

TERMS OF REFERENCE (TORS) FOR HIRING THE SERVICES OF A CONSULTANCY FIRM

REGARDING

END OF LIFE (ELV) and VEHICLE BUYBACK (VBB) PROGRAMS IN PUNJAB

1. Background:

Punjab, Pakistan, is facing a serious air pollution crisis, especially in its major cities like Lahore, Faisalabad, Rawalpindi, and Multan. A big part of the problem comes from the large number of old vehicles on the roads, including heavy vehicles like trucks and buses, lighter ones such as minibuses, wagons, and station wagons, as well as 2 and 3-wheelers. Many of these vehicles are 15 to 20 years old, and their outdated engines, poor maintenance, and inefficient fuel use make them major polluters. The issue gets worse in the winter when smog covers the region, leading to health problems, poor visibility, and disruptions to daily life and the economy.

Despite the growing awareness of environmental issues, Punjab currently lacks any formal policies or systems to buy back and retire these old, high-emission vehicles. Without such a program, these outdated vehicles continue to be used, releasing excessive pollution and making the transport sector less efficient. A well-planned Vehicle Buy Back (VBB) program is needed to phase out these old vehicles and replace them with newer, eco-friendly options. The VBB is a vital intervention proposed under the Smog Action Plan 2024.

To enhance road safety and reduce vehicle emissions, the Transport Department entered into a concession agreement with the Swedish firm M/s OPUS Inspection (Pvt) Limited for the establishment and operation of the Vehicle Inspection and Certification System (VICS) in Punjab. VICS can provide a valuable foundation for implementing the VBB. VICS currently inspects commercial vehicles such as buses, trucks, and public service vehicles for roadworthiness and emissions compliance. VICS can play a key role in identifying high-emission, unfit vehicles eligible for buy-back. By linking VBB eligibility to VICS test results, the program can ensure that the most polluting vehicles are targeted for retirement.

Many vehicle owners face financial challenges, making it difficult for them to replace their old vehicles with newer, cleaner models. The cost of upgrading is often too high, and there aren't enough incentives or support systems in place to encourage owners to retire their older vehicles. As a result, these polluting vehicles stay on the

roads, continuing to harm the environment. A targeted intervention is crucial to break this cycle and help transition to a cleaner, more sustainable transportation system.

Introducing a VBB program in Punjab is a crucial step toward tackling the growing air pollution crisis and building a more sustainable transportation system. By encouraging the retirement of older, high-emission vehicles and making it easier for people to switch to cleaner alternatives, the program will significantly cut down on pollution in urban areas. This will lead to better air quality, fewer health risks, and an overall improvement in the quality of life for residents. Additionally, the program will help modernize the transportation sector, driving innovation and investment in sustainable technologies. By using the existing VICS to identify the most polluting vehicles, the program can focus its efforts where they are needed most, ensuring maximum impact.

Beyond the environmental benefits, the buy-back program will also bring economic advantages. It will create demand for newer, more fuel-efficient vehicles, including electric 2 and 3-wheelers, giving a boost to the local automotive industry. This, in turn, will generate new job opportunities in manufacturing, maintenance, and related fields. The program will also ease the financial burden on vehicle owners by offering incentives to help cover the cost of replacing their old vehicles. By encouraging the adoption of cleaner technologies, the program will contribute to long-term environmental sustainability and help combat the effects of climate change. It will also position Punjab as a leader in environmental responsibility, attracting investment and supporting sustainable development.

The VBB program will target old, high-emission vehicles operating in Punjab, including heavy vehicles (trucks, buses), light vehicles (minibuses, wagons, station wagons), cars and 2 & 3-wheelers. The program will utilize the existing VICS to identify vehicles that fail emission tests and are eligible for buy-back. To ensure the program is designed effectively and implemented efficiently, the Punjab Transport Authority (PTA) will hire the services of a reputable consultancy firm with expertise in transport policy, environmental sustainability, and program management.

2. Objectives of Assignment:

The consultancy firm will:

- i. Design a comprehensive and integrated framework for a vehicle buyback and scrappage program that encompasses technical and engineering considerations, economic and financial analyses, social and regulatory

dimensions, risk of unintended consequences as well as environmental impact assessments. The framework will ensure a holistic and evidence-based approach to program design and implementation.

- ii. Ensure seamless integration of the ELV and VBB programs with the VICS at the system level, incorporating technical considerations, data sharing protocols, and program effectiveness evaluation. The framework will leverage VICS data to identify high-emitting vehicles, enabling targeted and impactful buyback interventions.
- iii. Design a balanced package of financial incentives, non-financial incentives, and enforcement measures that function as a “carrot and stick” approach to encourage voluntary participation of target fleet owners in the buyback program. This scheme will be tailored to maximize program uptake while ensuring compliance and alignment with regulatory goals.
- iv. Design and propose an ELV program that is fully integrated with the vehicle licensing system, MTMIS, LAWMISS, the VICS etc.
- v. Design and implement a comprehensive monitoring system that tracks ELV and VBB programs progress, identifies gaps and shortcomings, and provides continuous feedback for improvement. The system will also measure key environmental indicators, including emission reductions, to evaluate the effectiveness and impact of the scrappage and buyback program.
- vi. Recommend an ELV program and a phased approach to its implementation that will ensure environmentally responsible disposal, with strict measures to enable recycling while preventing the reuse or resale of scrapped vehicles and their components in any form.

3. Scope of Services, Tasks (Components) and Expected Deliverables:

The consultancy firm will perform the following tasks:

A. Baseline Assessment and Market Landscape Analysis.

The objective of the task is to gain an understanding of the existing vehicle fleet and collect and analyze information about the best international practices of the ELV and VBB programs. Task A items include:

- A.1. Identify and map key stakeholders, including vehicle owners, operators, transport associations, regulatory bodies (PTA, RTAs, EPA Punjab),

environmental agencies, financial institutions, and potential private sector partners.

A.2. Review and analyze ELV and VBB programs implemented in countries with comparable economic and regulatory contexts to Punjab, Pakistan. The consultant will review / identify best practices, challenges, and success factors, and synthesize these into a structured "lessons learned" report. This report will guide the contextual adaptation and design of an effective, evidence-based buyback program for Punjab, Pakistan.

A.3. Conduct a literature review of relevant scholarly works, research articles, and grey literature, emphasizing the topic of avoiding inefficiencies in design of ELV and VBB programs.

B. Stakeholder Consultation & Engagement Strategy

The objective of task B is to consult stakeholders to gain an understanding of the existing system, and the challenges of implementation of successful ELV and VBB programs.

B.1. Develop and implement a stakeholder engagement and communication plan.

B.2. Conduct stakeholder consultations through meetings, focus groups, and workshops to gather input on program design, feasibility, and implementation.

B.3. Facilitate collaboration among transport operators, authorities at provincial and federal levels, other relevant government agencies, financial institutions, and other relevant stakeholders.

C. End-of-Life (ELV) Vehicle Management System

The objective of task C is to design a viable, feasible, sustainable, and environmentally responsible ELV program in Punjab.

C.1. Assess and describe the status of ELV practices in Punjab, differentiating multiple material and subsystem paths, and also look into the existing regulatory framework.

C.2. Design and recommend an integrated ELV system that is financially viable, environmentally responsible, and gradually implemented to minimize the landfill impact

C.3. Explore the economic opportunities of the ELV system for job creation and female labor participation.

C.4. Conduct a financial analysis of a sustainable ELV business model

C.5. Examples of components to be considered in the design of the ELV system may include, but are not limited to

- C.5.i. Sites and specification of the land requirements for ELV operations
 - C.5.ii. Specifying dismantling and recycling processes (e.g., salvageable parts, metal recycling, waste management).
 - C.5.iii. Recommending infrastructure requirements for scrapping facilities (e.g., facility layout, equipment, pollution control systems).
 - C.5.iv. Proposing criteria for authorized scrapping centers (location, capacity, environmental compliance) and identifying existing formal / informal systems that may be formalized towards certified scrapping centers.
 - C.5.v. Outlining processes for safe dismantling, recycling, and disposal of vehicles and components.
 - C.5.vi. Designing a system for integrating scrapping certificates with the purchase or lease of new vehicles.
- C.6. Design a traceable and verifiable system for issuing and managing Certificates of Destruction (CoD) from authorized scrapping centers. The consultant shall suggest a mechanism to ensure that COD is fraud-proof, can be securely traded or redeemed as part of potential incentive mechanisms, such as import tax exemptions, or eligibility for vehicle import, or other clean transport subsidy programs. The system must be transparent, tamper-proof, and integrated with relevant government databases to ensure accountability and prevent misuse.

D. Development of the Vehicle Buyback (VBB) Program Model

The objective of Task D is to design a practical and implementable VBB program that maximizes environmental benefits through optimal use of available resources, ensures justice, equity, and inclusivity, and is systematically connected to both the ELV and VICS.

- D.1. Use the VICS data (including any emission sticker program, inspection records) alongside vehicle registration data and the emissions inventory to identify and prioritize vehicles for VBB program. The consultant shall develop a prioritization strategy based on maximizing emission reductions per unit cost. The outcome will support a cost-effective, data-driven targeting approach to maximize environmental benefits. The strategy should include an optimized plan targeting a combination of different vehicle types (2W, 3W, HDV) based on the equivalency table.
- D.2. Design and evaluate multiple VBB program scenarios to explore alternative pathways for emission reduction. Scenarios will be developed

with a focus on urban centers, densely populated regions, and high-impact zones where vehicle retirement would most effectively reduce population exposure to harmful air pollutants. The consultant will assess each scenario's potential for total emission reduction (including PM_{2.5}, NO_x, and VOCs emissions).

D.3. Develop a detailed business model that outlines the operational framework, financial structure, and sustainability strategies for the VBB program, informed by existing successful international practices.

D.4. Design a comprehensive incentive structure to maximize VBB program success, measured by emissions reduction. Those incentives to be considered include but are not limited to, the following financial and non-financial incentives.

D.4.i. Financial Incentives:

- Cash rebates/ Vouchers based on vehicle type, condition, and emission performance.
- Capital Subsidies for the purchase or lease of new, cleaner vehicles, promoting a range of environmentally friendly fuel technologies (e.g., electric, hybrid, and other options deemed appropriate).
- Facilitating access to finance through free/low-interest loans or partnerships with financial institutions.
- Strategy to link the buyback program with the provision of electric 2 & 3 wheelers under the P-CAP program.

D.4.ii. Non-Financial Incentives:

- Priority registration for new vehicles under VBBP.
- Reduced taxes and fees.

D.5. Establish vehicle valuation methodologies to ensure fair and transparent pricing for buy-back offers.

D.6. Generate a list of eligible vehicle technologies and fuels for each vehicle type to be used as replacement vehicles. The analysis should consider factors such as:

D.6.i. Technological maturity and availability in the local market.

D.6.ii. Cost-effectiveness for vehicle owners and operators.

D.6.iii. Infrastructure requirements (e.g., charging stations, CNG refueling stations) and feasibility of deployment.

D.6.iv. Environmental benefits, including a well-to-wheel emissions analysis.

D.6.v. Suitability for local conditions, climate, and usage patterns.

D.6.vi. Potential for local manufacturing or assembly.

- D.6.vii. Repair, maintenance, warranty, and after-sales services
- D.6.viii. Assessment of the market available fuel and lubricating oil quality, and its relevance to the introduction of new technologies in each sector

E. Public-Private Partnership (PPP), Funding Strategy, and cashflow design

The objective of Task E is to develop a comprehensive PPP and funding strategy, including cashflow design, that mobilizes private sector engagement, aligns financial mechanisms with program goals, and ensures long-term sustainability.

- E.1. Identify potential private sector partners, including vehicle manufacturers, financial institutions, and donor agencies, and assess their possible roles and contributions.
- E.2. Explore and recommend suitable PPP models for different aspects of the program, such as vehicle financing and ELV operation.
- E.3. Identify potential financial incentives, including subsidies, tax rebates, and concessional loans, that could be used to attract investment and encourage participation.
- E.4. Assess international best practices in PPP models for similar vehicle replacement programs and provide a comparative analysis with recommendations for Punjab.

F. Feasibility and Impact Assessment

The objective of Task F is to evaluate the overall feasibility, financial sustainability, and socioeconomic and environmental impacts of the VBB program. This includes conducting detailed economic and financial assessments, projecting costs and revenues, estimating buy-back values and incentive requirements, and applying standard indicators such as NPV, FIRR, EIRR, BCR, and payback period etc.

- F.1. Economic assessment
 - F.1.i. Conduct economic feasibility analysis, including cost-benefit assessment and potential funding sources.
 - F.1.ii. Develop a comprehensive financial model for estimating the total cost of the VBB program.
 - F.1.iii. Estimate the average buy-back value for different vehicle categories (heavy vehicles, light vehicles, private motor cars, 2/3-wheelers etc.) based on factors like age, condition, and emission levels.
 - F.1.iv. Project the total buy-back expenditure based on different participation rates and scenarios.

- F.1.v. Estimate the cost of financial incentives, such as subsidies, vouchers, or interest rate subsidies, for the purchase of cleaner vehicles.
 - F.1.vi. Estimate the monetary value of emission reductions of various scenarios and use it in a cost-benefit analysis of the VBB program.
 - F.1.vii. Assess the economic viability and internal rate of return of VBB program.
- F.2. Financial assessment
- F.2.i. Develop a detailed financial model of the VBB program, incorporating all cost components and potential revenue streams. Costs should consider the result of the ELV business model (task C). Develop a comprehensive and sustainable funding strategy for the VBB program.
 - F.2.ii. Conduct sensitivity analysis to assess the impact of changes in key variables (e.g., participation rates, fuel prices, economic growth) on the program's financial viability.
 - F.2.iii. Perform cash flow analysis to project the timing and magnitude of program expenditures and revenues.
 - F.2.iv. Present the key financial and economic indicators in a table. Those should include, but not be limited to, Net Present Value (NPV), Internal Rate of Return (EIRR & FIRR), Benefit-Cost Ratio (BCR), and Payback period.
- F.3. Conduct a co-benefit analysis including improved road safety and road worthiness of the fleet, health improvements, GHG reduction, and social benefits.
- F.4. Assess the distributional impacts of the buyback program on key stakeholder groups, including private vehicle owners, low-income households, public and commercial transport operators, and the automotive industry. It may include assessment of affordability and accessibility of incentives, with a specific focus on equity considerations for vulnerable populations, and gender-differentiated benefits. The analysis should also capture potential public perception, behavioral shifts, and broader societal benefits such as improved public health and mobility outcomes.
- F.5. Conduct stakeholder consultations (on top of initial consultations mentioned above) to assess the market response to the program. Any feedback gathered from stakeholder consultations should be incorporated into the program design.

F.6. Conduct a risk assessment and develop mitigation strategies for the following items:

F.6.i. Social risks and uptake of the program

F.6.ii. Unintended consequence risk

F.6.iii. Supply chain capacity risk

F.6.iv. Funding availability risk

G. Legal & Regulatory Framework Analysis

The objective of Task G is to assess and strengthen the legal and regulatory foundations necessary for the effective implementation of the ELV and VBB programs.

G.1. Review existing policies and regulations governing the establishment of the ELV and VBB program.

G.2. Identify necessary amendments to existing laws or the introduction of new policies, regulations, and institutional arrangements to support the effective implementation of the ELV and VBB programs.

G.3. Develop a comprehensive compliance framework for the ELV program implementation and enforcement, including any required certification and accreditation.

H. Implementation Plan & Phased Rollout Strategy

The objective of Task H is to design a practical and phased implementation plan for the ELV and VBB programs that ensures secure, environmentally sound vehicle disposal and an orderly, equitable rollout of the buy-back program.

H.1. Design a phased rollout strategy for the ELV centers in which the path to the generation of an official COD is designed in such a way that, from the preliminary phase, it ensures the secure disposal of scrapped vehicles. It may include phases from storage to disassembly, hazardous materials recovery, other material recovery, and recycling.

H.2. Design the phased rollout of the VBB program to consider supply and affordability of replacement vehicles (including local manufacturing and imports), and the administrative readiness of relevant government bodies. The plan should outline key milestones, roles and responsibilities, and coordination mechanisms between agencies.

H.3. Develop a detailed implementation action plan for the VBB program, including a phased timeline. The action plan should account for the program's gradual rollout over a proposed period (e.g., five years), starting with an initial preparatory phase focused on institutional coordination,

capacity building, data integration, stakeholder engagement, and infrastructure readiness.

I. Monitoring and Evaluation (M&E) Framework:

The objective of Task I is to develop a comprehensive M&E framework to systematically track, assess, and report on the performance and impacts of the ELV and VBBP programs.

I.1. Design a robust M&E framework to track progress of the implementation of the ELV and VBB programs and to identify key performance indicators (KPIs) to assess the program's effectiveness in achieving its objectives, including indicators to measure:

- I.1.i. Number of vehicles bought back and scrapped (by type).
- I.1.ii. Number of scrapping centers formalized and/or certified.
- I.1.iii. Emission reductions achieved (PM2.5, NOx, CO2, etc.).
- I.1.iv. Air quality improvements in target areas.
- I.1.v. Uptake of cleaner vehicle technologies.
- I.1.vi. Public awareness and satisfaction.
- I.1.vii. Economic impacts (e.g., cost-effectiveness, job creation).
- I.1.viii. Social impacts (e.g., equity, health benefits).

I.2. Establish a comprehensive data collection and management system to gather and analyze relevant data to inform the KPIs.

I.3. Define a clear reporting mechanism to provide regular updates on program progress and evaluation findings to the PTA and other stakeholders.

I.4. Include provisions and budget for independent evaluations of the program's impact and process.

Deliverables:

The consultancy firm shall submit the following deliverables:

Deliverable no.	Item/description	Format	Timeline	% Value at invoicing points	% Value for contract management purposes
1	Inception report	2 hard, 1 soft	Within 2 weeks for contract signing	0	0
2	Emissions factor database and methodological report	2 hard, 1 soft, 1 excel file	Within 6 weeks of contract signing	15	5

3	Validated the Punjab emissions model and methodological report	2 hard, 1 soft, 1 model file (format TBD)			5
4	Lessons learned report (including results of case studies, literature review, and stakeholder consultations)	2 hard, 1 soft			5
5	Methodological and recommendations report for proposed ELV structure and management system for CODs	2 hard, 1 soft	Within 16 weeks of contract signing	30	15
6	Methodological and recommendations report for proposed VBBP	2 hard, 1 soft			15
7	Methodological and recommendations report for proposed PPP structure for the two programs, including financial flow diagrams	2 hard, 1 soft	Within 20 weeks of contract signing	25	15
8	Stakeholder workshop to socialize results so far	1 workshop			10
9	Methodological and findings report for economic and financial analysis	2 hard, 1 soft, 1 excel file	Within 25 weeks of contract signing	30	10
10	Methodological and findings report for legal and regulatory analysis	2 hard, 1 soft			10
11	Findings report for implementation plan, rollout strategy and M&E framework	2 hard, 1 soft, 1 excel file			10

J. Duration of the Assignment:

The consultancy assignment is expected to be completed within six (06) months from the date of contract signing.

4. Team Composition & Qualification Requirements for the Key Experts:

a) Project Director / Team Leader:

Role: Overall responsibility for the project's execution, ensuring quality, timeliness, and effective communication with the PTA.

Qualifications:

Degree in Environmental Management, Economics, Transport Planning / Engineering or a related field.

Proven experience in project management

Minimum 15 years of experience in managing complex projects, preferably in one or more fields relevant to the assignment.

Excellent communication, interpersonal, and stakeholder engagement skills.

Experience in working in developing countries, preferably in South Asia.

Experience working with government agencies

b) Transport and Air Quality Policy Specialist:

Role: Lead the design of the VBBP framework, including eligibility criteria, incentive structures, and integration with the VICS.

Qualifications:

Advanced degree in Transport Planning, Environmental Management, Public Policy, or a related field.

Minimum 10 years of experience in developing and analyzing transport policies, particularly related to vehicle emissions, air quality, and sustainable transport.

Strong understanding of vehicle technologies and emission control measures.

Experience in policy analysis, regulatory frameworks, and institutional arrangements.

c) Environmental Specialist:

Role: Conduct the environmental impact assessment, analyze emission reduction potential, and recommend environmentally sound scrapping protocols.

Qualifications:

Advanced degree in Environmental Science, Environmental Engineering, or a related field.

Minimum 10 years of experience in air quality management, environmental impact assessment, .

Demonstrated strong understanding of air pollution modeling, emission inventories, and environmental regulations.

Experience in developing waste management and recycling protocols.

Add: An environmental specialist that does recycling design, knows circular economy, material management, sustainable solid waste management and so on ...

d) Financial and economic analyst

Role: Conduct the financial & economic feasibility assessment, cost-benefit analysis, and financial sustainability analysis.

Qualifications:

Advance degree in Finance / Economics or related field.

Minimum 10 years of experience in economic analysis, financial modeling, and cost-benefit analysis.

Experience in assessing the economic impacts of different programs preferably in transport sector.

Strong quantitative and financial modeling skills are essential.

Experience in developing financial models for complex projects, including sensitivity and risk analysis.

Knowledge of public finance, investment analysis, and funding mechanisms for infrastructure projects.

e) Social Development Specialist:

Role: Conduct the social impact assessment, analyze stakeholder perspectives, and develop the stakeholder engagement strategy.

Qualifications:

Advanced degree in Sociology, Anthropology, or a related social science field.

Minimum 7 years of experience in social impact assessment, stakeholder engagement, and community consultation.

Strong understanding of social research methodologies and data analysis.

Excellent communication and facilitation skills.

f) Monitoring and Evaluation (M&E) Specialist:

Role: Design the M&E framework, develop KPIs, and establish the data collection and management system.

Qualifications:

Advanced degree in a relevant field with a focus on monitoring and evaluation.

Minimum 7 years of experience in designing and implementing M&E systems for development projects.

Strong understanding of quantitative and qualitative data collection and analysis methods.

g) Public-Private Partnership (PPP) Specialist:

Role: Provide expertise in PPP structuring, financial modeling, and legal/regulatory considerations for attracting private sector investment in the VBBP.

Qualifications:

Advanced degree in Finance, Economics, Business Administration, Law, or a related field.

Minimum 7 years of experience in PPP project development, financial analysis, and transaction advisory services.

Strong understanding of PPP frameworks, risk allocation, and contract negotiation.

Experience in working with government agencies and private sector investors on infrastructure projects.

h) Legal Expert:

Role: Provide expert legal advice and support for all legal and regulatory aspects of the VBB.

Qualification:

A Master's degree (LLM).

Minimum 7 years of experience as a legal professional, with a focus on legislative drafting, regulatory analysis, and/or environmental law.

Demonstrated experience in reviewing, interpreting, and applying laws and regulations related to the transport sector, environmental protection, or public policy.

Experience in drafting legal documents, including legislation, regulations, contracts, and agreements.

Experience in providing legal advice to government agencies or public sector organizations is preferred.

i) Supporting Staff:

In addition to the key personnel, the consultancy firm should also have adequate supporting staff, including:

- IT specialist
- Research Assistants
- Data Analysts
- Communication Specialists
- Administrative Staff. Add the M&E, social, and PPP in here

Experience and Qualification of Firm

Sr. No.	Criteria
1	Overall / General Experience:
1.1	The firm shall have ten (10) years post registration experience. Experience in transport sector of comparable scale and complexity at national/international level shall be accorded due weightage.
2	Relevant Experience:
2.1	At least one similar nature of assignment must be completed. Experience in transport sector will be accorded due weightage
2.2	Documented experience of developing studies and systems measuring target achievements must be attached.
3	Technical and Managerial Capacity: The technical and managerial structure of the firm (only the structure of the organization, general qualifications, are indicated). CVs are not required for shortlisting. (staffing*, equipment) as mentioned in the TORs
4	Financial Capability: The consultant firm must have a minimum average annual turnover of 250 million over the last three (03) years. The consultant must submit the audited financial statement for the last three (03) completed financial years.

5. Qualifications

- ✓ The consultancy firm must be ISO 9001 and ISO 14001 certified, and demonstrate working knowledge of ISO 14064 and related standards for emission quantification and reporting.

- ✓ The consultancy firm must demonstrate a strong and relevant track record in successfully executing projects of similar scope and complexity. The consultancy firm must demonstrate sound financial standing and institutional capacity to undertake a multi-year, multi-stakeholder project of this scope.
 - Audited Financial Statements
 - Annual Turnover Threshold
 - Banking Reference or Credit Line
 - No History of Bankruptcy or Financial Misconduct
- ✓ Value for money: Available resources and in-kind contributions from the consultancy and their collaborators.
- ✓ The consultancy firm must demonstrate its capability to responsibly manage sensitive data, including personal and vehicle-level information sourced from government databases such as VICS, vehicle licensing systems, and emission inventories. The firm must ensure that data is handled in full compliance with applicable national data protection laws and best international practices.
- ✓ The consultancy firm must demonstrate that it has the necessary hardware and IT infrastructure to perform data-intensive tasks, securely store and process sensitive datasets, and support spatial, emissions, and scenario modeling work.
 - Computing Capacity
 - Data Storage and Security
 - Software and Modeling Tools (Licensed or Open Source)
 - Survey and Field Equipment
 - Network and Communication

Selection of Consultancy Firm:

The selection of the firm will be carried out using the Quality and Cost-Based Selection (QCBS) method. The evaluation will be based on the following technical and financial criteria:

A. Technical Evaluation Criteria (Total: 100 Marks)

B. Financial Evaluation (Max 100 marks)

- The firm with the lowest evaluated financial proposal shall be given a financial score of 100.
- The financial scores of other proposals will be computed using the following formula:

$$\text{Financial Score} = 100 \times \left(\frac{\text{Quoted Bid Amount}}{\text{Lowest Bid Amount}} \right)$$

C. Final Evaluation

The final score will be computed as:

$$\text{Final Score} = 0.7 \times \text{Technical Score} + 0.3 \times \text{Financial Score}$$

The contract shall be awarded to the firm with the highest final score.

✓ *Client's Input and Counterpart Personnel*

(a) Services, facilities and property to be made available to the Consultant by the Client:

The Transport & Masstransit Department (T&MD), Punjab (referred to as "the Client") shall provide the following to the Consultant for the duration of the assignment:

- ✓ Relevant existing studies, reports, data, and statistics related to transportation, vehicle registration, energy infrastructure etc. in Punjab.
- ✓ Access to prevailing policies, legal, and regulatory frameworks pertaining to transport, environment, and electric mobility at the provincial and national levels.
- ✓ Information regarding the World Bank's Punjab Clean Air Program (PCAP) and any relevant data or contacts associated with it.
- ✓ Arranging introductory meetings and facilitating access to key stakeholders.
- ✓ Timely review of and constructive feedback on deliverables submitted by the Consultant, as per the timelines specified in the TORs.
- ✓ Issuance of official letters of introduction or support, if required by the Consultant, to facilitate their engagement with various stakeholders and access to information, provided such requests are reasonable and directly related to the scope of work.

(b) Professional and support counterpart personnel to be assigned by the Client to the Consultant's team:

- ✓ Project Coordinator (PIU) from T&MD will act as the primary point of contact for the Consultant. Project Coordinator (PIU) will be responsible for overall coordination from the Client's side, facilitating communication between the Consultant and various government departments/stakeholders, addressing day-to-day queries, and ensuring the availability of Client inputs.
- ✓ Team from PIU, T&MD with relevant background in transport planning, policy, will be assigned to work closely with the Consultant's team.
- ✓ T&MD will facilitate coordination with other relevant government entities such as EPA Punjab, PTA, ET&NC, P&D, BOP etc. by identifying key contact persons within these departments / agencies who can provide necessary information and participate in consultations as required by the Consultant.