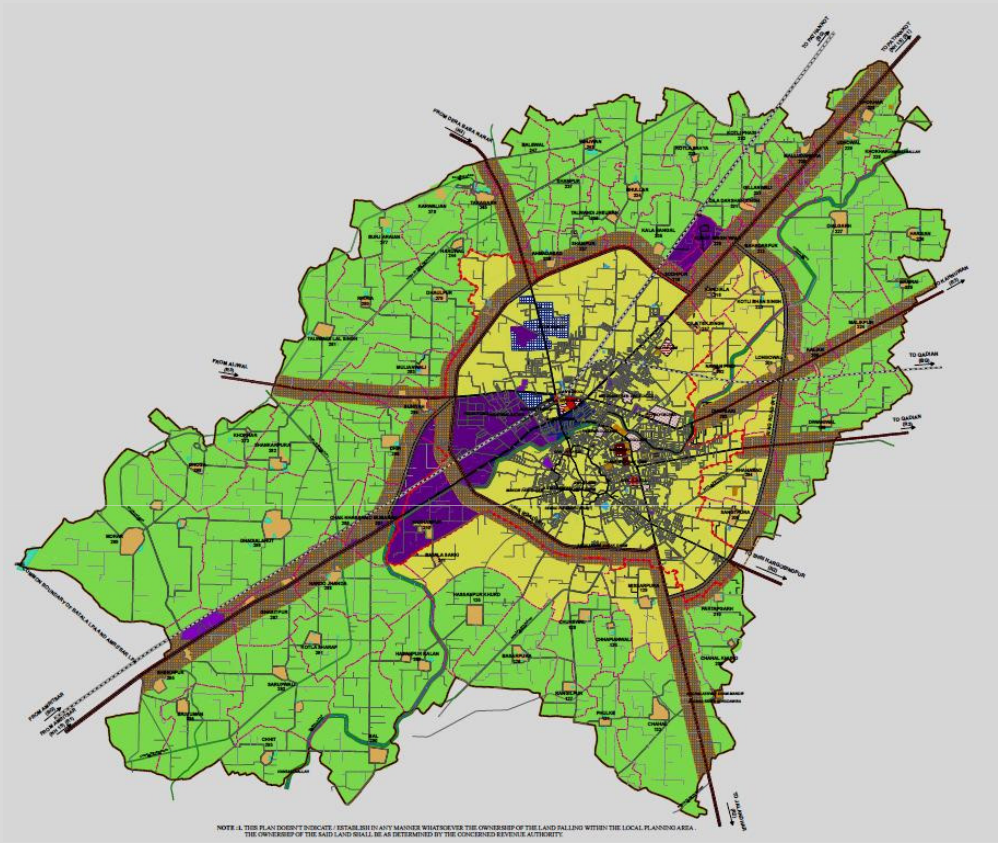
MASTER PLA
ATALA LPA
010- 031



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PRE ACE

Ba ala, wi h his ory spanning over ore han 350 years is known o be he second ho e of firs Sikh Guru Nanak Dev ji. Ci y holds he dis inc ion of ranking nex o Ludhiana in he s a e of Punjab in er s of i s role and i por ance in he parlance of indus ry. Known for i s Cas ing Iron and Machine Tools Indus ry, ci y also houses any religious and his orical places including gurudwaras rela ed wi h he arriage of Guru Nanak Dev ji like Gurudwara Dera Sahib and Kandh Sahib, apar fro Achaleshwar Te ple, Baradari, Sha sher Khan To b, Vir Hakika Rai Sa adh e c.

Ba ala, he ehsil headquar er of dis ric Gurdaspur, is loca ed along A ri sar-Pa hanko NH 15 and A ri sar-Pa hanko Railway Line. The indus rial ci y has high degree of rail and road accessibili y and connec ivi y wi h o her i por an urban cen res of he s a e.

Provisional figures of Census 2011 ranks Ba ala as he 7^{h} larges ci y in he s a e and firs in he dis ric of Gurdaspur wi h popula ion s anding a 1,5 ,400 persons. The ci y has he dis inc ion of surpassing he popula ion of Pa hanko , ano her ci y of he ers while Gurdaspur dis ric , which had ore popula ion han Ba ala in Census 2001.

Considering he role and i por ance of Ba ala in leveraging he econo y of he s a e and need for pro o ing ra ional, balanced, orderly, sus ainable and s a e of ar develop en of Ba ala, Punjab rban Planning and Develop en Au hori y (P DA) en rus ed he ask of preparing he Mas er Plan of Ba ala LPA o SAI Consul ing Engineers Pv . L d., Ah edabad. The ask was in addi ion o prepara ion of Mas er Plans of Local Planning Areas of five ci ies/ owns of s a e of Punjab including A ri sar, Kapur hala, Pa hanko , Gurdaspur and Tarn Taran.

SAI Consul an s feel privileged o have he honour of being given he oppor uni y of preparing he Mas er Plan of Local Planning Area of Ba ala spanning over an area of 1 5.88 sq. k s., co prising of 1 urban, i.e. Ba ala Municipal Council, and 77 rural se le en s. As 10 rural se le en s a ong his fall o ally wi hin Ba ala Municipal area, he Local Planning Area in real er s consis s of Ba ala Municipali y and 7 rural se le en s only. Mas er Plan of Ba ala LPA for he period 2011-2031 has now been prepared af er under aking de ailed s udy and carrying ou in-dep h analysis of his orical, cul ural, physical, social and econo ic develop en of he own and i s environs, bringing ou in he process ajor roadblocks ha pering he orderly grow h and develop en of he own. Major reco enda ions for leveraging he grow h and develop en of Ba ala are he ou co e of in ensive consul a ive process involving series of ee ings wi h various s akeholders including paras a al agencies, exper s, individuals and various in eres groups besides e bers of he hink ank. I is hoped ha wi h he finaliza ion of he Mas er Plan of Ba ala

LPA, the town and local planning area will be launched on the path of rapid physical and economic development trajectory in the next two decades. With the effective implementation of the Master Plan of Batala LPA, avenues of opportunities for employment and economy shall expand enormously and challenges for public administration shall increase.

On the occasion of finalization of the Master Plan of Batala LPA, we would like to place on record and extend our special thanks and gratitude to Hon'ble Chief Minister, Sardar Parkash Singh Badal and Hon'ble Deputy Chief Minister, Sardar Sukhbir Singh Badal, of the State of Punjab for approving the Master Plan and making it operational to guide the destiny of agro-based, industrial, historical, cultural and spiritual town of the state of Punjab.

Master Plan of Batala LPA is a humble effort to decongest the core city, create self-contained communities, decentralize the economic opportunities, minimize travel &industrial pollution, ensure better quality of life, promote orderly development and leveraging the economy of Batala to launch it on the path of rapid growth curve. The prime objective of the entire exercise of preparing the Master Plan has been to infuse vitality while retaining the vibrant character of the town. In order to create the local ownership of Master Plan, as a document of the people, both intensive and extensive interactions by means of series of Think Tank meetings were organized with the wide spectrum of the society & intelligentsia of the town and region followed by the publication of the draft plan for inviting objections and suggestions from the interested groups, community, stakeholders, parastatal agencies, NGOs and CBOs. The support rendered by the broad spectrum of society in terms of ideas, thoughts and valuable suggestions related to planning, development and management for making Batala as a vibrant and role model of urban development and governance is gratefully acknowledged.

The task assigned for preparing the Master Plan was enormous and challenging. It would not have been completed without the support and guidance of state and local level authorities. SAI Consultants would like to place on record, its gratitude for the valuable guidance and support given by the officials of the State Govt. and Department of Town and Country Planning, Punjab. The valuable guidance and unstinted support of the following officers of the State Govt. is gratefully and humbly acknowledged for making it possible to take the task of preparing the Master Plan of Batala LPA to its logical conclusion:

1) *Sh. S. K. Sandhu, IAS, Principal Secretary, Housing and Urban Development, Punjab.*
2) *Sh. S. S. Sandhu, IAS, Former Principal Secretary, Housing and Urban Development, Punjab.*

3) *Sh. M. S. Sidhu, Chief Administrator, PUDA and Director, Town and Country Planning, Punjab.*
4) *Sh. Rajinder Sharma, Former Advisor, Town Planning, PUDA.*
5) *S. Kuldip Singh, Chief Town Planner, Punjab.*
6) *S. Harnek Singh, Senior Town Planner, Punjab.*

Our sincere thanks are also due to Dr. Abhinav Trikha, the Deputy Commissioner, Gurdaspur, Shri Sandeep Rishi, Chief Administrator, Amritsar Development Authority, and President, Municipal Council, Batala for their support.

Support given by Madam H. K. Grewal, Senior Town Planner, Shri Pankaj Bawa, S. H. S. Bajwa and S. Jaswinder Singh, District Town Planners, and Shri Amit Minhas and S. Prabhjit Singh Dhillon, Assistant Town Planners is also acknowledged. Acknowledgement is also made to the former Senior Town Planners, Shri M. L. Kaushal and S. Gulzar Singh, and S. Inderjit Singh, former DTP, Gurdaspur for their guidance and support in the preparation of the Master Plan. Thanks are also due to the staff of T&CP Deptt., who helped us in every possible manner to successfully complete the project. We also express our gratitude to the PRSC, Ludhiana, for supplying the Base Map of the Planning Area, based on which the Proposed Landuse Plan of Batala LPA has been prepared. Sincere thanks are also due to all officials/persons who directly or indirectly contributed in giving final shape to the Master Plan.

The team at SAI Consulting Engineers Pvt. Ltd., Ahmedabad and at Project Office, Amritsar has made a humble and sincere attempt to prepare a realistic and futuristic document based on the ground realities. It is hoped that the Master Plan will meet the hopes and aspirations of not only the present but also the future generations of the city in order to usher an era of peace and prosperity through rational and planned growth.

The key professionals involved in the preparation and finalization of Master Plan of Batala Local Planning Area include:

1) *Mr. Jit Kumar Gupta, Advisor, Amritsar Project Office, Punjab.*
2) *Mr. Manjit Singh, Advisor, Amritsar Project Office, Punjab.*
3) *Mr. Nitin Shah, President and COO.*
4) *Mr. Xerxes Rao, Assistant General Manager.*
5) *Ms. Rita Sharma.*
6) *Mr. Virendra Kumar Pal.*
7) *Ms. Jaskiran Kaur.*
8) *Ms. Ritika Arora.*
9) *Mr. Laxman Sharma.*

10) Mr. Neeraj Sharma.

11) Mr. Sukhjit Singh.

12) Mr. Dipak Bhatt, and

Other supporting staff from Headquarter (Ahmedabad) and Project Office (Amritsar).

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ABBREVIATIONS

A. D.	Anno Domini
ASI	A cheological Su vey of India
ATM	Automatic Telle Machine
DO	Block Development Office
IS	Bu eau of Indian Standa ds
OD	Biological Oxygen Demand
CAGR	Compound Annual G owth Rate
C O	Community Building O ganisation
CI	Casting I on
CIP	City Investment Plan
CL	Change of Land se
COD	Chemical Oxygen Demand
D.C.	Deputy Commissione
DCR	Development Cont ol Regulations
DG Sets	Diesel Gene ato Sets
DIC	Dist ict Indust ial Cent e
DO	Dissolved Oxygen
DPR	Detailed P oject Repo t
DTP	Dist ict Town Planne
ECS	Equivalent Ca Space
EDC	Exte nal Development Cha ges
EWS	Economically Weake Section
FAR	Floo A ea Ratio
FGD	Focus G oup Discussion
FY	Financial Yea
GIS	Geog aphic Info mation System
gpcd	G am Pe Capita Daily
Ha/Hct	Hecta e
HHI	Household Indust y
IC	Intensive Ca e nit
IIM	Indian Institute of Management
IIT	Indian Institute of Technology
IRC	Indian Road Cong ess
ISI	Indian Standa d Institute
IT	Info mation Technology
ITI	Indust ial T aining Institute
JNN RM	Jawaha Lal Neh u National ban Renewal Mission
K	Kilo Volt
LIG	Low Income G oup
LPA	Local Planning A ea
lpcd	Lit e Pe Capita Pe Day
MAH	Maximum Accident Haza dous Indust ies)
M. Cl.	Municipal Council
MDR	Majo Dist ict Road
MINAR	Monito ing of India National Aquatic Resou ces
MLD	Million Lit es Daily
MORTH	Minist y of Road T anspo t and Highways
MP	Maste Plan
MT	Met ic Ton
N C	Nation al Building Code
NGO	Non Gove nment O ganization
NH	National Highway
NIC	National Indust ial

	Classification
NIMBY	Not In M Back ard
NO	N trous Ox de
NTU	Nephe ometr c Turb d t Un t
ODR	Other D str ct Road
OHSR	Over Head Storage Reservo r
OUVGL	Opt mum Ut sat on of Vacant Government and
P PR	Punjab Apartment and Propert Regu at on Act, 1995
P U	Punjab Agr cu tura Un vers t
pH	Power of H drogen
PHC	Pr mar Hea th Centre
PPCB	Punjab Po ut on Contro Board
pph	Persons Per Hectare
PPP	Pub c Pr vate Partnersh p
PRSC	Punjab Remote Sens ng Centre
PRTPD ct	Punjab Reg ona and Town P ann ng and Deve opment Act, 1995
PRTC	Punjab Road Transport Corporat on
PSIEC	Punjab Sma Industr es and Export Corporat on m ted
PSP	Pub c Stand Posts
PUD	Punjab Urban P ann ng and Deve opment Author t
PWD (B & R)	Pub c Works Department (Bu d ng and Roads)
ROB	Ra wa Over Br dge
ROW	R ght of Wa (of Roads)
SCO	Shop cum Off ce
SDO	Sub D v s ona Off ce
SDM	Sub D v s ona Mag strate
SH	State H ghwa
SO	Statutor Order
SO_2	Su phur D ox de
SPM	Suspended Part cu ate Matter
SSP	Sen or Super ntendant of Po ce
STP	Sewage Treatment P ant
SWM	So d Waste Management
SWOT	Strengths, Weaknesses, Opportun t es and Threats
TCPO	Town and Countr P ann ng Organ sat on
TDR	Transfer of Deve opment R ghts
TDS	Tota D sso ved So ds
TP Schemes	Town P ann ng Schemes
U. .	Urban Agg omerat on
UBDC	Upper Bar Doab Cana
UDPFI	Urban Deve opment P ans Formu at on and Imp ementat on (Gu de nes)
UIDSSMT	Urban Infrastructure Deve opment Scheme for Sma and Med um Towns
ULB	Urban oca Bod

Executive Su ary

- Batala is an important industrial city of Punjab State as well as District Gurdaspur and is known for its foundry industry. At regional level, it also has many important religious and historical centres.
- Being located on Amritsar-Pathankot National Highway 15/Railway Line, it has high degree of road and rail connectivity with neighboring urban centers of districts of Punjab State, Himachal Pradesh and Jammu and Kashmir
- Batala is a class I city with population recorded as 1,47,872 as per 2001 Census. It ranked second among the urban centres of the district after Pathankot. However, in 2011 Census, the city has surpassed the population of Pathankot city. According to Provisional Population Totals of Census 2011, Batala Municipal Council has registered 1,56,400 population, in comparison to 1,48,357 of Pathankot Municipal Council.
- According to Census 2001, the city holds 27.6% of urban population of the Gurdaspur district. City has recorded high degree of population growth (200% approx) during last 50 years (1951-2001). It recorded a growth rate of 43.6 % during the last decade.
- With a view to rationalize the future development and to remove the existing mismatch in the development infrastructure, Government of Punjab decided to prepare a Master Plan for the Batala Local Planning Area under the provision of Punjab Regional and Town Planning and Development Act, 1995 (amended 2006) .
- For the preparation of the Master Plan, Local Planning Area of Batala city was notified under section 56 (i) of the Punjab Regional and Town Planning and Development Act, 1995 (amended 2006) vide notification number 12/5/2007-4HGI/7569, dated 18th September, 2007.
- The Local Planning Area comprises of 1 urban and 77 rural settlements. The total area of Batala LPA is placed at 16,588 hectare, out of which 3,273 hectare falls within the Municipal Council. As per census 2001, the total population of LPA is 2,30,863 persons as against the 1,47,872 persons of Municipal Council.
- In terms of area, Batala city accounts for 22 % of the area of the LPA, whereas it houses 2/3rd (64%) of the LPA population.
- Being an industrial city, work force participation ratio in LPA is 31.16%. Within Batala city, percentage in service sector is towards higher side.
- Industrial growth in Batala is negative. The main reason for this is the high prices of raw iron and Freight Equalisation policy, which was introduced by the government. This has caused many industries to shut down due to the profit margin being dropped. Because of

the shut down, the number of industrial units in Batala decreased to about 22% from year 2004 to 2008.

- Batala shares the maximum number of large-scale industries within the district.
- As per Census 2001, the number of occupied residential houses was placed at 24,025. The household size was found to be 6. Percentage growth rate of residential houses during the last decade was placed at 88%.
- Batala city has high degree of slum population (23%), which means every 5th resident of the city is a slum dweller. There are total eight slums in the city, which constitute 3820 households. Slums in the city are located along NH-15, along railway line, near industrial focal point, and in and around walled city of Batala.
- Only 21% of the total M. Cl. area and 58% of population is covered through water supply system. On the other hand, the area coverage of the water supply network within the developed area of the Municipal Council is 40% approximately. The 42% of the M. Cl. population is served through stand post and independent setup. The per capita water supply is placed at 90 lpcd. Average daily consumption of water is of the order of 8.76 MLD. City has high degree of unaccounted water (43%). There is neither a water treatment plant in the city nor is quality of water checked. The major source of water is the ground water. Due to poor water management, water table is rapidly falling.
- 78% of the population has underground sewerage facility. Out of total area of Municipal Council, 73% is uncovered, whereas in terms of developed area only 27% is not covered through the network. There is no sewage treatment plant in the city, and the sullage is directly disposed off in the Hansali Drain leading to ground water pollution.
- Storm water drainage is absent in the city. There is water logging during the rainy season. Storm water is drained through open drains and natural channels.
- Solid waste management is of poor quality. There is no segregation of waste and disposal of waste is not carried out scientifically. Most of the waste is dumped along the existing roads/railway lines.
- City has lot of traffic and transportation problems due to inadequate road network and haphazard growth of the city. City lacks parking spaces leading to congestion in the commercial area. Majority of road spaces are encroached by informal sectors. Inter and intra city traffic are not segregated, and road geometry and quality of road surface are poor. Location of Bus stand, passing of National Highway and railway line through the city causes major traffic problems. There is no hierarchy of road network. Absence of truck terminal leads to parking of trucks on the road causing congestion/accidents.

- The spatial distribution of education facilities is uneven, unplanned and haphazard. Health facilities are not adequate and unevenly distributed. Number of beds do not confirm to the norms. City also lacks in open spaces and sport facilities.
- City suffers from noise and air pollution. Use of generators in the context of long electricity cuts leads to air and noise pollution.
- Existing land use has predominance of residential area, whereas area under traffic and transportation and open spaces is minimal. Only 45% of the area within the urban limits is developed, whereas rest is yet to develop. City lacks in recreational activities and organized commercial areas indicating poor quality of life in general. Contribution of industries is minimal and the economy is largely based on the foundry industry and agricultural produce.
- Preparation of Master Plan was based on the participatory process involving members of the Think Tank and the District Administration. Detailed studies of the city were carried out physically besides accessing data/studies already available with the parastatal agencies. The demographic data was sourced from Census reports.
- Based on detailed studies, SWOT analysis was carried out to bring out the strength of the city, identify weakness which hamper the growth of the city, taking in to account the opportunities offered by the industrial environment, administrative structure, and historical perspective of the city besides overcoming the emerging threats. The studies made, analysis carried out and interaction held with experts and stakeholders formed the basis of preparation of the Master Plan.
- The objectives of the Master Plan outlining the future orderly growth of the city for next two decades (2011-2031) have been identified in terms of rationalizing future growth and development, rationalizing traffic and transportation network, creating more open spaces, creating self-contained communities and providing adequate physical and social infrastructure, besides bridging gaps in the available services.
- In order to make Batala city a vibrant urban settlement, vision and mission statement for the city has been prepared providing for Batala to be industrial city of the state based on its available strength in terms of quality technical institutions.
- The population estimates made on the basis of 5 different methods place the population of Batala urban area and LPA as under:

P pulati Pr jecti r atala PA

evel settle e ts	2009	2011	2021	2031
Batala (MCl)	186550	195845	261480	46651
Villag s (LPA)	880 8	9 980	106424	120515
Proj ct d population for LPA	274588	289825	67904	467166

- The Master Plan also details out the infrastructure requirement in respect of water supply, sewerage, solid waste management, storm water drainage, traffic and transportation network, educational institutions, health care facilities, utilities and services, etc.
- Proposed Landuse Plan prepared for 2031 provides for
  - Rationalizing the population distribution and decongesting the core area of the city by including 193.74 hectare as the additional area outside Municipal limits for development.
  - The residential development is further envisioned in 2 broad categories i.e. high density and low density residential development, to cater to different categories of income groups.
  - To provide more area under Industrial Zone taking into consideration its industrial character, to create more options for economic development.
  - To increase the area under road network for improving the capacity of the road network.
  - To create Ring Road in continuation with existing bypass between Jalandhar Road and NH-15 in order to rationalize inter and intra city traffic.
  - To rationalize the development of NH-15 by creating appropriate service roads, footpaths, improving road junctions, etc., thereby easing the flow of traffic within the city.
  - To relocate the Bus Stand on the stretch between the NH-15 and Jalandhar Road as per availability of land.
  - Five Over-Bridges have been proposed in order to minimize the traffic congestion on the railway crossings. A well-defined hierarchy of road network ranging from R1 to R6 has been proposed for the smooth flow of the traffic with minimum road of 12 m width.
  - Seven road junctions have been proposed for improvement falling on Jalandhar Road, Amritsar Road, Pathankot Road, Dera Babanank Road, existing Bypass, etc.
  - Transport Nagar is proposed, which will be part of the proposed Logistic Park or the industrial zone to have better interface in the movement of the goods traffic on NH15.
  - Parking lots have been proposed to be created at the major nodal centres.
- Master Plan proposals are proposed to be implemented through a well defined system of zoning regulations.
- The total investment estimated to implement the Master plan proposals up to 2031 have been placed at Rs.1028.86 crores, which includes Rs. 299.50 crores for the roads, Rs. 64.12 for water supply, Rs. 86.60 crores for Sewerage, Rs. 435 crores for Storm Water Drainage, Rs. 51.99 crores for solid waste management besides Rs. 119.66 crores for the

improvement of electricity. The funds for the city is to be generated through various innovative options including funds made available by Govt. of India, state govt., stakeholders and involving public-private partnership. In addition, operational efficiency and better governance are proposed to be leveraged to generate resources, minimize expenditure and generate more revenues.

CHAPT R 1

INTRODUCTION

1.1 INITIA ST PS

1.1.1 ACKGROUND

Urban areas in he pas have no received much a en ion in erms of heir planning, developmen and managemen despi e he fac ha ci ies and economic developmen are inex ricably linked. Because of high produc ivi y of urban areas, economic developmen ac ivi ies ge loca ed in ci ies. Accordingly, i is desirable ha human se lemen s are provided wi h necessary planning and developmen inpu s, so ha heir orderly grow h and developmen is ensured. This would also be necessary for ensuring efficien func ioning of human se lemen s, for improving heir produc ivi y and for providing desirable quali y of life o i s residen s in order o ca er o heir economic, physical and me aphysical needs. The urban developmen s ra egy for any s a e hus assumes impor ance for no only i s economic emancipa ion bu also i s physical well being.

Therefore, he real challenge for he planning and developmen of owns/ci ies is o promo e balanced developmen in all spheres of urban life, physical, social and economic in a comprehensive manner. There is need o make urban ransi ion efficien , equi able and cos effec ive by making policies and bringing ou new projec s/schemes. For his Mas er Plan prepara ion becomes he guiding principle for wiping ou he defici s in urban infras ruc ures, mining he problems and exploring he po en ials as per he own/ci y people.

“Master Pla (MP)” is ide ti ied as a strategic t l t achie e the ab e bjecti es.

Considering he role and impor ance of ra ional and orderly grow h of urban cen res, he Governmen of Punjab in ends o s reamline he developmen process in urban se lemen s, o ensure ha hese se lemen s con inue o achieve heir objec ives of improved efficiency and produc ivi y. Accordingly, i is desirable o have a s ringen check on haphazard developmen and have an op imum land use plan for hese ci ies/ owns. In he process, he s a e governmen has aken he decision o prepare Mas er Plans for all owns and ci ies for a direc ed developmen , and o provide world class ameni ies o i s people.

The Punjab Urban Planning and evelopmen Au hori y is an apex ins i u ion es ablished in July 1995 for promo ing he developmen of balanced urban grow h in he S a e of Punjab. PU A has under aken he ask of providing planned residen ial, commercial and indus rial spaces incorpora ing he la es s a e of he ar echnology and own planning norms.

In his process, PU A has aken up he prepara ion of he Mas er Plan for Ba ala Local Planning Area wi h he guidance from Governmen of Punjab o address he infras ruc ure

and service delivery gaps in Batala LPA and to make the growth and development of Local Planning Area rational. The key objective of the Master Plan is to formulate a long-term vision and strategy to make the Local Planning Area vibrant, livable and creditworthy. Besides rationalizing the land use pattern, the Master Plan will also facilitate the identification of sectoral investments and reform areas needed, to transform the Local Planning Area.

1.1.2 O JECTIVES

The prime objective of the Master Plan is to promote, guide and rationalize the future growth and development of urban centres. It will endorse growth in the desired direction, promote economic development and service delivery and provide amenities to its people. Master Plan ensures rational policy choices besides providing a flexible framework based on ground realities for a defined time span.

Master Plan is an appropriate and scientific tool for promoting systematic & planned growth of the city.

(i) Identifying existing gaps in physical infrastructure & bridging those gaps.

(ii) Making assessment of the city and to suggest strategies for its economic development.

(iii) Leveraging economy.

(iv) Rationalizing of land use and their interrelationships.

(v) Minimizing haphazard and sustained growth and development of town/cities and to achieve planned growth to create healthy living environment.

(vi) Promote better urban governance and resource generation for urban and planned development.

(vii) Rationalizing the orderly movement of traffic and transportation within the town and defines the area for laying down network of various services.

(viii) Indicating spatial distribution of physical/social infrastructure for optimum use.

(ix) Ensuring systematic, balanced & integrated development.

(x) Framing mechanism/strategies for solving out the core area problems.

1.1.3 SCOPE OF WORK

The scope of Master Plan to be prepared covers the following aspects:

(i) Collection and review of available data, documents, reports etc and site visits.

(ii) Sector studies in terms of demand, availability and identifying gaps in service delivery.

(iii) Formulating vision and working out manning strategy.

(iv) Formulation of concept plan and policies for the growth centres, growth corridors etc.

(v) Preparation of Integrated Infrastructure Plan for all areas constituting designated Local Planning Areas as per projected requirements.

(vi) Preparation of detailed Zonal Development Plan including approximate location and extent of land uses such as residential, industrial, commercial etc. and Development Control Regulations.

(vii) Review of ongoing and proposed projects, and other schemes announced by the govt. under JNNURM, UIDSSM, OUVGL schemes etc. and to incorporate them in the plan.

(viii) Incorporation of all the statutory provisions under the PRTPD Act, 1995 (amended 2006).

(ix) Formulation of framework for implementation of the Master Plan, Zonal Plan and Development Control Regulations.

(x) Prioritizing the projects and formulation of Investment Plan.

(xi) Formulating Investment Plan with appropriate financing strategies.

(xii) Focus on the reforms to be carried out at the State and District level in consonance with the vision and strategic plan outlined to sustain the planned interventions

1.1.4 EGA FRAMEWORK FOR MASTER P AN

PREPARATION OF MASTER P ANS UNDER "THE PUNJA REGIONA AND TOWN P ANNING AND DEVE OPMENT ACT, 1995 (AMENDED 2006)"

To control and regulate the development of towns and cities in the state of Punjab, the Master Plans are to be prepared as a statutory requirement. Procedure for preparing the Master Plan under the Punjab Regional and Town Planning and Development Act, 1995 (hereinafter called PRTPD Act, 1995) as amended 2006), has been defined in Chapter X of the said Act.

Looking at the amended provisions, the procedure of preparing Master Plan under the Punjab Regional and Town Planning and Development Act, 1995 can be defined as:

(i) Identifying and declaration by the State Government of Local Planning Area of the urban settlement for which Master Plan is to be prepared.

(ii) Designated Planning Agency to prepare the Master Plan of the Local Planning Area within a period of 1 year of the designation or such time, which may be extended by the State Government from time to time for preparing the Master Plan and submit to the State Government for approval.

(iii) Designated Planning Agency will prepare a Master Plan which will comprise of:

a) Preparing Existing Land Use Map.

b) Defining manner in which land shall be used.

c) Allocation of land for different purposes.

d) Indicating/defining the existing/proposed road networks & other lines of communication.

e) Defining Zoning Regulations to regulate built environment, open spaces and use of building/structure /land.

f) Indicating areas covered under heritage sites and manner of their protection/ preservation/conservation besides regulating and controlling the development of such sites.

g) Master Plan will include both maps and write up (report) essential to explain and illustrate the study, analysis and proposals of Master Plan.

(iv) After the Master Plan is prepared and submitted, the State Government may ask the Planning Agency to make amendments, wherever required in the Master Plan.

(v) After approval of the Plan, the Existing Landuse Plan and Master Plan to be notified by the Designated Planning Agency under the direction of the State Government for calling public objections, within 30 days in writing on the Existing Landuse Plan and Master Plan.

(vi) Considering the objection received on the Landuse Plan/ Master Plan by the State Govt. and asking the designated Planning Agency to modify the Plan (u/s 70(4))

(vii) Designated Planning Agency to carry out amendments as ordained by the State Govt. and resubmit the Master Plan to the State Govt. for approval.

(viii) After amendment of the Master Plan and approval of the State Government, designated Planning Agency to publish the Master Plan within 30 days (u/s 70(5)).

(ix) Master Plan shall come into force from the date of publication (u/s 70 (5)).

(x) The Master Plan will be subject to revision after every 10 years of the operation of the Plan.

The Act also provides for "Control of Development and Use of Land in Area where Master Plan is in Operation"

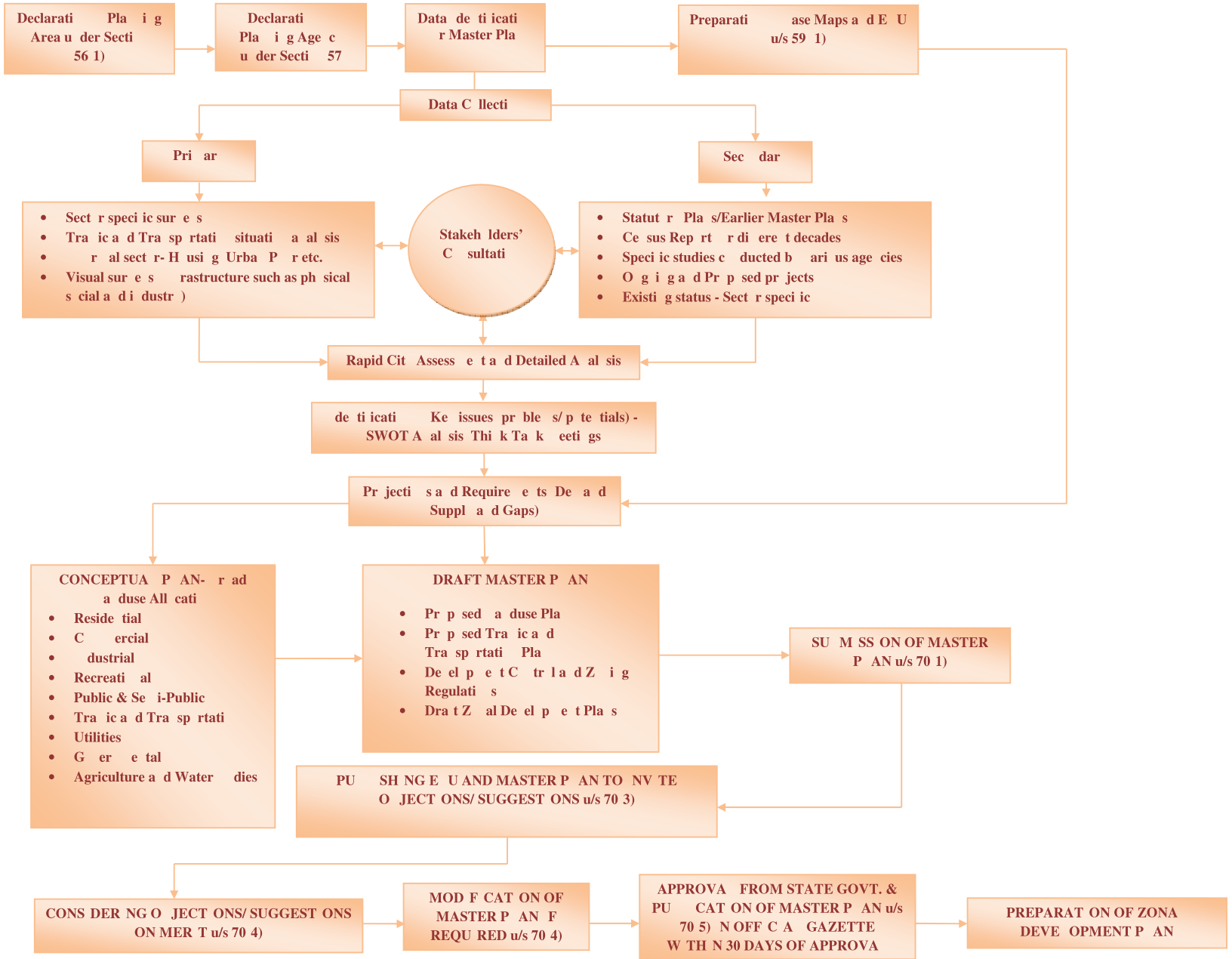
1.1.5 APPROACH TO THE MASTER P AN

Approach to the preparation of Master Plan would involve outlining the critical issues of town development, undertaking a demand-supply gap analysis and formulating a management framework including outlining strategies and guidelines for future growth and development of Batala LPA. It will also include options for promoting rational development through the introduction of a regulatory mechanism including realistic planning and management interventions within the overall regulatory and institutional framework. A Development Implementation Action Plan comprising of implementation schedule, role of stakeholders, regulation and institutional strengthening mechanism will form integral form of the Master Plan. The Master Plan will take into account the current status of municipal

services - its fiscal status, operational and management procedures, besides putting in place effective monitoring mechanism.

The detailed methodology for the preparation of Master Plan of Batala LPA defining the collection of data, assessment of the town, preparing thematic maps, identifying gaps in service delivery and infrastructure network, identifying strengths, weaknesses, opportunities and threats, preparing Existing Landuse Plan, Development Plans, Zonal Development Plan, etc. has been defined below (refer Fig. 1):

Fig. 1: METHODO OGY



1 1 6 METHO O GY FOR MA TER P AN

Th var ous stag s of pr parat on of Mast r Plan nclud :

1. Id nt f cat on of Local Plann ng Ar a as p r th Gov rnm nt not f cat on und r PRTPD Act, 1995 (am nd d n 2006).
2. Pr parat on of Ex st ng Land s Plan.
    - *sing Satellite Imageries*
    - *sing available plans*
    - *Ground Surveys*
    - *Revenue Plans*
3. Ass ssm nt and analys s of Local Plann ng Ar a n t rms of
    - *Regional Setting*
    - *Historical Evolution*
    - *Demograp ic Studies*
    - *Socio-Economic Studies*
    - *P ysical and Social Infrastructure*
    - *Water Supply, Solid Waste Management, Po er Electricity.*
    - *Educational, Medical, Recreational, Miscellaneous facilities.*
    - *Environmental Studies*
    - *Heritage and Tourism*
    - *Gro t Pattern*
    - *Landuse Studies*
    - *Available studies and report*
    - *Ongoing and proposed projects*
4. Involv ng ta hold rs (through GDs and p rsonal nt rv s).
    - *Meeting it experts*
    - *T in Tan Meetings*
    - *NGOs/ Private agencies.*
    - *Public representatives*
5. Gaps and Probl m Id nt f cat on through
    - *Comparison it available norms and standards*
    - *Identification of t e critical problems*
    - *Identification of t e infrastructure gaps*

6. Carrying out SWOT analysis b*ased upon*
    - *Studies made and analysis carried on.*
    - *City assessment*
    - *Stakeholders' perception*
    - *Identified Problems and gaps*
    - *Identifying major social and economic drivers*
7. Working out requirements
    - *Population projections*
    - *Norms and Standards.*
    - *Broad Land use requirements.*
    - *Demand and Supply gap (Infrastructure).*
8. Defining Conceptual Framework through
    - *Defining Vision for future growth and development*
    - *Identifying broad objectives*
    - *Laying down Mission Statements for critical areas*
9. Preparation of Concept Plan.
10. Evolving Proposed Land Use Plan and Traffic/ Transportation Plan along with Development Control Regulations (DCRs)
    - *Based on existing land use plan*
    - *Studies and assessment made*
    - *Gaps and problem identified*
    - *Stakeholders' perception*
    - *Objectives framed*
    - *Future population growth*
    - *Future infrastructure requirements*
    - *Available land for development*
11. Preparing Phasing and Investment Plan
12. Evolving Zonal plans based on Final Land Use

1.1.7 OCA P ANNING AREA

The Local Planning Area of Batala comprises of 78 villages and one urban settlement i.e. Batala Municipal Council. (M. Cl. includes area and population of 10 villages). Apart from these, 11 villages fall partially within the municipal limits. The Local Planning Area was notified under section u/s 56 (i) of the Punjab Regional and Town Planning and Development

Act, 1995 (amended 2006) vide notification number 12/5/2007-4HG1/7569, dated 18th September, 2007. The Chief Town Planner, Punjab has been designated as the Planning Agency u/s 57 of the Punjab Regional and Town Planning and Development Act, 1995 (amended 2006) vide notification number 12/5/2007-4HG1/7575, dated 18th September, 2007 (refer annexure II). The total area of Batala LPA is 16588 hectare, out of which 3276 hectares falls within the Municipal Council, Batala. The total population of Batala LPA is 230863 persons, out of which population of Batala Municipal Council is 1,25,677, while that of Batala Urban Agglomeration is 1,47,872. From hereafter, the population for Batala Municipal Council in report is taken as that mentioned for Batala Urban Agglomeration, i.e. 1,47,872, unless otherwise specified. The LPA list and notification is attached at Annexure I.

While delineating Local Planning Area of Batala, the following factors mentioned in rule 22 of the Punjab Regional and Town Planning and Development (General) Rules, 1995 have been considered.

- Administrative/revenue boundaries of the villages/ urban centre.
- Geographical features of the area like distributaries of UBDC and other physical features like roads and railway lines.
- Present and future growth trends and distribution of the population.
- Preservation of historical and cultural heritage.
- Urban expansion trends and management of peripheral areas for ecological and environment balance.
- Dispersal of economic activities to alleviate pressure on Batala city and balanced development of the area.

It is observed that the Batala Local Planning area is 4.6% of the total area of district and constitutes 11% of the total district population (refer table 1).

Table 1: Area a d P ulati atala PA with res ect t Gurdas ur District

S. N .	Settleme t	Area (sq. km)	% Area w.r.t. t District	P ulati (2001)	% P ulati w.r.t. t District
1	Batala M. Cl.	32.7	0.92	147872	7.0
2	Villag PA	133.12	3.74	82991	3.9
3	Total PA	1 5.88	4. 5	2308 3	11.0
4	Gurdaspur district	35 4	-	2104011	-

urce: C nsus of India, 2001

1 2 REGIONA ETTING & INKAGE

Batala PA forms a part of Gurdaspur district, which is on of th four bord r districts of Punjab sharing bord r with Pakistan. Th oth r thr ar nam ly Amritsar, Tarn Taran and F roz pur. It is surround d by Kathua district of Jammu & Kashmir in th north, Chamba

and Kangra districts of Himachal Prad sh in th north ast, Hoshiarpur district in th south ast, Kapurthala district in th south, Amritsar district in th south and south w st, and Pakistan in its north w st. Th Chakki str am s parat s th Gurdaspur district from th Kangra district (Himachal Prad sh) on th ast and th B as Riv r s parat s it from th Hoshiarpur district in th south ast and Kapurthala district in th south. Gurdaspur district du to its alluvial soil gain r v nu mostly b caus of agro bas d activiti s. A Portion of th district is also situat d b yond th Riv r Ravi.

Batala is on of th important industrial city of th Gurdaspur district. Th city has v ry good linkag s in t rms of road and railway. It is situat d on Amritsar Pathankot Road (NH 15). This road links th city to m tropolis of Amritsar in south w st dir ction, and Gurdaspur and Pathankot in north ast dir ction (r f r Fig. 2). Mor ov r, it is link d with Jalandhar on th south, Fat hgarh Churian on th w st, D ra Baba Nanak in th north w st, Gurdaspur on north ast, Qadian on th ast and Sri Hargobindpur on south at a distanc of 75 km, 26 km, 29 km, 19 km, 20 km, and 2 km, r sp ctiv ly (r f r tabl 2).

Table 2: ista e Maj r Urba Settleme ts r m atala City

Maj r T w s/Cities	ista e (km)
Jalandhar	75
Amritsar	40
Pathankot	64
Gurdaspur	2
Dina Nagar	9
Chandigarh	145
D lhi	401

S ur e: District Gaz tt r, Batala, 1992

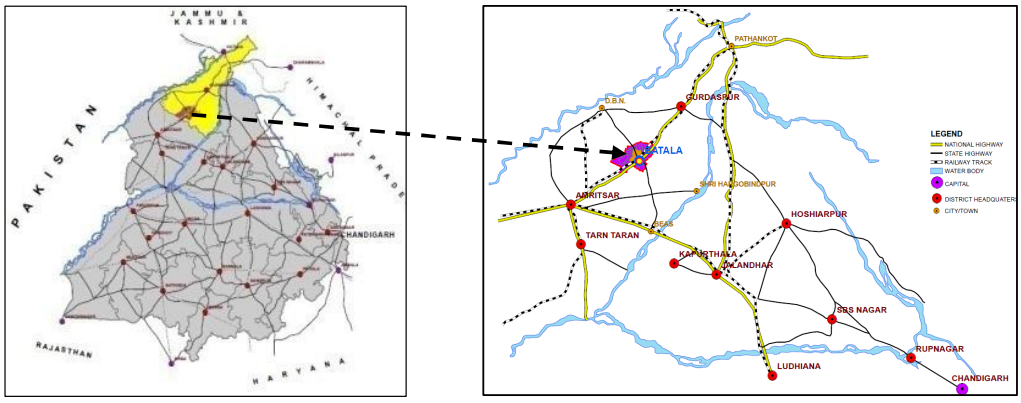


Fig. 2: atala PA i text Gurdas ur istri t a d Pu jab wit Regi al i kages

1.3 PHYS OGRAPHY AN C MATE

1.3.1 TOPOGRAPHY

Batala t hsil is, in g n ral, a flat f atur l ss plain, with a local r li f about two to six m tr s. From th human and conomic point of vi w, this is th most important physiographic f atur in th district. Th B as and th Ravi ar th two main riv rs of th district. Th B as

strikes the border of the Gurdaspur district at Mirthal, a place about 19.2 km south of Pathankot. The Chakki Khad is chief tributary of Beas in the Gurdaspur district. River Ravi with its southwest course forms the boundary between the Punjab and the Jammu and Kashmir State for about 40 km. There are local swampy depressions, which are known as Chhambs. The largest of these is the Kahnuwan Chhamb, which stretches along the Beas River in the Gurdaspur district.

Tributaries a d Ca als:

The Local Planning Area is well irrigated by distributaries, like Batala Distributary, Fateh Nangal Distributary and Aliwal Distributary, of the Upper Bari Doab Canal (UBDC) system of irrigation. The distributaries, which are passing through LPA, take care of the irrigation facilities of the area through many minors. Generally, water does not reach at the tail ends of minors as no distillation is done at proper interval of time. Hansali Nallah, the biggest water body of the LPA, passes through its middle. Another drain called as Bajuman Drain runs along the western boundary of the LPA and finally leaves the LPA from south after crossing Aliwal Distributary.

1.3.2 C IMATE

(i) Seas s a d their Durati s:

The cold season starting with November to the early part of March, is followed by the hot season that lasts until the end of June. July, August and the first half of September constitute the wet months due to South-West Monsoon. The period from mid-September to the middle of November may be termed as the post-monsoon or transitional period.

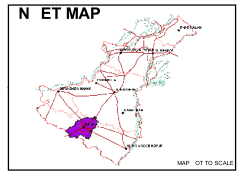
(ii) Tem erature:

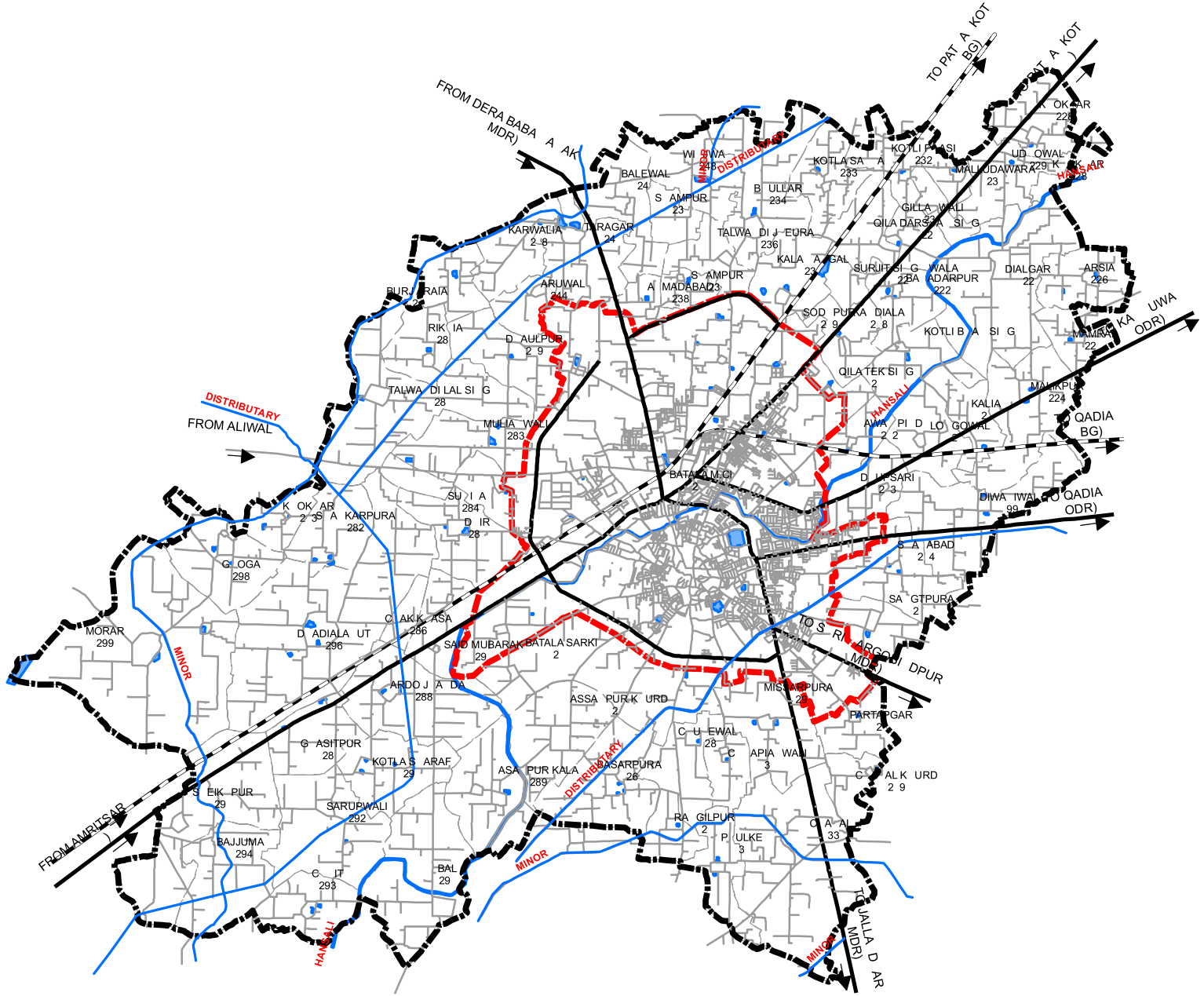
June is generally the hottest month with the mean daily temperature hovering around 41°C and the mean daily minimum temperature at about 27 °C. The day temperature may reach even 45 °C. The nights, however, are as warm as they are during summers. Because of the increased moisture, the weather is often sultry and uncomfortable during monsoon season. After the monsoon during mid-September, there is a rapid drop in the temperature, especially during night. January is usually the coldest month with the mean daily maximum temperature placed at about 19 °C and the mean daily minimum temperature at about 6 °C. Cold waves affect the district in the wake of passing western disturbances in winter when the minimum temperature drops down to about a degree or so below freezing point.

(iii) Rai all:

The average annual rainfall in the district is 656 mm. The rainfall generally increases from the south-west towards the north-east. About 70% of the annual rainfall is received during

B A T A L A
LOCAL PLANN NG AREA
DRA NAGE NETWORK





M P o. 1

LEGEND

- LOCAL PLA I G AREA BOU DAR
- MU ICIPAL COU CIL BOU DAR
- VILLAGE BOU DAR
- MAJOR ROAD
- OT ER ROAD
- RAILWA TRACK
- PO D WATER BOD

NOTE:
This drawing is based upon the Existing Land Use Map supplied by DTP office, Gurdaspur Drawing o. D.T.P. G) 2 dated 3- 2-

SCALE = : , 3

9 4 9 ,8 Meters

DEPARTMENT OF TOWN AND CO NTRY PLANN NG, P NJAB

MAP. No- 1

DISTRICT TOW PLA ER GURDASPUR	SE IOR TOW PLA ER AMRITSAR	C IEF TOW PLA ER C A DIGAR

CL ENT :
PU JAB URBA PLA I GA D DEVELOPME T AUT ORIT

PROJECT:
PREPARATIO OF MASTER PLA FOR BATALA LOCAL PLA I G AREA

CON LTANT :

SAI Consulting Engineers Pvt. Ltd
An ISO 9001 Certified Company
SAI House, Satyan Corporate Square, B/h. Rajpath Club, Bodakdev, Ahmedabad - 380 054
PHONE : +91 79 6614 2600, 6614 2700, Fax : +91 79 6614 2800.
E-mail : mail@saiindia.com Web : www.saiindia.com

th monsoon months, i. . July to S t mb r, July b ing th w tt st month. Th r is also som rainfall during th riod from D c mb r to March in association with assing w st rn disturbanc s, and this amounts to about 12% of th annual rainfall.

(iv) **Wi ds:**

During th south-w st monsoon s ason, wind blows from dir ctions b tw n south-w st and north- ast, but on many days in th aft rnoons, w st rly to northw st rly winds also blow. In th r st of th y ar, w st rly to northw st rly winds r dominat , xc t in th latt r half of th summ r s ason wh n ast rli s and south- ast rli s blow on som days.

1.4 H STOR CA PERSPECT VE

Hist rical Gr wt

Th r ar two im ortant v rsions of th stablishm nt of th town. According to th Im rial Gaz tt r of India of 1 0 , Ram D o, a Bhatti Raj ut found d Batala Town in 1645. So th town was call d as Bhattiwala, which with th assag of tim chang d to Batala. Anoth r v rsion giv n in District Gaz tt r of 1 14, th town was to b locat d at a lac diff r nt from its r s nt location. But, as th location was not find suitabl by th astrolog rs, th choic of th focal oint for th town was xchang d with th r s nt on . Th word "*batta*" or "*vatta*" in Punjabi stands for xchang and so th town acquir d th nam of Batala.

Various factors ar r s onsibl for th d v lo m nt of Batala. Th most im ortant f atur s that r main d im ortant ar Gurudwara Achal Sahib and Kandh Sahib Gurudwara. Batala b cam t hsil H ad Quart r in 1 55 that attract d lot of d v lo m nt and su orting infrastructur . Th im ortant Amritsar-Pathankot railway link was inaugurat d in th y ar 1 4. It was th n that Batala was on th thr shold to industrial x ansion. With th assag of tim , th town x and d into th gr at countrysid and attain d som industrial im ortanc . Th holocaust of th artition in 1 47 caus d a gr at damag to th x ansion of th town. Th foundry industry, which was totally in th hands of Muslim ntr r n urs, got com l t ly aralyz d. Almost all th Muslims fl d to Pakistan. To fill th vacuum many Hindus and Sikhs from th adjoining Shakargarh t hsil s ttl d in th town and mad fforts to r viv th forsak n foundry industry (r f r tabl 3).

Table 3: Maj r Eve ts Pla i g & evel me t i atala

PER O	P ANN NG AN EVE OPMENT EVENTS
Tim of Mahabharata	• Achal Sahib cam at a distanc of km south- ast of Batala
Ram D o	• Took u th roj ct of building Batala town in 1645
Aft r th adv nt of Guru Nanak to Achal Sahib	• Built a hug Gurudwara n ar Achal Sahib • Built a holy tank having Shiva T m l amidst in front
During th tim of Shamsh r Khan	• Built a b autiful tank on th north- ast of th town during th r ign of Akbar, th Gr at in 25 *Hijri* or 151 A.D. • D v lo d su rb Gard ns in th ar a call d Anarkali

	• Shamsher Khan Tomb was constructed near the tank after his death
During the reign of Mughal Emperor Aurangzeb	• Mirza Mohammad Khan designed and executed the construction of bazars and shops • Qazi Abdul Haq built the Jama Masjid • Amar Singh Quanungo developed gardens in the vicinity. • Acquired the status of learning and piety
Banda Singh Bahadur (Early 18th century)	• Demolished the important places of reverence and learning of Muslims
In the Middle of 18h c n ury	• Ba ala was h sc n of wo warring Sikh f d ra ions of Ramgarhia Missal and Kanhaya Missal
Early 19 h c n ury	• Th balanc of pow r shif d owards Kanhaya Missal • Sh r Singh, son of Maharaj Ranji Singh, d v lop d his palac a Anarkali • Sh r Singh ook h r sponsibili y of cons ruc ing Gurudwara D ra Sahib • H also gav h pr s n look of Kalidwara Mandir
1855	• Gurdaspur was carv d ou as a dis ric wi h Ba ala as on of i s hsil
188	• Th impor an Amri sar-Pa hanko railway link was inaugura d. Ba ala cam on h hr shold o indus rial xpansion • i h h passag of im , own xpand d coun rysid , a ain d indus rial impor anc
19 7	• Th par i ion caus d h avy damag o h xpansion of own. Foundry indus ry was compl ly paralyz d. Almos all h Muslims fl d o Pakis an. Hindus and Sikhs from h adjoining Shakargarh hsil s l d in h own and r viv h forsak n foundry indus ry.
1956	• D ra Sahib and Kandh Sahib Gurudwara • Class I Municipali y

S urce: Dis ric Gaz r, Gurdaspur 1992

i h h adv n of various d v lopm n works in h ci y, h ins i u ional s c or also s ar d con ribu ing owards h grow h of h own. Th s ablishm n of Baring Union Chris ian Coll g in 19 , Gov rnm n Poly chnic Ins i u in 196 and DAV Coll g for om n in 1969 play d a dominan rol in h r gion. Th d ails of ins i u ional and planning mil s on s ar giv n in h abl b low:

Table 4: stituti al a d Pla i g Milest es i atala

PRE N EPEN ENCE PER O (e re 1947)	
ESTA SHMENT YEAR	**EVENT**
1857	T hsil Offic
1861	Sadar Polic S a ion
188	Municipal Commi
191	Ci y Polic S a ion
193	El c rifica ion
19 1	Th Offic of Mark Commi
19 3	Offic of Insp c or C n ral Excis
19	Baring Union Chris ian Coll g
POST N EPEN ENCE PER O (A ter 1947)	
19 8	Dis ric Indus ri s Offic
1952	Th Block D v lopm n & Panchaya Offic
1956-57	Th Gov rnm n Quali y Mark ing C n r
1958	Sub-Divisional Offic (S.D.O.)
1958	Assis an R gis rar, Coop ra iv Soci i s
1958	Block Educa ion Offic s I & II
1958	Th Small Indus ri s S rvic Ins i u
1960	Sarswa i Sang Sadan (Educa ion in Music)

1960	The Office of the Life Insurance Corporation
1973	First Draft Master Plan prepared for Batala
1960-61	State Excise & Taxation Office
1963	The National Metallurgical Laboratory
1964	Punjab State Electricity Board
1964	Government Polytechnic Institute
1965	DAV College for Women
1968	Labour- cum-Conciliation Office
1969	Class I Municipality
1970	The Food Corporation of India
1974	Improvement Trust Batala
1996	Urban Estate
2009	First ROB

S urce: District Gazetteer, Gurdaspur 1992; Special Survey report on selected town Batala (Census of India 1971) and M.Cl, Batala

Keeping in view the rapid growth of Batala city, Batala Improvement Trust was established in 1974 in order to check unplanned development. The Improvement Trust prepared first Development Scheme under Punjab Town Improvement Act, 1922. It was known as Dharampura scheme, which came up in 1974. Ultimately, nine Development Schemes were prepared comprising about 200.5 acres of land. But out of 9 schemes, only four are fully developed, two are partially developed and for three schemes, cases are pending in High Court. PUDA notified first Urban Estate in the year 1996 comprising an area of 64.14 acres. The private sector too has started contributing towards planned development of the city. At present, eight colonies approved under Punjab Apartment and Property Regulations Act, 1995 covering an area of 64.06 acres are existing. Out of 8 colonies, 7 falls fully under M. Cl. limit.

CHAPTER 2

DEMOGRAPHIC PROFI E AND ECONOMIC ASE

2.1 DEMOGRAPHIC CHARACTER

In Gurdaspur district, there are total 14 urban settlements. Out of these 14 urban settelments, ten have Municipal Councils, one is Nagar Panchayat and three are Census Towns. Pathankot and Batala are Class I towns, whereas Bharoli Kalan, Daulatpur and Jugial are Census Towns. The population of Batala city was recorded as 27.6% of the district Gurdaspur in the year 2001. It ranks second as compared to Pathankot, which has 31% urban population of the district Gurdaspur (refer table 5). It is observed from the table that Gurdaspur town has only 12% of urban population of the district. These three towns comprise 70% of the urban population of Gurdaspur district.

Table 5: Distributi Urba P ulati i Maj r Urba Settleme ts Gurdas ur District

Settleme t	P ulati	%age t District Urba P ulati
Gurdaspur District Urban	535,223	100%
Pathankot	168,485	31%
Batala	147,872	27.6%
Gurdaspur	68,441	12%

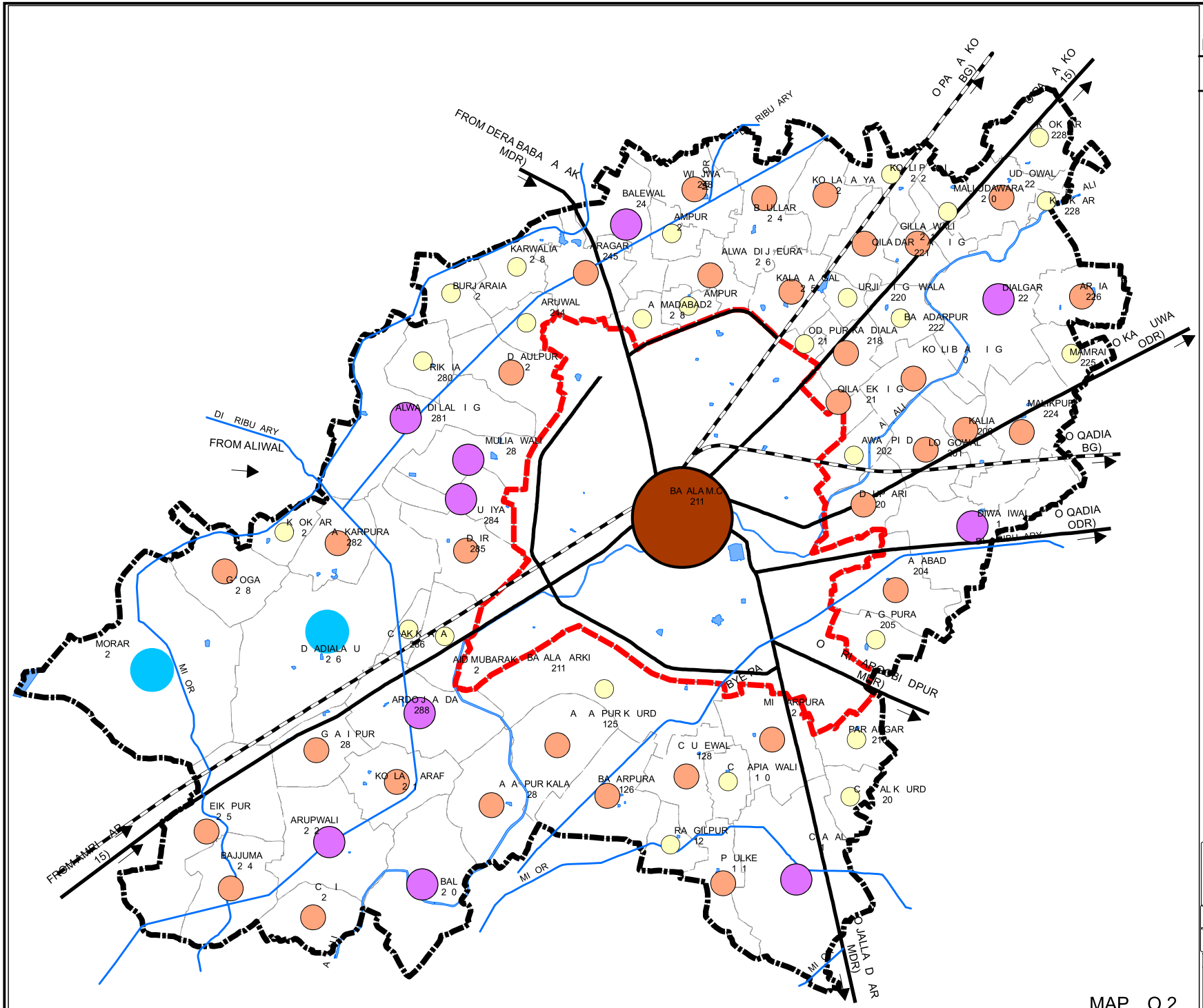
S urce: Census of India, 2001

In order to determine the hierarchy of settlements, five broad categories are identified as given below in table. Batala M.Cl falls in the highest category of population (having population more than 3600), followed by the two settlements namely Morar and Dhadialanat in the population category of 2700-3600. Both the villages are located in a direction approaching towards Amritsar. These rural settlements have a potential to develop as important nodal points for the Batala LPA. Ten settlements fall in the category below of 1800-1700, thirty three settlements are within range of 900-1800 and rest twenty two settlements are below 900 (refer table 6). The rural settlements, which are in the highest category of population, mainly fall along Amritsar-Batala route.

Table 6: P ulati Hierarchy Settleme ts i atala PA

Sr. N .	P ulati Gr u	N . Settleme ts
1	B low 900	22
2	900-1800	
	1800-2700	10
4	2700- 600	2
	> 600	1

urce: C n u of India 2001



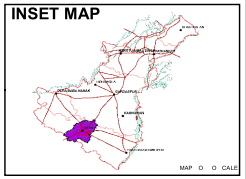
MAP O.2

B A T A L A

LO AL PLANNING AREA

ET LEMEN IERARC Y 2001

INSET MAP



MAP O O CALE

LEGEND

- LOCAL PLA I G AREA BOU DARY
- MU ICIPAL COU CIL BOU DARY
- VILLAGE BOU DARY
- MAJOR ROAD
- RAILWAY RACK
- PO D / WA ER BODY

SETTLEMENT HIERAR HY

- LE A 00
- 00 - 1800
- 1800 - 2 00
- 2 00 - 600
- MORE A 600

NOTE:
hi drawing i ba d upon th Exi ting Land U Map upp i d by D P offic , Gurda pur Drawing o. D. .P. G) 21/2010 dat d 1 -12-10

CALE = 1: 0,000

00 450 0 00 1,800 M t r

DEPARTMENT OF TOWN AND OUNTRY PLANNING, PUNJAB

MAP. No- 2

DI RIC OW PLA ER GURDA PUR | E IOR OW PLA ER AMR AR | C IEF OW PLA ER C A DIGAR

LIENT :
PU JAB URBA PLA I G A D DEVELOPME AU ORI Y

PROJE T:
PREPARA IO OF MA ER PLA FOR BA ALA LOCAL PLA I G AREA

ONSULTANTS :

SAI Consulting Engineers Pvt. Ltd
An ISO 9001 Certified Company

SAI House, Satyam Corporate Square, B/h. Rajpath Club, Bodakdev, Ahmedabad - 380 054
PHONE : +91 79 6614 2600, 6614 2700. Fax : +91 79 6614 2800
E-mail : mail@saiindia.com Web : www.saiindia.com

2 1 1 POPU ATION GROWTH

Th total pop lation of Batala LPA as p r c ns s 2001 is 2,30,863, which is abo t 11% of th G rdasp r District. As disc ss d arli r, Batala is th only rban s ttl m nt in Batala LPA and rank s cond in rban pop lation of th G rdasp r district. Th pop lation of M nicipal Co ncil, Batala and its o tgrowth tog th r is 1,47,872 p rsons as p r 2001 c ns s.

Table 7: P ulati Gr wt Rate Gurdas ur istri t a d atala PA

ettleme t	19 1	1991	2001	e adal Gr wt Rate(%age)	
				1991	2001
Gurdas ur istri t					
T tal	15,13,435	17,56,732	21,04,011	16.1	19.8
Urba	3,28,268	3,86,412	5,35,223	17.7	38.5
Rural	11,85,167	13,70,320	15,68,788	15.6	14.5
atala PA					
T tal	1,67,840	1,81,758	2,30,863	8.29	27.01
Urba	1,01,966	1,03,367	1,47,872	1.37	43.06
Rural	65,874	78,391	82,991	19	5.86

ur e: C ns s of India 1991, 2001

Th growth rat of Batala LPA has incr as d from 8.29% in 1991 to 27.01% in 2001, which is high r in comparison to that of th G rdasp r district. Wh r as th growth rat of both rban and r ral pop lation in Batala LPA is low as compar d to G rdasp r district (r f r tabl 7), th growth rat of Batala M.Cl. drastically r d c d from 33.89% in 1941 to 25.6 % in 1951 d to th partition of 1947. F rth r, it r d c d to -8.15% d ring 1951-1961. From this, it can b analys d that th ins c rity of partition was s ch that o t migration proc ss contin d till 1961 and growth rat of th city b cam n gativ d ring 1951-1961. In contrary to this, th growth rat of Pathankot rais d in d cad 1941-1951 to 162% and to 69% by 1961. This shows that Pathankot was tho ght to b mor s c r d and p opl migrat d from Batala to Pathankot. D to nfavo rabl law and ord r condition, Batala r gist r d a sharp d clin in growth rat from 33.31% in 1981 to 1.37% in 1991. Pop lation incr as d from 1,03,367 in 1991 to 1,47,872 in 2001 with growth rat of 43.06% (r f r tabl 8).

Table : C m arative P ulati Gr wt Rate atala a d Pat a k t M Cl (1941-2001)

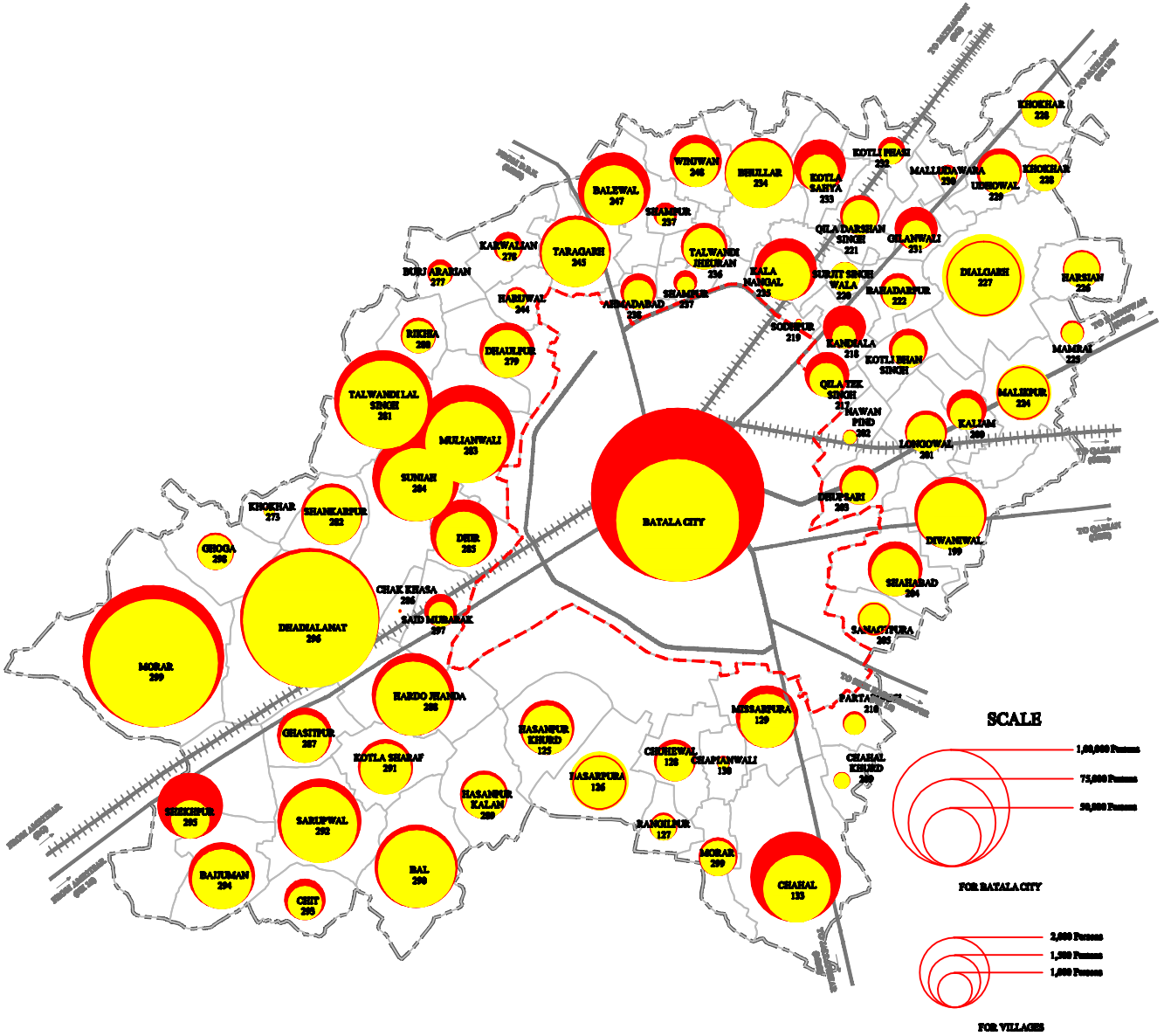
ettleme t	Head	1941	1951	1961	1971	19 1	1991	2001
atala M CI	Pop lation	44,458	55,850	51,300	76,488	1,01,966 (U. A.)	1,03,367 (U.A.)	1,47,872 (U.A.)
	D cadal Growth Rat (%ag)	---	25.62	-8.15	49.10	33.31	1.37	43.06
Pat a k t M CI	Pop lation	12,334	32,415	54,810	78,192	1,10,039 (U.A.)	1,28,198 (U.A.)	1,68,485 (U.A.)
	D cadal Growth Rat (%ag)	---	162.4	69.1	42.7	40.7	16.5	31.43

ur e: C ns s of India 1991, 2001

B A T A L A

LOCAL PLANNING AREA

GROWTH OF POPULATION 1991-2001



LEGEND

- LOCAL PLANNING AREA BOUNDARY
- MUNICIPAL COUNCIL BOUNDARY
- VILLAGE BOUNDARY
- MAJOR ROAD
- RAILWAY TRACK
- 2001 POPULATION
- 1991 POPULATION

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In cas of rural s ttl m nts, populat on growth rat was 19% dur ng 1981-1991, wh ch d cr as d to 5.86% n 2001. Th s was th r sult of m grat on of rural populat on to M.Cl. Batala (r f r tabl 7). Th populat on growth of all th rural s ttl m nts r ma n d almost sam xc pt v llag s Sh khpur, Chahal and Kand ala hav ng populat on ncr as of mor than 500 p rsons dur ng 1991-2001.

2 1 2 POPU ATION EN ITY

As p r th C nsus 2001, th populat on d ns ty of Batala PA was 1392 p rsons p r s . km. Urban s ttl m nts shown h gh growth rat and populat on d ns ty as compar d to rural s ttl m nts. Th Populat on D ns ty for Batala M.Cl. d cr as d from 11,813 p rsons p r s . km. to 4514 p rsons p r s . km. from 1991 to 2001. Th s s du to th drast c xpans on of th Mun c pal Counc l l m t from 8.75 s . km. to 32.76 s . km n th y ar 2005(r f r tabl 9). In cas of PA v llag s, d ns ty ncr as d from 499 p rsons p r s . km. n 1991 to 623 p rsons p r s . km. n 2001.

Table 9: P ulati e sity i atala PA

ettleme t	P ulati		Area (sq km)		e sity (Pers s/sq km)	
	1991	2001	1991	2001*	1991	2001
PA	1,81,758	2,30,863	165.88	165.88	1,096	1,392
atala (M Cl)	1,03,367	1,47,872	8.75	32.76	11,813	4,514
Villages PA	78,391	82,991	157.13	133.12	499	623

urce: C nsus of Ind a, 2001

*F gur s r pr s nt ng Ar a for 2001 w r tak n from Ex st ng andus pr par d by PRSC.

2 1 3 EX RATIO

Accord ng to C nsus 1991, s x rat o n Batal PA was 885 f mal s out of 1000 mal s, wh ch mprov d to 894 n 2001. In cas of Batala c ty, s x rat o d cl n d from 893 to 890 and that of v llag s of PA has ncr as d from 875 n 1991 to 900 n 2001. Th s shows that s x rat o n rural ar as s b tt r than that n c ty (r f r F g. 3).

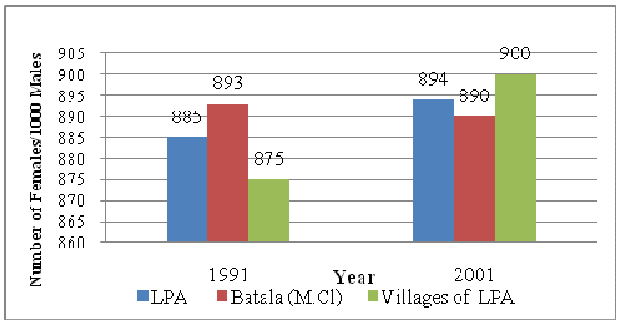


Fig 3: ex Rati i atala PA

2 1 4 ITERACY RATE

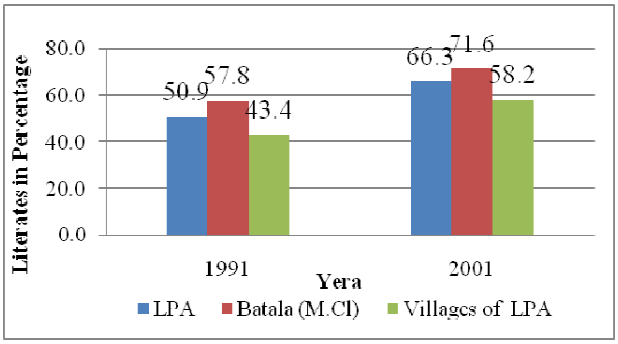


Fig 4: iteracy Rate i atala PA

Fig. 4 r v al that th lit racy rat in g n ral ha incr a d throughout th Batala LPA. Th lit racy rat in 1991 wa 50.9%, which incr a d to 66.3% in 2001. Th lit racy rat of Batala M.Cl. al o how an incr a from 57.80% in 1991 to 71.60% in 2001. On th oth r hand, th lit racy rat in villag of LPA, which wa 43.4% in 1991, incr a d to 58.26% in 2001. Thi how that lit racy rat ha incr a d in whol of LPA but th incr a i mor in ca of Batala M.Cl than that of LPA Villag .(r f r Fig. 4

2 1 5 C C MP ITI N

A p r c n u 2001, har of SC population in villag of LPA (28.27% i high r a compar d to that of Batala Municipal Council (23.70% .Th total SC population in Batala LPA i 58,568 p r on , which con titut 25.33% of th total population in 2001(r f r tabl 10 . Th p rc ntag of SC population in Batala city i mor than that of villag .

Table 10: C P ulati i atala PA, 2001

ettleme t	C P ulati	% T tal P ulati
Total LPA	58,568	25.33%
Batala (M.Cl.	35,072	23.70%
Villag of LPA	23,496	28.27%

urce: C n u of India 1991, 2001

2 2 EC N MY AN EMP YMENT

2 2 1 W RK F RCE PARTICIPATI N

It i ob rv d from th tabl b low that th ratio of work forc participation in 2001 in LPA of Batala i 31.2%, which i l than that of Gurda pur di trict (33.3% and tat of Punjab (37.5 % . Thi indicat h avy pr ur on workforc a w ll a conomy. In ca of Batala M. Cl., om r pit can b n a th har of non-work r i d cr a ing i. . from 72.3% in 1991 to 69.6% in 2001(r f r tabl 11 .

Table 11: are W rkers a d N -W rkers i atala PA

ettleme t	Year	T tal P ulati	T tal W rkers (% T tal P ulati)	N -W rkers (% T tal P ulati)	Mai W rkers (% T tal W rkers)	Margi al W rkers (% T tal W rkers)
atala M Cl	1991	1,03,367	28,616 (27.7	74,749 (72.3	28,614 (99.9	2 (0.1

	2001	1,25,677	38,147 (30.4)	87,530 (69.6)	35,058 (91.9)	3089 (8.1)
Villages PA	**2001**	82,990	26,874 (32.4)	56,116 (67.6)	22,184 (82.54)	4690 (17.45)
T tal PA	**2001**	2,08,667	65,021 (31.2)	1,43,646 (68.8)	57,242 (88.03)	777 (11. 6)

urce: C nsus of India, 2001

2 2 2 OCCUPATIONA TRUCTURE

Occupational structur h lps to d t rmin th conomic status of city. Th four cat gori s of main work rs includ : i) Cultivators, ii) Agricultural Labour rs, iii) ous hold Work rs, and iv) Oth r Work rs. Looking at th work forc participation ratio in atala LPA, it is obs rv d that within M.Cl., th shar of oth r work rs is dominant (r f r tabl 12). atala is a major industrial city, h nc shar in s rvic s ctor is on a high r sid .

Table 12: Tre d & Occu ati al tructure atala, PA

ettleme ts	**Year**	**T tal W rkers**	**Cultivat rs %**	**Agricultural ab urers%**	**H use ld W rkers %**	**Ot er w rkers %**
atala M.Cl.	2001	38147	468 (1.22 %)	728 (1. 0)	1572 (4.12)	3537 (2.74)
	1 1	28616	2051 (7.16)	1656 5.78)	234 (.81)	24673 (86.22)
Villag s of LPA	2001	26874	6730(25.04 %)	4386(16.32)	1206(4.48)	14552(54.18)
Total LPA	2001	65021	71 8(11.07 %)	5114(7.86)	2778(4.27)	4 31(76.7)

urce: C nsus of India, 2001

Th p rc ntag of cultivators and agricultur labour r is much low r indicating incr asing urbanization tr nd.

Table 13: Categ ry wise Occu ati al tructure atala City (2001)

Classi icati N	**C de**	**Ty e W rker**	**2001**	
			N W rkers	**%age**
1	**A &**	**Cultivat rs**	460	1.31
2		**Agricultural ab urers**	577	1.65
3		**Pla tati , ivest ck, F restry, Fis i g, Hu ti g a d Allied activities**	170	0.48
4	**C**	**Mi i g a d Quarryi g**	34	0.10
5 (a)		**Ma u acturi g, Pr cessi g a d Re air I dustry (H use ld I dustry)**	145	4.16
5 (b)		**Ma u acturi g, Pr cessi g a d Re air I dustry (HHI)**	6607	18.85
	E	**Electricity, Gas a d Water u ly**	462	1.32
6	**F**	**C structi s**	2303	6.57
7	**G**	**W lesale a d Retail trade**	10054	28.68
	H	**H tels a d Restaura ts**	662	1.8
8	**I**	**Tra s rt, t rage a d C mmu icati s**	3155	.00
9	**J & K**	**Fi a cial I termediati ; Real Estate Re ti g a d usi ess Activities**	1853	5.2
	t Q	**Public Admi istrati a d Ot ers**	7261	20.71
T tal			**35058**	**100 00**

urce: C nsus of India, 1 1 and 2001

In 2001, out of total work rs of atala City, a major shar go s to Whol sal and R tail Trad , which is about 28.68%. It is follow d by Manufacturing, Proc ssing and R pair

Industry (including both Household and Non Household Industry) i.e. 23.01%, mainly falling in non-household sector (refer table 13).

Wareh usi g & Wh lesale Trade

As far as this economic activity is concerned, it has been found that the wholesale trade is concentrated in Batala city. Besides the wholesale market of agricultural produce, the city serves as the regional centre for bulk material market. As per data of 2001 census, as many as 10,054 workers are engaged in Wholesale and Retail Trade, accounting for 28.68% of total workers. This is the highest employment provider sector. The economic base of the city is mainly dependent on this sector. The main wholesale trades are of grain and vegetable, bulk material, etc.

Ma u acturi g I dustry

Batala is known as an industrial city having large number of industries. In Batala city, high percentage of workers are engaged in industrial activities. As per Census data of 2001, about 8066 workers were engaged in industrial sector, which is 23.01% of total workers. The household industries have a share of 4.16% only. Workers engaged in other type of industries have a major share, i.e. 18.85%.

T urism a d H s itality

The Batala Local Planning Area is rich in its cultural and religious heritage. There are many historical and religious sites in the LPA (refer Heritage and Tourism section), which have yet to be explored. There is lack of tourist related infrastructure in the LPA, because of which the share of hotels and restaurants is only 1.89%.

Fi a ce, I sura ce a d a ki g

In Finance, Insurance and Banking sector, most of the facilities are located in the city area. In Batala city, there are 40 banks and two Life Insurance companies. In addition to this, two banks are located in the villages of LPA, namely Diyalgarh and Ghaseetpura. According to Census 2001, 1853 workers are engaged in finance sector, which makes 5.29% of the total workers of the city.

Emergi g Ec mic Drivers

Various economic drivers have been identified within Batala LPA, which are going to influence development of Batala city and LPA. The LPA, which comprises of rich fertile land, gives boost to the economic development of this area. Further, the belt known as *'Riarki'* produces quality sugarcane, which is inductive for establishing the sugar industry.

The Batala Cooperative Sugar Mills Ltd. was established in 1956 to help the farmers of sugarcane.

During recent years, there is a boom in real estate activities. This boom prolonged an important role in economic and physical growth of Batala. Recently residential colonies, mostly between Kahnuwan and Qadian Roads, are providing great impetus to the physical growth of the city. For example, Kahnuwan Road witnesses colonies like Basant Vihar, Uttam Nagar and Modern Estate, whereas Qadian Road has White Avenue, Sant Rasila Avenue and Green City along it. Urban Estate, which too is on Qadian Road, is registering development of other colonies like New Greater Kailash around it. Pathankot Road too has Usmanpur City on it, which is working as a catalyst for further development on this stretch. Another important colony is Sun City Enclave on Sangatpura Road. These new residential colonies are contributing a lot towards economic development of city. New commercial establishments have been coming up like Vishal Mega Mart and other malls. The development in residential and commercial sectors will also increase share of construction activities and manufacturing of gates, grills and other parts used in building activity.

Batala is known as an Industrial city. The major industries are forging units. The availability of good earth, which is conducive for pattern making, has developed the forging industry. Although number of units have decreased to some extent from 2004 to 2008 (refer table 15), but investment and production has increased in these years. This shows that if some incentives are given to these industries, the economic base of Batala LPA can be strengthened.

2.2.3 DEPENDENCY RATIO

Dependency ratio refers to the number of non-workers dependent upon workers. Batala Urban Agglomeration (City) has a higher dependency ratio than that of district and the state.

The dependency ratio in case of other villages of the LPA is 209, while the overall LPA has the dependency ratio of 221, which is again higher than the state of Punjab as well as Gurdaspur district (refer table 14).

Table 14: De e de cy Rati i atala PA a d Gurdas ur District

Settleme t	De e de cy Rati (er 100 ers s)
Punjab	167
Gurdaspur district	2 1
Batala (M. Cl.)	229
Villag of LPA	2 9
Total LPA	221

S urce: C n u of India, 2 1 and comput d valu

2.2.4 INDUSTRIES

Batala is considered as an industrially dominated city. It is known for its machinery, manufacturing agricultural implements and machine tools all over India. The origin of Batala cluster can be traced back to the 19th century. In fact, the birth of Batala cluster is also the birth of Indian Machine Tools Industries. Batala cluster enjoys a unique position in India's Machine Tool Industries as it specialises in manufacturing large machines that are not being manufactured at the competing clusters i.e. Rajkot and Bangalore.

INDUSTRIA GROWTH

The Casting Iron (CI) Industry is an important industry in Batala. Growth of this industry is studied in terms of number of units, employment status and the investment scenario. Within Batala city, majority of industries are of small scale, mainly in Casting Iron (CI) Industries. The number of casting iron units decreased from 2,149 in 2004 to 1,671 in 2008, thus showing a negative growth rate of -22% (refer table 15). The main reason for this is the high prices of raw iron material causing many industries to shut down due to very low profit during the past few years. When Freight Equalisation Policy was introduced in 1990 by the government, the price of raw iron, which was imported in many mills and factories in Batala, have gone up. Big mills and business did survive in the decade but many small business units shut down completely and shifted to other businesses.

Table 15: Yearly registrati CI I dustries i atala (2004-2008)

Year	N . Small Scale I dustries			Perce tage gr wth SS I dustries
	Urba	Rural	T tal	
2004	1665	484	2149	-
2005	1	4 4	2150	0.01
2006	1	4 4	2150	0
2007	1413	477	1 90	-12
2008	120	4 5	1 71	-22

S urce: DIC Batala, 200

In cas of larg scal ind stri s, G rdasp r district has 19 ind stri s. Most of th s larg scal ind stri s ar locat d in Batala only. Majority of th larg scal ind stri s ar of ngin ring nat r , which ar disc ss d b low:

E gi eeri g dustry: - In th larg scal s ctor, it is th most important ind stry of th G rdasp r district, b ing localis d in and aro nd Batala city. It was stablish d long b for th partition. In privat s ctor, a larg scal B co Engin ring Company Ltd. (form rly th Batala Engin ring Company Ltd., and now pop larly known as 'BECO') was stablish d in 1933. This nit man fact r s machin tools and agric lt ral impl m nts, and is also r nning st l r -rolling mills. Th s prod cts ar s ppli d to th vario s parts of th co ntry.

Sugar I dustry:- This is one of the most important rural industries of district. The Batala Co-operative Sugar Mill Ltd. was established in 1956 to help the sugarcane product. This is only unit of its kind in the district in the large scale sector. The raw material i.e. sugarcane, is produced by farmers of the Batala and Amritsar districts. The farmers are provided with many facilities to ensure regular production of cane to meet the requirements of the mill. The mill crushes about 800 to 1,000 tons of cane daily during the crushing season, which lasts for three to four months. The sugar produced is stored in the mill's godowns.

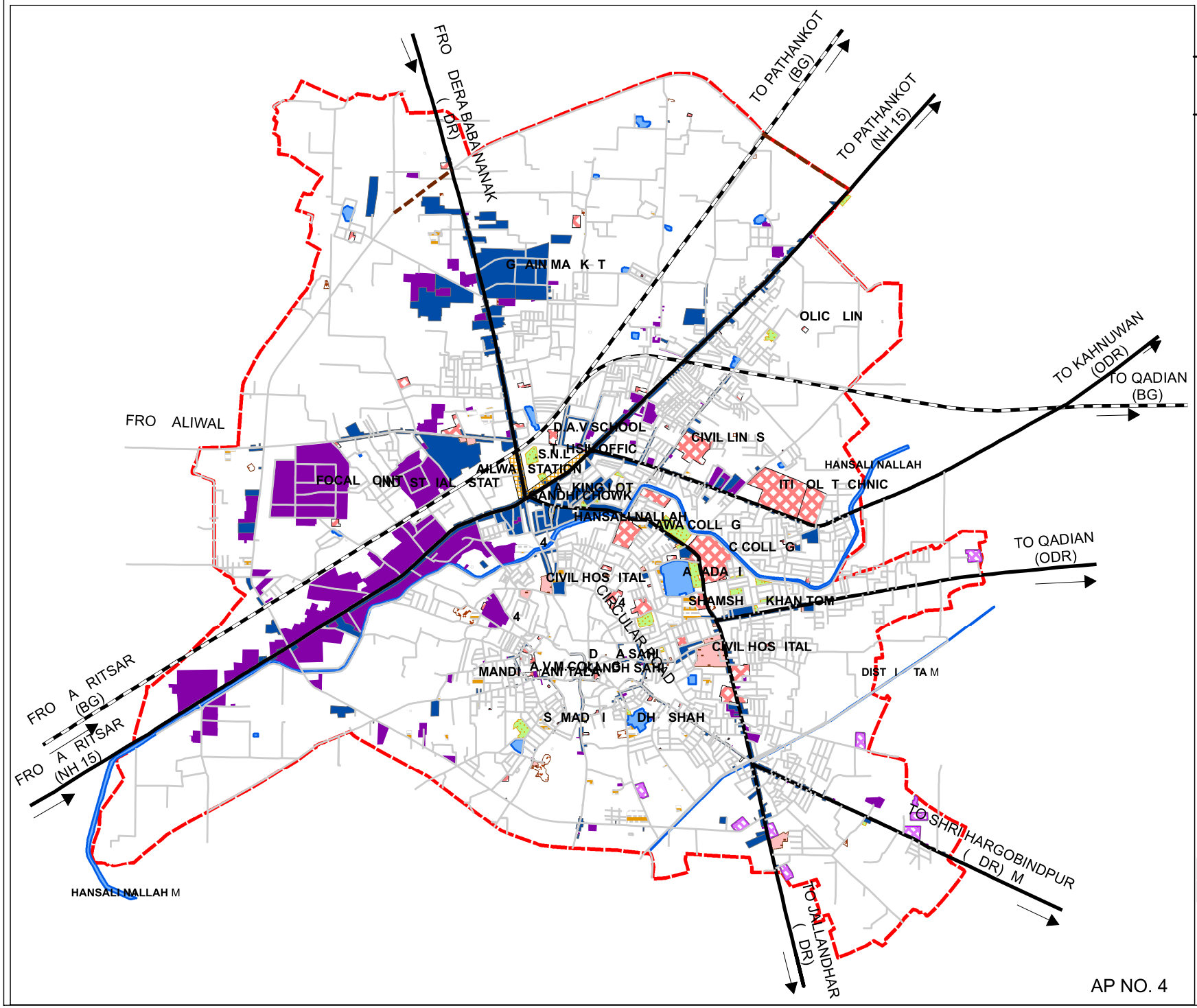
Industries are mostly located in south-eastern direction of the city and mostly the area covered is along NH 15. An Industrial Focal Point and an Industrial Estate too have come up between Aliwal Road and Amritsar-Pathankot Railway Line. Apart from these, industries have developed along all major roads too. If analysed with respect to wind direction which is NW to SE, the industries located are mostly in non-favourable direction. As per the norms, the industrial zone should be in the south eastern direction. Further, industrial units have come up in a haphazard manner. Proper industrial zone, covering all supporting activities, must be provided for the industrial city of Batala.

As far as existing situation is concerned, the different nature of industries along different roads of the city is detailed out in table 16:

Table 16: Maj r I dustrial Areas i atala City

I dustrial Area	Ty es I dustry
Focal Point	Machine Tools, C.I. Casting, Cotton Spinning, Flour & Oil Mills, Plywood, Plastic, Electric Motor Body, Rice Shelling, Net Bullets.
Industrial Estate	Ma hin Tools, C.I. Casting, Cotton Spinning, Flour & Oil Mills, Bis uits, Oth r Food Produ ts.
D ra Baba Nanak Road	Ma hin Tools, C.I. Casting, R pair 2/3 wh l r, Ri Sh lling, Ch mi al Produ ts
Amritsar-Pathankot National Highway	Ma hin Tools, C.I. Casting, Ri Sh lling, Cold Storag , Oth r Food Produ ts, L ath r Produ ts, Flour & Oil Mills.
NH Road Simbl	Bi y l s & Cy l s, Lath all typ s, Drilling Ma hin s, R pairs & Maint nan , S oot rs
Guru Nanak Mark t, Jalandhar Road	Lath all typ s, Lath Ma hin , Job Work of Boring, Drill Ma hin
Jalandhar Road	Ma hin Tools (Lath), S oot r, Manufa turing, Batt ry Charging S rvi
Kahnuwan Road	Lath Ma hin Produ ts, Lath all typ s, Copp r Wir
L ak Wala Talab	*Peti, Saria* Sal and R pair, Wood n *Pawas*

S urce: Distri t Industri s C ntr , Batala



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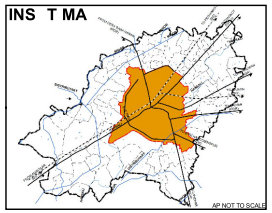

L G ND

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- OTHE OAD
- AILWAY T ACK
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- INFO AL A KET
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- INDUST IAL
- WATE BODY

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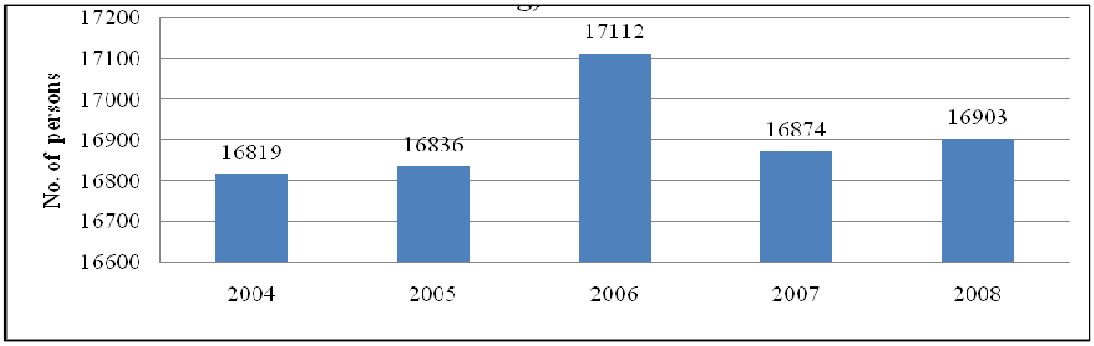
Industrial Employment

As analyzed in the industrial growth pattern, the industrial economy of Batala city is based on the small and large scale industries. The negative industrial growth has direct impact on the total employment generated in the industrial sector. The trend of employment has been analysed for the previous five years. It has been analysed that during the year 2005 and 2007, the number of registered workers decreased from its previous year. As a result, a

Fig. 5: Yearwise Employment in CI Industries Sector in Batala (2004-2008)



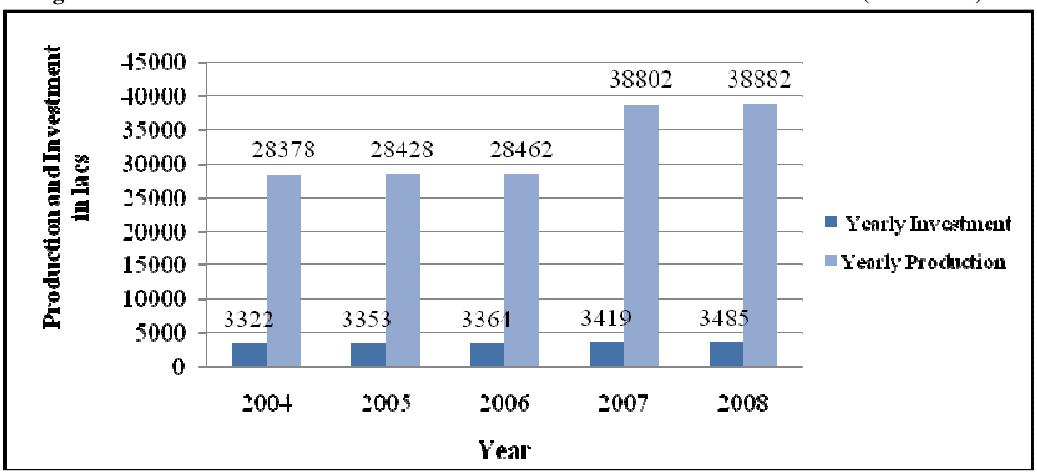
Source: District Industries Centre, Batala

comprehensive integrated industrial area along with proper strategies is considered as an urgent requirement (refer Fig. 5).

Investment and Production

Keeping in view the positive contribution made by small scale industrial units in the employment generation, the similar contribution has been made in investment and production. The total investment raised from 33.22 lakhs in 2004 to 34.85 lakhs in 2008. Ultimately, it is reflected in production which increased from 283.78 lakhs in 2004 to 388.82 lakhs in 2008 (refer Fig. 6).

Fig. 6: Trend of Investment and Production in the CI Industrial Units in Batala (2004-2008)



I dustrial Estate atala

Th sch m for th stab ishm nt of Industria Estat to provid sh ds for factori s was start d in th Stat in 1959. Th Industri s D partm nt, Punjab, has s t up four industria stat s in th Gurdaspur district at Bata a, Soha , Ghuman and Fat hgarh Churian, b sid s an urban industria stat at Bata a.

Th **I dustrial Estate, atala** is ocat d n ar th rai way station. Th tota ar a of Industria Estat is 23.14 acr (r f r tab 17). Th Industria Estat at Bata a with 50 sh ds, was s t up during 1963-64. Th main industria activiti s in th s sh ds ar machin too s, sh ds furnitur and wat r pumps and oth r agricu tura imp m nts. B sid s Industria Estat , an **I dustrial F cal P i t** is a so ocat d in Bata a. Th tota ar a of Industria Foca Point is 104 acr s and it contains 142 p ots

able 17: a duse etail I dustrial Estate, atala

	Pl ts	R ads	e aces	ube well	ewage reatme t Pla t	tal
Area (i Acre)	17.25	3.30	1.70	0.60	0.29	**23 14**
Area (i %age)	74.5	14.3	7.3	2.6	1.3	**100**

urce: DIC, Bata a

As p r ILFS r port, out of 50 p ots in Industria Estat and 142 p ots of Industria Foca Point, 40 units of Industria Estat and 14 units of Foca Points ar op rationa . 10 p ots of Industria Estat and 127 p ots of Industria Foca Points ar not y t d v op d. Th Industria Estat acks th provision of storm wat r drainag n twork that ads to wat r b ing accumu at d in th ar a, sp cia y in rainy s ason, thus causing damag to roads. This ads to mor xp nditur on roads. Th r is n d to provid prop r storm wat r drainag n twork to nsur prop r traffic f ow. Th syst m of disposa of s wag wast is inad quat and thus n ds a strat gy for its prop r d v opm nt.

I dustry i PA villages

Within LPA vi ag s, sma -sca units and on arg sca unit provid s mp oym nt to th popu ation. Th r ar 209 sma -sca industria units and 1 arg -sca industria unit that provid mp oym nt to th r siding popu ation. Th arg -sca industry is Sugar Mi ocat d in Kandia a Vi ag . It has forward and backward inkag s with th agricu tura crops of th LPA.

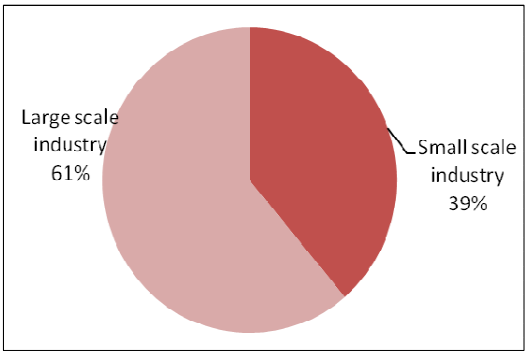


Fig 7: are I dustries i Em l yme t Villages PA

Em l yme t i I dustries PA Villages

Within LPA villages, only small-scale industries provide employment to the population. 209 small-scale industrial units in Batala LPA are providing employment to 495 persons and 1 large-scale unit is providing employment to 780 persons. As a result, if the present employment ratio is seen, it is 1:780 in large-scale industries and approximately 1:2.5 in small scale. Thus, employment generation ratio of large-scale industries is much higher than that of small-scale industries.

Out of total industrial employment of 1275 persons, large-scale industry has share of 61% followed by small-scale industry with 39% (refer Fig.7). There is no Khadi village industry existing in LPA villages therefore no employment exists in this sector.

2.3 TRADE AND COMMERCE

In Batala LPA, agriculture is the mainstay of the people and the majority of the population depends directly or indirectly on it for livelihood. Batala is primarily a trade centre for the region's agricultural products, wheat, corn (maize), rice and other crops are grown in the surrounding area. Handloom weaving is one of the important household industries. Paddy is the bumper crop of the whole district and is produced on commercial scale. The major items of exports from the district are industrial mechanic goods (chiefly machine tools and agricultural implements), paddy and timber.

2.3.1 COMMERCIA AREAS OF CITY

The main areas in Batala city, which are known for their commercial character, are Bada Bazar, Chakari Bazar, Leak Wala Tank, Nehru Gate, City Road, Samadh Road, Cinema Road, NH 15. The city deals mostly in retail and market areas.

Table 18: C mmercial Areas atala City

S. N .	C mmercial Area/ Stretch	Area/ Stretch e gth	Ty e G ds available
1	Chakri Bazar	400 m	R tail of all kind of mkt. goods
2	L ak Wala Tank	25.35 acr s	Fruits, v g tabl s
3	Bada Bazar	450 m	R tail of all kind of mkt. goods
4	N hru Gat	250 m	R tail of all kind of mkt. goods
5	Cit road	400 m	Wood n, Iron, Cloth, R tail of all kind of mkt. goods
6	Shastri Nagar mark t	-	R tail of all kind of mkt. goods

urce: Primar Surv SAI T am, August 2009

Th s comm rcial ar as ar along th roads that ar g n rall of 7 to 12 m width. Ev n though r tail shopping xists in th cit , but still th roads ar ncroach d upon b comm rcial xpansions and th traffic g n rat d b th m (r f r tabl 18). For xampl , Cit Road is ncroach d on both sid s b about 3m (r f r Fig.8).

Fig. 8: C mmercial Area - City R ad a d ada azar, atala

2.3.2 INFORMA SECTOR

Mushrooming of informal sector is not an exception for Batala city. In addition to these traditional markets, city also has informal market. As per reconnaissance survey and the Municipal Council of Batala, there are about 400 rehris in the city. The informal sector is along Leak Wala Tank Market, Gandhi Chowk, Qadian Road and near Bus Stand. These daily markets become an area of concern for future growth of the city. These informal markets in majority deal with fruits and vegetables. All along inner city roads ROW has been encroached by this sector.

Most of the markets have been located near traffic nodes like Bus Stand in the surroundings and offices like M.Cl., District Courts etc. There is no proper space allocated for these markets. Most of the market is of temporary nature.

2.3.3 MARKET COMMITTEE

To save the cultivator from the evils of unhealthy market practices and to ensure a fair price for his produce, the State Government passed "The Punjab Agricultural Produce Markets Act" in 1939. The Act provides for the regulation of markets through market committees that represent growers, commission agents and traders, local bodies and the State Government.

The market committees standardize various market practices, charges and enforce the use of standard weights, thus ensuring a fair deal to the cultivators. The Market Committee/Mandi Board also takes care of the work of construction, maintenance and upgradation of all village link roads. The regulated markets play an important role in helping the sale of commodities at the most fair and reasonable prices. There are six regulated markets in the district at Gurdaspur, Batala, Dinanagar, Pathankot, Dhariwal and Qadian.

In Batala city there exists only one market committee. The main commodities for which transaction takes place in the Batala city are Paddy, wheat, *gur/shakkar*, maize and gram. The

hierarchies of distribution/collection centre do exist as the one principal yard, that exists in Batala, is supported by two sub-yard and five purchasing centres.

Grai Market atala

Grain market covering an area of 64.2 acres exists along Dera Baba Nanak Road and in the north direction of the city. Out of which saleable area comprise of 35%. The components of Grain market include shops, shops cum flats, semi industries booth, vegetable, fruit shops and godowns with few residences in between. The influence area of grain market extends up to 7-8kms. In every Mandi, the season of wheat and paddy is the Peak period for Grain market. In Batala Mandi, on an average 90-100 trolleys come at peak season.

Fig. 9: Grai Market, atala

Key Issues Ec my Sect r

1) Many industries of the LPA region have closed down in past years owing to reasons like low demand, high cost of production, irregular power supply, non-confirmation of environmental standards, etc.
2) Many industries of the city are very old and lie within the city. The pollution caused by them has become menace for the citizens, but still they are running.
3) The markets of the walled city are very dense areas. The movement in these areas has been hampered because of the narrow streets and the encroachments. This has affected the trade of the markets and thus their existence.
4) Though the water and fertilizer consumption for the farming practices in Punjab in general is high (which in turn gives high production), this has seriously depleted the ground water level and deteriorated the soil quality. This in long term can cause a serious problem for crop production in the LPA villages.

2.4 HERITAGE AND TOURISM

Punjab being famous as 'the Granary of India' is also a famous tourist hub. Besides having one of the world's famous religious site of Golden Temple, it also has many historical, religious, cultural, architectural, archeological and ecological spots, which make it a great asset for the tourism promotion. Tourism plays vital role in the city and its upgradation.

Whil pr paring h Mas r Plan, h s si s ar r quir d o b id n ifi d and h ir po n ial mus b xplor d o boos h cul ural h ri ag / ourism and h conomy of h ci y. Tourism asp c in h Mas r Plan is s udi d wi h r sp c o ouris spo loca ions, h ir impor anc , na ur , po n ial, ourism infras ruc ur (accommoda ion, ranspor a ion c.) and r la d issu s.

Ba ala ci y has s ar d i s grow h and d v lopm n wi h r sp c o r ligious spo s lik around Kandh Sahib Grudawara and D ra Sahib Gurdawara. Th s spo s hav con ribu d a lo o h grow h of ci y conomy. For xampl , func ions lik "Bab Da Viah", which is h Marriag Day C l bra ion of Guru Nanak D v, a rac pilgrims and ouris s r gionally and na ionally.

lr ady Punjab Gov . in h "Punjab Tourism Policy 2003" has mad f w ouris circui s and Gurdaspur dis ric is includ d in on of h circui . In his circui , h ar as cov r d ar mri sar, D ra Baba Nanak, Kalanaur, Qadian, Gurdaspur and Pa hanko . Though Ba ala is no cov r d in h ouris circui , bu wo si s, which hav b n pro c d by SI, along wi h many plac s of his oric and r ligious impor anc loca d in h LP can b form d par of his circui (r f r Fig.10).

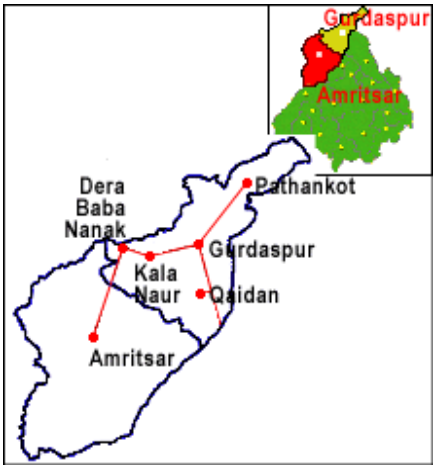


Fig. 10: T urist Circuit Gurdas ur a d Amritsar districts

2 4 1 Cultural, Hist rical a d Natural Res urces i atala city a d its surr u di gs wit i PA

Gurudwara Ka d a ib a d era a ib – Bo h of h Gurudwaras ar si ua d in h middl of Ba ala ci y. Th Kandh Sahib Gurudwara was buil in 1956. Th mos v n ra d obj c of h Gurudwara is h old wall m asuring 180 cm x 150 cm x 60 cm. ncas d in a glass almirah. Ba ala do s no only hav h prid of b ing h land of par n s in law of Guru Nanak D v, bu i is also h land which gav Guru Har Rai Sah b, h son of Tika Gurdi a, ld r son of Guru Hargobind Sahib, h Six h Guru. Th mos impor an c l bra ion in his Gurudwara is "Bab Da Viah", which is xplain d in h fairs and f s ivals s c ion. Th D ra Sahib Gurudwara is si ua d b hind Gurudwara Shri Kandh Sahib, and his is h plac wh r Guru Nanak D vji and his

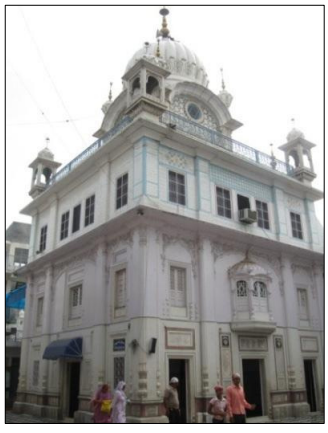


Fig. 11 Gurudawara Shri Ka dh a ib

r lativ s sta d at night during marriag . As a r sult, both th gurudwaras ar int rr lat d culturall and historicall , which ar r quir d to b cons rv d and prop rl manag d.

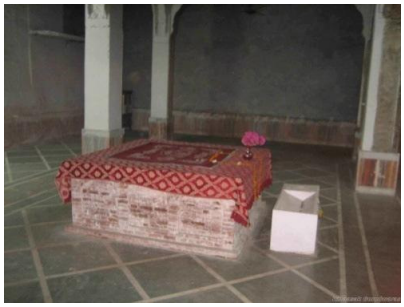


Fig. 12 Gurudawara Shri Dera Sahib

S ams er K a 's T mb

Th Tomb of Shamsh r Khan is manag d b ASI and r pairs ar b ing und r tak n. This monum nt has b n d clar d of national importanc und r th Anci nt Monum nt and Arch ological Sit s and R mains Act, 1958 (24 of 1958). Furth r, und r Rul s 2 of Anci nt Monum nt and Arch ological Sit s and R mains Rul s, 1959 (am nd d in 1992), ar a up to 100 m t rs form th prot ct d limits and furth r b ond it up to 200 m t rs n ar or ad oining prot ct d monum nt to b Prohibit d and R gulat d Ar as, r sp ctiv l for purpos s of both mining op ration and construction. An construction within r gulat d ar a n ds prior approval of Archa ological Surv of India.

Fig. 13: S ams er K a T mb

Locall known as Hazira, th structur is locat d n ar Baring Coll g and was built b Shamsh r Khan. Th tomb stands on a rais d platform surround d b a low wall having bastions in th corn rs. Th tomb is an octagonal structur crown d with a low dom . Th spandr ls of th arch s hav g om trical d signs. As p r Googl map, th campus of tomb poss ss s an ar a of 5. 6 Acr s. Th int rior wall as w ll as th xt rior of th tomb is richl adorn d with paintings d picting floral, g om trical and calligraphic d signs. Th d coration is intact on th int rior but on th xt rior onl its trac s surviv . R c ntl , th ASI had und rtak n r pairs. Pr s rvation work has b n don on its int rior as w ll as xt rior walls. Th surroundings of this monum nt too hav b n b autifi d. Tomb is surround d b th lush gr n gard n in th Mughal patt rn with all th paths l ading to th tomb.

Fig. 14: Reside ce Ma araja S er Si g

Th r sid nc of Sha sh r Khan is n ar to th To b, It is not cov r d und r th notification of ASI. Th coll g authoriti s ar aintaining th r sid nc of Sha sh r Khan as it co s und r th B.U.C. Coll g .

1) aradari Garde

Fig. 15: aradari Garde

Baradari Gard n is also und r th control of th Archa ological Surv y of India (ASI) and has b n d clar d of national i portanc und r th Anci nt Monu nt and Arch ological Sit s and R ains Act, 1958 (24 of 1958). Furth r, und r Rul s 32 of Anci nt Monu nt and Arch ological Sit s and R ains Rul s, 1959 (a nd d in 1992), ar a up to 100 t rs for th prot ct d li its and furth r b yond it up to 200 t rs n ar or adjoining prot ct d onu nt to b Prohibit d and R gulat d Ar as, r sp ctiv ly for purpos s of both ining op ration and construction. Any construction ithin r gulat d ar a n ds prior approval of Archa ological Surv y of India.

Jal Mahal (Baradari) and th palac of Maharaja Sh r Singh r conn ct d through a tunn l. As p r FG (Focus Group iscussion) ith local p opl , th tank of Jal Mahal us d to b fill d ith at r through th tunn l, hich as furth r conn ct d by a long tunn l (canal) to th B as n ar Kahnu an. Th r nants of th tunn l can b s n n ar Baring Christian Coll g .

Maharaja Sh r Singh us d to hold tings of his courti rs in Jal Mahal. Th at r r s rvoir as built by Sha sh r Khan, hil th b autiful Baradari in th c ntr of th tank as construct d by Maharaja Sh r Singh. It has a squar roo in th c ntr of a pavilion ith a passag . Th ntry to th first floor is by a staircas ith concav -shap d st ps on th north ast rn canal.

Jal Mahal (Baradari Gard n) has ight doors in th lo r part of th building and four in th upp r stor y. Th inn r all contain d b autiful art glass carvings and all paintings. Ho v r, ajor parts of th paintings hav b n ras d or da ag d. Th roof of th pavilion has also fall n.

This onu nt is acc ssibl fro Jalandhar Road but lacks th alli d infrastructur faciliti s. Th Municipal Council provid d a tub ll to fill up th tank till th ighti s. All sid s of th r s rvoir r lin d ith Nanakshahi bricks. Ho v r, ith th passag of ti th brick lining has b n d stroy d. No adays, on on sid of th tank is locat d a *Vridh*

Ashram (Old Age Home) owned and managed by the Dainik Prarthana Sabha. There also exists Bhadra Kali Mandir and Shivala. The upper portion of Jal Mahal is in a dilapidated condition and the time is not far when this magnificent structure will be forgotten by people.

2) ari g C urc atala

Baring is a church found d institution gov rn d by Baring Union Christian Coll g Association, an cum nical body of church s b longing to diff r nt d nominations r pr s nt d by Church of North India and M thodist Church in India. Th campus hous s Christian Institut for ligious Studi s, Baring Coll giat S nior S condary School and Baring School, all functioning und r th sam umbr lla. This is S mi Gov rnm nt Coll g , which cov rs an ar a of approx. 5 acr s. Th coll g cam into xist nc in 944. All th r quir d faciliti s lik play ground, staff quart rs, parking spac s, church and Maharaja Sh r Singh sid nc , Library tc. ar pr s nt in th coll g pr mis s. Th church, which is 7 Y ars old, was stablish d in 892 and is v ry w ll maintain d. Sunday pray rs ar off r d and f stivals ar c l brat d h r .

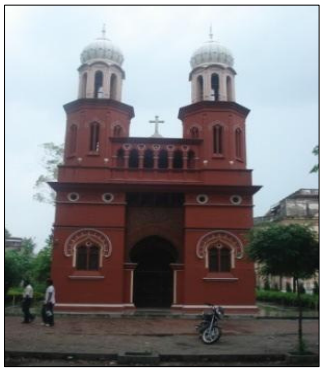


Fig. 16: ari g C urc

Th church is w ll maintain d by Coll g authoriti s and all basic infrastructur faciliti s hav b n provid d. Administrativ compl x of th coll g r sts in Maharaja Sh r Singh's r sid nc , which was built during th r gim of Maharaja Sh r Singh (AD 780- 839 . Th coll g s rv s th ar a of 40 km radius around Batala city.

3) Gates atala

According to th information coll ct d from th old citiz ns of th city, th r w r gat s and on mori (small ntry . Outsid v ry gat , th r was a tank and a Shamshan Ghat. Starting from N hru Gat (Sh ranwala Gat , th gat s in an anti clock wis dir ction w r Kathari Gat , Bhandari Gat , Ohri Gat , Kaji Mori Gat , Khajuri Gat , Achli Gat , Pahari Gat , Kapoori Gat , Nashirulhaq Gat and Mori Gat .

4) Cultural Ce tre (S iv atalvi Cultural Ce tre)

Shiv Kumar was a born po t, who migrat d from th po tic r gion of Sialkot to Batala at th most mis rabl mom nt of human history. It was th Ind p nd nc of th Sub-Contin nt in 947 - th dr adful, painful, horribl , mis rabl , d vastating, slaught ring and marauding ph nom non, which bis ct d th troubl strick n India.

In his lo ing m mory, a cultural c ntr was op n d, which is not y t compl t d and is ill maintain d. It is n xt to th Baring Coll g with an approx ar a of 0.2 acr .

2.4.2 Cultural Hist rical a d Natural Res urces i Surr u di gs utside atala PA

1) adar S a di arga

Th Dargah is 6 km, ast of Batala city (1 km from Sri Hargobindpur Road in th m di al illag of Masanian. Th lofty minar ts of th tomb ar isibl n from a distanc . Th r ar s ral gra s insid Dargah. Th s may b of th promin nt succ ssors of Shah Badar. In his gra , a ma stic dargah was built by his grandson Shah Abdul Shakoor Gilani Qadiri. It contains four minars, two courtyards and many dooms. Its annual f sti al is h ld on 12th *Rabi-ul-Awal* and th monthly fair or *nau-chandi* on Thursday at th app aranc of n w moon. Th r is no pro ision of basic infrastructur facility in t rms of drinking wat r, toil ts tc.

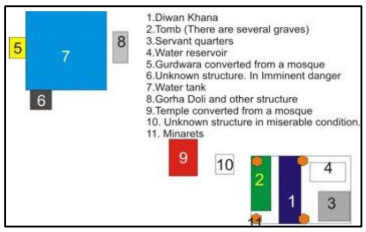


Fig. 17: Pla arga

Fig. 18: arga adar S a

2) Ac al Sa ib Gurudwara

It is on th Jalandhar Road (MDR , 4 kms from Batala City and is n xt to th Achal shwar T mpl .

During his tra ls, Guru Nanak D stopp d h r at th c ntr of th Nathpanthi Yogis. Many p opl gath r d to m t and h ar th Guru and this caus d alousy among th Yogis as th y f lt th y w r b ing ignor d.

Fig. 19: Ac al Sa ib Gurudwara

Th ir l ad r Yogi Bhangar Nath had a long r ligious d bat in which Guru Nanak argu d that asc ticism and r nunciation w r not th ways to r ach God. Guru Nanak said that th yogis w r hypocrit s b caus outwardly, th y r nounc d th world y t th y would go to p opl 's hous s to b g for food. Yogi Bhangar Nath start d p rforming magic, but was humbl d wh n h lost th ability in front of Guru Nanak. Th Guru told Yogi Bhangar Nath that all such tricks and miracl s w r insignificant compar d to th lo and grac of God.

3) Achaleshwar Tem le

Achaleshwar Temple is also located on Jalandhar Road (MDR) next to Achal Sahib Gurudwara. According to writing on the board of the temple, this temple belongs to Satyug Period and is related to God Kartik, the son of Lord Shiva and Parvati. The temple is having all infrastructure facilities with respect to tourist arrival.

Fig. 20: Achaleshwar Tem le

Fairs a d Festivals

Fairs and festivals become important part in exploring the tourism potential of the respective tourist spots and also help in generating local economy of the city. This aspect is studied to know the various fairs/festivals organised in the city, nature of festival (religious/ recreational), number of visitors and accordingly the infrastructure provisions (parking, drinking water facility, traffic management etc). The fairs in Batala city mainly are Cattle Fair, Basant Fair and Babe Da viah. In villages of LPA, the major fairs celeberated are Baba Ahlewale-da-Yag at Sangat Pura and Mela Baba Malang Shah at Chhit. But the major fair having regional importance in Batala is Babe Da Viah, which is celebrated as marriage day of Guru Nanak Dev every year. A brief description of Babe Da Viah is as follows:

4) abe Da Viah

In Batala city, a three day celebration is organized every year to celebrate the marriage of Guru Nanak Dev, the first Guru of the Sikhs. The festival is popularly known as "*Babe Da Viah*". Various religious organisations remain busy in the preparations for these. Devotees from across the country descend in the city and pay obeisance in Gurudwara, where the marriage ceremony of Guru Nanak Dev with Bibi Sulakhni is said to have taken place five centuries ago. Devotees from various countries like Australia, Italy, Canada, England and Germany came to pay obeisance.

The baraat of Guru Nanak Dev from Ber Sahib Gurudwara of Sultanpur Lodhi reaches in Dera Sahib Gurudawara in the evening every year. The citizens of the city wait for the Baraat at Ammo Nangal village to extend it a traditional welcome. Thousands of devotees visit the city during the festival. Numerous community kitchens use to be organized on this occasion and people regardless of the religion, take part in this procession, accompanied by ballad singers and gurbani kirtans.

According o h his ory, Guru Nanak D v marri d Bibi Sulakhni, daugh r of Mul Chand, a Chona Kha ri and a r v nu offic r, in 1487 a Ba ala. Guru Nanak D v and Bibi Sulakhni ook four rounds of h sacr d fir ins ad of h s v n pr scrib d.

R ute Nagar Kirta i t e city

Th rou is as follows: D ra Sahib → Sa Kar arian → Guru Nanak Coll g → Shas ri Nagar → Simbl Chowk → Bus S and → Ci y Bazar → u sid h Wall d Ci y → Kandh Sahib Gurudwara la v ning).

Th abov plac s, hrough which Nagar Kir an is carri d ou , ar his orically and r ligiously v ry impor an . Mor ov r, h proc ssion ar a cov rs almos whol of h Ba ala ci y.

Fig 21: View Nagar Kirta i atala City

Key Issues Heritage a d T urism

1. Th ouris plac s of h LPA r gion ar v ry old and hav h ir own h ri ag valu . Bu many of h s old buildings ar no ak n car of and ar in n gl c d s a . Mor ov r, h s ar no prop rly pr s rv d hrough mod rn chnology.
2. Mos of h r ligious si s ar g n rally loca d in h old ci y ar as and in surroundings. Th approach roads of h s si s ar in majori y narrow and g n rally ca ogaris d as h probl ma ic ar as, sinc h y canno sus ain h h avy v hicular raffic.
3. Though wo si s, ou of many in h r gion, ar nlis d by h Archa ological Surv y of India, h y ar no main ain d prop rly. Th s wo si s, i. . Baradari and Shamsh r Khan's Tomb, ar h only si s, apar from h Takh - -Akbari a Kalanaur, in h whol Gurdaspur dis ric s l c d by h ASI. B caus of his scarci y, h ir pr s rva ion and cons rva ion b com s ss n ial.
4. Th r is no ouris offic of Tourism D par m n / Touris Informa ion C n r in Ba ala ci y o propaga h ourism po n ial of h r gion, which could b a big sourc of incom .

CHAPTER 3

HOUSING AND UR AN POOR

3.1 ATA A HOUSING SCENARIO

3.1.1 EXISTING HOUSING STOCK

It has been observed that the number of occupied houses have grown by 47.01% during 1991-2001, within the municipal limits of Batala. The high growth rate can be attributed to rural migration to Batala city with high employment opportunities. However, the growth in number of households is not keeping pace with the growth in number of occupied residential houses, which has been only 36.7%. During the same period, the household size has also decreased from 6.3 to 6 (refer table 19). This decrease reveals increasing trend towards nuclear families in the city of Batala due to improved economic status.

Table 19: Gr wth Occu ied Reside tial H uses a d H useh lds i atala City (1981-2001)

Year	Occu ied Reside tial H uses	%age Gr wth Rate Occu ied Reside tial H uses	N H use lds	%age Gr t Rate H use lds	H use ld ize
1981	15176	-	16036	-	6
1991	16342	7.6	16387	20.8	6.3
2001	24,025	47.01	22406	36.7	6

urce: C sus of I dia, 2001

Patter Use H usi g

Out of total 39,340 hous s list d i C sus 2001, shar of r sid tial us is 61%. As th city has a multifu ctio al charact r, th mix d la d us is pr val t, so 4% of hous s ar us d for R sid c cum Oth r Us s(r f r tabl 20 . Although, hous s ar also b i g us d as shops, offic s, hospitals, work sh ds, plac s of worship, tc., 8.33% of th hous s ar lyi g vaca t.

Table 20: Patter Categ ry Wise Use Ce sus H uses i atala City, 2001

r N	Categ ry	N H usi g U its	%age T tal H uses
1	R sid c	24025	61.1
2	R sid c cum Oth r	1567	4.0
3	Shop, Offic	7061	17.9
4	School, Coll g tc	137	0.3
5	Hot l, Lodg , Gu st Hous tc	60	0.2
6	Hospital, Disp sary tc	102	0.3
7	Factory, Workshop, Worksh d tc.	1390	3.5
8	Plac of Worship	191	0.5
9	Oth r No -R sid tial us	1559	4.0
10	Vaca t Hous s	3248	8.3
T tal		**39340**	**100**

urce: C sus of I dia-2001

Ty e H usi g Structures

According to construction material used and durability of structure, the houses counted in the Census exclusively dedicated to residential category have been classified broadly into 3 categories, namely Permanent, Semi-Permanent and Temporary. The city housing structure, on the whole, is of permanent type. Almost 4/5th of the houses are categorized as permanent structures, while the semi permanent structures constitute 17.70%. Only remaining 3.7% houses are temporary in nature (refer Table 21).

Table 21: Ty e H usi g Structure i atala City, 2001

Head	Ty e Structure					
	Perma e t	Semi Perma e t	Tem rary		U classi iable	T tal Ce sus H uses
			Serviceable	N Serviceable		
No. of Houses	20115	4521	718	231	0	25585
%age of total	78. 0%	17.70%	2.80%	0.90%	0.00%	100.0 %

urce: C nsus 2001

H use lds by Number elli g U its

Th total hous holds of Batala city hav b n studi d with r sp ct to nu b r of dw lling roo s as p r C nsus 2001. It has b n analys d fro th tabl that al ost 3/4th of th hous holds ar having two or or than two roo s. N arly 1/4th of hous holds ar having on roo . Only 0.90% of th total hous holds ar in th cat gory of no xclusiv roo (r f r tabl 22).

Table 22: H use lds by Number elli g R ms i atala City, 2001

Head	N Exclusive R m	O e R m	T R ms	T ree R ms	F ur R ms	Five R ms	ix R ms a d Ab ve	T tal
N H use lds	22	348	8315	5255	3285	138	14 7	**26282**
% age	0.90	24.15	31. 3	19.99	12.49	5.27	5.57	**100**

urce: C nsus 2001

H usi g C diti

B sid s th housing stock and growth of r sid ntial hous s, th condition of th housing stock has also b n studi d qualitativ ly to asc rtain th condition of th availabl hous s in th city. Th housing condition has b n ass ss d bas d on th pr do inant us of at rials by way of visual surv y.

Housing condition vari s in diff r nt parts of th city as p r visual surv y. Mod rat to poor housing condition has b n obs rv d pr do inantly around bus stand, in wall d city and Mann Nagar ar a. Ar as lik Shastri Nagar, Civil Lin s, Urban Estat , tc. xp ri nc good housing condition as n w d v lop nt in t r s of I prov nt Trust Sch s hav b n i pl nt d.

Fig. 22: U la ed H usi g i the City (ada azar)

Fig. 23: Pla ed H usi g i Urba Estate

3.1.2 P ANNED EFFORT TO PROVIDE HOUSING STOCK Y VARIOUS GOVERNMENT AGENCY

Various government agencies are providing housing schemes i.e. Improvement Trust, Urban Estate, PUDA, Municipal Council etc. under various acts such as The Punjab Town Improvement Act, 1922, The Municipal Act, 1911and The Punjab Apartment and Property Regulation Act, 1995. Some efforts have been also made by PUDA under OUVGL (Optimum use of Vacant Government Land) schemes to provide housing stock.

Im r veme t Trust Schemes

The Punjab Town Improvement Act-1922 provides the procedure for undertaking development, redevelopment, expansion and other improvement schemes. Batala Improvement Trust was constituted under The Punjab Town Improvement Act, 1922, with an aim to develop and provide residential and commercial plots, flats, booths, SCOs etc. in the year 1974. Since then, it is continuously engaged in process of formulating various Improvement Trust Schemes.

Batala Improvement Trust is an active development body in the city. There are nine Improvement Trust Schemes in Batala that cover an area of 200 acres. Out of these nine, seven are developed as residential schemes and remaining two schemes are commercial. Majority of the Batala Improvement Trust Schemes cover 30-60 acres in each (refer table 23).

Regarding the development of these schemes, three schemes namely Dharampura, Radha Krishna and Shastri Nagar have been fully implemented by the trust and have been transferred to M.Cl of Batala whereas two schemes namely Khajuri Gate and Rai Sahib are partially complete and others are in the process of development.

Table 23: H usi g Schemes i atala City

Sect r	Scheme	Ty e	Area (acre)
Im r veme t Trust	Dharmpura	Residential	35.20
	Radhakrishan	Residential	8.98
	Shastri Nagar	Residential	74.52
	Mahant Sadhu Ram	Residential	28.34
	Old Mall Mandi	Residential	14.0
	Dhab Basti	Residential	4.40
	Rai sahib	Residential	8.64
	Leak Wala Tank	Commercial	25.35
	Khajuri Gate	Commercial	0.47
PUDA	Urban Estate	Residential	64.14

S urce: DTP Office, Gurdaspur

T w Pla i g Schemes

The Town Planning Schemes are the development initiatives taken by the Municipal Council of the city. There is no Town Planning Scheme developed in Batala city. The Honourable Supreme Court has declared the Section 192 of the Punjab Municipal Act, 1911 as void. So, no new Town Planning Scheme can be prepared under the Act.

PUDA A r ved C l ies

Private sector has recently entered into the field of housing in Batala. Eight colonies covering an area of 64.06 acres have been approved under PAPR Act. Out of 8 colonies, 7 falls under M.Cl. limit. One of the new colony (Usmanpur City) is partially covered in the council limits (refer table 24).

Table 24: ist C l ies a r ved u der PAPR Act i atala City

S. NO.	NAME OF CO ONY	AREA (acres)	OCATION	REMARKS
1	Sant Rasila Avenue	9.83	Qad an Road Batala	w th n M.Cl. l m t
2	Sun C ty nclav	3.41	Sangatpura Road Batala	w th n M.Cl. l m t
3	N w Gr at r Ka lash	9.11	N ar Urban stat Batala	w th n M.Cl. l m t
4	Basant V har	5.26	Dhupsar Kahnuwan Road Batala	w th n M.Cl. l m t
5	Uttam Nagar	9.49	D.B.N Road Batala	w th n M.Cl. l m t
6	Mod rn stat	8.55	Batala-Kahnuwan Road	w th n M.Cl. l m t
7	Gr n C ty	8.49	Batala-Qad an Road	w th n M.Cl. l m t
8	Usmanpur C ty	9.93	APK Road Batala	Part ally n M.Cl. l m t
TOTA		64 06		

urce: DTP Off c Gurdaspur

Urba Estate

Th Urban stat Batala s locat d n ar Bar ng Coll g . It s surround d by Jalandhar-Batala Road on on s d and Qad an Road on anoth r. Th Hansal Dra n marks th boundary of th stat n north n d r ct on. Th total ar a of Urban stat s 66 acr s. Th Urban stat cons sts of a total of 288 plots. Out of th total plots 138 plots ar n 10 Marla cat gory 80 n on kanal and 70 plots ar hav ng ar a of 7.5 Marla. Th total ar a und r plots s 18.84 acr s. Th total sal abl ar a of Urban stat s 24.54 acr s wh ch const tut s 64.14% of th total ar a of sch m .

As discussed above, various development initiatives were taken up for planned housing area in Batala city. T.P. Schemes, PUDA approved colonies and planned colonies under PAPRA etc. were developed covering an area of 133 Hectares. This is a very small figure in comparison to the total municipal area of 3270 Hectares. In other words, it can also be said that only 4% of total housing area is planned and rest 96% got developed in unplanned manner giving a poor impression of planned effort.

3.2 UR AN POOR AND S UMS:

Urban poverty is a multidimensional problem of contemporary development. Poverty and the living condition have far away consequence with the habitable housing conditions. The situation of slums has been analysed in Batala and the overall scenario becomes clear from table below:

Table 25: Dem gra hic Characteristics Slums atala city

Distributi Slum P ulati t City P ulati				
Year	**City P ulati**	**Slum P ulati**	**T tal Area Slums**	**% t City P ulati**
2001	1,47,872	33,604	21 ha	23%
em gra i C ara teristi s lum areas atala ity				
Item	**Urba**	**lum**	**lum P ulati**	
Total Hous holds	24,025	5,915	24.6	
Total Population (including Institutional and Hous l ss)	1,25,677	33,604	26.7	
Population in Ag group 0-6	14,908	4,407	29.6	
Sch dul d Cast Population	27,284	13,785	50.5	
Lit rat s	90,030	21,734	24.1	
T tal W rkers	38,147	9,978	26.2	
Mai W rkers	35,058	9,034	25.8	
i) Cultivators	460	37	8	
ii) Agricultural Labour rs	577	111	19.2	
iii) Hous hold Industry Work rs	1,367	206	15.1	
iv) Oth r Work rs	32,654	8,680	26.6	

ur e: Municipal Council, Batala

Th total population in slu s is 33,604, which is 23% of th city population. Th nu b rs of hous holds in slu ar a ar 5,915, which ar spr ad ov r 21 h ctar s of ar a. Th shar of Oth r Work rs (26.6%) is axi u in th Main Work rs cat gory (r f r tabl 25). Th Cultivators and Agricultur Work rs tog th r constitut 27.2%, work rs ngag d in Hous hold Industry ar 15.1%, whil Oth r Work rs constitut 26.6% and contribut s th ajor shar .

There are 8 slum pockets in Batala M.Cl., and the slum abadies are spread in all directions on private land. There is a post independence legacy of the slum development in various areas, which has transformed over the period into housing colonies. Here the colonization has a far away consequence with the ownership of land of the slum sprawl. The slum, which was an encroachment on private land earlier, now is the low cost housing, which is an interesting and unique situation by itself. The slum household gets benefit of the habitation rights and owns the Sale-deed document as an ownership record.

Fig. 24: Cam Slum area i atala city

3.2.1 INFRASTRUCTURA STATUS OF S UM AREAS

Table 26: Dem gra hic, Ow ershi a d I rastructure Status i Slum Abadies atala M.Cl

Name Slum Abadi	P ulati	N . H useh lds	Area (ha)	Ow ershi	C verage Physical I rastructure (H usewise)			
					Sewerage	Water Su ly	Drai age	Street ighti g
Issa Nagar	795	141	1.2	Private	80%	80%	50%	89%
Ram Nagar	1,648	282	3.1	Private	70%	80%	50%	100%
Daya a d Nagar	1,949	271	3	Private	90%	80%	50%	99%
Mehb ba Nagar	159	24	0.29	Private	95%	90%	50%	100%
Guru Na ak Nagar	1,414	222	2.1	Private	95%	90%	50%	100%
Faiz ura	1,405	233	2.8	Private	-	50%	50%	100%
Murgi M halla	7,262	1,061	4.2	Private	90%	100%	50%	100%
Re ugee Cam	9,422	1,586	4	Private	90%	90%	50%	99%
T tal	**24,054**	**3,820**	**20.69**		**76.3%**	**82.5%**	**50%**	**98.4%**

S urce: Municipal Council, Batala, 2009

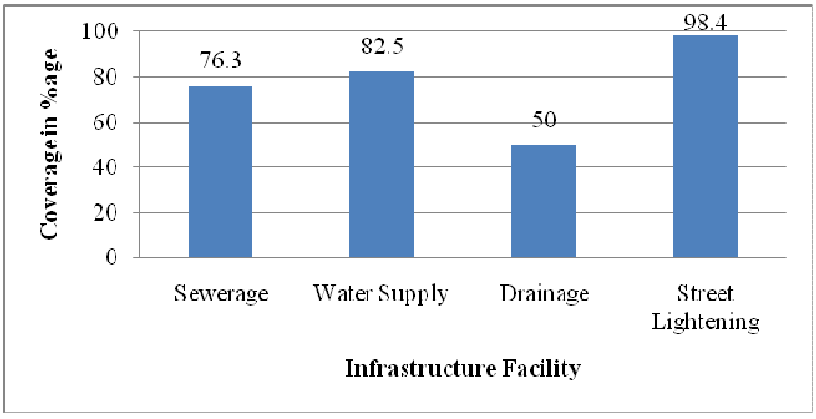
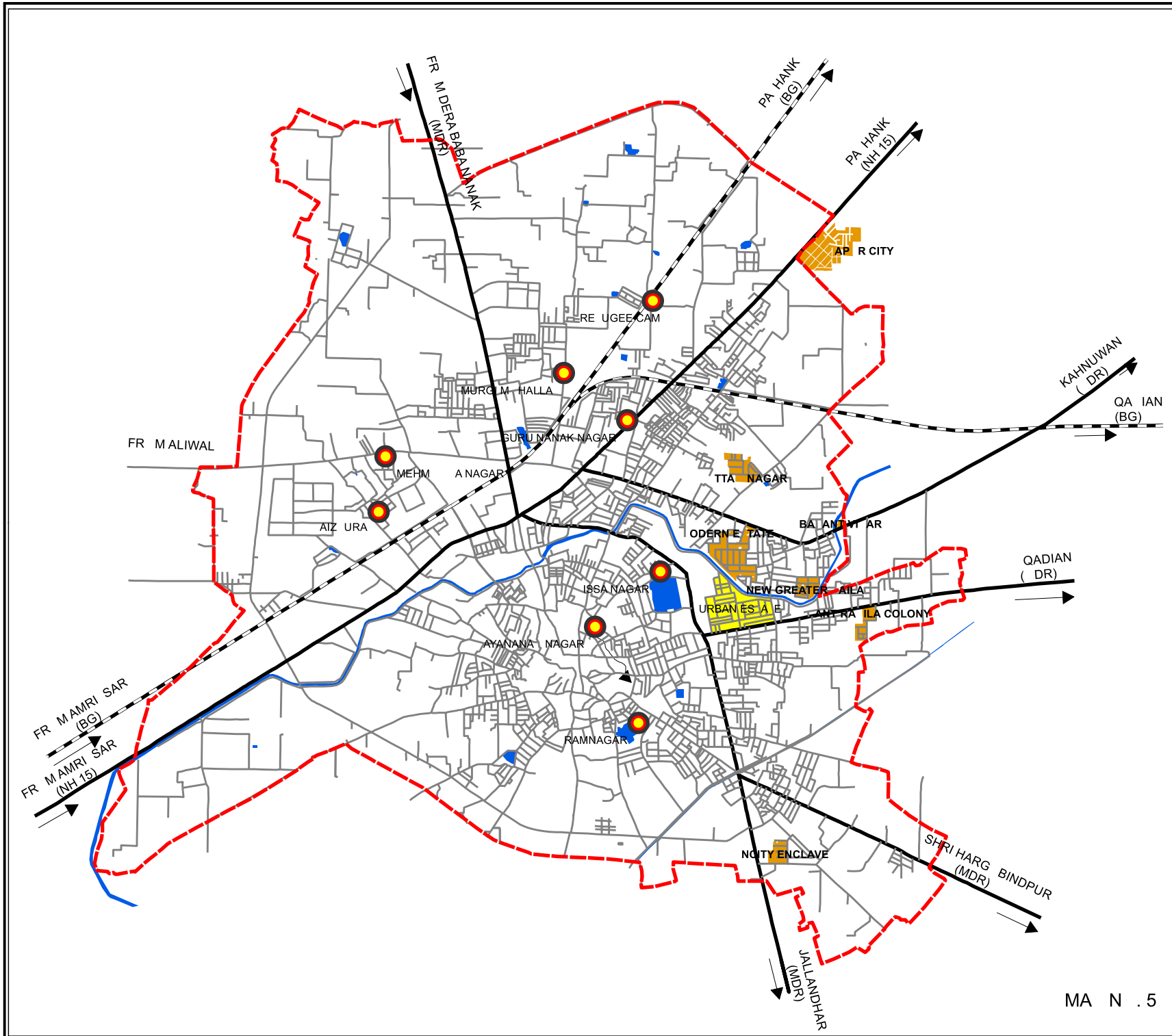


Fig 25: I rastructure Facilities i lums atala City



B A T A L A

NICIPAL CO NCIL

H USING SCENARI 2010

IN ET AP

MA N SCALE

LEGEND

- MUNICI AL C UNCIL B UN ARY
- MAJ R R A
- HER R A
- RAIL AY RACK
- N A ER B Y
- A R VE C L NIES(A RA)
- URBAN ES A E
- SLUM

NOTE:

his drawing is based upon the Existing Land Use Map supplied by office, Gurdaspur (rawing No. . . . (G) 21 2010 dated 13-12-10

R. = 1:44,000

440 220 0 440 880 Meters

MA N . 5

DEPART ENT OF TOWN AND CO NTRY PLANNING, P NJAB

AP. No- 5

IS RIC N LANNER GUR AS PUR | SENI R N LANNER AMRI SAR | CHIE N LANNER PMAN KARH

CLIENT : UNJAB URBAN LANNING AN EVEL MEN AU H RI Y

PROJECT: RE ARA I N MAS ER LAN R BA ALA L CAL LANNING AREA

CON LTANT :

SAI Consulting Engineers Pvt. Ltd

An ISO 9001 Certified Company

SAI House, Satyam Corporate Square, B/h. Rajpath Club, Bodakdev, Ahmedabad - 380 054
PHONE : +91 79 6614 2500, 6614 2700. Fax : +91 79 6614 2800.
E-mail : mail@saiindia.com Web : www.saiindia.com

R garding infrastructur in th s slum a adi s, th physical infrastructur has n d v lop d with n d d utiliti s. Mor than 4/5th hous s ar facilitat d y wat r supply, 3/4th y s w rag , half of th total y drainag , and almost all hous s y str tlights (r f r Ta l 26 and Fig. 25). B sid s, th r ar f w draw acks too lik majority of th slums hav op n drain l ading to poor hygi nic condition. Lack of community halls, op n spac s and th social infrastructur within slums is th root caus of non-int ll ctual d v lopm nt.

Key Issues r lums a d Urba P r

- Incr as in slum population l ads to unauthoriz d acc ss to gov rnm nt land.
- All slums ar locat d outsid th Wall d City.
- Th slum dw ll rs hav low work participation ratio and high marginalization of workforc . Majority of population longs to SC and hav low lit racy l v l.
- o s parat funds ar availa l in municipaliti s for slum w lfar .
- Poor impl m ntation m chanism as far as proj cts r lat d to ur an poor ar conc rn d.
- Th r ar no sp cific D v lopm nt Sch m s for th s ar as.

CHAPTER 4

EXISTING ANDUSE AND TRANSPORTATION NETWORK

4.1 PREPARATION OF ASE MAP

The work of preparation of base map for Batala Local Planning Area, was assigned to Punjab Remote Sensing Centre, P.A.U., Ludhiana. The base map is generated on 1:16,000 scale using Worldview data of 0.5m spatial resolutions. The Cadastral maps of the villages falling in Local Planning Area were procured from the State Revenue Department by the office of District Town Planner, Gurdaspur and maps have been scanned in the office of PRSC, Ludhiana and registered with Worldview data to demarcate village and musteel boundaries. The features like roads, rails, drains, settlements etc. have been captured from satellite image and shown on the draft base map. After editing the map details, the attributes to different features were assigned. The data captured from satellite image was verified by the officials of DTP office and a non-spatial data base was attached to it.

4.2 ENHANCEMENT THROUGH FIE D SURVEYS- AND USE AND ROAD NETWORK

The draft base map for the Local Planning Area and densely built up areas (i.e. core areas) received from PRSC were updated through ground truthing (field survey) by the office of DTP Gurdaspur. Various land uses have been identified at the site and earmarked accordingly. Similarly, the road network, drains, distributaries and other communication zones have been verified and checked at site. After conducting field surveys, necessary feedback was given to PRSC Ludhiana, which was incorporated and updated base map was prepared by PRSC. The Office of DTP Gurdaspur again conducted second round of field verification (ground truthing). This exercise was repeated number of times and the field staff of DTP personally assisted PRSC to prepare final Land Use map.

4.3 EXISTING ANDUSE P AN

In order to understand the breakup of the developed urban area of the Batala city and area under various uses including Residential, Commercial, Industrial, Traffic and Transportation, Recreational, Utilities, Public and Semi-Public uses, detailed analysis of the city structure has been made based on the existing land use plan prepared by the PRSC, Ludhiana as detailed out in the Batala Local Planning Area, Existing Landuse Plan- 2010, in drawing no. DTP (G) 21/2010, Dated 13.12.10 of the Department of the Town and Country Planning, Punjab. The detailed analysis is shown in the table given below:

Table 27: Existi g a duse atala M. Cl., 2010

Sr. N.	Ty e a duse	Area (i Ha)	%age t T tal Devel ed Area withi Mu ici al imits	%age t T tal Mu ici al Area
1	Residential	750.76	50.93	22.92
2	Comm rc al	130.96	8.88	4.00
3	Industr al	170.86	11.59	5.22
4	Publ c & S m Publ c	89.67	6.08	2.74
5	Gov rnm nt	23.71	1.61	0.72
6	Ut l t s & S rv c s	8.41	0.57	0.26
7	R cr at onal	11.96	0.81	0.37
8	Traff c & Transportat on	287.86	19.53	8.79
T tal evel ed Area		**1474 19**	**100**	-
9	gr cultur & Wat r od s	1801.67	-	55.00
T tal M Cl Area		**3275 86**	-	**100**

urce: PRSC Draw ng no. DTP (G) 21/2010 Dat d 13.12.2010

Table 28: Existi g a duse atala PA, 2010

r N	Ty e a duse	Area (i Ha)	%age t t tal evel ed Area wit i PA limits	%age t t e T tal PA Area
1	R s d nt al (nclud ng V llag bad s)	1464.03	57.38	8.83
2	Comm rc al	150.79	5.91	0.91
3	Industr al	233.04	9.13	1.40
4	Publ c & S m Publ c	143.30	5.62	0.86
5	Gov rnm nt	23.86	0.94	0.14
6	Ut l t s & S rv c s	13.53	0.53	0.08
7	R cr at onal	17.19	0.67	0.10
8	Traff c & Transportat on	505.53	19.81	3.05
T tal evel ed Area		**2551 27**	**100**	-
9	gr cultur & Wat r od s	14036.26	-	84.62
T tal Area PA		**16587 53**	-	**100**

Note: *The areas given above for Ba ala M.Cl. and A are according o he Exis ing anduse lan, 2 of Ba ala rovided b R C. As er he lis rovided b DT Office, area for Ba ala M. Cl. is 366 ha, while for he A i is 1657 ha.*

s p r Ex st ng Land us Plan, out of 3275.86 h ctar s of th mun c pal ar a, only 45% s d v lop d, wh r as 55% s und r gr cultur /Vacant. Th larg st compon nt of D v lop d r a s R s d nt al, wh ch const tut s about 51% of th d v lop d or bu lt up ar a. ng mportant ndustr al c ntr of th Gurdaspur D str ct, t has about 11.6% of th D v lop d r a und r ndustr al ar a. Th c ty has about 19.5% ar a und r th road n twork that s suff c nt for such cat gor s of c ty. C ty has also h gh d gr of Comm rc al ar a amount ng to around 9%. Th Publ c and S m Publ c us too forms a major part (6%) of th total D v lop d r a. Lack of r cr at onal ar a (l ss than 1%) nd cat d poor ual ty of l f n th c ty.

Reside tial

R s d nt al ar a cov rs th max mum p rc ntag among d ff r nt cat gor s, t compr s s of 50.93% of counc l's D v lop d r a and 22.92% of total counc l ar a. Th c ty s hav ng a

gross density of 40 pph as per Census 2001 and the density decreases as one moves away from core area. The residential development in the city is all along roads, and colonies have been emerged in between the radial routes. Planned schemes in the city come under only Improvement Trust housing schemes.

Batala Improvement Trust is an active body in the city and the schemes cover an area of 200.5 acres. There are nine Improvement Trust schemes in Batala. Out of these, 3 schemes, namely Dharampura, Radha Krishna and Shastri Nagar have been fully implemented by the trust and have been transferred to Batala M.Cl., whereas two schemes namely Khajuri Gate and Rai Sahib are partially completed, while rest are in the process of development. Private sector has recently come in the field of housing in the Batala. Usmanpur City covering an area of 9.91 acre was developed on Gurdaspur Road. Residential development is less in northern direction than in the southern part.

C mmercial

The commercial area in Batala city comprises of 8.88% of the developed area of the council. It includes bulk material market of Batala Municipal Council. However, within the Local Planning Area, the commercial landuse comes out to be 0.91%. There is no City Centre or District Shopping Centre in the city. The main commercial areas of the city are surroundings of Bus stand, Bada Bazar, Chakari Bazar, Leak Wala Tank, Nehru Gate, City Road, Samadh Road, Cinema Road, NH-15. The city deals mostly in retail business. These commercial areas are along the roads that are generally of 7 to 12 m depth. The informal sector has mushroomed along with the traditional commercial area.. The informal markets are along NH-15, Leak Wala Tank Market, Gandhi Chowk, Qadian Road, near Bus Stand. Besides, grain market is located near Dera Baba Nanak Road and fruits and vegetable market is within the grain market.

I dustrial

The total area under industrial use is 11.59% of the total developed area of the council and 5.22% of the total council area. Being the most important industrial centre of Gurdaspur district, high percentage of developed area is under industrial use. The city has small-scale as well as medium and heavy scale industries. The Casting Iron (CI) Industry is the most important component of the industrial sector of the city. The detailed study of industries has been carried out in the chapter of Demographic Profile and Economic Base.

Public a d Semi Public

Public and Semi Public Use comprises of educational, health and socio-cultural facilities. The Public and Semi Public use comprises of 6.08 % of the developed area and 2.74% of total council area. The city is having various educational institutes, which have regional level influence like Baring College, Guru Nanak College, R.R. Bawa College, polytechnic, etc. Apart from these, there are several hospitals spread over the whole city. These aspects have been covered in the Infrastructure and Service Delivery chapter.

G ver me t

The Government use consists of government land and govt. offices of local, state and central level. There are some major district level offices present in the city, i.e. Office of Senior Superintendent of Police, DIC (District Industries Centre), Punjab Pollution Control Board, etc. Besides these, the city also has offices of SDM, Tehsildar, Municipal Council, Improvement Trust, Mandi Board, etc. The offices are mainly concentrated along the NH 15 or the central part of the city. The landuse covers a nominal area of 1.61% of the total developed area, as the city has limited Cantonment area within its limits.

Utilities a d Services

Utilities and Services comprise of water supply, sewerage system, solid waste management, storm water drainage and electrictiy. It covers negligible area of 0.57% of the total developed area. The Infrastructure and Service Delivery chapter provides details about all these utilities.

Recreati al

The total area under recreational use is about 0.81% of the total developed area. The share of recreational use in the developed area is negligible with respect to the standards prescribed in the UDPFI Guidelines. In terms of green spaces, there are 4 major parks, namely Bada Talab Park, Hazira Park, Subhash Park and Samadh Park. All of them are located on Jalandhar Road and are spread over an area of 16 hectares. However, the city in majority lacks in green areas, particularly in core area.

Tra ic a d Tra s rtati

The various components of traffic and transportation cover 19.53% of the developed area of council and 8.73% of the total municipal council area. The road condition in the city is moderate to bad, and needs immediate attention. Majority of roads require upgradation, widening and strengthening. A detailed study has been carried out later in the Traffic and Transportation section of this chapter. The transport network hierarchy is shown in the Existing Land use Plan.

Agriculture a d Water dies

As th council a a is not fully d v lop d, th a a as within it that a und ag icultu us . In th LPA, xc pt villag abadi s, majo ity of th a a is und ag icultu us . Within municipal council, 1799 h cta com s und ag icultu us with a ound 55% sha .

Th xisting landus patt n qui s ationalization in o d to b ing it to th p sc ib d no ms. Consid ing th high d nsity in th city, th d v lop d a a n ds to b inc as d k ping in vi w th qui m nt of th xisting and p oj ct d population to b accommodat d in th city. Th a a und t affic and t anspo tation n ds to b inc as d by c ating additional oad n two k and imp oving th xisting oad capacity. La g numb of op n spac s n ds to b c at d in th city in o d to imp ov th quality of lif . Indust ial compon nt also n d to b inc as d in o d to imp ov th conomy of th city. Th sid ntial a a n ds to b scal d down in o d to minimiz cong stion and ov c owding.

4.4 TRAFFIC AN TRANSPORTATION

T affic and t anspo tation is a majo a a wh inhabitants of th towns/citi s of India a facing t affic p obl ms and th difficulti s in commuting f om on plac to oth , which b com s th p im conc n. Fo atala, this asp ct is of g at impo tanc , so a d tail d study has b n mad with sp ct to v hicula g owth, oad c oss s ction, t minal point and pa king issu s.

Fig. 26: Sc eduled R ads Pu jab

4.4.1 isti g R ad Netw rk & Hierarc y

atala is w ll conn ct d at gional l v l th ough th oad n two k. Am itsa -Pathankot NH 15 conn cts th city to Am itsa in w st n sid and to Pathankot in ast n sid . atala is also conn ct d to D a aba Nanak in no th-w st, Aliwal in w st, Jalandha and S i Ha gobindpu in south- ast, Qadian in th ast and Kahnuwan in th no th- ast. Th city has a bypass too, though it is not compl t d. A oad hi a chy of th majo oads in atala LPA is shown b low in tabl 29.

National Highway No. 15 pass s th ough atala city dividing it into almost two pa ts, i. . no th n and south n. Th a th MDRs, which conn ct atala with D a aba Nanak, Sh i Ha gobindpu and Jalandha . Th ODRs conn ct th city with Kahnuwan, Qadian and ypass. As p PWD, atala ypass is also consid d as Oth Dist ict Road (f tabl

29). Among all these roads, four are Scheduled Roads, namely Amritsar-Pathankot Road (NH 15), Jalandhar Road, Dera Baba Nanak Road, and Shri Hargobind Pur Road. Jalandhar Road and Dera Baba Nanak Road are actually two sections of the Scheduled Road Rayya-Batala-Dera Baba Nanak Road. It is pertinent to note that there is no hierarchy of State Highway existing within Batala LPA.

Table 29: R ad Hierarchy i atala PA

S. N .	Categ ry	Name t e R ad
1	National Highway 15	Am itsa -Pathankot Road
2	Ma o Dist ict Roads	Batala-D a Baba Nanak Road
		Batala-Sh i Ha gobindpu Road
		Batala to Jalandha Road
3	th Dist ict Roads	Batala-Kahnuwan Road
		Batala-Qadian Road
		Batala-Bypass Road

S urce: PWD B&R D ptt., Gu daspu

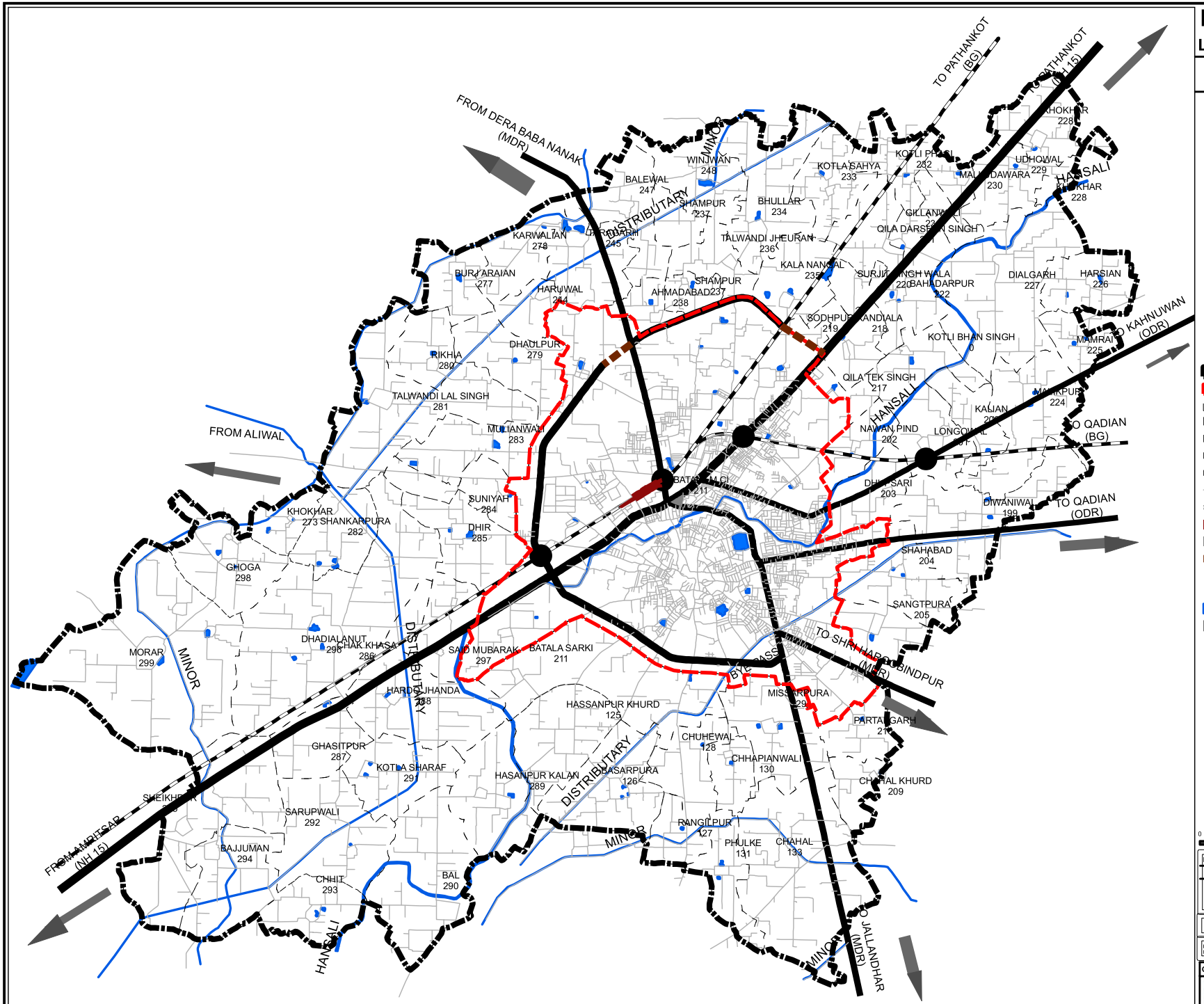
As fa as inn city oad n two k is conc n d, th is i gula alignm nt, inad quat width and f qu nt int s ctions, causing const aints to th capacity of oads. Th ma o n two k of th city (within M.Cl.) is sp ad ov 32.7 sq km a a. Th city has oads anging f om 5 to 20 m width.

Table 30: Maj r R ads i atala city (M.Cl.)

Name R ad (wit stretc)	e gt (m)	ROW (m)	Carriageway Widt (m)	ivided / U divided
Main Baza Road No th (A-A') (Gandhi Chowk to N h u Gat)	800	13	4+4	Pa tially Divid d
Bada Baza Road No th (B-B') (till Qadian Rail Lin)	578	16	6	Undivid d
Ci cula Road C nt al (C-C') (a ound Wall d City)	4343	6/13	6/13	Undivid d
D a Baba Nanak Road No th (D-D') (Gandhi Chowk till M. Cl. limit)	3305	20	7+7	Pa tially Divid d
Aliwal Road W st (E-E') (Chand found y ind to un b tw n Indust ial Focal Point and bypass)	2308	20	9	Undivid d
Road f om AVM Coll g SW (Ci cula Road) till M. Cl. Limit (F-F')	1553	6	-	Undivid d
Road f om Hathi Gat South till MC limit (G-G')	1094	10	-	Undivid d
Jalandha Road SE (H-H') (Bus Stand till M. Cl. limit)	4234	15	5	Undivid d
Kahnuwan Road East (I-I') (Simbal Chowk till MC limit)	2374	20	7-10	Undivid d
Qadian Road East (J-J') (Qadian Chungi till M Cl. limit)	2246	18	7-10	Undivid d
Sh i Ha gobindpu Road East (K-K') (Ci cula Road till M. Cl. limit)	2943	12-14	7	Undivid d

S urce: P ima y Su v y, SAI T am, Aug 2009

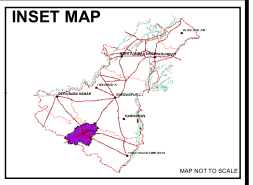
All th city oads list d abov , xc pt Ci cula Road, sta t f om th co of th city and un to diff nt di ctions. Th l ngth of th oads ang s f om 500 m to 4500 m. Th R W of



MAP NO. 6

B A T A L A
LOCAL PLANNING AREA
ROAD AND RAIL NETWORK 2010

INSET MAP



MAP NOT TO SCALE

LEGEND

- LOCAL PLANNING AREA BOUNDARY
- MUNICIPAL COUNCIL BOUNDARY
- VILLAGE BOUNDARY
- R 1 (NH 15)
- BYE PASS
- R 3 (MDR)
- R 4 (ODR)
- R 5
- (BG)
- RAIL TERMINAL
- BUS TERMINAL
- MISSING LINK
- RAIL ROAD CROSSING
- WATER BODY
- BUS FREQUENCY

1 Cm = 800 Buses

NOTE:
This drawing is based upon the Existing Land Use Map supplied by DTP office, Gurdaspur (Drawing No. D.T.P. (G) 21/2010 dated 13-12-10)

R.F.= 1:90,000

0 900 1,800 3,600 Meters

DEPARTMENT OF TOWN AND COUNTRY PLANNING, PUNJAB

MAP. No- 6

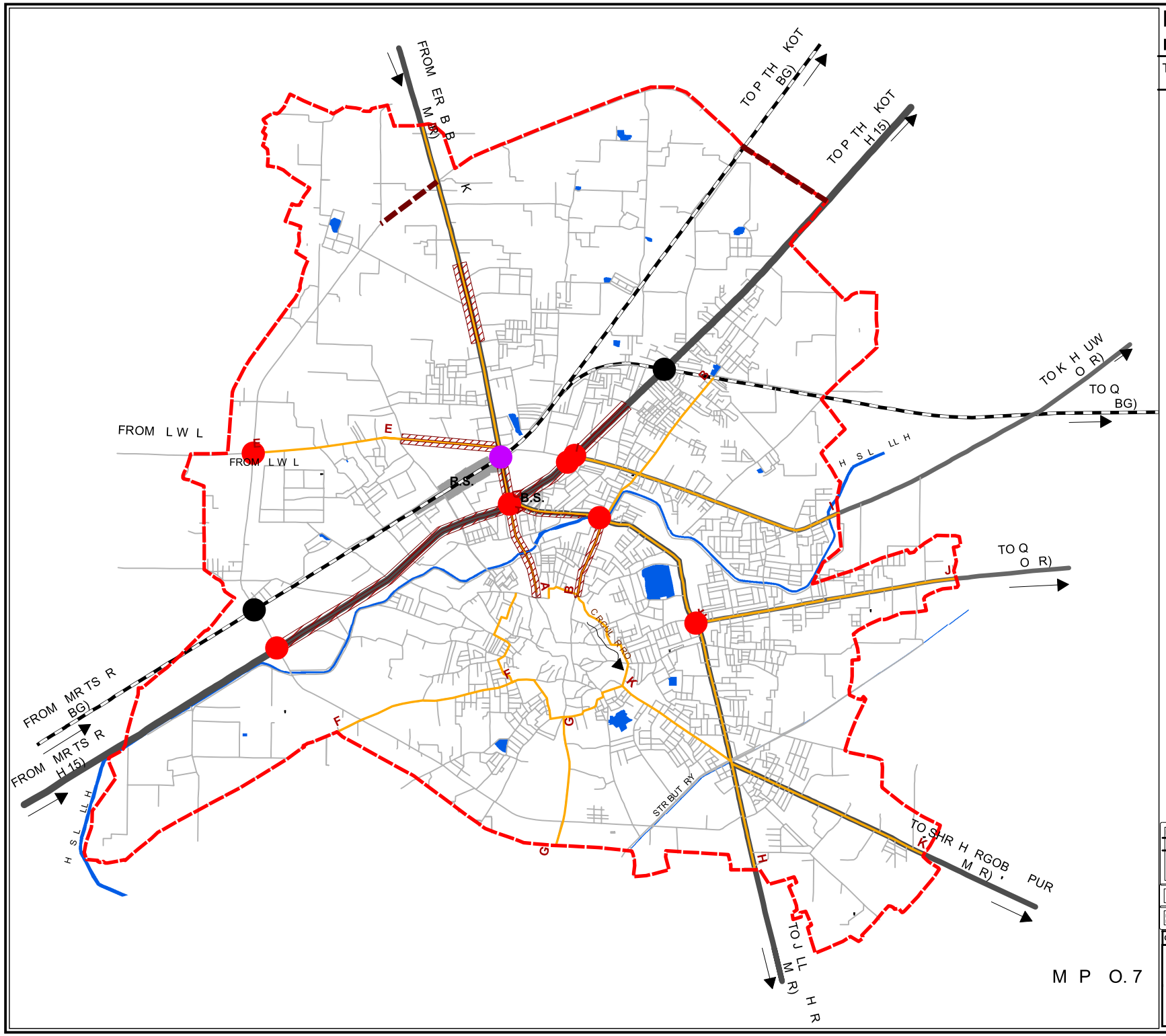
DISTRICT TOWN PLANNER GURDASPUR	SENIOR TOWN PLANNER AMRITSAR	CHIEF TOWN PLANNER CHANDIGARH

CLIENT :
PUNJAB URBAN PLANNING AND DEVELOPMENT AUTHORITY

PROJECT:
PREPARATION OF MASTER PLAN FOR BATALA LOCAL PLANNING AREA

CONSULTANTS :

SAI Consulting Engineers Pvt. Ltd
An ISO 9001 Certified Company
SAI House, Satyam Corporate Square, B/h. Rajpath Club, Bodakdev, Ahmedabad - 380 054
PHONE : +91 79 6614 2500, 6614 2700, Fax : +91 79 6614 2800
E-mail : mail@saiindia.com Web : www.saiindia.com

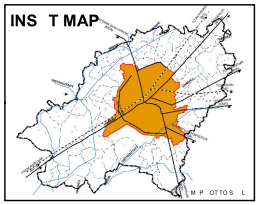


B A T A L A

MUNICIPAL COUNCIL'

TR FF TR PORT T O 2010

INS T MAP



L G ND

- MU P L OU L BOU RY
- R 1 T O L H GHW Y)
- BY P SS
- R 2 M R)
- R O R)
- R 5 OTH R RO)
- R LW Y TR K
- P RK G LOT
- BUS T RM L
- R L T RM L
- M SS G L K
- O STR T P RK G
- PO / W T R BO Y
- ROB
- T PRO R
- R L RO ROSS G

NOT :
T is drawing is based upon t e xisting Land Use Map supplied by ' TP office, Gurdaspur rawing o. .T.P. G) 21/10 dated 1 -12-10

R.F. = 1:4 ,000

4 0 215 0 4 0 860 Meters

D PARTM NT OF TOWN AND COUNTRY PLANNING, PUN AB

MAP. No- 7

STR TTOW PL R GUR SPUR | S OR TOW PL R MR TS R | H F TOW PL R H G RH

CLI NT :
PU J B URB PL G V LOPM T UTHOR TY

PRO CT:
PR P R T O OF M ST R PL FOR B T L LO L PL G R

CONSULTANTS :

SAI Consulting Engineers Pvt. Ltd
An ISO 9001 Certified Company

SAI House, Satyam Corporate Square, B/h. Rajpath Club, Bodakdev, Ahmedabad - 380 054
PHONE : +91 79 6614 2600, 6614 2700, Fax: +91 79 6614 2800.
E-mail : mail@saiindia.com Web : www.saiindia.com

th s roads rang s b tw n 6 to 20 , and th carriag way is b tw n 5 to 14 (r f r tabl 30). Most of th roads ar without divid rs/ dians, xc pt Main Bazar Road and D ra Baba Nanak Road, which hav divid rs in so part of th whol str tch.

Missi g R ad i ks- atala City

Th xisting bypass is an i portant road, but not fully co pl t d aking th transport n twork in ffici nt. H nc , this road n ds to b co pl t d, which is possibl as ar a along this road is not y t d v lop d (r f r tabl 31).

Table 31: Missi g R ad i ks - atala City

Sr. N .	Name R ad	Widt R ad	Reas Missi g i k	Remarks
1	xisting Bypass towards north-w st (NH-15 to D ra Baba Nanak Road)	100	Litigation	V ry strat gic link for city
2	xisting Bypass towards north (D ra Baba Nanak Road to NH-15)	100	Litigation	V ry strat gic link for city
3	xisting Bypass towards north ast (NH-15 to Jalandhar Road)	100	Tr nd of d v lop nt was low in North ast rn dir ction	V ry strat gic link for city to r duc th int r city traffic.

S urce: PRSC, Drawing no. DTP (G) 21/2010, Dat d 13.12.2010

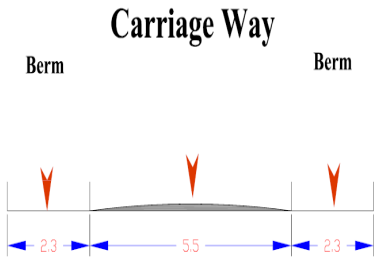
R ad Cr ss secti s as er Rec aissa ce Survey

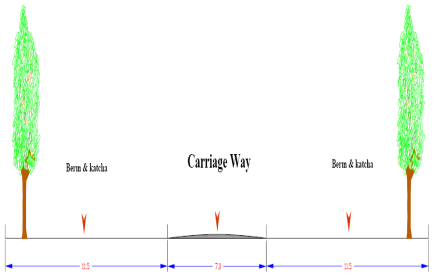
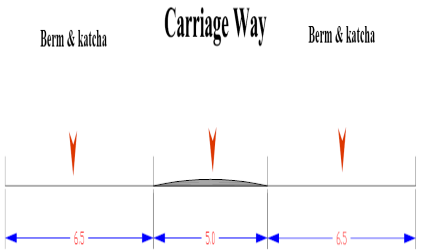
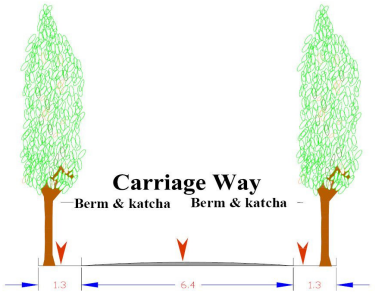
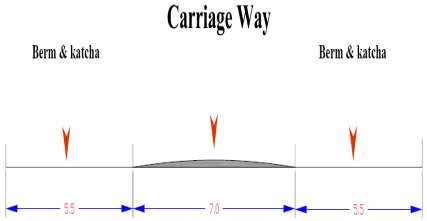
To und rstand th traffic and transportation n twork of city, r connaissanc surv y was carri d out for all asp cts. Th cross s ction d tails of all ajor roads hav b n asur d and ncroach nt along all roads has b n id ntifi d. In cas of all ajor roads, th right of way in any plac s is ncroach d, which r duc s th ff ctiv road width. Th ov rall l ngth, land width (ROW), for ation width and tall d width of all i portant roads ar giv n in tabl 32.

Table 32: Cr ss ecti al etails i ere t Hierarc y R ads

Ty e R ad	Ty e R ad	e gt (i km)	Metalled Widt (i m)	F rmati Widt (i m)	a d Widt (i m)
Maj r istrict R ad					
Batala- ra Baba Nanak Road	**Tw a e**	29.36	7.00	10.00	25.15
Batala-Shri Hargobindpur Road	**Tw a e**	26.38	7.00	10.00	20.12
Batala-Jalandhar Road	**Tw a e**	14.15	6.70	10.00	30.00
T tal		**69 89**			
Ot er istrict R ad					
Batala-Kahnu an Road	**Tw a e**	23.30	10/7	10/13	26.83
Batala- adian Road	**Tw a e**	15.55	10/7	10/13	20.12
Batala Bypass Road	**I termediate**	5.50	6.32	8.50	30.00
T tal		**45 17**			

urce: PW B&R, Batala

r N	R ad Name	Cr ss ecti	P t gra	Remarks
1	**NH ear y ass E tra ce (NH15)**			Encroachm nt by th industri s and on str t parking of v hicl s r duc th ff ctiv road idth.
2	**Near Amritsar-Jala d ar y ass**			This out r s ction has h avy plantation on both sid s of th road.

3	**atala-Dera aba Na ak R ad**			Encroachm nt b th shopk p rs and on str t parking on both sid . Mov m nt of h av v hicl s is also th r .
4	**ri Harg bi d ur R ad**			On str t parking on both sid s. Mov m nt of motoriz d and non-motoriz d traffic on this rout .
5	**Aliwal R ad**			Comm rcial str tch on both sid s, along with on str t parking and mov m nt of rickshaws.
6	**Qadia R ad**			Comm rcial str tch on both sid s along with th r sid ntial d v lopm nt

4.4.2 TERM NA S

us Ter i al

The Bus Term nal of Batala s located at the heart of the c ty w th an area of 2.5 acres along the Nat onal H ghway (NH15). Buses move along all d rect ons on local and reg onal level routes. The locat on of bus stand s next to mportant government off ces l ke Court Complex, M.Cl. off ce, BDO etc. On one hand, government off ces do not have park ng prov s on, on the other hand, buses create traff c problems n the surround ng area. It s mportant that the ex st ng s te of Bus Term nal s cr t cally rev ewed and alternate place dent f ed to m n m ze traff c congest on. The descr pt on of the routew se bus traff c s g ven n the table below:

Fig. 27: us Sta d atala cit

Table 33: Nu ber a d Freque c uses Di ere t R utes

S. N .	Na e the R ad	Na e the R ute	N . uses	Freque c (i i utes
1	Al wal oad	Fatehgarh Chur an	169	5
2	Dera Baba Nanak oad	Kalanaur	175	4
		Dh anpur, Shahpur, Kalanaur, Dera Baba Nanak	202	3
3	NH 15 (both Amr tsar and Pathankot s des)	Pathankot, D na Nagar, Gurdaspur, Amr tsar	351	5
4	Kahnuwan oad	Kahnuwan, Muker an v a Sath al Pul	86	8
5	Qad an oad	Harchowal	49	7
		Qad an	171	8
6	Shr Hargob ndpur oad	Shr Hargob ndpur,Tanda, Ghoman, Cheema Khud , Leel Kalan, Gande-Ke-Chone	160	15
7	Jalandhar oad	Mehta, Beas	157	5
		Jalandhar, Ludh ana, Chand garh, Pat ala, Ambala Delh	102	12

S urce: P TC, Batala

Frequent bus serv ce s ava lable on d fferent routes operat ng from Batala c ty. Almost 10 major routes are there from Batala, on wh ch buses are mov ng through 7 major roads da ly. The bus frequency var es for these routes from 3-15 m nutes. In terms of number of buses ply ng on a road, Dera Baba Nanak oad has the max mum traff c of 377 buses, wh le n terms of route, the route of Pathankot, D na Nagar, Gurdaspur and Amr tsar has the max mum buses (351). It s followed by the route of Dh anpur, Shahpur, Kalanaur and Dera Baba Nanak w th 202 buses runn ng da ly. From the above f gures, t can be concluded that Batala s well connected to the c t es/towns of Amr tsar, Pathankot, Dera Baba Nanak, Jalandhar, Kalanaur, Fatehgarh Chur an, Qad an and Shr Hargob ndpur, lead ng to more nteract on. The v llages of LPA are not well connected w th the bus serv ce fac l ty. Out of total 67 v llages, 54% do not have d rect bus fac l ty (refer table 34). They have to travel 2-3 kms to get to bus serv ce.

Table 34: us Ser ice i Villages atala PA

N . Villages	A ailable	N t A ailable
	31(4 %)	3 (54%)

S urce: Batala Village Directory

Truck Ter i al

Although Batala is one of the important industrial cities of the state, there is no truck terminal in the city. The trucks are parked all along the major roads. There is need to have a well planned truck terminal in the city.

Fig. 28: U auth rized Parki g Aliwal R ad

Table 35: O Street Truck Parki g

Sr. N .	R ad/Secti	R ad idth
1	N 15 section near Bypass	5 m of road width encroached on both sides
2	Outside the Grain Market and Food Corporation of India on Dera Baba Nanak Road	
3	Industrial Road	

S urce: Primary Survey, SAI team, 2009

4.4.3 RA

Rail Ter i al

Batala Railway Junction is located on Amritsar-Pathankot Railway Line. It is 400 m away from the N 15, which runs parallel to the Amritsar-Pathankot Railway Line. The city is well connected by broad gauge rail network. Rail links from Batala are towards Amritsar, Pathankot and Qadian.

Fig. 29: atala Railway Ju cti

Batala Railway Station has two platforms and all basic facilities like waiting hall, reservation centre, parking facilities, ticket booths, drinking water, toilets, medical facilities etc. About 1 passenger trains operate daily. Enough sitting spaces with sheds are available. Demand of one more platform is proposed to the Ministry of Railways. As per Station Master, Batala, the stretch of 1.5 kms on either side of the railway station is available for the development of the area.

e el Cr ssi g

As the railway lines on different routes pass through the centre of the city and through different parts of LPA, it cuts the road network at 4 level crossings, which act as traffic bottlenecks. To provide smooth traffic flow, there is need for construction of ROBs /underpasses within city and LPA at these crossings.

- At crossing of N 15 and railway line towards Qadian (manned)
- At crossing of Bypass and railway line near Focal Point (manned)

- At cr ssing f railway line and Kahnuwan R ad (manned)

Apart fr m these cr ssings, there is ne m re railway cr ssing t n the juncti n f railway line and Dera Baba Nanak R ad. The c nstructi n f an ROB n this juncti n, initiated by

Fig. 30: RO Dera aba Na ak R ad duri g C structi a d a ter C pleti

PWD, has recently c mpleted in 2010 (refer fig. 30). The ROB is helping a l t t reduce the traffic c ngesti n n this r ad. In spite f the newly c nstructed ROB, the r ad marking, signs, signals, safety measures, etc. are t tally absent in this area, and t add t this further, pe ple park their ehicle under the bridge. The inf rmal market has als de el ped here making the area m re c ngested.

4 4 4 PARKIN

It is an ther critical issue f Batala city as there is n t e en a single parking l t. Absence f parking l ts leads t nstreet parking. Al ng the r ads, mixed land use is pre alent d minated by c mmercial acti ities. Batala Bus Stand is l cated n the NH 15, ha ing presence f many g ernment ffices with inadequate parking facilities f r public. As a result, nstreet parking is pre alent, which reduces the effecti e r ad width and causes traffic c ngesti n.

The main c mmercial stretches in the city include Chakari Bazar, Bada Bazar, Bazar n Cinema R ad. All these r ads are encr ached by extensi n f sh ps and nstreet parking (refer table 36). There is n rganized parking area f r rickshaws in the city, as a result rickshaws stand n r ad mainly near Bus Stand. The NH 15 secti n near Bus Stand is encr ached n b th sides by rickshaws and the ehicles parked by the isit rs f different g ernment ffices. Lack f city bus ser ice facility adds t use f ther m des f transp rt like aut rickshaws, cycle rickshaws, etc.

Table 36: U auth rized Parki g/E cr ach e t

Na e R ad (O street Parki g)	T pe Vehicles Parked	Da s Parki g
Cinema R ad	Rickshaw, Truck, Tw Wheeler,	all w rking days
City R ad	Cars, Tw Wheelers	all w rking days
Bada Bazar R ad	Rickshaws, Cars, Tw Wheelers	all w rking days
Bus Stand R ad (n NH 15)	Tw Wheelers	all w rking days
Dera Baba Nanak R ad	Tw Wheelers	all w rking days

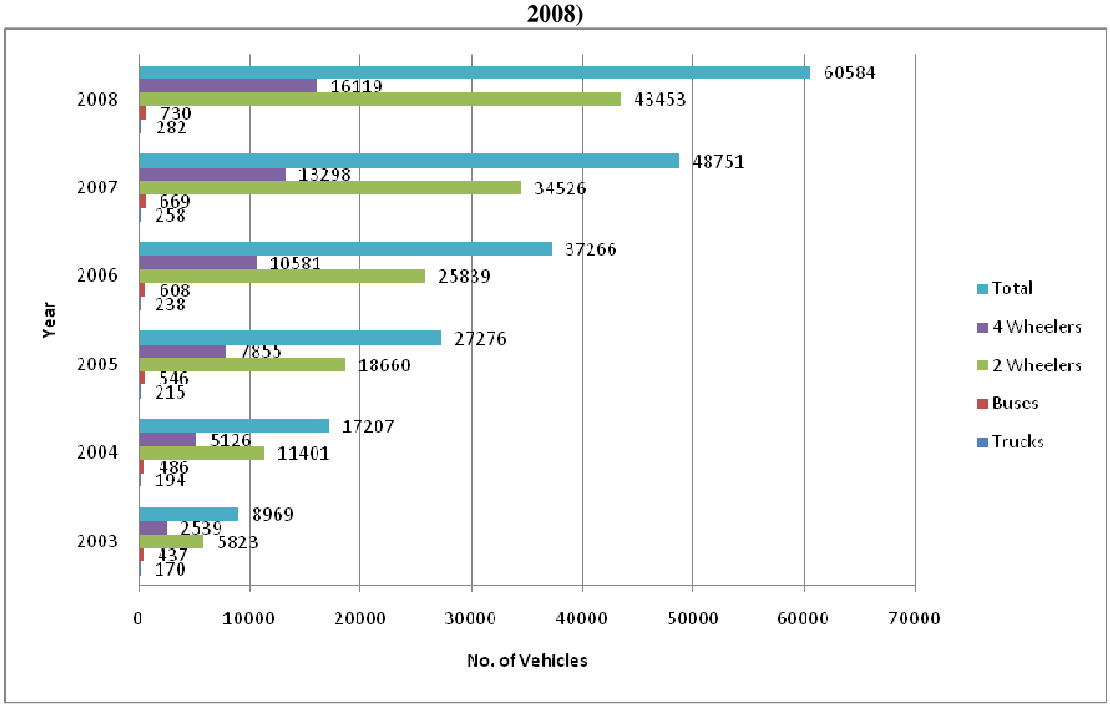
urce: Primary Sur ey, SAI Team, 2009.

Fig. 31: Parki g u der Fly ver (Near Ga dhi Ch wk) a d al g R ad (Mai azar)

4.4.5 VEHICU AR GROWTH

The rapid developments in industrial and service sectors, coupled with growth of population and related socio-economic activities have triggered a virtual explosion in vehicle population in the city. Number of registered vehicles in Batala city in the year 2008 was about 60,000. The number of registered vehicles has recorded growth of more than 6 folds during 2003-

Fig. 32: Nu ber Registered Vehicles i atala Tehsil (2003-2008)



S urce: SDM O ice atala

2008, when it rose from 8,969 2003) to 60,584 2008). Among the total registered vehicles, two wheelers accounted for majority of the portion, i.e. 71.7%, of the total registered vehicles in the year. The next in the number comes four wheelers with 16119 vehicles 26.6%) registered in 2008. Buses and trucks have least number of registrations respectively. Moreover, the share of two wheelers has increased from 64.9% to 71.7% between the year

2003 to 2008, while the share of all other three categories, i.e. four wheelers, buses and trucks, has decreased.

4.4.6 ROAD ACCIDENTS

Road accidents aspect is studied in terms of number of accidents in different years, nature of accidents and the location of black spots, along with the causes.

R ad Accide ts

To know the safety scenario of cities with respect to increasing vehicular population, statistics of road accidents is required to be studied.

Table 37: Yearwise T tal a d Fatal N . Accide ts

Year	Nu ber T tal Accide ts	Nu ber Fatal Accide ts	% Fatal Accide ts i T tal Accide ts
2005	80	58	72.5
2006	88	63	71.6
2007	86	63	73.3
2008	73	58	79.5

urce: SSP ice, Batala

The statistics shows the number o accidents in the town as recorded by the tra ic department. The number o accidents has comparatively gone down between 2005 and 2008 rom 80 to 73, but it is alarming to note that the share o atal accidents has increased rom 72.5 in 2005 to 79.5 2007 in 2008. This calls or proper implementation o road sa ety measures.

Accide t Pr e Areas

The vehicular growth in city during previous decades, especially in terms o two wheelers and our wheelers, leads to danger o accidents in absence o a proper tra ic plan.

Table 38: Accide t Pr e Areas i atala PA

N	lack p ts
1	Gandhi Chowk
2	Simbal Chowk
3	Amritsar Bypass Chowk
4	Qadian Chungi
5	Shastri Nagar Mor
6	Pul Hansali Jalandhar Road, Sukha Singh Chowk
7	Aliwal Bypass Chowk

urce: As per discussion with Tra ic Police, Batala

Accident prone areas in the city are mentioned in the above table. The main reasons or accidents in these spots is aulty design o junctions, absence o tra ic lights, sharp curves, lack o visibility at night, no proper dividers, absence o tra ic islands and lack o tra ic sense.

The table below shows the details o major junctions o the city. These details are as per the Primary Survey done. It has been observed that all junctions are devoid o tra ic lights. In addition to this, there are no lane markings on any o these junctions. In terms o encroachment, majority o junctions have been encroached upon mainly because o shops, *rehris* and onstreet parking.

Table 39: Ju cti Wise Details

Ju cti r Stretch	Type Ju cti	Tra ic ights	E cr ach e ts	Street ights	a e Marki gs	O street Parki g
Ga dhi Ch wk	X-Junction	No	Yes	Yes	No	Yes
i ble Ch wk	X-Ju ctio	No	Yes	Yes	No	Yes
A ritsar pass Ch wk	X-Ju ctio	No	No	Yes	No	Yes
hastri Nagar M r	T-ju ctio	No	Yes	Yes	No	Yes
Aliwal pass Ch wk	X-Ju ctio	No	No	Yes	No	Yes
hekhupura Ch wk t Ghasitpur Ch wk	Stretch	No	Yes	Yes	No	Yes
Ha sali Pul (ear R R awa C llege)	Y ju ctio	No	Yes	No	No	No
Qadia Chu gi (Kh sla Rai Mill)	Stargazed Ju ctio	No	Yes	Yes	No	Yes

urce: Primary Survey, SAI Team, 2009

4 4 7 KEY I UE

ajority of the reside tial developme t i the city is of u pla ed ature.

There is o specific commercial area i terms of city ce tre. ost of the commercial area has developed alo g with reside tial area.

There is o specific area marked for i dustries except I dustrial Focal Poi t a d I dustrial Estate, so i dustries are located alo g NH 15, Aliwal Road etc.

The perce tage share of recreatio al area is too low as per sta dard i.e. 0.81% of the existi g la duse.

The auxiliary activities related to gover me t offices arou d the bus sta d e croach o the pedestria pathways, he ce creati g problems for pedestria s.

No parki g space is available ear bus sta d for taxis, which creates traffic problems.

No formal parki g spaces have bee provided for the commercial area a d hospital e.g. o Ha sali Road ear the Ha sali Bridge.

Abse ce of traffic sig als creates problems at Ga dhi Chowk a d Ka da Chowk.

There is mixi g of local a d through traffic that causes co gestio i the peak hours.

Almost all city roads have bee e croached i the city by the shopkeepers as they put their commodities o display o the pedestria paths. Ce tral verge or media is abse t o Natio al Highway 15, Qadia Road, Dera Baba Na ak Road, etc., which creates traffic accide ts.

I core city area, maximum of the wholesale shops are o streets. The width of the roads ra ges betwee 4 to 5 feet, which hi ders the vehicular moveme t at peak hours.

Pla ed parki g spaces should be provided i close proximity of all commercial areas to avoid e croachme t o the pedestria path for parki g.

CHAPTER 5

INFRASTRUCTURE AND SERVICE DE IVERY

The sustainability and quality of life in urban centres is closely linked with the efficiency of infrastructure present there. Accordingly, providing better physical and social infrastructure assumes critical importance for their proper development.

5.1 PHYSICA INFRASTRUCTURE

Infrastructure can be divided into physical and social types on the basis of their nature. Physical Infrastructure majorly covers 5 things: Water Supply, Sewerage, Storm Water Drainage, Solid Waste and Electricity.

5.1.1 WATER SUPP Y

5.1.1.1 S urces Water Supply

The present potable water supply is fully dependent on underground water. Though there are many sources of surface water, like Hansali Nallah, Fateh Nangal Distributary, Batala Distributary, Aliwal Distributary, Bajuman Drain, etc. but the quality of water flowing through them is poor, and cannot be used for drinking purpose.

5.1.1.2 Syste Water Supply a d Area C verage:

Almost 58% of municipal population is served by municipal water supply system. 16 tube wells are working within the city for water supply, which in total extracts 15.27 MLD of water. But, the supply is almost half of the required amount, as the total supply done is 90 lpcd only against the demand of 170 lpcd (refer table 40).

Table 40: Details Water Supply i atala M. Cl

Ite s	Perce tage/N s.	Re arks
Population served (M.Cl.)	58%	
Water Demand (per capita per day)	170 lpcd	
Water Supply (per capita per day)	90 lpcd	As per JBIC report, 41% wastage.
Total No. of Tube Wells	16	Depth varying
Total Amount of extracted Ground Water	15.27 MLD	

S urce: Municipal Council Batala, 2008

The total area covered by water supply network in the city is only 21%, whereas that within developed area of the council is 40% approximately, which includes the area of walled city, Mann Nagar, Urban Estate, Dharmpura Basti etc. Out of the remaining 79% area, proposal has already been made to cover 15% of the area. The share of population served by water supply is 58% of the municipal population, while remaining 42% of population is served through stand posts and independent set up (refer table 41).

Table 41: Area C verage Water Supply withi atala M.Cl.

Ite	Area (I ha)	Area (%)
Covered Area	680	21%
Uncovered area	2596	79%
Total Municipal Area	3276	100%

S urce: Punjab Water Supply and Sewerage Board, Gurdaspur

Villages PA

The situation of villages with in LPA has been analyzed with respect to water supply. It is assessed that only 8 villages out of 67 (11% of the village LPA) are served through tube wells and remaining 59 are served by private agencies. 65 villages out of 67 villages have water supply facility under rural water supply scheme. In rest of the villages there is no piped water supply.

In Batala city, only indirect system (Dual system) of water supply is followed. In this system tube-well has an additional facility to pump water and store it into overhead reservoir attached with it, or it can supply water directly to the water mains via pumping. 16 tube wells are used to pump the water for six overhead reservoirs.

The system of improving quality of water is also studied. Occasionally bacteriological test is carried out, and if any contamination is found, Municipal Council put bleaching powder as a disinfectant before supply. However, water should be disinfected by chlorination method adopted by BIS {ISI-10500, 1991(clause 3.1)}.

5.1.1.3 Metered & U etered C ecti s

In Batala municipal area, total numbers of metered house connection during the year 2008 were 3168. The total number of water connections in the city is 11,132. Remaining population is served by stand post, independent setup or community taps (refer table 42).

Table 42: Water Supply C ecti s i atala M.Cl

Head	Nu ber
Total no. of Households	24025
Number o House Connection – Metered	31 8
Number o House Connection – Unmetered	79 4
Population served by Stand Post and Institutional Independent Setup	80958

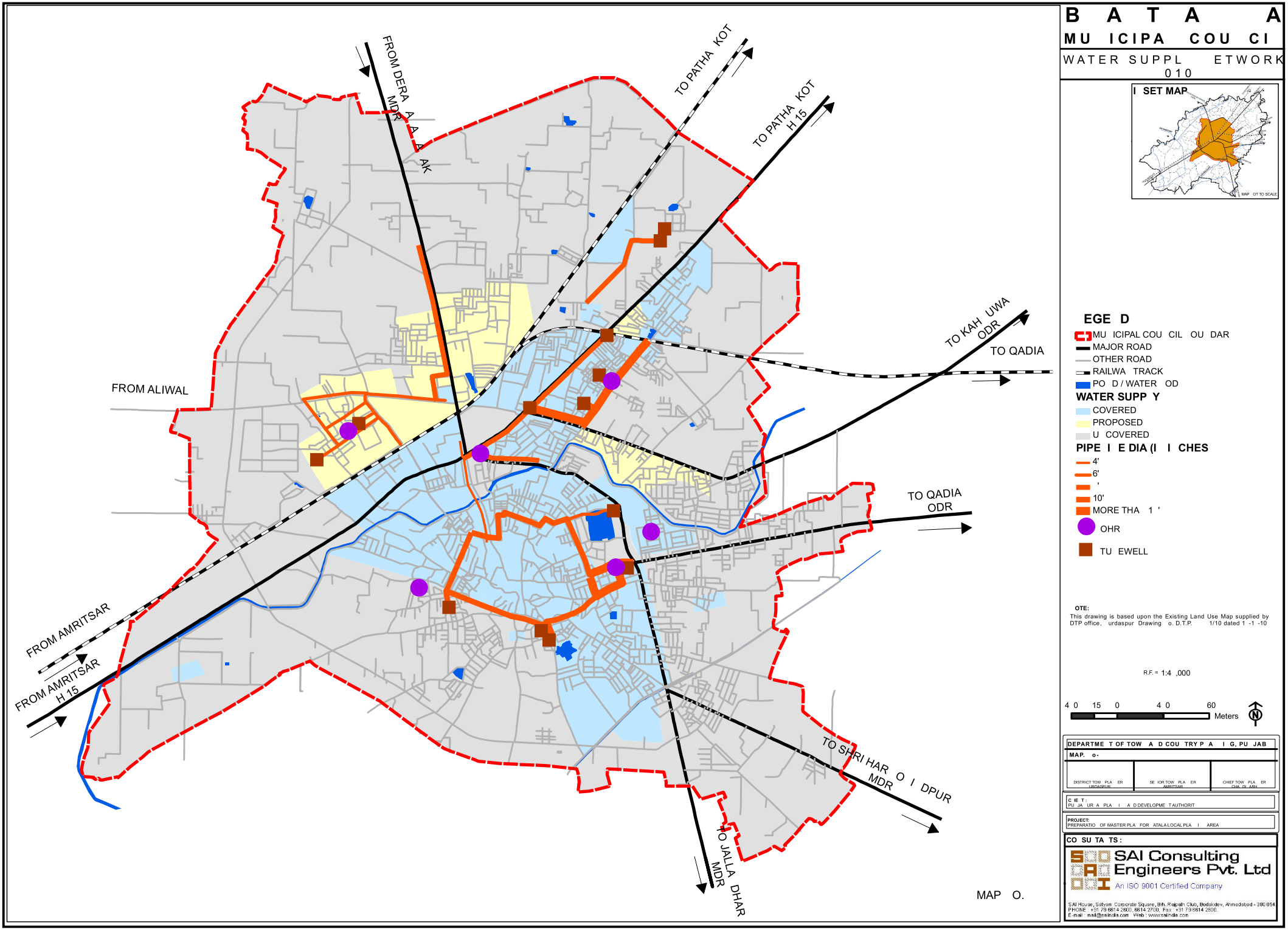
urce: Punjab Water Supply and Sewerage Board, Gurdaspur

5 1 1 4 Pr jects-O g i g/Pr p sal

Most o the proposed water supply schemes o council through tube wells and overhead supply reservoir (OHSR) all within the periphery o city and ew all in the core city. There are ew proposals to cover new areas under water supply scheme. There is also a proposal to renovate the existing abandoned OHSR.

5 1 1 5 Ke Issues

- Majority o distribution system is 30 years old.
- No water treatment plant.
- Water leakage and wastage o water supply.



B A T A A

MU ICIPA COU CI

WATER SUPPL ETWORK

0 1 0

I SET MAP

MAP OT TO SCALE

EGE D

- MU ICIPAL COU CIL OU DAR
- MAJOR ROAD
- OTHER ROAD
- RAILWA TRACK
- PO D / WATER OD

WATER SUPP Y

- COVERED
- PROPOSED
- U COVERED

PIPE I E DIA (I I CHES

- 4'
- 6'
- '
- 10'
- MORE THA 1 '
- OHR
- TU EWELL

OTE:
This drawing is based upon the Existing Land Use Map supplied by DTP office, urdaspur Drawing o. D.T.P. 1/10 dated 1 -1 -10

R.F. = 1:4 ,000

4 0 15 0 4 0 60 Meters

DEPARTME T OF TOW A D COU TRY P A I G, PU JAB

MAP. o-

DISTRICT TOW PLA ER URDASPUR | SE IOR TOW PLA ER AMRITSAR | CHIEF TOW PLA ER CHA DI ARH

C IE T :
PU JA UR A PLA I A D DEVELOPME T AUTHORIT

PROJECT:
PREPARATIO OF MASTER PLA FOR ATALA LOCAL PLA I AREA

CO SU TA TS :

SAI Consulting Engineers Pvt. Ltd
An ISO 9001 Certified Company

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- Underground water table is re eding.
- No water harvesting and water re harging s hemes.
- Only 58% population and 21% area is overed by piped water supply.
- 41% water is being wasted in distribution system.
- 71.5% onne tions of water supply are unmetered.

5.1.2 SEWERAGE

Along with the provision of safe drinking water, provision of sewerage fa ility in the ity is another important area of on ern. This se tion deals with the assessment of sewerage system, its network and disposal system in terms of area and population overage with in Batala M.Cl. and LPA.

5.1.2.1 Area a d P pulati C erage

As far as Batala ity is on erned, only 27% of total muni ipal area is overed with sewerage network. For the remaining 73% area, there is proposal for 19.35% of the area to provide sewerage network (refer table 43 . A ording to the Water upply and ewerage Board, Gurdaspur, 78% of total population of ity is served by sewerage system and remaining 22% is served through septi tanks and independent institutional setup (refer table 44 .

Table 43: Area u der Sewerage Netw rk C erage

te	Area (ha)	Area (%)
Covered Area	869	27 %
Un overed area	2407	73%
Total Muni ipal Area	3276	100%

S urce: Punjab Water upply and ewerage board, Gurdaspur

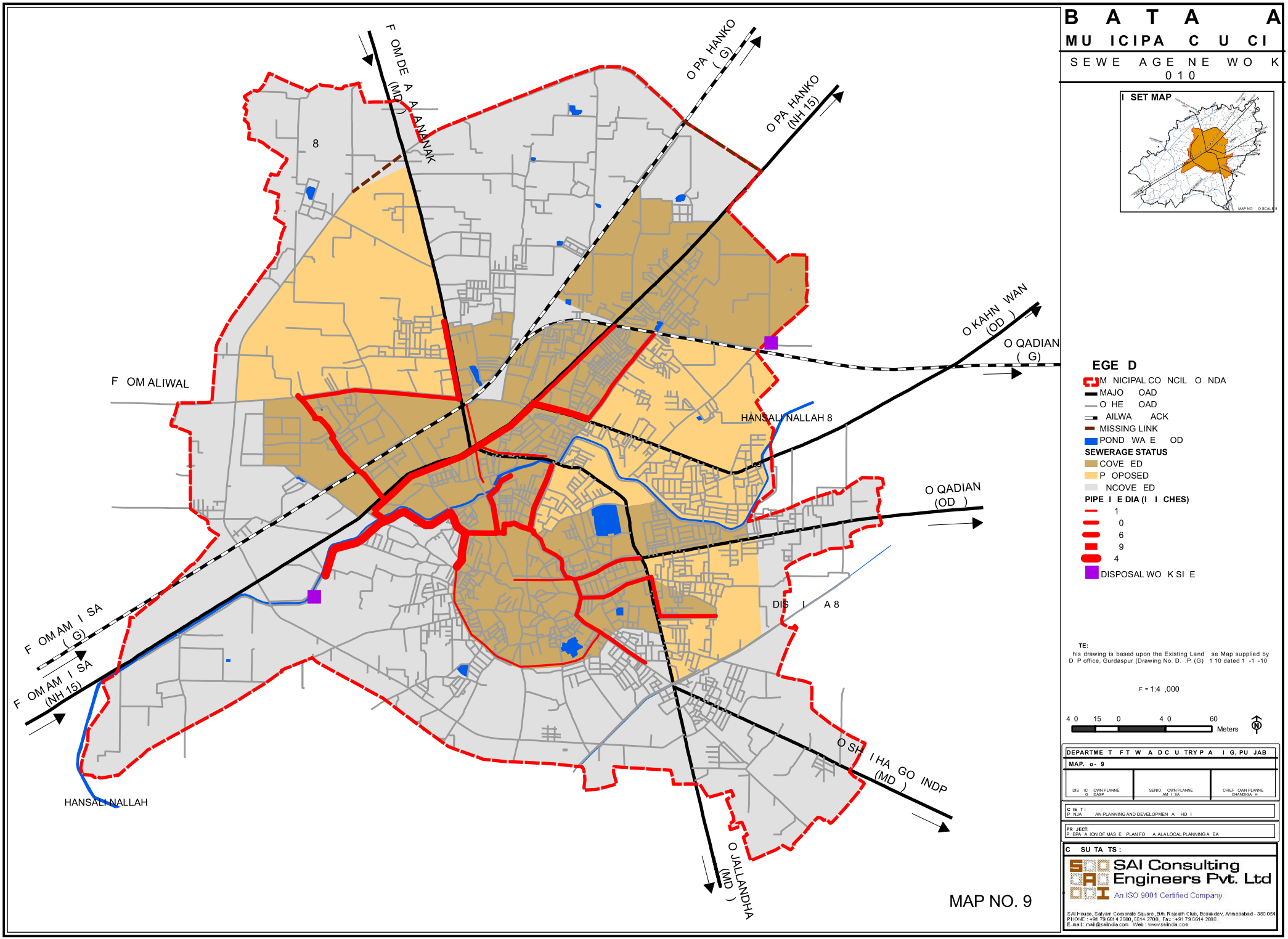
It has been observed that the area south of the railway line in luding walled ity area, new residential development su h as hastri Nagar, Urban Estate Phase I et . are provided with well-laid sewerage network. On the other hand, area north of the railway line, whi h in ludes Grain Market and slum areas like Mann Nagar et , is ompletely devoid of sewerage network. Further, within Batala LPA (ex luding M.Cl. , there is no sewerage system. The population residing have independent set ups/ septi tanks/ soak pits.

The sewerage generated from residential, ommer ial, industrial and institutional is 17 MLD, that is dire tly disposed off into the Hansali Drain due to absen e of a sewage treatment plant (refer table 44 . Out of the total population of 1,47,750, almost half is served by the independent institutional setups, while the rest 1/4th ea h are served through sewer onne tions and soak pits/septi tanks.

Table 44: Details Sewerage S ste i M.Cl.

Head	Nu ber
Total Population	147750
Population served through sewer onne tion	38,538 (26%
Population served through soakage pit tank/septi tanks	40,000 (27%
Population served by independent institutional setup	69,212 (47 %
Total Generation	17 MLD

S urce: Punjab Water upply and ewerage Board, Gurdaspur



B A T A A

MU ICIPA C U CI

SEWE AGE NE WO K 010

I SET MAP

EGE D

- M NICIPAL CO NCIL O NDA
- MAJO OAD
- O HE OAD
- AILWA ACK
- MISSING LINK
- POND WA E OD

SEWERAGE STATUS

- COVE ED
- P OPOSED
- NCOVE ED

PIPE I E DIA (I I CHES)

- 1
- 0
- 6
- 9
- 4
- DISPOSAL WO K SI E

TE:

his drawing is based upon the Existing Land se Map supplied by D P office, Gurdaspur (Drawing No. D. .P. (G) 1 10 dated 1 -1 -10

.F. = 1:4 ,000

4 0 15 0 4 0 60 Meters

DEPARTME T FT W A DC U TRY P A I G, PU JAB

MAP. o- 9

DIS IC OWN PLANNE G DASP	SENIO OWN PLANNE AM I SA	CHIEF OWN PLANNE CHANDIGA H

C IE T: P. NJA AN PLANNING AND DEVELOPMEN A HO I

PR JECT: P EPA A ION OF MAS E PLAN FO A ALA LOCAL PLANNING A EA

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To ensure a good livable environment, total o ulation must have access to ro er sewerage system. Lack of access to sewerage facility leads to unhygienic conditions, degrading the environment of city, s reading various diseases, and thus affects quality of life.

5.1.2.2 Distributi Netw rk

The following table gives details of the sewerage network, including Outfall Sewer, Interce ting Sewer and Branch Sewer located within Batala Munici al Council area. The total length of sewerage network is 167.45 kms covering 78% of the city o ulation. This length, com ared to the existing road network of 115.86 km comes out to be 44% more than the network, which shows a good sign as far as laying down of sewer system is concerned.

Table 45: Detail Sewerage Netw rk i atala M. Cl. Area

Na e	A erage Dail Sewage Fl w (M D)	e gth ut all Sewer (i k s)	e gth tercepti g Sewer (i k s)	e gth ra ch Sewer (i k s)	T tal e gth Sewer Netw rk (i k s)
atala M. Cl	17	.75	24.7	125	167.45

S urce: Water Su ly & Sewerage Board, Gurdas ur

5.1.2.3 Sewerage Treat e t/Disp sal S ste

The total amount of sewage generated in the Batala city is 17 MLD. The sewage collected from the city is directly dis osed off into the Hansali Nallah assing through the city. This eventually degrades the quality of drain water due to non-availability of treatment lant.

At resent, there are only two dis osal works in the city, which um the sewage directly into the nearby watercourse. One of the dis osal works is located near the junction of Hansali Nallah and by ass, while the other one is located near the junction where the nallah meets Qadian Railway Line. In addition, large number of industrial units existing in the city also dis oses their effluents into the drain without any initial treatment. All industries are required to treat effluent before discharging into the network, which is not followed to this date. This has lead to the high degree of water and underground ollution.

It is im ortant to install Sewage Treatment Plant (STP) on riority to treat the sullage generated in order to avoid the ollution. Moreover, Water Su ly and Sewerage Board, Batala has estimated the cost for setting u of STP in Batala city to the tune of Rs. 25 2 lakhs and the estimated cost for roviding 1 % sewerage system is Rs. 4477.92 lakhs.

5.1.2.4 Ke ssues Sewerage S ste

- 22% of the o ulation has no access to ro er sewerage facility.
- Absence of Sewage Treatment Plant.
- No ro osal for recycling of waste water.
- Lack of sewerage system in the north of the railway line for major industries.
- Manholes and sewerage i es are o ened in most of the areas.

- Lack of proper sewerage disposal work in the city, which makes it choked during the rainy season.

5.1.3 STORM WATER DRAINAGE

Hansali Nallah passing through Batala LPA is the only drain available for storm water in the city. There is no planned effort for storm water drainage system in the city. Batala Municipal Council is completely devoid of storm water drainage. The problem of water-logging during heavy rains is experienced in the whole Batala city (refer fig. 33). During rainy days, city faces flood like situation as majority of the area is low lying and get submerged in water in case of heavy rainfall. At present, storm water drainage is carried out through the system of open drains existing in the walled city area and Hansali Nallah in the municipal council area. But during rainy season, water generally overflows from the open drains due to lack of adequate capacity, while the nallah gets blocked due to dumping of plastic and domestic waste. Therefore, city needs a proper storm water drainage network.

Fig. 33: Water gged w- yi g Areas like C urt C plex a d M.Cl. O ice

The Hansali Nallah, which is passing though the centre of the LPA, is used for disposal of city's sewage and storm water. The drain has not been desilted for a long time.

5.1.3.1 Pr jects-O g i g/Pr p sal

There is no proposal for storm water drains to solve the existing problem of the city.

5.1.3.2 Ke ssues

- Abse ce of storm water drai age i the city.
- Floodi g of low lyi g area i rai y seaso .
- Choki g of drai s due to dumpi g of waste a d plastic.

5.1.4 SO D WASTE MANAGEMENT

Mu icipalities are vested with the respo sibility for providi g solid waste ma ageme t i volvi g collectio , storage, segregatio , tra sportatio a d disposal of solid waste ge erated withi the mu icipal area. Day-to-Day solid waste collectio is carried out by cou cil's sa itary bra ch workers. Sa itary I spector of the Cou cil has bee vested with the overall respo sibility for ma ageme t of the solid waste. Ope dumpi g method for solid waste

disposal results in environmental pollution of surrounding area, ausing land degradation, nuisan e, et . and attra ts inse ts, rodents, et . leading to the spread of diseases. Most of the solid waste is presently disposed of on open land and remains un overed, resulting in environmental pollution of the surrounding area.

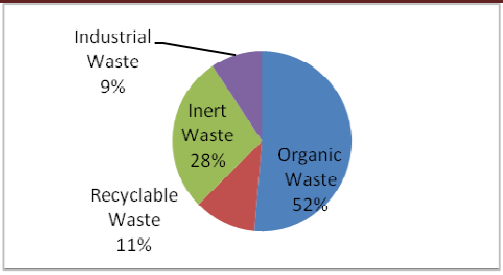


Fig. 34: C p siti S lid Waste

5.1.4.1 Ge erati

The total generation of the solid waste is estimated to be 36.9 tons per day @ 250 grams per apita per day (As per UDPFI Guidelines) for the population of 147,750 as per ensus 2001 for Batala urban agglomeration.

5.1.4.2 C p siti

Solid waste is generated from different sour es su h as individuals, households, industries, trade and ommer e, hotels and restaurants, health are institutions like dispensaries, hospital, animals and floating populations in terms of tourists, hawkers et . Solid waste generated an be broadly lassified into four ategories:

i) **Orga i Waste** whi h in ludes kit hen waste (food items, leaves, et .)

ii) **Re lable Waste** whi h in ludes paper, plasti , glass, metal, rags, pa king materials, twigs, bark, et .

iii) **ert Waste** in luding bri ks, ement, building debris, furniture waste, et .

iv) **dustrial Waste** in luding medi al waste, ewaste, et .

The onstru tion waste reates problems for its disposal due to its volume, weight and bulk. The use of plasti s has added a new dimension to the omposition of solid waste due to its non degradable hara ter. In addition, a large amount of hazardous waste is also generated by number of hospitals, dispensaries and other health are institutions, whi h are operational in the town.

In terms of waste generated in general, Organi Waste normally omprises more than half of the total waste generated (52%), Re y lable is 11%, Inert Waste is 28% and Industrial Waste is 9%. There is no segregation of waste at the point of generation.

5.1.4.3 C lle ti Segregati a d Tra sp rtati

The total amount of solid waste olle ted in the ity is 9 tons per day, whi h is 24% of the estimated generation of 36.9 tons per day. This refle ts poor efforts put in for the waste olle tion in the Batala ity.

Different methods of waste olle tion are pra ti ed in the ity. In some parts of the ity, arrangement for house-to-house olle tion of waste is pra ti ed. For the house to house

collection of waste, council sweepers, *rickshaw/rehris*, wheel barrows, rag pickers and a tricycle having back space as a storage bin are used. The areas where house to house collection system is not provided, community bins are strategically placed for their direct use by the surrounding inhabitants. Since house hold waste has high contents of organic waste, no system of segregation is used at the generation level. In the process, the quality of recyclable material get spoilt due to mixing of the dry and the wet waste.

In public places like Bus Stands, Railway Stations, market places and places visited by the tourist, etc., no organized system of solid waste collection is in practice. In such areas, the normal system is to provide dustbins and community bins for dumping of the waste, before it is collected by the council for disposal. Most of solid waste is collected through community bins by the 238 sanitary workers (*Safai Sevaks*) appointed by the Municipal Council, Batala.

Segregati Waste

There is no segregation process at the source. Most of the inhabitants of city are habituated to salvage resaleable material from waste such as newspaper, glass bottles, empty tins, plastic bags, old cloths, etc. Rag pickers also play an important role in Batala in the segregation of waste. Rag pickers are self employed and poorest of the poor in the city. They collect the reusable items like plastic bags, empty containers, etc. which people throw away anywhere.

Tra sp rtati

For transportation of the solid waste from the community bins to the disposal site, Municipal Council, Batala has put into use 4 tractor trolleys, 40 wheel barrows and 1 dumper placer for primary collection from the bins and then transportation to the designated landfill site (refer table 46).

Table 46: Details Vehicles E pl yed r Waste Tra sp rtati i atala

Type Vehicle used r C llecti & Tra sp rtati	4 Tractor Trolleys,1 Dumper Placer, 40 Wheel Barrows.
Capacity Vehicle	1 ton
Trips per ehicle per da	

urce: Batala Municipal Council

5 1 4 4 Disp sal

The Municipal Council carrie open dumping of the collected wa te at the landfill ite without doing any egregation or pre treatment of wa te. For dumping of the wa te, council operate two di po al ite , one at Nawanpind and the other i near Hathi Gate. The detail of city landfill ite , both exi ting and propo ed, are given in the table below:

Fig. 35: Ope Du pi g Garbage al g Ha sali Drai

Table 47: Waste Du pi g Sites i atala M. Cl.

Sr. N .	Na e a d ill ite	Area	Dista ce(Cit Ce tre)
Existi g a d ill ites			
1	Nawan ind	1 Acre	6 km
2	Hathi Gate	1.5 Acres	3 km
Pr p sed a d ill ites			
1	Nawan ind Hasan ura	-	-
2	Bodhe di Khui Basar ura	20 Acres	-
3	Patti Panj Khandal	20 Acres	-

urce: Munici al Council, Batala

As no scientific method for dis osal is used, o en dum ing has led to air ollution in the surroundings due to bad odour and thus, has created unhygienic conditions.

Fig 36: U h gie ic pe Du pi g Garbage at Disp sal ite ear athi Gate

The existing landfill sites are not sufficient and a major ortion of the waste is being dis osed along roads/ railway lines.

5 1 4 5 Pr jects- g i g/Pr p sal

Batala Munici al Council is im lementing the Solid Waste Management Project as er Munici al Solid Waste (Management and Handling) Rules 2000, framed as er the directions of the Su reme Court. Under this, three new dis osal sites have been identified Nawan ind Hasan ura, Bodhe di Khui Basar ura Patti Panj Khandal to meet the resent and future needs of the solid waste dis osal.

5 1 4 6 Ke Issues r lid Waste Ma age e t

- O en dum ing along roadside, railway line and in drains/other water bodies.
- Non-segregation of waste at the source or at the time of dis osal.
- Inadequate dum ing sites.

5 1 5 P WER

The city area is covered by electricity network. Batala city has recorded considerable increase in the demand of electricity connections. Main source of electricity is the Power House at Joginder Nagar Himachal Pradesh and the Hydel Project at Mukerian.

5.1.5.1 Distributi Netw rk

Batala LPA is served through five electric substations. Batala city is served by 66 KV substation near Bus Stand and 132 KV substation at Sangatpura. The electricity supply to LPA villages is through Sangatpura Substation and others located at Achal Sahib, Aliwagh, Focal Point and Wadokay Granthiya (refer table 48).

Fig. 37: 66 KV Sub Stati at F cal P i t

Table 48: Area C verage Electric Substati cati

	Capacity	Area C vered
Batala city Near Bus Stand	66 KV substation	whole city
Sangatpura	132 KV substation	city +30 villages
Achal Sahib	66 KV substation	9 villages
Aliwagh	66 KV substation	5 villages
Focal Point	66 KV substation	18 villages
Wadokay Granthiya	220 KV substation	5 villages

S urce: Electricity Department, Batala

The numbers of connection for domestic purpose are 28,058, while commercial connections are to the tune of 4,639. Besides that, the industrial electric connection are 2384 (refer table 49). Duration of power supply for irrigation and industrial purposes is very short, which needs to be prolonged.

Table 49: Electric C ecti s i atala city

S. N .	Use	Nu ber C ecti s
1	Domestic	28058
2	Industrial	2384
3	Commercial	463
4	Water Works	23

S urce: Electricity Department, Batala

5.1.5.2 Street ights

Providing street lig ts falls in t e domain of Batala Municipality. T e Municipal Council takes into account t e budget expenditures on street lig t to be poled along t e city roads and streets. T e total number of street lig ts in city is 5,038, including tube lig ts, sodium/mercury lamp and flood lig t. But, t eir maintenance is very poor as about 8 % of points are old and required to be replaced (refer table 50).

Table 50: Details Streetlights i atala cit

Sr. N .	T pe P i t	Nu ber	N . Old P i ts	N . New P i ts
1	Tube Lig t	4500	4000	500
2	Sodium/Mercury Lig t	500	450	50
3	Metal Head and Flood Lig t	38	38	Nil
T tal		**5038**	**4488**	**550**

S urce: M.Cl Batala

T ere are total 5038 points out of w ic t e Tube lig ts cover t e maximum percentage.

5 1 5 3 Pr jects-O g i g/Pr p sal

At present there is no proposal in the category of street lighting.

5 2 OCIA INFRA TRUCTURE

Social infrastructure refers to provision of facilities both qualitatively and quantitatively in the field related to education health entertainment and community facilities in any settlement. The different components of social infrastructure enables us to have a status report of the city in terms of its capacity to provide desired level of support and quality of life to the residents of the settlement.

5 2 1 EDUCATIONA FACI ITIE

Educational facilities are critical for any settlement to grow in terms of literacy skill upgradation and improving quality of life. Higher level of education facilities have been considered vital for economic growth and development of any community besides improving the quality of life. Education has been found to be major determinant and promoter of growth and development of any settlement. Accordingly providing appropriate level of educational apart from health and other facilities ranks high on the agenda of any government dedicated to the cause of community welfare.

Fig 38: ari g U i Christia C llege

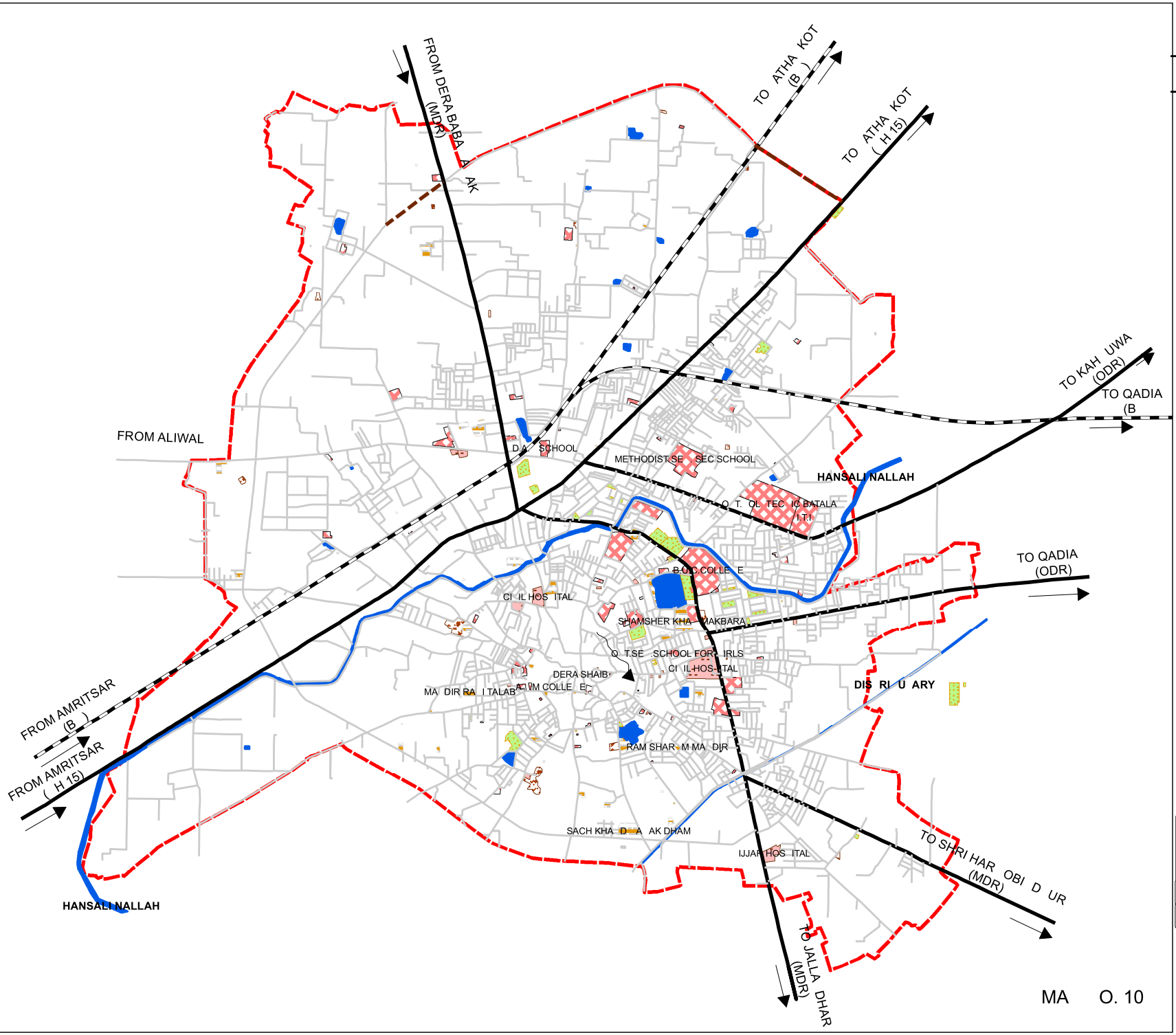
I stituti al Netw rk

Educational facilities define progress of a society. The educational facilities in Batala LPA are inadequate and unevenly distributed. The villages are not having any college (refer table 51). This on one hand brings inconvenience to students in villages and on other hand overload colleges in Batala city. The city has number of well established primary middle secondary senior secondary schools and technical institutes like polytechnic colleges. However there is no institution for imparting professional courses like medical engineering and law in the city as well as LPA.

Table 51: e el Educati al Facilities i atala PA

e el	U i ersit	e eral C llege	Medical C llege	E gi eeri g C llege	aw	P l tech ic	e i r ec dar	ec dar	Middle	Pri ar
atala M Cl	0		0	0	0	2	8	17	18	35
Village PA	0	0	0	0	0	0	5	7	17	68
T tal PA	0		0	0	0	2	13	2	35	103

urce: Census 2001

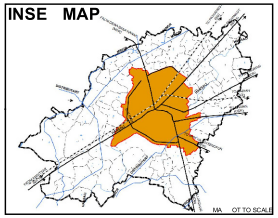


A A L A

MUNICIPAL COUNCIL

SOCIAL INFRASTRUCTURE 2010

INSE MAP



LEGEND

- MU ICI AL COU CIL BOU DAR
- MAJOR ROAD
- OTHER ROAD
- RAILWA TRACK
- MISSI LI K
- WATER BOD

PU LIC AND SEM I PU LIC

- HOS ITAL A D HEALTH I STITUTES
- EDUCATIO AL
- SOCIO CULTURAL A D RELI IOUS
- CREMATIO /BURIAL ROU D
- RECREATIO AL

NO E

This drawing is based upon the Existing Land Use Map supplied by DT office, urdaspur (Drawing o. D.T. . (21/10 dated 1 -12-10

R.F. = 1:4 ,000

4 0 21 0 4 0 860 Meters

DEPAR MEN OF OWN AND COUN RY PLANNING, PUNJA

MAP. No- 10

DISTRICT TOW LA ER URDAS UR | SE IOR TOW LA ER AMRTSAR | CHIEF TOW LA ER CHA DI ARH

CLIEN U JAB URBA LA I A D DE ELO ME T AUTHORIT

PROJEC RE ARATIO OF MASTER LA FOR BATALA LOCAL LA I AREA

CONSUL AN S

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patial Distributi

The distributi n f educati n facilities is n t unif rm in the city. These facilities are inadequate and unevenly distributed. The c lleges, sch ls and instituti ns are l cated n narr w streets surr unded by mixed land uses. At peak h urs, the l cati n f the c lleges creates traffic c ngesti n n r ads because f n n availability f required parking spaces. M re ver, n play gr und is available in existing c llege.

Ke Issues r Educati

- The educati n facilities are n t well distributed ver the city area.
- The educati nal institutes are inadequate. G vernment share is c mparatively less in this respect. M re ver, pe ple have preference f r private institutes rather than public educati nal institutes because f their better management and infrastructure.
- Inadequate playgr unds in the instituti ns l cated in the c ngested areas.
- The educati nal institutes l cated within city, c lleges as well as sch ls, are l cated n narr w streets, creating traffic c ngesti n and parking pr blems at peak h urs.

5 2 2 HEA TH

Human devel pment and impr vement in quality f life are the basic aims f any planning pr cess. Health facilities, if pr vided n prescribed n rms and standards within any settlement, help in impr ving the quality f life f inhabitants. The pr gress f a city largely depends n the quality f health enj yed by its citizens, besides its l cati n and accessibility t the c mmunity at large.

I stituti al Netw rk

Batala city has number f health institutes. A g d pr p rti n f specialized h spitals exist in the city. As far as facilities pr vided by the G vernment are c ncerned, Batala is having Civil H spital as the main G vernment H spital. ispensaries als c nstitute part f the medical infrastructure. The health facilities exist at different levels in Batala LPA taking in t c nsiderati n b th G vt. and Pvt. H spitals. In Batala M.Cl., there is ne all pathic h spital, ne primary health centre, tw all pathic dispensaries, tw ayurvedic dispensaries and ne h me pathic dispensary. Apart fr m the G vt. h spitals, there are alm st 5 maj r private h spitals in the city. 3 am ng them have ambulances t . While the Civil H spital has 50 beds, the numbers f bed f r private h spitals are 13. The Civil H spital als has the ambulance and Intensive Care Unit (ICU) facilities. In villages f LPA, nly ne primary health centre and six dispensaries are existing.

Fig 39: A Pri ate H spital Cit

In total, the LPA has one allopathic hospital, two primary health centre, eight allopathic dispensaries, two ayurvedic dispensaries and one homeopathic dispensary (refer table 52). These facilities are not according to the standards and are not evenly distributed.

Table 52: Medical I rastructure i atala PA

evel	All pathic		PHCs	Dispe saries	Ayurvedic	U a i	H e pathic
	G vt.	Private					
atala M. Cl.	1	25	1	2	2	0	1
Villages PA	0	-	1	6	0	0	0
T tal PA	1	25	2	8	2	0	1

urce: Census 2001

patial Distributi

There is uneven distribution of health related facilities, ith majority of them occupying the southern side of the city. The city fringe area is devoid of the medical infrastructure, and these are not evenly distributed. Accordingly, spatial distribution requires rationalization for providing equitable distribution of such infrastructure. In addition, private sector should encourage Super Speciality Services in order to facilitate the services at local level. Existing health services in the government sector require considerable upgradation for improving their capacity to provide desired level of services to the people.

Ke Issues r Health

Dispensaries are not as per the population requirement.

Uneven distribution of hospitals in the city.

Stagnation of health related infrastructure.

Poor conditions/absence of infrastructure ithin the existing health related institutions, including ICU unit.

Hospitals ithin city, alongside residential uses, create parking problems and land use violation.

Lack of specialized facilities and telemedicine.

5 2 3 PU IC PACE /RECREATIONA PACE

5 2 3 1 Park a d Ope paces

Parks and open spaces have been considered as vital parts of any settlement, for maintaining desired level of quality of life. They are also kno n as vital “green lungs” providing fresh air to the city on day to day basis, besides supporting leisure and recreation.

The increase in industrial and commercial establishments has its positive effects, but this has also resulted in reduction of green spaces ithin urban areas, hich is a matter of concern. About 1.37% of the developed area in the city is under parks and open spaces. Accordingly, there is a need of more parks and open spaces. The area under parks and open spaces is

decreasing with increasing unauth rized devel pments and the l ad n available infrastructure is increasing c ntinu usly.

The existing parks and pen spaces are given under:

Parks

1. Bada Talab Park
2. Hazira Park
3. Samadh
4. Netaji Subhash Park

Fig. 40: Netaji Subhash Park

Ope Spaces

1. Camping Gr und
2. Old Dana Mandi
3. New Dana Mandi
4. White Gr und

Fig. 41: aradari Garde

Spatial Distributi

n terms f green spaces, the Bada Talab Park, Hazira Park, Samadh and Subhash Park are serving their surr unding p pulati n. The walled city lacks large pen spaces and parks, and nly have t t l ts. The devel pment f c mmercial activities have eaten away the pen space parks. The Camping Gr und, Old Dana Mandi, New Dana Mandi, and White Gr und Khanda Kh la are the large pen spaces existing within the city. The parks and pen spaces al ng with t t l ts have been pr vided in planned c l nies.

Ke ssues

- Recreati nal area is decreasing rapidly.
- Lack f pen spaces specially in the ld city areas.
- rrati nal distributi n f pen spaces.
- M st f the pen spaces l cked in the individual instituti nal h ldings.
- Only new planned c l nies have pr visi n f s me green space.

5.2.4 SOC O-CU TURA /RE G OUS/ENTERTA NMENT FAC T ES

The places f recreati n, specialized instituti ns and clubs pr vide avenues t the residents t spend their leisure time f r pr ductive purp ses enhancing their physical and metaphysical capabilities.

Table 53: S ci -Cultural Facilities i atala cit

S. N .	Facilities	Nu ber
1	Communi y Halls	1
2	Swimming Pool	1
3	Public Library	2
4	Museum	1
5	Cinema Hall	2

S urce: Census, 2001 and Municipal Council, Ba ala

Fig. 42: Shi Ku ar atal i Cultural Ce tre

I is clearly eviden from he above able ha socio cul ural facili ies exis in ci y area in erms of communi y halls, playgrounds, public libraries, museum, e c. In mos of he cases, he ci y is reflec ing defici in erms of hese facili ies. A cul ural cen re exis s wi hin he ci y on he name of he famous Punjabi poe Shiv Kumar Ba alvi. As far as religious facili ies are concerned, walled ci y mainly has wo impor an religious places, which serve he popula ion requiremen s. There is no recrea ional club wi hin he rural areas of LPA excluding ci y o serve recrea ional purpose of he presen popula ion.

Spatial Distributi

Wi hin he ci y, socio cul ural facili ies are no keeping pace wi h he urban expansion of Ba ala. The dis ribu ion of facili ies is uneven wi h mos of he facili ies si ua ed along he already developed sou hern por ion of he H 15.

5.2.5 C V C AMEN T ES/SERV CES

The o her ameni ies of he ci y include Pos Offices, Police S a ions, Fire S a ion, Crema ion Grounds, e c. Each urban area mus have hese ameni ies o serve i s growing popula ion, as he ci y expands and i s func ion increases, so do he requiremen for such ameni ies. The Ba ala ci y consis s of hese ameni ies dis ribu ed over he whole area.

P st O ice/Fire Stati /P lice Stati /Gra e ard

Fig. 43: O ice SSP

In erms of pos al facili ies, he ci y has one main pos office, while he res of he LPA has 10 branch pos offices loca ed in differen villages. The ci y is having one elegraph office oo. A fire s a ion is loca ed wi hin he ci y a municipal office wi h hree fire enders serving an area of 40 sq. km. (includes Ba ala Tehsil, Qadian Tehsil, Fa ehgarh Churian Tehsil and Hargobindpur Tehsil). o fire jeep is available for walled ci y. The ci y police s a ions are loca ed a differen places of he ci y o serve he ci izens of hose areas. The ci y has only one si e used as crema ion ground.

Spatial Distributi

Inequitable and irrational s atial distribution has been observed in the rovision of civic amenities in the absence of any lanning framework.

Fig. 44: Fire Stati

Ke ssues

- Shortage of civic amenities in the city.
- Irrational distribution.
- Absence of any new ro osal.

CHAPTER 6

ENVIRONMENTA STATUS

INTRODUCTION

Environmental problems faced by the inhabitants of Punjab, its causes and pressures can easily be traced back directly or indirectly, to the pattern of development of the urban areas. The forces and processes that constitute urban activity have far-reaching and long-term effects not only on its immediate boundaries, but also on the entire region in which they are positioned.

In a very broad sense, the urban environment consists of resources, human and other processes in the city, that convert these resources into various other useable products and services and effects of these processes, which may be negative or positive. With the inevitable danger of overlap and generalization, following three dimensions have been identified in urban environments i.e., Natural Environment, Built Environment, and Socio-Economic Environment.

6.1 PO UTION: GENERATION AND CONSEQUENCES

6.1.1 AIR PO UTION:

One of the major areas of environmental concern within Batala city is air pollution, which is caused by various anthropogenic activities. Narrow streets, huge volume of traffic, frequent jams and large number of vehicles on road due to absence of public transport, use of kerosene as the fuel, etc. leads to air pollution in the atmosphere along the roads / chowks, such as Bus Stand, Church Road, area near municipal council, *lakkar mandi, loha mandi,* grain markets, *sabzi mandi,* etc.

Fig. 45: P r R ad C diti lead t High SPM level i Shastri Nagar

As far as wind direction is concerned various industrial units releases air pollutants into the atmosphere, which affects the environment of the surrounding residential areas. From planning point of view, neither any sufficient buffer zone nor any landscape element is provided there to reduce the impact of air pollutants.

A bie t Air Quality: The existence of large number of units including the polluting industries has adversely affected the quality of air in Batala city. The emissions generated by fuel burnt by industries have also contributed to the lowering of quality of the air. With a view to clearly assess and monitor the status & quality of ambient air (annual average) in Batala, data with regard to quantity of suspended particles, SO_2 and NOx present in the air is

collected and analyzed by the Punjab Pollution Control Board, Patiala during the year 2002 and 2003 (refer table 54). Concentration of SPM, SO_2 and NOx in industrial and residential areas was lower than standards prescribed by CPCB, New Delhi 2001. The details of analyzed SPM, SO_2 and NO_x levels are summarized below.

Table 54: A ual Average C ce trati SPM, SO_2 a d NO_x (U it: µg/ ^{3})

S. N .	Area	Year	P lluta ts		
			SPM	SO_2	NO_x
1	atala City (Reside tial Area)	2002(A ual Average)	197	11	31
Per issible i its			140	60	60
2	atala Cit (I dustrial Z e)	2003(A ual A erage)	230	10	24
Per issible i its			360	80	60

urce: PPCB, Patiala

6 1 2 URFACE WATER RE OURCE & WATER PO UTION

I ter s of surface water resources, the catch e t area of two rivers, i.e. Beas a d Ravi, covers the Batala LPA. It i cludes a y distributaries, ajor a o g which are Batala Distributary, Fateh Na gal Distributary a d Aliwal Distributary, allahs, like Ha sali Nallah, Baju a Drai , etc. a d several po ds. Ha sali Nallah is the o ly allah of the city, which carries its total u treated i dustrial efflue ts, sewage a d also stor water duri g the rai y seaso .

Fig. 46: Du pi g S lid Waste Causi g l ckage Ha sali Nallah

Ri er: - There are two rivers Beas a d Ravi flowi g i catch e t area of the Batala LPA. The upstrea qualities of the river water have bee studied by PPCB i Dec 2000 u der the GoI sche e MINAR (Mo itori g of I dia Natio al Aquatic Resources). All para eters of surface water quality are withi the per issible li its prescribed by BIS (ISI) except BOD a d total colifor s (refer table 55). BOD a d total colifor level for river Beas is higher tha the sta dards prescribed by BIS for tolera t li it of class A category (surface water).

Table : tatus Ri er Water Characteristics eas a d Ra i

N	Para eter	eas	Ra i
1	Te perature °C	16	14
2	pH	7.8	7.8
3	Co ductivity (µ ho)	342	202
4	Nitroge (No_2 + No_3)	1.4	.04
5	DO (g/l)	7.8	9.0
6	BOD (g/l)	4.2	0.4
7	COD (g/l)	14.4	1.6
8	Cl^- (g/l)	23.0	10
9	SO_4	16	8.0
10	Na	14.6	1.8
11	Fecal Colifor	500	0.0
12	Turbidity (NTU)	24	7.0
13	Total Colifor	5000	7.0
14	TDS	302	194

urce: PPCB, Dec 2000

Ca al: - In the catchment area of Batala LPA, Upper Bari Doab Canal (UBDC) flows and feeds water supply to various distributaries within the LPA of Batala, to fulfill the irrigational requirements of the farmers. In the past, this canal was used to be a fresh water stream, but it now carries the sewage effluents from upstream, particularly from Dhariwal and Sujanpur town causing water pollution in the stretch and also spreading contamination to downstream. The present status of the canal within the LPA is satisfactory. During rainy season, the channel at every cross section is carrying sufficient quantity of water supply.

Distributary:- The major distributaries flowing through the land of Batala LPA are Batala Distributary, Fateh Nangal Distributary and Aliwal Distributary. While Batala Distributary flows on one side of the NH 15, Fateh Nangal and Aliwal Distributary are on the other side.

Fateh Na gal Distributary: The distributary enters into the LPA boundary from northern direction and joins Aliwal Distributary in Shankarpura village. Along its course, it covers many villages namely Bhullar, Winjwan, Tara Garh, Haruwal, Talwandi Lal Singh, Shankarpura, etc. The present status of distributary is satisfactory. During rainy season, the channel at every cross section within the LPA is carrying sufficient quantity of water supply.

Fig. 47: Fateh Na gal Distributary at Tara Garh

Fig. 48: Aliwal Distributary at Hard Jha da

Aliwal Distributary: The distributary enters into the LPA from western direction at Talwandi Lal Singh. After meeting Fateh Nangal Distributary at Shankarpura village, it leaves the LPA from south after passing through villages like Dhadialanat, Hardo Jhanda, Kotla Sharaf, Sarupwali, Chhit etc.

atala Distributary: The distributary enters into the LPA boundary from east direction (village Diwaniwal) and leaves at village Basarpura situated in southern side of the LPA. The villages like Dawaniwal, Shahabad, Batala Sarki and Basarpura, and a portion of Batala Municipal Council falls under it. The present status of the distributary is not satisfactory. During rainy season, the channel at every cross section within the LPA is dry. Instead of water, the channel is full of weeds, shrubs, untreated sewage and industrial effluents produced within the city area.

Fig. 49: ack Water i atala Distributary

Fig. 50: atala Distributary ear Gurudwara (yepass) with Meagre Water

Ha sali Nallah: - Hansali Nallah enters into Batala LPA from northeastern side (Khokhar village) and leaves at Chhit village located in south. Along its course, it covers many other villages like Dialgarh, Kotli Bhan Singh, Nawanpind, Said Mubarak, Hardo Jhanda and Hassanpur Kalan, etc. A considerable portion of the nallah falls within the city too. The nallah is flooded with city's untreated sewage and industrial effluents, solid waste, ash from burnt

Fig. 51: Higher P lluti i Ha sali Nallah ear (DAV C llege)

Fig. 52: Degree P lluti i D w strea is extre ely high

rice husk, etc. This causes contamination of ground water, gives out foul smell and creates dampness. The nallah also carries storm water during rainy season. The level of pollution in the nallah is extremely high. The residential areas falling along the nallah face objectionable odour and nuisance. Dense Mosquito Zone up to 1000 meter of distance from the nallah is prevailing along the total stretch of the channel.

Within the city limits, just 200 meters away from the nallah, ground water quality of private hand pump is totally deteriorated. The colour, odour, taste and presence of fine suspended particles are the cause of objection for their potable use. The colour of water is yellowish, odour is strong and suspended particles can be seen by naked eyes.

The affected residents also claim that the surrounding colonies along the Nallah suffer from various diseases such as gastroenteritis, jaundice, diarrhea/ dysentery and malaria.

A ected Z e: On the basis of primary survey done, broad observations have been made identifying various affected zones such as Health Affected Zone, Odour Zone and Mosquito Zone, etc. for Hansali Nallah. This is further supported by the Focus Group Discussion (FGD) with the affected villages. Various affected zones, their area and population with respect to the LPA are summarized in table 56.

Table 56: A ected Z es Ha sali Nallah

Health A ected Z es			
Health A ected Z e	**Dista ce r S urce**	**% Area A ected**	**% P pulati A ected**
High Affected zone	Up to 000 meters	24.74	24.73
Od ur Z es			
Od ur Z e	**Dista ce r S urce**	**Area A ected**	**P pulati A ected**
High Odour	75 meter	.26	.26
Moderate Odour	76 to 280 meter	3.43	3.44
Low Odour	28 to 350 meter	. 6	. 6
M squit Z es			
M squit Z e	**Dista ce r S urce**	**Area A ected**	**P pulati A ected**
High affected	Up to 50 meters	3.70	3.70
Moderate affected	5 -500 meters	8.63	8.62
Low affected	50 - 000 meters	2.33	2.33

S urce: Field Surveys, SAI Team, 2009

Note: *Percentage of area and o ulation is based on t e total area and o ulation of t e PA. Odour Zone is calculated only for t ose areas, w ic are affected by alla downstrea fro ongowal to end of t e PA .*

As a result, there are requirements of establishing a sewage treatment plant and making policy decisions to relocate the industrial zones in appropriate area. uffer zones and green areas are required to be provided all along the drains.

6.1.3 Gr u d Water P lluti :

The degradation of ground water, especially in the area along the nallah, is caused due to pollution of Hansali allah. The seepage of polluted water from the nallah and the industrial waste has led to the pollution of the ground water sources.

The ground water characteristics within the city are poor. Ground water in most of the industrial estate and in few residential areas has become unfit for drinking. In comparison to deep water aquifer, shallow water is seriously affected. The city accordingly faces a severe ground water problem. Majority of residents of atala city along the nallah and other adjoining villages are forced to consume contaminated vegetables and unsafe water, exposing themselves to the risk of water-borne diseases. Major issues emerging from the ground water pollution have been listed below:

i) Excessive pumping has lead to contamination of ground water. Residents of *abadies* in close proximity to Hansali allah and other adjoining villages have been found to be exposed to water borne diseases due to polluted ground water.

ii) Considerable level of ground water pollution is found to exist up to a depth of 100 ft. along the 1000 meter belt on either side of Hansali Nallah. The characteristics of water are found to be unsuitable for supporting aquatic life.

iii) Hand pumps and shallow tube wells drawing water from first aquifer are found susceptible to ground water pollution in areas close to industrial units and Hansali Nallah.

iv) Pollution of the soil & ground water is caused by the dumping of the industrial wastes (effluents and solid waste) into the open ground leading to stagnation and the generation of the leachate.

vi) The use of polluted ground water for agricultural purposes has also led to the degradation of the soil and presence of heavy metals into soil and vegetable crops grown in the area.

Gr u d Water Characteristics: In the villages of LPA, the study of ground water characteristics has been done by "Trade Waste & Effluents Research Unit, P.W.D., Public Health Branch, Patiala" at six different sampling stations within six different villages i.e., Balewal, Kotla Nawab, Qutbi Nangal, Hardo Jhanda, Talwandi Lal Singh and Bhullar.

The ground water characteristics of all sampling stations were within permissible limits prescribed by IS 10500, 1991 (clause 3.1), except calcium hardness and presence of minute suspension, brown suspension and minute particles in few villages (refer table 57). Concentration of calcium hardness in the village Qutbi Nangal and Hardo Jhanda is slightly greater than the standards prescribed by IS 10500, 1991 (clause 3.1) and objectionable water with minute suspension, brown suspension and minute particles was found in the samples of village Qutbi Nangal, Hardo Jhanda and Bhullar.

Table 57: A alysis Rep rt r Physical a d Che ical Exa i ati Gr u d Water Sa ple

Test	Acceptable	Causes Rejecti	alewal	K tla Nawab	Qutbi Na gal	Hard Jha da	Talwa di al i gh	hullar
			24 05 02	01 02 02	01 03 02	14 01 02	31 12 01	31 12 01
			urce: /Well	urce: /Well	urce: T/Well	urce: T/Well	urce: T/Well	urce: T/Well
Turbidit (NTU)	2.5	10	Nil	Nil	Nil	Nil	Nil	Nil
C l ur (U its Pt-C scale)	-	-	Colourless	Colourless	Colourless ith minute particles	Colourless ith Bro n uspension	Colourless	Colourless ith minute suspension
Taste a d Od ur (Qualitati e)	-	-	Ordinary	Ordinary	Ordinary	Ordinary	Ordinary	Ordinary
pH	7-8.5	6.5- 9.2	8.2	7.55	7.3	7.55	7.3	7.3
C ducti it			-	-	-	-	-	-
T tal lids (g/l)	500	1500	400	220	190	340	280	250
T tal Alkali it (as $CaCO_3$) (g/l)			212	-	-	-	-	-
T tal Hard ess (as $CaCO_3$) (g/l)	200	600	160	110	144	190	48	96

Calciu (g/l)	75	200	35	130	216	208	160	170
Mag esiu (g/l)	30	150	30	36	-	8	50	8
Chl ride (g/l0	200	1000	28	10	15	21	9	12
ulphate (as O_4^{-2}) (g/l)	200	00	-	16	112	16	10	112
Flu ride (as F^{-1}) (g/l)	1.0	1.5	0.15	-	-	-	-	-
Nitrate (NO_3^{-1}) (g/l)	5	5	-	0.25	0.35	0.25	0.15	0.35
Ir (g/l)	0.1	1.0	Nil	-	-	-	-	-

urce: Trade Waste & Effluents Research Unit, P.W.D., Public Health Branch, Patiala

6 1 4 NOI E PO UTION

Urbanizati n, industrializati n, vercr ding, large v lume f sl m ving mix traffic c mprising pedestrians, market g ers, c ncentrati n f t heelers, three heelers, cars, buses, trucks etc. in Batala city has resulted in increased n ise levels in the envir nment leading t n ise p lluti n. C nstructi n rks als cause n ise p lluti n. Street vend rs and sh pkeepers al ng b th sides f r ad are m st vulnerable t this hazard. Besides all these, educati nal institutes, h spitals, etc., hich are part f Silence Z ne, are als highly affected. The n ise p lluti n is n t limited t the traffic nly, but use f l ud speakers by the religi us instituti ns during the marriage/festivals als adds t the p lluti n. The use f generat rs by the residential, c mmercial and industrial establishments has als added t the p lluti n level in the city.

A bie t N ise e el duri g Diwali

N ise level m nit ring and analysis has been d ne by PPCB, Patiala during the Di ali festival in 2003. The findings btained during the festival ere c mpared ith the data generated bef re and after celebrati n. N ise levels during celebrati n and after celebrati n ere 98.0 dB and 68.0 dB, respectively, hile the standards prescribed by CPCB f r residential areas during day and night time are 55 and 5 dB (A), respectively (refer table 58).

Table 58: N ise e el M it ri g duri g Diwali 2003 i atala

M it ri g cati	e re Celebrati		Duri g Celebrati		A ter Celebrati	
	d (AI)	d (C) Peak	d (AI)	d (C) Peak	d (AI)	d (C) Peak
Chitti Gr und, Batala	6 .0	73.0	98.0	122.1	68.0	78.0

urce: PPCB, Patiala

N te: dB (AI) - A eighted impulse s und pressure level in decibel; dB (C) peak- C eighted peak s und pressure level in decibel.

Ke Issues r P lluti Ma age e t

- Insufficient peri dic m nit ring and assessment f ambient air quality, n ise level, surface and gr und ater characteristics in industrial, residential and sensitive z nes.
- Excessive exhaust fr m fuel-fired c nstructi n equipments and DG sets.

- Excessive vehicular exhausts from traffic and transportation.
- Fugitive dust generated due to shifting of construction materials (cement, sand, bricks and gravel) and from concrete mixing unit while concreting.
- Long term excess withdrawal of ground water has caused depletion of water table, higher mineralization and local hydro geological impacts.
- Minor importance to maintenance of traffic units, industrial units and construction equipments causing noise level above the permissible limits.

6.2 RAIN WATER HARVESTING

However, the groundwater potential is getting reduced due to urbanization, industrialization and intensive agricultural practices. All these activities affect groundwater hydrology due to increase in water demand, more dependence on ground water use, over exploitation of ground water, increase in runoff, decline in well yields and fall in water levels, reduction in open soil surface area, reduction in infiltration and deterioration in water characteristics.

In Punjab, the Department of Soil & Water Conservation started the work of rainwater harvesting in the year 1986-87 on the pattern of famous Sukhomajri Project. The First Earthen Rainwater Harvesting structure was constructed in village Perch in Ropar district having a catchment area of only 8 hectares. Over the time, more than 250 water harvesting structures of different kind have been constructed in Ropar and Nawanshahr. Lot of water bodies are within LPA, which require to be conserved and preserved. Ponds of villages are being filled and encroached, thus further scope of collection/accumulation of water gets reduced. There is an urgent need to use all water bodies/ponds, which could be part of rain water harvesting.

Existi g status

Concept of Rain Water Harvesting System has not been adopted satisfactorily due to the lack of vision, negligence and unawareness within the Government system and people. Secondly, the concept of Groundwater Recharge Technology has also not been adopted in the new private building constructions to raise the level of declined water table. As per concerned authorities of Improvement Trust, a few Government Buildings in the city have adopted the Groundwater Recharge Technology, but still this practice is not adopted uniformly in the new building codes till date. It should be made mandatory in large buildings to adopt this technology. Moreover, it should be made a part of Building Bye Laws and Development Control Regulations.

Key Issues

- Discharge of untreated industrial effluents into nallah, ponds and low lying areas.
- Leaching of decomposed liquid from dumped solid waste to the ground water table.

- Unplanned and mismanaged installation of industrial units for the water supply.
- Inadequate rainwater harvesting system in city and recharge pits and check dams.
- Unawareness among the residents regarding water conservation.
- Lack of watershed structures for ground water recharge.
- Falling/encroachment of village ponds.
- Lack of rainwater harvesting and recharge technology.

6.3 DISASTER MITIGATION AND MANAGEMENT ISSUES

Disasters have always co-existed with civilization. With technological advancement, development initiatives resulted in the creation of lot of infrastructure and permanent assets. The progressive increase in loss of life, property and effect on environment due to disaster moved the international community to look at disaster management in a new perspective, which transcends international barriers, anticipates possible threats and enables tackling of disaster from the pre-stage. In context of the present study area, disaster can be classified as natural, industrial and manmade disasters. Natural Disaster includes earthquake, flood, cyclone, landslide, drought, etc. Industrial Disaster includes fire, chemical hazard, etc. Manmade Disaster includes accidents.

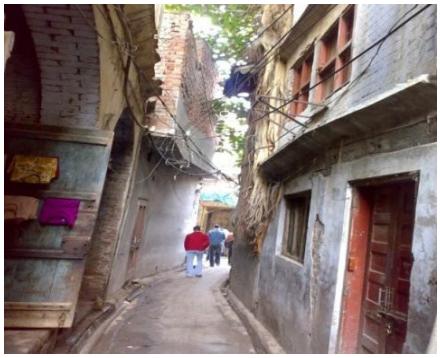


Fig. 53: Narr w Streets a d Highrise uildi gs i Walled City

Key Issues

Earthquake: The whole of Gurdaspur district falls in Seismic Zone IV and Batala is the second most populated city of the Gurdaspur district. Gurdaspur district falls under high seismic risk zone. The Great Himalayan Boundary Fault Zone, which runs from Assam to Kashmir and has been the scene of some of the great Indian earthquakes, runs to the north of this district. It has also experienced occasionally the fringe effect of the earthquakes originating in the Karakoram and Hindukush region.

Batala region falls in Seismic Zone IV as per Seismic Zone Map of Indian Standard IS 1893. Therefore, the design of buildings should be considered in compliance with IS 1893 with taking due consideration of prevailing housing constructions and development guidelines and National Building Code.

Fl d: It is not the major concern for this area. But, the care should be taken in designing storm water drains so that flooding does not occur at the time of cloud burst or heavy cyclonic rain. Rainwater harvesting should be done throughout the city, which will further reduce the risk of local flooding.

High Wi ds: As far as the wind hazard is concerned, design wind in the entire region is 47 m/s as per IS 875 (part 3), which attains this value occasionally. Building in this region should be designed keeping in mind the above wind speed.

Fire Hazard: Fast growing cities like Batala are threatened by fire hazards, due to the following main reasons.

- Non-implementation of fire safety norms as part of building byelaws.
- Illegal and loose electric connections.
- Sub-standard wiring and over loading of electricity system.
- Illegal storage and hazardous commercial activities.
- Inadequate availability of special fire fighting equipments.

CHAPTER 7

FINANCIA STATUS AT A G ANCE

7.1 MUNICIPA COUNCI

The municipal finances of the Municipal Council have been reviewed for the last five years, commencing from the financial year 2003-04 to 2007-08. The items of both receipts and expenditure are classified under revenue and capital accounts as per their sources and uses.

The Revenue Income of Municipal Council has grown to a level of Rs. 1168.32 lakhs in FY 2007-08 from Rs. 636.52 lakhs during FY 2003-04, registering a CAGR of 16.39%, while Revenue Expenditure increased at a CAGR of 20%. It projects weak financial condition of Municipal Council. Municipal Council has consistently maintained a revenue surplus of an average 8% of its revenue income. However, the pressure of capital expenses on the revenue account is increasing year after year. This situation demands expenditure control measures and planned capital investments on the part of Municipal Council (refer table 59).

Table 59: Fi a cial Status Mu icipal C u cil at a Gla ce, 2003-04 t 2007-08

Ite	Rs. i akhs					CAGR
	2003-04	2004-05	2005-06	2006-07	2007-08	
Reve ue Acc u t						
Opening balance	2 .86	31.75	32. 7	66.6	35.54	
In ome	636.52	755.2	875.32	740.75	1168.32	16.3
Expenditure	423.88	480.01	561.67	477.	875.31	20
Surplus	242.5	307.03	346.62	32 .54	328.55	8
% of Revenue In ome	38.0	41	40	44	28	-7.4
Capital Acc u t						
In ome	166.5	64. 6	671.20	76 . 8	328.22	18.4
Expenditure	210. 3	40 .26	244.46	286.25	312. 7	10.3
Surplus/Defi it	-44.34	-344.3	426.74	483.73	15.25	---
% of Capital In ome	-26.62	-530.02	63.58	62.82	4.65	0.00

S urce: M.Cl. nnual ounts

The Capital In ome of Muni ipal Coun il omprises of Loans, Grants and internal transfers from Revenue to Capital ount for utilization towards asset reation. It is observed that external sour es in form of grants ontributing in the Capital In ome during the review period. The following se tions provide an in depth review of the revenue a ount, in order to assess the muni ipal fis al status and to provide a base for determining the potential of ea h of the sour es and the ability of Muni ipal Coun il to sustain the extent of planned investments identified under the Master Plan.

Re e ue Acc u t

The Revenue Account compr ses t o components Revenue Income and Revenue Expend ture. Revenue Income compr ses nternal resources n the form of tax and non-tax tems. External resources const tute of shared taxes/transfers and revenue grants from the State and Central Government. Revenue Expend ture compr ses expend ture ncurred on salar es, operat on & ma ntenance cost, contr but ons and donat ons, and debt serv c ng.

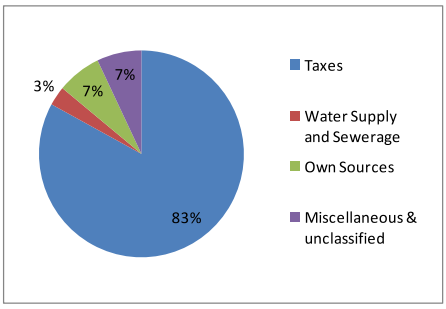


Fig. 54: Reve ue I c e M.Cl.

Re e ue I c e

The revenue sources of Mun c pal Counc l can be broadly categor zed nto O n Sources, Taxes, Water & Se erage Serv ce Charges, etc. The source se ncome generated dur ng the rev e per od s sho n n table 60.

Table 60: urcewise Re e ue I c e atala M Cl

Ite	Rs i akhs					% hare	CAGR
	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008		
w urces	57.39	51.77	56.31	59.39	0. 4	7	9
Taxes	541.79	646.56	639.	601.	10 7.4	3	17.3
Water uppl & ewerage	3.1	40.0	5.0	.49	44.13	3	17.4
Miscella e us &U classi ied	14.16	16.	154.19	71.67	16.53	7	4
T tal	**636 52**	**755 29**	**875 32**	**740 75**	**1168 32**	**6 54**	**16 3**

urce: M.Cl. Annual Accounts

w urces

The o n sources ncome ncludes ncome from Revenue Fees (Slaughter ouse Fees, Copy ng Fees, etc. , revenue serv ce account, ncome from *a* Fees, etc. Income from O n Sources contr butes 7 of total Revenue Income, h ch sho s that sources are not suff c ent to cover the expenses of counc l. So, t depends h ghly on external resources for ts operat ons.

Taxes

The major source of ncome for M.Cl. s taxes. It s ncreas ng at a rate of 17.34 and contr but ng about 3 of total Revenue Income (refer table 61 .

Table 61: Applicati Fu ds b Head Acc u t (M Cl)

Ite	Rs i akhs					CAGR
	2003-04	2004-05	2005-06	2006-07	2007-08	
H use Tax	6 .	4 .99	71.56	51. 7	1 7. 5	19.41
ctr i	469.30	56 .51	539.03	430.54	65.45	-3 .
Excise Dut	9.3	34.7	.93	119.3	30.46	1 3
Ad ertise e t Tax	0. 9	0.34	0.	0.07	1. 6	59.1
VAT	0.00	0.00	0.00	0.00	601. 0	0
T tal	541.79	646.56	639.	601.	10 7.4	17.34

urce: M.Cl. Annual Accounts

H use Tax

Among taxes House Tax is major source of income for M.Cl. In year 2003-2004 the income from House Tax was Rs. 62.88 lakhs which increased to Rs 127.85 lakhs in year 2007-2008 registering a CAGR of 19%.

ctr i

Another source of income for Munici al Council is octroi. It has registered a decreasing of CAGR 38.8%.

Water uppl a d ewerage er ices

It is observed that taxes from Water Su ly and Sewerage services contribute 3% of total Revenue Income during review eriod which is very less as com ared to other taxes.

N Tax Re e ue (Miscella e us & U classi ied)

Non-tax sources include fees and charges levied. These sources include income from Building License Fee Develo ment Charges Trade License Fee Birth and Death Certificate income from munici al ro erties and other fees and fines. The non-tax income of Munici al Council accounts for about 7% of its revenue income and has registered a CAGR of 4 %.

REVENUE EXPENDITURE

The Revenue Ex enditure of Munici al Council has been analyzed based on ex enditure heads. These have been broadly classified into two categories i.e. first is Establishment Ex enditure and second is Contingency.

The a lication of funds by account head is resented in Table 62 which indicates that the overall Revenue Ex enditure registered a CAGR of 19.8% against the CAGR of 16.3% of Revenue Income (refer table 60).

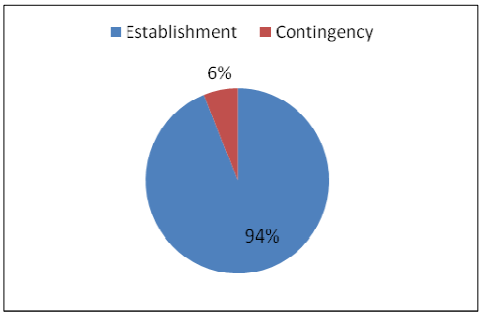


Fig 55: Re e ue Expe diture atala M Cl

Table 62: urcewise Re e ue Expe diture (M Cl)

Ite	Rs i akhs					% hare	CAGR
	2003-04	2004-05	2005-06	2006-07	2007-08		
a) Establish e t	394.96	415.97	534.82	458.05	855.37	94.33	21.3
b) C ti ge c	28.92	64.04	26.85	19.85	19.94	6	-8.87
T tal	**423 88**	**480 01**	**561 67**	**477 90**	**875 31**	---	19.8

urce: M.Cl. Annual Accounts

CAPITA ACCOUNT

In general, the capital inc me f Municipal c uncil c mprises f l ans, grants and c ntributi ns and transfers fr m revenue surplus. Capital grants c ntributes the maj r part in Capital Inc me with 76% f t tal capital receipts during the review peri d, l ans 21% and sale pr ceeds f r the rest.

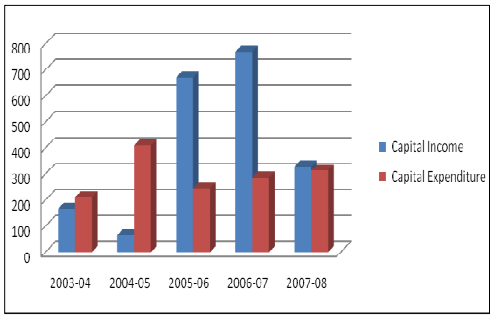


Fig 56: Capital Acc u t atala M Cl

Table 63: Details Capital Acc u t (M Cl)

Ite	Rs i akhs					% hare	CAGR
	2003-04	2004-05	2005-06	2006-07	2007-08		
Capital I c e							
Capital Grants	166.59	64.96	252.77	737.93	293.27	76	15.1
L ans	.	.	41 .43	.	.	21	
Sale Pr ceeds	.	.	.	32. 5	34.95	3	
T tal	**166 59**	**64 96**	**671 2**	**769 98**	**328 22**	**100**	**18 4**
Capital Expe diture							
WSAS Department	1 5.69	7 .92	1. 5	95.14	1 6.23	31	.12
Devel pment f R ads	15.3	22.29	2.1	. 1	5.56	4	-22.3
Envir nmental	1.36	3.2	.	.	.	.31	-1
C nstructi n f Streets & Drains	33.55	26.9	26.41	44.95	25.5	11	-6.6
Additi nal Street Lights	42.34	44.97	49.1	56.2	64.46	1	11.
Repayment f L ans	.	2 4.27	36.31	47.31	65. 1	24	
Others	12.69	36.55	4 .69	33. 4	46.21	12	3 .1
T tal	**210 93**	**409 26**	**244 46**	**286 25**	**312 97**	**100**	**10 36**

urce: M.Cl. Annual Acc unts

The figure presented in Table 63 indicates that ab ut 49% f Municipal C uncil's capital expenditure during the review peri d is met fr m its capital receipts. The rest is c ntributed by the revenue/municipal surpluses.

In verall municipal finance system, it is bserved that Municipal C uncil has generated 3% f t tal Revenue Inc me thr ugh taxes (Octr i, Excise Duty, etc.) and 76% f t tal Capital Inc me c mes fr m Capital Grants during last five years. The maximum Revenue Expenditure, i.e. 94% f t tal Revenue Expenditure, is incurred n General Administrati n, while 31.74% f t tal Capital Expenditure is incurred n Water Supply & Sewerage Department.

7 2 IMPROVEMENT TRU T

The finances f the Impr vement Trust f Batala have been reviewed f r the last five years, c mmencing fr m the financial year 2 3- 4 t 2 7- . The items f b th receipts and expenditure are classified under Revenue and Capital Acc unts as per their s urces and uses.

The Revenue Inc me f Impr vement Trust has increased fr m a level f Rs. 51.67 lakhs in FY 2 3- 4 t Rs 7 .96 lakhs during FY 2 7- , registering an increasing CAGR f 11.1

percent, w ile Revenue Expenditure increased at a CAGR of 30.79. Revenue Account is registering increasing revenue surplus at CAGR of 116.68, w ic projects good financial management of Improvement trust. However, t e pressure of Capital Expenses on t e Revenue Account is increasing year after year. T is situation demands expenditure control measures and planned capital investments.

Table 64: Fi a cial tatus at a Gla ce (M Cl

Ite	Rs i akhs					CAGR
	2003-04	2004-05	2005-06	2006-07	2007-08	
Re e ue Acc u t						
pening balance	4.06	47.16	40.91	68.25	307.46	
Income	51.67	32.2	58.5	1311.3	78.96	11.18
Expenditure	44.05	43.97	55.96	58.31	128.92	30.79
Surplus	11.68	35.39	43.45	1321.24	257.5	116.68
% of Revenue Income	23	110	74	101	326	94.03
Capital Acc u t						
Income	175.78	145.13	235.15	516.02	147.33	-4.31
Expenditure	140.3	136.4	210.34	1529.8	1481.59	80.26
Surplus/ Deficit	35.48	8.73	24.81	-1014	-1334	-84.57
% of Capital Income	20.18	6.02	10.55	-196.50	-905.45	---

urce: Improvement Trust, Batala

T e Capital Income of Improvement Trust comprises Loans, Grants and internal transfers from Revenue to Capital Account for utilization towards asset creation. It seems t at Capital Income is decreasing at a CAGR of 4.31 (refer table 64).

T e following sections provides an in-dept review of t e revenue account, in order to assess t e fiscal status and to provide a base for determining t e potential of eac of t e sources and t e ability of Improvement Trust to sustain t e extent of upcoming investments.

Re e ue Acc u t

T e Revenue Account comprises two components - Revenue Income and Revenue Expenditure. Revenue Income comprises internal resources in t e form of tax and non-tax items. External resources constitute of s ared taxes/transfers and revenue grants from t e State and Central Government. Revenue Expenditure comprises expenditure incurred on salaries, operation & maintenance cost, contributions and donations, and debt servicing.

Re e ue I c e

T e revenue sources of Improvement Trust can be broadly categorized into wn Sources, Securities, etc. T e source wise income generated during t e review period is s own below:

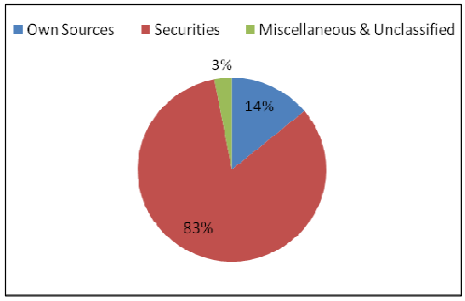


Fig 57: Re e ue I c e I pr e e t Trust

Ow S urces

Income from Own Source have regi tered an increa ing CAGR of 11.12% with a contribution of 14% of total Revenue Income (refer table 65).

Table 65: S urce Wise Re e ue c e (M.Cl.)

te	Rs. i akhs					%Share	CA R
	2003-2004	2004-2005	2005-2006	2006-200	200 -2008		
Own Source	43.89	13.10	29.36	66.43	66.92	14	11.12
Securitie	5.99	17.57	24.80	1220.68	5.39	83	-2.60
Mi cellaneou & Uncla ified	1.79	1.53	4.34	24.19	6.65	3	38.83
T tal	**51.6**	**32.2**	**58.5**	**1311.3**	**8.96**		**11.18**

S urce: Improvement Tru t, Batala

N -Tax Re e ue (Miscella e us & U classi ied)

Non-tax ource include fee and charge levied. The e ource include income from recovery of advance , u pen e account, etc. The non-tax income of Improvement Tru t contribute 3 percent to total revenue income, but it goe on increa ing at a CAGR of 38.83 percent.

Re e ue Expe diture

The Revenue Expenditure of Improvement Tru t ha been analyzed ba ed on expenditure head . It ha been broadly cla ified into E tabli hment Expenditure and Contingency. The application of fund by account head i pre ented in Fig. 58, which indicate that the overall Revenue Expenditure regi ter an increa ing CAGR of 30.79 percent again t a CAGR of 11.18 percent of Revenue Income, which reflect very weak management of revenue account.

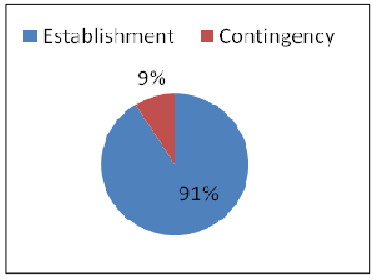


Fig. 58: Re e ue Expe diture pr e e t Trust

Capital Acc u t

In general, the Capital Income of Improvement Tru t compri e of Loan , Grant , and contribution and tran fer from revenue urplu . Sale Proceed contribute the major part in Capital Income with 55 percent of total capital receipt during the review period. The re t 45% part i through Loan .

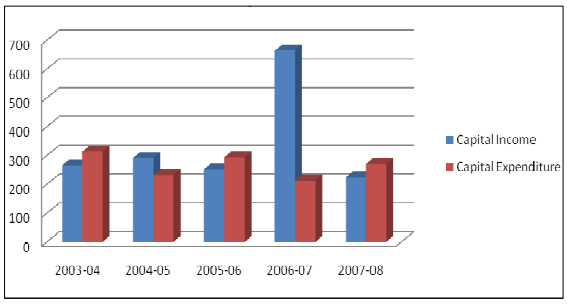


Fig. 59: Capital Acc u t pr e e t Trust

Table 66: Details Capital Acc u t pr e e t Trust

te	Rs. i akhs					% Share	CA R
	2003-04	2004-05	2005-06	2006-0	200 -08		
Capital c e							
Capital Grant	0.00	0.00	0.00	0.00	0.00	**0**	-
Loan	0.00	0.00	0.00	193.93	958.93	45	-
Sale Proceed	175.78	145.13	235.15	322.09	517.40	55	30.98
Total	175.78	145.13	235.15	516.02	1476.33		70.23

Capital Expe diture							
Development works	9. 9	99.38	123. 4	162.60	181.	19	22.85
Sale of Trust Land	1.33	1.22	1.45	2.90	2. 1	0.2	19.4
Cost of Land	1 .41	0. 9	56.36	259.5	0.00	10	146.12
Repayment of Govt. loan	4.69	3.99	3.69	3.55	3.34	1	-8.13
Repayment of Bank Loan	25.00	15.00	10.00	23. 5	202.26	8	68.65
Refunds	12.08	12.24	12. 0	114.91	108 .58	35	208.0
Investment	0.00	0.00	0.00	958.93	1.34	2	-
Others	0.00	3. 8	2.40	3.59	2.59	0.35	-
T tal	140.3	136.4	210.34	1529.8	1481.59		80.26

urce: Improvement Trust, Batala

The figure shown in Table 66 indicates that the major part of Capital xpenditure has been fulfilled by Capital Income during review period. On an average, over the past five years, the majority of Capital xpenditure has been directed towards Refunds, which accounted for 35 percent of the total investment. ot much portion, i.e. just 19%, of capital income is directed towards Development Works.

In the overall finance system, it is observed that Improvement Trust has generated 83% of Revenue Income from Sale and Purchase of Securities, while 55% of Capital Income comes from Sale Proceeds of land during the review period, which means pressure of Capital xpenses on Revenue Account is increasing year after year. Maximum Revenue xpenditure is incurred on General Administration with 91% share, which shows a quite high amount of Revenue Income is spent over establishment. On the other hand, 35% of total Capital xpenditure is incurred on refunds, while only 19% of total Capital xpenditure is incurred on development works.

CHAPTER 8

VISUA ISING THE FUTURE

The study part of Batala Local Planning Area has been detailed out and analysed in the previous pages to assess the current as well as past situation of the planning area. Based upon this one can make assessments and build a platform to visualize the future and formulate proposals and policies for the Proposed Landuse to come up in the Batala LPA till 2031. The first step towards this will be projecting the population for various settlements for the planning period, and accordingly project the physical and social infrastructure required for that much population. The meetings held with various officials and stakeholders come handy in this process. Finally, SWOT Analysis to figure out the strengths, weaknesses, opportunities and threats of the planning area, and thus Vision Statements for different sectors of the urban and regional planning of the LPA provide a base to plan the proposals. All these things have been dealt in detail in the following pages:

8.1 POPU ATION PROJECTION

It is important to project the future population, which would be the basic for working out the land use and infrastructure requirements. The population is the prime factor of the judgment for the development plan, since it defines the quantum of the existing extents for the development and future requirement by the needed projections. The past population trends and the future growth pattern of the population defines the needs and the extent of the Infrastructure development and development of the habitat.

For projecting the future population of Batala Local Planning Area, previous decadal trend has been taken in to account. The population projections for LPA have been done by five methods for M.Cl. and LPA villages separately. The methods used for projecting population are:

1. Arithmetic Progression Method.
2. Geometric Progression Method.
3. Incremental Increase Method.
4. Graphical Projection Method.
5. Exponential Method.

The population projection for Batala M. Cl. is as follows:

Table 67: P pulati Pr jecti r atala M. Cl. (2001-2031)

S.N .	Meth d	2001	2011	2021	2031
1	Arith etic Pr gressi Meth d	147872	180063	212253	244444
2	Ge etric Pr gressi Meth d	147872	209978	298169	423400
3	cre e tal crease Meth d	147872	190422	243330	306598
4	Graphical Pr jecti Meth d	147872	180000	230000	280000
5	Exp e tial Meth d	147872	218765	323647	478811
A erage		**147872**	**195846**	**261480**	**346651**

The average figures of all projections for Batala city present a more balanced picture than that that of the others. On the other hand, the population of Batala city, taking into account its existing share of 1.8% population to that of Punjab Urban Population in 2001 and considering the same to remain constant for the future decades, comes out as 372751 in 2031. The urban population for Punjab in this case is extrapolated from the report named as "Population Projection for India and States – 2001-2026" prepared by the Technical Group on Population Projections constituted by the National Commission on Population. The details of this projection are given below:

Table 68: Pr jected P pulati Urba Pu jab a d atala M.Cl. 2001-2031

Settle e t	Year				
	2001	2011	2021	2026	2031
Urba Pu jab	82,62,511	1,06,81,000	1,31,85,000	1,64,56,000	2,07,08,374
atala M. Cl. @1.8%	1,47,872	1,92,258	2,37,330	2,96,208	3,72,751

Note: The urban population of Punjab state for 2031 is extrapolated from the growth rate found between 2001 and 2026. The population of Batala city has been taken out on the basis of its present 1.8% share in the total urban population of Punjab.

But, this population cannot be considered for Batala city as Punjab Urban Population is constantly decreasing during previous decades from 1971. So, average figures have been taken for the further study and analysis. On the other hand, Exponential Method for villages of LPA has been taken as the growth rate of its figures are closer to that of the previous decades than the growth rates of the figures of other methods.

Table 69: P pulati Pr jecti r PA Villages (2001-2031)

S. N .	Meth d	2001	2011	2021	2031
1	Arithmatic Progression Method	82,991	91,550	1,00,108	1,08,667
2	Geomatric Progression Method	82,991	1,10,675	1,47,593	1,96,827
3	Incremental Increase Method	82,991	93,850	1,07,008	1,22,467
4	Exponential Method	**82,991**	**93,980**	**1,06,424**	**1,20,515**

Finally, the average figures for Batala M. Cl. and exponential figures for villages of LPA have been tabled together to get the figures for the whole LPA.

Table 70: P pulati Pr jecti r atala PA

evel settle e ts	2009	2011	2021	2031
Batala M. Cl.	1,86,550	1,95,846	2,61,480	3,46,651
Villages of P	88,038	93,980	1,06,424	1,20,515
Pr je ted P pulati r PA	**274 588**	**289 82**	**3 7 904**	**4 7 1**

Based upo the projected populatio for Batala ocal Pla i g rea, the existi g co ditio i all sectors like social i frastructure, physical i frastructure, traffic a d tra sportatio has bee studied, a d accordi gly a alyzed. Thus, the future requireme ts for the Batala P sector wise have bee worked out.

W rk r e Pr je ti s

For calculati g the workforce projectio , Batala P is divided i to two parts, Batala city a d Villages. Category wise employme t data is available for Batala city a d Gurdaspur

district - as Total, Rural and Urban. To estimate category wise employment for the year 2031, certain assumptions have been made as:

- Employment pattern of Batala city will be same in 2031 as observed in 2001.
- Employment pattern of villages falling in LPA will be similar to that of Gurdaspur District total in 2031 (excluding Batala Municipal Council)

Table 71: E pl y e t F recast r atala PA

Classi icati N .	C de	Type W rker	2031			
			atala M.Cl.		Villages atala PA	
			N . W rkers	%age	N . W rkers	%age
1	A &	Cultivat rs	1077	1.31	9971	31.0
2		Agricultural ab urers	1356	1.65	4259	13.2
3		Pla tati , ivest ck, F restry, Fishi g, Hu ti g a d Allied activities	394	0.48	1335	4.1
4	C	Mi i g a d Quarryi g	82	0.10	18	0.1
5 (a)	D	Ma u acturi g Pr cessi g a d Repairs dustr (H useh ld dustr)	3419	4.16	1061	3.3
5 (b)		Ma u acturi g Pr cessi g a d Repairs dustr (N HH)	15492	18.85	2545	7.9
	E	Electricit Gas a d ater Suppl	1085	1.32	743	2.3
6	F	C structi s	5400	6.57	2014	6.3
7	G	h lesale a d Retail trade	23571	28.68	2229	6.9
	H	H tels a d Restaura ts	1553	1.89	134	0.4
8		Tra sp rt St rage a d C u icati s	7397	9.00	1364	4.2
9	J & K	Fi a cial ter ediati ; Real Estate Re ti g a d usi ess Acti ities.	4348	5.29	659	2.0
	t Q	Public Ad i istrati a d Others	17012	20.70	5845	18.2
T tal			82186	100.00	32178	100.00

In Case of Batala M.Cl., major share of workers will remain to the wholesale, retail and trade, while the minimum share goes to Cultivator, Agriculture Labourer and Mining and Quarrying. Whereas in case of villages of LPA, the major share will remain to the Agriculture Labourers and Cultivators, minimum share goes to Mining and Quarrying, Hotels and Restaurants category.

8.2 PHYS CA NFRASTRUCTURE REQU REMENTS

8.2.1 ATER SUPP Y

Regarding water supply, the existing figures have been taken, along with the standards assigned for them. Accordingly the future demand and re uirements have been calculated. The per capita water supply of 2009, i.e. 103 liters, has been taken into consideration. The

present supply thus comes out to be 19.21 MLD. According to the standard 135 lpcd the requirement comes out to be 26.4 MLD for 2011,35.3 MLD and 46.8 MLD for 2031.

Table 72: Pr jecti s a d Require e ts Di ere t Aspects Water Supply Syste

Service Head	I dicat r/Sta dard evel		Service evels a d Require e ts				
	I dicat r	Sta dard evel	U it	Existi g (2009)	y Year 2011	y Year 2021	y Year 2031
					Require e t	Require e t	Require e t
Daily Supply	Per capita supply (lpcd)	135	MLD	1 .21	26.4	35.3	46.8
reatment	reatment capacity against supply (%)	100	MLD	0.00	26.4	35.3	46.8
Metering System Installation of water meters			No.	2530.0	35608	47542	63027

here is no Water reatment Plant existing in the city. As per standards, the total amount of water supplied has to be treated. Accordingly, all the water required till 2031, i.e. 46.8 MLD, has to be treated. In case of water meters, 2,530 meters are installed till 200 , and according to the projected population of 2031, the total requirement is of 63027 meters.

8.2.2 SEWERAGE

As per UDPFI standards, 80% of the water supply is considered as the sewerage requirement for a particular area. Considering 80% of water supply as wastewater flow by 2031, 37.44 MLD waste water is calculated.

Table 73: Pr jecti s a d Require e ts Di ere t Aspects Sewerage S ste

Ser ice Head	dicat r/Sta dard e el		Ser ice e els a d Require e ts				
	dicat r	Sta dard e el	U it	Existi g (2009)	ear 2011	Year 2021	Year 2031
					Require e t	Require e t	Require e t
Waste Water Flow	80% of the water supply(lpcd)	107	MLD	15.37	21.15	28.24	37.44
reatment	reatment capacity against supply (%)	100	MLD	0.00	21.15	28.24	37.44

Since there is no Sewage reatment Plant (S P) in the city, any S P to be installed has to be of capacity higher than 37.44 MLD.

8.2.3 SO D WASTE MANAGEMENT

he waste generation in 2031 will be 173.33 metric tons taking the standard of 500 grams per capita per day of solid waste generation. In addition to this, the same amount of solid waste need to be collected for a collection performance of 100%.

Table 74: Pr jecti s a d Require e ts Di ere t Aspects S lid Waste Ma age e t S ste

Ser ice Head	dicat r/Sta dard e el		Ser ice e els a d Require e ts				
	dicat r	Sta dard e el	U it	Existi g (2009)	Year 2011	Year 2021	Year 2031
					Require e t	Require e t	Require e t
Waste Generation	Per capita waste generation (gpcd)	500	M	57.80	7. 2	130.74	173.33

Waste Collection	Collection performance (%)	100	MT	57.80	97.92	130.74	173.33

8.2.4 STORM WATER DRAINAGE NETWORK

The city is having no system for storm water drainage network. The demand for such network is calculated till 2031. Since as per standards, total length along roads of the city must be covered with drains, the total length of drain required by 2031 comes out to be 332 KM.

Table 75: Pr jecti s a d Require e ts St r Water Drai age Syste

Service Head	I dicat r/Sta dard evel		Service evels a d Require e ts				
	I dicat r	Sta dard evel	U it	Existi g (2009)	y Year 2011	y Year 2021	y Year 2031
					Require e t	Require e t	Require e t
Network Reach	Road length covered with drains (%)	100	KM	0.00	188	251	332

8.3 SOCIA INFRASTRUCTURE REQUIREMENTS

8.3.1 EDUCATION

Education sector basically caters to the young age group of the population and the projections made here are based on the norms and standards set up in UDPFI Guidelines, just like the norms of different aspects of physical infrastructure.

In case of Senior Secondary Schools, the requirement comes out to be 46 as per standard of 1 school for 7500 persons. At present 8 senior secondary exists. In case of Specialised Schools, there is no school for handicapped children at present in Batala. Taking standard of one school for 45000 persons, the requirement comes to be 8 till 2031.

As per UDPFI Guidelines, one college per 1,25,000 population is required. The city has 4 colleges and according to standards, no future college is needed till 2031. Further, a polytechnic/Industrial Training Institute (ITI) is assigned for every 10 lakh population. The existing two technical institutes are sufficient for the projected population till 2031.

8.3.2 HEA TH CARE FACI ITIES

In case of health institutions, a General Hospital of 300-500 beds capacity would be required by 2021, taking into consideration its standard of serving a population of 2,50,000 There is a Civil Hospital in the city. It is of 50 beds capacity, which needs to be upgraded. Moreover, 3 more hospital of the level of Civil Hospital would be required by 2031 for the city. 2 Intermediate Hospitals of “B” category with 80-100 beds will also be needed by 2031. As far as nursing homes are concerned, the present number is sufficient to serve even the projected population.

8.3.3 SOCIO-CU TURA FACI ITIES

According to the UDPFI standards, 69 Community Rooms would be required by the year 2031. Presently there is no facility of this level in the city. There is 1 Community Hall and 1 library in the city. 23 such halls would be required by 2031. A Recreational Club is required per 1 lakh population, so 3 such Clubs will be required by 2031. As per standards, a Music, Dance and Drama Centre is required for population of 1 lakh, accordingly 3 such centres would be required.

8.3.4 UTI ITIES /SERVICES

P lice Stati

To maintain law and order and to curb crime in the region, a proper and efficient police system is required. Due importance has been given in UDPFI Guidelines to build a good police infrastructure. There are provisions of Police Stations, Police Posts, District Office and Battalion, Police Lines, District Jail and Civil Defence and Home Guards. All these facilities are there in the city. The requirement of Police Stations by the year 2031 is 4 against the existing 1. Apart from these, a Police Lines exists within city and is adequate to cater the projected population of city.

Fire Stati

A Fire Station or Sub Fire Station is required per 2 lakh population within a distance of 1-3 km from the other one as per UDPFI. There is requirement of one more fire station till 2031 to serve the projected population.

8.4 PARTICIPATORY APPROACH/THINK TANK MEETINGS

8.4.1 CONSU TATIVE MEETINGS

Though the data has been collected from different departments, but to understand the spatial planning and development of Batala at ground level, meetings with different experts/ stakeholders have been conducted. Think Tank established under the Chairmanship of Deputy Commissioner, having representatives from different departments, also became an important part for understanding the problems and potentials.

Meeti g held Ja uary 15, 2009 at Gurdaspur Thi k Ta k c stituted r preparati Master Pla r atala PA u der the Chair a ship DC

During the course of deliberations, following major issues/ suggestions were covered:

- Discussion of Master Plan methodology for 3 towns namely Pathankot, Batala and Gurdaspur.
- Defense authorities must be part of think tank for Gurdaspur and Pathankot.
- Public participation must be taken as keen interest.
- Heritage aspect is never thought of till now, which must be a part of Master Plan.

- Master Plan should cover the things in broad manner, highlighting the issues and providing long term solutions.
- Traffic situation is critical and accordingly Transportation Plan must take care of the congested area, encroachments, etc.
- Strategies for proper development of social infrastructure as medical, recreational facilities, etc. must be framed out while preparing the Master Plan.

Fig. 60: Thi k Ta k Meeti g u der Chair a ship DC

Thi k Ta k Meeti g held July 9, 2009 at Gurdaspur u der the DC

The stakeholders meeting were held at Institute of Hotel Management and Catering, Gurdaspur, under the Chairmanship of the Deputy Commissioner Gurdaspur. In the meeting all stakeholders from different departments were invited, who provided their valuable suggestions to be incorporated in the Master Plans. In case of Batala, the main suggestion given was to create recreational area along Hansali Nallah after cleaning it. This recreational belt along the Hansali Nallah will help to cater the recreational requirement of the residents of Batala city.

Fig. 61: Meeti g regardi g C cept Pla at DTP O ice Gurdaspur

Meeti g held July 29, 2009 with DTP Gurdaspur

The meeting was held with DTP Gurdaspur on the Concept Plan of Batala LPA. The suggestions incorporated in the revised Concept Plan were discussed at the meeting with DTP and accordingly all suggestion were incorporated in the Final Concept Plan.

8.5 SWOT ANA YSIS

Historically, settlements located in Gurdaspur district of Punjab invariably suffer from perpetual neglect and lower level of investment and development. From a central location in North West India, Punjab became a border state. Partition of the country caused enormous damage to this historical city of promise. With its role as industrial capital of Punjab state getting diluted, city gradually lost its premier position to Ludhiana where major industrialized growth got localized.

Based on analytical study of the journey made in the realm of growth and development during last four centuries of its existence, a SWOT analysis has been carried out for the city of Batala illustrating its inherent strengths and weaknesses, opportunities offered and threats faced by

the city both from within and o tside, which have been sed as a framework for redefining the agenda for f t re growth and development of the city.

TRENGTH

The strength of Batala ind strial city can be defined in terms of:

- Premier rban centre of the district with 1 lakh pl s pop lation since 1981.
- M nicipal Co ncil as well as Tehsil Headq arter.
- Ind strial h b of the district with majority of fo ndry ind stries. High degree of workforce employed in man fact ring and trade & commerce.
- To rist destination for local, regional and national visitors. Historical and religio s significance with sites like G r dwara Sri Kandh Sahib, Achaleshwar Temple, Shrine of Brave Haqiqat Rai, etc.
- Strategic location in terms of road and rail linkages, as it is located on H 15 Amritsar–Pathankot Road) and Amritsar-Pathankot Broad Ga ge Rail Line.
- earness to two major cities, i.e. Amritsar and Jalandhar, provides it the chances to share their development benefits.

WEAKNE E

The city of Batala has also n mber of weaknesses, which can be en merated in terms of:

- Border settlement with perpet al threat from neighbo r.
- Haphazard, nplanned and na thorized growth in absence of any stat tory development plan & low investment.
- Overlapping of work of and incoordination among vario s development agencies.
- Ac te shortage of ho sing, along with m shrooming of sl ms and nplanned colonies.
- Poor road geometry and capacity. Crossings with rail line are ca sing traffic congestion
- In the city, 42% pop lation and 60% of the developed area is not served by the water s pply network.
- 22% of the pop lation and 27% of the developed area of co ncil is not served thro gh sewerage network. o Sewage Treatment Plant in the city despite the generation of 17 MLD sewage.
- Absence of storm water drainage.
- Absence of solid waste management strategies despite the generation of 36.9 tons waste daily.
- High degree of environmental poll tion, in terms of air, water, noise and soil, specially beca se of ind strial concentration.

- Absence of tourist related infrastructure such as approach roads, public toilets, drinking water, etc.
- Lack of appreciation on conserving and preserving the valuable heritage for their maintenance and implementation.
- Large scale unauthorized and unplanned sub-division of land and buildings within walled city, in absence of clear policy for the development of Walled City. Delay in decongesting the city core (walled city) and rationalizing policy for its growth and development.
- Existence of non-conforming land uses on a large scale due to mix of industrial and residential areas, besides undesirable location of hospitals and educational institutions.
- Proximity to two most populated cities of Punjab, i.e. Amritsar and Jalandhar, restricts its chances of independent growth as industrial and commercial city.

OPPORTUNITIES

- Major manufacturing and industrial trade and commodity export centre. Linked both by road and rail locally and regionally in the state, and internationally with Pakistan.
- Regaining premier position and becoming the industrial capital of the state of Punjab, through rapid population growth.
- Attracting large investment and generating considerable employment.
- A major tourist destination with increased flow of tourists, both locally and nationally.
- Rapid physical growth and expansion on the outskirts of city in radial directions particularly along the NH-15 Road towards Pathankot and Amritsar.
- Widening and four laning of NH 15.
- Strengthening and widening of major raods of LPA.
- Already existing bypass in west direction.
- Leading educational institute in the city like Baring College, etc. provide a promising academic future.
- Existing Focal Point with many vacant plots provides a good base for further extension of industries.
- Major growth in demand for quality infrastructure in terms of education, health, tourism, trade & commerce, entertainment, housing, etc.

THREATS

Despite inherent strengths, existing weaknesses and available opportunities, city faces numerous threats, which can be identified in terms of:

- Change in the existing geo-political goodwill scenario leading to emergence of a hostile threat perception from the neighbouring countries.

- Low level of investment by State and parastatal agencies in basic infrastructure.
- Absence of enabling environment for leveraging the involvement of private sector.
- Delay in putting in place an effective and efficient mechanism of urban governance and eliminating multiplicity of agencies to check unauthorized, unplanned and haphazard development within and outside the city.
- Delay in placing appropriate framework for proper, preservation and conservation of valuable built heritage.
- Non-rationalization of inter and intra-town traffic and improving/upgrading transportation network.
- Litigations under progress against the construction of byepass and some other roads.
- Ignorance that the pollution caused to Hansali Nallah can be a threat in relation to healthy living environment for the citizens.
- Delay in creating appropriate infrastructures related to tourism, trade & commerce.
- Delay in bridging existing gaps in basic infrastructure and services in and around the city.
- Negligence in addressing issues related to slums, environment and urban poverty.
- Lack of efforts towards implementation of new state and central government schemes, such as UIDSSMT schemes.

8.6 VISION

Based on the outcome of discussions held with various stakeholders, intellectuals, non-government organizations, community based organizations, professionals, elected members and officials of the urban local body, professionals from the Town and Country Planning department, detailed study and analysis made of the past and present growth and development mechanism, it has been observed that Batala as an industrial city has enormous potential for rapid economic and physical growth. Considering the basic creativity of Punjabi Entrepreneurship coupled with availability of high order of technical and professional manpower in and around the city, Batala has high degree of potential to emerge as industrial centre provided required level of support systems, quality infrastructure, user friendly policy options, state of art developmental and institutional mechanisms, etc. are put in place. In order to make Batala grow and emerge as humane, productive, sustainable, eco-friendly, pollution free and vibrant urban centre, the future of the town is envisioned as:

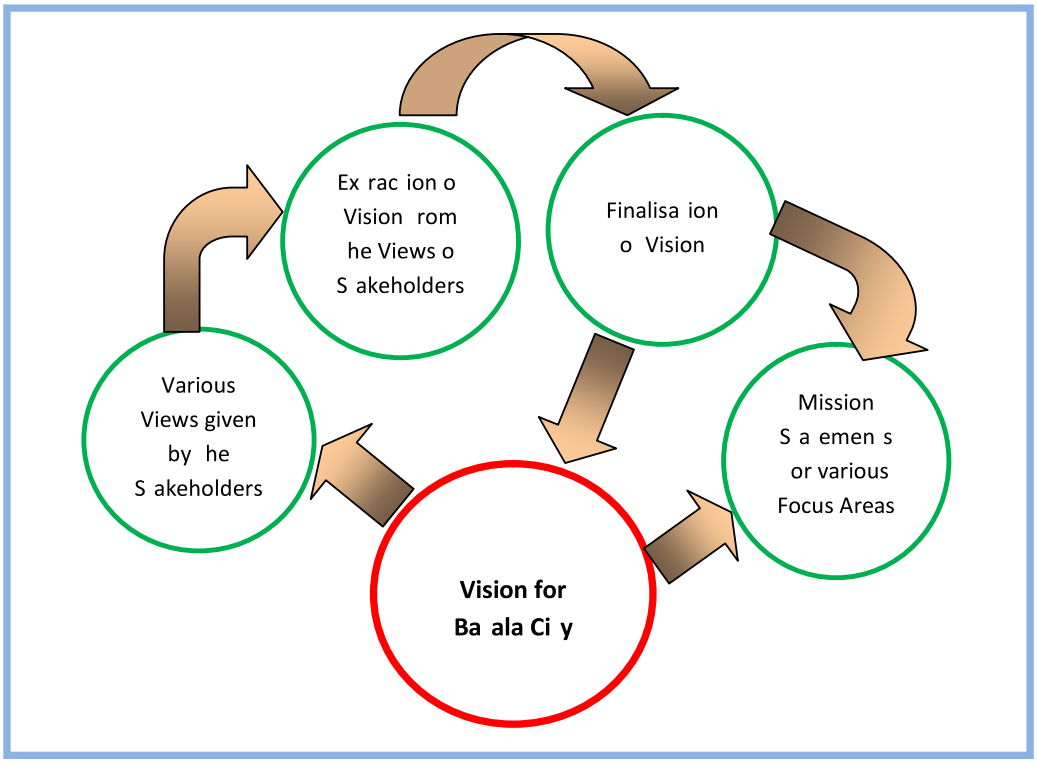


Fig. 62: Visi a d Missi

VISION:

- **atala t be the devel ped as I dustrial hub a d del I dustrial ce tre pr vidi g e pl y e t a d quality livi g t all its reside ts, irrespective the caste, creed, ge der, ec ic a d s cial status, i cludi g p rest p r.**
- The quality living in the town to be achieved through
  - Ensured higher order of better urban governance.
  - High degree of operational efficiency.
  - Higher order of economic productivity.
  - Ensured environmental sustainability.
  - Reduced vehicular and industrial pollution.
  - Rationalized land use pattern.
  - Decongested core areas.
  - Assured quality of higher order of infrastructure and services.
  - Improving traffic and transportation.
  - Assured safety of residents and communities.
- Batala to be culturally, socially and economically vibrant where
  - Every individual has gainful employment.
  - Where each family has access to all basic amenities of life, and

- Where each community is self-contained and self-sustained.

MISSION STATEMENT FOR FOCUSED AREAS:

In order to achieve the objectives and goals enshrined in the vision statement, mission statements for various focused areas have been detailed below:

a) Gr wth Ma age e t

- Promoting planned development through effective city planning.
- Rationalizing land use pattern for effective traffic management and provision of basic services and amenities.
- To rationalize the periurban development.
- To minimize haphazard, unplanned and sub standard growth.
- Making Effective Plan Implementation and Enforcement as integral part of City Planning and Development process.
- Conserving the cultural fabric.
- Making growth management process more participatory.
- Review of Development Plan on regular basis.
- Improving system of building plan approvals through use of IT and GIS.
- Making urban development self sustaining.
- Leveraging growth management process for resource generation.

b) Urba E vir e t

- Urban environment to be made integral and essential part of city development process.
- Environment to be made integral part of planning and decision making process.
- Effective treatment of all sewage generated within the city.
- Improving solid waste management.
- Creating/developing new and improving existing gardens, parks and open spaces.
- Promoting better water management.
- Making city free from air, water, land and noise pollution.
- Promoting optimum use of natural resources.
- Minimizing growth of slums/shanty towns and improving existing slums.

c) Urba Services:

i) Water Supply

- Ensure safe, equitable, reliable, adequate and quality water supply.
- Ensure 100% coverage of the town.
- Improve operational efficiency of water supply system by minimizing wastage.
- Remove illegal water connection and Public Stand Posts (PSP).
- To minimize the ground water consumption by promoting water conservation.

- To promote rainwater harvesting and recycling of water.

ii) Sewerage a d Drai age

- Total coverage of the town with sewerage and drainage system including slums.
- To promote eco-friendly decentralized treatment system.
- To minimize quantum of sewage disposal through water saving appliances.
- To promote recycling of waste water.
- To promote protection of natural water bodies.
- To promote optimum use of storm water as an alternate source of water supply.

iii) S lid Waste Ma age e t

- To improve the solid waste management in the town using best practices.
- To use PPP model for Solid waste management.
- To promote "Recycling" of SWM.
- To make solid waste management people centric.
- To integrate solid waste disposal and rag pickers for efficient solid waste management and resource/employment generation for poor.
- To create awareness for minimizing solid waste generation.

iv) St r Water Disp sal

- Revive the storm water disposal system of the town.
- To improve the capacity of the existing water bodies.
- To make optimum use of storm water for reducing the demand of fresh water.
- To improve the natural water drainage channels by desilting and stopping the sewage water from entering the channels.
- Construction of storm water disposal channels and integrating each and every house into the system.
- Integrating the storm water channels into development using land suitability analysis.

v) Tra ic a d Tra sp rtati

- To improve safety, mobility and efficiency of inter and intra city traffic.
- To segregate and rationalize the inter and intra city traffic.
- To improve road geometry and road capacity of existing network.
- To use planning as a mechanism for rationalizing and minimizing traffic.
- Minimize pollution caused by traffic and transportation and improve environment.
- Create new road network and improve the existing network to promote operational efficiency of traffic.
- To review the existing activity pattern to rationalize the traffic.
- To provide adequate parking spaces to remove traffic bottlenecks.

vi) Urba P r

- Making urban poor integral part of the planning, growth and development process.
- Improving accessibility to basic services.
- Providing better living environment and option.
- Creating enough employment opportunities for improving financial status.
- Providing adequate opportunities for creating affordable shelter duly supported by basic services.
- Empowering poor to be integral part of development process.
- Poverty alleviation programme to be made more focused and poor centric.

vii) S cial I rastructure

- To provide adequate sites based on norms for various social infrastructures.
- To involve private and corporate sectors for providing/developing and maintenance of social infrastructure.
- To make optimum use of mechanism of planned development for developing adequate and quality infrastructure.
- Promote community participation in maintenance and upkeep of social infrastructure.

viii) Urba G ver a ce

- To make urban local body a role model for good governance.
- To create appropriate and effective mechanism for grievance redressal.
- To improve and strengthen the urban local body in terms of structure and quality manpower and resources.
- To create appropriate mechanism for promoting higher interface between ULB and communities on regular basis at ward and ULB levels.
- Making urban governance citizen centric.
- Adopting best practices and systems for improving, transparency, grievance redressal and accountability.
- To improve service delivery at minimum cost.
- To effectively involve NGOs/CBOs.

CHAPTER 9
THE MASTER P AN

9.1 COMPONENTS OF THE MASTER P AN

The Master Plan defines the broad proposals of city growth and development besides allocation of land for various urban uses including residential, industrial, commercial, recreational, public and semi-public, etc. It also defines existing and proposed road network, street pattern and traffic circulation system for the area included in the Master Plan; areas to be preserved and conserved; development of areas of natural beauty and landscape together with preservation of features, structures or places of historical, architectural interest and environmental value, etc. Master Plan also includes different zones into which LPA can be subdivided besides defining Zonal Plan and Zoning Regulations for regulating development within each zone. Accordingly, the Master Plan is an important instrument for guiding and regulating comprehensive development of a city and its Local Planning Area over a period of time and contributing to its rational and planned development, both conceptually and operationally. In this context, Master Plan of Batala LPA comprises five main components as follows:

- Existing Land use Plan.
- Proposed Land use Plan.
- Proposed Traffic and Transportation Plan.
- Report containing detailed study and analysis of existing status and future development strategies for the city and Local Planning Area.
- Development Control Regulations.

9.2 MASTER P AN O JECTIVES

The long term vision and mission statements would require spatial land use planning, infrastructure planning, financing and implementation, effective management and operation of infrastructure services and enforcing plan proposals. The objective of the Master Plan is to create enabling Spatial and Land Use Planning framework to achieve the Vision of Batala LPA. More specifically, following are the objectives framed for Batala LPA:

- To make Batala city as the most vibrant economic centre to promote balanced regional growth.
- To make land allocation in an environmentally benign fashion.
- To minimize haphazard, unplanned and sub-standard growth and development of the city and to achieve planned growth to create healthy environment.

- To effectively manage the traffic and transportation within the city through the mechanism of rationalizing the landuse pattern defined in the Master Plan.
- To make land available for public purposes.
- To minimize travel within the city by creating self contained and self sufficient communities.
- Adequate parking spaces to be created in the town as an integral part of commercial, industrial and institutional planning and development process.
- To rationalize the distribution of physical and social infrastructure in order to ensure appropriate quality of life to all the residents of the city.
- To identify man-made and natural heritage and to make heritage conservation as integral part of the city planning and development process.
- Rationalizing and redefining existing land use and development pattern of the city.
- Rationalizing the existing land use pattern through a well defined system of land uses, zoning regulations and development controls.
- Minimizing haphazard and unplanned growth through a well defined land use pattern.
- Promoting future growth of the city based on the principle of allocation of land uses and principle of clustering.
- Adopting a strategy of compact development based on phasing in order to optimize the available land resource and minimizing the cost of infrastructure.
- Adopting well defined and stratified density pattern for different residential areas with highest density allocated in the core and minimum density in the periphery of the city.
- Leveraging the potential of existing and proposed industrial zones.
- Rationalizing the traffic and transportation network within the planning area in order to minimize the conflict between inter and intra city traffic.
- Minimizing concentration of public amenities and services, and promoting equitable distribution in the planning area through well defined norms.

9.3 ASIC CONSIDERATIONS FOR PROPOSA S

While preparing the Proposed Land Use Plan, a detailed study and critical analysis has been made of the notified Batala Local Planning Area in terms of the demographic profile, economic status, social stratification, physical growth and available physical & social infrastructure in the local planning area. Analysis has also been made of the existing land use plan besides the study of the existing problems and future growth potential of the city. Accordingly, the basic considerations for formulating the Master Plan for Batala LPA revolve around:

- Integrating the development of urban and rural settlements in order to minimize migration and promote economic and physical development of the rural settlements
- Leveraging the potential of available regional road and rail linkages/ networks with Amritsar, Pathankot, Jalandhar, Jammu and Himachal Pradesh.
- Rationalizing the growth and development along N.H-15 and roads leading to Jalandhar, Shri Hargobindpur, Dera Baba Nanak, Qadian, Kahnuwan
- Decongesting the core area of the city by selective dispersal of activities.
- Rationalizing the landuse pattern in order to promote better relationship between living, working and circulation.
- Promoting self contained communities based on prescribed infrastructure norm for better social interaction and minimizing traffic
- Preserving valuable agricultural land by promoting compact development.
- Creating a well defined hierarchy of traffic and transportation network besides rationalizing the inter and intra-city traffic.
- Providing adequate land for different urban uses including residential, commercial, industrial, public/semi public, etc. for projected population to be housed.
- Providing state of art socio economic infrastructure on well defined norms for promoting quality of life.
- To rationalize the industrial growth and development including spatial distribution.
- Leveraging tourism and administrative status for making Batala as the regional hub.
- Enhancing the ambience of Gurudwara Kandh Sahib and Dera Sahib, Shamsher Khan Tomb and Baradari Garden in terms of regulating development around these sites and providing a well defined approach road with elements of urban design.
- Creating adequate open spaces, parks and places for leisure.

9.4 PROPOSA S

9.4.1 PROPOSED AND USE P AN 2010-2031

The Draft Master Plan of Batala LPA bearing drawing no. DTP (G) 22/2010 Dated 14.12.2010 was published on 17/02/2011 for inviting public objections/suggestions. The objections/suggestions received were discussed in detail by the PRTPD Board in its meeting held on 9th October, 2012. Based on the decision of the Board, the Master Plan of Batala LPA was approved with following modifications in the Draft Master Plan:

1) Deletion of Logistic Hub from Draft Proposed Landuse Plan and its provision in the Development Control Regulations (DCR). The area has been earmarked for industry, as per existing use, and mixed landuse.

2) Reduction of 30 m green buffer along both sides of Hansli Nallah to 5 m in the portion falling within municipal limits and 10 m in the portion falling outside municipal limits.
3) Addition of industries adjusted after discussion on the objections received on the Draft Master Plan.

The broad landuses in the Proposed Landuse Plan of Batala LPA, based on the decisions taken at various meetings, are as under:

Table 76: Pr p sed a duse Distributi atala PA, 2031 (based Drawi g N . DTP(G) 15/2012 dated 23.10.2012)

Sr. N .	a duse	Pr p sed Area (Ha)	%age Urba isable Area	%age PA
A)	**Urba isable Area**			
1	Residential	3464.92	47.91	20.84
2	Commercial	108.93	1.51	0.66
3	Mixed Landuse	1904.23	26.33	11.45
4	Industrial	556.69	7.70	3.35
5	Recreational	258.24	3.57	1.55
6	Government	17.84	0.25	0.11
7	Public & Semi Public	61.57	0.85	0.37
8	Utilities & Services	0.44	0.01	0.00
9	Traffic & Transportation	860.01	11.89	5.17
T tal Urba isable Area		**7232.87**	**100.00**	**43.51**
)	**U urba isable Area**			
10	Agriculture	9239.66		55.58
11	Water Bodies	152.47		0.92
T tal U urba isable Area		**9392.13**		**56.49**
T tal PA (A +)		**16625**		**100.00**

The Master Plan provides for 43.51% of the notified LPA area proposed under urbanization, whereas, Agriculture and Water Bodies constitute the balance 56.49% left over as unurbanised. Thus, it can be said that the Unurbanisable Area is larger than the Urbanisable Area. Because of this, the area under the Agriculture use is largest and covers more than half of the LPA, i.e. 55.58%. The general view for leaving over this much amount of land is the need for preserving precious land resource and minimizing its use under urbanization. Residential component is the second largest and constitutes almost 1/5th of LPA (20.84%), followed by Mixed landuse (11.45%), Traffic and Transportation (5.17%), Industrial (3.35%), Recreational (1.55%), Commercial (0.66%), Public and Semi Public (0.37%) and Government (0.11%). Water bodies, such as Hansli Nallah, constitute 0.92% area of LPA.

Looking at the Urbanisable Area provided in the Proposed Landuse Plan, majority of landuse is under Residential component (47.91%), followed by Mixed landuse (26.33%), Traffic and Transportation (11.89%), Industrial (7.7%), Recreational (3.57%), Commercial (1.51%),

Public and Semi Public (0.85%), Government (0.25%), and Utilities and Services (0.01%). However, these areas of landuse are scheduled to undergo numerical changes, when the detailed planning of the different areas shall be taken up while framing schemes for implementing the Master Plan. The area under Residential/Industrial/Mixed use shall be considerably reduced with area under Commercial, Traffic and Transportation, Recreational, Public and Semi Public, and Utilities and Services increasing proportionately. The planning of the Residential, Industrial and Mixed landuse areas shall be based on the planning norms and standards, and the landuse pattern defined for such uses in the Development Control Regulations and the provisions of legal framework governing the planning of these uses. Accordingly, the exact percentages under different landuses shall be available after the entire planning of the urbanisable area is carried out.

The Urban Estate developed by PUDA, the sites provided in Focal Points and the Mandi Townships developed by Punjab Mandi Board have been retained as integral part of the proposals besides projects already approved by the State Government. In addition, sites which have already been approved for a particular use on designated areas, have also been included in the proposed land use plan.

atala Urba isable Area 2031

The Batala LPA extends to an area of 16625 hectare, out of which municipal area is 3273 hectare. Thus, municipal area constitutes 19.69% of the LPA. As per the data available from the Existing Landuse Plan, only 1474 ha (45%) of the municipal area is developed, thus leaving behind almost 1800 ha or 18 sq. km. area. Since, the municipal area of Batala already has more land left as undeveloped than developed, the proposed urbanisable area for the year 2031 first covers this remaining undeveloped area. That is why, the urbanisable area for the target year 2031 worked out as 7232.87 hectares to accommodate the projected population of 3,46,651 persons, is only 43.51% of the total LPA. The Urbanisable Area proposed would also take care of the physical growth, which is likely to take place by the year 2031 due to the potential generated by the new road network, economic opportunities generated in the city, specially in the field of industries, and its close proximity with Amritsar metropolis.

The urbanisable area has been extended taking into consideration the pattern and direction of development along major transport corridors while proposing the land use. The proposed urbanisable area extends beyond the municipal council limits to accommodate the future development. While preparing the Proposed Landuse Plan for the Local Planning Area, care has been taken to redefine the land uses in terms of residential, commercial, institutional, etc. A detailed description of the proposals identified and envisioned for each of the landuse for the planning year 2031 is as follows:

RESIDENTIA

The Residential Zone proposed in the Master Plan includes the existing residential areas as well as new area for accommodating the future population. Accordingly, the residential area extends beyond the existing developed area. In order to accommodate the additional population, residential area proposed is of the order 3464.92 ha. The existing residential area is to the tune of 751 ha, thus around 2710 ha additional area is proposed. Thus, landuse under residential category in the Master Plan has been kept on higher side considering the pattern of growth, need for decongesting the core area, compatibility of land uses and compactness of development, besides meeting the demand of unforeseen development. Moreover, as mentioned earlier the area under Residential use shall be considerably reduced with area under Commercial, Traffic and Transportation, Recreational, Public and Semi Public, and Utilities and Services increasing proportionately, when the detailed planning of the different areas shall be taken up while framing schemes for implementing the Master Plan. Accordingly, the exact percentages under different landuses shall be available after the entire planning of the urbanisable area is carried out.

Reside tial De sities

In the Proposed Landuse Plan, care has been taken to accommodate already existing residential area within the Batala LPA. However, residential area has been rationalized keeping in view the existing distribution of population in the city and the density pattern to be achieved in the Master Plan. The entire residential component in the LPA is proposed to be developed on two distinct density patterns i.e. residential area within the existing municipal limits, and residential area between existing municipal limits and proposed urbanisable limits. The residential area within the urbanisable limit shall be confined to residential zone defined in the proposed landuse Plan. The permissible residential density in the residential zone within the existing Municipal Council limit shall be not exceeding 300 persons per acre, whereas residential density between existing municipal limits and proposed urbanisable limit shall be not exceeding 200 persons per acre as defined below:

Table 77: De sity i Reside tial Z es

Sr. N .	Reside tial e	De sit
1	Residential area falling within existing munici al limits	300 Persons Per Acre
2	Residential area falling between existing munici al limits and ro osed urbanisable limits within the LPA	200 Persons Per Acre

Residential com onent outside the LPA shall be restricted to the area around the existing rural settlements and u to a distance of 100 meters around the village *phirnis* in order to accommodate the natural growth of o ulation in the rural settlements. It is also ro osed that

all the villages falling outside the proposed urbanisable limit and within LPA boundary shall be developed in a planned manner.

In addition to working out the densities, housing needs for all income groups are required to be assessed for achieving the target of housing for all. The existing structure of the city and its housing profile also needs detailed consideration. The existing pattern of housing needs to be changed from plotted development to a mix of plotted and flatted development in order to conserve the valuable agricultural land. To encourage flatted residential development and to preserve the valuable agricultural land, residential density @ 60 dwelling units per acre shall be permissible for standalone group housing projects.

Considering the acute shortage of agricultural land in the state of Punjab and to preserve the valuable agricultural land, the two level density pattern of not exceeding 300 and 200 persons per acre has been adopted for the residential component depending upon their location. However, in order to achieve this density, different strategies have been proposed in the Master Plan. The town core area, which is highly congested and has high population density, is proposed to be decongested. This decongestion is proposed to be achieved by providing different affordable options of housing the population shifted out of the core area. In addition, core area will be decongested by shifting trade and commerce of the higher order taking place within the residential area. The area available shall be used for widening the road network and for creating open spaces.

The area outside the existing municipal limits, presently developed as low density area, shall be upgraded to achieve the defined density pattern of not exceeding 200 persons per acre outside the existing municipal limits but within the proposed urbanisable limits. All the residential areas shall be provided with socio-economic and physical infrastructure based on the norms defined in the Master Plan. All these areas shall also have basic amenities and adequate open spaces to ensure appropriate quality of life. The areas that are deficient in terms of infrastructure and services shall be upgraded to the desired level by framing development schemes and undertaking detailed planned development of the areas.

However, in order to preserve the basic rural character of the area outside urbanizable limits, it is proposed to permit the residential component within 100 meter belt defined outside the village *phirni* in order to meet the land requirement of housing of the population going to be added in next two decades in these rural settlements. All rural settlements forming part of the proposed urbanisable area shall be integrated with the proposed landuse and developed on the pattern defined for such landuses in the Development Control Regulations and Zoning Regulations.

While achieving the target of affordable housing for all, the housing needs for all income groups have been assessed. Further, the existing spatial distribution of housing areas and the housing profile has also been critically looked into. Since the town has been growing horizontally, most of the residential development shall be in the category of plotted development. In order to protect the valuable agricultural land, it is proposed to promote compact development in the shape of flatted development.

The housing strategy worked out to provide affordable housing to all include the active participation of public, private and cooperative sectors. For development of new residential areas, it is proposed to actively involve private and cooperative sector in the residential activities by granting liberal permissions and by adopting single window clearing system. In order to provide affordable shelter to economically weaker section of the society, it is suggested to increase the quantum of reservations already existing in the PAPRA. The reservation for EWS housing should be available in all residential development undertaken/permitted by the state government.

Looking at the pattern of residential development, it has been observed that most of the development is haphazard and unplanned. The area available under roads is minimal with no open spaces available in such development. Even the sites for basic amenities are missing. This has resulted in high degree of congestion and absence of basic amenities in the residential zones. In order to rationalize the growth and minimize the mushrooming of unauthorized colonies in the LPA, care will have to be taken to provide sufficient land at affordable cost to all categories of present and future residents of the town. The existing unauthorized colonies need to be reviewed based on a well defined policy, which should consider provision of basic essentials to the residents and ensuring adequate quality of life. Further, all the residential colonies shall be developed on the principle of self contained and self sufficient in basic day to day needs of the residents with provision of all basic amenities, services, infrastructure, etc. on the prescribed norms.

H usi g r Ec ically Weaker Secti

While proposing new residential area, housing for the Economically Weaker Section (EWS) has been included as an essential ingredient of the Master Plan. Considering that more than 90% of the housing shortage falls in the category of LIG and EWS housing, it will be critical to provide adequate land for them at the most affordable price. In addition to providing majority of plots in this category, it is essential that certain percentage of land/plots/ flats are provided for LIG/EWS housing in all housing projects sanctioned by the State Government. In addition, existing slums would also require detailed study and analysis before taking

decision with regard to their upgradation, relocation or redevelopment. The strategies for ensuring adequate supply of land have been detailed out separately in the Master Plan.

COMMERCIA

Despite the fact that Batala is a Class I city, it does not have a well defined pattern of exclusive/dedicated commercial development. Existing pattern of development is in the shape of mixed land use with commercial shop located at the ground floor and residential area located on higher floor. All major streets have been converted into the linear commercial development in the shape of *bazars.* These *bazars* are highly congested without any provision of parking and footpaths. Existing day to day needs of the population are being met by the commercial activities located as part of the residential areas. Since most of the commercial activity at present is concentrated in the core area of the city and along the major road network passing through the city, existing pattern of development of the city in the shape of mixed land use is proposed to be retained and further developed in the Proposed Landuse Plan. This pattern would help not only in dispersal of the economic activities from the various parts of the city leading to better living and working relationship, but will also help in rational development of commercial area. The commercial area is proposed to be developed through a well defined system of Zoning Regulations and Development Control Regulations provided in the Master Plan, which takes care of the needs of commercial area development including parking, etc. The commercial activities are proposed to be created based on the well defined norms as integral part of residential area development. The hierarchy of commercial areas shall be defined in the Zonal Plans prepared for different zones delineated in the Proposed Landuse Plan. The area proposed under commercial use in the Proposed Landuse Plan is amounting to 108.93 ha, which will increase when the planning at the local level will take place.

MIXED ANDUSE

Looking at the existing pattern of growth and development, it has been observed that the major road network existing in the Local Planning Area has attracted lot of haphazard, unplanned and unregulated growth in the shape of ribbon development. This pattern of development has been observed along the roads both within the municipal area as well as area outside the municipal limits. Despite the availability of legal framework prohibiting/restricting the growth and development along the major road network, such developments have become an integral part of Indian urban growth and development scenario. This pattern of development has promoted numerous problems in terms of infrastructure, quality of development, etc. and for the smooth movement of the traffic and transportation. In order to rationalize the growth and to ensure provision of adequate parking and other supportive

infrastructure, it is proposed to permit mixed landuse development along the major road network applicable within as well as outside the municipal limits as shown on the Proposed Land Use Plan and detailed below:

1. **NH-15, Ri g R ad (R1):** A 300 m deep mixed landuse zone has been proposed on both sides of the NH-15, and the outer side of the existing and proposed portions of the Ring Road falling within the Batala LPA.
2. A 200 m deep mixed landuse zone has been proposed on the either side of the entire length of the following roads falling within the Batala LPA outside the municipal limits:

(i) Batala-Kahnuwan Road.
(ii) Batala-Qadian Road.
(iii) Batala-Sri Hargobindpur Road.
(iv) Batala-Jalandhar Road.
(v) Batala-Aliwal Road.
(vi) Batala-Dera Baba Nanak Road.

The position of mixed landuse zones defined above has been indicated on the Proposed Landuse Plan of Batala Master Plan. The area carved out by these mixed landuse zones 1904.23 ha, thus covering more than 1/4th of the Urbanisable Area and making it the second largest landuse after residential. The development within these zones shall be governed by the Development Control Regulations/ Detailed Schemes prepared for the zone. However, in order to maintain the character and continuity of the belt, mixed landuse shall continue to be permitted along these roads in the portion falling within the Municipal Council limits.

In the area zoned for mixed landuse, all kinds of landuses, which are compatible, shall be permitted. However, the uses, which are not compatible, shall not be permitted in this area. Red and Orange category industries will not be permitted in this zone. The proposed mixed landuse will not only ensure dispersal of the economic activities in the various parts of the areas but would also help in rational development of area along the major roads/corridors. In addition, it will also promote better living-working relationship, minimizing travel demand in the city, making it more energy efficient and environmental friendly. The area will be developed through a well-defined system of Zoning Regulations and Development Control Regulations provided in the Master Plan, which would take care of the critical needs of infrastructure/services including parking, etc.

INDUSTRIA

Batala is one of the important industrial city of Punjab state, which is apparent from share of industrial use in existing landuse. The industrial use constitutes about 556.69 ha, i.e. 7.7%, of the developed area. Therefore, in order to retain its character and to provide more economic

opportunities to the existing and future population of the city, more area is proposed to be added to the already existing area in the city. Accordingly, industrial area in Batala is proposed keeping in consideration the existing situation.

Two pockets of industrial areas have been proposed as shown on the Proposed Landuse Plan. First pocket of the industrial area is proposed as an extension and integral part of existing industrial area along Focal Point on NH15. This pocket is located in the direction of Amritsar and is divided into two parts by the Ring Road. The second pocket of industrial area is also proposed on NH15 towards Gurdaspur in the village Surjit Singh Wala as an extension of the Batala Sugar Mills.

In addition, all the existing industrial clusters identified in the city are proposed to be retained as such in the Master Plan. Accordingly, existing industrial areas on Kahnuwan Road, Bhullar Road, Viswakarma Road, NH-15(Amritsar-Pathankot Road), Railway Road, Dera Baba Nanak road, cluster outside Ohri Gate and opp. 132 KV Substation, have been retained as such in the Proposed Land Use Plan. It has been also observed that large number of manufacturer of machinery, agriculture implements and machine tools are spread over the entire city. As these industries does not fall in orange and/or red category, so such type of existing industries will be allowed to continue at the existing site subject to the fulfillment of the norms and conditions prescribed by the PPCB. However their future upgradation/enhancement, if any, shall be permitted only within the existing premises, subject to the prior clearance of the competent authority, and no further extension of these industries will be allowed.

Since the economy of Batala is largely based on Industrial and agriculture sector, industrial zone has been provided to enhance this character. This zone will promote the establishment of new small/medium/large scale industrial units by providing developed plots supported by required infrastructure. Planning of the industrial area will be governed by the guidelines defined in the master plan. On the other hand, the growth and development of existing industries shall be governed by the regulations as detailed out in Development Control Regulations.

The pattern of industrial zone would help in promoting industrial clusters supported by well defined infrastructure and to provide space for attracting future industries and to regulate the clustering of industries in this area. However, it has been observed that in the existing land use some stretches have been shown as Industrial mix landuse, meaning industrial units are working thereby at ground floor, while the first/higher floors are being used for residential purpose. Considering the non conformity of the residential and industrial landuses, they are proposed to be rationalized.

RECREATIONA

Batala suffers from lack of open spaces and recreational areas. In order to bridge this gap, well planed hierarchy of open spaces/recreational areas is proposed to be developed within the LPA. An area of 258.24 ha has been left over for this use in the Proposed Landuse Plan. The norms and standards for such facilities have been defined in the master plan. These facilities at the local level shall be developed as integral part of the planning of residential, commercial and industrial land uses.

Creati eisure Valley

Considering the large scale deficiency of open spaces, it is proposed to develop a leisure valley along the Hansali Nallah on both sides passing through the centre of the city. Considering the existing status of development along the Hansali drain, width of green belt shall be 5 m within the municipal limit and 10 m outside the municipal limit. Further, a 10 m belt/buffer is also proposed along all the remaining canals, distributaries and drains for the portion falling outside municipal limits, while it will be 5 m for the portion falling within the municipal limits. The belt will include well defined system of landscaping, footpaths and other recreational activities. No commercial activities shall be permitted in this zone. The portion of Hansali Nallah passing through the urbanisable area shall be converted into a *pucca* drain carrying clean water. No industrial and residential discharges shall be permitted in the drain. Apart from the provision of green belt along the water bodies, a 15 m green buffer is also provided between the Industrial Focal Point and the adjoining residential area.

Devel p e t Aliwal

Aliwal, which is just outside the planning area, is suggested to be developed as a major recreational area on the pattern of Madhopur (near Pathankot). Due to its scenic beauty and existence of large number of water channels, the area has the potential to be developed as the major tourist and recreational centre. Already the area is visited by large number of people due to its close proximity to Batala.

Heritage a d T uris

Devel p e t Achal Sahib

Achal Sahib, which is an established tourist centre because of its historicity and religious centre for both Hindus and Sikhs, is proposed to be developed as one of the major tourist/ religious centre, considering its close historic connection with the city of Batala. The area has important religious buildings, like Achal Sahib Gurudwara and Achaleshwar Temple, besides large water bodies, and is visited by large number of people on daily basis. *Melas*/festivals are organized on regular basis when the attendance is much larger. The area suffers from basic amenities and haphazard development. Considering its importance, a detailed scheme for the

development of t is area needs to be prepared in order to leverage its potential as t e major tourist/ religious centre.

Moreover, two istorical sites in t e Batala city including S ams er K an Tomb and Baradari Garden lying on t e Jaland ar Road as been declared as Protected Monument by t e Government of India, Department of Culture, and Arc eological Survey of India. T ese monuments ave been declared of national importance under t e Ancient Monument and Arc eological Sites and Remains Act, 1958.

Sha sher Kha 's T b

T e S ams er K an's Tomb stands on a raised platform surrounded by a low wall aving bastions in t e corners. T e tomb is an octagonal structure crowned wit a low dome. T e spandrels of t e arc es ave geometrical designs. It is oused in an area of 5.36 Acres. T e interior walls as well as t e e terior of t e tomb are ric ly adorned wit paintings depicting floral, geometrical and calligrap ic designs. T e decoration is intact on t e interior, but only its traces ave remained on t e e terior.

Fig.63: Sha sher Kha T b

Keeping in view t e istorical, aest etical and arc itectural values of t is site, t ere is immediate need to pay serious attention for t e conservation. Recently, t e ASI ad undertaken repairs to restore its old glory. Preservation work as been done on its interior as well as e terior walls. T e surroundings of t is monument too ave been beautified. Tomb is surrounded by t e lus green garden on t e Mug al pattern wit all t e pat s leading to t e tomb. T e tomb as t e potential to be developed as major tourist and recreational centre for t e city as well as t e region.

aradari Garde

Baradari Garden was t e residential palace of Ma araja S er Sing . It ad t e distinction of being located in a water body aving an area of 16 acres. T e palace was connected t roug a tunnel to anot er palace of S er Sing , w ic is now in t e possession of t e B C College. Ma araja S er Sing used to old meetings of is courtiers in t e garden. Its water reservoir was built by S ams er K an, w ile t e beautiful Baradari in t e centre of t e tank was constructed by Ma araja S er Sing . T e palace is a square room in t e centre of a pavilion wit a passage. T e entry to t e first floor is t roug a staircase wit

Fig. 64: aradari Garde

concave-shaped steps on the north-eastern canal. Jal Mahal (Baradari Garden) has eight doors in the lower part of the building and four in the upper storey. The inner wall contained beautiful art glass carvings and wall paintings. However, major parts of the paintings have been erased or damaged. The roof of the pavilion has also fallen. The water body has ceased to exist and the area is now occupied by wild growth. Despite the fact that the building has been declared as the Protected Monument, no step has been taken to restore its old glory. The building has a great potential of being developed as the major recreational and tourist centre. Accordingly, it is suggested that a detailed schemes for its preservation, conservation and development needs to be prepared on priority. The growth and development is proposed to be integrated with the development of the city.

As per the recent amendments, an area up to 300 meters around the protected site have been declared as the "Regulated Zone", out of which first 100 meter belt is declared as the 'Prohibited Zone', where no new construction is permitted. Whereas, remaining 200 meter belt is designated as "Regulated Zone", where all construction/development are required to be regulated through a well defined system of development. Accordingly, it is proposed to develop a detailed development of the area including the 300 meter belt on priority.

Strategies r Devel p e t Walled City

Walled City is the heart and soul of Batala, housing majority of population and majority of economic and social activities. It is also container of religious heritage involving Gurudwara Kandh Sahib and Dera Sahib, which have connection with the first Sikh Guru Shri Guru Nanak Dev. The Walled City has 12 Gates with pattern of circulation defined by narrow roads and streets. The growth and development of Walled City is marked by dualities and contradiction with high degree of congestion, obsolescence, haphazard and unplanned development. The area suffers from lack of amenities and open spaces. Quality of life prevailing in the walled city is of lower order. Majority of the commercial activities are located along the congested and narrow *Main Bazaar,* including *Chakari Bazaar and Tibba Bazar,* etc., which run north to south of the city providing connectivity with NH 15 and other important roads at Gandhi Chowk. This bazaars needs to be taken up for redevelopment as the major project of development for minimizing majority of problems prevailing within the walled city and to give a new direction and theme of development to the city of Batala. These bazaars have already been proposed to be widened while retaining their basic character. The need to be developed on the pattern of approach road to Golden Temple.

Keeping in view the special character of the Walled City and its pattern of development, special regulations for the development of area falling within it needs to be formulated on priority, in order to ensure decongestion of population and decongestion of activities, for

creating more open spaces and improving the quality of life by making available land for physical and social infrastructure. Strategies would also include pedestrianisation of the congested area of Walled City, minimizing change of land use, minimizing sub-division of land, preserving and enhancing the ambience of buildings of historical, cultural and religious importance, besides rationalizing the traffic and transportation. Wholesale trade located within the Walled City needs to be shifted to the defined locations. The Circular Road existing around the Walled City needs to be widened to divert traffic from the core of the city. In addition, parking spaces need to be created outside the Walled City for making the core area free from parking/ problems of congestions.

The area around Chauraha Chowk, where Gurudwara Kandh Sahib is located, needs to be taken up for redevelopment, considering the historicity of the place being connected with the marriage of Guru Nanak Dev. The development will also include not only Main Bazar, but also the Bazaar connecting Achali Gate-Thathiari Gate. Area around Gurudwara Dera Sahib also needs to be taken up for development on the similar pattern.

GOVERNMENT

Batala town is a sub division of Gurdaspur district too, so it witnesses many government offices. Most of them have been retained in the Proposed Landuse Plan, with area amounting to 17.84 ha. The area will further increase with planning at local level.

PU IC/SEMI-PU IC

This landuse is primarily meant for accommodating educational, health related institutions, etc. meant for public use. The area for such is proposed to be provided as integral part of planning of the residential areas. The norms and standards, based on which these uses will be provided, have been defined in the Norms and Standards section. It is proposed to provide a well defined hierarchy of such facilities within the city in order to meet the basic requirements of the residents.

Batala is known as an established centre of education serving not only the local population but also of the region. It has institutions, which hold regional level significance like Baring Union Christian College, R. R. Bawa College, Guru Nanak College, etc. besides an ITI and a polytechnic. It is proposed to leverage this potential by making Batala as a knowledge hub. In total, 61.57 ha area has been earmarked for Public and Semi Public use, which will further increase while planning at local level.

9.4.2 PROPOSED TRAFFIC AND TRANSPORTATION P AN, 2010-2031

Effective integration of various land uses through a well planned road network with an efficient transport network is the basic need of a realistic Master Plan. The traffic and transportation proposals need to be framed in a manner that it leads to rational growth and

development of town. Various proposals of traffic and transportation described in the chapter, aims at rationalizing the existing road network, creating a well defined hierarchy of roads, redesigning critical areas including road junctions, creating over-bridges, rationalizing the inter and intra city traffic, creating adequate parking spaces, developing well defined interface between different land uses, minimizing delays, etc. This would lead to overall improvement of operational efficiency and minimizing vehicular pollution.

It is important to plan and rationalize traffic and transportation system within any town to minimize the number of vehicles coming on the roads through well defined short and long term policies. The policy option shall primarily include development of an effective public transport system.

R ad Hierarchy

The Traffic and Transportation proposals for Batala LPA revolve around defining a hierarchy ranging from R1 to R8 of road pattern catering to various needs and landuses of the Master Plan. The existing pattern of road development has been found to be radial and concentric. The future pattern proposed is based on strengthening of the existing radial pattern by widening the existing roads. This pattern is further supplemented with a pattern of rings in order to rationalize the traffic movement on the radial roads. Accordingly, 8 radial roads have been superimposed by a ring road. This includes the existing incomplete bypass, which runs from the western direction connecting NH 15 on the southern side and the Batala-Jalandhar Road.

The proposed circulation or transportation network covers 860.01 ha of the area, thus covering more than 1/10th of the urbanisable area of the LPA. All roads mentioned in the proposed road hierarchy will be upgraded as indicated on the Proposed Traffic and Transportation Plan. The proposed hierarchy of roads is defined in the table given below:

Table 78: Pr p sed R ad Hierarchy atala PA (based Drawi g N . DTP (G) 16/2012 dated 23.10.2012)

Categ ry R ad	Descripti	Right Way	Re arks
R1	• Ring Road • NH 15 (Amritsar-Pathankot Road)	60	• High speed and high capacity road. • D al carriage way • Catering to intercity/regional traffic • Minim m openings • Controlled access. • Service lane & cycle tracks • No B ilding Zone of 5 m to be provided on either side of the road reservation.

R2	• Batala-Jalandhar Road • Batala-Dera Baba Nanak Road (portion up to Gandhi Chowk) • Batala-Shri Hargobindpur Road	45	• High speed and high capacity road. • Dual carriage way • Inter and intra city traffic • Highly controlled accesses by providing service road • Minimum openings • Well defined road junctions • Service lanes & cycle tracks • No Building Zone of 5 m to be provided on either side of the road reservation.
R3	• Batala-Qadian Road • Batala-Kahnuwan Road • Batala-Aliwal Road	30	• Medium speed and medium capacity road. • Road will carry both inter and intra city traffic • Dual carriage way • Well defined road junctions • Cycle tracks • No Building Zone of 5 m to be provided on either side of the road reservation.
R4	• Circular road around walled city • Main Ba ar Road from Gandhi Chowk towards Hathi Gate up to existing Ring Road	25	• Road will carry oth intra-city traffic • ootpaths. • Provision of adequate parking where road frontage used for ur ani ation.
R5	Roads other than R4 carrying city traffic within residential areas and Other Roads proposed to e upgraded	18	• Distri utor roads carrying intra-city traffic provided with footpaths
R6	Roads providing access to individual houses	12	• Providing accessi ility at the local level
R7	Cycle Tracks	2-5	• Specially catering to cyclists
R8	Pavement/ ootpath for Pedestrian Movement	1.5-4.5	• Exclusive for pedestrian movement

*Su ject to the provisions of road width specified a ove and the DCR, no road in the LPA will have a width less than 12 m.

** No Building Zone along the Scheduled Roads, as defined a ove, shall e su jected to the notification issued y the State Govt. under the PRTPDA, 1995 (amended 2006) from time to time.

*** No Building Zone provided a ove for all roads falling in the category of R1, R2, R3 and the roads su sequently notified as Scheduled Roads under the PRTPDA, 1995 shall e calculated eyond the proposed ROW defined a ove, and not from the existing ROW.

F tpath

The width of footpaths is listed as elow:

- Minimum width - 1.5 m
- Adjoining shopping frontage - At least 3.5 m
- Longer shopping rontage - Minimum 4.5 m

Width should e increased y 1m in usiness/ shopping areas

C cle Track

The minimum width of cycle tracks should e 2m. Each additional lane, where required, should e one meter. The capacity of cycle tracks recommended is as elow:

Table 79: N r s a d Sta dards Cycle Tracks

Width Cycle Tracks	Width i eters	Capacity (Cycle/hr)	
		O e way	Tw way
Two lanes	3	250-600	50-250
Three lanes	4	>600	250-600
Four lanes	5		>600

Pr p sed Ri g R ad

The existing Bypass in the city runs from NH 15 on one side to Aliwal Road and to Jalandhar Road on the other side. The Aliwal Road portion ends before Dera Baba Nanak Road. It again starts from Dera Baba Nanak Road and runs on the other side till Amritsar-Pathankot Railway Line. The portion further between the railway line and the NH 15 too is missing. The existing length of the bypass is 11.5 km.

In order to utilize the full potential of the existing bypass and to rationalize the movement of heavy intercity/goods traffic between Amritsar and Pathankot, the two above mentioned missing links, i.e. between Aliwal Road and Dera Baba Nanak Road, and Amritsar-Pathankot Railway Line and NH 15, need to be covered. Moreover, it is proposed to extend the bypass from Jalandhar Road till NH15 towards Pathankot side crossing Shri Hargobindpur Road, Qadian Road and Railway Line and Kahnuwan Road. The bypass then, along with the completion of missing links, will become a full Ring Road running all around the Batala city. The Ring Road so completed will distribute the traffic plying between the major radial roads, thereby decongesting the city core and reducing the traffic therein. It will also help in development to flourish evenly throughout the city periphery. Length of the additional portion to be constructed will be of the order of 10.1 kms, including the 1.4 km length of missing links. When completed, Ring Road will have a total length of 23.2 kms, including the combined 1.55 km stretch of a portion of Pathankot side of NH 15 as well as Jalandhar Road.

Upgradati NH 15

The entire Traffic and Transportation of Batala LPA revolves around NH15 (Amritsar-Pathankot Road), which passes through the centre of the town. It is the major road, which connects the city to adjoining urban areas. As per the survey carried out at the local level, right of way of NH 15 has been largely encroached on both sides. The road condition of NH 15 ranges from moderate to bad. In order to improve its capacity and efficiency, it is proposed to upgrade the road. The proposed upgradation of NH 15 includes removing encroachment, improving the existing road condition by metalling, providing signals and street furniture and provision of street lights. It also provides for creating a service lane on either side of the road in order to rationalize the traffic movement on the NH15. The proposed cross section details out the upgradation of the road in terms of carriageway, service lane, parking and landscaping. The plantation of trees will be encouraged all along roads. While coming from Amritsar, NH

15 has been realigned near village Said Mubarak from the point just opposite the diversion of Hansali Nallah to meet the existing bypass at Aliwal Chowk. The alignment will facilitate the shifting of inter city traffic on the proposed Ring Road without entering the municipal (city) area. The proposed alignment envisaged by National Highway Authority of India (NHAI) has been included in the Proposed Landuse Plan.

Pr p sed Rail Over ridges (RO)

The two railway lines, i.e. Amritsar-Pathankot and Batala-Qadian, passing through the city have emerged as major bottlenecks in the movement of the traffic, both within and outside the urban areas. The existing bypass is intersected by the Amritsar-Pathankot Railway Line at two places. In addition, the road leading to Dera Baba Nanak carrying large volume of traffic also crosses Amritsar-Pathankot Railway Line near Batala Railway Station. Further, Batala-Qadian Railway Line also crosses the NH 15. All these crossings create lot of problems causing huge traffic blockages on these roads. At present, there is only one ROB, which has been constructed on Batala-Dera Baba Nanak Road in order to ensure the smooth and uninterrupted flow of inter and intra city traffic. Further, 5 ROBs have been proposed, three on the Amritsar-Pathankot Railway Line and two on Batala-Qadian Railway Line, as shown on the proposed Traffic and Transportation Plan.

Pri rity Pr p sed Railway Over ridges

Since construction of railway over bridges involves lot of capital expenditure, construction of 5 Rail Over Bridges (ROBs) has been prioritized keeping in view the importance of the road, volume of the traffic and traffic congestion in LPA. The most critical crossing at present in city is between NH 15 and Batala-Qadian Railway Line. The railway crossing faces maximum problem of traffic jams. Accordingly, this ROB is placed on the first priority to be taken up immediately. The next in priority shall be the over bridge on the Amritsar-Pathankot Rail Line, where new alignment of the NH 15 will cross the railway line. An ROB is proposed on the intersection of existing bypass and the Amritsar-Pathankot Railway Line too. Next in priority shall be the railway over bridge, which is proposed on the intersection with the remaining portion of the Proposed Ring Road, which is yet to be completed. The ROB along with the proposed portion of the Ring Road will provide a major link between the Dera Baba Nanak Road and NH 15, and thus will reduce the traffic on the portion of these roads falling within the city. The last priority of ROB shall be the intersection of Kahnuwan Road and Batala-Qadian Railway Line. The priority of construction of railway over-bridges has been indicated below:

Table 80: Phasi g RO s i atala PA

S. N.	Pr p sed RO	Phase	Peri d
1	At Junction of NH 15 and Batala-Qadian Railway Line	I	(2010-2017)
2	At Junction of new alignment of NH 15 and Amritsar-Pathankot Railway Line	I	(2010-2017)
3	At Junction of existing Bypass and Amritsar-Pathankot Railway Line (Amritsar side) near Focal point	II	(2017-2024)
4	At Junction of Amritsar-Pathankot Railway Line (Pathankot side) and existing Bypass near village Kala angal	II	(2017-2024)
5	At Junction of Batala-Qadian Railway Line and Kahnuwan Road	III	(2024-2031)

Ju cti I pr e e t

In addition to inade uate road network in the Batala city, it is o served that majority of road junctions have not een properly planned, designed and constructed. This has led to creation of traffic ottlenecks at major junctions of the city, esides causing undue delays and inconvenience to the road users. Delay in movement leads to creation of considera le pollution, due to emission of smoke y the vehicles adversely impacting the uality of life in the city. The congestion at few junctions has also led to large num er of accidents. In order to rationalize the flow of traffic and minimize conflicts at the junctions carrying large volume of traffic, it is proposed to improve the road geometry at seven junctions, which have recorded high rate of accidents. Some of the junctions are located on the existing ypass on the southern and eastern part of the city. One is situated on H 15 in proximity with Railway Station, Bus Stand and Court Complex of the city. The junctions proposed for immediate improvement include

1. Junction of H 15 (Amritsar side) and the existing ypass.
2. Junction of Jalandhar Road and existing ypass.
3. Junction of Dera Ba a anak Road and existing ypass.
4. Junction of H 15 and Jalandhar Road (within city in proximity to Railway Station, Bus Stand and Court Complex)
5. Junction of proposed alignment of H 15 and existing Amritsar-Pathankot Road
6. Junction of Aliwal Road and existing Ring Road
7. Junction of Batala- Jalandhar Road and Batala-Sri Hargo indpur Road.

Pr p sed us Ter i al

As per study made and analysis carried out of the existing Bus Stand in Batala on H 15, it has een o served that location of Bus Stand at core of the city is largely responsi le for creating traffic congestion in the central area. Thus, considering the future growth of the city and increase in the volume of the traffic on H 15 ecause of its widening, it has een proposed to shift the existing Bus Stand on the stretch etween the H 15 and Jalandhar Road as per availa ility of land. The relocation of the Bus Stand will help in minimizing traffic

congestion in the core areas, since regional/intercity buses will cross the city without disturbing inner vehicular movement. The exact location of the bus stand shall be decided in consultation with the Transport Department based on the recommendations of the Site Selection Committee constituted by the Govt./Transport Department. The area of the present site can be then used as per the provision of the Master Plan for raising resources for the city.

9.5 SPACE NORMS AND STANDARDS

9.5.1 EDUCATIONA INSTITUTIONS

For ascertaining the need and requirement of various levels and categories of educational institutions in the context of the town, planning norms have been worked on the basis of population in order to ensure that educational facilities of desired quantity and quality are available uniformly to the entire population including their spatial distribution. Further, the norms have been defined in terms of area provided under each unit. The level of facilities to be provided have been categorized into general education at the school level, undergraduate and post graduate level besides technical and professional institutions and universities. Based on above, the norms for educational institutions have been detailed as under:

Table 81: N r s a d Sta dards r Educati al Facilities

S. N .	Categ ry	P pulati	U its	Stre gt h Stude t	Area i Hects.			Re arks
					uilt up	Play Field Area	T tal	
A. GENERA EDUCAT ON-T		**10 2**						
i	**Pre-Pri ar Nurser Sch l**	2 00	1	-	-	-	0.08	Location close to park ith minimum of vehicular traffic
ii	**Pri ar Sch l (Class 1-5)**	000	1	00	0.20	0.20	0.40	Location close to park ith minimum of vehicular traffic. Minimum play area of 18 m x 36m to be ensured.
iii	**Nurser -cu - Pri ar Sch l (up t Class 5)**	000	1	7 0	0.2	0.2	0. 0	As above
i	**Se i r Sec dar Sch l (Class 6-12)**	7 00	1	1000	0.60	1.00	1.60	Minimum play field area of 68 m x 126 m to be ensured.
	tegrated Sch l with ut H stel acilit (Class 1-12)	90,000-1,00,000	1	1 00	0.70+ 0.40 as hostel area	2. 0+ parking area of 0.30	3.90	Minimum play field area of 68 m x 126 m to be ensured.
i	**tegrated Sch l with H stel acilit (Class 1-12)**	90,000-1,00,000	1	1000	0.70	2. 0+ parking area of 0.30	3. 0	Minimum play field area of 68 m x 126 m to be ensured.

vii	Sch l r Ha dicapped	45,000	1	400	0.20	0.30	0.50	
. H GHER EDUCAT O								
i	C llege	1,00,000	1	1000 - 1500	1.80 +0.40 for reside ntial/h ostel	1.80 + Parking Area 0.50	4.50	
ii	U i ersit	20,00,000	1	-	-	-	60.00	
iii	U i ersit Ca pus	10,00,000	1	-	-	-	10.00	
C. TECH CA EDUCAT O								
i	T + P l tech ic	10,00,00	1	400+500	-	-	ITI (1.60) Poly (2.40)	
ii	E gi eeri g C llege	5,00,000	1	1500-1700	-	-	6.00	
iii	Architecture C llege	10,00,000	1	250	-	-	2.00	
i	Ma age e t stitutes	5,00,000	1	240	-	-	2.00	
	Medical C llege	10,00,000	1	500	-	-	15.00	Includes space for Specialized/ General Hospital

tes:

One creche for a population of 25,000 in an area of 0.05 hectare shall e provided. This could e made integral part of any category of educational institutions with addition of the area of the crèche.

Num er of units in each category shall e ased on the population prescri ed a ove. In case the population for the area works out to e merely 50% norms specified a ove, in such cases individual sites in that category shall e provided. Additional sites shall e provided in case alance population exceeds 50% of the standards prescri ed a ove.

In case of higher student capacity, the uilt up and open area shall e increased proportionately.

In order to economize on the land and optimize the infrastructure, educational institutions could e run on dou le shift asis.

The open space shall e designed in order to ensure that they are also made availa le to the community as play area in the time when it is not eing used y the institution.

Adequate area for plantation shall also e earmarked in order to improve the quality of environment and area under tree cover.

Adequate arrangement for parking of uses and vehicles of students/staff shall e made.

Unless specified in the zoning plan and uilding ye-laws, the ground coverage, height and FAR for various categories of uildings shall e as under:

Table 82: Devel p e t C tr ls r Educati al Facilities

Categ ry	Maxi u Gr u d C verage	Maxi u per issible height ( )	FAR
i) Nursery School	40%	8	0.75
ii) Primary School	40%	8	0.75
iii) Higher Sec. School	33%	15	1
iv) College	33%	15	1
v) Uni/Tech/Prof. In t.	25%	20	1

Ba ement hould be allowed under the built u area u to the maximum extent of ground coverage. It hall be u ed for ar ing, ervice , torage etc. It hall not be u ed for habitable ur o e . No cla e or other tudent' activitie hall be held in the ba ement. Ba ement area hall not be counted toward FAR.

In ca e of large in titution , area for academic , re idential, ort and cultural activitie , ar and land ca e hall be clearly defined. The area under academic hall not exceed 45%, re idential 25%, ort and cultural activitie 15% and ar and land ca e 15%.

9.5.2 HEA TH CARE FAC T ES

Health care facilitie hall be rovided and di tributed in uch a manner that it cover the entire area and the o ulation, in order to ma e the facility available to every re ident of the town irre ective of hi location or lace of re idence. It mu t cover all the activity area including commercial, indu trial, in titutional etc. A well defined hierarchy will be e ential to meet both the ba ic and ecialized need of the health care. Adequate arrangement would be critical to rovide for greater role of rivate ector in healthcare by ma ing available required ro ortion of ite for the ector. The healthcare facility of variou grade to be rovided in the town/city hall be ba ed on the following norm :

Table 83: N r s a d Sta dards r Health Facilities

S. N .	Categ r	P pulati	U it	Area (Hectares)	Re arks
1	**Nursi g H e**	7,500	1	0.10	Ca acity of 5-10 bed
2	**Dispe sar**	15,000	1	0.12-0.15	For outdoor treatment only
3	**Health Ce tre**	50,000	1	0.4	Ca acity of 25-30 bed
4	**P l Cli ic**	1,00,000	1	0.4	with ome ob ervation bed
5	**ter ediate H spital (Categ r)**	1,00,000	1	0.1 i) for ho ital 0.6 ii) for re idential 0.4	ca acity of 80 bed with initial rovi ion of 50 including 20 maternity bed
6	**ter ediate H spital (Categ r A)**	1,00,000	1	3.70 i) for ho ital 2.70 ii) for re idential 1.0	ca acity of 200 bed with initial rovi ion of 100 bed
7	**Ge eral H spital**	2,50,000	1	6.00 i) for ho ital 4.00 ii)for re idential 2.00	ca acity of 500 bed with initial rovi ion of 300 bed

8	**Multi Specialty H spital**	1,00,000	1	9.00 i) for ho pital 6.00 ii)for re idential 3.00	capacity of 200 bed with initial provi ion of 100 bed
9	**Specialt H spital**	1,00,000	1	3.70 i) for ho pital 2.70 ii)for re idential 1.00	capacity of 200 bed with initial provi ion of 100 bed

N te:

- In ca e of pecific requirement for medical facilitie other than tho e indicated above, additional ite may be provided for catering to pecialized need of healthcare.
- All Medical college hall al o include provi ion of medical ho pital of 500 bed a integral part of the complex.
- Additional ite may be provided in ca e of Regional/National level healthcare in titute which are to be located a part of the town.

The height, ground coverage, FAR, etbac for variou ite hall be a defined in the building bye-law , zoning plan and development control regulation .

9. .3 F RE STAT ON

Table 84: N r s a d Sta dards r Fire Stati

S. N .	Categ r	P pulati Per U it	Mi i u Area
1	Fire tation with e ential re idential accommodation	1 for every 2,00,000	1 Hectare
2	Sub-Fire tation with e ential re idential accommodation	1 for every 2,00,000	0.6 Hectare

- One Fire Station/Sub-Fire tation to be provided within di tance of 1-3 m covering a population of 2, 00,000.
- Fire Station need to be in coordination with water upply y tem to provide for fire hydrant /water tan .
- Fire ervice to be fully equipped to deal with fire accident in the multi toried building .

9. .4 SECUR TY - PO CE C V DEFENCE AND HOME GUARD

Table 8 : N r s a d Sta dards r Securit

S. N .	Categ r	P pulati Per u it	Mi i u Area	Re arks
1	**P lice Stati**	90,000	1.50 Hectare	* In ca e of civil defence and home guard, additional area of 0.05 hectare to be provided. ** Area include e ential re idential accommodation
2	**P lice P st**	40,000-50,000	0.16 Hectare	*Area include e ential re idential accommodation ** To be provided where area i not erved by Police Station
3	**District O ice a d attali**	10,00,000	4.80 Hectare *(for Di trict. Office =0.80 for Battalion =4.00 Hct .)	
4	**P lice i es**	20,00,000	4.00-6.00 Hectare	
	District Jail	10,00,000	10.00 Hectare	
6	**Ci il De e ce & H e Guards**	10,00,000	2.00 Hectare	

9.5.5 SOCIA CU TURA FACI ITIES

Table 86: N r s a d Sta dards r S ci -Cultural Facilities

S. N .	Categ ry	P pulati Per u it	Mi i u area
1	C u ity R	5,000	1000 s m (0.1 Hct)
2	C u it Ce tre	15,000	2500 s m (0.25 Hect).
3	Re-creati al Club	1,00,000	10000 s m. (1.0 Hct)
4	Music Da ce Dra a Ce tre	1,00,000	1500 s m. (0.15 Hct)
5	Meditati & Spiritual Ce tre	1,00,000	5000 s m. (0.5 Hct)
6	S ci Cultural Ce tre	10,00,000	150000 s m. (15.00 Hct)
7	Religi us Sites (Ma dir Gurudwaras & Churches)	15,000 (3 sites provided in each sector)	1000 s m. (0.10 Hct)

9.5.6 SPORTS ACT V T ES

Table 87: N r s a d Sta dards r Sp rts Facilities

S. N .	Categ r	P pulati Per u it	Mi i u Area
1	Reside tial U it Pla Area	5,000	0.5 Hct
2	Neighb urh d Pla Area	15,000	1.50 Hcts
3	District Sp rt Ce tre	1,00,000	.8.0 Hcts
4	Di isi al Sp rts Ce tre/Cit Sp rts Ce tre	10,00,000	20.00 Hcts.

9.5.7 POSTA FAC T ES

Table 88: N r s a d Sta dards r P stal Facilities

S. N .	Categ r	P pulati Per U it	Mi i u Area	Re arks
1	P st ice c u ter with ut deli er	15,000	85 s m.	To be provided in Shopping Centre
2	ead P st O ice with deli er ice	2,50,000	750 s m.	
3	ead P st O ice & Ad i istrati e O ice	5,00,000	2500 s m.	

9.5.8 TE EP ONE & TE EGRAP S

Table 89: N r s a d Sta dards r Teleph e a d Telegraph

S. N .	Categ r	P pulati Per u it	Mi i u Area	Re arks
1	Teleph e E cha ge r 40 000 li es	4,00,000	4.00 Htcs.	
2	Telegraph ki g C u ter	1,00,000	200 s m.	To be provided as part of the commercial area
3	Telegraph ki g & Deli er O ice	5,00,000	1700 s m.	To be provided as part of the commercial area

9.5.9 COMMERC A AREAS

Table 90: N r s a d Sta dards r C ercial Area

Sl. N .	Categ r	P pulati	U it	Area (i sq. .)	N . U its	N r s r Sh ps	Area/ 1000 Pers s (i sq. .)
1	C e ie t Sh ppi g	5,000	1	1500	37	1 for 110 Persons	220
2	cal Sh ppi g	15,000	1	4600	77	1 for 200 Persons	300
3	C u it Ce tre	1,00,000	1	50,000	475	1 for 200 Persons	500

4	District Ce tre	5,00,000	1	75,000	1,620 (Both Informal	1 for 300 Persons	880
5	cal Wh lesale Market	10,00,000	1	1,00,000	--	--	--
6	Weekl Markets	1,00,000	1-2	4,000	300-400 Shops	--	--
7	Orga ized r al Eati g Space	1,00,000	1	2,000			

Hierarch t be ll wed r C ercial Ce tre

- Formal Shopping
- Convenient Shopping to be provided at Cluster Level
- Lo al shopping to be provided at Se tor Level
- Community Centre to be provided for a group of Se tors
- istri t Centre to be provided at the level of group of Community Centres
- Sub City Centre to be provided at the level of Sub City
- City Centre to be provided at City Level
- Lo al Wholesale Market to be provided at City Level
- Informal Shopping
- Weekly Markets to be provided for group of Se tors
- Organized informal eating spa e to be provided at the traffi nodes.

NOTE:
Ab e hierarch c ercial areas t be pr ided depe di g up the size the cit .

- In ase of small towns, shopping at housing luster, se tor and ommunity levels shall be provided.
- In ase of medium towns, shopping at housing luster, se tor, ommunity distri t levels shall be provided.
- In ase of large towns/ ities, shopping at housing luster, se tor, ommunity, distri t, sub – ity ity levels shall be provided.
- All shopping areas are to be provided with adequate parking as per the pres ribed norms.

9.6 STRATEGY FOR O TA N NG AND FOR PU C PURPOSES

A ity typi ally requires 40 to 50% of its area for variety of publi purposes. Where land is owned by the state, as in elhi, Chandigarh or Navi Mumbai, it is easier to allo ate land for publi purposes. However, where private land market is a tive, how to ensure land for publi purpose is a major hallenge in preparing Master Plans. The onventional master planning relied on the powers of ompulsory a quisition of land designated in the Master Plan for publi purposes. However, limitations of this approa h have been painfully exposed. At the same time not addressing the question of land for publi purposes may limit the utility of the master plan itself.

With this background a wide menu of strategies to obtain land for public purposes is examined in this chapter. The land required for public purpose can be divided into four-fold classification as illustrated in diagram below:

	A Speci ic cati	Flexible cati
A P sitive I pact a d Prices	AA Arterial Road Network	A Parks, Playgrounds, Schools etc.
Negative Price r E vir e tal I pact i v ki g NIM Y resp se.	A Sewage Pumping Stations and Treatment Plants	Solid waste disposal sites

(In many cases, necessity of a particular activity at the city scale is recognized e.g. solid waste disposal site or a slaughter house. But, they are locally undesirable and invoke "Not in My Backyard" response.)

No single alternative needs to be used throughout the city. It may vary for example, in core areas v/s outlying areas. Similarly, different alternatives may be suitable for different types of public purposes. The possible alternatives for obtaining land for public purposes such as roads, educational, health, parks, water supply, sewerage, social and religious institutes, old age homes, community centers etc. with their limitations are listed as below.

9.6.1 THROUGH O.U.V.G. . SCHEME:

Under OUVGL Schemes, the way is identifying vacant government land (including municipal land) and using it as source for providing land for public purposes. However, given the need for using the government land for generating financial resources, the entire stock of government land need not be assigned to non-remunerative public purposes. In fact, the government land would offer many opportunities for PPP, where part of the land could be used for public purpose. For example, a plot of government land could be allocated for an intercity bus terminal with a budget hotel.

Rationalizing obsolete uses of public lands could be another way of putting public land to more relevant public purpose. Old jail or an agricultural produce market in the congested part of the city is common example. But, this requires public land at other location.

To make specific designations on the master plan and then proceed with compulsory acquisition of land has its own implications. Impracticability of this is too well known to be recounted here. But, this may be unavoidable in certain cases – particularly 'A' category public purpose.

9.6.2 THROUGH T.D.R.:

An alternative to monetary compensation could be award of Transfer of Development Rights either to remainder of the land or to a distant location. This could be in three generic cases viz.

Roads and Road Widening: The Development Rights calculated at the FAR permissible in adjoining area may be allowed to be used in the remainder of the plot up to a limit. The Development Rights that cannot be so consumed can be transferred elsewhere in receiving areas. If FAR is related to width of the road, resistance to widening may get reduced.

Public Purposes on Open Land or Exclusive Plots: Land required for parks and playgrounds or exclusive uses like secondary school, fire station etc. can receive TDRs in lieu of compensation. The weight related to price differentials in originating and receiving zones could be considered as an incentive.

Public Purposes that require Built-up Space but not necessarily Exclusive Plot: Examples of this could be municipal vegetable market, library etc. In such cases, landowner may be allowed to fully use his development rights provided that he offers the built up space required for the public purpose.

9.6.3 THROUGH PAPR ACT, 1995

Layout and Sub-Division Regulations: These regulations depending upon the total area of layout can provide for some reservation for general public purpose in addition to local requirements. This is currently being used under the colonisation rules operated under the PAPR Act.

9.6.4 THROUGH AND POO ING OR TOWN P ANNING (DEVE OPMENT) SCHEMES:

As per the provisions of section 91 (Chapter XII) of Punjab Regional and Town Planning & Development (Amendment) Act, 2006, the concerned Authority may for the purpose of implementation of the provision of the Master Plan or for providing amenities where the same are not available or are inadequate, frame the Town Development Scheme and land for various amenities can be earmarked as per the provisions of Sub Section 2(g) of Section 91.

The strategic approach would relate to geographically depicting the sites required for public purpose and proposing regulatory framework for obtaining the land for public purpose, whether shown on the plan or not. For this, master plan has to consider a wide menu. Described below is a possible menu. Admittedly, all items on the menu may not be available for every city.

Table 91: Strategy r Obtai i g a d r Public Purp se

Alter ative	a d Acquisiti thr ugh 1894 Act	TDR	Devel p e t la d thr ugh PAPR Act 1995, TDS u der PRTPD Act 2006 a d Devel p e t Sche es u der PTI Act, 1922	a d P li g	G vt./ Pa chayat / Waq ard a ds
Pla Pr p sal	Land designated for public purposes	Land designated for public purposes	Land designated for public purposes	Land designated for public purposes	Land designated for public purposes
Regulati	No separate regulatory provision necessary	Regulation about use of TDR on receiving plots is necessary	Certain proportion (about 40%) of land is dedicated for public purposes.	This requires a separate legal process to be followed of reconstitution of plots along with evaluation of compensation and betterment as provided in Chapter XII of the 1995 Act.	No separate regulatory provision necessary
Mea s Securi g a d	Compulsory acquisition by paying monetary compensation	Monetary compensation substituted by Transfer of Development Rights (TDR)	Availability of land through layout plan provisions		Land can be made available through transfer of ownership from one department to another. No monetary compensation is involved.
i itati s	Lack of finances for compensation	Lack of finances for compensation	This is the method currently relied upon where minimum area for colony is set at 10 acres, as in case of PAPRA.	Comprehensive Land Pooling Policy is required to be framed.	Locational disadvantages in certain cases.
	Landowners' resistance	Landowners' resistance	This is to be market driven and present response is said to be not so encouraging.	Difficulty in pooling of land of large number of owners.	Minimum area requirement may not be fulfilled.
	Iniquitous distribution of costs and benefits. Cost borne by those who lose land and benefits enjoyed by surrounding	Iniquitous distribution of costs and benefits. Cost borne by those who lose land and benefits enjoyed by surrounding		Time consuming an complicate process.	Source of revenue for Panchayat Bo ies / Waqf Boar gets eplete .

	landowners	landowners			
		But where real estate prices are high, particularly where land price is several times the construction cost, chances of success are high.		Equitable distribution of costs and benefits to different shareholders.	
		Could also be used for heritage conservation.		New concept difficult to be implemented.	
		New concept difficult to be implemented.			

Given the details included in the Master Plan, it is not possible to specif which of the above techniques will be used for obtaining land for public purpose.

CHAPTER 10

DEVE OPMENT CONTRO S AND ZONING REGU ATIONS

10.1 ZONING REGU ATIONS

The Chief Town Planner, Punjab being the Planning Agency designated under Section 57 of the Punjab Regional and Town Planning and Development (Amendment) Act, 2006 for the Local Planning Area declared under Section 56 of the said Act, following the requirement under clause (d) of sub section 1 of Section 70 of the Punjab Regional and Town Planning and Development (Amendment) Act, 2006 hereby makes following Zoning Regulations as a part of the Master Plan prepared for the Batala Local Planning Area.

The zoning regulations proposed under this Master Plan are primarily concerned with the control of land use. The Proposed Land Use Plan includes following land use zones:

- Residential
- Commercial
- Mixed Land Use
- Industrial
- Recreational
- Government
- Agriculture and Water Bodies

In addition, specific designated uses have been shown in respect of Traffic & Transportation, Utilities & Services and Public & Semi-Public facilities including Protected Monuments and other heritage sites.

As explained earlier, the sub-division of land, and the design and construction of buildings are being controlled through well established building byelaws/regulations by the concerned authorities. The zoning regulations under the Master Plan are seen as the guiding parameters for these agencies to ensure that the development permitted by them is in conformity with the Master Plan.

10.1.1 USE AND DEVE OPMENT OF AND TO E IN CONFORMITY WITH MASTER P AN

Section 79 of the Punjab Regional and Town Planning and Development (Amendment) Act 2006 provides:

After coming into operation of this Master Plan, no person shall use or permit to be used any land or carry out any development in any area otherwise than in conformity with such Master Plan, provided that the Competent Authority may allow the continuance of any use of any land, for a period not exceeding ten years, upon such terms and conditions as may

be provided by Regulations made in this behalf, for the purpose and to the extent, for and to, which it was being used on the date on which such a Master Plan came into operation.

10.1.2 SHORT TIT E, SCOPE, EXTENT & COMMENCEMENT

1. Title

These Regulations shall be called the Zoning Regulations for Batala Local Planning Area, 2010 (herein after referred to as "Regulations").

2. Sc pe the Regulati s

The scope of these regulations is limited to defining permissible land uses in various land use zones depicted in the Proposed Landuse Plan forming part of the Master Plan. Other aspects of development such as sub-division and layout of land or intensity of development measured through FAR, ground coverage, parking requirements, building design and construction etc. will be governed by other Acts, Rules/Byelaws and Regulations promulgated by Government from time to time. Competent Authorities under such regulations shall ensure that the development permitted by them is in conformity with these Regulations.

3. Jurisdicti

These Regulations shall apply to all "development" in the Batala Local Planning Area declared under section 56 of the Punjab Regional and Town Planning and Development Act 1995 *vide* notification no **12/4/2007 – 4 HG1/6784** dated 22nd August 2007

4. Date C i g i t F rce

These Regulations shall come into force on the day on which the designated Planning Agency publishes the Final Master Plan and the Regulations in the **O icial Gazette** after obtaining the approval of the State Government under sub-section (5) of Section 70 of the Punjab Regional and Town Planning and Development (Amendment) Act, 2006.

10.1.3 DEFINITIONS

For the purpose of these Zoning Regulations, the following definitions, unless the context otherwise requires, shall apply:

1. "Act" means the Punjab Regional and Town Planning and Development (Amendment) Act, 2006 (Punjab Act No. 11 of 1995) as amended from time to time.

2. "Atta Chakki" is categorized as service industry where:

- Grinding of only food grains is carried out through the process of crushing under the load and rotational movement of two plates or blocks.
- The maximum electric load does not exceed 20 kW.

- The Atta Chakki shall be used for grinding food grains supplied by the consumers only and no sale/purchase of food grains/flour shall be carried out by the Atta Chakki owner at commercial level.
- The Atta Chakki shall only be permitted on roads having minimum 40 feet ROW.

3. "Chie T w Pla er" means the Chief Town Planner of the Department of Town & Country Planning, Punjab or any other officer to whom his powers are delegated.

4. "C pete t Auth rity" means any person or authority appointed by the State Government by notification to exercise and perform all or any of the powers and functions of the competent authority as per section 2 (m) of the Punjab Regional and Town Planning and Development (Amendment) Act, 2006.

5. "C ttage I dustry" means industrial units employing less than 10 workers, not creating excessive traffic and not emitting fumes, noise and effluents injurious to the existing sewers and not contrary to the provisions of the Water Pollution (Prevention and Control) Act, 1974, Air Pollution (Prevention and Control) Act, 1981, and Environment (Protection) Act, 1986.

6. "Existi g a d Use Pla " means the Plan showing the different landuse existing at the time of preparation of the Existing Land Use Plan of Batala Local Planning Area and as indicated on Drawing No. DTP (G) 21/2010 Dated 13.12.2010.

7. "Far H use" means a building allowed on a minimum holding of 2.5 acre of agricultural land for residential and agricultural related activity of the land holder.

8. "Fashi Tech l gy Park" means where knowledge based infrastructure to inspire the global fashion community catching all segments of designing, manufacturing, marketing, R & D, logistics, broad forecasting, etc. are all under one roof.

9. "G ver e t" means the Government of the State of Punjab.

10. "High Tech l gy Park/IT Park" will largely be high technology, value added kind of industrial development in the form of Science Park, Business Park and R & D Park. The target industries include IT Park and biotechnology industries.

11. "H useh ld I dustry" means household occupation/industry conducted only by family members/persons residing in the dwelling with or without power and not contrary to the provisions of the Water Pollution (Prevention and Control) Act 1974, Air Pollution (Prevention and Control) Act, 1981, and Environment (Protection) Act, 1986.

12. "I dustry" means a specific branch of manufacture and trade, which includes green, orange and red category industries as categorized by PPCB/Department of Industries or as amended from time to time. It excludes mining and quarrying.

13. "K wledge Park" means a platform for interaction and provision of clustering opportunities to all the organizations, institutions, hotels, restaurants, hospitals, real estate agency clubs, business parks, etc. with main objective of facilitation of better technology for public and private sector.

14. " gistic Park" means an area within which all activities related to transport, logistics and distribution of goods for both national and international transits are carried out by various operators on a commercial basis.

15. " cal Pla i g Area" means the Local Planning Area declared under section 56 (1) of the Punjab Regional and Town Planning and Development (Amendment) Act, 2006 (Punjab Act No. 11 of 1995) vide notification no. 12/9/2008-4HGI/2736 dated 16/10/09.

16. "Mixed a duse" means the multiple use of land (except orange & red category industries), which is allowed to co-exist subject to fulfillment of environmental safeguards.

17. "N -C r i g uildi g r Use" means use in respect of any land or building in the Local Planning Area, the existing use of which land or building is contrary to the prescribed land use in the Master Plan and its zoning regulations.

18. "Pla i g Age cy " means the Chief Town Planner, Punjab designated as such under Section 57 of the Punjab Regional and Town Planning and Development (Amendment) Act, 2006 (Punjab Act No. 11 of 1995) for Batala Local Planning Area.

19. "Pr p sed a duse Pla " means the plan showing the proposed admissible uses of different areas and land use zones covered in the Batala Local Planning Area.

20. "Public a d Se i Public Activities" means government/ semi government offices, educational, cultural, religious, medical and health institutions, community centers, etc.

21. "**Z i g Pla "** means the plan of an area or part thereof or supplementary layout plan approved by the Chief Town Planner, Punjab and maintained in the office of Competent Authority showing the permitted use of land and such other restrictions on the development of land as may be prescribed in the zoning regulations, for any part or whole of the area such as sub-division of plots, open spaces, streets, position of protected trees and other features in respect of each plot, permitted land use, building, land, height, coverage and restrictions with regard to the use and development of each plot in addition to such other conditions as laid down in these Regulations hereinafter.

Ter s used, but t de i ed i these Regulati s, shall have the sa e ea i g as assig ed t the i the Acts/Rules.

10.1.4 ANDUSE ZONES

The Proposed Landuse Plan incorporated in the Master Plan of Batala LPA depicts the following land use Zones:

- **Reside tial**
- **C ercial**
- **Mixed a duse**
- **I dustrial**
- **Recreati al**
- **Rural a d Agricultural.**

Besides this, the following designated landuses have also been depicted on the Proposed Landuse Plan:

- **Tra ic a d Tra sp rtati**
- **Utilities**
- **G ver e t**
- **Public a d Se i Public**

10.1.5 ANDUSE C ASSES

For the purposes of these Regulations, the above landuses have been grouped into various landuse classes. Each class of landuse has been given a specific code. The Landuse Classes and Landuse Codes are detailed below:

Table 92: a duse Classes with Use Class C des

Sr. N .	a duse Class	Use Class C de
1	Housing	A
2	Trade and Commerce	B
3	Manufacturing	C
4	Transport, Storage & Warehousing	D
5	Offices	E
6	Education, Training and Research Institutes	F
7	Healthcare Facilities	G
8	Recreational, Entertainment, Cultural and Religious	H
9	Public Utilities and Services	I
10	Agriculture, Forestry and Fishing	J

10.1.6 USE PROVISIONS IN ANDUSE ZONES

The following table describes the landuse classes and their sub-classes along with the uses permitted in various landuse zones. The **shaded cells** in the table indicate that the use is generally permissible. A **u ber** in the cell indicates the conditions, subject to which the use is permissible. The conditions have been listed at the end of the table.

Table 93: a d Use Z es a d Per issible a d Uses

C ASS CODE/ SU CODE	AND USE C ASS/SU C ASS	AND USE ZONES					
		Reside tial	C ercial	Mixed a duse	dustrial	Recreati al	Rural a d Agricultural
A	**H usi g**						
A1	Res dent al houses n the form of Plotted Development, Group Hous ng, Farm Houses for Customary Res dence nclud ng Household Industr es, EWS Hous ng				1		2
A2	Old Age Homes, Orphanages, Hostels for Students, Work ng Women						
A3	Serv ce Apartments, Hotels nclud ng Star Hotels, Motels, Guest Houses, Dharamshalas, Lodg ng Houses, Sara , Ra n Basera				3		
A4	a ls, Asylums, Reformator es and the l ke						
A5	Res dences for Watch and Ward Staff, Res dences for Industr al Workers Management						
A6	Hous ng not class f ed above						
	Trade a d C erce						
B1	Reta l Trade nclud ng Markets for Fru ts and Vegetables, Meat and F sh; Super Markets, Informal Shopp ng, Rehr Market						
B2	Department Stores, Cash-n-Carry Stores, Malls nclud ng Super Market, Restaurants and Mult plexes						
B3	Personal and Commun ty Serv ces l ke Laundry, Ha r Dress ng, Beauty Parlours, Ta lor ng, Coach ng Classes, Cyber Cafes, Bank Branches, ATM, Bout ques, Phone Booths, Pan Shop, Chem st Shop, Sweet Shop, Tea Stall, Electr c & Electron c Shop w th Repa r Fac l t es, Photo Stud o, Property Dealer Shop, Da ry Products, Cable TV, Readymade Garments, Stat onery Shop, etc.						
B4	Wholesale trade w th storage of commod t es	4		4			4
B5	F ll ng Stat on (Petrol Pump) *						
B6	Kerosene Storage Gas Godown						
B7	Gas D str but on (w thout Storage of Cyl nders)						
B8	Trade Fa rs, Exh b t on and Convent on Centres						
B9	Showroom of M lls Factory Reta l Outlets						
B10	Trade Not Class f ed Above						
C	**Ma u acturi g (N C-2008 Secti C)****						
C1	Manufacture of Food Products (NIC D v s on 10)	5	5	6			

C ASS CODE/ SU CODE	AND USE C ASS/SU C ASS	AND USE ZONES					
		Reside tial	C ercial	Mixed a duse	dustrial	Recreati al	Rural a d Agricultural
C2	Manufa ture of Beverages (NIC Division 11)						
C3	Manufa ture of Textiles (NIC Division 13)						
C4	Manufa ture of Wearing Apparel (NIC Division 14)			6			
C5	Manufa ture of Leather and Related Produ ts (NIC Division 15)						
C6	Manufa ture of Wood and Produ ts of Wood and Cork; Ex ept Manufa ture of Furniture (NIC Division 16)			6			
C	Manufa ture of Paper and Paper Produ ts (NIC Division 1)						
C8	Printing and Reprodu tion of Re orded Media (NIC Division 18)						
C9	Manufa ture of Coke and Refined Petroleum Produ ts (NIC Division 19)						
C10	Manufa ture of Chemi als and Chemi al Produ ts (NIC Division 20)						
C11	Manufa ture of Pharma euti als, Medi inal, Chemi al and Botani al Produ ts (NIC Division 21)						
C12	Manufa ture of Rubber and Plasti s Produ ts (NIC Division 22)						
C13	Manufa ture of Other Non-Metalli Mineral Produ ts (NIC Division 23)						8
C14	Manufa ture of Basi Metals (NIC Division 24)						
C15	Manufa ture of Fabri ated Metal Produ ts, ex ept Ma hinery and Equipment (NIC Division 25)						
C16	Manufa ture of Computer, Ele troni and Opti al Produ ts (NIC Division 26)						
C1	Manufa ture of Ele tri al Equipment (NIC Division 2)						
C18	Manufa ture of Ma hinery and Equipment n.e. . (not elsewhere lassified) (NIC Division 28)						
C19	Manufa ture of Motor Vehi les, Trailers and Semi-Trailers (NIC Division 29)						
C20	Manufa ture of Other Transport Equipment (NIC Division 30)						
C21	Manufa ture of Furniture (NIC Division 31) in luding Saw Mill	9					
C22	Other Manufa turing (NIC 32)						
C23	Repair of Ma hinery and Equipment (NIC Division						

C ASS CODE/ SU CODE	AND USE C ASS/SU C ASS	AND USE ZONES					
		Reside tial	C ercial	Mixed a duse	dustrial	Recreati al	Rural a d Agricultural
	33)						
C24	M lk Ch ll ng (Independent Plot), Pasteur zat on Plant, Cold Storage, Fru t R pen ng Centre, Ice Factory	**10**					
C25	R ce Shellers, Process ng of Farm Products, Br ck K lns, L me/ Charcoal K lns						
C26	Cottage Industry, Repa r of Household Art cles, Cycles and scooters repa r, Household Industry, Atta Chakk						
C27	I. . Park, Knowledge Park, Industr al park, Super Mega M ed Use Integrated Park, Fash on & echnology Park and F lm C ty	**11**					
C28	Cement, Sand and Concrete M ng Plant (Batch ng plant), B tumen, Sand, Concrete M ng Plant (Hot M Plant)						
C29	Manufacture and Storage of F re Works						
D	**Tra sp rt St rage a d Wareh usi g**						
D1	Warehous ng and Storage Act v t es for ransportat on (NIC D v s on 52) and Load ng & Unload ng Yard						**12**
D2	Ra l and A r Fre ght erm nals						
D3	ruck erm nals						
D4	Bus erm nals, Auto-R ckshaw/ a / wo Wheeler/Cycle Stand						
D5	Warehous ng, Log st c Park, Storage & Godowns, Fre ght Comple , Conta ner Yards						
E	**O ices**						
E1	Publ sh ng of Books, Per od cals and Other Publ sh ng Act v t es (NIC Group 581) Software Publ sh ng (NIC Group 582)			**6**			
E2	Mot on P cture, V deo and elev s on Programme Product on, Sound Record ng and Mus c Publ sh ng Act v t es (NIC D v s on 59)						
E3	Broadcast ng and Programm ng Act v t es (NIC D v s on 60)						
E4	elecommun cat ons (NIC Group 61), Govt./ Sem - Govt. / Pr vate Bus ness Off ces						
E5	Computer Programm ng, Consultancy and Related Act v t es (NIC D v s on 62)						

C ASS CODE/ SU CODE	AND USE C ASS/SU C ASS	AND USE ZONES					
		Reside tial	C ercial	Mixed a duse	dustrial	Recreati al	Rural a d Agricultural
E6	Info mation Se vice Activities (NIC Division 63)						
E7	Finance, Banking and Insu ance (NIC Section K)						
E8	Real Estate Activities (NIC Section L)						
E9	P ofessional, Scientific and Technical Activities (NIC Section M)						
E10	Administ ative and Su o t Se vices (NIC Section N)						
E11	Public Administ ation and Defence Com ulso y Social Secu ity (NIC Section O)						
E12	P ofessional Se vices like Lawye s, Cha te ed Accountants, A chitects, Enginee s, Town Planne s, etc.						
F	**Educati al Trai i g a d Research stitutes**						
F1	P e-P ima y Schools, Play Schools, Kinde ga tens						
F2	P ima y Schools						
F3	Seconda y Schools, Colleges, Vocational T aining Institutes						
F4	Resea ch and T aining Cente s, Unive sities, Cente s of Advanced Education and T aining like IIM o IIT, Medical Institutes						
F5	Educational, T aining and Resea ch Institutes not classified above						
G	**Healthcare Facilities**						
G1	Medical and Dental Clinics, Dis ensa ies	**13**	**13**	**13**	**13**		
G2	Hos itals (NIC G ou 861) including Gene al and Su e S eciality Hos itals, and Health Cent e	**13**	**13**	**13**	**13**		**13**
G3	Nu sing Ca e Facilities (NIC G ou 871)	**13**	**13**	**13**			
G4	Residential Ca e Activities fo Mental Reta dation, Mental Health and Substance Abuse (NIC G ou 872)						
G5	Residential Ca e Activities fo the Elde ly and Disabled (NIC G ou 873)						
G6	Vete ina y Se vices						
G7	Health Ca e Facilities not classified above.						
H	**Recreati al E tertai e t Cultural a d Religi us Acti ities**						
H1	C eative, A ts and Ente tainment Activities (NIC Division 90) and Multimedia						
H2	Lib a ies, A chives, Museums and Othe Cultu al Activities (NIC Division 91)						

C ASS CODE/ SU CODE	AND USE C ASS/SU C ASS	AND USE ZONES					
		Reside tial	C ercial	Mixed a duse	dustrial	Recreati al	Rural a d Agricultural
H3	Gambl ng and Bett ng Act v t es (NIC D v s on 92) e.g. Race Course						
H4	Sports Act v t es and Amusement and Recreat onal Act v t es (NIC D v s on 93), Tot-lots, Playgrounds, Stad a, Golf Courses, Sw mm ng Pool, etc.						
H5	Places of Wors p						
H6	arr age Palaces						
H7	Arts, Enterta nment and Recreat onal Act v t es not class f ed above						
	Public Utilities a d Ser ices						
I-1	Electr c ty, Gas, Steam and A r Cond t on ng Supply (NIC Sect on D) nclud ng Power Stat ons and Network						
I-2	Water Collect on, Treatment and Supply (NIC D v s on 36)						
I-3	Sewerage (NIC D v s on 37)						
I-4	Waste Collect on, Treatment and D sposal Act v t es; ater als Recovery (NIC D v s on 38) and Carcass D sposal S te	14					
I-5	Postal and Cour er Act v t es (NIC D v s on 53)						
I-6	Pol ce Stat on						
I-7	F re Stat on						
I-8	Cemeter es, Graveyards, Cremat on Grounds						
I-9	Telep one Exc ange, Telecommun cat on Towers/Antenna						
I-10	Publ c Ut l t es and Serv ces not class f ed above						
J	**Agriculture F restr a d Fishi g (N C Secti A)**						
J1	Crop and An mal Product on, Hunt ng and Related Serv ce Act v t es (NIC D v s on 01)	15					
J2	Land Conservat on and Preservat on easures suc as Storage, C eck Dams and ot er Water Harvest ng easures						
J3	F s ng and Aquaculture (NIC D v s on 03), Da ry, P ggery, Poultry farm ng, us room Grow ng Centres and Slaug ter Houses						
J4	Quarry ng of Stone, Sand and Clay (NIC Group 081)						
J5	Plant Nursery and Green ouses related to Nursery, Flor culture						
N tes:							

C ASS CODE/ SU CODE	AND USE C ASS/SU C ASS	AND USE ZONES					
		Reside tial	C ercial	Mixed a duse	dustrial	Recreati al	Rural a d Agricultural
N C	National ndustrial Classification (All Economic Activities) 2008, Central Statistical Organisation, Ministry of Statistics and Programme mplementation, Government of ndia, www.mospi.nic.in						
A	Shaded areas indicate that the use class is permissible in the zone						
	Shaded area with number/notation indicates the conditions attached						
	Only EWS Housing						1
	Only Farm Houses						2
	Only Star Hotels and Guest Houses						3
	Wholesale trade in agricultural commodities only, provided it is minimum 200 m away from village abadies/residential areas						4
	Only akery						
	Only Green ndustries						6
	Provided that the site abuts on at least 60 feet wide existing/proposed road of Master Plan						7
	Only manufacture of bricks, earthen pots, country tiles, etc.						8
	ndependent saw mill activity is permissible till the time residential or any other activity compatible to residential zone occurs within a radius of 100 m from the site, after which NOC/permission issued to the applicant shall cease to exist and activity shall relocate itself to another suitable site/zone						9
	Outside M. Cl. limits with the condition that it is located minimum 100 m away from the *lal lakir/phirni* of a village *abadi*. n case, a cold storage is to be set up within a distance of 100 m from already approved residential area (other than being a village *abadi*) or an approved residential colony is to be set within 100 m of an existing cold storage, then the owner of the landuse, which comes later, shall be bound to provide a minimum of 15 m wide green buffer of broad leaf trees to the site in which approved residential area or cold storage is located.						10
	Only .T. Park and Knowledge Park						11
	Only warehousing of agricultural commodities						12
	Subject to fulfillment of conditions of Pb. Govt. Notification No. 17/17/5-Hg2/311 dated 11.01.08 and instructions issued from time to time						13
	Permissible till the time residential or any other activity compatible to residential zone occurs within a radius of 500 m from the site, after which NOC/permission issued to the applicant shall cease to exist and the activity shall relocate itself to another suitable site/zone						14
	Except Animal Production						1
* The siting of petrol pumps shall be subject to instruction/guidelines of RC/ MORTH/TCPO/Punjab Govt. issued from time to time.							
** All types of industries permitted in the designated landuse zone are subject to the fulfillment of re uirements of different departments							

C ASS CODE/ U CODE	AND U E C A / U C A	AND U E ZONE					
		Reside tial	C ercial	Mixed a duse	I dustrial	Recreati al	Rural a d Agricultural
C	Minimum a ea equi ed fo Educational and Healthca e facilities shall be as defined above o as p esc ibed by gove nment o the acc editing autho ities f om time to time.						
	All developments will be subject to Envi onmental Clea ance whe eve equi ed.						
	Minimum width of the access oad fo all public places involving "Assembly/Occupancy" shall be 18 m.						

N te: *The ac i i ies/uses no men ioned in he able abo e bu found compa ible for par icular landuse zone shall be permissible wi h he appro al of Compe en Au hori y.*

I additi t the la duses per itted ab e, the ll wi g c diti s shall be required t be c pleted:

- **Mixed a duse**

1) All landuses, which a e compatible including indust ies, except the o ange and ed catego y indust ies, shall be pe mitted in the mixed landuse zone.
2) In case of the standalone p ojects having depth mo e than the p esc ibed depth of the mixed landuse in the P oposed Landuse Plan, such p ojects shall be conside ed fo app oval i espective of the p esc ibed depth of the mixed landuse.

10 1 DE IGNATED AREA

The following uses have been specifically designated in the P oposed Land Use Plan.

- **Tra ic a d Tra sp rtati**
- **Utilities**
- **G er e t**
- **Public a d e i Public**

10 1 1 Use Pr isi s i Desig ated Areas

Following uses a e pe missible in the esignated A eas mentioned above

- **Tra ic & Tra sp rtati : Uses Per issible**

All types of oad, ailway and ai netwo ks, Rail Ya ds, Railway Station & Sidings, Ai po t, Ca go Te minal, T anspo t Naga including Post & Teleg aph Offices & Telephone Exchange, habas, Labou Ya ds, A eas fo Loading and Unloading, Sto es, epots and Offices of oods ooking Agencies, Pet ol Filling Station & Se vice a ages, Pa king Spaces, Public Utilities and buildings), us Te minus & epot, us Stop Shelte , Taxi/ Tonga/ Rickshaw/Scoote Stands, Pa king Spaces and othe suppo t inf ast uctu e/facilities.

- **Utilities: Uses Per issible**

Water Supply, Sewerage System (including main pumping station and Sewage Treatment Plant (STP)), Drainage, Storm Water, Solid Waste processing and disposal, Electricity, Communication Systems and Related Installations, etc.

- **G ver e t: Uses Per issible**

Government and Semi Government Offices, Government Administrative Centres/Secretariat, other Projects/Activities undertaken from time to time to meet the operational/administrative needs of the govt. etc.

The landuse of all central/state govt. lands shall be as determined by the respective governments from time to time.

In case of land belonging to the Development Authorities/Improvement Trusts/Local Bodies or any parastatal agencies, its use shall be as determined by such agencies subject to the prior approval of the Department of Housing and Urban Development and the State Government.

The use of land covered under Optimum Utilization of Vacant Government Land (OUVGL) Scheme of the State Government shall be as determined by the Government at any appropriate time notwithstanding the provisions of these regulations.

In case of Defence Land, the uses permitted shall be as determined by the Ministry of Defence from time to time with prior consultation to the competent authority.

- **Public a d Se i-Public: Uses Per issible**

Educati al including Schools, Colleges, Universities, Vocational Training Institutes, Technical Institutes, etc., **Healthcare** including Dispensaries, Hospitals, Nursing Homes, Super Speciality Hospitals, etc., **Cultural a d Religi us i stituti s** including Theatre, Auditorium, Community Center, Club, Orphanage, Old Age Home, Temples/Gurudwaras/Churches/Masjids, etc., Police Stations, Fire Stations, Cremation Ground, Playground, Stadium, etc.

- **Other Uses**

i) F rest Areas: Uses Per issible

The use of the land notified under the Indian Forest Act, 1927 and the Punjab Land Preservation Act, 1900 shall be subject to the provisions of the said Acts as amended from time to time, irrespective of the landuse of such land shown on the Proposed Landuse Plan. No construction/activity shall be permitted in this area unless expressly allowed by the Forest Department/State Govt.

ii) Restricted Area: Uses Per issible

In case of Government (Defence) Land, the extent of Restricted Area (No Construction Zone) around such lands shall be as notified by the Central Government from time to time under the Works of Defence Act, 1903. Irrespective of the landuse shown, if any, in the

Proposed Landuse Plan, no construction shall be permitted in such zones without the permission of the Ministry of Defence, Govt. of India. Use, if any, indicated on the Proposed Landuse Plan shall be governed by and subject to the provisions of the Works of Defence Act, 1903.

iii) Pr tected M u e ts/Sites: Uses Per issible

In case of protected monument/heritage building or conservation site notified by the competent authority, i.e. (Archeological Survey of India/State Govt.), only the activities related to the promotion, preservation and conservation are allowed. All other uses are prohibited.

All Protected Monuments/Sites declared under The Ancient Monuments and Archeological Sites and Remains Act, 1958 shall have a 100m of Prohibited Area and another 200m as Regulated Area around the limits of Protected Monument/Site as declared vide notification no. S.O. 1764 dated 16th June 1992 of Department of Culture (Archeological Survey of India) for purposes of both mining and construction. Irrespective of the landuse shown, if any, in the Proposed Landuse Plan, no construction is allowed within the Prohibited Area of 100 m. The construction in the next 200 m shall only be permitted with the prior approval of the competent authority/ASI.

N te:

1. *In case of uses not listed above, the decision to allow/disallow them shall be vested with the Competent Authority, keeping in view the broad nature and requirement of the landuse.*
2. *In case of any ambiguity/clarification regarding the interpretation of the Land Use Plan, the master copy of drawing based on GIS shall be referred.*
3. *The siting and location of major traffic nodes including Bus Terminus, Truck Stand, etc. and physical infrastructure including STP, Electric Grid Station, Solid Waste Dumping Site, Water Works, etc. shall be as decided by the Govt. from time to time.*
4. *The siting of petrol pumps shall be subjected to instruction/guidelines of IRC/ MORTH/TCPO/Punjab govt. issued from time to time.*
5. *The Proposed Landuse Plan does not indicate in any manner the ownership pattern of land falling within the LPA. The Proposed Landuse Plan defines broadly the landuse pattern proposed for the land falling within the LPA.*
6. *Minimum width of Access Road for Warehousing uses shall be 60 feet.*
7. *All public and semi public uses in residential zone shall be located on independent plots with minimum access of 60 feet road.*

8. *All types of industries permitted in the industrial/mixed landuse zone are subject to the fulfillment of conditions issued by the Industry Department/Punjab Pollution Control Board (PPCB) from time to time.*

10.1.8 RESIDENTIA DENSITIES

The entire Residential zone for Batala LPA has been defined in the Proposed Land Use Plan drawing no. DTP (G) 15/2012 Dated 23.10.2012 has been divided into 2 distinct sub zones on the basis of their densities. Zone 1 includes area falling within the existing municipal council limits while Zone 2 comprises of area falling outside existing municipal council limits but within the proposed urbanisable limit. The maximum average permissible density in these zones shall be as shown below:

Z e	**Exte t Z e**	**Reside tial De sity**
Zone 1	Area within the existing municipal limits	Not exceeding 300 persons per acre
Zone 2	Area outside the existing municipal and within proposed the urbanisable limits	Not exceeding 200 persons per acre

To encourage flatted residential development and to preserve the valuable agricultural land, maximum average residential density @ 60 dwelling units per acre shall be permissible for standalone group housing projects/sites reserved for group housing purpose, irrespective of the density of zone. The areas zoned for residential use are not derived from affordable densities but are based on potential for growth. A large proportion of the areas of these density zones, particularly on the periphery, may remain undeveloped by 2031.

10.2 DEVE OPMENT CONTRO REGU ATIONS

The purpose of the Development Control Regulations (DCR) is to assist all stakeholders including developers and end-users within the Batala Local Planning Area to strive for a sustainable, quality and environment-friendly development.

These Development Control Regulations are applicable to the all new and future developments and developers shall have to abide by the zoning and planning intentions of the Master Plan. **H wever, Devel p e t Pr p sals/Pr jects i cludi g C U, which have already bee appr ved by the C pete t Auth rity be re c i g i t perati these regulati s, shall c ti ue t be h ured/per itted, subject t the ter s a d c diti s appr val a d shall t be a ected by these c tr ls.**

The F.A.R., height, gr u d c verage, parki g area, set back, width r ad, r tage site, etc. regardi g reside tial, c ercial, i stituti al, i dustrial r a y ther use r areas existi g withi M. Cl. li its shall be g ver ed by Mu icipal ye-laws.

Some of the key regulations currently in force are reproduced below:

10.2.1 RESIDENTIA

Minimum area and development of a residential colony within Batala LPA shall be as per the provisions of PAPR Act, 1995 and guidelines issued by govt. from time to time:

10.2.1.1 Mi i u Pl t Size

Table 94: Pl t Sizes r Reside tial C l ies

Categ ry	Mi i u Pl t Size
Reside tial Pl tted	5 acres
Gr up H usi g	
a) General	2 acres independent
b) EWS	2.5 acres

N te:

(i inimum area of colony within .Cl. limits shall be as per Local Govt. norms.

(ii The lowest hierarchy street within residential zone of aster Plan shall be minimum 35 feet wide or as prescribed in the uidelines issued by ovt. from time to time.

(iii The saleable area of any plotted residential colony shall be as per the provisions of PAPR Act, 1995 or as amended from time to time.

10 2 1 2 Gr up H usi g - utside Mu i ipal i its

Provision of Group Housing within the residentia zone provided in the Proposed Landuse P an of the Bata a Loca P anning Area outside existing municipa areas sha be subjected to fo owing norms:

Table 95: N r s r Gr up H usi g utside Mu i ipal li its

Ite	Per issible N r s / ta dards
Mi i u Pl t ize	
a) r Ge eral Categ r	2 acres
b) r E	2.5 acres
Mi i u R ad idth	or group housing standa one projects, minimum width of approach road sha be 0 feet. However, the promoter is re uired to eave space from his own and for widening the road to 80 feet and the space so eft sha be pub ic space. In case of p anned co onies, no group housing sha be permitted on a road width ess than 0 feet.
Mi i u r tage	20 meters
Per issible AR	1:1.75
Per issible Height	There sha be no restriction on the height of bui ding subject to c earance from Air orce Authorities and fu fi ment of other ru es, inc uding setbacks, distance between bui dings, etc. However, structura safety and fire safety re uirements as per the Nationa Bui ding Code sha be compu sory.
Parki g Pr isi s	or group housing, parking norms sha not be ess than 1.5 ECS per 100 s m of covered area subject to maximum of 3 ECS per dwe ing unit.

N te:

i. Construction of residential houses sold by promoters on floor basis shall also be

considered as Group/Flatted Housing developments and parking requirements shall be as per the norms applicable to the Group Housing.

ii. For Group Housing within M. Cl. limits, norms of local government shall be applicable.

10.2.1.3 Far H use

Provision of farm houses shall be governed by following area and coverage norms:

Table 96: N r s r Far H uses

Ite	Per issible N r s / Sta dards
Minimum area	2.5 acres
FAR	0.04
Ground Coverage	2%
Number of storeys	2
Height	In case of Single Storey building not to exceed 18 feet. In case of Double Storey building not to exceed 28 feet.
Hard Surface	Not to exceed 10%

10.2.2 COMMERCIA
At cal evel

There shall be provision for small scale, double storey commercial subject to the condition that abutting road shall have a minimum width of 60 feet with minimum 20 feet front setback from road for parking purposes. However, the area requirements for low rise commercial developments within the existing municipal limits shall be as per the local body/Municipal Council's rules and Regulations.

Sta dal e C ercial C plexes

For standalone commercial complexes with number of storeys more than two, the additional criteria listed in following table shall apply:

Table 97: Additi al Criteria r Sta dal e C ercial C plexes (re tha d uble st reys)

Ite	Per issible N r s / Sta dards
Mi i u Pl t Size	1000 sq.m.
Mi i u R ad idth	80 feet
Mi i u Fr tage	20 m
FAR	1:1.75
Maxi u r u d C erage	40%
Parki g	For pro ects without multiplexes the minimum parking requirement shall e 2 ECS per 100 sq m of total covered area (including circulation area)
	For pro ects with multiplexes/cinemas/theatres the minimum parking shall e: a) 3 ECS per 100 sq m of covered area in respect of the covered area of the multiplex component + 30% of the total covered area of the said component and

	b) 2 ECS per 100 sq m of covered area, in respect of the balance commercial component including circulation area
	Total parking requirement shall be provided in the compulsory front setback and within the development site boundary or in the basement.
ase e t	Multi level basement will be all wed bel w the building in z ned area except in setbacks pr vided it is pr p sed f r parking purp ses nly and shall satisfy the public health and structural requirements.
a dscapi g	If the site area is ne acre r ab ve, minimum 15% f the t tal area is t be reserved f r landscaping purp ses.
Setback	The minimum setback distance is t c mply with the existing n rms and standards.

N te:

1) *If t e roject is located wit in M.C. limit, t e rovision related to ground coverage, FAR, eig t of t e building and arking norms s all be as rovided in t e munici al building byelaws.*
2) *T e arking norms er ECS s all be as below*

- 23 sq. m. f r pen parking.
- 28 sq. m. f r parking under stilts n gr und fl r.
- 32 sq. m. f r parking in the basement.

These c mmercial facilities are intended t serve the needs f l cal residents and will n t be sh wn separately n the Master Plan. Instead, they are subsumed under the pred minant residential landuse.

10.2.3 N C NS RUC N Z NE A NG MAJ R R ADS

All pr perties within the jurisdicti n f Batala PA that abuts maj r r ads f 1, 2 and 3 categ ry shall have C nstructi n ne fr m the pr p sed O as menti ned bel w, irrespective f the landuse sh wn in the Pr p sed anduse Plan.

able 98: N C structi Z e al g Maj r R ads

Sr. N .	Na e a d Hierarch R ad	Pr p sed R W (i) utside M. Cl. li its	N C structi Z e (i) b th sides a ter Pr p sed R W
1	Pr p sed ing ad (1)	60	5
2	H-15(Amritsar-Gurdaspur ad) (1)	60	5
3	Batala-Jalandhar ad (2)	45	5
4	Batala-Dera Baba anak ad (2)	45	5
5	Batala-Shri Harg bind Pur ad (2)	45	5
6	Batala-Qadian ad (3)	30	5
7	Batala-Kahnuwan ad (3)	30	5
8	Batala-Aliwal ad (3)	30	5

N te: *ere widening of existing road is ro osed, t e land s all be taken ro ortionately equally from bot sides of existing roads.*

10.2.4 NS U NA

The Devel pment C ntr ls applicable t the instituti nal buildings shall be as f ll ws

Table 99: N r s r I stituti al uildi gs

Ite	Per issible N r s / Sta dards
Pl t size	Area and size shall be as per the affiliation authority norms or 5000 sq. m. as prescribed by the Punjab Government Policy, whichever is more.
Fr tage	200 feet
FAR	1:1
Gr u d	40%
Mi i u R ad width	60 feet or as proposed in the Master P an. The on y exceptions are nursery and primary schoo s.
Parki g pr isi s	The requisite par ing norm sha be 1 E S per 100 sq m of covered area, if the project is covered under notification no. 17/17/5-Hg2/311 dated 11.01.08.

N te: *Other building regulations shall be governed by the Zoning Plan approved by the co petent authority.*

10.2.5 NDUSTR A

Permissib e ground coverage, f oor area ratio, height, par ing etc. sha be as under:

Table 100: N r s r dustrial Sites

te		Per issible N r s / Sta dards
Size Pl t	**F r the irst 2420 sq ds**	50% of the site covered
	F r the ext 2420 sq ds	33% of the site covered
	excess 4840 sq ds	25% of the site covered
FAR		1:1.0
Parki g		1 E S per 100 sq. m. of covered area
R ad width		The minimum road width for industria unit sha be 40 feet.
Height		There sha be no restriction on the height of bui ding subject to c earance from Air Force Authorities and fu fi ment of other ru es, inc uding setbac s, distance between bui dings, etc. However, structura safety and fire safety requirements wi be as per the Nationa Bui ding ode and sha be mandatory.

N te:

1. *Residential co ponent in the industrial plot pre ises shall not e ceed 5% of the area of the site, and shall be within the a i u per issible covered area.*
2. *No new industry in the aster Plan shall be per itted on a road having less than feet RO or as specified in the aster Plan. However, in case the e isting road width is less than the ini u specified width as per aster Plan or feet wide, then the proportionate land on both sides shall be safeguarded for widening to co ply with the ini u re uire ent. In case, where habitation settle ent other physical feature co es in the align ent, the widening shall be on the other side of habitation settle ent other physical feature. In case of industries e isting before the final notification of the aster*

Plan, if the road width is less than 40 feet, then the owner of the site/industry shall give a self-declaration for leaving the required strip of land from his ownership as and when required by the concerned authority.

3. *Industrial/IT Park shall have minimum 10 acres area. In IT Park, IT component shall have FAR 2. In Industrial Park, for an industry component FAR shall be 1 and other components shall have FAR as mentioned under different uses in the Master Plan.*

10.2.5.1 Existing Industries:

The existing industries falling within non-conforming uses shall be governed by following Regulations:

i) All industries existing in clusters, located in non-industrial areas on the date of notification of Master Plan and shown on the Proposed Landuse Plan, shall stand adjusted, but shall be permitted to expand within existing premises only subject to the norms and conditions specified by the Punjab Pollution Control Board.

ii) Industries falling in the red and orange categories, other than those falling in clusters as mentioned above, shall not be permitted to operate within the residential/commercial zone and would be required to shift to the designated industrial zone within a period of 10 years from date of publication of Master Plan.

iii) All industrial units falling in non-industrial areas shall be permitted to change the nature of industries to that are knowledge based and involve the use of IT and ITES, for which permission shall be granted liberally subject to the condition that location does not cause any congestion and traffic problems.

iv) All the existing focal points/industrial estates set up the state govt. etc. have been retained as such in the Master Plan.

- **Incentives for shifting of existing industries falling within non-conforming zones (whether located individually or falling under the clusters as earmarked on the Proposed Landuse Plan)**

In case of industries falling in the red category which are in operation as on the date of notification of Master Plan and are located in the non-conforming landuse zones, if such industries shift outside this zone to any of the designated industrial zone within the Master Plan of Amritsar L.P.A within the state of Punjab and generate at least the same number of jobs at the new location, will be provided with following benefits:

1) No C.L.U., E.D.C or Licence Fee on the existing industrial site shall be charged if used for plotted residential purposes provided the industry shifts within three years of the notification of the Master Plan. If used for any permissible land use other than plotted residential for which the prescribed C.L.U., E.D.C and Licence Fee are higher, then the difference between C.L.U., E.D.C and Licence Fee of the proposed land use and plotted residential has to be paid. In case that particular land is put to a land use for which C.L.U., E.D.C or Licence Fee is less than the plotted residential, the difference between these fees / charges for the plotted residential and proposed land use shall not be payable by the Government / Urban Development Authority.

2) If the industry shifts in the subsequent two years of the above mentioned period of three years, it will enjoy only 50% reduction on C.L.U., E.D.C and Licence Fee on the present site if used for plotted residential purposes. If used for any permissible land use other than plotted residential, the difference between the C.L.U., E.D.C and Licence Fee of the new land use and that of 50% of plotted residential has to be paid. In case that particular land is put to land use for which C.L.U., E.D.C or Licence Fee is less than the plotted residential, the difference between these fees / charges for the

plotted residential and proposed land use shall not be payable by the Government / Urban development Authority.

3) No C.L.U., E.D.C or Licence fee on the new industrial site shall be payable if the industry shifts within five years of the notification of the Master Plan.

However, considering the role and importance of local craft and cottage industries, the decision for re-location/shifting shall be based on detailed study of such industries including assessment of their value, issues faced by them and threats they impose on the city environment subject to the condition that no such polluting industry shall be permited to operate from the residential areas.

10.2.6 ENVIRONMENTAL CONSIDERATIONS

i) Minimum buffer of 15 meters green belt of broad leaf trees should be provided around the boundary of village *abadis* falling in the industrial zone of Master Plan. A buffer strip of 15 meters of broad leaf trees shall also be provided between residential areas and red category industries falling in the industrial zone of Master Plan, boundaries of which are located within 100 m from the boundary of such areas. It is clarified that 15 meter buffer shall be provided by the owner of the project who comes later.

ii) All residential colonies, commercial establishments like shopping malls, multiplexes, etc. shall maintain a minimum distance of 250 m from the hazardous (Maximum Accident Hazardous or MAH) industries notified by the competent authority. The distance shall be measured from source of pollution/hazard in the industrial premises to the building lines as per zoning plan of the colony/complex. However, for specified type of industry like rice sheller/sella plants, stone crushers, hot mix plants, brick kilns, etc., standards prescribed by PPCB or any other agency shall apply.

iii) Gap of at least 100 feet should be left between the railway boundary and the nearest private buildings, so as to avoid smoke and noise nuisance to these adjacent buildings. Wherever it is not possible to leave, a road width of minimum 20 feet may be left between the railway boundary and the nearest adjacent buildings, as per the standards prescribed by the Railway Board conveyed by Divisional Superintendent, Northern Railway, Ferozepur to the Secretary, Local Self Government, Punjab vide their letter dated 22.09.1971.

10.2.7 OTHER DEVELOPMENT CONTROLS AND GUIDELINES REQUIRED

i) **Expansion of Village *Abadis*:** Contiguous expansion of village *abadis* falling in the non-residential zones of Master Plan is permissible up to a distance of 100 m from the existing *abadi deh* to accommodate the natural growth of villages. However, for the village *abadis* falling in residential zone of Master Plan, the development shall be regulated by the norms and standards defined for the development of the residential areas.

ii) **Regulation for Village *Abadi*:** Special building regulation shall be prepared for the development and regulation of an area falling within the *lal dora/phirni* of the villages, and the area proposed for expansion of the villages in the non residential zones falling in the Local Planning Area, in order to regulate the rational growth and development of the villages.

iii) The existing High Tension lines shall be shifted along the road but outside the Right of Way to ensure unhindered ROW for traffic and other services for all times.

iv) Minimum 5 m wide green strips on each side of minor water bodies like minor/drain, etc. shall be maintained in the portion falling within the existing municipal limits and 10 m in the portion falling outside the existing municipal limits. On the other hand, the major water bodies like river/major canals, etc. shall have minimum 30 meters green strips on each side. Realignment of water bodies shall be permissible wherever feasible, subject to the certification by the Drainage/Engineering Department to ensure free flow of storm water. After any such realignment, the river mouth, the river bed and the green strip/buffer on either side shall be maintained at least to the minimum prescribed level. In these green strips, golf course, sports and recreational activities shall be permissible, but no construction would be allowed. The supporting activities for these activities shall be constructed outside the green strips.

v) All commercial/public/industrial or other buildings of public use shall be made friendly for the physically challenged persons as per the norms and standards specified by the Government/competent authority from time to time.

vi) Provision for Rainwater Harvesting shall be made compulsory in all buildings subject to the guidelines issued by the Competent Authority from time to time.

vii) All new buildings to be constructed shall be made energy efficient based on design and use of energy efficient electrical appliances. Retrofitting of all existing buildings to make them energy efficient shall be taken up on priority.

viii) Trees shall be planted within and outside all residential areas and public/industrial buildings. Landscaping shall be made integral part of the building design.

ix) All buildings shall be made structurally safe in order to mitigate the damage caused by the natural and man made disasters, including earthquake, fire, etc. and shall conform to the guidelines and the stipulations made in the building byelaws and the NBC. It shall be duty and responsibility of the owner of the building to make the building safe against these disasters. Retrofitting of all existing buildings to make them safe against disasters shall be taken on priority.

10.2.8 TRANSFERABLE DEVELOPMENT RIGHTS

To facilitate development, it is necessary to accord top priority to the implementation of public utilities and infrastructure (such as roads, parks, green belts, etc.), which will in turn encourage urbanisation. However, the respective technical agency or authority will not be able to proceed with its implementation programmes until the ownership of private land affected by these public utilities and infrastructure has been transferred to the state or to the relevant authority(s). Acquisition of private land for this purpose can be carried out through one of the following options:

- Cash compensation can be made to affected land owners whose land is to be acquired.
- A government approved land pooling scheme can be implemented.
- Transferable Development Rights (TDR).

Under the TDR scheme, the affected land owner(s) shall be entitled to additional FAR for the development of the balance land parcel at a rate of 1:1. The additional FAR will not be subjected to any CLU, EDC or license/permission fees. The land owner(s) also has/have the option to sell it in total or in parts to a third party.

All the records of transactions administered under the TDR scheme shall be maintained by the state and/or relevant authority(s), based on the precedence set in Mumbai, Maharashtra. The TDR scheme shall be restricted to development projects for public infrastructure and facilities, which shall be announced from time to time. The additional FAR shall not be

transferable from one LPA to another one.

Detailed policy guidelines on the operation and implementation of TDR scheme shall be prepared and announced by the competent authority in due course of time.

10.2.9 EXCEPTIONS

i) Uses determined by the Chief Town Planner, Punjab as compatible with uses permissible shall be allowed in respective zones.

ii) Development/projects approved prior to coming in to force of these regulations shall be deemed to be in compliance with these Regulations.

iii) The site on which various projects have been approved or whose change of landuse has already been permitted by the competent authority/Govt., such site shall be deemed to be adjusted as sanctioned/permitted.

iv) Use of land covered under Optimum Utilization of Vacant Government Land (OUVGL) Scheme or any other project of the State / Central Government shall be determined by the Government at any appropriate time notwithstanding the provisions of this Master Plan.

v) In the event of conflict in interpretation of data within the study area, the information in the GIS format will be deemed as the accurate version and will prevail.

vi) In case the area of a project falls partially under no construction zone along a water body, relaxation of maximum up to 5% on the total area of the project shall be allowed towards calculation of saleable area in lieu of the area falling under the no construction zone. In case, the area falling under no construction zone is less than 5% of the total area of the project, then the relaxation shall be proportionately less.

vii) The buildings/premises, for which the existing (present) land use has been retained as such in the Master Plan, may continue to operate without time limit. However, in case the present use of the buildings/premises is discontinued (partially or wholly), these buildings/premises, or part thereof, may be put to any compatible use (except industry) with the surrounding use zone in the Master Plan, provided it fulfills the other development regulations/controls as laid down in the Master Plan or as prescribed by the Govt./Local Body from time to time.

viii) Within the existing M. Cl. limits, the building rules notified by the Local Govt. shall be applicable, i.e. FAR, height, ground coverage, parking requirements, setbacks, width of and frontage of site, etc. regarding residential, commercial, institutional, industrial or any other use for areas existing within the M. Cl. limits shall be governed by municipal rules/bye-laws.

ix) Any change in the above said development controls notified or to be notified in future by the concerned development authority shall have overriding effect on the development

controls mentioned above.

10.2.10 IMPLEMENTATION OF THE ZONING REGULATIONS/DEVELOPMENT CONTROL REGULATIONS

i) All authorities competent to grant permission for layout or sub-division of land or construction of building or development of land in any other form shall ensure that the permitted development is in accordance and compliance with these Regulations.

ii) Land owners desirous of developing their land can obtain a list of permissible uses, by applying to the designated authority in writing and giving details of their land along with necessary maps.

iii) The land owners proposing development of certain uses on their land shall obtain a certificate of "Compliance with Master Plan" from the designated authority.

CHAPTER 11

INVE TMENT P AN

City Inve tment Plan ha been prepared through a comprehen ive proce of gap a e ment in phy ical and ocial infra tructure ector in alignment with identified vi ion for Batala town. Thi a e ment ha al o led to the identification of ector- pecific trategie , implementation action and a ociated reform with pecific input from takeholder . The trategie adopted primarily have three dimen ion - improving ervice delivery by efficiency mea ure ; improving ervice delivery by creating infra tructure a et ; and improving the governance a pect of the municipality. Thi ection ummari e the capital inve tment required for creating infra tructure a et and variou trategic intervention required in the implementation of uch project . The e trategie are both inve tment-oriented and admini tration-oriented.

Inve tment Plan for the city highlight broadly the inve tment required for phy ical infra tructure uch a water upply, ewerage, olid wa te, etc. A far a ocial infra tructure i concerned, it i a umed that the required facilitie hall be developed through Govt. on the ba i of the late t PPP model .

11 1 INVE TMENT P AN

The City Inve tment Plan i the multi-year cheduling of identified and prioritized inve tment . The pha ing of the Plan i ba ed on tudie of fi cal re ource availability (for new inve tment and O&M), technical capacity for con truction and O&M, and the choice of pecific improvement to be carried out for a period of five year . The IP i needed for:

- A e ment of growth and accordingly meeting infra tructure need (to be carried out once every five year).
- cheduling of inve tment of ongoing project due to co t and/ or time overrun
- A igning of prioritie within the con traint of available financial re ource

IN TITUTI NA I ING THE CIP PR CE

The City Inve tment Plan i an important element of the Ma ter Plan and i ignificant in term of the town' management proce and u tainability with regard to the delivery of ba ic ervice . A a part of the Ma ter Plan, the CIP prepared include the following:

- De ired norm and tandard for infra tructure ervice ;
- Role and re pon ibilitie of variou takeholder in the implementation of identified project
- Project pha ing and trategie for implementation.

In Batala, Municipal Council i the primary agency re pon ible for delivering municipal

services and hence the CDP proposals ought to be implemented by Nagarpalika. The projects, prioritization, investment phasing, strategies and action plan are framed accordingly. The CIP involved the identification of public capital facilities to cater the demands of the city populace by the year 2011 and 2031 according to their short, medium and long-term infrastructure needs. The project identification has been done through a demand-gap analysis of the services and DPRs available with the Nagarpalika. Further, project prioritisation and strategizing of the investments/ phasing of investment are based on strategies, listed under each service sector as identified through stakeholder consultations. The projects derived are aimed at ensuring the optimal and efficient utilisation of existing infrastructure systems and enhancing the capacity of the systems/ services to cater the demands of future population additions. Certain other projects listed as part of the CIP include developmental projects other than those addressing the core service sectors viz. system modernisation, etc.

The CIP and the forecasted future needs for provision of capital facilities under each identified sector are presented below. These assets will help to universalise services for the current population as well as accommodate the expected increase in population. In sectors where long-term planning is required (for example, source development for water supply and development of landfill site), the planning horizon till the year 2031 is considered. Assets created in such sectors consider the projected population in this horizon.

11.2 SECTOR WISE INVESTMENT NEED

WATER SUPP Y

Sect r Strategies a d I vest e t Need

Strategy Identified	To cover the uncovered area by water supply network by augmenting the present distribution system network and to ensure equitable distribution of potable water to all through piped water supply ,and to provide a water treatment plant in the town
Expected Outcome	Assured ability to meet year 2031 demand
Total Investment Need	**Rs 6412 lakhs**

The investment f r vari us heads f water supply has been calculated f r the year 2011, 2021, and 2031 by taking int acc unt unit c st f each f the heads as well as gaps (requirements) identified respectively. The t tal investment need f r water sect r by 2031 is estimated at Rs. 6412 lakhs.

EWERAGE

ect r trategies & I est e t eed

Strategy Identified	Capacity expansi n and up gradati n f the existing c llecti n and c nveyance system t matc additi nal water supply and pr vide f r envir nmentally safe disp sal
Expected Outc me	Synchr nisati n with water supply capacity
T tal Investment Need	**Rs 8660 akhs**

The total investment need for sewerage sector by 2031 is estimated at Rs. 8660 lakhs.

TRAFFIC AND TRANSPORTATION

Sect r Strategies & I vest e t Need

Strategy Identified	Increase carrying capacity through widening and improve riding quality through strengthening of existing roads. New roads will cater missing links and developing areas roads.
Expected Outcome	Hassle-free travel on the roads, safe driving during nights
Total Investment Need	**Rs. 271 0 lakhs**

Identified investments based on the demand-gap assessment above presented are meant for the up-gradation of existing un-surfaced roads ne road development idening and strengthening of major roads implementation of the public transport system, traffic management systems and junction improvements provision of street lighting, etc. Improve identified major roads and the construction of ROBs at various critical intersections to achieve an efficient traffic management system. The total investment need for roads, transportation and traffic management sectors by 2031 is estimated at Rs 27150 lakhs.

STORM WATER DRA NAGE

Sect r Strategies & est e t Need

Strategy Identified	Laying do n of closed pucca drains throughout the hole to n and providing it a separate distribution line other than the se erage one.
Expected Outcome	Universal coverage and disposal capability, restrict se erage flo into storm ater drains
Total Investment Need	**Rs. 43 00 lakhs**

The system plans to cover 100% of the road net ork for service efficiency. The total investment need for drains sectors by 2031 is estimated at Rs. 43500 lakhs.

SO D WASTE MANAGEMENT

Sect r Strategies & est e t Need

Strategy Identified	Source segregation and door-to-door collection, effective transportation and environmentally safe disposal
Expected Outcome	Reduced aste generation, hygienic conditions and a clean city
Total Investment Need	**Rs. 199 akhs**

The total investment need for Solid Waste Management sector by 2031 is estimated at Rs. 5199 lakhs.

E ECTR CTY

Sect r Strategies & est e t Need

Strategy Identified	Installation of ne electric sub stations as per the requirement by 2031, minimize the transmission losses and laying do n of ne hierarchical electric distribution system
Expected Outcome	Supply of regular uninterrupted electricity throughout the year.
Total Investment Need	**Rs. 60.60 akhs**

The total investment need for electricity sector by 2031 is estimated at Rs. 60.6 lakhs.

SUMMARY OF COST ESTIMATION FOR DIFFERENT SECTORS OF PHYSICA INFRASTRUCTURE

Water Supply

I rastructure C p e ts	Require e t	U its	Rate (lakhs)	C st (lakhs)
Treatment Plant	18	MLD	25	450
Network Distribution	174	km	25	4350
OH	1	Nos.	55	55
Metering System	51895	Nos.	0.03	1556.85
T tal				**6412**

Se erage (80 Water Suppl)

rastructure C p e ts	Require e t	U its	Rate (lakhs)	C st (lakhs)
reatment Plant	34	MLD	50	1700
Distribution Network	174	km	40	6960
T tal				**8660**

Tra ic a d Tra sp rtati

rastructure C p e ts	Nu bers	U its	Rate (lakhs)	C st (lakhs)
Roads	59	km	250	14750
ROBS	5	Nos.	2500	12500
Flyovers and Bridges	2	Nos.	1000	2000
Junction Improvement	7	Nos.	100	700
T tal				**29950**

St r Water Drai age

rastructure C p e ts	Require e t	U its	Rate (lakhs)	C st (lakhs)
Network	174	KM	250	43500
T tal				**43500**

S lid Waste Ma age e t (Door to door collection, Mechanical sweeping, Collection through vehicles, landfill site development, incinerators, etc.)

rastructure C p e ts	Require e t	U its	Rate (akhs)	C st (lakhs)
Collection, ransportation and Disposal	115526	KG	0.045	5198.6475
T tal				**5199**

Electricit

rastructure C p e ts	Require e t	U it	Rate (akhs)	C st (akhs)
Sub Stati	13	Nos	800	10400
Distributi Net rk	174	Km	9	1566
T tal				**11966**

SECTORW SE TOTA COST EST MAT ON

NFRASTRUCTURE COMPONENT	TOTA EXPEND TURE (AKHS)
Roads	29950
Water Supply	6412
Sewerage	8660
Storm Water Drainage	43500
Solid Waste	5199
Electricity	11966
Gra d T tal	**105687 akhs (1056.87 Cr res)**

ANNEXURE I

N ti icati atala PA

SB-62

GOVERNME AB
DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
(HOUSING BRANCH-1)

NOTIFICATION

Date: 12/9/07

No.12/5/07-4HG1/ 9569 Whereas it appears to the Governor of Punjab that to meet the challenge of rapid growth of Batala town and to provide for workable frame work for comprehensive planned and regulated development, preparation of statuary Master Plan of Batala town is very essential. Hence in order to develop Batala town and its surroundings in an orderly manner and to prepare its master plan under *"The Punjab Regional and Town planning and Development Act- 1995"*. The Governor of Punjab is pleased to declare the Local Planning Area of Batala within the meaning of sub-section 1 of section 56 of the Punjab Regional and Town Planning and Development Act, 1995 (Amendment Act, 2006.) Total area proposed for Local Planning Area is 16570.44 hectare including Batala town and adjoining 77 villages. The schedule of boundary of proposed Local Planning Area is given below: -

SCHEDULE OF BOUNDARIES OF BATALA LOCAL PLANNING AREA

NORTH: Starting from point "A" which is the common meeting point of village Rufiali Khurd (H.B. No. 300) and village Morar (H.B. No. 299) of district Gurdaspur with the common district boundary of Gurdaspur and Amritsar and moving towards North-East along the northern boundaries of village Morar (H.B. No.299), Ghoga (H.B.No. 298), Khokhar (H.B. No. 273), Talwandi Lal Singh (H.B. No. 281), Rikhia (H.B. No. 280), Burj Araian (H.B. No. 277), Karwalian (H.B. No. 278), Taragarh (H.B. No. 245), Balewal (H.B. No. 247), Winjwan (H.B. No. 248), Bhullar (H.B. No. 234), Kotla Sahya (H.B. No. 233), Kotli Phasi (H.B. No. 232), Malludawara (H.B. No. 230), Udhowal (H.B. No. 229) and Khokhar (H.B. No. 228) up to point "B" which is the common meeting point of village Khokhar (H.B. No. 228), Godherpur (H.B. No. 446) and Naushehra Majja Singh (H.B. No. 470).

.AST: Thence from point "B" and moving towards south along the eastern boundaries of villages Khokhar (H.B. No.228), Udhowal (H.B. No. 229), Dialgarh (H.B. No.227), Harsian (H.B. No. 226), Mamrai (H.B. No. 225), Malikpur (H.B. No. 224), Diwaniwal (H.B. No. 199), Shahabad (H.B. No. 204), Sangatpura (H.B. No. 205), Batala M.C., Partapgarh (H.B. No. 210), Chahal Khurd (H.B. No. 209) and Chahal (H.B. No. 133) up to point "C" which is the common meeting point of villages Chahal (H.B. No. 133), Purian Khurd (H.B. No. 137) and Nat (H.B. No. 136).

SOUTH: Thence from point "C" and moving towards west along the southern boundaries of villages Chahal (H.B. No. 133), Phulke (H.B. No. 131), Rangilpur (H.B. No. 127), Basarpura (H.B. No. 126), Hassanpur Kalan (H.B. No. 289) and Bal (H.B. No. 290) up to point "D" where the common village boundaries of villages Bal (H.B. No. 290), and Purian kalan (H.B. No. 123) meets with the common district boundaries of Gurdaspur and Amritsar.

WEST: Thence from point "D" moving towards west along the common district boundarary of Gurdaspur and Amritsar up to point "A" which is the point of start.

Boundaries of Local Planning Area Batala are specifically shown on drawing no.DTP (G) 15/07 dated 30/08/07. All the provisions laid down u/s 56(2) of the Punjab Regional and Town Planning and Development Act, 1995 (Amended) Act, 2006 and all the concerned rules framed under this Act have been taken into consideration.

(ARUN GOEL, I.A.S.)
Secretary to Government Punjab,
Housing and Urban Development Deptt.

Date: 11-9-2007.
Place: CHANDIGARH

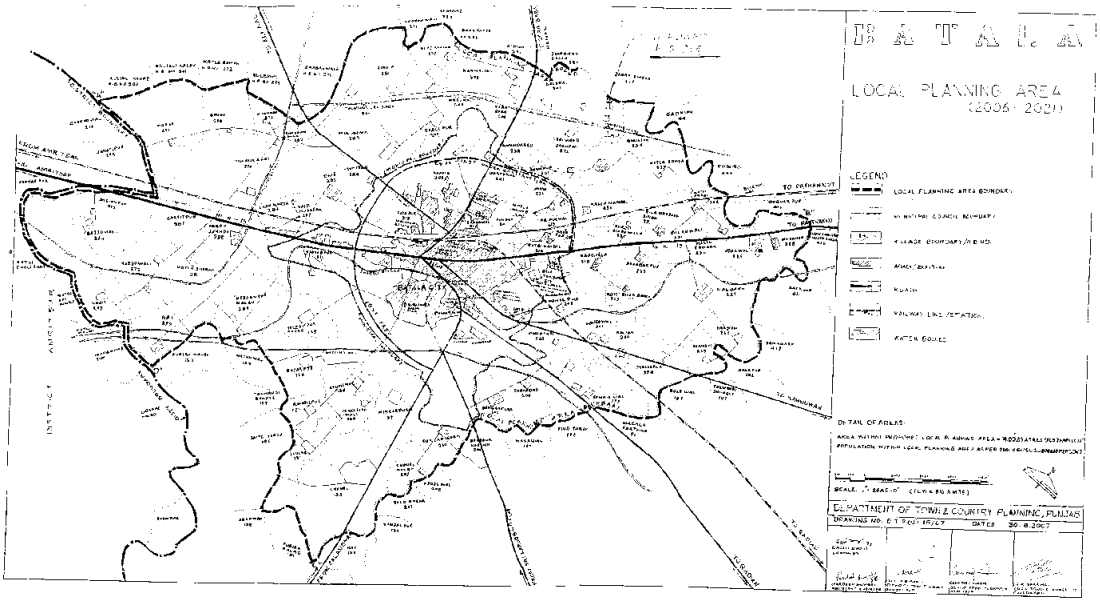
ist Settle e ts atala PA

S. N.	Na e the Village/T w	Hadbast N.	Area (i Ha)	P pulati (2001)	Re arks
1	Ba ala M. Cl.	----	3276	125677	-
2	Shahabpur	212			Area and Popula ion included in Ba ala M.Cl.
3	Faizpur	213			
4	Bakehwal	214			
5	Frindewal	215			
6	Qu bi Nangal	216			
7	Aima	239			
8	o la Nawab	240			
9	Punder	241			
10	okhuwal	242			
11	ha ib	243			
Ou grow hs of Ba ala U.A.		---	---	22195	Include ou grow hs of Bawali Inderji , Bha ha Inderji , Bakewal, aunspura, Alowal, Nawanpind, Marrianwala, Umarpura, o he Malawa, Sagarpur, Haveli Chobdaran, Jharriwalan, Mani hauranga, Bhode - di - hui and haral
12	Qila Tek Singh	217	50	1112	Area par ially included in Ba ala M.Cl.
13	Sodhpur	219	21	114	-do-
14	Dhupsari	203	135	968	-do-
15	Mulianwali	283	171	2458	-do-
16	Dhaulpur	279	188	1372	-do-
17	Shampur	237	125	564	-do-
18	ala Nangal	235	157	1558	-do-
19	Suniyah	284	128	2201	-do-
20	Ahmadabad	238	62	884	-do-
21	Talwandi Jheuran	236	104	1157	-do-
22	andiala	218	125	1067	
23	Nawan Pind	202	99	328	
24	Shahabad	204	216	1364	
25	Sanga pura	205	112	810	
26	Par apgarh	210	108	563	
27	Missarpura	129	237	1551	
28	Said Mubarak	297	144	799	
29	Dhir	285	195	1679	
30	Balewal	247	184	1812	
31	Winjwan	248	174	1300	
32	Bhullar	234	287	1758	
33	o la Sahya	233	146	1305	

34	Kotli Phasi	232	116	663	
3	Malludawara	230	8	4 6	
36	Gillanwali	231	109	1064	
37	Surjit Singh Wala	220	2	729	
38	Qilla Darshan Singh	221	136	973	
39	Bahadarpur	222	116	898	
40	Kotli Bhan Singh	223	142	9 7	
41	Malikpur	224	281	13 1	
42	Mamrai	22	8	63	
43	Harsian	226	148	924	
44	Dialgarh	227	4 8	1902	
4	Khokhar	228	191	890	
46	Udhowal	229	1	1128	
47	Kalian	200	110	987	
48	Longowal	201	1 6	1041	
49	Diwaniwal	199	324	1821	
0	Chahal Khurd	209	82	398	
1	Chahal	133	1	2287	
2	Chapianwali	130	82	301	
3	Phulke	131	134	99	
4	Chuhewal	128	1 4	1032	
	Rangilpur	127	84	669	
6	Basarpura	126	2 6	1376	
7	Hasanpur Khurd	12	23	1367	
8	Hasanpur Kalan	289	232	1193	
9	Hardo Jhanda	288	312	2078	
60	Ghastipur	287	1	1371	
61	Chak Khasa	286	48	8	
62	Bal	290	348	2092	
63	Kotla Sharaf	291	194	1374	
64	Sarupwali	292	301	2116	
6	Chhit	293	148	1024	
66	Bajjuman	294	241	1674	
67	Sheikhpur	29	40	164	
68	Dhadialanat	296	731	3 44	
69	Ghoga	298	220	919	
70	Morar	299	777	3 92	
71	Khokhar	273	84	249	
72	Shankarpura	282	161	1 33	
73	Talwandi Lal Singh	281	4 1	2482	
74	Rikhia	280	11	873	
7	Burj Araian	277	127	634	
76	Haruwal	244	77	37	
77	Taragarh	24	201	1790	
78	Karwalian	278	144	717	
79	Batala Sarki	211	430	Uninhabited	Area partially included in Batala M Cl

T tal	**16588**	**208668**	

The data of a ea has been taken f om the Existing Landuse Plan p epa ed by PRSC, Ludhiana, while the data of Population is exce pted f om Census of 2001.



ANNEXURE II

N ti icati Pla i g Age cy r atala PA

PUNJAB GOVERNMENT
DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
(HOUSING BRANCH-1)

NOTIFICATION

DATED..

No. 12/5/2007-4HG1/ Whereas the Governor of Punjab was pleased to declare the Local Planning Area of Batala and its surrounding area u/s 56(1) of "The Punjab Regional and Town Planning and Development Act, 1995" vide notification No. 12/5/2007-4HG1/ 7569 dated 18/9/07.

Further the Governor of Punjab is pleased to designate the Chief Town Planner, Punjab as Planning agency for the above Local Planning area under Section 57 of "The Punjab Regional and Town Planning and Development Act, 1995".

Arun Goel
Secretary to Government of Punjab
Department of Housing & Urban Development

Dated, Chandigarh.
11 -09-2007

ANNEXURE III

ist Trees rec e ded r Pla tati the Mai R ads withi Urba i its/ Master Pla Areas

Sr. No.	Name of tree (Botanical/ common)	Description
1.	Alstonia scholaris (Chhatim)	Tall tree with columnar shape, Evergreen, very ornamental, bears greenish-white flowers in October- December.
2.	Barringtonia acuitangula (Smudar Phal)	Medium tree with spreading habits, deciduous from April to May. Ornamental foliage and flowers in pendulous branches. Bears crimson flowers in April and September.
3.	Bauhinia blackiana (Kachnar)	Small tree, evergreenwith columnar form, highly attractive and ornamental. Propagated by layers and cuttings. Flowers deep pink from January to April and from Septermber to Novermber.
4.	Bauhinia purpurea (Kachnar)	Medium tree, with columnar form, evergreen, bears purple coloured flowers in November.
5.	Bauhinia variegata (Kachnar)	Medium tree with columnar form. Sheds leaves in January-February, profusely flowering tree, highly beautiful when in bloom, bears pink, white and purple coloured flowers in February, March, April
6.	Cassia fistula (Amaltas)	Tall columnar shaped tree, leafless in April-May. Very hardy tree, looks very ornamental when in bloom. Bright yellow flowers in April-May.
7.	Cassia grandis (Pink Mohur)	Medium in height, with spreading habit. Highly ornamental tree. Bears deep carmine flowers in November, December.
8.	Cassia javanica(Java-ki-Rani)	Medium in height, leafless in April-May. It is the most beautiful flowering tree. Bears clusters of pink flowers in May-June
9.	Cassia Marginata(Pink Mohur)	Medium in height, spreading and graceful tree, bears deep pink flowers in May and June.
10.	Cedrela tuna (Tun)	Tall columnar shaped tree, lealfless in Dec.-January. fairly fast growing and hardy tree with creamy white flowers in March-April.
11.	Chakarassia Tabularis	Tall spreading tree, evergreen and hardy. Excellent for shade. Flowers are greenish, white in April-May.
12.	Chorisia speciosa(Maxican Silk Cotton Tree)	Medium in height, pyramidal in shape,leafless from October to January, fast growing, bottle shaped green trunk. Flowers are of pink and yellow colour in October-November.
13.	Delonix Regia (Gulmohar)	Tall tree, with spreading crown, leafless from Jan.-March. Fast growing, very ornamental creates mass colour effect with orange red flowers from April to June.
14.	Ficus religiosa (Pipal)	Tall columnar shaped tree, lelafless in February-March, very hardy and fast growing, flowers pale green in April.

15.	Ficus infectoria(Pilkhan)	Tall spreading, fast growing and hardy tree, leafless in March, good for shade, need protection from cattle, green yellow flowers in Nov., Dec.
16.	Hetrophragma roxburghii (Marour Phaly)	Tall columnar tree, ever green, flowers are of pale, yellow brown colour in March.
17.	Jacranda mimosaefolia (Jakaranada or Neely-Gulmohar)	Medium in height, leafless when in bloom, good for parks and houses, fern like bipinnate leaves, bears flowers of violet-blue colour in April-May.
18.	Kigelia pinnata(Jhar Phanoos)	Tall and spreading tree, evergreen hardy and fast growing flowers are of crimson, yellow and brown colour in April-May.
19.	Lagerstroemia fros-reginae (Queen's flower)	Medium sized tree, columnar shape, very pretty, leafless in winter (December-February). Purple and pinkish blooms in April-May and July-August.
20.	Lagerstroemia thorelli (Pride of India)	Medium in height, columnar in shape, beautiful tree, leafless from Dec-Feb, flowers of mauve colour from June to December
21.	Lagerstroemia rosea	Medium in height, columnar tree, very pretty. Leafless in winter (December-Feb.) with deep pink flowers from April to September
22.	Pongamia Glabra(Karanj)	Tall spreading and fast growing tree, leafless in March. Bears mauve coloured flowers in April, May.
23.	Pterospermum acerifolium (Kanak Champa)	Tall columnar tree, ever green, handsome, bears sweet scented flowers of creamy white colour in March-April.
24.	Putranjaniva Roxburghii (Jiva Pota)	Medium in height, pyramidal shaped, ever green, handsome and very graceful tree, good for shade and beautiful form. Flowers are of pale yellowish colour in March-April.
25.	Saraca Indica(Sita Ashok)	Height medium, spreading tree, ever green, very hardy, foliage glossy and ornamental. Highly flow growing takes 30 years to become a good tree. Bears highly attractive scarlet coloured flowers in large compact clusters in Feb. – March.
26.	Schleichera Frijuga(Kusum)	Tall columnar shaped tree, evergreen, good for shade, leaves become red in March, April and again in July,-Sept. Flowers are of green colour in Feb-March.
27.	Sweitnia (Mahogany)	Evergreen, shady, attractive foliage, very hardy, tall tree with columnar shape, blooms in April, tree is slow growing and very good for avenues.
28.	Tabeuia Rosea	Small in height, golumnar in shape, dedciduous from December to February,Scanty foliage, flower colour is purple pink in Februar-March.
29	Terminalia Arjuna(Arjan)	Tall, columnar shaped tree, sheds leves in March. Very Hardy tree, flowers of pale-yellowish white colour appear in September-October.
30	Terminalia Chebula(Bahera)	Tall, Columnar shaped tree, leafless in March, Pale-yellow flowers all the year round.

ANNEXURE IV

N ti icati Wide i g NH 15

Punjab Kesari [illegible] 9

राष्ट्रीय राजमार्ग प्राधिकरण

भारत का राजपत्र

The Gazette of India

असाधारण

EXTRAORDINARY

भाग II—खण्ड 3—उप-खण्ड (ii)

पोत परिवहन सड़क परिवहन और राजमार्ग मंत्रालय

(सड़क परिवहन और राजमार्ग विभाग)

अधिसूचना

नई दिल्ली, [illegible]

का.आ. 1206 (अ)—केन्द्रीय सरकार ने, राष्ट्रीय राजमार्ग अधिनियम 1956 [illegible] (जिसे इसमें इसके पश्चात उक्त अधिनियम कहा गया है) की धारा 3क की उपधारा (1) के अधीन जारी की गई भारत सरकार के पोत परिवहन, सड़क परिवहन और राजमार्ग मंत्रालय (सड़क परिवहन और राज[illegible] अधिसूचना संख्या का.आ. 1199 (अ), तारीख 23 मई 2008 जो भारत के राजपत्र, असाधारण भाग-II, खण्ड 3, उपखण्ड (ii) में प्रकाशित की गई थी, द्वारा पंजाब राज्य में राष्ट्रीय राजमार्ग संख्या 15 के 97.700 कि.मी. से 102.860 कि.मी. (पठानकोट-अमृतसर सैक्शन) तक के भूखण्ड का निर्माण (चौड़ा करने/चार लेन का बनाने आदि), अनुरक्षण, प्रबंध और प्रचालन के लिए उस [illegible] अनुसूची में विनिर्दिष्ट भूमि का अर्जन करने के अपने आशय की घोषणा की थी, [illegible]

और, उक्त अधिसूचना का सार उक्त अधिनियम की धारा 3क की उपधारा (3) के अधीन तारीख 19 जुलाई [illegible] भास्कर (हिन्दी)' और तारीख 9 जुलाई 2008 को 'जग बाणी (पंजाबी)' में प्रकाशित किया गया था;

और, आक्षेप प्राप्त हुए थे और सक्षम प्राधिकारी ने उन पर विचार कर लिया है और आक्षेपों को अनुज्ञात कर दिया है;

और, सक्षम प्राधिकारी ने उक्त अधिनियम की धारा 3घ की उपधारा (1) के अनुसरण में केन्द्रीय सरकार को अपनी रिपोर्ट दे दी है;

अतः, अब, केन्द्रीय सरकार, सक्षम प्राधिकारी की उक्त रिपोर्ट प्राप्त हो जाने पर और उक्त अधिनियम की धारा 3घ की उपधारा (1) द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए, यह घोषणा करती है कि उक्त अनुसूची में विनिर्दिष्ट भूमि का पूर्वोक्त प्रयोजन के लिए अर्जन किया जाना चाहिए;

और, अब, केन्द्रीय सरकार, उक्त अधिनियम की धारा 3घ की उपधारा (2) के अनुसार में यह घोषणा करती है कि इस अधिसूचना के राजपत्र में प्रकाशन पर, उक्त अनुसूची में विनिर्दिष्ट भूमि सभी विल्लंगमों से मुक्त होकर आत्यन्तिक रूप से केन्द्रीय सरकार में निहित हो जाएगी।

सार्वजनिक सूचना

उपर्युक्त भूमि के लिए [illegible] अधिनियम 1956 की धारा 3 'जी' के तहत निर्धारित किया जाना है [illegible] धारा 3 'जी' की उपधारा 3 एवं 4 के तहत एतद् द्वारा भूमि अधिगृहीत करने के इच्छुक सभी व्यक्तियों से दावे आमंत्रित करने के लिए सार्वजनिक सूचना जारी की गई है।

अधिगृहीत की जाने वाली भूमि के विवरण नीचे दिए अनुसार हैं। इस भूमि में रुचि लेने वाले सभी व्यक्तियों को धारा 3 'सी' की उपधारा 2 के अनुसार उपमंडल न्यायाधीश एवं (सक्षम प्राधिकारी) भूमि अधिग्रहण कलैक्टर अमृतसर-1 के समक्ष दिनांक **15.07.09** खुद अथवा एजैंट द्वारा अथवा वकील के माध्यम से पेश होकर ऐसी भूमि में अपनी रुचि की प्रकृति को बयान करना होगा।

उपमंडल न्यायाधीश एवं
भूमि अधिग्रहण कलैक्टर अ[illegible]
(सक्षम प्राधि[illegible])

अनुसूची

पंजाब राज्य में राष्ट्रीय राजमार्ग संख्या 15 के [illegible] कि.मी. से 102.860 कि.मी. (पठानकोट-[illegible]

66/17	निजी	सिंचित	3-4	[illegible]	रूड़ सिंह, खजान सिंह पुत्र नथा सिंह, [illegible]
					[illegible] बलकार सिंह पुत्र किशन सिंह
66/23/1	निजी	सिंचित	0-12	304	समशीर सिंह, रनबीर सिंह पुत्र सरदूल सिंह
66/23/2/1	सरकारी	सिंचित	0-3	76	मुश्तरका मालकां
66/23/2/2	निजी	सिंचित	0-2	51	सुरजीत सिंह, बख्शीश सिंह पुत्र चनन सिंह, सतनाम सिंह, गुरप्रताप सिंह पुत्र बलकार सिंह
66/23/2/3	निजी	सिंचित	0-16	405	समशीर सिंह, रनबीर सिंह पुत्र सरदूल सिंह
66/23/3	निजी	सिंचित	1-14	[illegible]	[illegible] सिंह, रनबीर सिंह पुत्र सरदूल सिंह
[illegible]	निजी	सिंचित	4-12	2328	रूड़ सिंह, खजान सिंह पुत्र नथा सिंह, शमशीर सिंह, रनबीर सिंह पुत्र सरदूल सिंह
72/3/1	निजी	सिंचित	0-1	25	सुरजीत सिंह पुत्र चनन सिंह पुत्र सुंदर सिंह
72/4	निजी	सिंचित	5-9	2758	सुरजीत सिंह पुत्र चनन [illegible] सुंदर [illegible]
72/5/1	निजी	सिंचित	0-4	[illegible]	रूड़ सिंह, खजान सिंह पुत्र नथा सिंह, शमशीर सिंह, रनबीर सिंह पुत्र सरदूल सिंह
72/6/2	निजी	सिंचित	0-13	329	कश्मीर सिंह बलबीर सिंह पुत्र रूड़ सिंह पुत्र नथा सिंह
72/7/1	निजी	सिंचित	3-16	[illegible]	[illegible] सिंह पुत्र चनन सिंह पुत्र सुंदर सिंह
72/7/2	निजी	सिंचित	2-18	1467	सुरजीत सिंह पुत्र चनन सिंह पुत्र सुंदर सिंह
72/14/1/1/1	निजी	सिंचित	1-6	658	सतनाम सिंह, गुरप्रताप सिंह पुत्र बलकार सिंह पुत्र किशन सिंह
72/14/1/1/2	निजी	सिंचित	1-6	658	बलकार सिंह पुत्र किशन सिंह पुत्र ज्वाला सिंह
72/14/1/2	निजी	सिंचित	1-3	582	बलकार सिंह पुत्र किशन सिंह पुत्र ज्वाला सिंह
72/14/2/1	निजी	सिंचित	1-3	582	सतनाम सिंह, गुरप्रताप सिंह पुत्र बलकार सिंह पुत्र किशन सिंह
72/14/2/2	निजी	सिंचित	0-15	[illegible]	बलकार सिंह पुत्र किशन सिंह पुत्र ज्वाला सिंह
72/15/1	निजी	सिंचित	2-5	1139	बलकार सिंह पुत्र किशन सिंह पुत्र ज्वाला सिंह
72/15/2	निजी	सिंचित	[illegible]	[illegible]	[illegible] और [illegible] सिंह और अन्य
72/16/1	निजी	सिंचित	1-17	936	बलकार सिंह पुत्र किशन सिंह पुत्र ज्वाला सिंह
[illegible]	निजी	सिंचित			

1. क्र.स.	2. जिले का नाम अमृतसर	3. तहसील/तालुक का नाम अमृतसर			4. गांव का नाम (3) वेरका
54/4/1	निजी	सिंचित	0-12	304	ओंकार सिंह पुत्र गुरप्रीत सिंह पुत्र निरंजन सिंह
54/4/2	निजी	सिंचित	0-12	304	गुरप्रीत सिंह पुत्र निरंजन सिंह पुत्र प्रताप सिंह
54/6	निजी	सिंचित	4-2	2075	गुरप्रीत सिंह पुत्र निरंजन सिंह पुत्र प्रताप सिंह
54/7	निजी	सिंचित	1-2	557	गुरप्रीत सिंह पुत्र निरंजन सिंह पुत्र प्रताप सिंह
54/14	निजी	सिंचित	[illegible]	[illegible]	अमर सिंह पुत्र नरैन सिंह पुत्र ठाकुर सिंह
54/15	निजी	सिंचित	4-4	2125	अमर सिंह पुत्र नरैन सिंह पुत्र ठाकुर सिंह
54/16	निजी	सिंचित	1-5	633	अमर सिंह पुत्र नरैन सिंह पुत्र ठाकुर सिंह
54/17	निजी	सिंचित	6-13	3365	अमर सिंह पुत्र नरैन सिंह पुत्र ठाकुर सिंह
54/18/1	निजी	सिंचित	0-4	101	अमर सिंह पुत्र नरैन सिंह पुत्र ठाकुर सिंह
54/23	निजी	सिंचित	2-10	1265	सतनाम सिंह पुत्र मिलखा सिंह, दीदार सिंह, गुरबचन सिंह पुत्र सतनाम सिंह
54/24	निजी	सिंचित	5-14	2884	सतनाम सिंह पुत्र मिलखा सिंह, दीदार सिंह, गुरबचन सिंह पुत्र सतनाम सिंह
57/2	निजी	सिंचित	0-1	25	कश्मीर सिंह पुत्र नथा सिंह
57/3/1	निजी	सिंचित	1-2	557	कश्मीर सिंह पुत्र नथा सिंह
57/3/2	निजी	सिंचित	2-10	1265	सतनाम सिंह पुत्र मिलखा सिंह, दीदार सिंह, गुरबचन सिंह पुत्र सतनाम सिंह
57/3/3	निजी	सिंचित	3-10	1771	गुरबचन सिंह पुत्र बसन सिंह, पलविन्द्र सिंह, दलजिन्द्र सिंह पुत्र बचन सिंह
57/4/1	निजी	सिंचित	1-4	607	सतनाम सिंह पुत्र मिलखा सिंह, दीदार सिंह, गुरबचन सिंह पुत्र सतनाम सिंह
57/4/2	निजी	सिंचित	0-7	177	गुरबचन सिंह पुत्र बसन सिंह, पलविन्द्र सिंह, दलजिन्द्र सिंह पुत्र बचन सिंह
57/8/1	निजी	सिंचित	2-16	1417	गुरबचन सिंह पुत्र बसन सिंह, पलविन्द्र सिंह, दलजिन्द्र सिंह पुत्र बचन सिंह
57/8/2	निजी	सिंचित	1-14	860	मोहन सिंह, सोहन सिंह, अमरजीत सिंह, हरजीत सिंह, लखबीर सिंह पुत्र गुरनाम सिंह और अन्य
57/9/1	निजी	सिंचित	3-17	1948	परछिन कौर पत्नी कश्मीर सिंह और अन्य
57/9/2	निजी	सिंचित	2-3	1088	परछिन कौर पत्नी कश्मीर सिंह और अन्य
57/11	निजी	सिंचित	1-2	557	अरजन सिंह, अजैब सिंह, जीत सिंह, [illegible]
[illegible]	निजी	सिंचित	[illegible]	[illegible]	अरजन सिंह, अजैब सिंह, जीत सिंह, निशान सिंह पुत्र करतार सिंह पुत्र इंदर सिंह
[illegible]	निजी	सिंचित	[illegible]	1139	[illegible]

ANNEXURE V

N ti icati Pr hibited & Regulated Areas ar u d Pr tected M u e ts

THE GAZETTE OF INDIA

DEPARTMENT OF CULTURE
(ARCHAEOLOGICAL SURVEY OF INDIA)
NEW DELHI, THE 16TH JUNE 1992
(ARCHAEOLOGY)

S.O.1764.—Whereas by the notification of the Government of India in the Department of Culture, Archaeological Survey of India no. S.O. 1447 dated the 15th May 1991, published in the Gazette of India, part II, Section 3, sub-section (ii) dated the 25th May 1991, the Central Government gave one month's notice of its intention to declare areas upto 100 meters from the protected limits and further beyond it upto 200 meters near or adjoining protected monuments to be prohibited and regulated areas respectively for purposes of both mining operation and construction;

And whereas the said Gazette was made available to the public on the 5th June 1991:

And whereas objections to the making of such declaration received from the person interested in the said areas have been considered by the Central Government.

Now, therefore, in exercise of the powers conferred by rule 32 of the Ancient Monuments and Archaeological Sites and Remains Rules, 1959, the Central Government hereby declares the said areas to be prohibited and regulated areas. This shall be in addition to and not in any way prejudice to similar declarations already made in respect of monuments at Fatehpur Sikri; Mamallapuram; Golconda Fort, Hyderabad, Andhra Pradesh; Thousand Pillared Temple, Hanamkonda, district Warangal, Andhra Pradesh; Sher Shah's Tomb, Sasaram, Bihar; Rock Edict of Ashoka, Kopbal, district Raichur, Karnataka; Fort Wall, Bijapur, Karnataka; Gomateswara Statue at Sravanabelagola, district Hassan, Karnataka; Elephanata Caves, Gharapuri, district Kolaba, Maharashtra.

[No. F. 8/2/90-M]
M.C. JOSHI,
Director General.

ist Ce trally Pr tected M u e ts i Pu jab u der Cha digarh Circle

Sr. N .	Na e M u e t/Site	cality	Tehsil	District
1	Gateway of Ol Sarai	Amanat Khan	Tarn Taran	Tarn Taran
2	Gateway of Ol Sarai	Fatehaba	Kha ur Sahib	Tarn Taran
3	Ram Bagh Gate (Deo i)	Amritsar	Amritsar I	Amritsar
4	Summer Palace Maharaja Ranjit Singh	Amritsar	Amritsar I	Amritsar
5	Fort	Bhatin a	Bhatin a	Bhatin a
6	Ancient Site an Bu hist Stupa	Sanghol	Khamanon	Fatehgarh Sahib
7	Moun as Mu Fort	Abohar	Abohar	Firozepur
8	Ancient Site	Ropar	Rupnagar	Rupnagar
9	**aradari A ar ali**	**atala**	**atala**	**Gurdaspur**
10	**Sha sher ha T b**	**-d -**	**-d -**	**-d -**
11	Takht-I-Akbari	Kalanaur	Kalanaur	- o-
12-15	Kos Minars	Bir Pin & Dakhni, Jahangir, Nako ar, Tut Kalan	Nako ar	Jalan har
16-18	Three Kos Minars	Cheema Kalan, Shampur, Uppal	Nurmahal	- o-
19	Mughal Bri ge	Dakhni	Nako ar	- o-
20	Sarai & Gateway	- o-	- o-	- o-
21	Mughal Kos Minar	- o-	- o-	- o-
22	Theh Gatti Moun	Nagar	Phillaur	- o-
23	Tomb of Moh . Momin & Haji Jamal	Nako ar	Nako ar	- o-
24	Sarai inclu ing Gateway	Nurmahal	Nurmahal	- o-
25	Ancient Moun	Katpalon	Phillaur	- o-
26	Kos Minar	Ghungrali Rajputan	Khanna	Lu hiana
27	Kos Minar	Lashkari Khan	- o-	- o-
28	Kos Minar	Lu hiana	Lu hiana	- o-
29	Kos Minar	Sherpur Kalan	- o-	- o-
30	Ancient Site	Sunet	- o-	- o-
31	Kos Minar	Sanewal	Sanewal	- o-

ANNEXURE VI

N ti icati Regardi g F rest r Waste a d i Pu jab

Notification
The 3rd May, 1958

No. 1122-FT-58/1195. In super session of Punjab Government notifications

1. No. 260-FT-dated the 8th February, 1945
2. No. 5002-D-51/6264 dated the 15th November, 1951
3. No. 563-FT-54/458 dated the 3rd March, 1955 and
4. No. 3384-Ft-55/2134 dated the 19th August, 1955

and in exercise of the powers conferred by section 29 of the Indian Forest Act, 1927, and all other powers enabling him in this behalf, the Governor of Punjab is pleased to declare the strips of Govt. forest or waste land whether under tree growth or not on either side of all roads, canals and railways in the State of Punjab except those in the Patiala Division described in the following schedule, to be protected forests and the provisions of chapter IV and section 68 of the said Act to be applicable to them :-

S C H E D U L E

Name of Strips	Description and situation
Roads	All . P.W.D. (Buildings and Roads) roadside strips and also other P.W.D. lands in Punjab State transferred to the Forest Department for Management.
Canals	All land on either side of P.W.D. (Irrigation Branch Canals and Canal roads including main canals, branches distributaries, Minors escapes and bounds and also other land of that department transferred to the Forest Department for Management.
Railways	The land along the railway track and station yards on Northern railways transferred to the Forest Department for Management.

No. 1122-FT-58/1196. Whereas by Punjab Government Notification No. 1122-FT-58/1195, dated 3rd May 1958, all strips of Government waste lands, demarcated by boundary pillars whether under tree growth or not on either side of all roads, canals and railways in the state of Punjab except, Patiala Division as mentioned in the schedule annexure to the said notification have been declared to the protected Forests under section 29 of the Indian Forest, Act 1927.

NOW HERE FORE the governor of Punjab in exercise of the powers conferred by section 30 of the said Act is pleased :-

(a) to declare all trees standing in or upon these lands to be reserved with effect from the date of publication of this notification.

(b) To prohibit from the same date the quarrying of stones, burning of lime or charcoal, or the collection or subjection to any manufacturing process, or removal of any forest produce in any stage forest and the breaking up or clearing of land for building or for herding cattle or for any other purpose of any land in such forests.

NAKUL SEN
Secretary to Govt. Punjab, Revenue Deptt