



Islamic Republic of Afghanistan
Ministry of Industry and commerce (MOIC)
General Directorate of Industrial Parks

TERMS OF REFERENCE

FOR

Feasibility Study for Industrial parks of Ghazni, Nimroz, Laghman, Takhar Provinces

[Lump Sum]

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List of Abbreviations:

AP	Affected Person
ARAZI	Afghanistan Land Authority
EIA	Environmental Impact Assessment
PFS	Pre-Feasibility Study
GoA	Government of Afghanistan
GRM	Grievance Redress Mechanism
LAC	Land Acquisition Committee
LDP	Local Development Plan
MSc	Master's Degree (Master of Science)
NEPA	Nation Environmental Protection Agency
NGO	Non-Governmental Organization
OESMP	Operation Environmental and Social Management Plan
OHS	Occupational Health and Safety
OP	Operation Policy
PAP	Project Affected Person
PhD	Doctor of Philosophy
RAP	Resettlement Action Plan
RAs	Resettlement Actions
SIA	Social Impact Assessment
TOR	Terms of Reference

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Background:

Ministry of industry and commerce is one of the key organizations in Afghanistan Islamic republic government. In the present time, based on article number 10th of constitution law, the ministry has set activities in accordance to free market economy system and private sector support and development. Some key and very important duties of ministry of industry and commerce are as follows:

Registration of business and their license issuance, creating business environment and opportunities across the country, attracting the (FDIs), Preparing policies for supporting domestic productions and industries, developing industrial parks and making effective supporting policies and procedures in this field. Holding national and international exhibitions for introducing Afghan productions and market creation, encouraging MSMEs across the country, creating roadmap for trade improvement and equilibrium of balance of payment, policies on export promotion (substitute of import), creation of trade and transit relations and signing agreements with the counties, air corridor arrangements and other related activities. Currently, MOIC is committed to focus more on private sector development and domestic investment so it can approach the goals mentioned above. Substantially, reaching the determined economic indexes such as decreasing the balance of payment decreasing, economic growth rate and GDP and others need to be planned precise and lay them on priority of the programs as well. That is why, the MOIC has planned to run and hire a capable consultant for pre-Pre-Feasibility study of industrial parks in Ghazni, Nimroz, Takhar and Laghman provinces in 1st phase based on international standards and report it reasonable, documented and well-found for the MOIC.

General Information

The project was developed by Ministry of Industry and Commerce of the Government of Afghanistan (GoA). The assistance provided under the project aims at supporting the development of industrial park to enhance domestic and foreign investments in the country. Accomplishment of the project objectives will support the achievement of the priorities outlined in the Afghanistan National Development Strategy and reduction of poverty through employment generation, and revitalization of the private sector.

Overall Program is assisting the Government of Afghanistan in:

- Reactivating economic activity
- Opening avenues for industrial development and economic diversification
- Supporting the transition from a state-owned and managed economy to a modern, private sector-led economy
- Creating an enabling business environment for international and local investors;
- Supporting the competitiveness of Afghanistan exports in international markets.

Industrial parks are particularly suited to the achievement of the above objectives in the post crisis Afghanistan context, insofar as they allow for the provision of infrastructure and security for investments in the country. Additionally, when undertaken in the framework of Public-Private Partnerships, they could enlist the financial and managerial capabilities of the private sector in widening the scope of productive activity in the country.

Industrial Parks are created under widely different names and with different policy intentions. What is common to all efforts is the provision of land, infrastructure and investor/business support services that could facilitate one or more of the following:

- Establishment/expansion of value chains by clustering similar or linked industries
- Stimulation and absorption of new technologies through technology parks
- Incubation of new businesses
- Catalyzing economic activity in specific locations
- Provision of stable infrastructure and competitively priced land and services for businesses
- Stimulation of export industry through establishment of tax free zones, bonded warehouses and efficient trading and transport infrastructure and trade related services
- Assurance of security for business investments and assets through the location specific provision of security services
- Concentrating the location of industries for improved municipal zoning, urban planning and/or environmental impact management

The objectives

The general objective is to establish competitive modern Industrial Parks with all attendant facilities within this Industrial Parks in three provinces Ghazni, Nimroz, Takhar and Laghman.

Scope of Works

The Consulting Company or Consultant will carry out Pre-Feasibility Study of the Industrial Parks. This Pre-Feasibility study will include site topographical survey with detail and preparation of detail site plan for the future design of infrastructures of industrial park, Environmental, Impact Assessment (EIA), Social Impact Assessment (SIA) for above mentioned industrial parks sites.

The assignment will consist of the following main aspects

Output 1: A pre-feasibility study for a parks located in (Ghazni, Nimroz, Takhar and Laghman), which will encompass the below-described deliverables:

- ✚ A Strengths, Weaknesses, Opportunities, and Threats (SWOT) Analysis of mentioned parks as a location for regional and national economic activity.
- ✚ An industrial survey to be conducted in mentioned provinces
- ✚ An assessment of environmental and social issues on the site, including resettlement, if required.
- ✚ More detailed feasibility/viability study for an industrial parks proposed to be established in the upcoming selected area of mentioned provinces
- ✚ A final report/summary of findings of the above aspects which would form the conclusions and recommendations of the work undertaken under this assignment and be an input for the formulation of the Road Map for the establishment of industrial Parks in relevant province of Afghanistan.

Deliverable 1.1: SWOT analysis of (Ghazni, Nimroz, Takhar and Laghman Sites):

The output will establish a broader perspective in order to assess the overall potential for economic development in Ghazni, Nimroz, Takhar and Laghman provinces. Through this output, a comprehensive SWOT analysis will be conducted at the Provincial level. The analysis will consider national, regional (Pakistan, Iran, India and Uzbekistan and international competition and development trends. The analysis will build upon desk study, field work and interaction with provincial authorities as well as private sector representatives.

Deliverable 1.2: An industrial survey of Parks

The industrial survey will build upon the preceding output by examining, in depth, the prospects for industrial park development in mentioned provinces. This should specifically encompass the levels of infrastructure, the sectorial development prospects in the Province, business opinion of local and regional business prospects and any prior analyses Conducted on the subject. The deliverable should be in the form of an analysis of local competitive advantage for each province.

Deliverable 1.3: A pre-feasibility/viability study for an Industrial Zone proposed to be established in the preselected area of (Nimroz, Ghazni, Takhar and Laghman)

The Consultant will be required to undertake a pre-feasibility study for Ghazni, Nimroz, Takhar and Laghman industrial Parks. That study should include:

- An assessment of the proposed area for the establishment of the park: The point of departure for the pre-feasibility study should be a factual verification of the

state of play in the development of the industrial parks in the mentioned provinces. This factual verification should be done through interviews and documentation collected from concerned

regional and local Government authorities — The consultant will meet with all stakeholders, including the team from MoIC, as well as the provincial team, to understand the vision for provincial parks and other stakeholders that may be identified.

- A detailed evaluation of the potential financial viability/sustainability of the proposed zone and the definition of appropriate management models recommended on the basis of international best practices in PPP management of industrial park: The study should examine other provinces in Afghanistan and in the Central Asia, in order to benchmark development and user costs for the land and the infrastructure for the Industrial Park. This analysis will serve to establish viable and realistic cost parameters as well as indicate viable sale or lease costs for the plots of land to the client companies for the Industrial Park at mentioned provinces. The financial analysis should estimate the likely pricing of land and services offered by the parks to be competitive with other parks at the national or regional levels. It should also examine the sensitivity of the financial viability of the zone to different modes of financing between public and private sector and to different levels of debt: equity ratios in that financing. The feasibility study should propose different models of Public/Private Partnerships used in the region and elsewhere that could be models for operating the park.
- A market analysis: The study will build upon the results of output 1 and deliverables 1.1 and 1.2. This assessment will examine a sectorial approach to the development of the industrial Parks, and also the possibilities for stimulating the opportunities for sub-contracting linkages between enterprises located in the park and others located in the province/elsewhere in Afghanistan. A sectorial approach will help focus the business plan of the zone while the promotion of subcontracting arrangements would fortify local and national economic development. The market analysis will help determine the kind of activities/services that could be located in mentioned Parks (e.g. industry, trade, logistics, training and technical centers). The market plan should estimate likely scenarios of Park occupancy/tenancies or purchase of industrial plots by investors, thereby estimating the operating income stream to be used in the pre-feasibility study.
- Institutional recommendations on public regulation of the Industrial Park: Work undertaken by other development partners has advocated a public regulatory and management system for industrial zones in Afghanistan. These models should be critically analyzed and compared to models adopted by other countries to advocate regulatory mechanisms that are simple, efficient and which can be realized within the limits of human and institutional resources available in Afghanistan.
- Environmental analysis assessing significant environmental impact, if any, posed by the park. Recommendations will be provided by the consultant to mitigate those impacts.

- Specification of financing scenarios for the development of the Industrial Park: These scenarios should cover the following aspects:
- Division between public (concession or grant) funds and commercial financing
- Sensitivity analysis of the viability of the industrial zone to different ratios of grant versus commercial funding
- Analysis of the payback period for investment in the development of the zone under different assumptions of public/private investment.

Deliverable 1.4: Final report/Summary of findings

The consultant shall produce a summary of findings of the five aspects above which would form the conclusions and recommendations of the work undertaken under this assignment.

1.5:Methodology

As part of the technical documentation supporting their RFP for this assignment, prospective consultant should specify the methodologies they will use for conducting the above listed outputs/deliverables, unless clearly indicated in the previous sections of this document. These methodologies would need to be approved by MoIC prior to the survey commencement. Since the pre-feasibility study is closely related to other work done on industrial Parks by international development partners in Afghanistan, the consultants should rely on information from previous studies and surveys, already carried out in the frame of this project or conducted in the country in relevant fields. These sources will be made available by MoIC on the occasion of the contract inception meeting and will have to be augmented by field investigations undertaken by the consultant for the specificities of the alternate selected sites. The pre-feasibility and feasibility studies will be based on three elements: (i) desk study of available literature relevant to the deliverables; (ii) field visits for data collection with regard to the technical analyses (iii) in depth qualitative and quantitative data collected from the field visits and literature as to the institutional support and business models that could be adopted for the industrial park. The above will require a high degree of interaction with local authorities and business organizations, including the Governor’s office, the Provincial Council, the Provincial Investment Commission, the Chamber of Commerce, business services providers and universities. In addition, particular attention should be paid by the consultant, where relevant, to regionally-established park (Pakistan, Iran, India, Uzbekistan, etc.) seen as potential competitors/possible technical references. Each output/deliverable, as elaborated above, should be the subject of specific sub reports that will be reviewed and approved by MoIC.

Detail of the work is as below:

2. Topographical Survey of the Project Site:

Topographic Surveys are used to identify and map the contours of the ground and existing features on the surface of the earth or slightly above or below the earth’s surface to identify

existing condition of the industrial parks on the face of paper, Topographical survey will be done by D-GPS or Total Station machine and below data will collect during this survey:

- Shall identify and take Coordinates of the boundary of the industrial park.
- Will take coordinates of existing structures in the site which are include, existing roads, walkway, pipeline, public and private buildings, existing streams and poles, existing electrical line and all the existing structures which are inside the area.
- Consultant will take minimum 15 GPS point in one Hector or as per the site geographic condition.
- Establishing a “Benchmark”. This benchmark will serve as a control point to establish the horizontal and vertical positioning (elevation). Typically, the benchmark’s coordinates will be determined by using an existing geodetic monument or by measuring the location of the monument complemented with GPS instrumentation. All the field measurements are linked to this benchmark location which allows the surveyor to achieve 3 dimensional coordinates for every observed measurement. Afterwards, all the gathered data is analyzed and converted to a drawing using a CAD program. The topographic map is then delivered electronically to a designer who will then use the map to for their specific needs.
- Minimum five BM’s will install by the size of 80x40x20 Cm at each industrial park site.

After the completion of site topographical survey raw data will change to map and will used AutoCAD software.

2.1 Bench Mark Spacing:

The required density of benchmarks will depend on terrain, vegetation and base on the Pre-Feasibility study. They should be of sufficient density to decrease survey time for subsequent leveling requirements. The advantage of density must be weighed against the greater initial cost for establishing extra benchmarks. They will follow up below suggested spacing for benchmarks on this Pre-Feasibility Study project:

1. A secondary line of semi-permanent benchmarks along one right-of-way line spaced at 300 meters (or approximately 1,000 feet) or less horizontal distance, the primary line being the permanent base control monuments.
2. Successive benchmarks should not be separated (vertically) by more than two "turns" or 7 meters (or approximately 24 feet) in elevation. Relative elevation and ease of access to bench marks is more important than the horizontal distance between them.
3. Bridge sites and major drainage sites should have at least two benchmarks placed outside the area to be disturbed.
4. At interchanges, two benchmarks should be established for each quadrant in addition to those required for the structure(s).

Bench Mark Location & Types:

Consultant will place Benchmarks in locations suitable for the intended purpose and permanence. Utility poles, ornamental trees, or fire hydrants should be avoided, and also we have two below types of Bench March.

Permanent benchmarks:

Benchmarks that are to remain as reliable elevation references over a period of years, or even for extended construction duration, such as major structures, consultant should generally meet the following criteria:

1. Place in stable, undisturbed original ground.
2. Establish on abutments or wing walls of older existing structures that have become stabilized.
3. Locate near "join" lines of cross streets, intersection of sidewalks and existing facilities outside of the construction area.
4. Select locations with locally level terrain. A benchmark on top of a high slope is not as desirable as one lower on the slope, provided all other criteria can be met. Quite often, the positions of horizontal (traverse) points are not compatible with project use of benchmarks, but are compatible with other considerations. In such instances, benchmarks in more usable locations should be established from the traverse control.
5. Utilize baseline monuments when practical.
6. Benchmarks destroyed during construction activities must be replaced to ensure a minimum of one benchmark per thousand feet.

Temporary Benchmarks:

Less permanent benchmarks may be required for a limited use period for a specific survey operation, i.e., slope staking. Such stakes are called temporary benchmarks and they are not perpetuated after construction. Temporary benchmarks are usually marked with wooden stakes

Marking of Temporary Benchmarks:

The density of benchmarks in the project area can be a source of confusion and possible error through misidentification. It is important that each be uniquely identifiable by name, number, or location and marked with the appropriate identification code. During periods of use, a flagged or painted lath can aid the rod person in the speedy location of the benchmark. Care should be used not to deface private property or structures that will remain after construction.

2.2 Detail Site Plan of the Project:

A site plan is a large scale drawing that shows the full extent of the site for an existing or proposed development. Site plans, along with location plans is necessary for planning applications. In most cases, site plans will be drawn up following a series of desk studies and site investigations.

Typically, depending on the size of the project, a site plan to be at a scale of 1: 5000 or 1 : 1000. Used or will adjust to the site.

The information shown on a site plan will vary depending on the size of the existing structures and will show all existing structures in 2D model, however, certain information is likely to appear on most site plans, a site plan will prepare with below information:

- Title block, giving the project name, drawing type, author, revision number, status, scale used, and so on.
- Notes highlighting changes from previous revisions.
- Directional orientation. This could be a compass or a north-pointing arrow.
- Key dimensions.
- Key materials.
- Site boundaries and delineation of adjacent properties, including where necessary, adjoining or adjacent structures, and surrounding streets.
- The location of the building or buildings in relation to their surroundings.
- Trees, tree protection orders, and the main elements of the landscape.
- Parking areas with dimensions or capacities, traffic flows, and signage.
- Roads, footpaths, ramps, paved areas, and so on.
- Easements such as right-of-ways, right of support, and so on.

Site plans might also include information about:

- Buildings to be demolished or removed.
- The general extent of earthworks, included, cutting and filling, the provision of retaining walls, and so on.
- The general layout of external services, including drainage, water, gas, electricity, telephone, manhole covers, and so on.
- The layout of external lighting.
- Fencing, walls and gates.
- The location of miscellaneous external components such as; bollards, fire hydrants, signage, litter bins, and so on.

With the adoption of building information modelling (BIM), site plans are likely to form an integral part of the project information model , perhaps based on a point cloud survey or as light detection.

2.3 Plotting:

Plotting is the process that change raw data to exact picture of the survey site, and consultant will start this step after the technical data received from site. Consultant will provide below plans with all relevant data at this stage using AutoCAD, Civil3D, GIS, Google Earth and Excel sheets.

2.4 GIS Map:

GIS map is the general picture of the site that shows us the real structures of the all site related structures i.e. command area, Gardens, village, roads, hill, and shops, water well, electrical

polls, river, school, clinic and also show us the boundary wall of the map. The below items will show in GIS map:

- Project Coverage area.
- Villages, shops, water well, electrical polls.
- Existing and new network line
- Public structures, school, clinic, roads, culverts and etc.
- Gardens, hills and other
- Start and end points of main and branch network with exact coordinates.
- Water supply, drainage, road, rail way, water alignments will show in different collars and different thickness.

Contour Plan:

Contour plan is a topographic map on which the shape of the land surface is shown by contour lines, the relative spacing of the lines indicating the relative slope of the surface. Consultant will show the following items in this map:

- Minor and major interval of the contour.
- Hills and flat land.
- Villages, city and other
- Bench marks and its locations

3. Environmental Impact Assessment (EIA):

As part of this exercise, the consulting team should review the environmental and issues on the site, including resettlement, if required. This would include the environmental impact assessment (EIA).

A review of the physical environment should be included, but not be limited to: i) climate, ii) air quality, iii) noise, iv) soil quality and geology, v) surface water, and vi) ground water. In addition, an assessment of the biological environment should be undertaken and should include, but not be limited to: i) vegetation, ii) flora and fauna, iii) animals, and iv) protected areas or special areas in the surrounding community. Lastly, a review of the human and social environment should be undertaken and should include, but not be limited to: i) health and safety, ii) socioeconomic and resettlement issues, and iii) historic and cultural aspects, if applicable. At this stage, the consulting team should highlight areas of significant problems or fatal flaws and/or propose a way of both mitigating the problems and designing management plans for moving forward. While undertaking this review, it should be kept in mind that the site will be utilized for a variety of industrial activities and these impacts on the physical and social environment must be identified and mitigated in the future.

Deliverable: A full set of environmental and social analyses, including ESIA, ESMPs, and RAPs for each IP site with mitigation and management plans proposed for key problems.

3.1 Climate:

The general climate of Afghanistan is a dry continental climate. There is a great variation in climate within Afghanistan due to presence of rugged topography.

Below scope will be including in climate study of the project area:

- a) Maximum and Minimum temperature in the project site.
- b) Identify the time of maximum and minimum temperature during the year and different seasons.
- c) Specified the type of general type of the climate.
- d) Identify wind velocity and direction with the duration of the wind during the year. (this data will have collected from second sources)

Rainfall

The rainfall is one of the direct water inputs for industrial parks storm drainage system. In general Afghanistan receives nearly 166-230 mm in year is highest rainfall compared to others provinces.

- Identify monthly and yearly maximum and minimum rain fall and snow fall in different site of the projects.
- Identify rainfall and snow fall seasons.
- This data will collect from second sources or from rain fall gauge stations which NEPA or MEW have in those provinces.

Hydrology of the Site:

For the Hydrological study, data will collect from Ministry of Energy and Water, USGS, free global digital data and others such as published reports. And also will collect data from available station which is installed by MEW in every river basin of Afghanistan.

3.2 Surface water

The project site surface water is very important and have direct impact during the project implementation & physical phases of the project in this study the consultant will collect bellow data:

- Type of soil of the project site or command area.
- Identify source of surface water which are include Kariz, spring, river and other.
- Identify contribution of water for the proposed site.
- Flow of the surface water will study from historical data or direct study in the site by consultant.
- Identify monthly maximum and minim discharge of the surface water if available.

Domestic Water demand

To estimate the household or every single industry water demand, central statistics organization of Afghanistan have base for estimation and will find bellow information from project site.

- Total population of the industry park.
- Total demand of (both, shower and etc)

- Daily critical time for the use of water.
- Identify source of the water.

Soil & Land Classification:

Some land and soil data relevant to the study area will collect, however they are mostly at a small scale (regional/global) and not adequate for the project objectives. This implies that the accuracy of all soil and land classification elaborations will be low so, for this stage the consultant will have at last 20 locations in each park and below soil study will carry out by the consultant:

Land Capability Classification

Land capability evaluation is a qualitative methodology to classify land resources based on a several soil and land parameters. The consultant shall prepare Land Capability Classification Map consists of eight Capability Classes, decreasing from Class I to Class VIII, according to six capability limitations/sub-classes (e erosion, w wetness, z salinity, s soil, f fertility, and t topography). The first four classes correspond to relatively arable lands, while the following classes (from five to eight) are considered not arable.

Geology of the Project Site:

The consultant shall have at last 5 Boreholes at each project site with the depth of 20m and will identify below factors:

- Field Permeability Test
- Moisture water contents
- Waterberg Limits
- Sieve Analysis
- One dimensional consolidation
- Direct shear test
- Unconfined compression test for soil
- Dispensability Test
- Collapse Potential Test
- Water Quality Analysis

Water Quality:

The consultant will collect secondary source data for chemical, physical tests of water.

Air

Consultant will carry out air quality testing for CO, SO2, NO2, O3, PM10 and PM2.5 is to be carried out at locations agreed jointly between the Consultant and Client, at last three locations shall be selected for air quality tests. Monitoring is to be conducted continuously for 24 hours at each selected location.

Noise

Noise monitoring in areas subject to traffic noise is to be conducted continuously for 24 hours at Each selected location. The meter should be located at a height of between 1.2 and 1.5 m above ground level, at least 3 m away from reflecting surfaces such as walls or buildings and generally not Subject to effects such as conversations and rustling leaves. Noise shall be measured as the LAeq in 15-minute sampling periods. The meter also should record values for LA1 and LA90. Noise monitoring is not to be undertaken during periods of rainfall or high wind. At locations unaffected by traffic noise, background noise levels may be taken for a period of 15 minutes. Consultant will select at last three locations for the noise monitoring in each project location.

3.3 Detail Scope (EIA)

- Maximum and Minimum temperature in the project site.
- Identify the time of maximum and minimum temperature during the year and different seasons.
- Specified the type of general type of the climate.
- Identify wind velocity and direction with the duration of the wind during the year. (this data will have collected from second sources)
- Identify monthly and yearly maximum and minimum rain fall and snow fall in different site of the projects.
- Identify rainfall and snow fall seasons.
- This data will collect from second sources or from rain fall gauge stations which NEPA or MEW have in those provinces.
- Minimum & Maximum daily evapotranspiration data
- Annum daily evapotranspiration data
- Monthly & yearly total evapotranspiration data in each month of the year.
- Type of soil of the project site or command area.
- Identify source of surface water which are include Kariz, spring, river and other.
- Identify contribution of water for the proposed site.
- Flow of the surface water will study from historical data or direct study in the site by consultant.
- Identify monthly maximum and minim discharge of the surface water if available.
- Estimated hourly, daily and monthly surface water evaporation.
- Estimated total water evaporation.
- Total number of people to be resident or working in this industry park.
- Daily, hourly and monthly drinking demand of each person in the area.
- Estimation of daily average livestock water demand per number.
- Estimation of yearly average livestock water demand for all livestock in the project.
- Identify the animal to have a maximum use of water.
- Identify the maximum use session of water by animal.
- Total population of the industry park.
- Total demand of (both, shower and etc.)
- Daily critical time for the use of water.

- Identify source of the water.
- Soil and land classification.
- Land Capability Classification
- Water quality
- Air quality
- Noise information and type
- Geology of the project site.

4. Social Impact Assessment (SIA):

Social impact assessment includes the process of analyzing, monitoring and managing the intended and unintended social consequences, both positive and negative, of plan interventions (policies, programmes, plans, projects) and any social change process invoked by those interventions.

The social impact assessment will include below studies:

- Demographical survey of the project site.
- Geographical study of the project site.
- Study the role of people and organizations.
- Positive and negative economic study of the project.

Economic Analysis of the project:

In order to determine the economic benefits of the IP Project and to ensure that the IP Project's economic and social benefits to the government outweigh their costs, the consulting team will conduct an economic analysis for the site, which will include direct/indirect costs and benefits to the government and society. The results will be a projected economic rate of return (ERR). The economic model should allow for the changing of multiple factors and costs to see the effects of those changes on the ERR. In the consulting team's proposal, it is expected that a methodology, an approach, and clear assumptions will be identified. This would include a list of the economic indicators to be used in the model.

In this stage the consultant is responsible for the below tasks to be done:

- Gather economic data within the project area and supporting industrial parks data from concerned Government agencies and private entities;
- Identification of problems and known causes and effects on Industrial parks performance, strengths, weaknesses, opportunities, and threats to the development of the Industrial parks;
- Prepare the VE/VA Study and vulnerability assessment for the proposed project;
- Prepare an economic analysis of the proposed Industrial parks the applicable industrial model, estimation of the poverty impact ratio following best practices for the Economic Analysis of Projects;
- Prepare sensitivity and risk analysis in relation to changes in key parameters, and calculate switching values;

- Prepare project performance indicators and set performance targets by conducting a baseline survey;
- During detail design stage, if required, update the economic analysis based on updated cost estimate and prepare two-page economic assessment summary for client and Stakeholder

Deliverables of the study

- The Consultant will deliver the following documents as key outputs:
- Inception report
- SWOT Analysis of the sites/ Parks
- A topographical survey of the site.
- A detail site plan of the project site
- Environmental Impact Assessment (EIA) study report for these industrial parks
- Social Impact Assessment (SIA) study report
- A soft and hard copies of site plan in CAD and PDF files;
- An assessment of the private sector needs in mentioned provinces
- Market analysis Report
- An analysis of the investments required to develop these parks
- The elaboration of a consolidated feasibility study
- Industrial survey to be conducted
- An assessment of the Afghanistan institutional needs to establish, develop and promote the industrial Park
- A final report/summary of findings of the above aspects which would form the conclusions and recommendations of the work undertaken under this assignment and be an input for the formulation of the Road Map for the establishment of industrial Parks in (Name of Province)

Reporting of the study

- The Consultant will be working in close cooperation with the client staff and continuously inform on the progress of the assignment.
- The Consultant shall prepare various reports/documents at the time and with the number of copies for printed versions as indicated below:

Report/ Document	duration / day	Number of copies
Inception report (visit of site, staffing and office, documentations, progress report, activity break down including weightage, mobilization and other administrative activities)	10 Days after NTP	Soft+3Hard
Pre-Feasibility Study report of Laghman	25 days	Soft+3Hard
Pre-Feasibility study report of Ghazni	25 days	Soft+3Hard
Pre-Feasibility Study report of Takhar	25 days	Soft+3Hard

Pre-Feasibility Study report of Nimruz	25 days	Soft+3Hard
Final Report and Project Submission	10 days	This should be presented by the consultant and submit a handbook of the Pre-Feasibility study of IPs

Consultant will submit an Inception Report within 20 days from notice to proceed (NTP). This report shall contain the preliminary findings, site and staff preparation and an updated work plan. Further details of the content of this report will be agreed upon during contract negotiations between the MOIC and the Consultant. Note that the payment schedule is not a fixed and absolute, but is flexible during the contract negotiation.

Language of the Report

- The consultant must prepare and submit 3 copies of handbook of the Pre-Feasibility study to the client (MOIC) as a final report in both Dari and English languages for further utilization of the General Directorate of Industrial Parks on behalf of Ministry of industry and commerce.

MOIC RESPONSIBILITY

- The General Directorate of Industrial Parks of MOIC will provide all available data in hand to the consultant.
- MOIC's Project Manager (PM), will be the focal point for the consultant introducing the sites for the consultant and create harmony between MOIC and related provinces and security of its personnel are the responsibility of the Consultant.

SECURITY, LIVING FACILITY AND TRANSPORTATION

- The consultant will inhabit within camp site building facility area. However, it is the responsibility of the consultant to provide security, transportation, living facilities, food and office supplies such as desk, chair, computers, printer(s), scanner(s), etc. to its personnel.

GENERAL REMARK

- Consultant's performance and final reports must be prepared in English, whereof three hard copies have to be submitted to the MOIC, and the soft copies in DVD. All reports have to be prepared in DIN A4 format. A separate volume in DIN A3 format is to be prepared containing all plans, drawings and photographs.
- For the final versions of reports no spiral binding is accepted. The title of the reports and identification of the specific volume has to be indicated on the spine of every final version.

Duration of the assignment:

The assignment is expected to last for the duration of **(4)** calendar months from sign of the contract.

Consultant Coordination and Logistics

The Consultant should specify resources available to fulfil the requirements of the Terms of Reference. The consultant should assign a team lead for the whole duration of the contract, a team leader and a pool of technical experts (see annexes below) working both home and Provincial-based as well as a project area coordinator in the project target area until the finalization of all the expected work. The Consultant’s bid documentation should provide a complete list of personnel deployed to undertake the studies, their qualifications and the functions they will assume. The qualifications of the bidder’s proposed staff will be assessed by MoIC as part of the technical proposal evaluation. Based on this assessment and below-listed requirements, MoIC reserves the right to suggest changes in the consultant’s pre-selected personnel. The proposer’s team lead will report to the MoIC IP General Directorate, on the status of the project and the activities undertaken. Close coordination is expected between the consultant’s personnel and MoIC field staff. The first mission should be no later than two weeks after the signature of the contract, as an inception mission to be held with the field level management of the MoIC project. Three intermediate missions should be planned as project review meeting and a final mission should be held to present findings to MoIC. Following the inception meeting, an inception report will be produced by the consultant and will outline the approved project work plan and specify agreed methodologies for carrying out the work envisaged in the present assignment. The consultant should report activities during the implementation of each assignment to the MoIC General IP Director and technical experts.

Key Personnel requirements: (Key areas of specialty)

No	Position	# of Expert	Qualification and Experience	working days for consultants
01	Team Leader	1	S/he will have a minimum Master’s Degree qualification in environmental science, Agriculture, engineering, rural development or closely related field experience in environmental, engineering and engineering assessment. The consultant should at least hold 15 years of similar experience.	120
02	Structure Design Engineer	1	Master’s Degree (minimum) in Civil Engineering or similar, Knowledge and experience in the design of structure design of building, bridges and other small and large structures. The consultant should at least hold 10 years of experience in the related field.	120
03	Hydrologist	1	A minimum of MSc Degree qualification in hydrology or Civil Engineering. Proven experience in hydrological studies and sedimentation management in developing countries, with a minimum of 10 years overall and relevant experience.	120
04	Environmental Engineer/ Scientist	1	A Master’s Degree (minimum) in Environmental Engineering or similar, Knowledge and experience in waste management and disposal including high	120

			carbon steel and scrap, electronic and other hazardous waste, at least 10 year experience in environmental management, ESIA and in developing waste management plans.	
05	Civil Design (Water Supply, Strom Drainage, West Water) Design Engineer	1	A Bachelor's Degree (minimum) in Civil Engineering or similar, Knowledge and experience in the design of water supply, storm drainage, and west water systems, Knowledge in water supply demand and use for the project including modeling, The consultant should at least hold 10 years of experience in the related field.	60
06	Road Design Engineer	1	Holds Bachelor or Ms Degree in Civil Engineering from a reputable institution, at least five years of experience in practical design of vertical and horizontal structures. The consultant should at least hold 5 years of experience in the related field.	60
07	Electrical Engineer	1	Bachelor's degree in Electrical/Power Engineering, Minimum three-year experience as electrical designer, design engineer or power engineer. The consultant should at least hold 5 years of experience in the related field.	60
08	Urban Development Engineer	1	Bachelor's degree in Urban Development Engineering, Minimum five years' experience as urban development design or urban engineer. The consultant should at least hold 5 years of experience in the related field.	120
09	Geologist/Geology Engineer	1	Bachelor's degree in Geology, at last have experience in one similar Pre-FeasibilityStudy project. The consultant should at least hold 5 years of experience in the related field.	120
10	Geodes /Survey Engineer	1	Bachelor's degree in Geodesy or Civil Engineering, must have experience in Topographical survey of Roads, Drainage system or Canals. The consultant should at least hold 5 years of experience in the related field.	120
11	Resettlement Specialist	1	Bachelor's degree of natural science such as geology, biology, agriculture, environment, civil engineering etc. or equivalent. Must have a certain level of knowledge and insight in social issues such as migration of people including involuntary resettlement, local economy; land use, social institutions; social services, vulnerable social groups, gender; children's rights; cultural heritage and	60

			others. The consultant should at least hold 10 years of experience in the related field.	
12	Economist	1	The experts should preferably have a bachelor or higher degree in economics and or similar field. The consultant should at least hold 8 years of experience in the related field.	120
13	Risk Management Specialist	1	Bachelor Degree in Environmental Science or similar. The consultant should at least hold 8 years of experience in the related field.	60