

**GOVERNMENT OF THE PUNJAB
LG& CD DEPARTMENT**



PC-II

FOR

**PREPARATION OF MASTER PLAN FOR DISTRICT VEHARI
(2022-2042)**

ESTIMATED COST: Rs. 50.00 Million

Date of Estimates: 06-04-2021

PC-II PROFORMA

For Submission to Planning & Development Department, Government of the Punjab

1.	Name by which survey will be identified	Master Planning of District Vehari (2022-2042). The map of Project Area is attached as Annexure-A
2.	Administrative authorities responsible for: i. Sponsoring ii. Execution	Government of the Punjab LG&CD Department through DDLG Vehari
3.	Details of Survey / Feasibility Study	
	a. General Description	<p>i. <u>Introduction</u></p> <p>The ultimate aim of the government is to provide at least suitable, if not excellent, living condition to the people to encourage them to lead peaceful life in environmentally friendly surroundings pursuing their individuals as well as their communal dreams for development. In order to maintain such coverage to all the population it become essential to forward plan so as to able to cater for their emerging needs in times to come, taking into account not only growing number of inhabitants but also the associated challenges and opportunities that the future is expected so far.</p> <p>A master plan is a blueprint for future development. It is a comprehensive document, providing clear direction to the long-term future development activities in an area encompassing all sectors and segments of life in integrated manner. The master plan sets policies regarding growth and development. The information and concepts presented in the master plan are integrated to guide local decisions on public and private use of land and natural resources as well as the provision of public facilities to improve the living conditions of the residents.</p> <p>ii. Objectives of the Study</p> <p>The basic aim of the study is to prepare Master Plan for District Vehari.</p>

		<p>The master plan will achieve the following objectives:</p> <ul style="list-style-type: none"> ❖ To propose integrated land use planning by addressing the needs of the residents of the area, in terms of housing, health, education, religious, parks, recreation, sports, industrial, commercial, trade services, agricultural, solid waste management, water and sanitation and other uses of land. ❖ To study existing infrastructural services including water supply, sewerage and drainage system within the area and propose schemes for their improvements. ❖ To prepare schemes for environmental improvements, housing, urban renewal, solid waste disposal, transportation and traffic, health and education facilities and preservation of objects or places of historical, archeological, scientific, cultural and recreational importance. ❖ To focus on innovative interventions for efficient use of land and provision of adequate, quality and affordable housing supply. ❖ To prioritize investment and capacity building of the local economy, in particular the agriculture and industrial sector. ❖ To cater the transportation planning and traffic management issues by planning efficient traffic and transportation network ❖ Planning and management of environment friendly initiatives. ❖ To ensure equitable growth and urbanization in the desired direction within Vehari district. ❖ To focus on the pillars of sustainability in order to efficiently utilize the existing resources and address the future demand. ❖ To propose an optimal city management structure within which inhabitants can perform their economic and social functions efficiently and effectively. ❖ To support capacity building of public sector institutions responsible for development and service provision in Vehari district and ensure consistency in service deliver. ❖ To align private sector investment and activities with the over public interest of the citizenry in Vehari district, to ensure inclusive development.
--	--	--

		<ul style="list-style-type: none"> ❖ To improve governance and risk management ❖ To promote public health, safety, general welfare and better living environment in the district Vehari.
	<p>b. Justification</p>	<p>The cities / urban centers in the district are expanding horizontally and haphazardly towards all directions. The existing resources and infrastructure capacity of these centers are not able to fulfil needs and demands of their inhabitants.</p> <p>Vehari city is one of most rapidly growing agricultural based city with flourishing industry which grew fast, it expanded beyond expectations. The city emerged as a progressing commercial center, industrial trading hub and now is one of the few lively centers of social and economic activities in the country.</p> <p>Similarly, other major cities such as Burewala and Mailsi are depicting very miserable picture with reference to available public utilities, facilities and infrastructural services.</p> <p>In year 2019, Govt. of the Punjab has notified urban centers as Municipal Corporation, Municipal Committees and Tehsil Councils according to number of population and their administrative limits have also been increased, but concerned local governments are facing problem in exercising building and development control due to non-availability of land use plans of these areas.</p> <p>Previously, Outline development plans of majority of the urban centers were prepared by the Housing and Physical Planning Department, Govt. of the Punjab in the decade of 1980s, but same had been expired. In addition to that ODP for MC Vehari was prepared for period 2014-2039.</p> <p>Practically, these plans have become outdated except Vehari. The proposals embodied in the plans could not be enforced due to laxity in approval and enforcement. The plans were prepared with the key objective of guiding and controlling the development of the city for specified time period. But this objective could not be achieved effectively though partial implementation has resulted in</p>

		<p>segregation of various land uses and improvement of road network. As a result, the cities / urban centers have witnessed unpleasant and unseemly urban sprawl, widespread katchi abadis, slums and gross deficiencies of required infrastructure/ utilities. Moreover, the development went out of proportions in sheer contravention of the proposals contemplated in the plans.</p> <p>Furthermore, the changing growth patterns and consequential sectoral needs and extension in urban limits also demand to have a comprehensive Master Plan of the city prepared in the regional perspective. The plan will be required to ensure sustainable development by providing the required living facilities to local population without compromising the needs of future generations and minimum destruction of fertile agriculture land in the periphery of urban areas.</p> <p>The notable urban problems / issues are listed below:</p> <ul style="list-style-type: none"> ❑ Uncontrolled and unplanned growth of cities / urban centers ❑ Wide-spread katchi abadis, slums and squatter settlements ❑ Lack of adequate social and physical infrastructure ❑ Traffic and transportation problems ❑ Development of incompatible land uses ❑ Water scarcity ❑ Lack of parks / open spaces and urban forestation ❑ Destruction of fertile agriculture land due to uncontrolled growth of illegal development ❑ Environmental degradation and deterioration of living conditions ❑ Ineffective and inefficient city / town management <p>In order to address and resolve problems / issues of urban areas of the district Vehari, new development initiatives shall be taken based on the recommendations of master plan of the district, a blue print of development activities, capable to cater the needs of 20 years shall be formulated. It will contain short and long-term solutions to cater the need of local people for over a period of 20 years. The plan formulation shall be based on various study</p>
--	--	---

		activities which will determine land use plans for 20 years and other physical infrastructure required catering a particular population of district up to 20 years and economic, social and environmental evaluation done by the consultant.
	c. Month of commencement and completion	<p>For details see TORs at Annexure – B</p> <ul style="list-style-type: none"> i. Approval of PC-II from P&D Department: May 2021 ii. Pre-qualification & selection of consultant: June 2021 iii. Award of contract, finalization of study methodology and procurement of satellite imagery: August 2021 iv. Submission of Inception Report of Phase-I: September 2021 v. Submission of all base line data collected: December 2021 vi. Submission of Land Use Classification Maps and draft report: January 2021 vii. Submission of Land Use Classification Maps and final reports: February 2022 viii. Submission of draft Master Plan (inclusive all sectoral plans) and draft report: February 2022 ix. Submission of final Master Plan (inclusive all sectoral plans) and final report: March 2022 x. Submission of Action Plans and Reports: July 2022 <p>The work breakdown structure and activity-duration plan are annexed as Annexure-C</p>
	d. Estimated cost	The estimated cost of the project has been worked out to Rs. 50.00 Million as approved by the Government of Punjab and their market-based details of similar kind of work and professional remunerations costs in the year 2020 are given at Annexure – D . Furthermore, when the tendering process will be initiated, the negotiation process with the bidders will result in minimum cost of project and will be awarded to bidder with maximum marks obtained on the basis of technical and financial proposal as per the standards of PPRA Punjab.
	e. Personnel required	Preparation of Master Plan and its implementation is a

		<p>complex job and a multi-disciplinary team is needed to undertake this job. The consultant should be a reputable and experienced town planning organization, with a demonstrated experience of conducting similar studies. In the proposal the consultant shall provide brief descriptions of the similar projects carried out in the last five years, indicating those aspects of the projects that are relevant to the work being proposed. It shall also indicate that the team comprised of highly qualified experts in good standing with key personnel having at least 15 years of professional experience. The key personnel and experts are listed in Table The consultant may form consortium of well reputable firms.</p> <p>The anticipated personnel requirement to accomplish the project is given at Annexure – E.</p>
	i. Local	12 man-months
	ii. Foreign	----
	iii. Give period for contract for local and foreign consultants and terms of their appointment	<p>In view of having no facilities to undertake studies in hand, LG&CD Department is seeking the services of private, local consultants under negotiating terms and conditions to undertake the proposed feasibility study of Master Planning of district Vehari. With the approval of PC-II from the competent forum, the proposed study will be outsourced to the qualified consultants having proven experience in urban planning across the country in line with the prevailing Rules, Regulations and guidelines for selection of consultants laid down by the Government of the Punjab.</p> <p>A presentation should be given by the bidder / consultant before finalizing the feasible option. The consultant shall be engaged for a period of twelve months.</p>
	f. Mode of Financing (give budget provision), if foreign exchange expenditure involved indicate whether a firm commitment is available	Funding for the project will be provided by the Government of the Punjab. No foreign exchange requirement as the consultant will be paid in Pak Rs.
	g. Benefits of the project	The Master Plan, including land use classification maps, site development zone structure plans and re-classification schemes of project areas will provide a comprehensive framework for well planned and smart

		<p>growth of all urban areas as well as the entire district. Moreover, Master Plan document will be used as a planning tool to permit future building and development activities in the district Vehari.</p>
4	Expected Outcomes	<p>With the completion of feasibility study, following outcomes are expected to achieve:</p> <p>Formation of Master Plan of District Vehari with identification of short and long-term development framework for a period o 20 years by encompassing all sectors and segments of life in integrated manner.</p> <p>The master plan will identify policies, regarding growth and development. The information and concepts in the master plan will be intended to guide local decisions on public and private use of land and natural resources as well as the provision of public facilities to improve the living conditions of the residents of urban areas of the district.</p>

Prepared By:

**Assistant Director LG
LG&CD Department Vehari**

Checked By:

Deputy Director, LG&CD Department

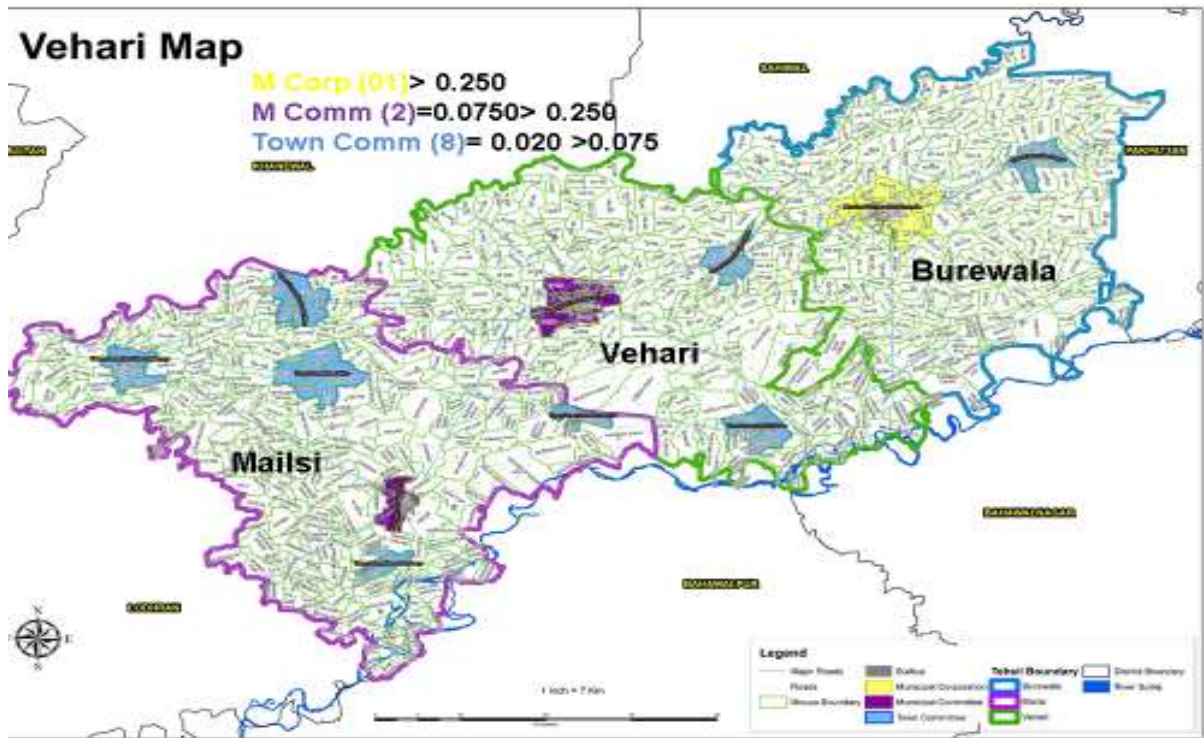
Recommended By:

Deputy Commissioner, Vehari

Countersigned and Forwarded to P & D Department By:

**Secretary
LG&CD Department
Government of the Punjab**

PROJECT AREA MAP



TERMS OF REFERENCE

PREPARATION OF MASTER PLAN FOR VEHARI DISTRICT (2022-2042)

1.0 Background

Vehari district is Pakistan's 62nd largest city. Vehari is about 100 km (62 mi) from the historical city of Multan in Punjab, comprised of 2.8446 million population (2017) and spanning over an area of 4364 Sq. Km. Strategically, Vehari is located at the Multan-Delhi Road constructed by Indian Muslim Emperor Sher Shah Suri. It is at an altitude of 135 m (443 ft). Administratively, Vehari district is divided into 3 Tehsils: Vehari city, Mailsi and , Burewala

Vehari district is growing rapidly, but in an unplanned manner since its inception. The rural to urban migration, increase in population, mushroom growth, poverty and poor administrative control has given rise to all sort of urban problems in the area.

It is 956 km (594 mi) from Karachi, 300 km (190 mi) from Lahore, 218 km (135 mi) from Faisalabad, 119 km (74 mi) from Bahawalpur, 61 km (38 mi) from Hasilpur, 41 km (25 mi) from Mailsi, 46 km (29 mi) from Kacha Khuh, 36 km (22 mi) from Burewala, 27 km (17 mi) from Luddan, 78 km (48 mi) from Arifwala, 112 km (70 mi) from Pakpattan, and about 37 km (23 mi) north of the river Sutlej – the southernmost of the five rivers of

the Punjab region. Islam Headworks is on this river near Luddan on the Luddan-Vehari canal providing irrigation water to both banks of the river, which includes the upper fringes of the Cholistan Desert.

Realizing the importance of master planning of district Vehari and vision of Prime Minister of Pakistan, the Government of Punjab aspire to have master planning of all cities, so that provision of civil facilities may be provided to local people in planned manner and on the basis of proper need assessment. With the formulation of plan all civic facilities may be identified and provided in the district catering the need of growing population for next 50 years.

After promulgation of new Punjab Local Government Act, 2019, the district has been divided into various local governments: Municipal Committees, Municipal Corporation, and Tehsil Councils. The PLGA 2019 authorizes the concerned local governments to prepared land use plans of their notified limits and it also authorizes the local government to prepare master plan.

2.0 Scope of Work:

Master planning study is conducted according to the provisions of The Punjab Local Governments Land Use Plan (Classification, Reclassification and Redevelopment) Rules 2020 . These rules define master plan as “land use plan of an area and includes a structure plan, an outline development plan, a spatial plan, site development zone structure plan and a metropolitan plan”

Thus, following are scope of work for master planning study, according to these rules:

- ❖ Prepare Land Use Classification Maps of all urban settlements in the district
- ❖ Identify site development zones in the entire district keeping in view the accessibility from the existing infrastructure, environmental impact, connectivity with and burden on water supply and sewerage infrastructure.
- ❖ Prepare Site Development Zone Structure Plans of all site development zones in the district
- ❖ Prepare Tehsil Planning Maps by combining notified land use classification maps, notified site development zone structure plans and notified list A and B roads.
- ❖ Prepare District Planning Map by combining notified Tehsil planning maps of all tehsils of the district.
- ❖ Prepare Master Plan, including notified land use maps / plans and all other sectoral studies including water management sectoral plan, wastewater management sectoral pan, solid waste management sectoral plan, Transportation sectoral plan, Urban economy studies, Housing and informal settlement sectoral plan, environment sectoral plan, health sector plan, education sector plan, agricultural sector plan, Industries sector plan.
- ❖ Prepare Action Plans (Re-classification schemes) for identified project areas.

- ❖ Prepare redevelopment plan for the notified reclassification schemes
- ❖ Suggest ways and means where Go Punjab (by amending / enacting laws) may encourage the development of Vehari District, provide incentives to investors and or specific industries / sectors, based on holistic, measurable and inclusive analysis and on current global trends and best practices, while maintaining the local / national context.
- ❖ Prepare complimentary documents with the master plan like urban design manual, rules and regulations of each sector of urban planning.
- ❖ Prepare Disaster Risk Management Plans, Framework and contingency planning plus regulations and guidelines for earthquake resistant buildings and rural to urban migration.
- ❖ Prepare institutional framework including institutional strengthening framework, institutional restructuring and reforming, capacity building framework and development & building control mechanisms
- ❖ Prepare framework for Urban Finance Management.

3.0 Objectives of Study:

The proposed study will achieve the following objectives:

- ❖ To propose integrated land use planning by addressing the needs of the residents of the area, in terms of housing, health, education, religious, parks, recreation, sports, industrial, commercial, trade services, agricultural and other uses of land.
- ❖ To study existing infrastructural services including water supply, sewerage and drainage system within the area and propose schemes for their improvements.
- ❖ To prepare schemes for environmental improvements, housing, urban renewal, solid waste disposal, transportation and traffic, health and education facilities and preservation of objects or places of historical, archeological, scientific, cultural and recreational importance.
- ❖ To focus on innovative interventions for efficient use of land and provision of adequate, quality and affordable housing supply.
- ❖ To prioritize investment and capacity building of the local economy, in particular the agriculture and industrial sector.
- ❖ To cater the transportation planning and traffic management issues by planning efficient traffic and transportation network
- ❖ Planning and management of environment friendly initiatives.
- ❖ To ensure equitable growth and urbanization in the desired direction within Vehari district.
- ❖ To focus on the pillars of sustainability in order to efficiently utilize the existing resources and address the future demand.
- ❖ To propose an optimal city management structure within which inhabitants can perform their economic and social functions efficiently and effectively.

- ❖ To support capacity building of public sector institutions responsible for development and service provision in Vehari district and ensure consistency in service deliver.
- ❖ To align private sector investment and activities with the over public interest of the citizenry in Vehari district, to ensure inclusive development.
- ❖ To improve governance and risk management
- ❖ To promote public health, safety, general welfare and better living environment in the district Vehari.

4.0 Major Components of the Project:

The consultant firm shall submit the following plans including earmarking of projects and phasing within the overall master plan document for the district Vehari:

- ❑ Vision for growth and development
- ❑ Studies, investigations, profiling and analysis
- ❑ Data collection and surveys
- ❑ Land use plans
- ❑ Strategies and proposed projects and programs
- ❑ Stakeholders' consultations and public participation
- ❑ Proposed institutional arrangement and implementation framework

5.0 TASKS AND ACTIVITIES

- Task-A: Inception Report
- Task-B: Studies, Investigations, Profiling and Analysis
- Task-C: Visioning and consultation
- Task-D: Compilation of all the collected data
- Task-E: Development of Land Use Classification Maps
- Task-F: Development of Draft Master Plan (inclusive all sectoral plans)
- Task-G: Final Master Plan (inclusive all sectoral plans)
- Task-H: Action Plans

TASK-A: INCEPTION REPORT:

The consultant shall prepare an Inception report containing:

- a. the detailed methodology and time schedule for the said consultancy assignment.
- b. Man-months and responsibilities of each professional engaged for the work;
- c. plan for ensuring qualitative work;
- d. a comprehensive mechanism for discussions with stakeholders and public consultation; and
- e. monitoring, evaluation and reporting system throughout the consultancy assignment.

TASK-B: STUDIES, INVESTIGATIONS, PROFILING AND ANALYSIS:

The consultant shall review the following:

- existing policies, procedures, plans, studies conducted by donor agencies and any other relevant data
- existing plan in light of the China Pakistan Economic Corridor and its key objectives including trade facilitation, economic regeneration and tourism
- industry, trade, and tourism component proposed in the existing Master Plan
- existing situation in detail through field investigations / studies, best practice knowledge, and background studies / analysis.

After review and analysis, the consultant shall develop the profiles for following components of urban structure and assess opportunities and constraints for the development of land use zoning and strategic framework:

1) Land Use Maps

The consultant shall prepare a GIS based detail land use Base Map for the quantification of built-up, infilling, brown fields and open land available for future development for the projected boundaries of urban areas within district Vehari till 2042. The consultant shall prepare detailed land use map for the urban areas by conducting field surveys, with the registration of land uses separately for both built-up areas and site development zone areas.

The consultant shall prepare Land Use Classification Maps and Site development zone Structure Plans of all urban areas in the district as per detail classification and methodology provided The Punjab Local Governments Land Use Plan (Classification, Reclassification and Redevelopment) Rules 2020 .

The consultant shall acquire the satellite imageries (60 cm resolution) from authentic source for using to develop an updated base map of the urban areas including surrounding areas in order to support suitability analysis of existing and proposed land uses for urban development and other ancillary uses. In addition, the consultant shall stem proposed land uses for assessment of existing ecology of the region and develop transportation network, green spaces and all other base data layers by using same image. The consultant shall reproduce the GIS based digital land use map at various scales according to the need. Following layers and attributes are required to be included in the base map:

- a. Boundaries (District, Tehsils, Cities, Municipal Committees, Town Committees, Neighborhoods, Wards, Mouzas)
- b. All major and minor streets, roads, railway lines, railway stations and airports (Roads and Streets to include Right of Ways information)
- c. Water Supply, Sanitation, Sewer, SNGPL and telephone networks
- d. Water bodies (Streams, river and other water bodies)
- e. All land parcels with attribute information on their land uses, planned / unplanned status, building heights and pictures etc
- f. Amenities (education, health, religious, banks, police stations, libraries, and community halls etc)

- g. Parks and Playgrounds
- h. Brown Fields and Green Fields
- i. Open spaces (agriculture all type, vacant parks, play areas, green space both planned / unplanned and graveyards etc)

2) Land Cover Analysis

The consultant shall perform a land cover classification of the urban areas by acquiring at least 5 raster images (having min 7 bands) in last 30 years and use the result of land cover classification for various tasks as employing GIS based Spatial – temporal growth analysis and estimating future projections

3) Elevation Profile Mapping

The consultant shall collect and map generic medium resolution elevation data at 30 m resolution. This will include the whole site development zone and agriculture areas.

4) Regional Accessibility

The consultant shall evaluate the existing regional accessibility and its potential to accommodate the future commuting requirements etc in relation to the proposed zoning and development opportunities. The consultant shall produce a regional accessibility map showing settlements in 100 KM radius, with volume of traffic and commuting requirement in phases with narrative analysis. The consultant shall identify the present manner of accessibility, the potential for future expansion and its constraints.

5) Urban Density

The consultant shall perform the urban density analysis to identify the following elements:

- a. The relationship between different built-up areas and population density
- b. Appropriate availability of land for specific activities and services required by residents for good quality of life
- c. Areas suffering from congestion and the factors causing it.

6) Infrastructure

a. Water Management Sectoral Plan

The consultant shall assess existing drinking water demands and resources available and will prepare a comprehensive water management plan for next 20 years considering community management, advantages and disadvantages of centralized and de-centralized solutions. It includes rehabilitation plan of existing outdated water network, protection and exploitation of existing water resources, future extension plans of network as well as development of new water resources, treatment facilities and pumping stations. It will also be proposed DNI zones for selected areas for 24/7 water supply and system for improved water supply management including SCADA requirement for the urban areas. The consultant will also identify high priority short term and medium-term projects.

b. Wastewater Management Sectoral Plan

The consultant will prepare sewerage network plan for existing and next 20 years requirement of the project area. All waste water producing units should be connected to sewer network and collected wastewater should be transported in a safe manner without posing any threat to public health to a suitable treatment facility considering community involvement, lowering of capital O&M costs, advantages and disadvantages of centralized or decentralized systems. The consultant will suggest suitable locations and treatment technologies for the collected wastewater. Reuse of treated wastewater for agriculture or landscaping should also be envisaged.

c. Solid Waste Management Sectoral Plan

The consultant shall assess the existing conditions regarding type and composition of municipal, green, construction & demolition, hospital and industrial waste and prepare waste collection, transport, transfer, any recycling, composting and final disposal plans based upon future requirements. The consultant will propose efficient collection, transport, recycling and disposal systems able to cater needs of next 20 years including the possibility of building on them or integrating them into a new model. This also includes identification and procurement plan for required equipment, vehicles and infrastructure.

7) Transportation

The consultant shall prepare a comprehensive transport sector plan based on the study of existing traffic and transportation system of the cities / urban areas and the problems that it faces in fulfilling the requirements of the public. The plan will include study of existing mobility patterns, capacity of road network, public transport systems, para transit systems and freight mobility patterns in the cities / urban areas. Based on field surveys and future mobility patterns, the consultant shall identify bottlenecks in the system that lead to traffic congestion. The consultant shall prepare a comprehensive solution that will include identification of new roads, widening of existing roads, segregation of fast- and slow-moving traffic, synchronization of traffic lights, geometric improvements of roads and intersections, parking spaces / plazas, public transport network, establishment of freight terminal and implementation of intelligent transport systems. Prioritization will be given to pedestrians and commuters. In addition, the consultant shall also identify priority projects (short term and medium term) and phase out to implement the transport plan.

The consultant shall carry out various transportation surveys to prepare transportation plan of the cities / urban areas, including:

- i. Traffic Counts
- ii. Screen Line / Cordon Line Surveys
- iii. Household Interview Survey
- iv. Parking Survey
- v. Public Transport Surveys

- vi. Road Inventory Surveys
- vii. OD Surveys
- viii. Traffic Signage Surveys
- ix. Willingness to Pay Surveys
- x. Bus Stop Survey
- xi. Speed Surveys

8) Urban Economy (Industry, Trade & Local Commerce) Studies

- a. Economic Baseline: structure of economy, labor force, demography, employment, and human capital to develop city baseline. Forecast wherever data is available.
- b. Socio-economic Assessments: Healthcare, education and quality of life assessments. Programs review, targets setting, spatial allocations, and proposals for future.
- c. Business Dynamics Analysis: Review of key production and services sector variables to ascertain futures pathways for development in the cities / urban areas. Competitor analysis for investment attraction. Trade and commerce assessments and spatial distributions.
- d. Recreational Assessments: Passive and active recreation facilities assessments and livelihood. Linkages with tourism facilities for job creation
- e. Economic Constraints Analysis: Review of infrastructure necessary for markets and sectors linkages for future development appraisal.
- f. A representative household survey of around 1500 households will be done to collect data for socio-economic and labor profiling for Economic Development Plan of the cities / urban areas.

Note: if data is not available in secondary resources then in-ground survey will be required to be done to fill the data gaps.

9) Housing and Informal Settlements

The consultant shall prepare a comprehensive plan for the housing situation focusing on the following:

- a. Assessment of housing shortage and potential housing need in year 2042
- b. Mapping of Housing conditions in existing residential areas
- c. Scale and inventory of Katchi Abadis
- d. Assessment of housing societies and developments
- e. The constraints on finances and issues of affordability for housing will be assessed.
- f. The links between housing and transport accessibility will be assessed.
- g. Facilitate conversion between people from different types of settlements with their formal and informal developers.
- h. Overview of past and present development interventions in housing sector, including public housing programs and other related development schemes.

- i. Collecting other relevant information from available secondary sources like PDS, MICS, Bureau of Statistics, Survey of Pakistan etc. for analysis.

10) Environmental Assessment

The consultant shall analyze the urban environment in order to safeguard and improve through the likely negative environmental impacts of the proposed new developments, with the support of organizations with an interest in environmental preservation and an identification with those professions and processes which are detrimental to the preservation of the environment and ecology of Vehari region and ensure to meet environmental and social safeguards requirements as defined in ADB's safeguard Policy Statement (2009). The consultant shall also conduct climate risk vulnerability assessment (CRVA). Study of various resources responsible for environmental pollution (air and water) is necessary and remedial measures are required through this study. For the task, the consultant shall conduct following surveys for both urban and site development zone components:

- a. Air quality survey at various points of the cities / urban areas
- b. Water quality analysis (drinking water supply and water courses)
- c. Soil contamination surveys
- d. Soil and geological survey / data
- e. Analysis of Noise level at various points of the cities / urban areas
- f. Identification of environmentally sensitive areas
- g. Reviewing local, provincial and national level policies of environment sector.

11) Climate Risk Vulnerability Assessment (CRVA)

The objective is to assess the climate change impact on Vehari. Pakistan is one of the most vulnerable developing countries to climate impact in the world. Punjab is among the most urbanized regions of South Asia and is experiencing a consistent and long-term demographic shift of the population to urban regions and cities. Vehari urban population is expected to increase rapidly. The lag-behind urban infrastructure and weak capacity in integrated urban planning and poor response mechanisms have made the Punjab cities in high risk to future enhanced climate hazards. Historically, climate disasters such as flood have caused tremendous economic damage and loss of life in Punjab.

Master Plan of Vehari district includes the preparation of three studies i.e. the Climate Risk, Vulnerability and Adaptation Assessment (CRVA); the Integrated City Development Strategy (ICDS) and the Sectoral Plans. The outputs of the CRVA will be used as inputs in the ICDS and the Sectoral Plans to ensure that climate risks and adaptation measures are taken into consideration under this master plan.

12) Disaster Risk Assessments and Risk Management:

The consultant shall conduct the disaster risk assessment by multi-hazard vulnerability assessment based on regional and localized hazard, such as seismicity, tsunami, flood, erosion, liquefaction, land slide, etc. and develop Disaster Management Plans & frameworks on hazard-based categorization for construction suitability and land use planning.

13) Urban Design and Public Realm Profiling

- a. The consultant shall analyze the existing building lines, public spaces, vistas, sidewalks, street lighting, monuments, parks etc. for improvements to identify opportunities for creating new such sites.
- b. The consultant shall propose urban beautification and design aspects for the existing and new development, using the historical buildings and structures' vocabulary within the cities / urban areas based on these studies in planning stage.

14) Governance and Institutions

The consultant shall identify the gap between what is required in urban management and what can be made available incrementally over a period:

- a. The institutional capacity will be analyzed and assessed to implement and monitor the Master Plan and relevant laws / byelaws
- b. Reviewing local level policies of the government sector

15) Historical / Social / Cultural Heritage & Tourism Potential Assessment

The consultant shall conduct a survey within the study area for any cultural, historical or archaeological resources (i.e. areas, landscapes, sites, structures or buildings) having local, regional or provincial significance or potential future significance. The consultant shall furnish a report regarding its assessment on preservation, conservation, and integration of such resources within the overall master plan of the Vehari district. The consultant shall formulate the strategies to capitalize the cityscape to create social, cultural hubs and identify opportunities within the city. The consultant shall perform an analysis to determine the existing tourism potential of the region. Further, the consultant shall analyze the potential impact of this intervention which is likely to attract local, national and regional tourism into the city and areas around in the planning phase. Based on the assessment and criteria for ranking proposed, the consultant shall propose a map of potential Tourism sites and spots.

16) Review of Land Use Regulations and Plans

The consultant shall study and analyze all existing urban planning, development and environment related national, provincial laws and regulation (by-laws) as well as the previous and existing plans to propose a viable solution for various issues of society in a proper manner in local context. The consultant shall also study the land acquisition &

Land Leasing Bye-Laws / Multiple ownership regulations for high rise (condominium ownership laws and their framework)

17) Agricultural Sector Plan

The consultant shall study and analyze the agriculture sector snapshot of the district including main crops, crop productivity and drivers of productivity. The consultant shall propose the key projects and initiatives for short, medium and long term keeping in view the growing demand, food security and economic significance and opportunity to make an impact in agriculture sector of District Vehari.

18) Health Sector Plan

The consultant shall study and analyze the health situation of the district and propose a sector plan keeping in view the parameters defined in two key document i.e., Pakistan Vision 2025 and Punjab Growth Strategy 2018. The consultant shall analyze the existing health facilities in the district and propose the plan to meet the need for next 25 years and also indicate projects and their execution time frame.

19) Education Sector Plan

The consultant shall study and analyze the existing educational facilities in District Vehari. The consultant shall propose plans keeping in view the strategic areas of quality and learning outcomes, access, retention and equity, governance and management. The consultant shall identify the need for next 25 years and also propose the educational institutes to be established to combat the demand. The consultant shall prepare and provide the sector plan in this regard for next 25 years.

TASK-C: VISIONING AND CONSULTATION

The consultant shall conduct a public informational meeting to ensure public participation (including line / plan implementation departments) at all stages of the planning process and to introduce the project intent, mixed-use development components and to seek guidance on the identification of goals / vision, objectives, issues, concerns, opportunities, etc.

1. Meeting will be held with public sector departments, stakeholders, general public and academic and business community to have their voice on “How do they want their city to be” and share the outputs of the planning process in seminars as well as public hearings as required.
2. Focus Group Discussion (FGD), seminars and open forums will be conducted to develop a shared city’s planning and development vision.

The consultant should plan following minimum consultation sessions:

Name of Consultation Session	No. of Session
Inception / Visioning Workshop	01
Data review workshop after surveys / studies	01

Draft Land Use Classification Maps	01
Draft Site development zone Structure Plans	01
Draft Master Plan	01
Final Master Plan	01

The consultant shall incorporate the inputs provided by the stakeholders in the final version of the plan. Public hearing is necessary part of this exercise to ensure general public participation in the plan making.

TASK-D: COMPILATION OF ALL THE COLLECTED DATA

The consultant shall submit all the survey data collected in Task-B & C and GIS mappings.

TASK-E: DEVELOPMENT OF LAND USE CLASSIFICATION MAPS

Based on the surveys and data collected in Task-A and B, the consultant shall prepare and submit Land Use Classification Maps of all urban areas in the district Vehari for approval from competent forum.

TASK-F: DEVELOPMENT OF DRAFT MASTER PLAN (INCLUSIVE ALL SECTORAL PLANS)

The consultant shall prepare the following comprehensive draft outcomes of each sector:

1. Land use Zoning Plans (re-classification plans)
2. Housing development plan for new proposed zones as well as housing for the urban poor to mitigate Urban Poverty
3. Urban re-generation and slums upgradation plan (incorporating minimum disruption and community involvement)
4. Site development zone Structure Plans (accommodating pro socio-economic trends and curtailing inequity)
5. Economic development plan (City Economic Development Vision, Strategic Development Plan, Business Enabling Environment Reforms, Priority Investment Roadmap for Economy)
6. Traffic and transportation plan
7. Industrial Development Plan
8. Water supply, sewerage & drainage plan
9. Solid waste management plan
10. Tourism and Heritage Conservation Plan
11. Environmental Management plan keeping in view the regional consideration.
12. Agriculture Sector Upgradation Plan
13. Health Sector Upgradation Plan
14. Education Sector Upgradation Plan
15. Rescue & Safety Services Upgradation Plan
16. Women and Child Protection and Welfare Plan

17. Tree Plantation and Forestation Plan
18. Disaster Risk Management Plan & Framework.
19. Legal & Regulatory Framework
20. Implementation Plan with institutional framework and financial options
21. Capacity Building plan of local city institutions
22. Integrated City Development Strategy (ICDS) framework.

TASK-G: FINAL MASTER PLAN (INCLUSIVE OF ALL SECTORAL PLANS)

The consultant shall prepare the following comprehensive final outcomes of each sector:

1. Land use Zoning Plans (re-classification plans)
2. Housing development plan for new proposed zones as well as housing for the urban poor to mitigate Urban Poverty
3. Urban re-generation and slums upgradation plan (incorporating minimum disruption and community involvement)
4. Site development zone Structure Plans (accommodating pro socio-economic trends and curtailing inequity)
5. Economic development plan (City Economic Development Vision, Strategic Development Plan, Business Enabling Environment Reforms, Priority Investment Roadmap for Economy)
6. Traffic and transportation plan
7. Industrial Development Plan
8. Water supply, sewerage & drainage plan
9. Solid waste management plan
10. Tourism and Heritage Conservation Plan
11. Environmental Management plan keeping in view the regional consideration.
12. Agriculture Sector Upgradation Plan
13. Health Sector Upgradation Plan
14. Education Sector Upgradation Plan
15. Rescue & Safety Services Upgradation Plan
16. Women and Child Protection and Welfare Plan
17. Tree Plantation and Forestation Plan
18. Disaster Risk Management Plan & Framework
19. Legal & Regulatory Framework
20. Implementation Plan with institutional framework and financial options
21. Capacity Building plan of local city institutions
22. Integrated City Development Strategy (ICDS) framework.

During the development of draft and final Master Plan, the consultant shall carry out the high impact relevant studies through outsourcing to achieve the Master Planning Objectives.

TASK-H: ACTION PLANS

The consultant shall:

- i. identify and prioritize projects to be implemented in five years;
- ii. prepare rough cost estimates of all projects included in five years plan; and
- iii. prepare detail estimates and PC-Is of all projects proposed to be implemented in first two years.

6.0 COMPLETION OF THE PROJECT

The project should substantially be completed in a period of twelve months after award of the contract.

7.0 KEY DELIVERABLES:

The Consultants shall submit ten copies of the following documents:

- i. Inception Report;
- ii. Draft Land Use Classification Maps;
- iii. Final Land Use Classification Maps;
- iv. Draft Master Plan (inclusive of all sectoral plans);
- v. Final Master /Plan (inclusive of all sectoral plans);
- vi. Action Plans

Note:

Soft copies of all the final approved reports and maps/plans are to be submitted.

Annexure- C

Work-Break Down Structure of Master Plan of Vehari

Annexure- D

Cost Estimates of Consultancy Services

A. Personnel Cost

Sr. No.	Position	Man Months	Rate/Months (Rs)	Amount (Rs)
1	Project Coordinator/ Urban Planner	6	300,000	1800,000
2	Project Manager/ Urban Planner	12	250,000	3000,000
3	Urban Planner (Sr.)	9	200,000	1800,000
4	Urban Economic Planner (Sr.)	9	200,000	1800,000
5	GIS Manager	8	200,000	1600,000
6	GIS Specialist / Image Processing Specialist	6	300,000	1800,000
7	Structure Engineer	3	200,000	600,000
8	Disaster / Climate Risk Management Expert	4	300,000	1200,000
9	Water Supply Expert	2	250,000	500,000
10	Sanitation Expert	2	250,000	500,000
11	Solid Waste Management Expert	5	250,000	1250,000
12	Environmental Planner	3	250,000	750,000
13	Transport Planner	5	200,000	1000,000
14	Road & Highway Engineer	5	250,000	1250,000
15	Traffic Engineer	3	200,000	600,000
16	Economist / Financial Expert	3	300,000	900,000
17	Sr. Urban Conservationist	2	250,000	500,000
18	Electrical Engineer	2	200,000	400,000
19	Assistant Conservation Specialist	7	200,000	1400,000
20	Landscape Architect	2	200,000	400,000
21	Surveyors (20 No.'s)	20*6=24	30,000	3600,000
	Sub-Total	122	--	26.65 million

B. Direct Costs

Sr. No.	Description	Amount (Rs)
1.	Land use verification, Commercial and Industrial survey	1500,000
2.	Traffic and Transportation Surveys	1500,000
3.	Socio-Economic Survey	2000,000
4.	Residential Accommodation	1000,000
5.	Vehicle and Fuel Cost	1500,000
6.	Office Maintenance Cost (Office space to be provided by District Vehari)	1500,000
7	Procurement of Satellite Imageries	4000,000

8	Image processing	5000,000
9	Digitization of satellite imagery and preparation of Base Map	3000,000
10	Cost of Stationery, Reproduction, Computers, Telephone etc.	2350,000
	Sub-Total	23.35 million

TOTAL:

Rs: 50 Million

Note: Justification of Direct Cost:

The direct cost involves comprehensive baseline studies to cover 100% population area for Landuse, socio-economic survey and sample surveys of traffic, environment, commerce & trade, health, education, and all secondary data collection which will involve the induction of well-qualified team of surveyors' literate to the application of new information technology skills for verification purposes of survey conducted. The procurement of satellite imagery is also an expensive matter from international resources.

Annexure- E
List of Personnel, Qualification, Experience and Job Description

Sr. No.	Position	Minimum Qualification	Minimum Relevant Experience	Job Description
1	Project Coordinator / Urban Planner	Preferably PhD otherwise M. Sc.in City and Regional/Town /Urban Planning having valid PCATP Membership as Town/Urban Planner	15 years	To coordinate and monitor the work for taking required output from the consultant's staff and liaison with District Vehari and the Government of Punjab
2	Project Manager/ Urban Planner	M.Sc. City and Regional/Town /Urban Planning having valid PCATP Membership as Town/Urban Planner	12 years	To plan and manage the consultant's works in different sectors and to act as key person for consolidating the work output. He will be the focal person supervising the consultant's job and reporting progress to District Vehari..
3	Urban Planner (Sr.)	M.Sc. City and Regional/Town /Urban Planning having valid PCATP Membership as Town/Urban Planner	08-10 years	To conduct studies pertaining to demography, socio economic conditions and housing. To deal with the land use surveys and studies to finalize the land use plan for the next 20 years.
4	Urban Economic Planner (Sr.)	M.Sc. City and Regional/Town /Urban Planning having background of Urban Economics	08-10 years	To deal with the Landuse policies which will result in the generation of economic activities. Devise financing models for completion of projects and propose models for investment opportunities though various models of financing. To devise a comprehensive mechanism of legal framework, institutional set-up and regulatory matters of land procurement, framing rules and regulations under the master plan
5	GIS Manager	M.Sc. GIS and Remote Sensing with BSc in City and Regional/ Urban Planning	10 years	To manage different ground investigation surveys for collecting the ground data required for different studies and master planning.
6	GIS Specialist/ Image Processing Specialist	M.Sc. GIS	10 years	To act as local team leader for survey works and supervise data entry in GIS software. He will be the expert in processing of the satellite imageries and preparing the base map from them.
7	Structure Engineer	M.Sc. Civil Engineering with specialization in Structure / other related field	10 years	Expert in structure design and analysis. He will be responsible to review the existing structures and provide technical advice for preservations of existing structures and preparation of building and design codes.
8	Disaster / Climate Risk Management Expert	M.Sc Disaster Management or Related Degree	10 years	Expert in natural and human disaster risk assessment, prevention, mitigation and relief activities especially in the context of Urban Affairs
9	Water Supply Expert	M.Sc. Public Health or other related field	10 years	He will be responsible for study of the water supply system, water quality and to prepare a broad line plan for water supply for the master plan period.
10	Sanitation Expert	M.Sc. Public Health or	10 years	He will be responsible for the management

		other related field		of storm water and sewerage water management, treatment and disposal in sustainable matter.
11	Solid Waste Management Expert	M.Sc. Public Health Engineering/Civil Engineering	10 years	He will be responsible for the collection, transportation, disposal and management of solid waste and dumping site in sustainable manner
12	Environmental Planner	M.Sc. Environmental Engineering/Planning	10 years	He will be responsible to review the existing situation and prepare a detailed study/report to control the pollution with the implementation existing environmental laws and propose recreational sites and improvement.
13	Transport Planner	M.Sc. Transportation Planning (with Urban Planning Background)	10 years	To monitor the traffic and transportation studies and reports for the improvement and development of new network of roads in the expanding areas during the master plan period.
14	Road & Highway Engineer	M.Sc. Transportation Engineering or other related field	10 years	To study the existing road infrastructure and to propose the required improvements in the existing system and to prepare a road network for the new areas expected to be developed during the master plan period.
15	Traffic Engineer	B.Sc. Transportation Engineering or other related field	10 years	To assist the Transport Planner in the formulation of traffic and transportation reports and to prepare cost estimates of the proposed improvements and new projects.
16	Economist / Financial Expert	M.Sc. Economics / M.B.A (in Finance)	10 years	To work out financial requirements of different projects and to propose sources of funding for implementation of these projects during the master plan period.
17	Sr. Urban Conservationist	M.Sc./B.Sc. Architecture	10 years	To study the historical buildings/ the places of cultural heritage and to propose plan for their conservation/protection.
18	Electrical Engineer	M.Sc./B.Sc. Electrical Engineering	10 years	To study the existing electricity system and to work out requirements of electricity keeping in view the use of domestic, commercial, institutional and industrial requirements considering the expansion during the master plan period.
19	Assistant Conservation Specialist	B.Sc. Architecture /Conservation	08 years	To assist Sr. Urban Conservationist in the study the historical buildings/ the places of cultural heritage and to propose plan for their conservation/protection, restoration and renovation. He will also be responsible for the planning of promotion of cultural and heritage promotion of the district Vehari through induction of cultural events and facilities
20	Landscape Architect	B.Sc. Landscape Architecture	08 years	To study the existing urban landscape elements and propose future Landscape environment for the aesthetic uplifting and beautification of the city
21	Surveyors (20)	B Sc. City and Regional Planning / Diploma in Surveying	Fresh Graduates 05 years for Diploma Holder	To carry out all the baseline surveys including Landuse, Household, Socio-Economic, Traffic, Environment and GPS Surveys