.
						Skilled / Unskille d	Tota l										
20.	Karpe Brothers Wood Works	1976	Patilnagar	SSI/ Furniture Works	500 sft	4 / 1	5	N.A. / 20,000	1	Full	1	-	3 pieces	Burning of Scrap	-	-	-
21.	Kuber Enterprises	1997	767, Kudaleadi	SSI / Basket mfg.	1200 sq.ft	5 / 5	10	N.A.	10 HP	Full	12hr s 1 shift	-	5000 Nos.	-	-	-	-
22.	M.M. Lohokare	1997	767, Kudalewadi	SSI / Press parts	550 sft	1 / 3	4	N.A.	5H P	Full	1	-	150000 Nos.	-	-	After Nov. '99	1000 sft
23.	M.M. Plastic	1994	Kudalewadi	SSI / Plastic products	2000 Sft	4 / 2	6	N.A.	-	Full	1	N.R.	N.R.	-	-	None	None
24.	Merit Enterprises	1996	Kudalewast i	SSI / Forging	800 sft	2 / 2	4	N.A.	-	Full	1	4 Nos.	-	Scrap sale	-	None	None
25.	Mohaniraj Industries	1990	Pawar Vasti	SSI / Dies, moulds, jigs & fixtures	2000 sft	3 / 1	4	N.A. / 200,000	-	Full	1	1 No	-	None	-	None	None
26.	National Metal Ind.	1995	Kudalewadi	SSI / Metal industrie s	1000 0 sft	- / 5	5	N.A.		Full	1	-	-	-	-	-	-
27.	Nirmal Industries	1997	769, Kudalewadi	SSI / Forging	700 sft	2 / 1	3	N.A.	-	Full	1	-	-	-	-	None	None
28.	Novelty Enterprises	1993	Kudalewast i	SSI / Job work	1500 Sft	4 / 2	6	N.A.	-	Winter month s	1	-	-	-	-	None	None
29.	Prashant Engineering Works	1998	G. No. 812, Pawar Sani, Kudalewadi	SSI/ Engg. jobs	1000 sft	2 / 2	4	N.A. / 220,000	-	Full	1	2 Nos.	NA	Scrap sale	-	None	None
30.	Preety Engineering Works	1989	229, Ambike Industrial Estate	SSI/Mec h-anical brackets	5000 sft	4 / 1	5	N.A. / 1,000,0 00	10 HP	Full	1	-	-	-	-	-	-

APPENDIX 4-B

Sr. No.	Name of the Industry	Year of Estb.	Location, Gutt No. / S. No. / P. No. / M. No. / H. No.	Scale/ Type of Industry	Land Area	No. of Workers		Investment / Turn-over (Rs.)	Hor-se Power	Working Season in the Year	No. of Work Shifts	Manufac-turing goods quantity	Processed goods quantity	Industrial disposal, if any, & method adopted	Labour Housing	Expa-nsion Progr-am, When	Future Land Area, if reqd.
						Skilled / Unskilled	Total										
31.	Progressive Engineering	1997	Chikhali	SSI / fabrication work	27225 sft	2 / -	2	N.A.	30 HP	Full	1	-	-	-	-	-	-
32.	Radha Fabricators	1996	588/2 Chikhali	SSI / fabrication	1000 Sft	1 / 4	5	N.A.	-	Full	1	-	-	-	-	None	None
33.	Rama Profiles	1994	G. No. 769, Pawar Vasti, Kudalewadi	SSI/ Profile cutting & M S plate	2000 sft	4 / 4	8	N.A. / 20,000	-	Full	1	-	-	Scrap sale	-	None	None
34.	S.G.Traders	1996	Kudalewasti	SSI / Grinding	800 Sft	4 / 2	6	N.A.	-	Full	1	2 Nos..	-	Scrap sale	-	None	None
35.	S.J. Rubber	1996	Kudalewadi	SSI / Rubber products	N.A.	2 / 1	3	N.A.	-	Full	1	7 Nos..	-	None	-	None	None
36.	S R Engineering Works	1998	G. No. 764, S No. 179, Pawar Vasti, Kudalewai	SSI/ fabrication	1600 Sft	4 / 3	7	N.A. / 150,000	-	Full	1	-	-	None	-	None	None
37.	S.T. Industries	1996	Chikhali Indl. Area	SSI / Not Specified	3000 sft	4 / 2	6	N.A.	-	Full	1	50 Nos..	-	None	-	-	NONE
38.	Saikrupa Industries	1997	Kudalewasti	SSI / fabrication	800 Sft	2 / 2	4	N.A.	-	Full	1	-	-	Scrap sale	-	None	None
39.	Satnam Enterprises	1994	768, Kudalewadi	SSI /Engg. job work	2000 sq.ft	- / 3	3	N.A.	10 HP	Full	1	-	5000 Nos.	Scrap sale	-	-	-
40.	Sawant Enterprises	-	769, Kudalewadi	SSI / M-80 seats	100 sft	2 / 5	7	N.A.	-	Full	1	-	5000 Nos.	Scrap sale	-	-	-
41.	Shiv Kailash Pressings	1994	923, Kudalewadi, Near Sant Dyaneshwar Industry	SSI/ Reinforce-ment & cover plates	2000 Sft	2 / 4	6	400,000 / 1,200,000	15 HP	Full	1	5 tons	-	None	-	None	None

APPENDIX 4-B

Sr. No.	Name of the Industry	Year of Estb.	Location, Gutt No. / S. No. / P. No. / M. No. / H. No.	Scale/ Type of Industry	Land Area	No. of Workers		Invest-ment / Turn-over (Rs.)	Hor-se Po w-er	Work-ing Seaso n in the Year	No. of Work Shift s	Manufa c-turing goods quantit y	Processe d goods quantity	Industria l disposal, if any, & method adopted	Lab-our Hou-sing	Expa - nsion Progr -am, Whe n	Future Land Area, if reqd.
						Skilled / Unskille d	Tota l										
42.	Shriram Furniture	1988	588, Chikhali	SSI/ Mfg. Furniture	1000 Sq,ft.	2 / 2	4	N.A.	-	Winter month s	1	2	N.R.	None	-	After 6 Mon-ths	Yes
43.	Sokha Industries	1994	767, Kudale wadi	SSI/ Engg. job work	800 sft	3 / -	3	N.A.	12 HP	Full	1	-	-	Scrap sale	-	-	-
44.	Sidhivridhi Engineering Works	1987	S. No. 913, Kudalewadi	SSI/ Scooter parts	2000 sft	2 / 2	4	N.A. / 550,000	15 HP	Full	1 (12 hour)	5000 Nos.	-	-	-	-	-
45.	Sunraj Engineering	1995	Kudalewadi	SSI / Auto parts	300 Sft	1 / 2	3	N.A.	-	Full	1	-	-	Selling	-	None	None
46.	Three Star Engineering & Plastic Works	1993	588, Chikhali	SSI / Spare Parts	500 Sft	3 / 1	4	N.A.	-	Full	1	3000 Nos.	-		-	None	None
47.	V.S.Engineerin gworks	1993	Chikhali Gaothan	SSI / Lathe jobs	3267 sft	3 / 4	7	N.A.	15		1	-	4000 Nos.	Scrap sale	-	-	-
48.	Varanna Fabricators	1994	769, Kudalewadi	SSI / fabricatio n	2000 sft	3 / 3	6	N.A.	-	NR	1	-	-	-	-	None	None
49.	Vikram Enterprises	1999	Kudalewadi	SSI / Grinding	100 sft	2 / -	2	N.A.	7H P	Full	1 (12 hour)	-	10000 Nos.	-	-	-	-
50.	Viraj Enterprises	1998	796, Pawar wasti, Kudalewadi	SSI / Machine job works	1750 sft	3 / 4	7	N.A.	50 HP	Full	1	-	-	Scrap sale	-	-	-
51.	Vishal Engineers	1992	786, Kudalewast i	SSI / Lathe jobs	1350 sft	1 / -	1	N.A.	20 HP	Full	1	-	-	-	-	-	-
52.	Vishal Enterprises	1996	Kudalewast i	SSI / Job works	1500 Sft	2 / 2	4	N.A.	-	Full	1	200 Nos.	-	None	-	-	-
53.	Vishal Industry	1996	588, Chikhali	SSI / Forging	600 Sft	1 / 2	3	N.A.	-	Full	1	-	-	-	-	NON E	NONE
B.	**Name of Village: TALWADE (Remaining)**																

APPENDIX 4-B

Sr. No.	Name of the Industry	Year of Estb.	Location, Gutt No. / S. No. / P. No. / M. No. / H. No.	Scale/ Type of Industry	Land Area	No. of Workers		Investment / Turnover (Rs.)	Hor-se Power	Working Season in the Year	No. of Work Shifts	Manufac-turing goods quantity	Processed goods quantity	Industrial disposal, if any, & method adopted	Labour Housing	Expansion Program, When	Future Land Area, if reqd.
						Skilled / Unskilled	Total										
1.	A.A. Fabricators	1994	90, Jyotiba Nagar	SSI / fabrication	8000 sft	2 / 2	4	N.A.	-	NR	1			None	Bosari	None	None
2.	Akshay Enterprises	1996	MIDC, Talwade	SSI / Turning & grinding	600 sft	1 /2	3	N.A.	-	Full	1	Depends on order	-	None	-	None	None
3.	Auto Electricals	1997	255/A Jyotibanagar	SSI / Carbon brushes	N.A.	4 / 2	6	N.A.	5 HP	Full	1	-	20000 brushes	-	-	-	-
4.	B. M. Engineers	1995	87, Jyotibanagar	SSI / Bajaj job work	3600 sq.ft	6 / 6	12	N.A.	30 HP	Half	2	-	depends	Scrap sale	-	None	None
5.	Classic Engineers	-	Talwade	SSI / fabrication of pipeline	2000 sft	3 / 5	8	N.A.	-	Full	1	Depends on order	-	-	-	-	-
6.	High Tensile Pvt Ltd.	1996	87, Jyotibanagar	Nut Bolts	4000 sft	4 / 4	8	N.A.	-	Full	1	-	-	Scrap sale	-	None	None
7.	Kanbay Software India Pvt. Ltd.	1995	P. No. A-1, Talwade Soft -ware Tech. Park, MIDC	LSI / Software products export	4.00 acres on lease	380 / 20	400	5 crores / 25 crores	-	Full	1 (8 hour)	-	-	-	-	Undergoing till Mar '2000	Already acquired 4.00 acres
8.	Limson Engineering	-	G.No. 252	SSI/ Lathe drilling	10000 sft	3 / 3	6	N.A.	-	Full	1	-	-	Scrap sale	-	-	-
9.	Lotus Industries	-	G.No. 259	SSI / Sanala (Cement)	N.A.	- / 16	16	N.A.	-	Full	2	-	-	None	-	-	-
10.	Mokashi Printers Pvt. Ltd.	1999	G. No. 87	SSI/ Printing & binding	800 sft	1 / 2	3	N.A. / 1,000,000	-	Winter months	1	-	-	-	-	None	None
11.	Neeraj Enterprises	1998	G.No.255	SSI/Truck Body building	3267 sft	7 / -	7	N.A.	-	Full	1	-	2 Vehicles	Scrap sale	-	-	-

APPENDIX 4-B

Sr. No.	Name of the Industry	Year of Estb.	Location, Gutt No. / S. No. / P. No. / M. No. / H. No.	Scale/ Type of Industry	Land Area	No. of Workers		Invest-ment / Turn-over (Rs.)	Hor-se Po w-er	Work-ing Seaso n in the Year	No. of Work Shift s	Manufa c-turing goods quantit y	Processe d goods quantity	Industria l disposal, if any, & method adopted	Lab-our Hou-sing	Expa - nsion Progr -am, Whe n	Future Land Area, if reqd.
						Skilled / Unskille d	Tota l										
12.	Paramount Engineering works	1997	S.No.90 Jyotibanaga r	SSI / fabricatio n	7200 sft	5 / -	5	N.A.	10	Full	1	-	-	-			
13.	Pawar Electronic	1993	417, Jyotibanaga r	SSI / Electric works	3000 sft	2 / 2	4	N.A.	-	Full	1	-	-	-		None	None
14.	Platinus Engg	1996	255, Jyotibanaga r	SSI / Not Specified	3000 sft	2 / 5	7	N.A.	-	-	1	-	-	Scrap sale	-	None	None
15.	Poona Bearing Industries	1996	G.No.A255	SSI / fabricatio n	8712 sft	8 / 20	28	N.A.	25 H P	Full	1	-	-	Scrap sale	-	-	-
16.	Pragati Rubber Products	1996	90, Jyotibanaga r	SSI / Rubber	500 sft	2 / 2	4	N.A.	-	Full	1	-	-	None	-	None	None
17.	Prakash Auto Pvt. Ltd.	1999	G. No. 90, Nagar Talwade	SSI/ Auto parts	1000 0 sft	2 / 3	5	N.A. / 2,500,0 00	40 HP	Full	1	-	2,000,00 0 parts	Rubber scrap dump	-	-	-
18.	Precision Industries	1997	S.No.90 Jyotibanaga r	SSI / Dies mfg.	300 Sft	3 / 2	5	N.A.	1 HP	Full	1	-	-	-	-	-	-
19.	Priya Enterprises	1997	S.No.90 Jyotibanaga r	SSI / fabricatio n	1000 sq,ft.	N.A.	N.A.	N.A.	60 HP	Full	1	-	-	-	-	-	-
20.	Pune Carbon	1996	255/A Jyotibanaga r	SSI / Carbon brushes	N.A.	4 / 2	6	N.A.	50 HP	Full	1	-	20000 brushes	Dumping of Scrap	-	-	-
21.	S.S. Enterprises	1998	S.No.90 Jyotibanaga r	SSI / Motor re-winding	100 sft	1 / 1	2	N.A.	-	Full	1	-	-	-	-	-	-
22.	Sabari Enterprises	1995	87, Jyotibanaga r	SSI / Turning	1500 sft	5 / 3	8	N.A.	-	Full	1	-	-	None	-	None	None
23.	Sachin Udyog	1983	G.No.252 Jyotibanaga r	SSI /Lathe jobs	520 sft	2 / -	2	N.A.	1 HP	Full	1	20000 items	20000 items	-	-	-	-

APPENDIX 4-B

Sr. No.	Name of the Industry	Year of Estb.	Location, Gutt No. / S. No. / P. No. / M. No. / H. No.	Scale/ Type of Industry	Land Area	No. of Workers		Investment / Turn-over (Rs.)	Horse Power	Working Season in the Year	No. of Work Shifts	Manufac-turing goods quantity	Processed goods quantity	Industrial disposal, if any, & method adopted	Labour Housing	Expan-sion Progr-am, When	Future Land Area, if reqd.
						Skilled / Unskilled	Total										
24.	Shagun Steel	1997	417, Jyotibanagar	SSI / Steel sheets	5000 sft	2 / 4	6	N.A.	-	Full	1	-	-	-	-	None	None
25.	Shree Sai Industries	1993	Jyotibanagar	SSI/ Polythene bags & sheets	5445 sft	11 / 3	14	800,000 / 1,000,000	20 HP	Full	2	4 tons monthly	4 tons monthly	-	-	-	-
26.	Steel Craft India	1994	G.No. 252 Jyotibanagar	SSI /Lathe job work	12000 Sft	1 / 2	3	N.A.	25 HP	8 months	1	-	-	None	-	-	-
27.	Sunil Udyog	-	255, Jyotibanagar	SSI / Mfg. of brakes	6000 sft	3 / 4	7	N.A.	-	Full	1	-	-	Scrap sale	-	None	None
28.	Supreme Stationery Works	1997	90, Jyotibanagar	SSI / Mfg. of Note books	1000 sft	3 / 9	12	N.A.	-	Summer months	1	-	-	None	-	None	None
29.	Suvarna Enterprises	1996	G.No. 255 A	SSI / Control panels	6534 sft	2 / 2	4	N.A.	-	Full	1	-	3 panels	-	-	-	
30.	Suyog Engineering	1984	90, Jyotibanagar	SSI / Auto part mfg.	5445 sft	3 / 5	8	N.A.	-	Winter months	1	Depends order	-	Scrap sale	-	None	None
31.	Swastik Cables	1996	Jyotibanagar	SSI / Cable mfg	800 sft	2 / 3	5	N.A.	-	Full	1	-	-	None	-	None	None
32.	U-Raj Enterprises	1996	Talwade	SSI / fabrication	800 sft	1	2	N.A.	-	No	1	-	-	None	-	None	None
33.	Vishwakarma Enterprises	1995	87, Jyotibanagar	SSI / Press compo-nent	2000 sq.ft	2 / 6	8	N.A.	-	Full	1	-	-	Scrap sale	-	None	None
34.	Yadav Engineering	-	G.No.255	SSI /Lathe motors	N.A.	4 / -	4	N.A.	10 HP	Full	1	-	100 Nos.	Scrap sale	-	-	-
C.	**Name of Village: DIGHI (Remaining)**																

APPENDIX 4-B

Sr. No.	Name of the Industry	Year of Estb.	Location, Gutt No. / S. No. / P. No. / M. No. / H. No.	Scale/ Type of Industry	Land Area	No. of Workers		Investment / Turn-over (Rs.)	Hor-se Power	Working Season in the Year	No. of Work Shifts	Manufac-turing goods quantity	Processed goods quantity	Industrial disposal, if any, & method adopted	Labour Housing	Expa-nsion Progr-am, When	Future Land Area, if reqd.
						Skilled / Unskilled	Total										
1.	Ashirwad Printers	1987	Dighigaon, Dighi	SSI/ Printing	N.A.	- / 2	2	200,000 / 100,000	-	Full	1	-	-	-	-	-	
2.	Aaditya Industries	1997	Dighi	SSI / fabrication	8000 sft	1 / 1	2	N.A.	-	Full	1	-	-	None	-	None	None
3.	Guru Datta Fabricators	1996	Dighi	SSI / fabrication	500 sft	1 / 1	2	N.A.	-	Full	1	-	-	None	-	None	None
4.	Kapila Kadaba Kutti	1984	Dighi-Alandi Road	SSI/ Kadaba Kutti	150 sft	2 / 4	6	800,000	-	Full	-	4000 kgs	400 kgs	-	-	-	-
5.	Sai Fabricator	1997	Dighi	SSI / fabrication	300 sft	1 / 1	2	N.A.	-	Full	1	-	-	None	-	None	None
6.	Yashwant Engineering Works	1993	Pune-Alandi Road	SSI/ Metal fabrication work	700 sft	6 / 2	8	300,000 / 400,000	5HP	Full	1	25000 Nos.	-	-	-	-	-
D.	**Name of Village: DAPODI(Part)**																
1.	Ajay Engravers	1985	34 / 11, Bombay Pune Road	SSI/ Name Plates Engravers	150 sq. ft.	3 / 1	4	N.A.	2 HP	Full	1	-	-	-	-	-	-
2.	AVM Enterprises	1991	34 / 11, Bombay Pune Road	SSI / Service & Job Work	1000 sq. ft.	2 / 1	3	N.A.	4 HP	Full	1	-	200 Nos.	Scrap sale	-	-	-
3.	Basant Engineering & Auto Works	1974	31A/32, Bombay Pune Road	SSI/ Nipple & Flange Stud	400 sft	2 / 4	6	50,000 / N.A.	5 HP	Full	1	-	-	Scrap sale	-	-	-
4.	Channa Udyog	-	30 / A, Bombay Pune Road	SSI /Truck Disk Hub Welding	2000 sq. ft.	1 / -	1	N.A.	30 HP	Full	1	-	-	Scrap sale	-	-	-

APPENDIX 4-B

Sr. No.	Name of the Industry	Year of Estb.	Location, Gutt No. / S. No. / P. No. / M. No. / H. No.	Scale/ Type of Industry	Land Area	No. of Workers		Invest-ment / Turn-over (Rs.)	Hor-se Po w-er	Work-ing Seaso n in the Year	No. of Work Shift s	Manufa c-turing goods quantit y	Processe d goods quantity	Industria l disposal, if any, & method adopted	Lab-our Hou-sing	Expa - nsion Progr -am, Whe n	Future Land Area, if reqd.
						Skilled / Unskille d	Tota l										
5.	Channa Udyog	-	34/11, Bombay Pune Road	SSI/ Grass cutting machine	400 sq. ft.	1 / 4	5	300,000 / 500,000	25		1			Scrap sale & dump			
6.	Deccan Paper Box Mfg. Co.	-	31/1 A, Bombay Pune Road	SSI/ Curruga-ted Boxes	1600 sq. ft.	2 / 8	10	200,000 / 350,000	50 HP	Full	1	-	1 tonnes per day	Waste Paper send for repulping	-	-	-
7.	National Steel Fabrication	-	34 / 11, Bombay Pune Road	SSI/ Spare Parts '& Stone Crusher	5000 sq. ft.	2 / 3	5	N.A.	32 HP	Full	1	-	-	Scrap sale	-	-	-
8.	Nine Star Products	-	34/11, Bombay Pune Road	SSI/ Wooden boxes	5000 sq. ft.	1 / 2	3	200,000 / 250,000	5 HP	Full	1	-	750 Nos. monthly	Bhusa sale	-	-	-
9.	Packwell Corp.	1970	30/A, Bombay Pune Road	SSI/ Wooden boxes	8000 sq. ft.	10 / 5	15	500,000 / 350,000	30 HP	Full		-	70 / 80 Boxes per day	Bhusa sale	-	-	-
10.	Sodhi Engineering Works	1963	31/32 Bombay Pune Road	SSI/ General job Works	500 sq. ft.	- / 2	2	75,000 / 120,000	18. 5 HP	Full	1	-	-	-	-	-	-
11.	Spirex Packaging	1990	89, Bombay Pune Road	SSI/ Round paper containe r s & tubes	600 sq. ft.	3 / 9	12	400,000 / 3,200,0 00	10 HP	Full	1	-	800 Nos. per day	-	-	-	-
E.	Name of Village: MOSHI (Remaining)																
1.	Dhimesh Industries	1998	Near Moshi High School	SSI/ Engg. jobs	300 sft	3 / 1	4	N.A. / 120,000	9 HP	Full	1	6000 parts	-	Scrap sale	-	None	None
2.	Duro Thermoplast & Moulding Ind.	1997	Moshi	SSI / Plastic moulding	2000 sft	1 / -	1	N.A.	-	Full	1	55 Nos.	-	-	-	-	-

APPENDIX 4-B

Sr. No.	Name of the Industry	Year of Estb.	Location, Gutt No. / S. No. / P. No. / M. No. / H. No.	Scale/ Type of Industry	Land Area	No. of Workers		Invest-ment / Turn-over (Rs.)	Hor-se Po w-er	Work-ing Seaso n in the Year	No. of Work Shift s	Manufa c-turing goods quantit y	Processe d goods quantity	Industria l disposal, if any, & method adopted	Lab-our Hou-sing	Expa - nsion Progr -am, Whe n	Future Land Area, if reqd.
						Skilled / Unskille d	Tota l										
3.	Hegde Packaging Pvt.Ltd.	-	Moshi	SSI / Packagin g industry	N.A.	- / 4	4	N.A.	-	Full	1	10 item nos. in a day	-	-	-	-	-
4.	Pooja Industries	1996	Moshi	SSI / Not Specified	600 sft	3	2	N.A.	-	Full	1	500	NA	Scrap sale	-	None	None
F.	**Name of Village: KIWALE (Remaining)**																
1.	Karan Paint Industry	1995	41/B Pendse Colony, Plot No 34	SSI / Paint Industry	6534 sft	2 / 2	4	N.A.	-	Winter month s	1	700 tonnes	35 bags	Stored in bags & disposed	-	-	-
2.	Salami Engineering Co.	1995	41/8 Plot No.35	SSI / Boilers	5445 sft	2 / 1	3	N.A.	-	Sum-mer month s	1	1piece in a month	1 piece in 9 months	-	-	-	-
G.	**Name of Village: CHARHOLI BK. (Remaining)**																
1.	Shivshakti Fabricators	1998	Charholi gaon	SSI / fabricatio n	150 sq. ft.	2 / -	2	N.A.	-	Full	1	-	-	-	-	-	-
2.	Sheetal Fabricators	1994	556, Ward No 5	SSI / Wooden frames & grills	240 sq. ft.	N.A.	N.A.	N.A.	-	Full	1	-	-	-	-	-	-
H.	**Name of Village: CHOVISWADI (Remaining)**																
1.	Shiv Shankar Printing Press	1993	Choviswadi gaon	SSI / Printing press	500 sft	1 / 1	2	N.A.	-	Full	1	-	-	-	-	None	None
I	**Name of Village: WAKAD (Remaining)**																
1.	Tawale Fabrication Works	1994	New Bombay Pune Highway	SSI / fabricatio n work	1000 sq.ft	1 / -	1	N.A.	10 HP	Full	1	-	-	Scrap sale	-	-	-
2.	Balkrishna Tyre Works	1992	New Bombay Pune Highway	SSI / Tyre Re-treading	300 sq. ft.	1 / -	1	N.A.	0.5 HP	FFull	1	-	-	-	-	-	-

APPENDIX 4-C

Total Number of Industries Classified Product Group-wise in the Newly Merged Areas of PCMC

Product Code	Product Group	Number of Industries	Percentage
1.	Food Products, Beverages, Tobacco	31	1.8
2.	Textiles	17	1.0
3.	Wooden & Wooden Products	32	1.8
4.	Paper & Paper Products	21	1.2
5.	Printing	23	1.3
6.	Leather & Leather Products	05	0.3
7.	Chemicals	50	2.9
8.	Rubber & Rubber Products	22	1.3
9.	Plastic & Plastic Products	97	5.6
10.	Glass & Glass Articles	02	0.1
11.	Basic Metal & Alloy Industry	06	0.4
12.	Other Manufacturing, Toys, Candles	-	0.0
13.	Fabrication of Metal Products	1018	59.0
14.	Press Parts	60	3.5
15.	Other Metal Products	03	0.2
16.	Mineral Products	30	1.7
17.	Cement Products	15	0.9
18.	Machinery	129	7.5
19.	Measuring & Testing Equipments	04	0.2
20.	Electrical & Electronic Products	54	3.1
21.	Transport Equipment & Parts	83	4.8
22.	Repairing & Services	8	0.5
23.	Packaging	1	0.0
24.	Not Specified	15	0.9
	TOTAL	**1726**	**100.0**

Product Group-wise Classification of Sample Industries surveyed in Newly Merged Areas of PCMC

Revenue village	Product Code																								Total	%
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
Talwade	0	0	0	1	1	0	0	2	1	0	0	0	9	1	0	0	1	9	0	6	2	0	0	1	34	29.
Chikhali(R)	0	0	1	0	1	0	0	1	1	0	0	0	18	6	4	0	0	18	0	0	2	0	0	1	53	46.
Moshi(R)	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	1	1	4	3.5
Dudulgaon	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Wadmukhwadi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Dighi (R)	0	0	0	0	1	0	0	0	0	0	0	0	3	1	0	0	0	0	0	0	0	0	0	1	6	5.2
Dapodi	0	0	2	2	0	0	0	0	0	0	0	0	5	0	1	0	0	0	0	0	1	0	0	0	11	9.6
Bhosari(R)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Sangavi(A.C.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Pimple Nilakh	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Wakad (R)	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	1.7
Punawale	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Kiwale	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	2	1.7
Mamurdi(R)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Choviswadi	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.9
CharholiBK	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	1.7
Bopkhel(R)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Ravet(R)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Total	**0**	**0**	**4**	**3**	**4**	**0**	**1**	**4**	**3**	**0**	**0**	**0**	**38**	**8**	**5**	**0**	**1**	**28**	**0**	**6**	**5**	**0**	**1**	**4**	**115**	**100**
Percentage	**0**	**0**	**3.**	**2.**	**3.**	**0**	**0.**	**3.**	**2.**	**0.**	**0.**	**0.**	**33**	**7**	**4.**	**0**	**0.**	**24.**	**0**	**5.**	**4.**	**0**	**0.9**	**3.**	**100**	

Details of Educational Facilities within the Newly Merged Areas of PCMC

S. No.	Name of revenue village	Name of School	Location	Year of Estb.	Total Area (sqm)	Whether owned / rented / leased (period)	Students			Playground facility (Available / N.A.)	Remarks
							Boys	Girls	Total		
A.	**Primary Schools**										
1.	Talwade	Primary School	G. No. 418 pt near Gaothan	1918	287	Owned by PCMC	152	154	306	Small ground available	Run by PCMC, no toilets, building of GF height
2.	Talwade	Dnyandeep Vidya Mandir	G. No. 218 pt Rupeenagar	1983	472	Owned by RSPM	335	261	596	Small ground available	Run by Rupeenagar Shikshan Prasarak Mandal (RSPM) from 1st to 4th standard in two shifts, one building of GF height
3.	Talwade	Nav Maharashtra Vidyalaya (morning shift)	G. No. 218 pt Rupeenagar	1991	405	Donated to BES	40	65	105	N. A.	Run by Bhaironath Education Society (BES) from 1st to 4th standard, building of GF height, common premises which includes secondary school
4.	Talwade	Bhagwanti English Medium School	G. No. 205 pt Rupeenagar	1992	108	Owned by Trust	70	40	110	N. A.	Run by Keshwani Trust from 1st to 4th standard, one building of G+2 height
5.	Talwade	Dnyanprabhat Vidya Mandir	G. No. 219 A, Sahyognagar	1993	2024	Owned by BAMP Trust	193	100	293	Small ground available	Run by Dr. Babasaheb Ambedkar Mahatma Phule (BAMP) Trust from 1st to 6th standard in two shifts, one building of GF height
6.	Talwade	Shri Swami Vivekananda Vidyalaya	G. No. 219 B, Sahyognagar	1996	502	Owned by NSM	191	277	468	Small ground available	Run by Navnagar Shikshan Mandal (NSM) from 1st to 4th

APPENDIX 4-E

S. No.	Name of revenue village	Name of School	Location	Year of Estb.	Total Area (sqm)	Whether owned / rented / leased (period)	Students			Playground facility (Available / N.A.)	Remarks
							Boys	Girls	Total		
		(morning shift)									standard, building of G+1 height, common premises which includes secondary school
7.	Talwade	Saraswati English Medium School	G. No. 169 pt Ganeshnagar	1998	4049	Owned by SVCF	41	21	62	Small ground available	Run by Saraswati Vishwavidyalaya Charitable Foundation (SVCF), from 1st standard this year to secondary school in future, one building of GF height
8.	Talwade	Nutan Vidya Mandir (morning shift)	G. No. 162 pt Triveninagar	1988	1518	Owned by NSPM	354	328	682	Small ground available	Run by Shri Narmadeswar Shikshan Prasarak Mandal (NSPM) from 1st to 4th standard, building of G+1 height under construction, common premises which includes secondary school
9.	Talwade	St. Ann's English Medium Primary school	G. No. 155 pt Triveninagar	1991	625	Owned by SAES	115	57	172	Small ground available	Run by St. Ann's education Society (SAES) from 1st to 7th standard, one building of GF and one of G+3 height
10	Chikhali (R)	Primary School	G. No. 1532 pt. Sonvane Vasti	1970	506	Owned by PCMC	10	5	15	Small ground available	Run by PCMC from 1st to 4th standard, one building of GF height
11.	Chikhali (R)	Primary School	G. No. 1419	1964	239	Rented by	294	284	578	N. A.	Run by PCMC from

S. No.	Name of revenue village	Name of School	Location	Year of Estb.	Total Area (sqm)	Whether owned / rented / leased (period)	Students			Playground facility (Available / N.A.)	Remarks
							Boys	Girls	Total		
			pt, 1459 pt Mehetrewadi			PCMC in G. No. 1459 pt and Owned by PCMC in G. No. 1419 pt					1st to 7th standard in two shifts, two buildings of GF height at different locations
12.	Chikhali (R)	Adarsh Vidya Mandir	G. No. 1155 pt & 1156 pt Newale Vasti	1987	506	Private land rented by PCMC	162	117	279	Small ground temporarily available	Run by PCMC from 1st to 7th standard, two buildings of GF height
13.	Chikhali (R)	Primary School	G. No. 721 pt Kudalewadi	1973	193	Owned by PCMC	155	170	325	N. A.	Run by PCMC from 1st to 7th standard in two shifts, one building of GF height
14.	Chikhali (R)	Primary School (extension of main school in old PCMC area)	G. No. 606 pt Jadhavwadi	1967	697	Owned by PCMC	91	99	190	Small ground available	Run by PCMC in two shifts and includes 4th & 5th standard in one building of GF height
15.	Chikhali (R)	Dnyansagar English Medium School	G. No. 1180 pt Ramdasnagar	-	260	Owned by SES	50	13	63	Small ground available	Run by Sharada Education Society (SES) from 1st to 5th standard, one building of GF height
16.	Chikhali (R)	Jeevan Shikshan Mandir School No. 1 (afternoon shift)	G. No. 1181 pt Chikhali	1905	4049	Owned by PCMC	510	-	510	Small ground available for common use of both schools	Run by PCMC in two shifts, common premises, buildings of GF height
17.	Chikhali (R)	Jeevan Shikshan Mandir School No. 2 (morning shift)		1981		Owned by PCMC	-	520	520		
18.	Moshi (R)	School No. 1 (afternoon shift)	Within Moshi Gaothan	1880	8097	Owned by PCMC	436	-	436	Small ground available for common use of both schools	Run by PCMC from 1st to 7th standard , in two shifts, common premises, three buildings of GF height

APPENDIX 4-E

S. No.	Name of revenue village	Name of School	Location	Year of Estb.	Total Area (sqm)	Whether owned / rented / leased (period)	Students			Playground facility (Available / N.A.)	Remarks
							Boys	Girls	Total		
19.	Moshi (R)	School No. 2 (morning shift)		1982			-	432	432		
20.	Dudulgaon	Primary School	Near S-W entry of Gaothan	1946	506	Owned by JSM	33	30	63	Small ground available	Run by Jeevan Shikshan Mandal (JSM), one building of GF height
22.	Dudulgaon	Primary School (1 rented room in one building and 2 rooms in one building owned by PCMC)	G. No. 83 pt, Dhayarkar-wadi	1974	506	One room rented by PCMC and other building owned	16	17	33	Small ground available	Run by PCMC
23.	Dudulgaon	Primary School (for wards of leprosy patients rehabilitated at Anandgram)	G. No. 78 pt Anandgram	1975	225	Encroach-ment on forest land by AS	133	74	207	Small ground available within premises of Society	Run by Anandgram Society (AS) from 1st to 7th standard, one building of G+2 height
24.	Wadmukhwadi	Primary School	S. No. 1 Wadmukh-wadi	1906	1932	Owned by PCMC	127	91	218	Small ground available	Run by PCMC
25.	Wadmukhwadi	Shri Sayajinath Maharaj Vidyalaya	S. No. 80 pt, Wadmukh-wadi	1999	16194	Owned by GSM Trust	249	153	402	Available	Run by Genba Sopanrao Moje (GSM) Trust from 1st to 4th standard, a common building of G+2 height which also includes secondary school
26.	Dighi (R)	School No. 1 (afternoon shift)	Within Dighi Gaothan	1928	396	Owned by PCMC	370	-	370	Small ground available for common use	Run by PCMC, common premises, two buildings of GF height
27.	Dighi (R)	School No. 2 (morning shift)		1988			-	395	395		
28.	Dighi (R)	Smt. Manjari Bai Primary School	S. No. 74 pt Adarshnagar	1994	2323	Owned by SVSPM	149	136	285	Small ground available	Run by Swami Vivekananda Shikshan

APPENDIX 4-E

S. No.	Name of revenue village	Name of School	Location	Year of Estb.	Total Area (sqm)	Whether owned / rented / leased (period)	Students			Playground facility (Available / N.A.)	Remarks
							Boys	Girls	Total		
											Prasarak Mandal (SVSPM) from 1st to 6th standard, one building of GF and one of G+1 height
29.	Dighi (R)	Little Angels Public School	S. No. 18 pt. Dighi	1988		Privately Owned	25	20	45	N. A.	Run by a private owner from 1st to 5th standard, one building of GF height
30. to 36.	Dapodi	Hutatma Bhagatsingh Vidya Mandir (7 numbers of Primary Schools in common premises)	S. No. 85 A. ST Workshop Road	1955	4049	Owned by PCMC	-	-	3049	Small courtyard of about 800 sqm used as ground	Run by PCMC in three buildings of G+2 height, toilet facility is not properly maintained, school is run in morning shift for girls and afternoon shift for boys)
37.	Dapodi	Blossom English Medium Primary School (school is run in morning shift for girls and afternoon shift for boys)	S. No. 87/1, Near ST Workshop Compound	1952	4049	Owned by JSS	-	-	800	A plot of 1810.5 sqm donated for play ground use for 51 years from 1998, on adjacent S. No. 86 A within the green belt zone	Run by Janata Shikshan Sanstha (JSS), building height of single floor, toilet facility is not provided in the school building but is encroached in the school premises within the green belt zone, school premises also includes one Secondary School & Jr. College and one Sr. College for Commerce

APPENDIX 4-E

S. No.	Name of revenue village	Name of School	Location	Year of Estb.	Total Area (sqm)	Whether owned / rented / leased (period)	Students			Playground facility (Available / N.A.)	Remarks
							Boys	Girls	Total		
											& Arts)
38.	Bhosari (R)	Lokmanya Bal Gangadhar Tilak Prathmik Vidyalaya (morning shift)	S. No. 387 pt, 388 pt, Phugewadi	1979	6000	Owned by PCMC	-	324	324	Small ground available for common use	Run by PCMC from 1st to 7th standard in each school, common premises which includes secondary school, attached buildings of G+1 to G+2 height
39.	Bhosari (R)	Lokmanya Bal Gangadhar Tilak Prathmik Vidyalaya (afternoon shift)		1978			363	-	363		
40.	Bhosari (R)	Lokmanya Bal Gangadhar Tilak Prathmik Vidyalaya (Gujrati Medium)		1964			49	44	93		
41.	Sangavi (ACH)	School No. 1	S. No. 54 pt Behind main ACH building	1966	301	Rented by PCMC from State PWD	375	-	375	Small ground available within ACH premises	Run by PCMC, common premises, one building of GF height
42.	Sangavi (ACH)	School No. 2		1966			-	375	375		
43.	Wakad (R)	Primary School	S. No. 138 pt Bhumikar Vasti	1958	929	Owned by PCMC	262	194	456	Small ground available	Run by PCMC from 1st to 7th standard, one building of GF height
44.	Wakad (R)	School No. 1 (afternoon shift)	S. No. 1 pt, Wakad	1949	2400	Owned by PCMC	440	-	440	Small ground available	Run by PCMC in a common building of G+2 height, common premises includes a secondary school building
45.	Wakad (R)	School No. 2 (morning shift)	S. No. 1 pt, Wakad	1992			-	390	390		

APPENDIX 4-E

S. No.	Name of revenue village	Name of School	Location	Year of Estb.	Total Area (sqm)	Whether owned / rented / leased (period)	Students			Playground facility (Available / N.A.)	Remarks
							Boys	Girls	Total		
46.	Punawale	Primary School	Near S-W entry to Gaothan	1882	405	Owned by PCMC	277	210	487	Small ground available	Run by PCMC in two shifts, one building of GF height
47.	Punawale	Primary School	S. No. 43 pt, Malwadi	1964	261	Owned by PCMC	45	50	95	N.A.	Run by PCMC from 1st to 4th standard, one building of GF height which houses a temple
48.	Kiwale	Jeevan Shikshan Mandir	S. No. 89 pt Kiwale	1934	11500	Owned by PCMC	132	147	279	Available	Run by PCMC, one building of GF height
49.	Kiwale	Wisdom English Medium School	S. No. 43 pt Vikasnagar	1994	1012	Donated to SIA	225	202	407	Small ground available	Run by South Indian Association (SIA) from 1st to 6th standard, one building of G+1 height
50.	Kiwale	Primary School	S. No. 43 pt. Vikasnagar	1967	708	Owned by PCMC	242	203	445	Small ground available	Run by PCMC from 1st to 7th standard in two shifts, one building of GF height
51.	Kiwale	Dnyanjyoti Vidya Mandir	S. No. 40 pt Vikasnagar	1990	202	Rented by DEA	-	-	386	N.A.	Run by Dnyanjyoti Education Association (DEA) from 1st to 7th Standard, one building of G+1height
52.	Choviswadi (R)	Primary School	S. No. 195 pt Choviswadi	1920	1325	Owned by PCMC	118	105	223	Small ground available	Run by PCMC, three buildings of GF height
53.	Charholi BK (R)	Primary School	S. No. 470 pt Behind Main Bus Stop	1868	2550	Owned by PCMC	226	181	407	Available	Run by PCMC, no toilets and water facility, one building of GF height
54.	Charholi BK (R)	Primary School	S. No. 161 pt, 168 pt Burde Vasti	1949	570	Owned by PCMC	40	40	80	Small ground available	Run by PCMC from 1st to 4th standard, one building of GF height
55.	Charholi BK	Primary School	S. No. 486 pt	1952	405	Owned by	20	19	39	N. A.	Run by PCMC, two

APPENDIX 4-E

S. No.	Name of revenue village	Name of School	Location	Year of Estb.	Total Area (sqm)	Whether owned / rented / leased (period)	Students			Playground facility (Available / N.A.)	Remarks
							Boys	Girls	Total		
	(R)		Kaljewadi			PCMC					buildings of GF height
56.	Charholi BK (R)	Primary School	S. No. 429 pt Tajnemala	1976	44	Owned by PCMC	18	13	31	N.A.	Run by PCMC from 1st to 4th standard, one building of GF height
57.	Charholi BK (R)	Primary School	S. No. 378 pt Patharmala	1965	128	Owned by PCMC	31	23	54	N.A. (nearby village land is used)	Run by PCMC from 1st to 4th standard, one building of GF height
58.	Bopkhel (R)	School No. 1 (Afternoon Shift)	Near N-W entry to Gaothan	1933	2346	Owned by PCMC	510	-	510	Small ground available	Run by PCMC from 1st to 7th Standard in common premises, three buildings of GF height
59.	Bopkhel (R)	School No. 2 (Morning Shift)		-			-	560	560		
60.	Ravet (R)	Primary School (Extension of Main School in S. No. 224 pt)	S. No. 4 pt. Milkat No. 5, Ravet (Near western entry to Gaothan)	1996	190	Donated to PCMC	77	81	158	Small ground available	Run by PCMC in one shift for standard 1st, and 5th to 7th, one building of GF height
B.	**Secondary Schools**										
1.	Talwade	Smt. Seshabai Devrao Gange Prashala (afternoon shift)	S. No. 162 pt Triveninagar	1988	1518	Owned by NSPM	667	600	1267	Small ground available	Run by Shri Narmadeswar Shikshan Prasarak Mandal (NSPM) from 5th to 10th standard, building of G+1 height under construction, common premises which includes primary school
2.	Talwade	Dnyandeep Vidyalaya	G. No. 203 pt and 205 pt , Rupeenagar	1990	4352 (=2733 +1619)	Owned by RSPM	536	406	942	Small ground available for common use	Run by Rupeenagar Shikshan Prasarak Mandal (RSPM) from 5th to 10th standard, one building of G+3

APPENDIX 4-E

S. No.	Name of revenue village	Name of School	Location	Year of Estb.	Total Area (sqm)	Whether owned / rented / leased (period)	Students			Playground facility (Available / N.A.)	Remarks
							Boys	Girls	Total		
											height, common premises which includes a higher secondary school
3.	Talwade	Nav Maharashtra Vidyalaya (afternoon shift)	G. No. 218 pt Rupeenagar	1991	405	Donated to BES	67	100	167	N. A.	Run by Bhaironath Education Society (BES) from 5th to 10th standard, building of GF height, common premises which includes primary school
4.	Talwade	Shri Swami Vivekananda Vidyalaya (afternoon shift)	G. No. 219 B, Sahyognagar	1996	502	Owned by NSM	387	286	673	Small ground available	Run by Navnagar Shikshan Mandal (NSM) from 5th to 10th standard, building of G+1 height, common premises which includes primary school
5.	Chikhali (R)	Shri Nageshwar Vidyalaya	G. No. 1653 pt, Chikhali	1987	25000	Owned by Pune Zilla Shikshan Mandal	470	389	859		Run by Pune Zilla Shikshan Mandal
6.	Moshi (R)	Shri Nageshwar Vidyalaya	S. No. 33pt, 44 pt, Moshi	1967	3845	Rented by Pune Zilla Shikshan Mandal	850	551	1401	Available	Run by Pune Zilla Shikshan Mandal
7.	Dighi (R)	Ramchandra Gaikwad Madhyamik Vidyalaya (Marathi	S. No. 2 pt, Dighi	1997	2024	Private land rented	200	180	380	Available	Run by Navjeevan Shikshan Sanstha

APPENDIX 4-E

S. No.	Name of revenue village	Name of School	Location	Year of Estb.	Total Area (sqm)	Whether owned / rented / leased (period)	Students			Playground facility (Available / N.A.)	Remarks
							Boys	Girls	Total		
		medium)									
8.	Dapodi	Swami Vivekananda Vidya Mandir & Kanistha Mahavidyalaya (school is run in morning shift for girls and afternoon shift for boys)	S. No. 87/1, Near ST Workshop Compound	1952	4049	Owned by Janata Shikshan Sanstha	-	-	5000 appro -xim- ately	A plot of 1810.5 sqm donated for play ground use for 51 years from 1998, on adjacent S. No. 86 A within the green belt zone	Run by Janata Shikshan Sanstha, building height – G+3, toilet facility is not provided in the school building but is encroached in the school premises within the green belt zone, school premises also includes one primary school and one Sr. College for Commerce & Arts)
9.	Bhosari (R)	Lokmanya Bal Gangadhar Tilak Primary & Madhyamik Vidyalaya	S. No. 387 pt, 388 pt., Phugewadi	1983	6000	Owned by PCMC	118	205	223	Small ground available for common use	Run by PCMC from 8th to 10th standard, common premises which includes 3 primary schools, runs on 1st floor of attached buildings of G+1 to G+2 height
10.	Sangavi (ACH)	Madhyamik Vidyalaya	S. No. 54 pt Behind main ACH building	1962	439	Rented by PDEA from PWD-	-	-	2500 (appr ox.)	Small ground available	Run by Pune District Education Association (PDEA), to buildings of GF height
11.	Sangavi (ACH)	B. R. Gholap Secondary & Higher Secondary School	S. No. 54 pt Behind main ACH building	1960	12146	Owned by PDEA	1900	1400	3300	Available for common use	Run by Pune District Education Association (PDEA) from 5th to 12th standard in two shifts, one building of G+2 height in a

S. No.	Name of revenue village	Name of School	Location	Year of Estb.	Total Area (sqm)	Whether owned / rented / leased (period)	Students			Playground facility (Available / N.A.)	Remarks
							Boys	Girls	Total		
											common premise which includes a college
12.	Wakad (R)	Madhyamik Vidyalaya	S. No. 1 pt, near entry to Gaothan	1990	2400	Owned by PCMC	193	149	342	Small ground available for common use	Run by PCMC, one building of G+2 height in a common premises which includes primary school
13.	Wakad (R)	The Good Samaritan School	S. No. 130 pt	1982	13050	Privately Owned	662	455	1117	Small ground available plus computer and laboratory facility	Run by Good Samaritan Educational Trust
14.	Kiwale	Shri. Kandherai Pratisthan Madhyamik Vidyalaya	S. No. 83 pt, Sandbhor Vasti, Near Mumbai-Bangalore Highway	1997	1114	Owned by Kandherai Pratisthan	90	60	150	Small ground available	Run by Kandherai Pratisthan from 5th to 10th Standard in Marathi medium, one building of ground floor height
15.	Charholi BK. (R)	Shri Wagheshwar Secondary & Higher Secondary School	S. No. 470 pt Charholi BK.	1967	10000	Owned by PZSM	871	713	1548	Small ground available	Run by Pune Zilla Shikshan Mandal (PZSM) from 5th – 12th standard, three buildings of GF, G+1 and G+2 height
16.	Bopkhel (R)	Madhyamik Vidyalaya	S. No. 154 pt Bopkhel	1994	1316	Owned by YES Trust	100	100	200	Small ground available	Run by Yogeshwar Education Society (YES), from 5th to 10th Standard, one building of ground floor height
C.	**Colleges**										
1.	Talwade	Dyandeep higher secondary	G. No. 203 pt, 205 pt,	1999	4352 (=2733	Owned by RSPM	12	18	30	Small ground available for	Run by Rupeenagar Shikshan Prasarak

APPENDIX 4-E

S. No.	Name of revenue village	Name of School	Location	Year of Estb.	Total Area (sqm)	Whether owned / rented / leased (period)	Students			Playground facility (Available / N.A.)	Remarks
							Boys	Girls	Total		
		School	Rupeenagar		+1619)					common use	Mandal (RSPM) from 11th standard, one building of G+3 height, common premises which includes a secondary school
2.	Dapodi	Smt. Chandrakala Kishorilal Goyal Mahavidyalaya (Sr. College for Commerce & Arts)	S. No. 87/1, Near ST Workshop Compound	1952	4049	Owned by Janata Shikshan Sanstha	-	-	1200 appro -xim- ately	A plot of 1810.5 sqm donated for play ground use for 51 years from 1998, on adjacent S. No. 86 A within the green belt zone	Run by Janata Shikshan Sanstha, building height – G+3, toilet facility is not provided in the school building but is encroached in the school premises within the green belt zone, school premises also includes one primary school and one Secondary School & Jr. college)
3.	Sangavi (ACH)	Baburaoji Gholap College (Fields of Arts, Commerce, Science, BCS, DBM, and DCM)	Behind main ACH building	1989	12146	Owned by PDEA	800	700	1500	Available for common use	Run by Pune District Education Association (PDEA) in two shifts, one building of G+2 height in a common premise which includes a secondary school

List of Participation in NGT Session

The following participants attended the NGT sessions held at TCS on 4 June 1999:

NGT Session I:

1. Mr. J. G. Keskar, Ex-Director, Town Planning, Maharashtra State Town Planning Department, Advisor to IIIE, Pune
2. Mr. B. V. Kolatkar, Deputy Director, Town Planning (Urban Research Cell), Maharashtra State Town Planning Department, Pune
3. Mr. S. D. Landge, Deputy Director, Town Planning, Pimpri-Chinchwad Municipal Corporation, Pune
4. Mr. P. V. Shiralkar, Ex-Deputy Director, Town Planning, Maharashtra State Town Planning Department, Advisor to TCS, Pune
5. Mr. Madhav Joshi, Architect-Planner, Christopher Charles Benninger & Associates (CCBA)
6. Mr. D. S. Shirole, Chairman, Builders Association of India, Pune Center
7. Mr. G. V. Zunjarwad, Additional City Engineer, Pimpri-Chinchwad Municipal Corporation, Pune
8. Mr. S. C. Uttinkar, Executive Engineer, Maharashtra Industrial Development Corporation, Pune
9. Mr. P. G. Deogiri, Executive Engineer (E&M Division), Maharashtra Industrial Development Corporation, Pune

NGT Session II:

1. Mr. A. V. Chavan, Executive Engineer, Pimpri-Chinchwad Municipal Corporation, Pune
2. Mr. S. M. Lokhande, Deputy Engineer, Pimpri-Chinchwad Municipal Corporation, Pune
3. Mr. S. S. Sambhus, Town Planning Department (J/C), Pimpri-Chinchwad New Town Development Authority, Pune
4. Mr. D. G. Raole, Architect, Pune Housing and Area Development Board (A division of MHADA), Pune
5. Mr. H. C. Natu, Senior Assistant Secretary, Mahratta Chamber of Commerce, Industries and Agriculture, Pune
6. Mr. M. D, Jhambekar, Director (ATSS) and Secretary, Mahratta Chamber of Commerce, Industries and Agriculture, Chinchwad Branch, Pune
7. Dr. S. M. Godbole, Geologist (Senior), Geological Survey of India, Pune
8. Mr. Sharad Mahajan, Architect-Planner, Maharashtra Social Housing & Action League (an NGO), Pune
9. Mr. K. A. Shinde, Architect-Planner, India International Infrastructure Engineers, Pune.

NGT Session I: Participants' Inputs

The ideas / opinions expressed during the NGT Session I are listed below:

1. The existing PCMC DP should be and reviewed and a comprehensive structure plan for newly merged area should be prepared. There should be co-ordination between existing plans and proposals for new DP.
2. Proposals should be implementation oriented.
3. Planning for these merged villages should not be carried out in an isolated manner, but in congruence with Pune urban agglomeration.
4. Population density is likely to be low and growth of the city should be more horizontal than vertical.
5. Planning should be undertaken in a homogenous unit and integrated with other planning authorities.
6. Population projection should take into consideration the migration trend.
7. Villages should be developed as satellite towns, connected and linked with the core area through efficient road network.
8. Quantitative assessment of potential in the new area must be carried out to sustain proposed development.
9. Zoning proposals should be liberal and not strictly as per recognised density pattern so as to avoid unauthorised development.
10. No agriculture zone and no development zone should not be included in a town plan (agriculture land-use can be permitted to continue).
11. Development control regulation should provide a list of 'NOs' rather than "what is permitted".
12. Availability of drinking water over a long run should govern the sustainability of future development.
13. Majority of resident population is likely to be of MIG type.
14. Industrial growth should not be permitted in these areas (polluting and heavy electricity consuming units should not be allowed within earmarked zone).
15. The proposal should focus on comprehensive development of the area's hinterland. Natural resources and geography of land should be explored to develop the hinterland as centre for economic growth.
16. There should be maximum utilisation of land owned by planning authority and the government. Lands belonging to the planning authority and the government should be utilized for implementing the planning proposals, so as to avoid acquisition of private land.
17. Planning inputs should result in adequate employment generation in consumer-oriented and clean industries.
18. Proposals designating areas for software technological park, etc., may be considered.
19. A major traffic corridor should be planned for the newly merged villages.
20. Infrastructure development should be implemented within two years of sanctioning of the DP. Adequate land should be designated and adequate resources should be invested in

infrastructural facilities in advance or immediately after implementation of the DP begins.

21. Reasonable rates should be considered for payment towards land acquired for implementation of DP, to avoid delays in acquisition and development.
22. Planning standards should be reviewed to achieve the realistic projections.
23. Pune and PCMC area is expected to achieve international status and therefore critical inputs for improvement should be identified and included in the DP.
24. The feasibility of numerical reservation for acquiring land should be explored.
25. Air and water pollution should be controlled and environmental quality should be maintained for common good.
26. The involvement of Financial Institutions in providing investments for faster development should be explored.
27. The period between proposing and sanctioning of plans should be reduced and proper phasing should be done. Action plans should be prepared and monitored.
28. Plans should be self-financing. Current instruments should be examined.
29. River front areas should be explored for recreational facilities.
30. 30% of area might get occupied by slums in the future. Allocation of lands for EWS housing and informal sector activities should be made.
31. Assess the percentage of population and activities respectively, that is required for EWS and informal sectors.
32. Ring road can be provided for internal circulation so as to avail six-seater rickshaw.

NGT Session II: Participants' Inputs

The ideas / opinions as discussed during the NGT Session II are listed below:

1. Water supply and drainage pipelines should be adequately provided, permanent digs should be provided for network services, positioning of electric wires and tree plantation should be done in a co-ordinated manner.
2. The plan prepared by MIDC should be considered during preparation of DP. Urban planning and industrial planning should go hand in hand.
3. Adequate land should be earmarked for composite housing to be developed by public agencies.
4. Land reservation for primary schools, high schools should adjoin reservation for gardens and open space.
5. Existing gravel (kutcha) roads should be developed into pucca roads with sufficient width.
6. Zoning should ensure minimum air, water and land pollution.
7. Area should be earmarked to develop small service plots.
8. Zoning in the DP should take into account the geological and geomorphological characteristics of the area.
9. Hospitals with 25-100 beds should be provided in the newly merged areas.
10. Permanent area for exhibitions etc., should be provided.
11. Responsibilities for housing development with yearly targets should be given to the concerned agencies based on their capabilities.

12. Sites reserved for local commercial use should also include adequate parking space, to avoid separate parking proposals.
13. City survey details where available should be incorporated in the DP.
14. Ring road or ring rail may be provided.
15. GIS based planning and administration systems should be considered.
16. Land-use maps should be prepared using satellite imagery and should identify sites for landfills and waste disposal.
17. Educational / training institutions should be given land at a lesser rate, since PCMC is an automobile city.
18. The DP for newly merged area should be consistent with the existing land-use patterns of PCMC area.
19. Proper site inspection should be done while preparing the proposals of the DP.
20. Appropriate area should be earmarked for slaughter house.
21. For the implementation of the DP, T.P schemes which would avoid inter personal inequality should be prepared.
22. Environmental plan adhering to environmental norms should be prepared. This should include periodic environmental appraisals.
23. Urban aesthetics (signboards, etc.) should be considered.
24. Planning zones should be in terms of units of "neighbourhood".
25. Environment-friendly river-front development by private sector should be considered.
26. Mixed use of land may be considered for SSI, service and non-polluting units.
27. Population projections should take projected industrial growth into consideration.
28. Land developers should be required to surrender a portion of their land to the planning authority. This land may be reserved at a later date.
29. Flexible planning standards may be adopted based on socio-economic conditions.
30. Higher order social facilities may be provided.

Stakeholders and their needs

Stakeholders	Needs
Household (Residents of)	
Newly merged area of PCMC	Economic • Adequate employment opportunities • Market rates to be paid as compensation for acquired land Housing • Affordable housing • Eviction of unauthorised / hazardous activities in residential areas • Not to permit any polluting or heavy power consuming industrial activity in the development zones Physical Infrastructure • In-house water connections / community taps with adequate and regular water supply • Adequate and clean drainage & sewerage system • Adequate, proper and clean public toilet facilities • Potable / treated water to avoid water borne diseases • Adequate bins and regular collection of solid waste • Regular and normal power supply • Provision and maintenance of street lights Roads and Transportation • Accessibility through pucca streets of adequate widths and levels • Adequate bus routes / services within Pimpri-Chinchwad & outside • Bus shelters at appropriate distance Education • Nursery / primary schools in the area • Secondary schools and higher education facility • Vocational training facilities Health • Elimination of pig and stray animal nuisance • Control over mosquito menace • Adequate no. of government primary health centers / sub-centers • Government hospital for all sections of society Other community facilities (easy access to) • Formal shopping facilities at appropriate locations • Vegatable and fruit market (Mandai) at appropriate locations

Stakeholders	Needs
	• Meat market / Slaughter house at appropriate locations • Parks & playgrounds and recreational facilities • Community halls and library • Post & Telegraph facilities • Petrol pumps at appropriate locations • PCOs / STDs at appropriate locations • Banks in the vicinity • Police Out-posts / Station at appropriate locations • PCMC zonal offices at appropriate locations Environment • Reduction in noise pollution • Reduction in air pollution
Areas surrounding newly merged areas	• Development in the new merged areas should not adversely change land values in the existing PCMC area • Pressure on services should not be transferred to old PCMC area • New area should provide employment opportunities. • New area should provide social infrastructure of higher order (like hospitals, higher education facilities) • New traffic corridors should facilitate smooth and safe traffic flow and transport service • Good quality of water should be maintained in Indrayani, Pawna and Mula rivers
Future settlers in new PCMC area	• Employment opportunities • Affordable housing and services • Safe and healthy living environment • Efficient transportation communication network
Floating Population	
Through traffic	• Smooth flow of traffic • Way side complexes with resting facilities and others like drinking water and sanitation, parking, petrol pumps, restaurants, first-aid treatment and emergency medical facilities, facility to transport critically injured to hospitals, telecommunication and Repair garages at convenient locations • Highway patrolling • Toll, if any, should be at affordable rate • Reduce delays at entry/check points
Work force	• Fast transport from and to surrounding locations • Facilities for drinking water and sanitation, parking, petrol pumps, restaurants, first-aid treatment, facility to transport severely injured to hospitals, telecommunication and Repair garages at convenient locations

Stakeholders	Needs
Others (for education, shopping, recreation etc.,)	• Fast transport from and to surrounding locations • Facilities for drinking water and sanitation, parking, petrol pumps, restaurants, first-aid treatment, facility to transport severely injured to hospitals, telecommunication and repair garages and recreation at convenient locations
Administrative Authorities	
PCMC	• Develop the region with an international image. • Coordination between existing plans and proposals for new development plan • Obtain timely sanctioning of development plan proposals • Smooth acquisition of land for development purposes • Avail investments (from Govt. of India, State Govt., private sector and self-finance) for implementing the plan • Timely payment of taxes by users of services • Co-ordination with other authorities for implementation of development plan and other municipal functions • Public co-operation and participation for developmental purposes • Adequate manpower and machinery to perform municipal functions effectively • Agencies should intimate PCMC, in advance, about the land and other requirements • Other agencies, for whom land was reserved, should acquire and utilise the land within stipulated timeframe. • Transfer of ownership of land and infrastructure by authorities like Zilla Parishad and Gram Panchayats to PCMC
Others (PCNTDA, MIDC, State Town Planning Department)	• Integrated planning of PCMC areas under Pune urban agglomeration context • Preparation and implementation of PCMC DP for the newly merged areas should be in line with the framework of plan proposals for Pune Metropolitan Region • Appropriate Planning standards should be adopted for provision of land and services • Co-ordination with PCMC and other authorities for implementation of development plan and other municipal functions • Smooth acquisition of land for development purposes
Other (PMC, Alandi Municipal Council and Dehu Road Cantonment Board / Station head quarters, Dehu road, Station Head Quarters,	• Integrated planning of PCMC areas under Pune urban agglomeration context • No development zones should be earmarked as per the requirements of the defence authorities (like Red Zone near Dighi magazine) • No sites to be designated for solid waste disposal, if they

Stakeholders	Needs
Khadki / CME & Bombay Engineers Group, Ammunition Factory, Khadki, Indian Air Force, Military Farm)	fall under the flight paths of the defence or civil aviation • Co-ordination with PCMC and other authorities for implementation of development plan and other municipal functions
Other institutions (PWD, MSEB, Telecom, P& T, Police, Central Railway, PMT, PCMT, MSRDC, State Forestry Department, and Industrial, Medical Financial, Educational, Religious and Private agencies / service providers, NGOs)	• Land should be designated for future development on which concerned agencies would provide infrastructure facilities • PCMC should provide developed land with basic infrastructure and services • PCMC should charge for the provision of basic services at appropriate rates • Co-ordination with PCMC and other authorities for implementation of development plan and other municipal functions • Smooth acquisition of land for development purposes • Payment of timely and correct charges by users of services • Timely approval of plans and schemes for development • PCMC to assist in eviction of encroached establishments / settlements
Govt. of Maharashtra (including Collectorate)	• Reasonable rates to be paid as compensation for acquired land • Co-ordination with PCMC and other authorities for implementation of development plan and other administrative functions • Ensure that allocated funds are consumed as approved and utilised appropriately, within stipulated time. • Ensure that urban basic minimum services are planned and provided • Assess the municipal funding requirements.
Govt. of India	• Ensure that allocated funds are consumed as approved and utilised appropriately, within stipulated time • Ensure that urban basic minimum services are planned and provided

APPENDIX 5-D

The list of Alterables and Constraints for the local bodies in the areas of PCMC

Alterables	Constraints
• Provision for environment friendly industries in residential areas • Provision of incentives (additional FSI etc.) for surrendering land for development • Composite housing with allocation for EWS • Low cost housing • Resettlement of hazardous activities to identified spot zones • Appropriate zoning for development with transportation network • Provision of community facilities at appropriate locations. • Localised sources for water supply • Public awareness • Widening of roads, where ever possible • Involvement of private sector in provision of services. • Mitigate pollution at source of generation • Creating an Investor friendly environment • Creation of Metropolitan Planning Committee (MPC) • Adoptation of modern techniques of land acquisition and development • Availing finance under permissible credit instruments • Channelisation of funding requirements through State Finance Commission (SFC) • Effective mechanism to recover taxes. • Use of RS and GIS technology for municipal administration • Effective administrative structure to ensure proper utilisation of resources and auditing. • Training and skill upgradation • Single window administrative clearance system • Timely information on requirements that are to be planned.	• Level of productivity • Scope for industrial development (as per PMR plan) • Government approved rates for compensation • High land values • Availability of land and other resources • Political and legal issues involved in eviction of unauthorised activities • Informal sector growth • Spread of squatter settlements. • Organic growth of settlements in the past • Inaccessible locations and passages to carry services network. • Availability of infrastructure for providing services. • Topographical conditions • Treatment at sources • Toll calculated on rate of returns on investment • Existing Administrative procedures • Existing pace of liberalisation • Compatibility of planned projections • Existing land acquisition procedures • Non-availability of finance on time. • Existing level of Enforcement • Training

Assumptions for Population Projection

- The population of village Dapodi, earlier within the limits of Pune Municipal Corporation (PMC) for the years 1971 and 1981 has been deduced from the Census data based on the information provided by the Election Department of PMC, vide their letter number EO/57, dated 01-07-1999. The population of Dapodi in 1971 is 13492 souls. This includes one-third population of ward number 12 and one-half of ward-number 13. Similarly, the population of Dapodi in 1981 is 21343 souls, which includes the total population of ward number 1 and one-half of ward-number 2.

- Due to non-availability of any population records in the Rakshak Co-operative Housing Society Private Limited (a part of Pimple Nilakh village) in the past, the population figure for 2001 and beyond is worked out on the basis of the total number of plots available for residential use and the present occupation of plots. Till date in 1999, 63 houses have been constructed, 7 are under construction and 27 are vacant out of a total 97 plots for residential use in the housing society. It is assumed that about 70 (an addition of about 10 percent over present figures) houses will be ready by 2001, and hence at the rate of 5 persons per household, the population would be 350 souls. By 2011, it is assumed that even if all the 97 plots are occupied, the population would be nearly 500 souls. By 2021, the population is assumed to remain constant due to the saturated capacity of land.

- Similarly, due to non-availability of any record of decadal population in the Aundh Chest Hospital Complex at Sangavi village in the past, the population figure for 2001 and beyond is worked out on the basis of the total sanctioned staff and the number of tenements available. At present 568 tenements are available and at the rate of 4.2 persons per household as observed in the sample survey, the population for 2001 could be assumed as 2386. The sanctioned total staff strength of the two hospitals within the complex is about 788 and if all of them are assumed to be accommodated within the complex by 2011, then the population even at a higher rate of 5 persons per household would be 3940. By 2021, the population is assumed to remain constant due to the saturated capacity of land and staff provision.

- In the remaining portion of the Wakad village, there are about 850 residential structures as observed in the ELU survey and hence even at a higher rate of 5 persons per household the population in Wakad is worked out to be 4250 persons at present. After 1991 as spill over population is growing considerably another 40% could be added for growth in the next two years for 2001, which totals to a population of 6000 persons.

- Similarly, in the remaining portion of the Mamurdi village about 585 residential structures are observed in the ELU survey, and hence at the rate of 5 persons per household, the population would be 2925. Another 15% could be added for growth in the next two years for 2001, thus the estimated population will be around 3400 souls.

DEVELOPMENT CONTROL RULES

The government has recently sanctioned the Development plan of the old PCMC area. The report of the said sanctioned development plan contains a set of regulations according to which the development within the area is expected to be controlled. With a view to maintain uniformity in the rules and regulations within the entire area of the planning authority, it has been considered proper to follow the same set of regulations (as may be modified from time to time) with slight modification in respect of T. D. R. zones as described below, to the newly merged villages constituting the present planning area.

Transferable development Rights (TDR).

Regulations for the grant of Transferable Development Rights (TDR's) to owners / developers and conditions for grant of such rights.

The owner of a plot of land which is reserved for a public purpose in the development plan shall be eligible for the award for Transferable Development Rights (TDRs) in the form of Floor Space Index (F.S.I). The area under jurisdiction of the Pimpri Chinchwad Municipal Corporation (including the present planning area, comprising of the newly merged villages) is divided into three zones i.e. A, B and C. The entire newly merged area, including the area of village Dapodi accordingly falls in Zone C. However, all the congested areas, within the present planning area, will fall in zone 'A' for the purpose of dealing with TDR proposals. MAP # Such award will entitle the owner of the land of F.S.I. in the form of Development Right Certificate (D.R.C.) which he may use for himself or transfer to any other person in the manner set out in the sanctioned set of development control rules of the old area of PCMC.

9A.1 Planning Standards adopted for the purpose of Present Development Plan

The Government of Maharashtra state has prescribed various planning standards for formulation of development plan proposals by a planning authority, through a circular numbered TPS 3674 / 18773 / UD-5, dated 15-06-1979. These standards or norms are basically generalised having been formulated two decades ago and have not taken due cognisance of the changing sizes of towns and cities, their character, etc. While adopting these standards, it is therefore necessary to suitably modify them to suit the size and the particular character of the town for which the development plan is being prepared.

9A.2 Recreational and Open spaces

The provision of recreational spaces include public parks, playgrounds and miscellaneous open spaces in addition to playgrounds attached to schools as also regional or national parks, nature reserves, places of scenic beauty, lakes, rivers and other water bodies. The standards for the provision of such open spaces shall be as under:

- The present planning standard prescribed by the state government in 1979 viz. 0.20 hectares per 1000 population for garden / park and 0.4 hectares per 1000 population for playground appears to be on the higher side. As a result most of the sites normally remain unimplemented at the end of the plan period. Sites of very small sizes of a few hundred square meters or so located in a scattered manner for tot-lots or children's park are not useful from the utility point of view. These sites are most likely to be misused (like, dumping household waste or katchra or encroachment, etc.) in absence of proper control. In these circumstances, the modification proposed by the Directorate of Town Planning to the state government in 1998 suggesting that a 2 hectare site for a garden / park for 25,000 population and a 2 hectare site for playground for 50,000 population appears to be quite reasonable and useful from the utility point of view. The layout open spaces could be used for the purpose of children's park, children's playground etc., and therefore no separate reservations for such small area sites are considered necessary.
- For a population size of more than 25,000 the provision of garden / park and playground could be raised by additional 2 hectare sites proportionately. In respect of those planning units having population less than 25,000, a garden site of 0.5 hectare and those having population less than 50,000 a playground site of 0.5 hectare may also be necessary. These sites as far as possible should be provided near the existing development to ensure their proper utilisation when developed.

- To encourage positive use of open spaces reserved in residential layouts, buildings for recreational purposes may be permitted to the extent of not more than $1/10^{th}$ of the total area of such reservation. Pre-nursery or Kindergarten schools (Balwadi) may also be permitted in such open spaces.

All the above reservations should be made in addition to the open spaces available within the layouts of private lands.

9A.3 Educational Facilities

The provision of educational facilities shall be made as under:

- The state government's circular (1979) and the new proposal sent by the Directorate of Town planning on planning standards does not prescribe the standards to be adopted for provision of pre-primary nursery or kindergarten schools. The UDPFI guidelines (1996) of Ministry of Urban Affairs & Employment, has suggested to make provision for such a school with the plot or site located near a park or tot-lot. One such site with an area of 0.08 ha per 2,500 population has also been suggested for the provision in the newly merged areas. However, since this facility is admissible in the layout open spaces, no independent reservations of land are considered necessary for the same.
- One primary school for 3,000 population shall be provided, in the newly merged areas of the PCMC, which corresponds to similar norms as prescribed by the state government. Also, as per the assumption that about 15 percent of the total population are primary school going, the total number of students per primary school per 3,000 population would be about 500.

  The reservation of a plot for a primary school building shall be on the basis of 5 sqm per student. Preferably, every primary school shall have its attached playground, which shall be provided at the rate of 3 sqm per student. Hence, a primary school site may have an area of 0.40 ha. In the congested settlements or Gaothan areas, the site area of a primary school facility may be of 0.25 ha, at the rate of 5 sqm per student without an attached playground. The building height shall be up to a maximum of three (G+2) floors.

  The total land to be reserved for primary school sites shall be for 75 percent of such student population. This constitutes reservation of sites for 50 percent share catered by PCMC and 25 percent by private institutions. The remaining 25 percent share is to be catered at sites in the residential zone, and for them reservation is not considered to be necessary.

- One secondary and higher secondary school for 12,000 population shall be provided, in the newly merged areas of the PCMC, which corresponds to similar norms as prescribed by the state government. Also, as per the assumption in our case that about 10% (a higher rate) of the total population are secondary and higher secondary school going, the number of students per secondary and higher secondary school per 12,000 population would be about 1200.

  The reservation of a plot for a secondary school building shall be made on the basis of 4 sqm per student. Every secondary school shall have its independent playground either attached or within easy walking distance of not more than 0.8 km away. Such playground reservation should be made at the rate of 11 sqm per student. Hence, a secondary school site may have an area of 1.8 ha. In the congested settlements or Gaothan areas, the site area of a secondary school facility may be of 0.48 ha, at the rate of 4 sqm per student without an attached playground. The building height shall be up to a maximum of three (G+2) floors.

  Considering that private institutions will be given opportunities to develop secondary schools only 50% requirement is to be considered for reservation of land.

- The state government's old circular and the new proposal sent by the Directorate of Town planning on planning standards does not prescribe the standards to be adopted for provision of higher educational facilities. The UDPFI guidelines suggest one college per 1.25 lakhs population and each with 1000 – 1500 pupils. These guidelines suggest an area of 4 ha per such site (1.8 ha for college building, 1.8 ha for playground, and 0.4 ha for residential and hostel area). However, the specific requests for land for colleges from reputed institutions can be considered for reservation on the basis of the norms specified by the UDPFI or on the actual demand of the applicant institution.

9A.4 Health Facilities

The provision of dispensaries and hospitals shall be made as under:

- One dispensary with maternity home facility for 20,000 population shall be provided, in the newly merged areas of the PCMC. The site area at the rate of 0.25 hectare per site may be provided.

  The reservation of plots for a separate or combined dispensary and maternity home shall be for 50 percent of the total sites required which will be catered by the PCMC, government and charitable institutions. The reservations for the remaining 50 percent sites that are to be catered by private dispensaries / clinics is not considered to be necessary.

- One general hospital unit for 1,50,000 population shall be provided, in the newly merged areas of PCMC. Each hospital unit may have 600 beds, at the rate of minimum 4 beds per 1000 population. The site area at the rate of 40 sqm per bed may be reserved, at about 2.4 to 2.5 ha per hospital unit. Wherever, staff quarters are to be provided within the hospital complex, an additional site area may be provided based on the actual demand of the applicant institution.

  The reservation of plots for a hospital shall be for 50 percent of the total sites required that are to be catered by the PCMC, government and charitable institutions. The reservations for the remaining 50 percent sites that are to be catered by private hospitals / nursing homes is not considered necessary.

9A.5 Shopping Centre and Vegetable Market

The standards for formal commercial spaces in the existing development plan of PCMC may be continued. Site for one shopping center per 50,000 population to be reserved and each site may have an area of 0.10 ha. The same standard can be adopted for provision of one site for vegetable and fruit market (Mandai) per 50,000 population with an area of 0.10 ha. Wherever, the shopping center and vegetable market are in a combined premise the area reserved for such sites shall be 0.20 ha.

There is no provision prescribed either by the state government or in the existing development plans for accommodating the informal sector commercial activities. However, the standards as prescribed by the UDPFI guidelines for provision of space for informal sector commercial activities at different hierarchies of the urban area may be adopted. Such space shall be strictly planned and made available for an affordable fee (as approved by PCMC) and the space shall be laid out at the time of detailed local level planning in regular land-use zones, along but except in the area meant for circulation.

These guidelines are:

- At the neighbourhood level upto 20,000 population, the provision for informal sector space may be made for 0.10 ha distributed along the streets and may include about 20 to 25 shops covering the types of general-retail (12-15), vegetable-fruits (4-5), and service-repair (4-5) activities.
- At the sector or zone level upto 1,00,000 population, similar provision may be made for 0.75 ha including about 100 to 120 shops covering the types of general-retail (80-90), vegetable-fruits (10-15), and service-repair (10-15) activities.
- Similarly at the district centre or city level upto 5,00,000 population, the provision for such informal sector space may be made for about 6 ha including about 360 to 375 shops covering the types of general-retail and vegetable-fruits (350-360), and service-repair (10-15) activities.

The number of informal commercial units that need to be provided may also be worked out as per the following norms as suggested by the UDPFI guidelines:

Area / Use	No. of informal commercial units
1. Retail Trade	
a) District centre b) Community centre c) Sector centre d) Cluster centre	3 units per 10 formal shops 3 units per 10 formal shops 4 units per 10 formal shops 5 to 6 units per 10 formal shops
2. Government and Commercial Offices	5 to 6 units per 1000 workforce
3. Wholesale Trade and Freight Complexes	3 to 4 units per 10 formal shops
4. Hospital	3 to 4 units per 100 beds
5. Primary School	3 to 4 units per school
6. Secondary/Higher Secondary Schools / Colleges	5 to 6 units per site
7. Regional / District level Parks	8 to 10 units at each major entry
8. Neighbourhood Parks	2 to 3 units at each site
9. Residential	1 unit per 1000 population
10.Industrial	5 to 6 units per 1000 workforce
11.Bus Terminal	1 unit per 2 bus bays
12.Railway Terminus	Based on passenger demand as per surveys

9A.6 Library and Town Hall

For the provision of librararies in the neighbourhoods and town halls at the city level, the existing standards in the development plan of PCMC may be continued. In each neighbourhood of 10,000 population, provision for one library site with an area of 0.05 ha is to be made. Provision may also be made for one community center or mangal karyalaya that may be combined with the neighbourhood library for 20,000 population, and the area reserved for such site may be 0.10 ha. For the population of 50,000 or so space may be reserved for one town hall combined with a central library and such a site may have a minimum area of 0.50 ha.

9A.7 Fire Station

The existing standard for the provision of one site for fire station per 1,00,000 population may be continued. The area per site may be 0.40 ha. The site area may be 0.60 ha including 0.20 ha for the residential quarters or based on the actual demand of the applicant institution, if required.

9A.8 Other Facilities

a) Music & Drama Theatre / Cultural Center

The state government's circular on planning standards suggests the provision of such facility based on the needs of the city. However, the standards prescribed by the UDPFI guidelines for the provision of such facilities can be considered. Site for one such facility shall be provided per 1,00,000 population (at sector or zone level). The area reserved per site may be 0.10 ha.

b) Recreational Club Including Swimming Pool and Gymnasium

The state government's circular on planning standards suggests the provision of such facility based on the needs of the city. However, the standards prescribed by the UDPFI guidelines for the provision of such facilities can be considered. Site for one such combined facility shall be provided per 1,00,000 population (at sector or zone level), the site area reserved being 1.00 ha.

c) Cremation / Burial Ground

The state government's circular on planning standards suggests the provision of such facility based on the needs of the city. Such sites if provided, shall not be located in the proximity of residential areas. As per the UDPFI guidelines two such sites may be provided for a medium size city of up to 5,00,000 population and that can be used for an electric crematorium and a burial ground (graveyard). However, one cremation site with a shed and one graveyard shall be provided within or be easily accessible to each sector or zone based on the actual demand of the applicant institution.

d) Miscellaneous

The space for other miscellaneous uses like, slaughter house, cattle sheds, garbage (katchra) depot and compost pit, stadium, water supply and sanitation installations, and truck terminus at appropriate locations shall be provided depending upon the needs of the town.

APPENDIX 9-A

Planning standard as approved by the Steering Committee for the present development plan is as follows:

Sr. No.	Purpose	Planning Standards for DP (2001 – 2021) for Extended Area of PCMC
1.	**Recreational & open spaces**	Provision shall be made for public parks and playgrounds in addition to playgrounds attached to schools as also regional or national parks, nature reserves, places of scenic beauty, lakes, rivers and other water bodies, and the standards for the provision shall be as under: 1) Garden / Park: 2 ha site for 25,000 popln. Additional site of 2 ha for next 25,000 population. For planning units with population less than 25,000 a site 0.5 ha may be provided. Playground: 2 ha site for 50,000 popln. Additional site of 2 ha for next 50,000 population For planning units with population less than 50,000 a site 0.5 ha may be provided. The layout open spaces to take care of the requirement of tot-lots, children's play ground, etc. 2) To encourage positive use of open spaces reserved in residential layouts, buildings for recreational purposes may be permitted to the extent of not more than $1/10^{th}$ of the total area of such reservation. Pre-nursery / Kinder-garden schools (Balwadi) may also be permitted in such open spaces All the above reservations should be made in addition to the open spaces available within layouts of private lands
2.	**Educational Facilities**	
	a)Pre-primary Nursery or Kindergarten School (Balwadi)	The layout open spaces can take care of this facility as the same is admissible there in, and hence no reservation is considered to be necessary
	b)Primary School (class I to V)	The school going population should be calculated at 15% of total population for primary schools One site for 3000 pop. No. of Students per school = 400 – 500. Area per site = 0.40 ha Reservation of a plot for school premises should be on the basis of 8 sqm (5+3) per student (including building and small playground) Building height shall be maximum G+2 floors Reservation of site for 75% of student population (50% catered by PCMC, and 25% by private institutions) and remaining 25% to be catered at sites in the residential zone Area per site in congested area = 0.25 ha (@ 5 sqm / student with no attached playground)
	b)Secondary School (Class VI to XII)	The school going population should be calculated at 10% of total population for secondary schools One site for 12,000 population No. of students per school =1200

Sr. No.	Purpose	Planning Standards for DP (2001 – 2021) for Extended Area of PCMC
		Area per site = 1.80 ha Reservation of a plot for school premises should be made on the basis of 15 sqm per student (including building and playground). Every secondary school should have its independent playground either attached or within easy walking distance not more than 0.8 km away Such playground reservation should be made at the rate of 11 sqm per student Area per site in congested area = 0.48 ha (@ 4 sqm / student with no attached playground) Building height shall be maximum G+2 floors Secondary school to be mainly provided by private institutions and looking into the role played by these institutions in developing secondary schools, only 50 % requirement to be considered for reservations of land
	c) College	Specific requests for land for colleges from reputed institutions can be considered on the basis of the norms specified by the UDPFI or actual demand of the applicant institution
3.	**Health and Medical Facilities**	
	a)Dispensary	One site for dispensary and maternity home for 20,000 population Area per site = 0.25 ha 50% population to be considered for reservation of land to be catered by PCMC, government, and charitable institutions Remaining 50% to be catered by private dispensaries / clinics
	b)Maternity Home	
	c)Hospitals	One general hospital unit for 1,50,000 population Each hospital unit may have 600 beds, at the rate of minimum 4 beds per 1000 population. Site area at the rate of 2.4 to 2.5 ha. Wherever, staff quarters are to be provided within the hospital complex, additional site area may be provided based on the actual demand of applicant institution Reservation of plots for 50% population to be catered by PCMC, government, and charitable institutions Remaining 50% to be catered by private hospitals / nursing homes
4.	**Shopping Centre and Vegetable Market**	Space for Shopping Centre per 50,000 population = 0.10 ha Space for Vegetable Market (Mandai) per 50,000 popln. = 0.10 ha If shopping centre and vegetable market is combined, then area per site = 0.20 ha
5.	**Library**	One neighbourhood Library / 10,000 pop., Area per site = 0.05 ha One site for Community Center / Mangal Karyalaya – cum – Library per 20,000 population, Area per site = 0.10 ha
6.	**Town Hall**	Reserve space for One Town Hall combined with Central Library Minimum site area = 0.50 ha for 50,000 population
7.	**Circulation Pattern**	Road widths proposed for an orderly and disciplined development of transport are: Arterial = 50-60m Sub-arterial = 30-40m Collector street widths = 20-30m

Sr. No.	Purpose	Planning Standards for DP (2001 – 2021) for Extended Area of PCMC
		Local street = 10-20m. Where the existing roads are required to be widened immediately to a width of 15m and above, such proposals should be supported by traffic volume survey and these proposals should be shown in firm lines As far as possible, widening of roads in existing developed area should be proposed by way of regular lines of street The minimum width of footpaths should be 1.5 m and the width should be increased by 1 m in business or shopping areas to allow for dead width
8.	**Parking**	Parking space = 25 sqm per PCU depending upon size and habits of communities (especially to be provided in the vicinity of Railway Stations, S.T. stands, Cinema – Theatres, Markets, Concentrated Shopping Centres, other traffic generating areas) Minimum parking space could be as follows: Car = 3m by 6m. (when individual parking space is required) Car = 2.5m x 5m (when community parking space is required) Truck / Bus = 3.75m x 7.5m
9.	**Fire Station**	One site per 1.00 lac population Area per site = 0.40 ha Area per site = 0.60 ha (including 0.20 ha for residential quarters, if required) or based on the actual demand of the applicant institution
10.	**Cremation / Burial Ground**	Two suitable sites (one each for electric crematorium and burial ground) for a medium size city of up to 5,00,000 population One cremation site with shed and one graveyard may be provided within or easily accessible to each sector or zone based on the actual demand of applicant institution
11.	**Music and Drama Theatre / Cultural Center**	To be provided depending upon the needs of the town
12.	**Recreational club including swimming pool & gymnasium**	Same as in UDPFI guidelines may be considered: One site per 1,00,000 population (at sector or zone level) Area per site = 1.00 ha
13.	**Miscellaneous uses:** Slaughter house, Cattle Sheds, Garbage (Katchra) Depot and Compost Pit, Stadium, Water Supply and Sanitation installations, Truck Terminus	To be provided depending upon the needs of the town

Details Showing Reservation of Sites and Cost of Implementation of Amenity Sites in the Draft Development Plan

Sr. No.	Site No.	Purpose	Location: S. No. / G. No.	Approx. Area Ha.	Approx. Cost of Acquisition (Rs.)	Approx. Cost of Development (Rs.)	Appropriate Authority
Sector - 1							
		TALWADE					
1.	1/1	Primary School	G. No. 223 pt., 224 pt.	0.40	21,93,000	15,00,000	PCMC
2.	1/2	Retail Market (for informal sector)	G. No. 221 pt.	0.10	6,45,000	1,00,000	PCMC
3.	1/3	Community Center-cum-Library	G. No. 221 pt.	0.10	6,45,000	8,00,000	PCMC
4.	1/4	Parking	G. No. 221 pt.	0.05	3,22,500	-	PCMC
5.	1/5	Shopping Centre & Market	G. No. 221 pt.	0.10	6,45,000	15,00,000	PCMC
6.	1/6	Garden / Park	G. No. 167 pt., 168 pt.	0.50	21,47,000	3,75,000	PCMC
7.	1/7	Playground	G. No. 167 pt., 168 pt., 169 pt.	0.50	21,47,000	2,50,000	PCMC
8.	1/8	Dispensary-cum-Maternity Home	G. No. 162 pt., 163 pt.	0.25	12,43,000	15,00,000	PCMC
9.	1/9	Town Hall	G. No. 163 pt., 164 pt.	0.50	21,47,000	25,00,000	PCMC
10.	1/10	Parking	G. No. 162 pt., 163 pt.	~~0.25~~	12,43,000	-	PCMC
11.	1/11	Primary School	G. No. 147 pt., 148 pt.	~~0.40~~	19,21,000	15,00,000	PCMC
12.	1/12	Primary School	G. No. 238 pt.	0.40	21,93,000	15,00,000	PCMC
13.	1/13	Garden / Park	G. No. 232 pt., 233 pt., 234 pt., 235 pt.	0.50	5,89,000	3,75,000	PCMC
14.	1/14	Primary School	G. No. 173 pt.	~~0.40~~	5,27,000	15,00,000	PCMC
15.	1/15	Retail Market (for informal sector)	G. No. 163 pt.	0.10	1,55,000	1,00,000	PCMC
16.	1/16	Community Center-cum-	G. No. 162 pt.	0.10	1,55,000	8,00,000	PCMC

APPENDIX 9-B

Sr. No.	Site No.	Purpose	Location: S. No. / G. No.	Approx. Area Ha.	Approx. Cost of Acquisition (Rs.)	Approx. Cost of Development (Rs.)	Appropriate Authority
		Library					
17.	1/17	Primary School	G. No. 207 pt., 208 pt., 209 pt.	[illegible]	5,27,000	15,00,000	PCMC
18.	1/18	Playground	G. No. 175 pt., 182 pt., 183 pt., 210 pt.	1.00	8,99,000	5,00,000	PCMC
19.	1/19	Parking	G. No. 122 pt.	0.05	77,500	-	PCMC
20.	1/20	Shopping Centre & Market	G. No. 122 pt., 124 pt.	0.10	1,55,000	15,00,000	PCMC
21.	1/21	Primary School	G. No. 130 pt., 131 pt.	[illegible]	5,27,000	15,00,000	PCMC
22.	1/22	Garden / Park	G. No. 116 pt., 117 pt., 118 pt.	2.00	15,19,000	15,00,000	PCMC
23.	1/23	Secondary School	G. No. 110 pt., 112, 113, 114, 115 pt.	[illegible]	13,95,000	22,00,000	PCMC
24.	1/24	Primary School	G. No. 199 pt.	[illegible]	5,27,000	15,00,000	PCMC
25.	1/25	Dispensary-cum-Maternity Home	G. No. 190 pt.	0.25	3,41,000	15,00,000	PCMC
26.	1/26	Economically Weaker Sections housing	G. No. 92 pt., 93 pt., 96 pt., 100 pt., 101 pt., 104 pt.	2.01	-	-	PCMC / PHADB
27.	1/27	Retail Market (for informal sector)	G. No. 93 pt.	0.10	1,55,000	1,00,000	PCMC
28.	1/28	Primary School	G. No. 90 pt., 92 pt.	[illegible]	5,27,000	15,00,000	PCMC
29.	1/29	Community Center-cum-Library	G. No. 90 pt., 92 pt.	0.10	1,55,000	8,00,000	PCMC
30.	1/30	Parking	G. No. 89 pt., 90 pt.	0.20	2,79,000	-	PCMC
31.	1/31	Primary School	G. No. 73 pt.	[illegible]	5,27,000	15,00,000	PCMC
32.	1/32	Shopping Centre & Market	G. No. 71 pt., 72 pt.	0.10	1,55,000	15,00,000	PCMC
33.	1/33	Parking	G. No. 71 pt., 72 pt.	0.05	77,500	-	PCMC
34.	1/34	Community Center-cum-Library	G. No. 71 pt., 72 pt.	0.10	1,55,000	8,00,000	PCMC

APPENDIX 9-B

Sr. No.	Site No.	Purpose	Location: S. No. / G. No.	Approx. Area Ha.	Approx. Cost of Acquisition (Rs.)	Approx. Cost of Development (Rs.)	Appropriate Authority
35.	1/35	Playground	G. No. 73 pt., 74 pt.	1.00	8,99,000	5,00,000	PCMC
36.	1/36	Secondary School	G. No. 74 pt., 75 pt., 76 pt., 77 pt., 78 pt., 79 pt.	1.80	13,95,000	22,00,000	PCMC
37.	1/37	Primary School	G. No. 465 pt., 466 pt., 467 pt.	0.40	5,27,000	15,00,000	PCMC
38.	1/38	Parking	G. No. 467 pt., 468 pt.	0.20	2,79,000	-	PCMC
39.	1/39	Community Center-cum-Library	G. No. 454 pt., 456 pt.	0.10	1,55,000	8,00,000	PCMC
40.	1/40	Town Hall	G. No. 54 pt., 55 pt.	0.50	11,97,000	25,00,000	PCMC
41.	1/41	Parking	G. No. 50 pt.	0.20	5,67,000	-	PCMC
42.	1/42	Retail Market (for informal sector)	G. No. 55 pt.	0.10	3,15,000	1,00,000	PCMC
43.	1/43	Primary School	G. No. 48 pt., 49 pt.	0.40	10,71,000	15,00,000	PCMC
44.	1/44	Playground	G. No. 30 pt.	0.50	11,97,000	2,50,000	PCMC
45.	1/45	Primary School	G. No. 25 pt.	0.40	10,71,000	15,00,000	PCMC
46.	1/46	Octroi Post	G. No. 25 pt.	0.40	-	-	PCMC
47.	1/47	Cremation Ghat	G. No. 25 pt.	0.10	1,55,000	8,00,000	PCMC
48.	1/48	Burial Ground	G. No. 24 pt.	1.00	8,99,000	5,00,000	PCMC
49.	1/49	Solid Waste Transfer site	G. No. 1 pt.	1.00	-	-	PCMC
50.	1/50	Elevated Service Reservoir	G. No. 1 pt.	0.50	-	-	PCMC
51.	1/51	Swimming Pool-cum-Gymnasium	G. No. 1 pt.	1.00	-	60,00,000	PCMC
52.	1/52	Municipal Purpose	G. No. 1 pt.	14.00	-	-	PCMC
53.	1/53	Garden / Park	G. No. 1 pt.	8.40	-	63,00,000	PCMC
54.	1/54	Primary School	G. No. 1 pt.	0.40	-	15,00,000	PCMC
55.	1/55	Police Station	G. No. 1 pt.	0.05	-	-	Police Dept.

APPENDIX 9-B

Sr. No.	Site No.	Purpose	Location: S. No. / G. No.	Approx. Area Ha.	Approx. Cost of Acquisition (Rs.)	Approx. Cost of Development (Rs.)	Appropriate Authority
56.	1/56	Engineering Store	G. No. 1 pt.	0.10	-	-	PCMC
57.	1/57	Fire Station	G. No. 1 pt.	0.40	-	12,00,000	PCMC
58.	1/58	Secondary School	G. No. 402 pt., 403 pt., 404 pt., 405 pt.	[illegible]	13,95,000	22,00,000	PCMC
59.	1/59	Playground	G. No. 403 pt., 404 pt., 405 pt.	1.00	8,99,000	5,00,000	PCMC
60.	1/60	Primary School	G. No. 400 pt., 401 pt., 402 pt.	[illegible]	5,27,000	15,00,000	PCMC
61.	1/61	Primary School	G. No. 296 pt.	[illegible]	5,27,000	15,00,000	PCMC
62.	1/62	Retail Market (for informal sector)	G. No. 388 pt.	0.10	1,55,000	1,00,000	PCMC
63.	1/63	Bus Stand	G. No. 398 pt., 400 pt.	0.20	-	-	PCMT
64.	1/64	Octroi Post	G. No. 332 pt.	0.40	-	-	PCMC
65.	1/65	Primary School	G. No. 342 pt., 343 pt., 344 pt.	[illegible]	10,71,000	15,00,000	PCMC
66.	1/66	Parking	G. No. 344 pt.	0.05	1,57,500	-	PCMC
67.	1/67	Shopping Centre & Market	G. No. 344 pt.	0.10	3,15,000	15,00,000	PCMC
68.	1/68	Secondary School	G. No. 381 pt.,386 pt., 387 pt., 356 pt.,	[illegible]	28,35,000	22,00,000	PCMC
69.	1/69	Dispensary-cum-Maternity Home	G. No. 356 pt.	0.25	6,93,000	15,00,000	PCMC
70.	1/70	Playground	G. No. 356 pt.	0.50	11,97,000	2,50,000	PCMC
71.	1/71	Community Center-cum-Library	G. No. 356 pt.	0.10	3,15,000	8,00,000	PCMC
72.	1/72	Primary School	G. No. 366 pt.	[illegible]	10,71,000	15,00,000	PCMC
73.	1/73	University Sub-Center	G. No. 368 pt.	21.63	-	-	Pune University
74.	1/74	River Front Recreation site	G. No. 9 pt., 10 pt., 11 pt., 12 pt., 13 pt., 14 pt.	2.10	15,42,250	65,00,000	PCMC

APPENDIX 9-B

Sr. No.	Site No.	Purpose	Location: S. No. / G. No.	Approx. Area Ha.	Approx. Cost of Acquisition (Rs.)	Approx. Cost of Development (Rs.)	Appropriate Authority
75.	1/75	Sewage Sump & Pump house	G. No. 11 pt., 14 pt., 15 pt.	0.50	-	-	PCMC
		CHIKHALI					
76.	1/76	Sewage Sump & Pump house	G. No. 1564 pt.	0.50	-	-	PCMC
77.	1/77	Water Treatment Plant	G. No. 1564 pt.	4.91	-	-	PCMC
78.	1/78	Primary School	G. No. 1655(1) pt.	0.40	5,95,000	15,00,000	PCMC
79.	1/79	Cattle Shed	G. No. 1655(2) pt.	2.00	-	-	PCMC
80.	1/80	Garden / Park	G. No. 1562 pt.	1.00	18,27,000	7,50,000	PCMC
81.	1/81	Dispensary-cum-Maternity Home	G. No. 1561 pt., 1562 pt.	0.10	3,15,000	15,00,000	PCMC
82.	1/82	Housing for Dis-housed	G. No. 1555 pt., 1556., 1557 pt.,1558 pt., 1559 pt.	2.00	-	-	PCMC
83.	1/83	Primary School	G. No. 1567 pt.	0.40	10,71,000	1,50,00,000	PCMC
84.	1/84	Playground	G. No. 1567 pt.	1.00	18,27,000	5,00,000	PCMC
85.	1/85	Shopping Centre & Market	G. No. 1567 pt.	0.10	3,15,000	15,00,000	PCMC
86.	1/86	Parking	G. No. 1567 pt.	0.05	1,57,500	-	PCMC
87.	1/87	Community Center-cum-Library	G. No. 1567 pt.	0.10	3,15,000	8,00,000	PCMC
88.	1/88A	Municipal Purpose	G. No. 1653 pt., 1654 pt.	24.61	-	-	PCMC
89.	1/88B	Municipal Purpose	G. No. 1653 pt.	1.62	-	-	PCMC
90.	1/88C	Municipal Purpose	G. No. 1653 pt.	2.58	-	-	PCMC
91.	1/89	Secondary School	G. No. 1653 pt.	1.80	-	22,00,000	PCMC
92.	1/90	Economically Weaker Sections housing	G. No. 1653 pt.	2.00	-	-	PCMC / PHADB

APPENDIX 9-B

Sr. No.	Site No.	Purpose	Location: S. No. / G. No.	Approx. Area Ha.	Approx. Cost of Acquisition (Rs.)	Approx. Cost of Development (Rs.)	Appropriate Authority
93.	1/91	PCMC Zonal Office	G. No. 1653 pt.	0.25	-	-	PCMC
94.	1/92	Retail Market (for informal sector)	G. No. 1552 pt.	0.10	3,15,000	1,00,000	PCMC
95.	1/93	Primary School	G. No. 1326(3) pt.	[illegible]	5,95,000	15,00,000	PCMC
96.	1/94	Secondary School	G. No. 1326(3) pt., 1325 pt., 1336 pt.	[illegible]	15,75,000	22,00,000	PCMC
97.	1/95	Parking	G. No. 1623 pt.	0.05	87,500	-	PCMC
98.	1/96	Town Hall	G. No. 1623 pt., 1624 pt.	0.50	6,65,000	25,00,000	PCMC
99.	1/97	Hospital	G. No. 1614 pt., 1615 pt, 1618 pt., 1619 pt.	2.00	34,30,000	45,00,000	PCMC
100.	1/98	Burial Ground	G. No. 1636 pt.	1.75	27,20,000	5,00,000	PCMC
101.	1/99	Primary School	G. No. 1644 pt.	[illegible]	10,71,000	15,00,000	PCMC
102.	1/100	Primary School	G. No. 1403 pt., 1432 pt., 1433 pt., 1434 pt.	[illegible]	5,95,000	15,00,000	PCMC
103.	1/101	Playground	G. No. 1231 pt., 1324 pt.	1.00	10,15,000	5,00,000	PCMC
104.	1/102	Community Center-cum-Library	G. No. 1231 pt.	0.10	1,75,000	8,00,000	PCMC
105.	1/103	Primary School	G. No. 1226 pt., 1227 pt., 1228 pt.	[illegible]	5,95,000	15,00,000	PCMC
106.	1/104	Dispensary-cum-Maternity Home	G. No. 1228 pt., 1229 pt.	0.10	1,75,000	15,00,000	PCMC
107.	1/105	Primary School	G. No. 1418 pt., 1426 pt.	[illegible]	5,95,000	15,00,000	PCMC
108.	1/106	Primary School	G. No. 1445 pt., 1446 pt., 1453 pt.	[illegible]	8,50,000	15,00,000	PCMC
109.	1/107	Slum Rehabilitation Site	G. No. 1399 pt	1.79	-	-	PCMC
110.	1/108	Garden / Park	G. No. 1294 pt., 1297 pt., 1303	1.00	10,15,000	7,50,000	PCMC

Sr. No.	Site No.	Purpose	Location: S. No. / G. No.	Approx. Area Ha.	Approx. Cost of Acquisition (Rs.)	Approx. Cost of Development (Rs.)	Appropriate Authority
			pt., 1304 pt., 1305 pt, 1307 pt.				
111.	1/109	Shopping Centre & Market	G. No. 1264 pt.	0.10	1,75,000	15,00,000	PCMC
112.	1/110	Parking	G. No. 1264 pt.	0.05	87,500	1,00,000	PCMC
113.	1/111	Primary School	G. No. 1264 pt., 1265 pt.	0.40	5,95,000	15,00,000	PCMC
114.	1/112	Primary School	G. No. 1040 pt., 1059 pt., 1060 pt., 1061 pt., 1062 pt., 1063 pt.	0.40	5,95,000	15,00,000	PCMC
115.	1/113	Primary School	G. No. 832 pt., 834 pt., 845 pt., 849 pt.	0.40	9,62,500	15,00,000	PCMC
116.	1/114	Community Center-cum-Library	G. No. 866 pt., 867 pt.	0.10	3,85,000	8,00,000	PCMC
117.	1/115	Primary School	G. No. 986 pt., 987 pt., 988 pt.	0.40	5,95,000	15,00,000	PCMC
118.	1/116	Secondary School	G. No. 1174 pt.	1.80	41,40,000	22,00,000	PCMC
119.	1/117	Retail Market (for informal sector)	G. No. 1173 pt.	0.10	1,75,000	1,00,000	PCMC
120.	1/118	Parking	G. No. 1193 pt.	0.30	4,55,000	-	PCMC
121.	1/119	Sewage Sump & Pump house	G. No. 1187 pt.	0.06	-	-	PCMC
122.	1/120	Primary School	G. No. 899 pt.	0.40	5,95,000	15,00,000	PCMC
123.	1/121	Bus Terminus	G. No. 13 pt.	0.20	-	-	PCMT
124.	1/122	Police Station	G. No. 13 pt.	0.05	-	-	Police Dept.
125.	1/123	Cremation Ghat	Gaothan pt.	0.10	3,15,000	8,00,000	PCMC
126.	1/124	Parking	Gaothan pt.	0.05	1,57,500	-	PCMC
127.	1/125	Garden / Park	Gaothan pt., G. No. 1 pt., 2 pt.	1.00	18,27,000	7,50,000	PCMC
128.	1/126	Elevated Service Reservoir	G. No. 2 pt., 19 pt., 41 pt.	0.70	-	-	PCMC
129.	1/127	Octroi Post	G. No. 25 pt., 26 pt., 39 pt., 40 pt., 41pt., 42 pt., 43 pt.	0.40	-	-	PCMC

Sr. No.	Site No.	Purpose	Location: S. No. / G. No.	Approx. Area Ha.	Approx. Cost of Acquisition (Rs.)	Approx. Cost of Development (Rs.)	Appropriate Authority
130.	1/128	Town Hall	G. No. 19 pt., 21 pt., 22 pt.	0.50	12,46,000	25,00,000	PCMC
131.	1/129	Parking	G. No. 213 pt.	0.25	7,70,000	-	PCMC
132.	1/130	Sewage Treatment Plant	G. No. 90 pt., 91 pt., 92 (1) pt., 92 (2) pt.	5.00	-	-	PCMC
133.	1/131	Primary School	G. No. 90 pt.		5,95,000	15,00,000	PCMC
134.	1/132	Dispensary-cum-Maternity Home	G. No. 90 pt.	0.10	1,75,000	15,00,000	PCMC
135.	1/133	Secondary School	G. No. 72 pt., 90 pt., 94 pt.		15,75,000	22,00,000	PCMC
136.	1/134	Shopping Centre & Market	G. No. 90 pt.	0.10	1,75,000	15,00,000	PCMC
137.	1/135	Parking	G. No. 75 pt., 90 pt.	0.05	87,500	-	PCMC
138.	1/136	Community Center-cum-Library	G. No. 75 pt.	0.10	1,75,000	8,00,000	PCMC
139.	1/137	Playground	G. No. 72 (1) pt. 75 pt., 90 pt.	1.00	10,15,000	5,00,000	PCMC
140.	1/138	Primary School	G. No. 72 (2) pt.		5,95,000	15,00,000	PCMC
141.	1/139	Primary School	G. No. 119 pt.		5,95,000	15,00,000	PCMC
142.	1/140	Retail Market (for informal sector)	G. No. 115 pt.	0.10	1,75,000	1,00,000	PCMC
143.	1/141	Primary School	G. No. 244 pt., 256 pt., 257 pt., 259 pt.		5,95,000	15,00,000	PCMC
144.	1/142	Primary School	G. No. 504 pt., 505 pt., 506 pt., 507 pt., 508 pt., 509 pt., 512 pt.		5,95,000	15,00,000	PCMC
145.	1/143	Playground	G. No. 361 pt., 396 pt., 397 pt., 398 pt., 408 pt., 409 pt., 410 pt., 411 pt., 414 pt., 415 pt.	1.00	10,15,000	5,00,000	PCMC
146.	1/144	Primary School	G. No. 402 pt.		5,95,000	15,00,000	PCMC
147.	1/145	Dispensary-cum-Maternity	G. No. 323 pt.	0.10	1,75,000	15,00,000	PCMC

APPENDIX 9-B

Sr. No.	Site No.	Purpose	Location: S. No. / G. No.	Approx. Area Ha.	Approx. Cost of Acquisition (Rs.)	Approx. Cost of Development (Rs.)	Appropriate Authority
		Home					
148.	1/146	Secondary School	G. No. 606 pt., 653 pt., 654 pt., 655 pt., 656 pt., 657 pt., 658 pt.	1.80	15,75,000	22,00,000	PCMC
149.	1/147	Garden / Park	G. No. 653 pt., 654 pt., 655 pt., 656 pt., 657 pt., 658 pt.	1.00	10,15,000	7,50,000	PCMC
150.	1/148	Primary School	G. No. 647 pt., 648 pt., 652 pt.	0.40	5,95,000	15,00,000	PCMC
151.	1/149	Retail Market (for informal sector)	G. No. 659 pt.	0.10	1,75,000	1,00,000	PCMC
152.	1/150	Community Center-cum-Library	G. No. 606 pt., 658 pt., 659 pt.	0.10	1,75,000	8,00,000	PCMC
153.	1/151	Parking	G. No. 606 pt.	0.05	8,75,000	-	PCMC
154.	1/152	Shopping Centre & Market	G. No. 606 pt.	0.10	1,75,000	15,00,000	PCMC
155.	1/153	Primary School (extension)	G. No. 606 pt.	0.16	2,59,000	6,00,000	PCMC
		MOSHI					
156.	1/154	Primary School	G. No. 1224 pt., 1227 pt., 1232 pt., 1233 pt.	0.40	4,59,000	15,00,000	PCMC
157.	1/155	Garden / Park	G. No. 1268 pt., 1270 pt., 1271 pt., 1272 pt.,1273 pt., 1274 pt.	1.00	11,07,000	7,50,000	PCMC
158.	1/156	Secondary School	G. No. 1261 pt., 1262 pt., 1271 pt., 1272 pt., 1275 pt., 1276 pt., 1277 pt.	1.80	12,15,000	22,00,000	PCMC
159.	1/157	Community Center-cum-Library	G. No. 1278pt., 1279 pt., 1280 pt.	0.10	1,35,000	8,00,000	PCMC
160.	1/158	Parking	G. No. 1287 pt.	0.05	6,75,000	-	PCMC
161.	1/159	Shopping Centre & Market	G. No. 1287 pt.	0.10	1,35,000	15,00,000	PCMC
162.	1/160	Dispensary-cum-Maternity	G. No. 1287 pt.	0.10	4,10,000	15,00,000	PCMC

APPENDIX 9-B

Sr. No.	Site No.	Purpose	Location: S. No. / G. No.	Approx. Area Ha.	Approx. Cost of Acquisition (Rs.)	Approx. Cost of Development (Rs.)	Appropriate Authority
		Home					
163.	1/161	Primary School	G. No. 1287 pt.		4,59,000	15,00,000	PCMC
164.	1/162	Economically Weaker Sections housing	G. No. 1285 pt., 1287 pt., 1290 pt.	2.00	-	-	PCMC / PHADB
165.	1/163	Playground	G. No. 1297 pt., 1298 pt., 1299 pt.	0.50	5,13,000	2,50,000	PCMC
166.	1/164	Retail Market (for informal sector)	G. No. 1290 pt.	0.10	1,35,000	1,00,000	PCMC
167.	1/165	Housing for Dis-housed	G. No. 1301 pt., 1302 pt., 1303 pt., 1304 pt., 1305 pt., 1306 pt., 1307 pt., 1308 pt.	2.00	-	-	PCMC
168.	1/166	Garden / Park	G. No. 1375 pt., 1388 pt., 1389 pt.	1.00	7,83,000	7,50,000	PCMC
169.	1/167	Primary School	G. No. 13 87 pt.		4,59,000	15,00,000	PCMC
170.	1/168	Crematorium (extension of existing CG)	G. No. 51 pt.	0.35	19,35,000	25,00,000	PCMC
171.	1/169	Animal Incinerator	G. No. 51 pt.	0.40	21,93,000	-	PCMC
172.	1/170	Octroi Post	G. No. 50 pt., 51 pt.	1.60	-	-	PCMC
173.	1/171	Primary School	G. No. 55 pt., 57 pt.		4,59,000	15,00,000	PCMC
174.	1/172	Retail Market (for informal sector)	G. No. 52 pt.	0.10	1,35,000	1,00,000	PCMC
175.	1/173	River Front Recreation site	G. No. 89 pt., 90 pt., 91 pt., 93 pt., 94 pt., 145 pt., 146 pt., 147 pt., 148, 149, 150, 151 pt., 152 pt., 153 pt.	2.00	13,23,000	65,00,000	PCMC
176.	1/174	Sewage Sump & Pump house	G. No. 155 pt., 156 pt., 157 pt., 158 pt., 159 pt., 160 pt.	0.50	-	-	PCMC

APPENDIX 9-B

Sr. No.	Site No.	Purpose	Location: S. No. / G. No.	Approx. Area Ha.	Approx. Cost of Acquisition (Rs.)	Approx. Cost of Development (Rs.)	Appropriate Authority
177.	1/175	Playground	G. No. 118 pt., 119pt., 122 pt., 131 pt.	0.50	10,07,000	2,50,000	PCMC
178.	1/176	Retail Market (for informal sector)	G. No. 672 pt.	0.10	5,65,000	1,00,000	PCMC
179.	1/177	Bus Terminus	G. No. 693 pt.	0.20	-	-	PCMT
180.	1/178	Fire Station	G. No. 702 pt., 704 pt., 705 pt., 706 pt., 707 pt.	0.40	21,93,000	12,00,000	PCMC
181.	1/179	Police Station	G. No. 706 pt.	0.05	-	-	Police Dept.
182.	1/180	Telecom Center	G. No. 575 pt., 697 pt., 699 pt.	0.40	-	-	DoT
183.	1/181	Engineering Store	G. No. 575 pt., 699 pt.	0.10	-	-	PCMC
184.	1/182	Primary School	G. No. 773 pt., 774 pt., 775 pt., 776 pt.	0.40	4,59,000	15,00,000	PCMC
185.	1/183	Parking	G. No. 573 pt.	0.25	14,19,000	-	PCMC
186.	1/184	Retail Market (for informal sector)	G. No. 790 pt., 791 pt.	0.10	1,35,000	1,00,000	PCMC
187.	1/185	Ground Service Reservoir	G. No. 362 pt., 363 pt.	0.19	-	-	PCMC
188.	1/186	Elevated Service Reservoir	G. No. 362 pt., 650 pt., 657 pt.	0.50	-	-	PCMC
189.	1/187	Playground	G. No. 543 pt.	0.50	5,13,000	2,50,000	PCMC
190.	1/188	Community Center-cum-Library	G. No. 541 pt.	0.10	1,35,000	8,00,000	PCMC
191.	1/189	Municipal Purpose (fair ground)	G. No. 646 pt.	8.00	-	-	PCMC
192.	1/190	Parking	G. No. 538 pt., 540 pt., 541 pt.	0.77	6,58,800	-	PCMC
193.	1/191	Primary School	G. No. 507 pt., 508 pt., 516 pt.	0.40	4,59,000	15,00,000	PCMC
194.	1/192A	Municipal Purpose	G. No. 467 pt.	0.28	-	-	PCMC
195.	1/192B	Municipal Purpose	G. No. 467 pt.	0.67	-	-	PCMC

Sr. No.	Site No.	Purpose	Location: S. No. / G. No.	Approx. Area Ha.	Approx. Cost of Acquisition (Rs.)	Approx. Cost of Development (Rs.)	Appropriate Authority
196.	1/193	Retail Market (for informal sector)	G. No. 466 pt.	0.10	1,35,000	1,00,000	PCMC
197.	1/194	Parking	G. No. 466 pt., 467 pt., 469 pt., 470 pt., 471 pt., 472 pt., 474 pt.	1.00	7,83,000	-	PCMC
198.	1/195	Municipal Purpose	G. No. 465 pt.	2.43	-	-	PCMC
199.	1/196	Playground	G. No. 450 pt.	0.50	15,58,000	2,50,000	PCMC
200.	1/197	Dispensary-cum-Maternity Home	G. No. 450 pt.	0.10	4,10,000	15,00,000	PCMC
201.	1/198	Community Center-cum-Library	G. No. 450 pt.	0.10	4,10,000	8,00,000	PCMC
202.	1/199	Parking	G. No. 450 pt.	0.05	2,05,000	-	PCMC
203.	1/200	Shopping Centre & Market	G. No. 450 pt.	0.10	4,10,000	15,00,000	PCMC
204.	1/201	Primary School	G. No. 455 pt.	[illegible]	13,94,000	15,00,000	PCMC
205.	1/202	Truck Terminus & Parking	G. No. 452 pt., 353 pt., 354 pt.	6.35	-	-	PCMC
206.	1/203	Parking	G. No. 445 pt.	0.32	11,31,600	-	PCMC
207.	1/204	Stadium	G. No. 442 pt., 445 pt.	4.56	53,21,800	80,00,000	PCMC
208.	1/205	Parking	G. No. 445 pt.	1.00	23,78,000	-	PCMC
209.	1/206	Parking	G. No. 444 pt.	0.23	2,75,400	-	PCMC
210.	1/207	Safari Park	G. No. 458 pt., 460, 461, 462, 463, 464, 646 pt.	69.72	2,58,93,550	4,22,90,000	PCMC
211.	1/208	Recreational Complex	G. No. 325 pt., 436, 437, 438, 439, 440 pt., 441, 442 pt., 443 pt., 444 pt.	35.50	83,23,000	2,66,25,000	PCMC
212.	1/209A	Super Administrative-cum-Commercial Complex	G. No. 325 pt.	2.61	4,61,950	-	PCMC
213.	1/209B	Super Administrative-cum-	G. No. 325 pt., 440 pt.	9.94	17,59,250	-	PCMC

APPENDIX 9-B

Sr. No.	Site No.	Purpose	Location: S. No. / G. No.	Approx. Area Ha.	Approx. Cost of Acquisition (Rs.)	Approx. Cost of Development (Rs.)	Appropriate Authority
		Commercial Complex					
214.	1/209C	Super Administrative-cum-Commercial Complex	G. No. 440 pt., 444 pt.	4.33	7,66,350	-	PCMC
215.	1/210	Recreational Complex	G. No. 324 pt., 325 pt.	60.40	58,63,000	4,53,00,000	PCMC
216.	1/211	Parking	G. No. 325 pt., 411 pt.	0.58	5,56,200	-	PCMC
217.	1/212	Primary School	G. No. 318 pt.	0.40	-	15,00,000	PCMC
218.	1/213	Municipal Purpose	G. No. 318 pt.	0.75	-	-	PCMC
219.	1/214	Garden / Park	G. No. 305 pt., 306, 307, 308 pt., 309 pt., 310	1.00	7,83,000	7,50,000	PCMC
220.	1/215	Dispensary-cum-Maternity Home	G. No. 308 pt., 309 pt.	0.10	1,35,000	15,00,000	PCMC
221.	1/216	Primary School	G. No. 303 pt., 308 pt.	0.40	4,59,000	15,00,000	PCMC
222.	1/217	Shopping Centre & Market	G. No. 252 pt., 253 pt.	0.10	5,65,000	15,00,000	PCMC
223.	1/218	Parking	G. No. 252 pt.	0.05	2,82,500	-	PCMC
224.	1/219	Town Hall	G. No. 252 pt.	0.50	21,47,000	25,00,000	PCMC
225.	1/220	Secondary School	G. No. 250 pt., 251 pt.	1.80	50,85,000	22,00,000	PCMC
		DUDULGAON					
226.	1/221	Primary School	G. No. 218 pt.	0.40	1,87,000	15,00,000	PCMC
227.	1/222	Cremation Ghat	G. No. 248, 249 pt.	0.10	55,000	8,00,000	PCMC
228.	1/223	Primary School	G. No. 244 pt.	0.40	1,87,000	15,00,000	PCMC
229.	1/224	Dispensary-cum-Maternity Home	G. No. 244 pt.	0.10	55,000	15,00,000	PCMC
230.	1/225	Garden / Park	G. No. 244 pt.	0.50	2,09,000	3,75,000	PCMC
231.	1/226	Community Center-cum-Library	G. No. 244 pt.	0.10	55,000	8,00,000	PCMC

APPENDIX 9-B

Sr. No.	Site No.	Purpose	Location: S. No. / G. No.	Approx. Area Ha.	Approx. Cost of Acquisition (Rs.)	Approx. Cost of Development (Rs.)	Appropriate Authority
232.	1/227	Parking	G. No. 244 pt.	0.05	27,500	-	PCMC
233.	1/228	Shopping Centre & Market	G. No. 244 pt.	0.10	55,000	15,00,000	PCMC
234.	1/229	Bus Stand	G. No. 244 pt.	0.15	-	-	PCMT
235.	1/230	Sewage Sump & Pump house	G. No. 22 pt., 24 pt.	0.50	-	-	PCMC
236.	1/231	Retail Market (for informal sector)	G. No. 161 pt.	0.10	55,000	1,00,000	PCMC
237.	1/232	Playground	G. No. 142 pt., 143 pt., 151 pt., 160 pt.	0.50	2,09,000	2,50,000	PCMC
238.	1/233	Economically Weaker Sections housing	G. No. 105 pt., 107 pt., 108 pt., 109 pt., 110 pt., 111 pt., 112 pt.	2.00	-	-	PCMC/ PHADB
239.	1/234	Secondary School	G. No. 38 pt.	[illegible]	4,95,000	22,00,000	PCMC
240.	1/235	Elevated Service Reservoir	G. No. 176 pt.	0.25	-	-	PCMC
241.	1/236	Parking	G. No. 102 pt., 103 pt., 174 pt., 175 pt.	0.25	1,21,000	-	PCMC
242.	1/237	Retail Market (for informal sector)	G. No. 103 pt.	0.10	55,000	1,00,000	PCMC
243.	1/238	Telecom Center	G. No. 78 pt., 103 pt.	0.40	-	-	DoT
244.	1/239	Elevated Service Reservoir	G. No. 70 pt.	0.25	-	-	PCMC
245.	1/240	Octroi Post	G. No. 50 pt., 56 pt.	0.40	-	-	PCMC
246.	1/241	Playground	G. No. 74 pt., 75 pt.	0.50	2,09,000	2,50,000	PCMC
247.	1/242	Shopping Centre & Market	G. No. 94 pt.	0.10	55,000	15,00,000	PCMC
248.	1/243	Parking	G. No. 94 pt.	0.05	27,500	-	PCMC
249.	1/244	Community Center-cum-Library	G. No. 94 pt.	0.10	55,000	8,00,000	PCMC
250.	1/245	Dispensary-cum-Maternity	G. No. 93 pt.	0.10	55,000	15,00,000	PCMC

APPENDIX 9-B

Sr. No.	Site No.	Purpose	Location: S. No. / G. No.	Approx. Area Ha.	Approx. Cost of Acquisition (Rs.)	Approx. Cost of Development (Rs.)	Appropriate Authority
		Home					
251.	1/246	Garden / Park	G. No. 93 pt.	0.50	2,09,000	3,75,000	PCMC
252.	1/247	Primary School	G. No. 88 pt., 89 pt., 90 pt., 92 pt.	0.40	1,87,000	15,00,000	PCMC
Sector - 2							
		CHOVISWADI					
253.	2/1	Primary School	S. No. 50 pt., 54 pt.	0.40	3,74,000	15,00,000	PCMC
254.	2/2	Garden / Park	S. No. 43 pt.	0.50	4,18,000	3,75,000	PCMC
255.	2/3	Community Center-cum-Library	S. No. 37 pt.	0.10	1,10,000	8,00,000	PCMC
256.	2/4	Parking	S. No. 37 pt.	0.05	55,000	-	PCMC
257.	2/5	Shopping Centre & Market	S. No. 37 pt., 38 pt.	0.10	1,10,000	15,00,000	PCMC
258.	2/6	Primary School	S. No. 38 pt.	0.40	3,74,000	15,00,000	PCMC
259.	2/7	Retail Market (for informal sector)	S. No. 32 pt.	0.10	1,10,000	1,00,000	PCMC
260.	2/8	Playground	S. No. 28 pt.	0.50	4,18,000	2,50,000	PCMC
261.	2/9	Parking	S. No. 21 pt.	0.20	1,98,000	-	PCMC
262.	2/10	Housing for Dis-housed	S. No. 20, 21 pt., 22 pt.	3.59	-	-	PCMC
263.	2/11	Fire Station	S. No. 17 pt., 18 pt.	0.40	3,74,000	12,00,000	PCMC
264.	2/12	Police Station	S. No. 154 pt.	0.05	-	-	Police Dept.
265.	2/13	Telecom Center	S. No. 154 pt.	0.40	-	-	DoT
266.	2/14	Octroi Post	S. No. 150 pt., 151 pt.	0.80	-	-	PCMC
267.	2/15	Retail Market (for informal sector)	S. No. 149 pt.	0.10	1,10,000	1,00,000	PCMC
268.	2/16	Solid Waste Transfer site	S. No. 163 pt.	1.00	-	-	PCMC

APPENDIX 9-B

Sr. No.	Site No.	Purpose	Location: S. No. / G. No.	Approx. Area Ha.	Approx. Cost of Acquisition (Rs.)	Approx. Cost of Development (Rs.)	Appropriate Authority
269.	2/17	Playground	S. No. 157 pt.	0.50	4,18,000	2,50,000	PCMC
270.	2/18	Primary School	S. No. 157 pt.	—	3,74,000	15,00,000	PCMC
271.	2/19	Garden / Park	S. No. 187 pt.	0.50	4,18,000	3,75,000	PCMC
272.	2/20	Shopping Centre & Market	S. No. 186 pt.	0.10	1,10,000	15,00,000	PCMC
273.	2/21	Parking	S. No. 186 pt.	0.05	1,98,000	-	PCMC
274.	2/22	Community Center-cum-Library	S. No. 186 pt.	0.10	1,10,000	8,00,000	PCMC
275.	2/23	Primary School (extension)	S. No. 3 pt., 189 pt., 195 pt.	—	2,86,000	12,00,000	PCMC
276.	2/24	Cremation Ghat	S. No. 193 pt., 194 pt.	0.10	1,10,000	8,00,000	PCMC
277.	2/25	Elevated Service Reservoir	S. No. 1 pt., 195 pt.	0.50	-	-	PCMC
278.	2/26	Sewage Sump & Pump house	S. No. 166 pt., 167 pt.	0.50	-	-	PCMC
		WADMUKHWADI					
279.	2/27	Town Hall	S. No. 216 pt., 217 pt.	0.50	4,18,000	25,00,000	PCMC
280.	2/28	Parking	S. No. 216 pt.	0.30	2,86,000	-	PCMC
281.	2/29	Swimming Pool-cum-Gymnasium	S. No. 207 pt., 209 pt., 216 pt.	1.00	6,38,000	60,00,000	PCMC
282.	2/30	Retail Market (for informal sector)	S. No. 204 pt., 205 pt.	0.10	1,10,000	1,00,000	PCMC
283.	2/31	Economically Weaker Sections housing	S. No. 201 pt., 202 pt., 203 pt., 204 pt., 205 pt.	2.00	-	-	PCMC / PHADB
284.	2/32	Playground	S. No. 151 pt.	0.50	4,18,000	2,50,000	PCMC
285.	2/33	Community Center-cum-Library	S. No. 151 pt.	0.10	1,10,000	8,00,000	PCMC
286.	2/34	Primary School	S. No. 152 pt.	—	3,74,000	15,00,000	PCMC

APPENDIX 9-B

Sr. No.	Site No.	Purpose	Location: S. No. / G. No.	Approx. Area Ha.	Approx. Cost of Acquisition (Rs.)	Approx. Cost of Development (Rs.)	Appropriate Authority
287.	2/35	Garden / Park	S. No. 152 pt.	0.50	4,18,000	3,75,000	PCMC
288.	2/36	Secondary School	S. No. 151 pt.	1.80	9,90,000	22,00,000	PCMC
289.	2/37	Telecom Center	S. No. 218 pt.	0.40	-	-	DoT
290.	2/38	Hospital	S. No. 149 pt., 150 pt.	2.00	10,78,000	45,00,000	PCMC
291.	2/39	Parking	S. No. 120 pt., 121 pt.	1.00	6,38,000	-	PCMC
292.	2/40	Retail Market (for informal sector)	S. No. 121 pt.	0.10	1,10,000	1,00,000	PCMC
293.	2/41	Parking	S. No. 121 pt., 122 pt.	4.65	15,15,250	-	PCMC
294.	2/42	Traffic Island	S. No. 78 pt., 79 pt	1.03	6,51,200	7,72,500	PCMC
295.	2/43	Elevated Service Reservoir	S. No. 62 pt., 63 pt., 66 pt.	0.50	-	-	PCMC
296.	2/44	Bus Stand	S. No. 1 pt.	0.20	-	-	PCMT
297.	2/45	Primary School (extension)	S. No. 1 pt.	0.31	2,94,800	12,00,000	PCMC
298.	2/46	Primary School	S. No. 49 pt., 50 pt.	0.40	3,74,000	15,00,000	PCMC
299.	2/47	Garden / Park	S. No. 46 pt., 49 pt.	0.50	4,18,000	3,75,000	PCMC
300.	2/48	Community Center-cum-Library	S. No. 44 pt., 47 pt.	0.10	1,10,000	8,00,000	PCMC
301.	2/49	Parking	S. No. 43 pt., 44 pt.	0.05	55,000	-	PCMC
302.	2/50	Shopping Centre & Market	S. No. 43 pt.	0.10	1,10,000	15,00,000	PCMC
303.	2/51	Dispensary-cum-Maternity Home	S. No. 24 pt.	0.10	1,10,000	15,00,000	PCMC
304.	2/52	Playground	S. No. 25 pt., 26 pt., 27 pt.	0.50	4,18,000	2,50,000	PCMC
305.	2/53	Retail Market (for informal sector)	S. No. 28 pt., 29 pt.	0.10	1,10,000	1,00,000	PCMC
306.	2/54	Sewage Sump & Pump house	S. No. 39 pt.	0.50	-	-	PCMC

APPENDIX 9-B

Sr. No.	Site No.	Purpose	Location: S. No. / G. No.	Approx. Area Ha.	Approx. Cost of Acquisition (Rs.)	Approx. Cost of Development (Rs.)	Appropriate Authority
307.	2/55	Cremation Ghat	S. No. 39 pt.	0.10	1,10,000	8,00,000	PCMC
		CHARHOLI BK.					
308.	2/56	Primary School	S. No. 486 pt.	[redacted]	5,95,000	15,00,000	PCMC
309.	2/57	Retail Market (for informal sector)	S. No. 481 pt.	0.10	1,75,000	1,00,000	PCMC
310.	2/58	Secondary School	S. No. 526 pt., 528 pt., 530 pt.	1.80	15,75,000	22,00,000	PCMC
311.	2/59	Primary School	S. No. 975 pt.	[redacted]	5,95,000	15,00,000	PCMC
312.	2/60	Playground	S. No. 984 pt.	0.50	6,65,000	2,50,000	PCMC
313.	2/61	Octroi Post	S. No. 993 pt., 996 pt. 1029 pt.	0.40	-	-	PCMC
314.	2/62	Cattle Shed	S. No. 990 pt., 991 pt., 993 pt.	2.40	-	-	PCMC
315.	2/63	Burial Ground	S. No. 1015 pt., 1017 pt., 1019 pt., 1020, 1021 pt.	2.00	17,15,000	5,00,000	PCMC
316.	2/64	Garden / Park	Gaothan pt., S. No. 1022 pt., 1032 pt.	0.79	14,46,400	5,92,500	PCMC
317.	2/65	Crematorium	Gaothan pt.	0.40	9,01,000	25,00,000	PCMC
318.	2/66	Primary School	S. No. 246 pt., 247 pt.	[redacted]	3,15,000	15,00,000	PCMC
319.	2/67	Shopping Centre & Market	S. No. 1025 pt.	0.10	1,75,000	15,00,000	PCMC
320.	2/68	Parking	S. No. 1024 pt.	0.05	87,500	-	PCMC
321.	2/69	PCMC Zonal Office	S. No. 1024 pt.	0.20	-	-	PCMC
322.	2/70	Retail Market (for informal sector)	S. No. 472 pt.	0.10	1,75,000	1,00,000	PCMC
323.	2/71	Community Center-cum-Library	S. No. 1010 pt., 1011 pt.	0.10	1,75,000	8,00,000	PCMC
324.	2/72	Parking	S. No. 1010 pt.	0.20	3,15,000	-	PCMC
325.	2/73	Primary School	S. No. 1004 pt., 1005 pt.	[redacted]	5,95,000	15,00,000	PCMC

APPENDIX 9-B

Sr. No.	Site No.	Purpose	Location: S. No. / G. No.	Approx. Area Ha.	Approx. Cost of Acquisition (Rs.)	Approx. Cost of Development (Rs.)	Appropriate Authority
326.	2/74	Primary School	S. No. 476 pt.	0.40	5,95,000	15,00,000	PCMC
327.	2/75	Parking	S. No. 517 pt., 475 pt.	0.20	3,15,000	-	PCMC
328.	2/76	Town Hall	S. No. 475 pt.	0.50	6,65,000	25,00,000	PCMC
329.	2/77	Garden / Park	S. No. 475 pt.	0.50	6,65,000	3,75,000	PCMC
330.	2/78	Dispensary-cum-Maternity Home	S. No. 475 pt.	0.10	1,75,000	15,00,000	PCMC
331.	2/79	Telecom Center	S. No. 475 pt.	0.40	-	-	DoT
332.	2/80	Engineering Store	S. No. 469 pt.	0.10	-	-	PCMC
333.	2/81	Playground	S. No. 469 pt.	1.00	10,15,000	5,00,000	PCMC
334.	2/82	Slum Rehabilitation Site	S. No. 470 pt.	0.89	-	-	PCMC
335.	2/83	Economically Weaker Sections housing	S. No. 464 pt., 465 pt.	2.00	-	-	PCMC / PHADB
336.	2/84	Community Center-cum-Library	S. No. 233 pt.	0.10	1,75,000	8,00,000	PCMC
337.	2/85	Parking	S. No. 233 pt.	0.05	87,500	-	PCMC
338.	2/86	Shopping Centre & Market	S. No. 233 pt.	0.10	1,75,000	15,00,000	PCMC
339.	2/87	Garden / Park	S. No. 211 pt., 212 pt.	0.50	6,65,000	3,75,000	PCMC
340.	2/88	Playground	S. No. 231 pt., 232 pt.	1.00	10,15,000	5,00,000	PCMC
341.	2/89	Retail Market (for informal sector)	S. No. 231 pt.	0.10	1,75,000	1,00,000	PCMC
342.	2/90	Dispensary-cum-Maternity Home	S. No. 212 pt.	0.10	1,75,000	15,00,000	PCMC
343.	2/91	Primary School	S. No. 218 pt., 219 pt.	0.40	5,95,000	15,00,000	PCMC
344.	2/92	Secondary School	S. No. 193 pt., 194 pt., 220 pt., 221 pt.	1.80	15,75,000	22,00,000	PCMC

APPENDIX 9-B

Sr. No.	Site No.	Purpose	Location: S. No. / G. No.	Approx. Area Ha.	Approx. Cost of Acquisition (Rs.)	Approx. Cost of Development (Rs.)	Appropriate Authority
345.	2/93	Sewage Treatment Plant	S. No. 14 pt., 15 pt., 16 pt., 17 pt., 21 pt., 22 pt., 24 pt., 25 pt., 26, 27	5.00	-	-	PCMC
346.	2/94	Slaughter House	S. No. 29 pt., 30 pt., 35 pt.	1.60	14,42,000	15,00,000	PCMC
347.	2/95	Octroi Post	S. No. 35 pt.	0.40	-	-	PCMC
348.	2/96	Bus Terminus	S. No. 19 pt., 20 pt.	0.20	-	-	PCMT
349.	2/97	Primary School (extension)	S. No. 165 pt., 167 pt.	0.33	4,97,000	12,50,000	PCMC
350.	2/98	Garden / Park	S. No. 72 pt.	0.50	6,65,000	3,75,000	PCMC
351.	2/99	Primary School	S. No. 288 pt., 289 pt.	0.40	5,95,000	15,00,000	PCMC
352.	2/100	Community Center-cum-Library	S. No. 382 pt.	0.10	1,75,000	8,00,000	PCMC
353.	2/101	Garden / Park	S. No. 387 pt., 399 pt.	0.50	6,65,000	3,75,000	PCMC
354.	2/102	Elevated Service Reservoir	S. No. 410 pt., 414 pt.	0.50	-	-	PCMC
355.	2/103	Primary School	S. No. 337 pt.	0.40	5,95,000	15,00,000	PCMC
356.	2/104	Retail Market (for informal sector)	S. No. 301 pt.	0.10	1,75,000	1,00,000	PCMC
357.	2/105	Primary School	S. No. 296 pt., 297 pt.	0.40	5,95,000	15,00,000	PCMC
358.	2/106	Garden / Park	S. No. 297 pt.	1.00	10,15,000	7,50,000	PCMC
359.	2/107	Dispensary-cum-Maternity Home	S. No. 140 pt.	0.10	1,75,000	15,00,000	PCMC
360.	2/108	Secondary School	S. No. 139 pt.	1.81	15,82,000	22,00,000	PCMC
361.	2/109	Primary School	S. No. 303 pt.	0.40	5,95,000	15,00,000	PCMC
362.	2/110	Community Center-cum-Library	S. No. 139 pt.	0.10	1,75,000	8,00,000	PCMC
363.	2/111	Parking	S. No. 139 pt.	0.05	87,500	-	PCMC

APPENDIX 9-B

Sr. No.	Site No.	Purpose	Location: S. No. / G. No.	Approx. Area Ha.	Approx. Cost of Acquisition (Rs.)	Approx. Cost of Development (Rs.)	Appropriate Authority
364.	2/112	Shopping Centre & Market	S. No. 139 pt.	0.10	1,75,000	15,00,000	PCMC
365.	2/113	Playground	S. No. 122 pt.	0.50	6,65,000	3,75,000	PCMC
366.	2/114	Primary School	S. No. 122 pt.	0.40	5,95,000	15,00,000	PCMC
		DIGHI					
367.	2/115	Garden / Park	S. No. 77 pt.	3.80	-	28,50,000	PCMC
368.	2/116	Primary School	S. No. 78 pt.	0.40	4,25,000	15,00,000	PCMC
369.	2/117	Dispensary-cum-Maternity Home	S. No. 81 pt.	0.25	2,75,000	15,00,000	PCMC
370.	2/118	Community Center-cum-Library	S. No. 82 pt.	0.10	1,25,000	8,00,000	PCMC
371.	2/119	Playground	S. No. 82 pt., 83 pt.	0.50	4,75,000	2,50,000	PCMC
372.	2/120	Primary School	S. No. 72 pt.	0.40	4,25,000	15,00,000	PCMC
373.	2/121	Sewage Sump & Pump house	S. No. 72 pt.	0.50	-	-	PCMC
374.	2/122	Primary School	S. No. 85 pt.	0.40	4,25,000	15,00,000	PCMC
375.	2/123	Shopping Centre & Market	S. No. 69 pt.	0.10	1,25,000	15,00,000	PCMC
376.	2/124	Parking	S. No. 69 pt.	0.05	62,500	-	PCMC
377.	2/125	Primary School	S. No. 86 pt.	0.40	4,25,000	15,00,000	PCMC
378.	2/126	Electrical Sub-Station	S. No. 69 pt.	1.88	-	-	PCMC
379.	2/127	Economically Weaker Sections housing	S. No. 66 pt.	1.14	-	-	PCMC/ PHADB
380.	2/128	Burial Ground	S. No. 66 pt.	0.80	-	2,00,000	PCMC
381.	2/129	Engineering Store	S. No. 69 pt.	0.10	-	-	PCMC
382.	2/130	Primary School	S. No. 69 pt.	0.40	4,25,000	15,00,000	PCMC
383.	2/131	Retail Market (for informal	S. No. 87 pt.	0.10	1,25,000	1,00,000	PCMC

Sr. No.	Site No.	Purpose	Location: S. No. / G. No.	Approx. Area Ha.	Approx. Cost of Acquisition (Rs.)	Approx. Cost of Development (Rs.)	Appropriate Authority
		sector)					
384.	2/132	Bus Terminus	S. No. 87 pt.	0.20	-	-	PCMT
385.	2/133	Telecom Center	S. No. 87 pt., 64 pt.	0.40	-	-	DoT
386.	2/134	Octroi Post	S. No. 64 pt., 87 pt.	0.80	-	-	PCMC
387.	2/135	Cremation Ghat (extension of existing cremation shed)	S. No. 64 pt.	0.095	1,18,750	8,00,000	PCMC
388.	2/136	Playground	S. No. 19 pt.	0.40	4,25,000	2,00,000	PCMC
389.	2/137	Secondary School	S. No. 18 pt.	1.80	11,25,000	22,00,000	PCMC
390.	2/138	Community Center-cum-Library	S. No. 20 pt.	0.10	1,25,000	8.00,000	PCMC
391.	2/139	Primary School	S. No. 18 pt.	0.40	4,25,000	15,00,000	PCMC
392.	2/140	Primary School	S. No. 2 pt.	0.40	4,25,000	15,00,000	PCMC
393.	2/141	Police Station	S. No. 5 pt.	0.05	-	-	Police Dept.
394.	2/142	Town Hall	S. No. 5 pt.	0.50	4,75,000	25,00,000	PCMC
395.	2/143	Parking	S. No. 5 pt.	0.05	62,500	-	PCMC
396.	2/144	Shopping Centre & Market	S. No. 5 pt.	0.10	1,25,000	15,00,000	PCMC
397.	2/145	Fire Station	S. No. 5 pt.	0.40	4,25,000	12,00,000	PCMC
398.	2/146	Retail Market (for informal sector)	S. No. 5 pt.	0.10	1,25,000	1,00,000	PCMC
399.	2/147	Secondary School	S. No. 3 pt.	1.80	11,25,000	22,00,000	PCMC
400.	2/148	Garden / Park	S. No. 3 pt.	1.00	7,25,000	7,50,000	PCMC
401.	2/149	Elevated Service Reservoir	S. No. 3 pt.	0.50	-	-	PCMC
402.	2/150	Primary School	S. No. 3 pt.	0.40	4,25,000	15,00,000	PCMC
403.	2/151	Playground	S. No. 3 pt.	1.00	7,25,000	5,00,000	PCMC

APPENDIX 9-B

Sr. No.	Site No.	Purpose	Location: S. No. / G. No.	Approx. Area Ha.	Approx. Cost of Acquisition (Rs.)	Approx. Cost of Development (Rs.)	Appropriate Authority
		BOPKHEL					
404.	2/152	Garden / Park	S. No. 156 pt.	0.50	5,32,000	3,75,000	PCMC
405.	2/153	Primary School	S. No. 156 pt.	0.40	4,76,000	15,00,000	PCMC
406.	2/154	Playground	S. No. 148 pt.	0.50	5,32,000	2,50,000	PCMC
407.	2/155	Community Center-cum-Library	S. No. 148 pt.	0.10	1,40,000	8,00,000	PCMC
408.	2/156	Parking	S. No. 148 pt.	0.05	70,000	-	PCMC
409.	2/157	Shopping Centre & Market	S. No. 148 pt.	0.10	1,40,000	15,00,000	PCMC
410.	2/158	Secondary School	S. No. 148 pt.	1.24	9,37,440	22,00,000	PCMC
411.	2/159	Dispensary-cum-Maternity Home	S. No. 148 pt.	0.20	2,52,000	15,00,000	PCMC
412.	2/160	Telecom Center	S. No. 147 pt.	0.40	-	-	DoT
413.	2/161	Primary School	S. No. 148 pt.	0.40	4,76,000	15,00,000	PCMC
414.	2/162	Garden / Park	S. No. 4pt., 5 pt.	1.30	8,28,000	9,75,000	PCMC
415.	2/163	Elevated Service Reservoir	S. No. 5 pt., 154 pt.	0.50	-	-	PCMC
416.	2/164	Sewage Sump & Pump house	S. No.2 pt., 5 pt.	0.46	-	-	PCMC
417.	2/165	Primary School	S. No.2 pt., 154 pt.	0.40	4,76,000	15,00,000	PCMC
418.	2/166	Cremation Ghat	S. No. 5 pt.	0.10	1,40,000	8,00,000	PCMC
419.	2/167	Playground	S. No. 1 pt.	0.50	5,32,000	2,50,000	PCMC
420.	2/168	Retail Market (for informal sector)	S. No. 152 pt.	0.10	1,40,000	1,00,000	PCMC
421.	2/169	Primary School	S. No. 152 pt.	0.40	4,76,000	15,00,000	PCMC
422.	2/170	Shopping Centre & Market	S. No. 152 pt., part of road land as in revenue map	0.10	1,40,000	15,00,000	PCMC

Sr. No.	Site No.	Purpose	Location: S. No. / G. No.	Approx. Area Ha.	Approx. Cost of Acquisition (Rs.)	Approx. Cost of Development (Rs.)	Appropriate Authority
423.	2/171	Parking	Part of road land as in revenue map	0.10	-	-	PCMC
424.	2/172	Bus Stand	Part of road land as in revenue map	0.20	-	-	PCMT
425.	2/173	Traffic Island	Part of road land as in revenue map	0.03	-	22,500	PCMC
Sector - 3							
		DAPODI					
426.	3/1	Garden / Park	S. No. 27pt., 28pt.,	1.69	1,79,76,000	12,67,500	PCMC
427.	3/2	Secondary School	S. No. 24 pt., 25 pt. 28 pt.	1.52	1,65,48,000	22,00,000	PCMC
428.	3/3	Elevated Service Reservoir	S. No. 28pt.	0.40	-	-	PCMC
429.	3/4	Burial Ground	S. No. 11pt., 15pt., 16pt., 17pt., 24pt., 25pt., 26pt.	2.54	71,06,100	5,00,000	PCMC
430.	3/5	Playground	S. No. 16pt., 17pt., 18 pt.	1.395	1,54,98,000	7,00,000	PCMC
431.	3/6	Secondary School	S. No. 11pt., 15pt., 16pt., 18pt.	2.02	2,06,43,000	22,00,000	PCMC
432.	3/7	Primary School	S. No. 22pt., 23pt.	0.40	71,40,000	15,00,000	PCMC
433.	3/8	Playground	S. No. 74 pt., 77 pt., 78 pt.	0.68	94,92,000	3,40,000	PCMC
434.	3/9	Economically Weaker Sections housing	S. No. 18pt., 19pt., 21pt.	1.78	-	-	PCMC / PHADB
435.	3/10	Housing for Dis-housed	S. No. 11pt., 12pt., 13pt., 14 pt.,15pt., 18pt.	1.28	-	-	PCMC
436.	3/11	Shopping Centre & Market	S. No. 12pt., 13pt.,	0.10	21,00,000	15,00,000	PCMC
437.	3/12	Retail Market (for informal sector)	S. No. 12pt., 13 pt.	0.10	21,00,000	1,00,000	PCMC
438.	3/13	Parking	S. No. 12pt., 13pt.	0.65	92,40,000	-	PCMC
439.	3/14	Engineering Store	S. No. 12pt., 13pt.	0.10	-	-	PCMC

APPENDIX 9-B

Sr. No.	Site No.	Purpose	Location: S. No. / G. No.	Approx. Area Ha.	Approx. Cost of Acquisition (Rs.)	Approx. Cost of Development (Rs.)	Appropriate Authority
440.	3/15	Garden	S. No. 9 pt., 10A1 pt., 11 pt., 26 pt.	1.39	1,54,56,000	10,42,500	PCMC
441.	3/16	Primary School	S. No. 11pt.	1.21	1,39,44,000	15,00,000	PCMC
442.	3/17	Police Station	S. No. 11pt.	0.05	-	-	Police Dept.
443.	3/18	Post Office	S. No. 11pt.	0.06	-	-	Postal Dept.
444.	3/19	PCMC Zonal Office	S. No. 11pt.	0.23	-	-	PCMC
445.	3/20	Dispensary-cum-Maternity Home	S. No. 11pt.	0.20	37,80,000	15,00,000	PCMC
446.	3/21	Telecom Center	S. No. 7pt., 11pt.	0.40	-	-	DoT
447.	3/22	Shopping Centre & Market	S. No. 6pt.	0.10	21,00,000	15,00,000	PCMC
448.	3/23	Parking	S. No. 6pt.	0.05	10,50,000	1,00,000	PCMC
449.	3/24	Town Hall	S. No. 5pt.	0.50	79,80,000	25,00,000	PCMC
450.	3/25	Bus Terminus	S. No. 4 pt., 5pt., 6pt.	2.96	-	-	PCMT
451.	3/26	Slum Rehabilitation Site	S. No. 38 A pt, 38 B	0.59	-	-	PCMC
452.	3/27	Fire Station	S. No. 85A pt.,	0.40	71,40,000	12,00,000	PCMC
453.	3/28	Retail Market (for informal sector)	S. No. 85A pt.,	0.10	21,00,000	1,00,000	PCMC
454.	3/29	Dispensary-cum-Maternity Home	S. No. 85A pt.,	0.20	37,80,000	15,00,000	PCMC
455.	3/30	Primary School	S. No. 85A pt.,	0.40	71,40,000	15,00,000	PCMC
456.	3/31	Garden / Park	S. No. 84 pt., 85A pt., 85B pt.,	2.00	2,05,80,000	15,00,000	PCMC
457.	3/32	Shopping Centre & Market	S. No. 85A pt.	0.20	37,80,000	15,00,000	PCMC
458.	3/33	Parking	S. No. 85A pt.	0.10	21,00,000	-	PCMC
459.	3/34	Community Center-cum-Library	S. No. 81 pt.,	0.15	29,40,000	8,00,000	PCMC

Sr. No.	Site No.	Purpose	Location: S. No. / G. No.	Approx. Area Ha.	Approx. Cost of Acquisition (Rs.)	Approx. Cost of Development (Rs.)	Appropriate Authority
460.	3/35	Slum Rehabilitation Site	S. No. 68 pt., 69 pt., 70 pt., 71 pt., 72 pt., 73 pt., 74 pt., 77 pt., 78 pt.	7.97	-	-	PCMC
461.	3/36	Slum Rehabilitation Site	S. No. 63 pt., 64 pt., 65 pt., 66 pt.,	3.15	-	-	PCMC
462.	3/37	Swimming Pool-cum-Gymnasium	S. No. 78pt., 81pt., 82pt., 83pt., 85pt.	0.90	1,13,40,000	60,00,000	PCMC
463.	3/38	Octroi Post	S. No. 79pt., 80pt.	0.20	-	-	PCMC
464.	3/39	Parking	S. No. 80pt.	0.10	6,10,000	-	PCMC
465.	3/40	Crematorium (extension of existing cremation shed)	S. No. 79pt., 80pt., 84pt.	0.37	19,27,600	25,00,000	PCMC
Sector - 4							
		WAKAD					
466.	4/1	Sewage Sump & Pump house	S. No. 2 pt.	0.28	-	-	PCMC
467.	4/2	Garden / Park	S. No. 2 pt.	1.28	26,29,600	-	PCMC
468.	4/3	Primary School (extension)	S. No. 1 pt	0.27	9,79,400	10,00,000	PCMC
469.	4/4	Town Hall	S. No. 1 pt	0.50	15,77,000	25,00,000	PCMC
470.	4/5	Parking	S. No. 1 pt	0.05	2,07,500	-	PCMC
471.	4/6	Shopping Centre & Market	S. No. 1 pt	0.10	4,15,000	15,00,000	PCMC
472.	4/7	Dispensary-cum-Maternity Home	S. No. 165 pt	0.10	4,15,000	15,00,000	PCMC
473.	4/8	Playground	S. No. 165 pt, 166 pt	0.50	14,44,000	2,50,000	PCMC
474.	4/9	Fire Station	S. No. 164 pt	0.40	15,98,000	12,00,000	PCMC
475.	4/10	Retail Market (for informal sector)	S. No. 163 pt	0.10	4,15,000	1,00,000	PCMC

APPENDIX 9-B

Sr. No.	Site No.	Purpose	Location: S. No. / G. No.	Approx. Area Ha.	Approx. Cost of Acquisition (Rs.)	Approx. Cost of Development (Rs.)	Appropriate Authority
476.	4/11	Octroi Post	S. No. 10 pt. 11 pt, 12 pt, 15 pt 16 pt, 160 pt, 51 pt	1.60	-	-	PCMC
477.	4/12	Primary School	S. No. 20 pt., 21pt., 24pt., 25pt.,	0.40	10,71,000	15,00,000	PCMC
478.	4/13	Octroi Post	S. No. 45pt., 46 pt.	0.40	-	-	PCMC
479.	4/14	Parking	S. No. 146 pt., 153 pt., 167 pt., 170 pt.	0.50	17,86,000	-	PCMC
480.	4/15	Primary School	S. No. 169pt.	0.40	12,92,000	15,00,000	PCMC
481.	4/16	Retail Market (for informal sector)	S. No. 175pt.	0.10	3,80,000	1,00,000	PCMC
482.	4/17	Primary School	S. No. 127pt., 128pt.,129pt.	0.40	12,92,000	15,00,000	PCMC
483.	4/18	Garden / Park	S. No. 127pt., 128pt., 175pt.	1.00	22,04,000	7,65,000	PCMC
484.	4/19	Economically Weaker Sections housing	S. No. 131pt., 132pt.	2.00	-	-	PCMC
485.	4/20	Community Center-cum-Library	S. No. 127 pt. 175pt.	0.10	3,80,000	8,00,000	PCMC
486.	4/21	Parking	S. No. 127 pt., 128pt.,	0.05	1,90,000	-	PCMC
487.	4/22	Shopping Centre & Market	S. No. 128pt.	0.10	3,80,000	15,00,000	PCMC
488.	4/23	Secondary School	S. No. 132pt., 133pt.	1.80	23,25,600	22,00,000	PCMC
489.	4/24	Telecom Center	S. No. 143pt.	0.40	-	-	DoT
490.	4/25	Dispensary-cum-Maternity Home	S. No. 140pt.	0.10	3,15,000	15,00,000	PCMC
491.	4/26	Playground	S. No. 141pt.	0.50	11,97,000	2,50,000	PCMC
492.	4/27	Primary School (extension)	S. No. 138pt., 141pt.	0.37	9,95,400	14,00,000	PCMC
493.	4/28	Parking	S. No. 121pt.	0.50	10,64,000	-	PCMC
494.	4/29	Retail Market (for informal sector)	S. No. 116pt.	0.10	3,15,000	1,00,000	PCMC

Sr. No.	Site No.	Purpose	Location: S. No. / G. No.	Approx. Area Ha.	Approx. Cost of Acquisition (Rs.)	Approx. Cost of Development (Rs.)	Appropriate Authority
495.	4/30	Community Center-cum-Library	S. No. 138pt.	0.10	3,15,000	8,00,000	PCMC
496.	4/31	Parking	S. No. 138pt., 141pt.,	0.05	1,57,500	-	PCMC
497.	4/32	Shopping Centre & Market	S. No. 141pt.	0.10	3,15,000	15,00,000	PCMC
498.	4/33	Garden / Park	S. No. 72pt., 148pt.,	1.00	18,27,000	7,50,000	PCMC
499.	4/34	Secondary School	S. No. 72pt.,148pt., 149 pt., 150pt.,	1.80	28,35,000	22,00,000	PCMC
500.	4/35	Octroi Post	S. No. 75pt.	0.40	-	-	PCMC
501.	4/36	Bus Stand	S. No. 80pt., 92pt.,	0.20	-	-	PCMT
502.	4/37	Primary School	S. No. 112pt.	0.40	10,71,000	15,00,000	PCMC
503.	4/38	Truck Terminus & Parking	S. No. 111pt.,112pt., 122pt.	6.31	-	-	PCMC
504.	4/39	Elevated Service Reservoir	S. No. 122pt.	0.50	-	-	PCMC
505.	4/40	Police Station	S. No. 122pt.	0.05	-	-	Police Dept.
506.	4/41	Housing for Dis-housed	S. No. 123pt.	2.00	-	-	PCMC
507.	4/42	Slum Rehabilitation Site	S. No. 124pt.	3.24	-	-	PCMC
		PUNAWALE					
508.	4/43	Primary School	S. No. 27pt.	0.40	4,08,000	15,00,000	PCMC
509.	4/44	Primary School	S. No. 18pt.	0.40	4,08,000	15,00,000	PCMC
510.	4/45	Playground	S. No. 33pt.	0.50	4,56,000	2,50,000	PCMC
511.	4/46	Dispensary-cum-Maternity Home	S. No. 33pt.	0.10	1,20,000	15,00,000	PCMC
512.	4/47	Shopping Centre & Market	S. No. 33pt.	0.10	1,20,000	15,00,000	PCMC
513.	4/48	Parking	S. No. 33pt.	0.05	60,000	-	PCMC
514.	4/49	Community Center-cum-Library	S. No. 33pt.	0.10	1,20,000	8,00,000	PCMC

APPENDIX 9-B

Sr. No.	Site No.	Purpose	Location: S. No. / G. No.	Approx. Area Ha.	Approx. Cost of Acquisition (Rs.)	Approx. Cost of Development (Rs.)	Appropriate Authority
515.	4/50	Garden / Park	S. No. 32pt.	1.00	6,96,000	7,50,000	PCMC
516.	4/51	Primary School	S. No. 34pt.	0.40	4,08,000	15,00,000	PCMC
517.	4/52	Retail Market (for informal sector)	S. No. 14pt.	0.10	1,20,000	1,00,000	PCMC
518.	4/53	Telecom Center	S. No. 12pt.	0.40	-	-	DoT
519.	4/54	Elevated Service Reservoir	S. No. 12pt.	0.50	-	-	PCMC
520.	4/55	Octroi Post	S. No. 54pt., 53pt.	0.05	-	-	PCMC
521.	4/56	Primary School	S. No. 50pt.	0.40	4,08,000	15,00,000	PCMC
522.	4/57	Secondary School	S. No. 44pt., 38pt.	1.80	10,80,000	22,00,000	PCMC
523.	4/58	Primary School	S. No. 50pt.	0.40	4,08,000	15,00,000	PCMC
524.	4/59	Cremation Ghat	S. No. 46pt.	0.10	1,20,000	8,00,000	PCMC
525.	4/60	River Front Recreation site	S. No. 54pt.	2.76	12,91,200	75,00,000	PCMC
526.	4/61	Playground	S. No. 54pt.	0.50	4,56,000	2,50,000	PCMC
527.	4/62	Retail Market (for informal sector)	S. No. 54pt.	0.10	1,20,000	1,00,000	PCMC
528.	4/63	Bus Stand	S. No. 54pt.	0.20	-	-	PCMT
529.	4/64	Parking	S. No. 54pt.	0.50	4,56,000	-	PCMC
530.	4/65	Primary School (extension)	S. No. 11pt.	0.20	2,16,000	7,50,000	PCMC
531.	4/66	Economically Weaker Sections housing	S. No. 8pt., 9, 10pt.	2.00	-	-	PCMC / PHADB
532.	4/67	Dispensary-cum-Maternity Home	S. No. 8pt.,10pt.	0.10	1,20,000	15,00,000	PCMC
533.	4/68	Shopping Centre & Market	S. No. 6pt.,8pt.	0.10	1,20,000	15,00,000	PCMC
534.	4/69	Parking	S. No. 6pt.,7pt.,8pt.	0.05	60,000	-	PCMC
535.	4/70	Community Center-cum-	S. No. 6pt.,7pt.	0.10	1,20,000	8,00,000	PCMC

APPENDIX 9-B

Sr. No.	Site No.	Purpose	Location: S. No. / G. No.	Approx. Area Ha.	Approx. Cost of Acquisition (Rs.)	Approx. Cost of Development (Rs.)	Appropriate Authority
		Library					
536.	4/71	Garden / Park	S. No. 7pt., 8pt.	1.00	6,96,000	7,50,000	PCMC
537.	4/72	Primary School	S. No. 6pt.	0.40	4,08,000	15,00,000	PCMC
538.	4/73	Octroi Post	S. No. 6pt.	0.05	-	-	PCMC
539.	4/74A	Sewage Treatment Plant	S. No. 5pt.	4.00	-	-	PCMC
540.	4/74B	Sewage Treatment Plant	S. No. 4pt.	1.00	-	-	PCMC
541.	4/75	Burial Ground	S. No. 3pt.	1.00	6,96,000	5,00,000	PCMC
		RAVET					
542.	4/76	Bus Stand	S. No. 116pt., 119pt.,120pt.	0.16	-	-	PCMT
543.	4/77	Primary School (extension)	S. No. 4pt.	0.38	5,67,000	14,50,000	PCMC
544.	4/78	Swimming Pool-cum-Gymnasium	S. No. 14pt.	1.00	10,15,000	60,00,000	PCMC
545.	4/79	Crematorium	S. No. 17pt.,	0.40	5,95,000	25,00,000	PCMC
546.	4/80	Sewage Sump & Pump house	S. No. 27pt., 28pt., 33pt.	0.50	-	-	PCMC
547.	4/81	Playground	S. No. 16pt., 18pt., 20pt., 22pt.	0.50	6,65,000	2,50,000	PCMC
548.	4/82	Shopping Centre & Market	S. No. 14pt., 22pt.	0.10	1,75,000	15,00,000	PCMC
549.	4/83	Parking	S. No. 14pt.	0.05	87,500	-	PCMC
550.	4/84	Community Center-cum-Library	S. No. 14pt.	0.10	1,75,000	8,00,000	PCMC
551.	4/85	Garden / Park	S. No. 62pt.	0.50	6,65,000	3,75,000	PCMC
552.	4/86	Garden / Park	S. No. 121pt.,122pt.	0.50	6,65,000	3,75,000	PCMC
553.	4/87	Primary School	S. No. 138pt.,136pt.,	0.40	5,95,000	15,00,000	PCMC
554.	4/88	Retail Market (for informal sector)	S. No. 84pt.	0.10	1,85,000	1,00,000	PCMC

APPENDIX 9-B

Sr. No.	Site No.	Purpose	Location: S. No. / G. No.	Approx. Area Ha.	Approx. Cost of Acquisition (Rs.)	Approx. Cost of Development (Rs.)	Appropriate Authority
555.	4/89	Housing for Dis-housed	S. No. 38pt., 82pt., 83pt.,84pt.	2.00	-	-	PCMC
556.	4/90	Playground	S. No. 94pt., part of dry nallah land as in revenue map	0.50	6,65,000	2,50,000	PCMC
557.	4/91	Telecom Center	S. No. 104 pt., 105 pt., 108 pt., 109 pt.	0.40	-	-	DoT
558.	4/92	Elevated Service Reservoir	S. No. 71pt.	0.12	-	-	PCMC
559.	4/93	Town Hall	S. No. 95pt.	0.50	7,03,000	25,00,000	PCMC
560.	4/94	Parking	S. No. 95pt.	0.05	92,500	-	PCMC
561.	4/95	Shopping Centre & Market	S. No. 95pt.	0.10	1,85,000	15,00,000	PCMC
562.	4/96	Secondary School	S. No. 103pt.	1.80	16,65,000	22,00,000	PCMC
563.	4/97	Garden / Park	S. No. 103pt.	0.50	7,03,000	3,75,000	PCMC
564.	4/98	Dispensary-cum-Maternity Home	S. No. 76pt.	0.10	1,85,000	15,00,000	PCMC
565.	4/99	Water Treatment Plant	S. No. 96pt.	2.00	-	-	PCMC
566.	4/100	Retail Market (for informal sector)	S. No. 97pt.	0.10	1,85,000	1,00,000	PCMC
567.	4/101	Primary School	S. No. 96pt.	0.40	6,29,000	15,00,000	PCMC
568.	4/102	Economically Weaker Sections housing	S. No. 96 pt.	1.46	-	-	PCMC / PHADB
		KIWALE					
569.	4/103	Solid Waste Transfer site	S. No. 66pt.	1.00	-	-	PCMC
570.	4/104	Primary School	S. No. 70pt.	0.40	10,71,000	15,00,000	PCMC
571.	4/105	Primary School	S. No. 47pt.	0.40	14,62,000	15,00,000	PCMC
572.	4/106	Community Center-cum-Library	S. No. 47pt.	0.10	4,30,000	8,00,000	PCMC

541
508
033+1=34

APPENDIX 9-B

Sr. No.	Site No.	Purpose	Location: S. No. / G. No.	Approx. Area Ha.	Approx. Cost of Acquisition (Rs.)	Approx. Cost of Development (Rs.)	Appropriate Authority
573.	4/107	Slum Rehabilitation Site	S. No. 46A pt., 46 B, 46 C, 46K	7.17	-	-	PCMC
574.	4/108	Octroi Post	S. No. 46A pt.	0.10	-	-	PCMC
575.	4/109	Primary School	S. No. 46A pt.	0.40	14,62,000	15,00,000	PCMC
576.	4/110	Playground	S. No. 46A pt.	1.00	24,94,000	5,00,000	PCMC
577.	4/111	Elevated Service Reservoir	S. No. 34 pt., 35pt.	0.50	-	-	PCMC
578.	4/112	Octroi Post	S. No. 36pt.	1.61	-	-	PCMC
579.	4/113	Primary School	S. No. 42pt.	0.40	14,62,000	15,00,000	PCMC
580.	4/114	Community Center-cum-Library	S. No. 72pt.	0.10	4,30,000	8,00,000	PCMC
581.	4/115	Parking	S. No. 72pt.	0.05	2,15,000	-	PCMC
582.	4/116	Shopping Centre & Market	S. No. 72pt.	0.10	4,30,000	15,00,000	PCMC
583.	4/117	Garden / Park	S. No. 71pt., 72 pt.	2.00	42,14,000	15,00,000	PCMC
584.	4/118	Retail Market (for informal sector)	S. No. 71pt.	0.10	3,15,000	1,00,000	PCMC
585.	4/119	Economically Weaker Sections housing	S. No. 73pt.	2.00	-	-	PCMC
586.	4/120	Primary School	S. No. 73pt.	0.40	10,71,000	15,00,000	PCMC
587.	4/121	Secondary School	S. No. 40pt.,72pt.	1.80	38,70,000	22,00,000	PCMC
588.	4/122	Dispensary-cum-Maternity Home	S. No. 40pt.	0.20	7,74,000	15,00,000	PCMC
589.	4/123	Primary School	S. No. 40pt.	0.40	14,62,000	15,00,000	PCMC
590.	4/124	PCMC Zonal Office	S. No. 39pt.	0.25	-	-	PCMC
591.	4/125	Engineering Store	S. No. 39pt.	0.10	-	-	PCMC
592.	4/126	Telecom Center	S. No. 39pt.	0.40	-	-	DoT
593.	4/127	Octroi Post	S. No. 8pt.	0.40	-	-	PCMC

Sr. No.	Site No.	Purpose	Location: S. No. / G. No.	Approx. Area Ha.	Approx. Cost of Acquisition (Rs.)	Approx. Cost of Development (Rs.)	Appropriate Authority
594.	4/128	Traffic Island	S. No. 8 pt., 79 pt.	0.80	17,00,000	6,00,000	PCMC
595.	4/129	Parking	S. No. 79 pt.	0.93	18,76,800	-	PCMC
596.	4/130	Octroi Post	S. No. 75 pt., 76pt., part of road land as in revenue map	0.80	-	-	PCMC
597.	4/131	Hospital	S. No. 77 pt.	2.52	33,32,700	45,00,000	PCMC
598.	4/132	Octroi Post	S. No. 77 pt.	0.80	-	-	PCMC
599.	4/133	Police Station	S. No. 78 pt.	0.05	-	-	Police Dept.
600.	4/134	Octroi Post	S. No. 78 pt.	0.80	-	-	PCMC
601.	4/135	Retail Market (for informal sector)	S. No. 85 pt.	0.10	1,10,000	1,00,000	PCMC
602.	4/136	Primary School	S. No. 96 pt.	0.40	3,74,000	15,00,000	PCMC
603.	4/137	Sewage Sump & Pump house	S. No. 96 pt.	0.50	-	-	PCMC
604.	4/138	Cremation Ghat (extension to existing cremation shed)	S. No. 97 pt.	0.075	82,500	8,00,000	PCMC
605.	4/139	Secondary School	S. No. 86 pt., 87 pt.	1.80	9,90,000	22,00,000	PCMC
606.	4/140	Primary School	S. No. 85 pt.	0.40	3,74,000	15,00,000	PCMC
607.	4/141	Playground	S. No. 83 pt.	1.00	6,38,000	5,00,000	PCMC
608.	4/142	Town Hall	S. No. 83 pt.	0.50	4,18,000	25,00,000	PCMC
609.	4/143	Parking	S. No. 85 pt.	0.05	55,000	-	PCMC
610.	4/144	Shopping Centre & Market	S. No. 85 pt.	0.10	1,10,000	15,00,000	PCMC
611.	4/145	Garden / Park	S. No. 88pt.	1.50	8,58,000	11,25,000	PCMC
612.	4/146	Dispensary-cum-Maternity Home	S. No. 88pt.	0.10	1,10,000	15,00,000	PCMC
613.	4/147	Municipal Purpose	S. No. 89pt.	0.37	-	-	PCMC

APPENDIX 9-B

Sr. No.	Site No.	Purpose	Location: S. No. / G. No.	Approx. Area Ha.	Approx. Cost of Acquisition (Rs.)	Approx. Cost of Development (Rs.)	Appropriate Authority
614.	4/148	Bus Stand	S. No. 89pt.	0.20	-	-	PCMT
615.	4/149	Primary School	S. No. 99pt.	0.40	3,74,000	15,00,000	PCMC
616.	4/150	Garden / Park	S. No. 100, part of dry nallah land as in revenue map	3.65	13,50,250	27,37,500	PCMC
617.	4/151	Primary School	S. No. 1pt.	0.40	3,74,000	15,00,000	PCMC
618.	4/152	Primary School	S. No. 14pt.	0.40	3,74,000	15,00,000	PCMC
619.	4/153	Community Center-cum-Library	S. No. 15pt.	0.10	1,10,000	8,00,000	PCMC
620.	4/154	Parking	S. No. 15pt.	0.05	55,000	-	PCMC
621.	4/155	Shopping Centre & Market	S. No. 15pt.	0.10	1,10,000	15,00,000	PCMC
622.	4/156	Playground	S. No. 16pt.	0.50	4,18,000	2,50,000	PCMC
623.	4/157	Garden / Park	S. No. 16 pt., 19pt., 21pt.	1.00	6,38,000	5,00,000	PCMC
624.	4/158	Retail Market (for informal sector)	S. No. 19pt.	0.10	1,10,000	1,00,000	PCMC
625.	4/159	Parking	S. No. 19pt.	0.50	4,18,000	-	PCMC
626.	4/160	Slum Rehabilitation Site	S. No. 20	6.20	-	-	PCMC
		MAMURDI					
627.	4/161	Cremation Ghat	S. No. 8pt.	0.10	1,10,000	8,00,000	PCMC
628.	4/162	Sewage Sump & Pump house	S. No. 9pt.	0.50	-	-	PCMC
629.	4/163	Economically Weaker Sections housing	Abandoned Gaothan in south of village, S. No. 6pt., 7pt.,	1.44	-	-	PCMC / PHADB
630.	4/164	Playground	S. No. 4pt.	0.50	4,18,000	2,50,000	PCMC
631.	4/165	Telecom Center	S. No. 34pt.	0.40	-	-	DoT
632.	4/166	Dispensary-cum-Maternity	S. No. 3pt.	0.10	1,10,000	15,00,000	PCMC

APPENDIX 9-B

Sr. No.	Site No.	Purpose	Location: S. No. / G. No.	Approx. Area Ha.	Approx. Cost of Acquisition (Rs.)	Approx. Cost of Development (Rs.)	Appropriate Authority
		Home					
633.	4/167	Primary School	S. No. 3pt.	0.40	3,74,000	15,00,000	PCMC
634.	4/168	Community Center-cum-Library	S. No. 34pt.	0.10	1,10,000	8,00,000	PCMC
635.	4/169	Garden / Park	S. No. 34pt.	0.50	4,18,000	3,75,000	PCMC
636.	4/170	Octroi Post	S. No. 11pt.	0.05	-	-	PCMC
637.	4/171	Secondary School	S. No. 3pt.	1.80	9,90,000	22,00,000	PCMC
638.	4/172	Parking	S. No. 3pt.	0.05	55,000	-	PCMC
639.	4/173	Shopping Centre & Market	S. No. 3pt.	0.10	1,10,000	15,00,000	PCMC
640.	4/174	Retail Market (for informal sector)	S. No. 3pt.	0.10	1,10,000	1,00,000	PCMC
641.	4/175	Bus Stand	S. No. 35pt.	0.20	-	-	PCMT
642.	4/176	Primary School	S. No. 17pt.	0.40	3,74,000	15,00,000	PCMC
643.	4/177	Elevated Service Reservoir	S. No. 15pt.	0.50	-	-	PCMC
		TOTAL			**55,32,33,140**	**66,57,55,000**	
		GRAND TOTAL				**Rs. 121,89,88,140**	

APPENDIX 11-A

PHASED PROGRAMME FOR IMPLEMENTATION OF AMENITY SITES IN THE DEVELOPMENT PLAN

PHASE – I

(Within 3 years from coming into force the development plan)

Sr. No.	Revenue Village	Sector No. / Reservation No.	Approximate cost of Acquisition & Development in Rs.
		PHASE - I	
1.	Talwade	1/1	3693000
2.	Talwade	1/3	1445000
3.	Talwade	1/4	322500
4.	Talwade	1/5	2145000
5.	Talwade	1/7	2397000
6.	Talwade	1/12	3693000
7.	Talwade	1/14	2027000
8.	Talwade	1/15	255000
9.	Talwade	1/17	2027000
10.	Talwade	1/23	3595000
11.	Talwade	1/32	1655000
12.	Talwade	1/33	77500
13.	Talwade	1/34	955000
14.	Talwade	1/36	3595000
15.	Talwade	1/37	2027000
16.	Talwade	1/39	955000
17.	Talwade	1/57	1200000
18.	Chikhali	1/89	2200000
19.	Chikhali	1/92	415000
20.	Chikhali	1/97	7930000
21.	Chikhali	1/98	3220000
22.	Chikhali	1/99	2571000
23.	Chikhali	1/104	1675000
24.	Chikhali	1/106	2350000
25.	Chikhali	1/109	1675000
26.	Chikhali	1/110	187500
27.	Chikhali	1/113	2462500
28.	Chikhali	1/114	1185000
29.	Chikhali	1/123	1115000
30.	Chikhali	1/131	2095000
31.	Chikhali	1/145	1675000
32.	Chikhali	1/146	3775000
33.	Chikhali	1/150	975000
34.	Chikhali	1/151	875000
35.	Chikhali	1/152	1675000
36.	Chikhali	1/153	859000
37.	Moshi	1/156	3415000

APPENDIX 11-A

Sr. No.	Revenue Village	Sector No. / Reservation No.	Approximate cost of Acquisition & Development in Rs.
		PHASE - I	
38.	Moshi	1/157	935000
39.	Moshi	1/158	675000
40.	Moshi	1/159	1635000
41.	Moshi	1/160	1910000
42.	Moshi	1/161	1959000
43.	Moshi	1/163	763000
44.	Moshi	1/164	235000
45.	Moshi	1/168	4435000
46.	Moshi	1/171	1959000
47.	Moshi	1/172	235000
48.	Moshi	1/176	665000
49.	Moshi	1/178	3393000
50.	Moshi	1/182	1959000
51.	Moshi	1/184	235000
52.	Moshi	1/207	68183550
53.	Moshi	1/215	1635000
54.	Moshi	1/216	1959000
55.	Moshi	1/220	7285000
56.	Dudulgaon	1/222	855000
57.	Dudulgaon	1/223	1687000
58.	Dudulgaon	1/224	1555000
59.	Dudulgaon	1/227	27500
60.	Dudulgaon	1/228	1555000
61.	Dudulgaon	1/234	2695000
62.	Chowiswadi	2/2	793000
63.	Chowiswadi	2/4	55000
64.	Chowiswadi	2/5	1610000
65.	Chowiswadi	2/6	1874000
66.	Chowiswadi	2/11	1574000
67.	Chowiswadi	2/17	668000
68.	Chowiswadi	2/18	1874000
69.	Chowiswadi	2/24	910000
70.	Wadmukhwadi	2/35	793000
71.	Wadmukhwadi	2/36	3190000
72.	Wadmukhwadi	2/38	5578000
73.	Wadmukhwadi	2/46	1874000
74.	Wadmukhwadi	2/47	793000
75.	Wadmukhwadi	2/48	910000
76.	Wadmukhwadi	2/49	55000
77.	Wadmukhwadi	2/50	1610000
78.	Wadmukhwadi	2/51	1610000
79.	Wadmukhwadi	2/55	910000
80.	Charholi BK.	2/58	3775000

APPENDIX 11-A

Sr. No.	Revenue Village	Sector No. / Reservation No.	Approximate cost of Acquisition & Development in Rs.
		PHASE - I	
81.	Charholi BK.	2/63	2215000
82.	Charholi BK.	2/64	2038900
83.	Charholi BK.	2/65	3401000
84.	Charholi BK.	2/66	1815000
85.	Charholi BK.	2/67	1675000
86.	Charholi BK.	2/68	87500
87.	Charholi BK.	2/71	975000
88.	Charholi BK.	2/74	2095000
89.	Charholi BK.	2/78	1675000
90.	Charholi BK.	2/81	1515000
91.	Charholi BK.	2/86	1675000
92.	Charholi BK.	2/94	2942000
93.	Charholi BK.	2/100	975000
94.	Charholi BK.	2/101	1040000
95.	Dighi	2/117	1775000
96.	Dighi	2/123	1625000
97.	Dighi	2/124	62500
98.	Dighi	2/125	1925000
99.	Dighi	2/128	200000
100.	Dighi	2/136	625000
101.	Dighi	2/137	3325000
102.	Dighi	2/139	1925000
103.	Dighi	2/145	1625000
104.	Bopkhel	2/154	782000
105.	Bopkhel	2/155	940000
106.	Bopkhel	2/157	1640000
107.	Bopkhel	2/158	3137440
108.	Bopkhel	2/166	940000
109.	Bopkhel	2/169	1976000
110.	Bopkhel	2/173	22500
111.	Dapodi	3/4	7606100
112.	Dapodi	3/6	22843000
113.	Dapodi	3/11	3600000
114.	Dapodi	3/16	15444000
115.	Dapodi	3/22	3600000
116.	Dapodi	3/23	1150000
117.	Dapodi	3/24	10480000
118.	Dapodi	3/29	5280000
119.	Wakad	4/5	207500
120.	Wakad	4/6	1915000
121.	Wakad	4/9	2798000
122.	Wakad	4/10	515000
123.	Wakad	4/12	2571000

APPENDIX 11-A

Sr. No.	Revenue Village	Sector No. / Reservation No.	Approximate cost of Acquisition & Development in Rs.
		PHASE - I	
124.	Wakad	4/21	190000
125.	Wakad	4/22	1880000
126.	Wakad	4/33	2577000
127.	Wakad	4/34	5035000
128.	Punawale	4/59	920000
129.	Punawale	4/62	220000
130.	Punawale	4/64	456000
131.	Punawale	4/68	1620000
132.	Punawale	4/69	60000
133.	Punawale	4/70	920000
134.	Punawale	4/71	1446000
135.	Punawale	4/72	1908000
136.	Punawale	4/75	1196000
137.	Ravet	4/77	2017000
138.	Ravet	4/79	3095000
139.	Ravet	4/82	1675000
140.	Ravet	4/96	3865000
141.	Ravet	4/97	1078000
142.	Kiwale	4/109	2962000
143.	Kiwale	4/110	2994000
144.	Kiwale	4/121	6070000
145.	Kiwale	4/122	2274000
146.	Kiwale	4/123	2962000
147.	Kiwale	4/131	7832700
148.	Kiwale	4/149	1874000
149.	Kiwale	4/154	55000
150.	Kiwale	4/156	668000
151.	Mamurdi	4/161	910000
152.	Mamurdi	4/166	1610000
153.	Mamurdi	4/167	1874000
154.	Mamurdi	4/171	3190000
155.	Mamurdi	4/173	1610000
156.	Mamurdi	4/174	210000

Total Cost for Phase-I = Rs. 40,51,93,190.00

PHASE – II

(4-6 years from coming into force the development plan)

Sr. No.	Revenue Village	Sector No. / Reservation No.	Approximate cost of Acquisition & Development in Rs.
		PHASE – II	
1.	Talwade	1/2	745000
2.	Talwade	1/8	2743000
3.	Talwade	1/9	4647000
4.	Talwade	1/10	1243000
5.	Talwade	1/13	964000
6.	Talwade	1/16	955000
7.	Talwade	1/19	77500
8.	Talwade	1/20	1655000
9.	Talwade	1/27	255000
10.	Talwade	1/28	2027000
11.	Talwade	1/29	955000
12.	Talwade	1/31	2027000
13.	Talwade	1/42	415000
14.	Talwade	1/58	3595000
15.	Talwade	1/65	2571000
16.	Talwade	1/69	2193000
17.	Talwade	1/74	8042250
18.	Chikhali	1/78	2095000
19.	Chikhali	1/81	1815000
20.	Chikhali	1/83	16071000
21.	Chikhali	1/84	2327000
22.	Chikhali	1/85	1815000
23.	Chikhali	1/86	157500
24.	Chikhali	1/87	1115000
25.	Chikhali	1/94	3775000
26.	Chikhali	1/101	1515000
27.	Chikhali	1/102	975000
28.	Chikhali	1/105	2095000
29.	Chikhali	1/115	2095000
30.	Chikhali	1/116	6340000
31.	Chikhali	1/117	275000
32.	Chikhali	1/129	770000
33.	Chikhali	1/139	2095000
34.	Chikhali	1/139	275000
35.	Chikhali	1/143	1515000
36.	Moshi	1/167	1959000
37.	Moshi	1/169	2193000
38.	Moshi	1/175	1257000

APPENDIX 11-A

Sr. No.	Revenue Village	Sector No. / Reservation No.	Approximate cost of Acquisition & Development in Rs.
		PHASE – II	
39.	Moshi	1/183	1419000
40.	Moshi	1/187	763000
41.	Moshi	1/188	935000
42.	Moshi	1/191	1959000
43.	Moshi	1/193	235000
44.	Moshi	1/204	13321800
45.	Moshi	1/205	2378000
46.	Moshi	1/217	2065000
47.	Moshi	1/218	282500
48.	Moshi	1/219	4647000
49.	Dudulgaon	1/226	855000
50.	Dudulgaon	1/231	155000
51.	Dudulgaon	1/232	459000
52.	Dudulgaon	1/245	1555000
53.	Dudulgaon	1/247	1687000
54.	Chowiswadi	2/3	910000
55.	Chowiswadi	2/7	210000
56.	Chowiswadi	2/9	198000
57.	Chowiswadi	2/20	1610000
58.	Chowiswadi	2/21	198000
59.	Chowiswadi	2/22	910000
60.	Wadmukhwadi	2/27	2918000
61.	Wadmukhwadi	2/28	286000
62.	Wadmukhwadi	2/29	6638000
63.	Wadmukhwadi	2/42	1423700
64.	Charholi BK.	2/56	2095000
65.	Charholi BK.	2/59	2095000
66.	Charholi BK.	2/60	915000
67.	Charholi BK.	2/73	2095000
68.	Charholi BK.	2/76	3165000
69.	Charholi BK.	2/84	975000
70.	Charholi BK.	2/85	87500
71.	Charholi BK.	2/89	275000
72.	Charholi BK.	2/90	1675000
73.	Charholi BK.	2/92	3775000
74.	Charholi BK.	2/99	2095000
75.	Charholi BK.	2/103	2095000
76.	Dighi	2/118	925000
77.	Dighi	2/119	725000
78.	Dighi	2/130	1925000
79.	Dighi	2/131	225000
80.	Dighi	2/138	925000
81.	Dighi	2/144	1625000

APPENDIX 11-A

Sr. No.	Revenue Village	Sector No. / Reservation No.	Approximate cost of Acquisition & Development in Rs.
		PHASE – II	
82.	Bopkhel	2/153	1976000
83.	Bopkhel	2/161	1976000
84.	Bopkhel	2/162	1803000
85.	Bopkhel	2/170	1640000
86.	Dapodi	3/1	19243500
87.	Dapodi	3/5	16198000
88.	Dapodi	3/7	8640000
89.	Dapodi	3/8	9832000
90.	Dapodi	3/15	16498500
91.	Dapodi	3/20	5280000
92.	Dapodi	3/28	2200000
93.	Dapodi	3/31	22080000
94.	Dapodi	3/32	5280000
95.	Dapodi	3/34	3740000
96.	Dapodi	3/37	17340000
97.	Dapodi	3/40	4427600
98.	Wakad	4/7	1915000
99.	Wakad	4/8	1694000
100.	Wakad	4/16	480000
101.	Wakad	4/18	2969000
102.	Wakad	4/20	1180000
103.	Wakad	4/26	1447000
104.	Wakad	4/27	2395400
105.	Wakad	4/30	1115000
106.	Wakad	4/31	157500
107.	Wakad	4/32	1815000
108.	Punawale	4/46	1620000
109.	Punawale	4/47	1620000
110.	Punawale	4/48	60000
111.	Punawale	4/49	920000
112.	Punawale	4/56	1908000
113.	Punawale	4/57	3280000
114.	Punawale	4/60	8791200
115.	Punawale	4/65	966000
116.	Ravet	4/78	7015000
117.	Ravet	4/81	915000
118.	Ravet	4/83	87500
119.	Ravet	4/84	975000
120.	Ravet	4/93	3203000
121.	Ravet	4/94	92500
122.	Ravet	4/95	1685000
123.	Ravet	4/100	285000
124.	Ravet	4/101	2129000

APPENDIX 11-A

Sr. No.	Revenue Village	Sector No. / Reservation No.	Approximate cost of Acquisition & Development in Rs.
		PHASE – II	
125.	Kiwale	4/104	2571000
126.	Kiwale	4/105	2962000
127.	Kiwale	4/106	1230000
128.	Kiwale	4/113	2962000
129.	Kiwale	4/117	5714000
130.	Kiwale	4/118	415000
131.	Kiwale	4/151	1874000
132.	Kiwale	4/153	910000
133.	Kiwale	4/157	1138000
134.	Kiwale	4/158	210000
135.	Kiwale	4/159	418000
136.	Mamurdi	4/164	668000
137.	Mamurdi	4/168	910000

Total Cost for Phase-II = Rs. 37,42,06,450.00

PHASE – III

(7-10 years from coming into force the development plan)

Sr. No.	Revenue Village	Sector No. / Reservation No.	Approximate cost of Acquisition & Development in Rs.
		PHASE - III	
1.	Talwade	1/6	2522000
2.	Talwade	1/11	3421000
3.	Talwade	1/18	1399000
4.	Talwade	1/21	2027000
5.	Talwade	1/22	3019000
6.	Talwade	1/24	2027000
7.	Talwade	1/25	1841000
8.	Talwade	1/30	279000
9.	Talwade	1/35	1399000
10.	Talwade	1/38	279000
11.	Talwade	1/40	3697000
12.	Talwade	1/41	567000
13.	Talwade	1/43	2571000
14.	Talwade	1/44	1447000
15.	Talwade	1/45	2571000
16.	Talwade	1/47	955000
17.	Talwade	1/48	1399000
18.	Talwade	1/51	6000000
19.	Talwade	1/53	6300000
20.	Talwade	1/54	1500000
21.	Talwade	1/59	1399000
22.	Talwade	1/60	2027000
23.	Talwade	1/61	2027000
24.	Talwade	1/62	255000
25.	Talwade	1/66	157500
26.	Talwade	1/67	1815000
27.	Talwade	1/68	5035000
28.	Talwade	1/70	1447000
29.	Talwade	1/71	1115000
30.	Talwade	1/72	2571000
31.	Chikhali	1/80	2577000
32.	Chikhali	1/93	2095000
33.	Chikhali	1/95	87500
34.	Chikhali	1/96	3165000
35.	Chikhali	1/100	2095000
36.	Chikhali	1/103	2095000
37.	Chikhali	1/108	1765000
38.	Chikhali	1/111	2095000

APPENDIX 11-A

Sr. No.	Revenue Village	Sector No. / Reservation No.	Approximate cost of Acquisition & Development in Rs.
		PHASE - III	
39.	Chikhali	1/112	2095000
40.	Chikhali	1/118	455000
41.	Chikhali	1/120	2095000
42.	Chikhali	1/124	157500
43.	Chikhali	1/125	2577000
44.	Chikhali	1/128	3746000
45.	Chikhali	1/132	1675000
46.	Chikhali	1/133	3775000
47.	Chikhali	1/134	1675000
48.	Chikhali	1/135	87500
49.	Chikhali	1/136	975000
50.	Chikhali	1/137	1515000
51.	Chikhali	1/138	2095000
52.	Chikhali	1/141	2095000
53.	Chikhali	1/142	2095000
54.	Chikhali	1/144	2095000
55.	Chikhali	1/147	1765000
56.	Chikhali	1/148	2095000
57.	Chikhali	1/149	275000
58.	Moshi	1/154	1959000
59.	Moshi	1/155	1857000
60.	Moshi	1/166	1533000
61.	Moshi	1/173	7823000
62.	Moshi	1/190	658800
63.	Moshi	1/194	783000
64.	Moshi	1/196	1808000
65.	Moshi	1/197	1910000
66.	Moshi	1/198	1210000
67.	Moshi	1/199	205000
68.	Moshi	1/200	1910000
69.	Moshi	1/201	2894000
70.	Moshi	1/203	1131600
71.	Moshi	1/206	275400
72.	Moshi	1/208	34948000
73.	Moshi	1/209A	461950
74.	Moshi	1/209B	1759250
75.	Moshi	1/209C	766350
76.	Moshi	1/210	51163000
77.	Moshi	1/211	556200
78.	Moshi	1/212	1500000
79.	Moshi	1/214	1533000
80.	Dudulgaon	1/221	1687000
81.	Dudulgaon	1/225	584000

APPENDIX 11-A

Sr. No.	Revenue Village	Sector No. / Reservation No.	Approximate cost of Acquisition & Development in Rs.
		PHASE - III	
82.	Dudulgaon	1/236	121000
83.	Dudulgaon	1/237	155000
84.	Dudulgaon	1/241	459000
85.	Dudulgaon	1/242	1555000
86.	Dudulgaon	1/243	27500
87.	Dudulgaon	1/244	855000
88.	Dudulgaon	1/246	584000
89.	Chowiswadi	2/1	1874000
90.	Chowiswadi	2/8	668000
91.	Chowiswadi	2/15	210000
92.	Chowiswadi	2/19	793000
93.	Chowiswadi	2/23	1486000
94.	Wadmukhwadi	2/30	210000
95.	Wadmukhwadi	2/32	668000
96.	Wadmukhwadi	2/33	910000
97.	Wadmukhwadi	2/34	1874000
98.	Wadmukhwadi	2/39	638000
99.	Wadmukhwadi	2/40	210000
100.	Wadmukhwadi	2/41	1515250
101.	Wadmukhwadi	2/45	1494800
102.	Wadmukhwadi	2/52	668000
103.	Wadmukhwadi	2/53	210000
104.	Charholi BK.	2/57	275000
105.	Charholi BK.	2/70	275000
106.	Charholi BK.	2/72	315000
107.	Charholi BK.	2/75	315000
108.	Charholi BK.	2/77	1040000
109.	Charholi BK.	2/87	1040000
110.	Charholi BK.	2/88	1515000
111.	Charholi BK.	2/91	2095000
112.	Charholi BK.	2/97	1747000
113.	Charholi BK.	2/98	1040000
114.	Charholi BK.	2/104	275000
115.	Charholi BK.	2/105	2095000
116.	Charholi BK.	2/106	1765000
117.	Charholi BK.	2/107	1675000
118.	Charholi BK.	2/108	3782000
119.	Charholi BK.	2/109	2095000
120.	Charholi BK.	2/110	975000
121.	Charholi BK.	2/111	87500
122.	Charholi BK.	2/112	1675000
123.	Charholi BK.	2/113	1040000
124.	Charholi BK.	2/114	2095000

APPENDIX 11-A

Sr. No.	Revenue Village	Sector No. / Reservation No.	Approximate cost of Acquisition & Development in Rs.
		PHASE - III	
125.	Dighi	2/115	2850000
126.	Dighi	2/116	1925000
127.	Dighi	2/120	1925000
128.	Dighi	2/122	1925000
129.	Dighi	2/135	918750
130.	Dighi	2/140	1925000
131.	Dighi	2/142	2975000
132.	Dighi	2/143	62500
133.	Dighi	2/146	225000
134.	Dighi	2/147	3325000
135.	Dighi	2/148	1475000
136.	Dighi	2/150	1925000
137.	Dighi	2/151	1225000
138.	Bopkhel	2/152	907000
139.	Bopkhel	2/156	70000
140.	Bopkhel	2/159	1752000
141.	Bopkhel	2/165	1976000
142.	Bopkhel	2/167	782000
143.	Bopkhel	2/168	240000
144.	Dapodi	3/2	18748000
145.	Dapodi	3/12	2200000
146.	Dapodi	3/13	9240000
147.	Dapodi	3/27	8340000
148.	Dapodi	3/30	8640000
149.	Dapodi	3/33	2100000
150.	Dapodi	3/39	610000
151.	Wakad	4/2	2629600
152.	Wakad	4/3	1979400
153.	Wakad	4/4	4077000
154.	Wakad	4/14	1786000
155.	Wakad	4/15	2792000
156.	Wakad	4/17	2792000
157.	Wakad	4/23	4525600
158.	Wakad	4/25	1815000
159.	Wakad	4/28	1064000
160.	Wakad	4/29	415000
161.	Wakad	4/37	2571000
162.	Punawale	4/43	1908000
163.	Punawale	4/44	1908000
164.	Punawale	4/45	706000
165.	Punawale	4/50	1446000
166.	Punawale	4/51	1908000
167.	Punawale	4/52	220000

APPENDIX 11-A

Sr. No.	Revenue Village	Sector No. / Reservation No.	Approximate cost of Acquisition & Development in Rs.
		PHASE - III	
168.	Punawale	4/58	1908000
169.	Punawale	4/61	706000
170.	Punawale	4/67	1620000
171.	Ravet	4/85	1040000
172.	Ravet	4/86	1040000
173.	Ravet	4/87	2095000
174.	Ravet	4/88	285000
175.	Ravet	4/90	915000
176.	Ravet	4/98	1685000
177.	Kiwale	4/114	1230000
178.	Kiwale	4/115	215000
179.	Kiwale	4/116	1930000
180.	Kiwale	4/120	2571000
181.	Kiwale	4/128	2300000
182.	Kiwale	4/129	1876800
183.	Kiwale	4/135	210000
184.	Kiwale	4/136	1874000
185.	Kiwale	4/138	882500
186.	Kiwale	4/139	3190000
187.	Kiwale	4/140	1874000
188.	Kiwale	4/141	1138000
189.	Kiwale	4/142	2918000
190.	Kiwale	4/143	55000
191.	Kiwale	4/144	1610000
192.	Kiwale	4/145	1983000
193.	Kiwale	4/146	1610000
194.	Kiwale	4/150	4087750
195.	Kiwale	4/152	1874000
196.	Kiwale	4/155	1610000
197.	Mamurdi	4/169	793000
198.	Mamurdi	4/172	55000
199.	Mamurdi	4/176	1874000

Total Cost for Phase-III = Rs. 43,95,88,500.00

Grand Total cost for development
= **Phase-I + Phase-II + Phase-III**
= **40,51,93,190+ 37,42,06,450+43,95,88,500**
= **Rs. 121,89,88,140.00**