

**Terms of Reference**



**Islamic Republic of Afghanistan**

**Kabul Municipality**

**KABUL URBAN TRANSPORT EFFICIENCY IMPROVEMENT (KUTEI) PROJECT**

**TERMS OF REFERENCE**

**for**

**Consultancy Services on Area Accessibility & Street Function Optimization and  
Detailed Traffic Management Design of City Center Area  
(Lump Sum Contract)**

May 30, 2018

Kabul, Afghanistan



## TABLE OF CONTENTS

<b>Terms of Reference</b> .....	1
<b>1.0 Introduction</b> .....	4
<b>2.0 Objectives</b> .....	6
<b>3.0 Scope of work</b> .....	6
<b>4.0 Liaison with Kabul municipality</b> .....	21
<b>5.0 Additional responsibilities of the consultant</b> .....	21
<b>6.0 Duties and responsibilities of the project management unit (PMU)</b> .....	21
<b>7.0 Duration of the services</b> .....	22
<b>8.0 Equipment to be supplied by the consultant</b> .....	22
<b>9.0 Obligations of the client</b> .....	22
<b>10.0 Capacity building</b> .....	22
<b>11.0 Outputs</b> .....	22
<b>12.0 Staffing and skill mix needed</b> .....	24
<b>13.0 Schedule</b> .....	28
<b>14.0 Payment</b> .....	28
<b>15.0 Contract type:</b> .....	<b>Error! Bookmark not defined.</b>
<b>16.0 Selection Criteria:</b> .....	<b>Error! Bookmark not defined.</b>

## **1.0 Introduction**

The Government of Islamic Republic of Afghanistan is implementing the Kabul Urban Transport Efficiency Improvement Project (KUTEI) to rehabilitate priority urban roads within Kabul City and conduct the necessary preparatory works to introduce Public Transportation system with the aim of improving the transport services, reduce adverse environmental impacts and travel time. The project is being financed by funds made available by the Afghanistan Reconstruction Trust Fund, administered by the World Bank. Kabul Municipality (KM) is entrusted with the implementation of the project. The Municipality has setup a Project Management Unit (PMU), under the supervision of the Technical (Transport) Deputy Mayor, to manage and administer the Project.

Kabul City is growing rapidly in terms of population and traffic. The city's population is already around 5,000,000 and nearly 600,000 vehicles are plying in the City. The urban-growth is putting high pressure on already stretched urban infrastructure and the demand for public-transport facility is growing rapidly. Due to insufficient public-transport, poor traffic regulation and enforcement, and huge number of small vehicles on the roads, travel-time within the city is very high. Traffic congestions are quite frequent especially around intersection, roundabouts and peak hours. The followings summarize the causes of teething problems in mobility and transportation in Kabul:

- a) Poor road conditions
- b) Lack of unified and efficient Public Transport System
- c) Improper Traffic Management & Insufficient Traffic-Signals/Navigation Signs
- d) Insufficient Parking Zone & Inadequate facility for pedestrians

Kabul has network of roads, categorized as Primary Arterial, District Arterial, Secondary roads and Community/Access roads. Primary Arterials and District Arterials are relatively wide compared with roads in other developing countries - they have six lanes on most arterial roads and more in selected corridors.

Rehabilitation of the damaged roads/infrastructure is one of the main objectives of KUTEI Project and managed under separate contracts. Another major concern is to provide the facilities for pedestrian traffic. The situation is serious at junctions and roundabouts. The lack of proper traffic signals and pedestrians' crossing busy roads, risking their life, are serious safety concern.

KUTEI Project envisages, among other objectives, to conduct a feasibility study and assessment for Improvement in Kabul city center Accessibility, efficient Traffic Management and also to identify needed additional infrastructure such as lanes/grade separations, bifurcation, auto-traffic-signal, pedestrian-crossings, road cross-over bridges, etc. in the city center area (figure-1) to enhance traffic flow efficiency which significantly reduce traffic congestion and air pollution in the City, and also improve traffic safety, in a bid to de-congest, drive clean, and evolve priority measures to have improved accessibility and efficient traffic in the City. Furthermore, to prepare detail engineering design for traffic management systems in the city center area and identify needed additional infrastructures for accessibility improvement.

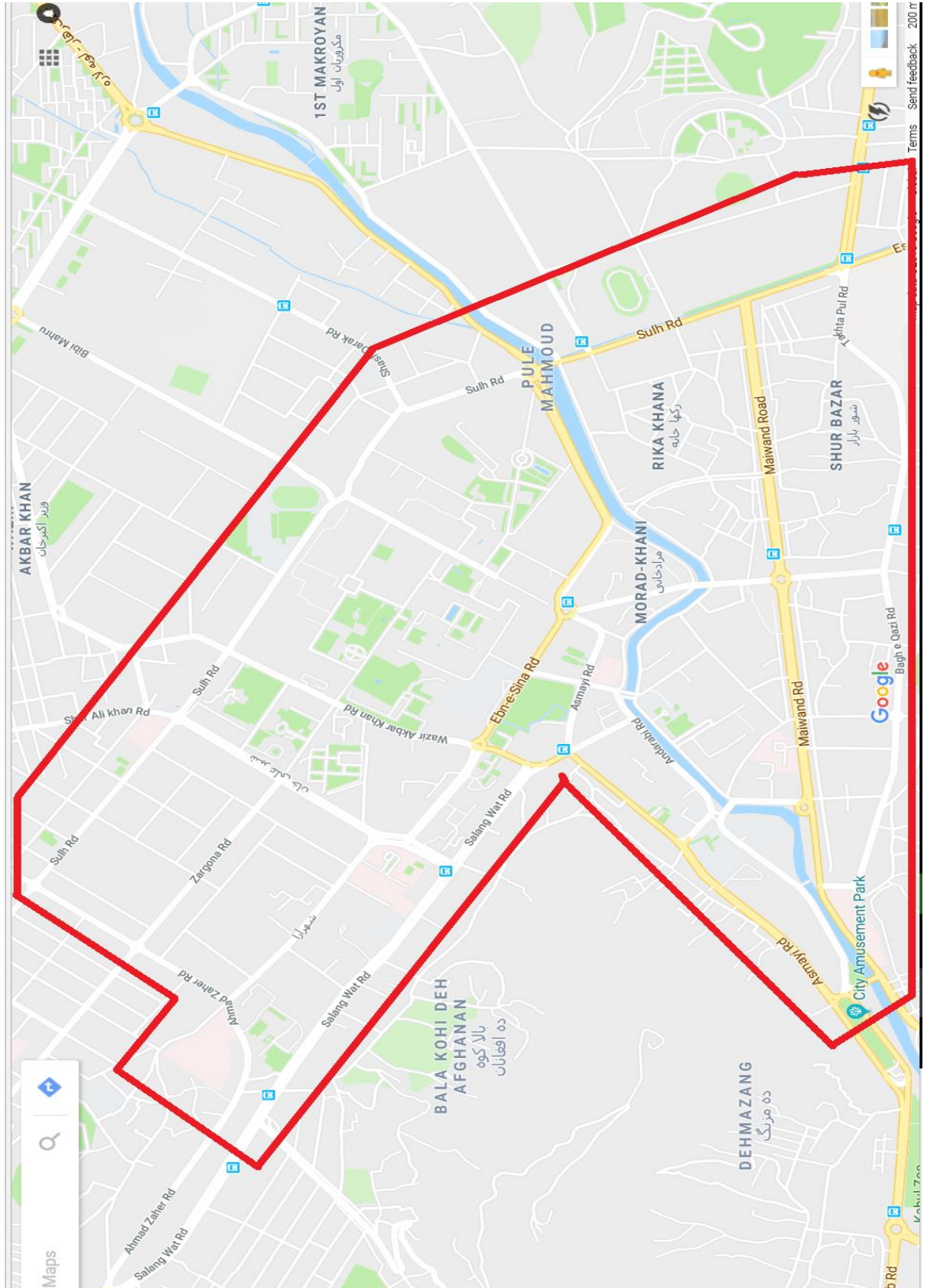


Figure.1: Kabul City Center Area

## 2.0 Objectives

The objective of this consultancy is to improve accessibility to City Center area which is the most congested areas in Kabul city, de-congest, drive clean and evolve priority measures to have effective system for efficient traffic management in Kabul city for commuters, pedestrians, business houses and residents and also to identify needed additional infrastructures such as grade separations, bifurcation, bus exclusive lanes, auto traffic signal, road cross over bridges and underpasses facilities for pedestrians.

It would be of practical importance to include the following considerations:

- **Affordability:** Affordable, Convenient and Comfortable movement for all users, including commuters and pedestrians passing through/arriving at City Center, to solve mobility and accessibility issues on commercially and technically Sustainable basis for Kabul Municipality and other transport service providers
- **Safety and security: reduce the chance for traffic accident and support active measures of security**
- **Eco-friendly:** Low Noise pollution, Low Carbon emission & Clean Environment
- **Integration:** to take into account economic growth and provide job opportunities within the transport value chain and overall city functions; to cater to the need of Socio-Economic prospect and sustainability emerging over short term (next five years) and long-term (  $\geq 15$  years); and to have comprehensive intermodal solutions to integrate with land use plan and better environment.
- **Accessibility: to improve Accessibility to all city functions, including employment, services; and to have efficient Public Transport and Traffic Management System in City Center. This needs coordination and cooperation among civic agencies**

## 3.0 Scope of work

### 3.1 Task 1: Data Collection and Analysis of Existing Situation

The task will include the following:

- Compilation of all background relevant information, data, analysis, models, and other materials collected and prepared by governmental and non-governmental organizations such as Ministry of Transport and Civil Aviation (MOTCA), Kabul Municipality (KM), Japan International Cooperation Agency (JICA), United States Agency for International Development (USAID) and other relevant authorities.
- Survey to existing land-use, traffic surveys such as household survey for travel demand modelling, cordon line survey, screen line survey, vehicle flow survey, road side interviews to understand the travel pattern of pedestrians, slow moving vehicles and taxis; and travel demand analysis for each purpose and mode to understand traffic flow pattern.

#### 3.1.1 Existing and future land use:

*Products for existing and future land use*

- 1) Maps and drawings showing detailed current land uses for each street blocks, Car park facilities (including public and private off-street parking, on street parking), major bus stops and taxi pick up points, markets, bottleneck junctions and links, etc.
- 2) Plans or scenarios for future land use.
- 3) Report to describe the above information and provide initial analysis/assessments to the existing street functions and urban transport services.

### 3.1.2 Traffic surveys

**The consultant will carry out the following surveys;**

#### **Household Survey**

The consultant shall conduct a detail house hold survey necessary for four step travel demand modelling for 1% of total population of all 22 districts. The survey will include but not limited to number of family members, gender, car ownership, level of income, trips by purpose, trips by mode, origin and destination for each trip to understand the general pattern of the trips generated and impacting the City center.

#### **Cordon Line Survey**

The consultant shall conduct two layers of cordon line survey, i.e. one at the boundary of Kabul city and the other at the boundary of city center area. Traffic counts at all selected sites should cover at least 12 hours and in both weekdays and weekends.

#### **Screen Line Survey**

The consultant shall select locations for conducting screen line surveys and collect the required data for the survey. Traffic counts at all selected sites should cover at least 12 hours and in both weekdays and weekends.

#### **Traffic Volume Surveys (including Turning Volume Counts)**

The consultant shall carry out traffic count survey on all arterial and collector road network in the city center area. The surveys shall include following mentioned criteria.

1. **Vehicle categories:** include (but not limited) private cars, taxis, light goods vehicles, heavy goods vehicles, shuttles (for public sector commuters), buses (large busses, mini busses and micro busses);
2. **Time periods:** AM and PM peaks and Inter Peak in both weekdays (Saturday to Wednesday) and weekends (Thursday to Friday)
3. **Locations:**
  - a. All arterial and collector roads in the city center area (traffic counts at all selected sites should cover at least 12 hours and in both weekdays and weekends; hence, Automatic Traffic Counting [ATC] or video survey is highly recommended to understand the traffic flow profiles for both weekdays and weekends).

## Section 7. Terms of Reference

- b. Junctions (turning movement counts): counts of turning vehicles, through traffic, pedestrian and bicycles at intersections.
- c. Automatic Traffic Counting (preferably video surveys) are required at the above road links and critical junctions.

### ***Car parking facilities (including off street parking of public and private, on street parking):***

This includes (but not limited to):

- 1) On street survey/visits for on street parking, capacity of off street car parks;
- 2) Interviews of each parking areas of public sector institutes; and
- 3) Maps showing the above information

### ***Private car drivers, taxi drivers and passengers (roadside interviews):***

1. Survey private transport providers for major employers, including governmental organizations and other entities is expected to be carried out by visiting their office sites; while taxi surveys are to be carried out at key pick up points.
2. ***Taxi survey Locations:*** to the drivers of taxis, mini buses at pick up and drop off points including at least the following locations:
  - a. Department stores opposite to the KM (including the junction near Ministry of Education);
  - b. Markets near MOF
  - c. Kabul Riverside;
  - d. Maiwand Road including Market at Old Kabul area
  - e. Lese Mariam area
  - f. Sarae Shamali Area
  - g. Kote Sangi Area
  - h. Ahmad Shah Baba Mina Charahi 2
  - i. Barchi Road
3. ***Time periods (taxi survey):*** same as traffic volume surveys;
4. ***Key information:*** to include at least trip purposes, origin and destination (for taxi drivers and passengers), travel distance (including on taxi and off taxi), etc.

### ***Public Transport Routes Survey and Users' Interviews***

Public Transport Routes and Stops:

1. Understand all types of buses routes
2. Assess possibility of relocating the bus-stops to facilitate urban functions, to ease congestions and to improve walking environment to their destinations
3. Preparation of drawings and maps showing the bus routes and stops.

Public Transport Users Interviews:

1. Public Transport Users interviews should be carried out at the following 8 major bus stops (but not limited to)

- i. Deh Afghanan - Bus and Taxi stop
- ii. Malik Asghar - Square Taxi stop
- iii. Firoshgah - Taxi-stop
- iv. Cinema Pamir – Roundabout – Bus and Taxi Stop
- v. Maiwand Road (Old Kabul) – Jada Bus and Taxi Stop
- vi. Kote Sangi
- vii. Sarai Shamali
- viii. Ahmad Shah Baba Mina, Charahi 2

2. **Info to be collected:** trip purposes, Origin and Destination (o/d), etc.

3. **Shuttle bus routes for selected “big” employers**, like ministries, Kabul Municipality and other public sector entities.

**Loading and unloading activities (including shoppers, restaurants, garbage collections and other services)**

The information to be collected should include at least:

1. Understanding of loading/unloading activities nearby the shops or services;
2. Goods type and original places.

### 3.1.3 Products for Task 1

1. Inception Report for entire study (all tasks), which should also include a detailed survey plan;
2. Data collection and existing situation study report,
  - a. Raw data in both electronic version and hardcopies;
  - b. Analysis and assessments:
    - Analysis and assessments on the above surveyed or collected information Travel Demand Modelling for all 22 districts of the Kabul city.
    - Specific analysis on the bottlenecks, vulnerable points, accessibility and urban functions with a focus in the following zones:
      - Shahr-e-Naw,
      - Kot-e-Sangi,
      - Sara-e-Shamali,
      - Deh-Afghanan,
      - Jada-e-Maiwand,
      - Jada-e-Pashtunistan,
      - Kabul river sides (from Dehmazang Square to Abdul-Haq Square)
    - To understand any other requirements, like fire-fighting, security etc.
    - Essential drawings and maps to showing the above results.
3. Three presentations to Kabul Municipality, country leadership panel (which includes Ministry of Interior Affairs and Ministry of Transport) and stakeholders (traffic police, Millie Bus and representatives of local communities).

4. Presentations and report are strongly recommended to be tailored for the needs of both public and decision makers and transport engineering practitioners and have executive summary which is readable to public and decision makers and technical parts.

### **3.2 Task II: Transport appraisal, network wide traffic management plan and designs of short term solutions.**

#### **i. Scenarios**

The task will be carried out based on the following scenarios:

1. ***Do Minimum***: considering

- The occurred urban development activities,
- Planned road maintenance, rehabilitation and improvement schemes inside or adjacent to the study area; and
- Other urban/traffic developments which are definitely or most likely to happen.

The Do Min analysis/assessments should include (not limited) the all modes/purposes trip demand estimation analysis (for both short term (3 -5 years) and long term (greater than 15 years)), and restrictions and limitations of the network (both short term and long term). Possible suppressed traffic demands may also have to be analyzed and quantified; and impacts to economic developments of the area should also be quantified.

2. ***Do Something (DSS, short term, 3-5 years)***

The DSS scenario will consider trip demand developments for the next 3 - 5 years. Modal split and traffic redistribution may not necessary to consider. Reasonable assumptions should be made for sensitivity analysis.

All engineering solutions shall be small scales, which means

- Necessary civil works involved should be within right of way or government lands,
- Affected people be less than 200 should there be any necessary land acquisition;
- Measures with limited or little environmental impacts;
- Landscape and street scene designs; and
- Traffic enforcement measures.

The following are strongly encouraged:

- Bus priority measures, e.g. bus lanes, bus stops and even adjustments of bus service routes,
- Car parking management strategy and plans, and relocation and/or management plans for taxi drop off points,
- Re-arrangements of entrance control and security check points at bottleneck links;
- Traffic engineering measures, like local one-way systems, junction signalization, speed tables, brick/stone pavements,
- Traffic management and diversion plans during construction and post-construction period for the proposed infrastructure as required, and
- Special facilities for vulnerable groups - Women, Children, Senior Citizen and Physically Challenged Persons.

Risks should be identified and analyzed, if some or parts of suggested measures will not be possible to implement due to political or other reasons. It is a must to prioritize of all the measures by taking into account the risks. Analysis of sustainability of the measures due to these risks are also required.

The DSS scenarios should cover both concept (network wised) studies and detailed designs (ready for tendering) only for the city center area. It is also recommended to closely involve all the relevant stakeholders over the entire design stages.

Scenario appraisal should be provided from the aspects of “affordable”, “environmental friendly”, “safe”, “accessible” and “integrated” (see below “Section 2.0 Objectives” for more information).

### **3. Do Something Long term (DSL, long term, >=15 years)**

The DSL scenario will consider trip demand developments for the next 15 years. Changes in trip generation (say land use changes), modal split (especially analysis of bus service improvements) and traffic redistribution (say car park rearrangements) should be delicately assessed and studied.

Sub scenarios may include

- DSL-1: Assuming no land use changes but with feasible designs of traffic management plan, essential changes of bus services and car parking strategies/plans;
- DSL-2: Traffic impact analysis with one BRT line, with reasonable and essential assumptions on network management and improvements measures, normal bus service adjustments and no changes to existing land uses;
- DSL-3: Impact analysis of redevelopments of Kabul Riverside (from Kabul Zoo to Ministry of Public Works) by assuming no land use changes in other zones;
- DSL-4: Impact analysis of redevelopments of Old Kabul market area by assuming no land use changes in other zones;
- DSL-5: Impact analysis of redevelopments of the market near Pashtunistan Square by assuming no land use changes in other zones;
- DSL-6: Appraisal of major land use changes, such as relocation of central government offices with feasible designs of traffic management plan, essential changes of bus services and car parking management plan;
- DSL-7: Appraisal of major infrastructure improvements, say flyovers, by assuming no land use changes in other zones;
- DSL-8: Appraisal and sensitivity analysis of “Plan B” of bus service changes, by assuming no land use changes;
- DSL-09: Appraisal and sensitivity analysis of “Plan B” of car parking strategy/plan, by assuming no land use changes in other zones; and
- Other tests of demand changes and traffic impact assessments on pedestrianization and area wide traffic management scenarios.

Risks for the above sub scenarios should be identified and analyzed, if some or parts of suggested measures will not be possible to implement due to political or other reasons. It is a must to prioritize of all the necessary measures by taking into account the risks. Analysis of sustainability of the measures based on the analysis of these risks and tested sub scenarios are also required.

The DSS scenarios appraisal should reach the proper level of providing reliable inputs to conceptual design and decision making process. Moreover, in each scenario, there is a need to properly define

## Section 7. Terms of Reference

technical specifications and standards for the improvements of junctions, street and area redevelopments. Such specifications and standards should also be assessed in the conceptual design. It is also recommended to closely involve all the relevant stakeholders over the entire design stages.

Scenario appraisal enables the client to identify robust city center improvement scenarios for decision making. The scenario appraisal should be provided from the aspects of “affordable”, “environmental friendly”, “safe”, “accessible” and “integrated” (see below “Section 2.0 Objectives” for more information).

The consultant should provide training for the client staff to run the transport models which are developed for the project.

### **ii. Product**

- Technical memorandum for each sub scenario;
- Appraisal report of DM and DSS (including the conceptual designs and detailed design for city center area);
- Detailed designs of identified short term solutions including drawings, reports, technical specifications, and other tendering documents.
- Appraisal report of all DSL scenarios and identification of major infrastructure and redevelopments;
- All raw data/files in both electronic versions and hard copies, transport model data and files, AutoCAD/ArcGIS files;
- Inputs for World Bank appraisal purposes are required;
- Transport demand modelling trainings to the client staff; and
- Two to three presentations for the appraisal results are required for Kabul Municipality, country leadership panel and stakeholders.

### **3.3 Task III: Detailed design for area wide traffic management plan, car parking facilities (for Kabul City Center Area)**

The task includes:

- Traffic management Plans and network designs (developed and validated from Task III): such as one-way traffic as and where needed, U-turn prohibition where needed, automated traffic signals at all turnings and junctions, street lights, bus-stop relocation, parking facility and no-parking zones (main busy streets and critical zones) and
- Off street car park designs including revenues, services and operating plan for the car parks;
- Junction improvement designs (signal design/assessments for selected junctions);
- Essential road layout designs due to change of traffic flow directions;
- Traffic enforcement design;
- Security and emergency plans;
- Plan and supports for public campaign, public consultation and public involvements;
- Trainings for signal design; and
- Cost estimation

**Product:**

- Detailed design report, Signal designs trainings to the client staff; and
- Detailed design drawings

**3.4 Task IV: Conceptual Design for Bus Priority Measures (for Kabul City Center)**

- Develop and validate bus service plans (from Task III) for Kabul city center including:
  - Bus routes restructuring with improved access to city center
  - Bus stop relocations and improvement in city center; and
  - Essential traffic management measures to improve bus operations;
- Designs for bus terminals/stations including the traffic assessments of in/out terminals/stations;
- Designs for junction improvements due to bus prioritization;
- Designs for road links with essential bus lanes;
- Security and emergency plans;
- Plan and supports for public campaign, public consultation and/or public involvements; and
- Cost estimation

**Product:**

- Conceptual design report, and
- Conceptual design drawings

**3.5 Task V: Conceptual Design for Redevelopment****3.5.1 Selected sites**

- Kabul Riverside: the section between Kabul Zoo to Ministry of Public Works;
- Old Kabul Market; and
- Pashtunistan Square market.

**3.5.2 Targets and principles**

To create jobs and improve urban environment in a way of affordability and safety/security.

Focus on public infrastructure only with essential improvements to

- Street functions of accessibility, parking, movements, drainage, land scape, etc.
- Prompting use of green transport modes, e.g. pedestrians, bikes and buses;
- Urban services, like public toilets, garbage pick-up points, goods loading and unloading, and
- Revenues, services and operating plan for public facilities;
- Security and emergency plans;
- Cost estimates and economic/financial viability analysis for the proposed redevelopment

**3.5.3 Product**

- Conceptual design report;
- Conceptual design drawings; and

- Plan and supports for public campaign, public consultation and/or public involvements.

### **3.6 Task VI: Public participation/communications plan**

#### **3.6.1 Strategic Plan for Stakeholders/Public Participation and Communications Plan**

Strong communications program is desired for successful implementation and operation of the Efficient Accessibility and Traffic Management System in City Center. It is important to have a formal plan early in the process both to gain input and support and to properly budget sufficient resources.

This communications program will have three components:

- informing the public on the progress of the development program
- making sure that the project team understands the needs and values of all stakeholders as well as obtaining stakeholder counsel and advice in the run up to milestone decisions
- “marketing” the decision to all stakeholders, especially those in the private public transport sector and the general public

Activities may include focus group meetings with citizens and other stakeholders, satisfaction and attitude surveys, development and maintenance of a project website, stakeholder workshops and public meetings, etc. The client Kabul Municipality/KUTEI will provide a liaison officer to work with the consultant and will facilitate access to concerned Ministries and other concerned bodies.

#### **Products:**

- Communications and consultation plan, various communications materials, notes for each major focus group survey, stakeholder workshop or public meetings
- Customer/Commuters’ satisfaction survey report for entire City-Center.

#### **3.6.2 Preparation of a Brand Concept and Related Graphic and Design Criteria**

Brand and logos do have an important impact on psyche of target customers/commuters and residents of the city center. The Consultant would evolve and design Brand, Theme and Logo to be adopted by the Efficient Accessibility and Traffic Management System in the city center in all presentation and interface.

Work under this task will involve market research that translates into a name for Kabul City Center Traffic Management System and related Branding elements like color and other design themes for lanes, parking-zones, navigation-signs, do/do-not signs, graphic design, etc.

Product: Milestone report on Efficient Accessibility and Traffic Management System in City Center brand-related market research and the proposed branding recommendations

### **3.7 Task VII: Developing Environmental & Social Impact Assessment (ESIA) Report**

The consultant will produce a detailed Environmental & Social Impact Assessment Report. The Report will discuss the following areas:

- Preparation of environmental alignment sheet, including information on specific project alignment, layout and location of facilities, flow diagrams, design basis, size, capacity, pre-construction activities, construction activities, schedule, operation and maintenance activities. Provide maps at appropriate scale to illustrate the general development sites, as well as surrounding areas. The

maps will include location of major project investments, including depot, terminals, stops, off site activities, etc.

- Document the impact on current traffic in, safety, traffic passage measures, special design in critical junctions as part of mitigation measure, special measures to be taken during construction.
- Identify specific information for enforcement by the engineer to be included as contract clauses
- Identify specific construction activities both along the main corridor as well as the traffic diversion route (during construction period) which impact the general environment
- Discuss in detail the possible environmental and social impacts of the proposed public transport option and propose mitigating and enhancement measures on identified negative and positive impacts with detailed cost estimate and action plans for implementation

**Product:**

Environmental & Social Impact Assessment Report (ESIA)

**3.8 Task VIII: Pedestrian and Bicycle Path Network Plan (City Center Area)**

The Plan will be a comprehensive effort for the City Center area that will guide, prioritize, and implement a network of quality bicycle and pedestrian facilities to improve mobility, connectivity, public health, physical activity, and recreational opportunities. By applying best practices, the Plan will increase transportation options, reduce environmental impacts of the transportation system, and enhance the overall quality of life for residents. Overall, the Plan will create a system that enables people to use a variety of modes to achieve daily needs.

The Plan will assess existing system conditions, analyze community needs, and evaluate health, safety and demographic data. The community involvement process will capitalize on a variety of methods to obtain input including community walks and rides, presentations at community facilities, meetings with community based organizations, and the use of social media and an interactive website. The Final Plan will ultimately result in programmed priority system improvements consistent with State, regional, and local planning policies.

***Inventory existing conditions:*** Consultant shall conduct a detailed inventory of existing bicycle and pedestrian facilities in City Center Area. Conduct community assisted walking and biking audits. Inventory existing bicycle parking, safe routes to schools efforts.

***Demographic, land use, and future demand analysis:*** Consultant shall survey the number of existing bicycle and pedestrian trips and identify and evaluate existing and future nodes or concentrations of activity centers/destinations to determine the future needs of bicyclists and pedestrians for the City Center Area. Include residential uses, schools, commercial/shopping centers, civic areas, major employment centers, recreation facilities, and transportation hubs.

Analyze the number and location of bicycle and pedestrian collisions, serious injuries, and fatalities, and evaluate possible development patterns to anticipate future safety concerns. Identify actual and perceived physical barriers and evaluate potential changes due to future development patterns.

***Identify Network and Recommendations:*** Consultant shall review data and public input to prepare recommendations for a future bicycle and pedestrian network and related facilities. Connect the network for the City Center Area. Consultant shall consider different scenarios while connecting the network and provide site-specific design of the most appropriate, cost and time effective scenario and provide detailed

project descriptions, specifications, and budget estimates for the entire network. The selected scenario's may include overpass bridges or underpass tunnels for pedestrian movements.

Prepare recommended policies and programs including a description of proposed policies related to bicycle parking, way finding signage, design guidelines, safe routes to schools efforts, and bicycle and pedestrian safety programs.

***Develop implementation and financial plan:*** Consultant shall prioritize recommendations for bicycle and pedestrian facilities, policies, and programs. Develop a financial plan that includes capital, operations, and maintenance cost estimates and potential funding sources.

Develop an implementation plan to define the phases and timing of various projects. Identify agency responsibility and coordination needed to design, construct, maintain, and operate projects.

## **Product**

- Pedestrian and Bicycle Path Network Plan for Kabul City (including designs, proposed policies, guidelines and programs)

### **3.9 Task IX: Street Vendors Management**

Street Vendors has increased manifold in recent years due to the livelihood in Kabul City. Street vending constitutes a significant section of urban economy. Urban Street vending is not only a source of employment for the poor masses but it also provides affordable goods and services to the considerable fraction of urban population. Street vendors deserve credit for their contribution to urban economy, however, in practice; they are perceived as unlawful entities and are subjected to continuous harassment by police and civic authorities.

Kabul Municipality takes note of this irregularity, recognizes the importance of street vendors and lays down a framework for mainstreaming them.

The main purpose of the vending sector assessment is to map the vending activities across trades, capture the socio-economic and business profiles, understand the problems experienced by them and identify possible areas of development interventions required. The perspectives emerging from this assessment in the City Center Area would be helpful in devising policies targeted at street vendors and also in formulating implementation guidelines thereby.

#### **Phase I:**

#### **Identifying the street vendors through detailed**

#### **Surveys**

#### **1. Inventory Existing Condition:**

**Study of existing data/report/Survey:** The Consultant shall refer and study the existing data/report/Survey available with Kabul Municipality and make a list of the existing street vendors for the City Center Area.

2. **Identifying the street vendors:** Street vendors in Kabul City have to be identified and surveyed and numbered at ground level. The vendor has to be divided into two categories:

- a) Stationary

b) Mobile

Once the vendor list is finalized, the following tasks have to be undertaken:

- a) Identifying the places for time sharing-based vending zones at a place (Bazaar -Roz).
- b) Identification of weekend markets zones.
- c) Identifying the street vending markets/outlets along-with the capacity of street vendors.

**Phase II:**

**Preparation of City Street Vending Plan:**

**1. Compilation of Survey Data, Preparation of Inventory of existing documents and Base Report:**

The Consultant have to compile the survey data, collect all existing information, documents and data available with Kabul Municipality and to prepare a base report outlining the planning concept, methodology and future course of action to complete the plans.

**2. Preparation of Spatial Plan:**

- a. **Ward Vending Development Plan** has to be prepared on GIS platform showing the location of the existing and proposed vending zones and placing of the existing street vendors in the zones. The plan has to illustrate the norms on the amount of space to be provided for vending zones etc. Future Market Plan has to be prepared in a GIS platform in a separate layer superimposed over the city level base map showing specific provision for creating new vending markets.
- b. **Preparation of GIS Base Map:** GIS mapping has to be undertaken at two levels namely City Center Level Mapping and Ward Level Mapping with different layers for different components of vending zone;

▪ **City Level Mapping:**

The geo-referenced base map of Kabul City shall serve as a foundation for preparing Street Vending Plan where all other thematic layers to be overlaid for spatial analysis. City level GIS mapping has to be done with the help of latest and high resolution satellite imagery. For that purpose, Procurement of Cartosat II / Quick Bird / World View satellite image from an authorized Agency for the project area has to be procured by the Consultant with prior approval from the client and the amount shall be included in the proposal.

The following layers have to be created in City Level Mapping:

- a. Kabul City Center Area and ward boundaries.
- b. Roads with classification as Arterial /Sub Arterial /Local Roads etc.
- c. All water bodies like; Canal, River, Ponds, Stream, creeks, tanks, etc.
- d. Landmarks like Govt. Offices, Institutions, Health Centers, Parks, Cinema Halls, Markets, Malls, Mosques, and other important landmarks relevant to the project
- e. Location of Vendor Zones /Vendors in the City Center.

▪ **Ward Level Mapping:**

The Ward Level Mapping must contain the City Center Area Level Layers as well as the following Layers:

- a. Road Side Vending: The Ward Level Mapping must show the Road Side Vending areas earmarked on roads for establishment of Road side Vending Zones.
- b. Multi-Product Vendors Market: Depending on the requirements of different areas, Vending Zone Spaces for establishment of Multi-Product Vending Zone has to be earmarked on the spatial mapping.
- c. Single-Product Vendors Market: Also Single-Product Vending Zone Areas has to be earmarked on selected places, to develop specialized Vending Zones catering to different areas of the City depending on specific requirement of different areas.
- d. Integration of Vending with Public Interest: Above vending Zones must be identified on the basis of an intensive demand survey giving priority to Larger Public Interest, and it should not cause any inconvenience to the general public either at present or in future.
- e. No Vending Zones: Besides the above, the Consultant have to identify those areas, where establishment of any Vending Zone will not be desirable from planning point of view and it will be detrimental for smooth functioning of different functional activities and flow of traffic throughout the City Center Area.

### **3. Preparation of City Street Vending Plan**

Under this sub-component, preparation of City Center Street Vending Plan shall contain the following:

- a. profile of street vending trades and activities;
- b. spatial distribution of street vending activities;
- c. earmarking of space or area for vending zones;
- d. determination of vending zones as restriction- free vending zones,
- e. restricted vending zones and no-vending zones;
- f. estimates of holding capacity of vending zones
- g. vendors who can be accommodated in any vending zone;
- h. understanding of key challenges, constraints and issues relating to
- i. street vending, and,
- j. Possible solutions and potential street vending areas.

The Street Vending Plan will also take into account the natural markets where sellers and buyers naturally congregate for the sale and purchase of products and services.

The Plan will be developed after consultations with Street Vendor's representatives and other relevant stakeholders. While preparing the Street Vending Plan, in coordination with Kabul Municipality, the city police, traffic police and other local agencies it should also devise and promote vendor friendly policies, solutions and strategies to accommodate and facilitate street vending in a manner that is conducive to street vendors and the public at large. This may include policies for traffic management and regulation on

market days or at certain times of the day, arrangements for lighting, water, sanitation and waste disposal in street vendor market areas.

#### 4. Draft Allotment Plan

A draft model agreement is to be prepared by the Consultant based on best practices elsewhere, for allotment of different kind of vending zones to the vendors. The Plan has to suggest/propose methods for allotment of various spaces, giving criteria for allotment, period of lease for stationary stalls/Stationary vendors, reservation in allotment, reservation for physically challenged/disabled persons in accordance with the share in the total population/weaker sections of the town/city. Street vending committee/organization has to be formed drawing members from different stakeholders directly or indirectly.

#### Phase III:

**Street Vending Policy:** consultant, in coordination with Kabul Municipality, shall prepare a Street Vending Policy.

#### Products:

1. Compilation of survey data, preparation of Inventory of existing documents and base report
2. City Street Vending Plan for the City Center.
3. Allotment Plan
4. Proposed Street Vending Policy

#### 3.10 Other technical requirements (where necessary for the above tasks)

**Enforcement of Traffic Regulations:** The consultant shall also identify and propose systems easy to implement including automated systems to record traffic movement and assist in enforcement of traffic rules.

**Design of all civil works:** The consultant shall prepare preliminary design and assessment for transport infrastructures such as bus exclusive lanes, stations, sidewalks, skywalks, bikeways and pedestrian crossings where necessary in City Center Area. Mentioned infrastructures should be detailed designed for city center area. The design will incorporate activities in terms of mapping, plans and the explicit treatment of subsystems and other public transport components.

Pedestrian, bicycle and private vehicle access provisions should be incorporated into location and design decisions. Proper space/provision for parking for motorbikes, tricycle, taxis and private/public vehicles should be made as appropriate. A centralized multilayer parking zone structure be considered for viability and security. The design of all civil works should explicitly consider the branding theme developed for the system as well as architecture be consistent with Kabul's history, culture and climate, and integrating into the immediate surrounding urban environment.

Pedestrian crossing, sidewalks and road cross over bridges for pedestrians need to be planned to facilitate safety and space for smooth movement of vehicular traffic minimizing chances of any traffic disruption. A major assumption that should be reflected in design and costing is that the pavement will be colored (at least the surface) maroon (European standard), green (New Zealand) or yellow (Japan) for enforcement, marketing and passenger information purposes.

The possibility of using facilities to “anchor and induce” adjacent sustainable urban developments for environmental and revenue-generation purpose should be explored. Create formal provision for kiosks and

other retail services while preventing informal hawkers from taking over public areas is another issue that should be considered.

***Traffic engineering improvements to make transport and traffic services safer and more secure:*** Transport and Traffic systems generally have locations where there is an interface between general traffic and public transport services. In the best of circumstances, these locations will be limited to at-grade intersections per schedule. In the case of Kabul City Center, though the demonstration corridors provide opportunities to construct bus exclusive lanes in most locations, there is the need for traffic engineering specifically to facilitate smooth flow of general traffic undisturbed by public transport operations. It is highly desirable that the Consultant conducts a road safety audit for the transport and traffic operation in and around the City-Center. The audit should help identify areas of major roadway safety concerns including measures to be taken for improving the detailed engineering design with respect to road safety.

Creative “traffic engineering for transit” will have to be undertaken to ensure that a public transport operations do not obstruct smooth flow of traffic in and around the City-Center. Arrangements may include “virtual lanes for buses”, signal-sequencing and other forms of traffic management, eliminating un-scheduled stops or mid-way stops, intersection channelization, grade separation, etc.

There would be proposal for provision of regular emission check of vehicles and grant of pollution-free certificate by an authorized check-points. There would also be provision for guards, paid on hourly-basis, who would assist the traffic-police in controlling the flow of traffic, proper parking of vehicles. These would also create opportunities and generate employment.

***Preparation of a Detailed Financial Plan including Capital, Operating, Maintenance Costing, revenue Estimation.*** All sources and end-use of fund will be elaborated in the financial plan. These will include initial implementation costs covering all infrastructure, equipment, rights of way and systems as well as the sources of funds proposed to meet them.

Cash flow analyses over the life of the project, presumably opening plus five years, should be prepared under different sets of cost and revenue assumption covering a range from conservative to very conservative. The costing should be done at a level of detail consistent with a preliminary design. Revenue estimates will reflect the adopted institutional arrangements and business model.

The potential of Public and Private Partnership between Kabul Municipality and City Center community for providing construction financing through “joint development” arrangement, need be explored.

***Appraisal:*** Following World Bank project appraisal guidelines, work under this task will evaluate the project in terms of ***all*** relevant factors. To the maximum possible extent, travel time savings, vehicle operating and maintenance reductions, pollutant reductions of all kinds, reductions in accidents and fatalities, etc., will be quantified and monetized and the requisite rates of return, etc. calculated.

The consultant will also explore opportunities for maximizing private sector involvement as part of the appraisal and propose alternative models for PPP.

Every major urban transport project involves significant risk, because there is risk in almost every aspect of the project such as:

- Security risks that will impact the designs of
- Political risk associated with traffic-disruptions, diversions, obstruction or undue preference of lane/location/parking, etc.
- Political risk from government or the private sector who may feel threatened by the project

- Risk associated with right of way acquisition
- Return on Investment of Resources and Efforts
- Environmental and Social Impacts
- Operational and Sustainability Risks

All of these potential sources of uncertainty should be explicitly accounted for in each of the relevant tasks above, but this task should summarize them along with specific recommendations for mitigating them, taken from the products of other tasks or developed exclusively by this task.

#### **4.0 Liaison with Kabul municipality**

The Consultant shall maintain close liaison with the Project Management Unit (PMU) established by KM for the sole purpose of the KUTEI Project. The PMU shall be the primary contact point of the Client for the Consultant.

A formal joint meeting shall be arranged by the Consultant at least once a month to facilitate monitoring of the services. The consultant will also be responsible for the formal minutes of all such meeting. Copies of the minutes shall be included in progress reports.

#### **5.0 Additional responsibilities of the consultant**

The provision of the Services are all to be executed in Afghanistan, with the sole exception of: (a) finalization of the Final Report to incorporate comments from KM and the World Bank together with drafting of the Consultant's final invoice, and (b) some of the Consultant's headquarters back-up services as formally agreed and approved by KM.

The Consultant is to provide his own surveying equipment, lab equipment, site accommodation, site transport and other site facilities, equipment, vehicle on hire/purchase, utilities and consumable necessary for the complete execution of the services. The Consultant should include the cost of these in his financial proposal, as reimbursable costs. All furniture, equipment and vehicles purchased for the purpose of the project will revert to the ownership of the Client at the completion of the Project. Any facility, transport and other equipment, which is not covered by the Consultancy Contract, is to be deemed to be included in the financial proposal of the Consultant elsewhere.

The list of equipment to be provided to the Consultant on reimbursable basis is indicated in the annexure attached herewith.

The Consultants' Personnel will normally conform to the working hours of 0800 to 1700 with one-hour break for lunch. The Personnel will work a six-day week. However, in view of the nature of the project it may be necessary for the Key Personnel to work for longer periods from time to time. The Consultant's Personnel will be entitled to the same holidays as those enjoyed by the Client's staff.

#### **6.0 Duties and responsibilities of the project management unit (PMU)**

- The PMU represents the Client in all matters for the Service.

## Section 7. Terms of Reference

- The PMU shall assist the Consultant with liaising with other Ministries and Authorities of the Afghanistan Government in relation with the Services.
- The Consultant shall make available all correspondences, reports, communication and other relevant documents for review, comment and report to the PMU of any key issues requiring attention and subsequent follow-up as necessary.
- The Consultant shall submit all progress and other required reports to the PMU.
- The PMU will attend all monthly progress and any other meetings to be held.

### **7.0 Duration of the services**

**The duration of the Services is to extend from the date of commencement of the Contract for a period of ten (10) months.**

### **8.0 Equipment to be supplied by the consultant**

As detailed under Section 5 herein above, the Consultant should arrange all facilities required for the consultancy service by itself and the cost of such provision should be detailed in the Consultant's financial proposal.

### **9.0 Obligations of the client**

KM will provide place for consultant's office within PMU which is properly gated and guarded. However, the consultant will have to furnish the same and have it internet connected to its needs. KM will also provide all necessary information and related documents to the Consultant free of any charge. It will assist the Consultant in coordination with KM, PMU and other government agencies for smooth implementation of the project.

KM will also support the Consultant in calling and organizing the consultative meetings and workshops required for rendering the service.

### **10.0 Capacity building**

Capacity Building is one of the most important aspect of the TOR. Trainings are required to be provided for KM and KUTEI for knowledge sharing, better coordination and supervision of the project. Trainings methods shall be based upon following:

- 1- Classroom Trainings (in Kabul Office)
- 2- Training of all Software used in the study (in Kabul Office)
- 3- On-the-Job Training (in Kabul Office)
- 4- Practical on-site Training (Kabul)

### **11.0 Outputs**

- i. **Inception Report:**

- a. This will include preparation of a detailed work plan, including methodology of assessment and study, organization and staffing, budgets and schedules, project management processes reflecting all tasks; summary of all tasks to be performed, including the study plan, work program, schedule and mobilization.
- b. Databases and/or working models for input to analysis tasks.
- c. Inception Report on Strategy for Improvement of Transport & Traffic in Kabul City Center to de-congest, drive clean, and evolve priority measures to have effective and efficient transport and traffic system in and around Kabul City Center.
- d. Transport appraisal, network wide traffic management plan and designs of short term solutions.
- e. Report on analysis of proposed alternative measures for Improvement in Traffic Management in and around Kabul City Center and their comparisons on technical, economic, environment, and social considerations.
- f. Inception report for entire study (all tasks), including detailed survey plan.

**ii. Interim Reports:**

- a. Feasibility Report, including proposed Service Plan, preliminary plans for bus exclusive lanes, analysis of vehicular traffic, proposed movement plan, traffic engineering and i-tech application.
- b. Data collection and existing situation study report, raw data (electronic and hard copies), travel demand modelling for entire Kabul city and drawing and maps showing the above results.
- c. Conceptual and Detailed Engineering designs for DSS scenarios for Kabul city center area.
- d. Conceptual designs for DSL scenarios.
- e. Detailed design for area wide traffic management plan, car parking facilities, Proposed Traffic System and Plan Report, Plans for Traffic Movement, Lanes, Ways, Report, Traffic Engineering Improvement Plan for smooth Traffic Flow.
- f. Comprehensive Financial Plan, elaborating the implementation, operation and maintenance cost, including capital costing models and the results.
- g. Milestone Report on the “Integration of Transport & Traffic System aligned to Land Development & Architectural Plan - Strategic and Proposed for City Center.
- h. Conceptual design report and drawings for bus priority measures.
- i. Conceptual design report and drawings for redevelopment and plan and supports for public campaign, public consultation and public involvement.
- j. Communications and consultation plan, communications materials for each major focus group survey, stakeholder workshop or public meetings.
- k. Customer/Commuters’ satisfaction survey for entire City-Center Area.
- l. Milestone report on Transport & Traffic System brand-related market research and the proposed branding recommendations.
- m. Milestone Report for Social and Environmental Impact Assessment.

## Section 7. Terms of Reference

- n. Pedestrian and Bicycle Path Network Plan for Kabul City Center (including designs, proposed policies, guidelines and programs).
- o. City Street Vending Plan, Allotment plan and proposed Street Vending Policy.
- p. Milestone Report on Project Appraisal and Risk Analysis.
- q. Special facilities for vulnerable groups - Women, Children, Senior Citizen and Physically Challenged Persons.
- r. Security & Emergency Plan.
- s. Detailed Design for area wide traffic management plan, car parking facilities, bus priority measures, redevelopments and civil works mentioned under 3.10.
- t. Presentations to Kabul Municipality and donors (3 - 4 formal presentations).

### **iii. Draft Final Report.**

### **iv. Final Report (including World Bank appraisal report, with detailed economic, financial and risk analysis and service plan options).**

## **12.0 Staffing and skill mix needed**

Because of their flexibility, public transport projects require a unique skill mix to successfully plan and implement. Unlike the situation for other rail-based rapid transit modes, there is more of an emphasis during planning and project development in developing cities on “soft-side” activities such as service and operations planning, marketing and branding, communications, finance and institutional analysis.

Aligned to Kabul’s history and growth, emphasis should be placed during preliminary design, architecture and urban design integration in addition to the traditional civil works and equipment engineering activities more commonly emphasized in major transport projects.

The successful team will be comprised of both local and international experts with the specific experience and background noted. Given the security situation of Kabul, experts with abundant local knowledge are essential and a resident office of consultant in Kabul is also recommended in order to have a full understanding of the client’s needs. International experts proposed as managers/Specialists should have experience in developing city contexts. It is suggested that in putting together its team, consultants consider designating individuals with the following qualifications, relevant experiences, roles, responsibilities and backgrounds:

The core staff to be evaluated will include: Project Director/Manager, Engineering Design Manager, Traffic Engineering Specialist, Public Transport Service Specialist, Architecture and Urban Design Specialist, Economic and Financial Planning/Appraisal Specialist, Communication and Branding Specialist, Environmental and Social Safeguard Specialist and Social Development Specialist.

### **Project Director / Manager (International)**

Education: Minimum - MSc in Transportation Planning  
Desirable – PhD in Urban Transport Planning

Experience: Total Experience - 20 years for MSc and 15 Years for PhD  
Experience in similar assignment - 10 years for MSc and 7 years for PhD

Experience in developing countries: 2 projects

Additional: Fluency in English and ability to write reports and developing project management plans.  
Knowledge in use of relevant computer software packages and Microsoft office

### **Engineering Design Manager (International)**

Education: Minimum – MSc in Civil Engineering (Major in Transportation Planning)

Experience: Total Experience - 15 years  
Experience in similar assignment - 10 years  
Experience in developing countries: 2 projects

Additional: Fluency in English and ability to write reports  
Knowledge in use of relevant computer software packages and Microsoft office

### **Traffic Engineering Specialist (International)**

Education: Minimum – MSc in Transportation Engineering (Major in Traffic Engineering)

Experience: Total Experience - 12 years  
Experience in similar assignment – 8 years  
Experience in developing countries: 2 projects

Additional: Fluency in English and ability to write reports  
Knowledge in use of relevant computer software packages and Microsoft office

### **Public Transport services Specialist (International)**

Education: Minimum - MSc in Transportation Engineering (Major in Public Transport)

Experience: Total Experience - 12 years  
Experience in similar assignment - 8 years  
Experience in developing countries: 2 projects

Additional: Fluency in English and ability to write reports  
Knowledge in use of transport planning software such as Trans CAD, Visum, JICA STRADA, Arc GIS etc. and Microsoft office packages.

### **Architecture and Urban Design Specialist (International)**

Education: Minimum – BSc in Architecture Engineering  
Desirable – MSc in Urban Design or related field

Experience: Total Experience - 10 years for BSc and 8 years for MSc  
Experience in similar assignment – 5 years for BSc and 3 years for MSc  
Experience in developing countries: 2 projects

## Section 7. Terms of Reference

Additional: Fluency in English and ability to write reports  
Knowledge in use of Auto CAD and other relevant software; word-processing and spreadsheets.

### **Economic and Financial Planning / Appraisal Specialist (International)**

Education: Minimum – MSc in Transportation Economics  
Experience: Total Experience - 10 years  
Experience in similar assignment – 5 years  
Experience in developing countries: 2 projects  
Additional: Fluency in English and ability to write reports  
Knowledge in use of relevant computer software; word-processing and spreadsheets.

### **Communication and Branding Specialist (National)**

Education: Minimum – BSc degree in Marketing or relevant field  
Experience: Total Experience - 10 years  
Experience in similar assignment - 5 years  
Additional: Fluency in English and ability to write reports  
Knowledge in use related computer software, word-processing and spreadsheets.

### **Environment and Social Safeguard Specialist (National)**

Education: Minimum – BSc in Environmental Science/Social Development/Civil Engineering  
Desirable – MSc in related fields  
Experience: Total Experience - 10 years for BSc and 7 years for MSc  
Experience in similar assignment – 5 years for BSc and 3 years for MSc  
Additional: Fluency in English and ability to write reports  
Knowledge in use of computer software such as word-processing and spreadsheets.

### **Social Development Specialist (National)**

Education: Minimum – BSc in Environmental Science/Social Development  
Desirable – MSc in related fields  
Experience: Total Experience - 8 years for BSc and 6 years for MSc  
Experience in similar assignment – 5 years for BSc and 3 years for MSc  
Additional: Fluency in English and ability to write reports  
Knowledge in use of computer software such as word-processing and spreadsheets.

The following table indicates the planned composition of the Consultant’s team and the estimated person month for each staff. However, bidders are free to propose any additional staff they deem necessary for rendering the service by providing justification in tech 4 of the technical proposal.

**Time input of key staff in the field must be minimum 70% of the input mentioned below against each key expert:**

S. No.	Staff Position	Number	Estimated Person Month
<b>Key Professional Staff</b>			
1	Project Director / Manager (International)	1	10
2	Engineering Design Manager (International)	1	09
3	Traffic Engineering Specialist (International)	1	10
4	Public Transport Service Specialist (International)	1	08
5	Architecture and Urban Design Specialist (International)	1	09
6	Economic and Financial Planning/Appraisal Specialist (International)	1	06
7	Communications and Branding Specialist (National)	1	05
8	Environmental and Social Safeguard Specialist (National)	1	08
9	Social Development Specialist (National)	1	05
<b>Estimated Person Months for Key Staff</b>			<b>70</b>
<b>Support Staff</b>			
10	CAD Technician	4	36
11	GIS Specialist	2	20
12	Senior Surveyor	1	5
13	Surveyors	4	20
14	Drafts Person	2	18
15	Office Manager	1	10
16	Secretary	1	10
17	Drivers	8	48
18	Traffic Enumerators and other temporary staff	as required	
<b>Estimated Person Months for Support Staff</b>			

### **13.0 Schedule**

- a) The tasks and the objectives of this consultancy need to be accomplished within **10 (Ten)** months of commencement of the Services and the Consultant should indicate this in the proposed work schedule.
- b) The Consultant need to indicate the Survey Cost (including Traffic surveys, vehicle flow survey, pedestrian survey, and land use survey and GIS based route mapping of high volume corridors with Video footage of these corridors), Analytical Prices, etc. which comprises the quoted total lump sum cost.
- c) The Consultant need to indicate how they would be addressing the security concerns in the situation prevailing in Afghanistan and how it would impact their budget.
- d) The scanned map of the City Center is attached.

### **14.0 Payment**

The consultant fees shall be made in five phases according to the following schedule:

1. The first payment of 15% of the total agreed contractual amount will be made immediately upon submission and acceptance of inception report.
2. The second payment of 20% of the total contractual amount shall be made to the consultant upon approval and acceptance of successful completion of the following tasks of interim report:
  - a. Feasibility Report, including proposed Service Plan, preliminary plans for bus exclusive lanes, analysis of vehicular traffic, proposed movement plan, traffic engineering and i-tech application.
  - b. Data collection and existing situation study report, raw data (electronic and hard copies), travel demand modelling for entire Kabul city and drawing and maps showing the above results.
  - c. Conceptual and Detailed Engineering designs for DSS scenarios for Kabul city center area.
  - d. Conceptual designs for DSL scenarios.
3. The third payment of 40% of the total contractual amount shall be made to the consultant upon approval and acceptance of successful completion of the following tasks of interim report:
  - e. Detailed design for area wide traffic management plan, car parking facilities, Proposed Traffic System and Plan Report, Plans for Traffic Movement, Lanes, Ways, Report, Traffic Engineering Improvement Plan for smooth Traffic Flow.
  - f. Comprehensive Financial Plan, elaborating the implementation, operation and maintenance cost, including capital costing models and the results.
  - g. Milestone Report on the “Integration of Transport & Traffic System aligned to Land Development & Architectural Plan - Strategic and Proposed for City Center.
  - h. Conceptual design report and drawings for bus priority measures.

- i. Conceptual design report and drawings for redevelopment and plan and supports for public campaign, public consultation and public involvement.
  - j. Communications and consultation plan, communications materials for each major focus group survey, stakeholder workshop or public meetings.
  - k. Customer/Commuters' satisfaction survey for entire City-Center Area.
  - l. Milestone report on Transport & Traffic System brand-related market research and the proposed branding recommendations.
  - m. Milestone Report for Social and Environmental Impact Assessment.
  - n. Pedestrian and Bicycle Path Network Plan for Kabul City Center (including designs, proposed policies, guidelines and programs).
  - o. City Street Vending Plan, Allotment plan and proposed Street Vending Policy.
  - p. Milestone Report on Project Appraisal and Risk Analysis.
  - q. Special facilities for vulnerable groups - Women, Children, Senior Citizen and Physically Challenged Persons.
  - r. Security & Emergency Plan.
  - s. Detailed Design for area wide traffic management plan, car parking facilities, bus priority measures, redevelopments and civil works mentioned under 3.10.
  - t. Presentations to Kabul Municipality and donors (3 - 4 formal presentations).
4. The fourth payment of 10% of the total contractual amount shall be made to the consultant upon approval and acceptance of draft final report.
  5. The fifth and final payment of 15% of the total contractual amount shall be made to the consultant upon acceptance of successful completion of the final study reports and dissemination workshop.