Expression of Interest (EOI)

Title of Consulting Services:

Preparation of Detailed Project Report (DPR) of Laxmipur Industrial Zone (IZ), Dang

Method of Consulting Service
National

Project Name : *Preparation of Detailed Project Report (DPR) of Laxmipur IZ, Dang*

EOI : *IZML/CONS-01-083/84*

Office Name : *Industrial Zone Management Limited*

Office Address: *Balaju,Kathmandu*

Issued on : *Ashoj 1, 2083*

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Industrial Zone Management Ltd.
Kathmandu, Nepal

Abbreviations

CV	-	Curriculum Vitae
DO	-	Development Partner
EA	-	Executive Agency
EOI	-	Expression of Interest
GON	-	Government of Nepal
PAN	-	Permanent Account Number
PPA	-	Public Procurement Act
PPR	-	Public Procurement Regulation
TOR	-	Terms of Reference
VAT	-	Value Added Tax

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Standard EOI Document

Industrial Zone Management Limited
An Undertaking of Government of Nepal

Date: 2083-06-01

Name of Project: Preparation of Detailed Project Report (DPR) of Laxmipur Industrial Zone, Dang
Contract Id. No.: IZML/CONS-01-083/84

1. Government of Nepal (GoN) has allocated fund ***toward the cost of*** **Preparation of Detailed Project Report (DPR) of Laxmipur Industrial Zone, Dang** and intends to apply a portion of this ***fund*** to eligible payments under the Contract for which this Expression of Interest is invited for **National consulting service**.
2. The ***Industrial Zone Management Limited(IZML)*** now invites Expression of Interest (EOI) from eligible consulting firms ("consultant") to provide the following consulting services: ***Preparation of Master Plan along with detailed engineering design, drawings, cost estimation (based on prevailing standard specifications) required to construct the physical infrastructural facilities indicated in the Master plan for the establishment of industrial zone (IZ).***
3. Interested eligible consultants may obtain further information and EOI document free of cost at the address ***Industrial Zone Management Limited (IZML)***, Balaju,Kathmandu during office hours on or before **2083-06-15, 5 pm** or visit the client's website ***https://www.izml.gov.np.***
4. Consultants may associate with other consultants to enhance their qualifications.
5. Expressions of interest shall be delivered ***manually to the address Industrial Zone Management Limited (IZML), Balaju, Kathmandu*** on or before ***2083-06-16,12pm*** *and opening shall be conducted on the* ***same day 1pm.***
6. In case the last date of obtaining and submission of the EOI documents happens to be a holiday, the next working day will be deemed as the due date but the time will be the same as stipulated.
7. EOI will be assessed based on ***Qualification 40%, Experience 50%, and Capacity 10%*** of consulting firm and key personnel. Based on evaluation of EOI, only shortlisted firms will be invited to submit technical and financial proposal through a request for proposal.
8. Minimum score to pass the EOI is ***60.***

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B. Instructions for submission of Expression of Interest

1. Expression of Interest may be submitted by a sole firm or a joint venture of consulting firms and the maximum number of partners in JV shall be limited to three.
2. Interested consultants must provide information indicating that they are qualified to perform the services *(descriptions, organization and employee and of the firm or company, description of assignments of similar nature completed in the last 7 years and their location, experience in similar conditions, general qualifications and the key personnel to be involved in the proposed assignment).*
3. This expression of interest is open to all eligible ***consulting firm.***
4. The assignment has been scheduled for a period of ***6 months.*** Expected date of commencement of the assignment is ***Mangsir, 2083.***
5. A Consultant will be selected in accordance with the ***QCBS*** method.
6. Expression of Interest should contain following information:
   (i) A covering letter addressed to the representative of the client on the official letter head of company duly signed by authorized signatory.
   (ii) Applicants shall provide the following information in the respective formats given in the EOI document:
   - *EOI Form: Letter of Application (Form 1)*
   - *EOI Form: Applicant's Information (Form 2)*
   - *EOI Form: Work Experience Details (Form 3(A), 3(B) & 3(C))*
   - *EOI Form: Capacity Details (Form 4)*
   - *EOI Form: Key Experts List (form 5).*
7. Applicants may submit additional information with their application but shortlisting will be based on the evaluation of information requested and included in the formats provided in the EOI document.
8. The Expression of Interest (EOI) document must be duly completed and submitted ***"by mail / by hand / by courier in sealed envelope".***
9. The sealed envelope shall be clearly marked as "EOI Application for Short-listing for the ***Preparation of Detailed Project Report (DPR) of Laxmipur Dang.*** The Envelope shall also clearly indicate the ***name and address of the Applicant***.
10. The completed EOI document must be submitted on or before the date and address mentioned in the ***"Request for Expression of Interest."*** In case the submission falls on public holiday the submission can be made on the next working day. Any EOI Document received after the closing time for submission of proposals shall not be considered for evaluation.

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C. Objective of Consultancy Services or Brief TOR

Attached at the end of this document.

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D. Evaluation of Consultant's EOI Application

Consultant's EOI application which meets the eligibility criteria will be ranked on the basis of the Ranking Criteria.

i) Eligibility & Completeness Test	**Compliance**
Copy of Registration of the company/firm	
VAT/PAN Registration ***(for National consulting firm only)***	
Tax Clearance/Tax Return Submission/Letter of Time Extension for Tax Return Submission ***FY 2081-82 (for National consulting firm only)***	
In case of a natural person or firm/institution/company which is already declared blacklisted and ineligible by the GoN, any other new or existing firm/institution/company owned partially or fully by such Natural person or Owner or Board of director of blacklisted firm/institution/company; shall not be eligible consultant.	
EOI Form 1: Letter of Application	
EOI Form 2: Applicant's Information Form	
EOI Form 3: Experience (3(A) and 3(B))	
EOI Form 4: Capacity	
EOI Form 5: Qualification of Key Experts	

ii) EOI Evaluation Criteria	**Insert Minimum Requirement if Applicable**			**Score [Out of 100%]**
A. Qualification				
Personnel	***Qualification of Key Experts***	***Experience of Key Experts***		
Team Leader - 1 no	Master's Degree or above in Architecture/Regional Planning/Urban Planning, Industrial Planning	General Experience: More than 10 yrs	Specific Experience: (more than 10 relevant experience in IZ planning, SEZA planning, urban planning or urban development after masters degree	***40 %***
Economist: 1 nos	Master's Degree or above in Economics, Business Administration	General Experience: 10 yrs or more	Specific Experience of more than 10 years post master experience in financial and economics management of infrastructure projects.	
Architect: 2 nos	Bachelor's Degree in Architecture	General Experience: 5 yrs or more	Specific Experience of more than 5 years after bachelor's degree	
Urban Planner: 1 nos	M Sc. Degree in Urban Planning	General Experience: 5 yrs or more	Specific Experience of more than 5 years after master's degree	

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Transportation Engineer: 1 nos	M Sc. Degree in Transportation or Highway Engineering	General Experience: 10 yrs or more	Specific Experience of more than 10 years after master's degree	
Structural Engineer: 2 nos	Master Degree in Civil Engineering specialization in Structure	General Experience: 5 yrs or more	Specific Experience of more than 5 years after master's degree	
Industrial Sector Specialist: 1 nos	MBA/MBS or equivalent studies with specialization in industrial development	General Experience: 5 yrs or more	Specific Experience of more than 5 years after master's degree	
Water Supply & Sanitation Engineer: 1 nos	Master's Degree in Water Resource or equivalent or above	General Experience: 5 yrs or more	Specific Experience of more than 5 years after master's degree	
Geologist/Geotechnical Engineer: 1 nos	Master's Degree in Geology/Engineering Geology/Geotechnical Engineering	General Experience: 5 yrs or more	Specific Experience of more than 5 years after master's degree	
Electrical Engineer: 1 nos	Master's Degree in Electrical Engineering	General Experience: 10 yrs or more	Specific Experience of more than 10 years after master's degree	
Note: Signed CVs and Academic Certificate of the personnel must be mandatorily submitted.				
B. Experience				
General of consulting firm	General Experience of the Firm in the last seven years in consultancy services of DPR of Any Civil Engineering Project. (Consulting Service Cost more than NRs. 2 million including VAT)			***50 %***
Specific experience of consulting firm within last 7 years.	• Relevant experience in Preparation of DPR of Industrial district/Zone or SEZ or other industrial area within last seven years (Consulting Service Cost more than NRs. 2 million including VAT) (At least 4 projects required) • Relevant experience in Preparation of DPR of Land pooling/Land Development/Industrial Planning project within last seven years (Consulting Service Cost more than NRs. 2 million including VAT) (At least 4 projects required)			
Similar Geographical experience of consulting firm				
Note: Official work experience certificate must be submitted.				
C. Capacity				
Financial Capacity	*Average Annual Turnover should be atleast NRs. 80,00,000.00 (average of best 3 years among last 7 years). Where lead partner should have at least 40% of it.*			***10 %***

Note: In Case, a corruption case is being filed to Court against the Natural Person or Board of Director of the firm/institution /company or any partner of JV, such Natural Person or Board of Director of the firm/institution /company or any partner of JV such firm's or JV EoI shall be excluded from the evaluation, if public entity receives instruction from Government of Nepal.

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E. EOI Forms & Formats

Form 1. Letter of Application

Form 2. Applicant's information

Form 3.Experience *(General, Specific and Geographical)*

Form 4. Capacity

Form 5. Qualification of Key Experts

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1. Letter of Application

(Letterhead paper of the Applicant or partner responsible for a joint venture, including full postal address, telephone no., fax and email address)

Date: .....

To,

Full Name of Client: _____

Full Address of Client: _____

Telephone No.: _____

Fax No.: _____

Email Address: _____

Sir/Madam,

1. Being duly authorized to represent and act on behalf of (hereinafter "the Applicant"), and having reviewed and fully understood all the short-listing information provided, the undersigned hereby apply to be short-listed by ***[Insert name** of Client)* as Consultant for ***{Insert brief description** of Work/Services}*.

2. Attached to this letter are photocopies of original documents defining:

    a) the Applicant's legal status;

    b) the principal place of business;

3. ***[Insert name of Client]*** and its authorized representatives are hereby authorized to verify the statements, documents, and information submitted in connection with this application. This Letter of Application will also serve as authorization to any individual or authorized representative of any institution referred to in the supporting information, to provide such information deemed necessary and requested by yourselves to verify statements and information provided in this application, or with regard to the resources, experience, and competence of the Applicant.

4. ***[Insert name** of Client)* and its authorized representatives are authorized to contact any of the signatories to this letter for any further information.[1]

5. All further communication concerning this Application should be addressed to the following person,

    [Person]

    [Company]

    [Address]

    [Phone, Fax, Email]

[1] Applications by joint ventures should provide on a separate sheet, relevant information for each party to the Application.

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6. We declare that, we have no conflict of interest in the proposed procurement proceedings and we have not been punished for an offense relating to the concerned profession or business and our Company/firm has not been declared ineligible.

7. We further confirm that, if any of our experts is engaged to prepare the TOR for any ensuing assignment resulting from our work product under this assignment, our firm, JV member or sub-consultant, and the expert(s) will be disqualified from short-listing and participation in the assignment.

8. The undersigned declares that the statements made and the information provided in the duly completed application are complete, true and correct in every detail.

Signed :

Name :

For and on behalf of (name of Applicant or partner of a joint venture):

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2. Applicant's Information Form

(In case of joint venture of two or more firms to be filled separately for each constituent member)

1. Name of Firm/Company:
2. Type of Constitution (*Partnership/ Pvt. Ltd/Public Ltd/ Public Sector/ NGO)*
3. Date of Registration / Commencement of Business *(Please specify):*
4. Country of Registration:
5. Registered Office/Place of Business:
6. Telephone No; Fax No; E-Mail Address
7. Name of Authorized Contact Person / Designation/ Address/Telephone:
8. Name of Authorized Local Agent /Address/Telephone:
9. Consultant's Organization:
10. Total number of staff:
11. Number of regular professional staff:

(Provide Company Profile with description of the background and organization of the Consultant and, if applicable, for each joint venture partner for this assignment.)

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3. Experience

3(A). General Work Experience

(Details of assignments undertaken. Each consultant or member of a JV must fill in this form.)

S. N.	Name of assignment	Location	Value of Contract	Year Completed	Client	Description of work carried *out*
1.						
2.						
3.						
4.						
5.						
6.						
7.						

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3(B). Specific Experience

Details of similar assignments undertaken in the previous seven years
(In case of joint venture of two or more firms to be filled separately for each constituent member)

Assignment name:	Approx. value of the contract (in current NRs; US$ or Euro)[2]:
Country: Location within country:	Duration of assignment (months):
Name of Client:	Total No. of person-months of the assignment:
Address:	Approx. value of the services provided by your firm under the contract (in current NRs; US$ or Euro):
Start date (month/year): Completion date (month/year):	No. of professional person-months provided by the joint venture partners or the Sub-Consultants:
Name of joint venture partner or sub-Consultants, if any:	Narrative description of Project:
Description of actual services provided in the assignment: **Note: Provide highlight on similar services provided by the consultant as required by the EOI assignment.**	

Firm's Name: _____

[2] Consultant should state value in the currency as mentioned in the contract

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3(C). Geographic Experience

Experience of working in similar geographic region or country

(In case of joint venture of two or more firms to be filled separately for each constituent member)

No	Name of the Project	Location (Country/ Region)	Execution Year and Duration
1.			
2.			
3.			
4.			
5.			
6.			
7.			

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4. Capacity

4(A). Financial Capacity

(In case of joint venture of two or more firms to be filled separately for each constituent member)

Annual Turnover	
Year	**Amount Currency**

- **Average Annual Turnover of Best of 3 Fiscal Year Of Last 7 Fiscal Years**

(Note: Supporting documents for Average Turnover should be submitted for the above.)

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4(B). Infrastructure/equipment related to the proposed assignment[3]

No	Infrastructure/equipment Required	Requirements Description
1.		
2.		
3.		
4.		
5.		

[3] *Delete this table if infrastructure/equipment for the proposed assignment is not required.*

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5. Key Experts *(Include details of Key Experts only)*

(In case of joint venture of two or more firms to be filled separately for each constituent member)

SN	Name	Position	Highest Qualification	Work Experience (in year)	Specific Work Experience (in year)	Nationality
1						
2						
3						
4						
5						

(Please insert more rows as necessary)

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Industrial Zone Management Ltd.
Kathmandu, Nepal

Terms of Reference (TOR)

For

"Detailed Project Report (DPR) of Laxmipur Industrial Zone, Dang"

Background

Nepal has an economy based on traditional agricultural and industrial methodologies of production and products. To keep in pace with the fast changing modern world it has to modernize its economy. Industrial sector is one of the major contributing sources of income to the national economy, and hence is generally accorded high priority by providing all possible support to this sector in its endeavor to increase the country's share in the world economy.

Nepal has low national investment resources. Augmentation of industrial base and diversification of economic sectors are the major factors which can contribute to development of economic activities and thus to the overall uplift of the living standard of the people. In view of low investment capacity significant expansion of the Nepalese economy can be achieved only by expansion of its industrial sector. For the industry sector to be a major driving force of the Nepalese economy brining in technology, marketing expertise and capital it needs logistic and infrastructure support from the government.

Following the policy of the Government of Nepal, IZML intends to carry out various studies in different parts of the country with an aim to establish IZs in future. Areas along the southern border of the country as well as some regions in the hinterland may be suitable for IZs catering to different types of industries and markets.

Objective

The main objective of the work is as follows:

- Preparation of Master Plan along with detailed engineering design, drawings, cost estimation (based on prevailing standard specifications) required to construct the physical infrastructural facilities indicated in the Master plan for the establishment of industrial zone (IZ).

The other objectives are:

- To identify if the proposed area is suitable for establishment of industrial area,
- To reflect long term vision, mission and strategies of IZML for development of Industrial Area through New Industrial Zone,
- To conduct detailed study of the proposed Area,
- To prepare a Master Plan for the development of "Laxmipur Industrial Zone" along with possible projects considering the project area followed by detail action plans,
- To identify and check if the delineated area is appropriate physically, technically, socially acceptable and financially viable for the development of New Industrial Zone,

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- To study the degree of future expansion in the delineated industrial area.
- To check if the neighboring landowners and tenants are ready for a complying the establishment of industrial area, so that the process of industrial development could be done with their consent including all the stakeholders so as to reduce the complication in the future,
- To identify if there is strong political commitment in the project areas for implementing IZ,
- To enhance institutional and technical capacity of the clients technical manpower by conducting and providing comprehensive project management software and GIS related software training for the technical team of IZML, covering all associated costs including training materials, documentation, stationery, meals, video tutorials and other necessary logistics.

Scope of Service

Brief Description

The consultant must make a brief general study of the concept and practice of industrial sectors in Nepal as well as neighboring countries of Asia. Based upon the study, the consultant must identify viable industries in which foreign and national investment may be attracted to industrial sector in Nepal due to its comparative advantages, most prospective areas for location of those industries, expected volume of such industries etc. Similarly, for the IZ to be established in the area, the consultant must identify types of industry suitable for this area, expected number and volume of such investment, required land and other infra-structural facilities. The consultants has to co-ordinate and carry out investigation works and engineering survey for civil, electrical/mechanical works such as building, roads water supply and sanitation system, electrical and telecommunication systems etc. to be established inside the proposed IZ site.

Based upon the above survey, the consultant shall prepare a master plan which is to determine the extent and types of all civil, electrical, telecommunication and mechanical works to be carried out inside the IZ, including detailed engineering design and drawings as per requirement. All the design works must follow the requirement and standards of various civil, electrical and mechanical works of the current practices as per the relevant government codes and guidelines.

Based upon those data the consultant should prepare total cost estimates of setting up of the IZ in the given area, including that for the infrastructures, working capital, operating cost, net income statement etc. The consultant should carry out both financial and economic analysis to determine the viability of the project.

Hence the main aspects or specific scope of service (Key Considerations) of the study will be:

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A) Collection, Review and analysis of information of social dimensions of industrial background within the country, province, district, and proposed IZ area including its impact in population, education, profession, housing unit as a whole.

B) Carry out detailed geological, topographical and environmental survey of total 549 bigha allocated land, allocate best suitable approx. 150 bigha of land for 1st phase of industrial purpose with approval from Client and prepare master plan, detailed project report of that allocated approx..150 bigaha of land considering geological, environmental, physical and socio-economic parameters.

C) The Consultant also has to provide a projected industrial plan including master planning and estimate of remaining declared land of Laxmipur Industrial Area(549 Bigha)

D) Prepare and propose three alternatives of master plan for 150 Bigha and examine possible options and select best option for IZ after consultation and verification from client within the given area based on concept of IZ, available information and field survey.

E) Information of 549 Bigha land including name/address of land owners and areas of each land parcel with coordination from local authorities (government, guthi and Private,community forests Etc.), land fragmentation, land price (average) within project sites and prepare updated log sheet, Cadastral maps ,survey coordinating system and if necessary digitize in auto-cad and other format as necessary.

F) Collect necessary documents and approval from राष्ट्रपति चुरे संरक्षण आयोजना र आवश्यकता बमोजिम आयोजना सुरु गर्दाको बखत सामुदायिक वन, स्थानीय निकाय लगायत अन्य सरोकारवाला निकायको स्वीकृति समेत।

G) To conduct a brief market study for the necessity and demand of industrial areas in the proposed area and its vicinity and utilize the data for preparing this DPR for eg allocation of plots and its size, clustering, development of infrastructures, etc.

H) Engineering survey and Design of Physical facilities inside the proposed IZ including access Road:

1. Conduct survey with detailing of proposed industrial area ,
2. Mapping of Existing infrastructure (network of road, drainage, water supply, electricity and telecommunication), services (capacity and situation of services) together with social and economic survey.
3. Prepare base map, including all natural and manmade features with identification of environmentally sensitive and hazard prone areas. The scale of such maps should be standard.
4. Prepare Existing land use plan of the project area and analyze it based on geological, environmental, physical, socio-economic parameters: and propose land use plan area, develop master plan along with possible industries considering the project area.

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5. Conduct detailed survey for access road linkage with nearby roads/highways with standards comparing with Nepal Roads Standards ,2070 and also conduct a detailed survey and comparison with different international standard and norms for internal roads within proposed master plan.
6. Prepare design and drawings of infrastructure layout (for eg. Boundary Wall , Road, Drains, Sewer Lines, Administrative Buildings, Service Buildings, Water And Waste Water Treatment Plants , Lands Improvement, Electrical and Mechanical, Telecommunication, Water Supply , weighing Bridge and other required Infrastructures as recommended by consultant after studying similar industrial area of neighboring countries).
7. Prepare all necessary documents for project bank entry for National Planning Commission.
8. Prepare organizational structure of the project.
9. Overlay **cadastral map on the topographical** map by adjusting coordination system.
10. Integration of transport and land use plan and consider existing projects in and around project areas.
11. Arrange field visit for the verification of prepared documents on the request of IZML.
12. Provide necessary documents, information, clarification, presentation where and when necessary as per the request of the IZML.
13. Prepare Animation video of the total approved master plan of proposed industrial area,
14. Formulate suggestive measures.
15. Enhance technical capacity of the client's technical manpower by conducting and providing comprehensive project management software and GIS related software training for the technical team of IZML, covering all associated costs including training materials, documentation, stationery, meals, and other necessary logistics.
16. Organize **Stakeholders Consultative Workshop** for finalizing the master plan and submit it to IZML.
17. **Organize presentation and consultation** meeting at Central level and **public hearings**.
18. During Preparation of Master Plan, following points should be considered:

a. Integrating IZ with local host economies-ensuring consistency with the economic opportunities, local demographics and skills within the IZ and its periphery.
b. Developing a standard IZ infrastructure to attract investors and to ensure competiveness.
c. Ensuring the commercial feasibility and designing a sustainability master plan.
d. Implementing land use planning and zoning efforts in defined areas.

I) Environmental Study of IZ

1. Collect Baseline Information.
2. Identify and analyze potential impacts.
3. Outline major/relevant mitigation measures.

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J) Prepare detailed monitoring strategic plan for different phases of project.

K) Financial and Socio-economic analysis:

1. Financial, economic and social analysis and assessment of the project risks.
2. Prepare alternative financial and economic analysis with application of various financial tools like internal rate of return (EIRR), benefit-cost ratio (B/C), net present value (NPV) with incremental NPV and pay back period, SWOT analysis etc.
3. Detailed Sensitivity analysis pertaining to various parameters.

L) A systematic disaster and climate change risk assessment shall be assessed by the consultant inside and in near vicinity of proposed area of industrial area before and after construction of the industrial components. Also, multi hazard risk mapping shall be studied.

Detailed Description

Phase I: Initial meetings and site survey/assessment

The consulting team will complete the following activities:

Activity 1: Meeting with the client and Review of Existing Studies

The consultant will meet with the officials from the Industrial Zone Management Limited (IZML) to discuss their vision for project, discuss their preferences in terms of a general location of proposed site. The consultant should collect and study previous studies (physical infrastructure and institutional assessment reports) of IZs in the country which may be useful for benchmarking and other information and to visit the organizations that sponsored the studies and reports.

Activity 2: Meet the stakeholders and Visit the site

The consultant should visit the concerned district and conduct meeting with the concerned local government official, stakeholder at district level. The visiting consultant team must comprise of team leader and other related experts. They must visit the site as well as district headquarter and nearby major industrial/marketing centers. During their visit, they must carry out interaction with local representatives of various financial sectors such as trade, industry, agriculture etc. They should conduct several meetings both at the site and in district level with the local people, concerned local government officials and all other stakeholders including Federation of Nepalese Chambers of Commerce and Industry (FNCCI), Confederation of Nepalese Industries (CNI) etc.

Phase II: Feasibility study and Master Planning

Activity 2A: Industry sector Analysis and Market Demand Forecast

An initial market study shall be caried out by the consultant for demand of land inside Laxmipur Industrial Zone. For this, a preliminary proposal need to be advertised in national level newspaper for the propose of forecasting the demand of industries, plot size, its types, investment modality, manpower and employment

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opportunities, etc. The format of proposal need to be prepared by the consultant and approved by the client before publication.

The objective of this activity is to develop a detailed master plan and to obtain potential number of plots, site densities, infrastructure ratios, phasing options, and cost estimates for infrastructure and utilities.

The consulting team will obtain information on existing roads, power, water, wastewater, water and wastewater treatment, solid waste, telecommunication and drainage, and other aspect of the site's infrastructure. Infrastructure and utilities within the site as well as identification of off-site infrastructure and connection points (i.e., approach road, how water is brought to the site, whether it is from the municipal system, whether power is self-generated or brought from the national grid, etc.) must be identified. Based on these data the consultant will prepare a Master Plan and design in detailed all relevant and required infrastructures within the site for implementing an IZ.

Cost estimate for all phases of infrastructure and utilities development must be prepared to access the financial viability of the project. The consultants can recommend the use of pre-built facilities if such facilities exist any within or around the project area. Upgrading of the existing facilities should also be considered. As far as possible, plan should be formulated so as to make possible the construction of infrastructure in the IZ in planned phased manner. Each phase of the construction implementation should be complete in itself.

Activity 3: Investigation & Detailed Engineering Survey Works

The consultant is to co-ordinate and carry out investigation & extensive engineering survey works for civil, electrical & telecommunication and mechanical works such as road, building, water supply system, and storm water drainage & sewerage system, electrical & telecommunication system and other required physical facilities to be established inside IZ. The consultant has to prepare base map of the area. The major investigation and survey works are:

i. Reconnaissance work of the site: Visual survey of the area and identification of the area for plotting of the land.

ii. **Soil investigation of the site (the consultant shall test minimum of three points)**

iii. Detailed engineering topographical survey (Scale 1:2000 in general and 1:500 in selected areas, with contour intervals of 0.2 m to 0.5 m) with horizontal and vertical control points.

iv. Prepare a Base Map of the area showing all existing infrastructures.

v. Detailed engineering survey, as required in engineering design works, for internal road networks including approach road, water supply system, storm water drainage &sewerage system including waste water treatment plant, electrical system, telecommunication system, building, parking industrial plots and other physical facilities

vi. Material survey works to identify source, quality of construction materials & location of borrow pits & quarries.

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vii. **Geophysical investigation adopting Electrical Resistivity Tomography test to map subsurface electrical resistivity of the site (the consultant shall test minimum of three points) for the purpose of identifying the water sources**

Activity 4: Preparation of Master Plan and Detailed Engineering Design of Physical Facilities.

Preparation of Master Plan

On the basis of the survey data, the consultant has to prepare Master Plan of the IZ based on the principle of concept, objective and requirement of IZ. After the preparation of detailed master plan of the zone, the consultant has to prepare detail engineering design, drawings, cost estimate based on standard specifications, of the each and every physical facilities incorporate in the detailed master plan. The detailed document of all physical facilities incorporated in the detailed master plan.

A tentative list of physical infrastructures to be considered during the Master planning, is given below. However the consultant must make its own assessment and prepare the plan accordingly considering the characteristics of IZ. Some of physical features to be incorporated in the Master Plan are:

- IZ Boundary Wall
- Industrial Plots (cluster wise)
- Administrative Building
- Service Building (for banks, post office etc)
- Public Toilet
- Main Entrance Gate
- Security Check Posts including CCTV
- Security Guard Building
- Canteen/ Cafeteria etc.
- Pump House, Filter House
- Petrol Pump
- Truck weighing bridge
- Electric Substation
- Various types of Roads including Approach & internal roads
- Electrical line networks (External & internal)
- Telecommunication line network (External & internal)
- Water supply distribution system including layout of water source, water treatment plant, water storage (both underground and overhead tanks)

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- Strom water and sewerage network including waste water treatment plant (with provisions for pretreatment plant of individual industry).
- Fire-fighting system
- Parking areas (for heavy and light vehicles)
- Open space
- Site development works (Development of area around building and other structures)
- Green areas
- Flower beds
- Footpath
- Cycle track
- Area for future extension, if any.
- Bridge & Culverts
- Protection works & Retaining structure
- Ware House
- Telecommunication tower.

B. Preparation of Detailed Engineering Design of Physical Facilities

Detailed engineering design of physical facilities (or, infrastructures) consists of standard engineering design of physical facilities as well as preparation of specification, drawings, based on the standard engineering design.

B1. Geological/Geotechnical Investigations

The consultant should conduct detailed geotechnical investigation of the construction site for the proposed construction of physical infrastructures like buildings, roads, towers, poles and others to identify regional and local geological formations and features, ground water levels and design parameters for foundation formations and features, ground water levels and design parameters for foundation suitable for the conditions with the required degree of cost effectiveness and technical soundness.

- **Analysis of Data, Conclusion and Recommendation of Design Parameters**

Based upon the above mentioned studies and investigation the consult shall make best use of their technical know-how and professional skill to arrive at and recommend the most cost effective design parameters. The consultant shall discuss in detail different options for structural, sanitary, electrical design and HVAC (Heating Ventilation and Air Conditioning) and shall recommend the most appropriate option.

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Scope of work for geotechnical investigation

Envisaged scopes of works are as follows.

a. Rotary Drilling work with Borehole advancement to 15 m at minimum of 3 locations.
b. Collection of samples and conduct field and lab tests
c. Analysis of test results
d. Petrographic analysis and chemical parameters of soil
e. Evaluation of Seismic Analysis and determination of shear wave velocity
f. Recommendation of type and depth of foundation
g. Recommendation of allowable bearing capacity
h. Recommendation of other design parameters
i. Technical report of the investigation work

General specification regarding investigation

A general specification is given below as guideline. Detailed scope of work and specification, methodology etc. should be determined in consultation with the Client.

General

The investigation shall involve excavating boreholes with sampling and testing. Ground conditions are to be investigated at the site. The consultant shall provide services of experienced technical manpower for the work and shall station field staff at the site. All equipment & tools proposed for the work shall be made available by the consultant. The consultant may engage a separate sub-consultant for this job.

Location of boreholes

Precise location and method of investigation shall be confirmed in consultation with the client after the master plan is finalized. In addition to the boreholes, additional boreholes may be ordered by the client if site condition revealed during investigation requires such holes. The Consultant shall mobilize teams with their equipment's for drilling required number of bore holes to a depth of 15 m in coordination with IZML officials.

Drilling, sampling & field testing

Rotary Drilling:

Rotary drilling method shall be used to develop the bore hole and taking samples from the subsurface layers. The drilling work must be supervised by a full time well known Geologist/Geo-Technical Engineer.

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Vane Shear Test:

Field vane shear test shall be performed inside the bore holes for the determination of shear strength of cohesive soils, especially of soft and sensitive clays, which are highly susceptible to sampling distribution.

Standard Penetration Test (SPT):

Filed test like Standard Penetration Test (SPT) shall be conducted at each change in soil strata or at 1.5 intervals as per ASTM D-1586. In SPT a Split Spoon with an outside dia. of 50mm into the soil at the borehole. Driving is accomplished by a drop of monkey hammer weighing 63.5 kg falling freely through a height of 750mm into the drive head.

First of all the spoon is driven 150 mm into the soil at the bottom of borehole. It is the driven further 300 mm and the number of blow (N value) required to drive this distance is recorded as a SPT (N) value.

Dynamic Cone Penetration Test (DCPT):

The general sequence of sampling shall be to obtain test samples at 1.5 m interval or as per the requirement or at every significant change of strata. Un-disturbed sample shall be collected at specified depth, as far as possible. Undisturbed samples shall be collected with the help of thin wall sampling tubes as per ASTM D-1587 for further test, such as:

- Direct Shear Test
- Consolidation Test
- Unconfined Compression Test
- Tri- axial Test

The sampling tube shall be kept on a heatproof and shockproof box and be transported to the lab on the same day.

Before sampling operation the bottom of the hole shall be cleaned to avoid possible disturbances.

The material collected from the boreholes shall suitably packed so as to get in natural condition suitably numbered and indicating job number, borehole number sample number, date of sampling, soil description, depth of sample etc. and sent to the laboratory for the following tests:

- Grain size Analysis
- Hydrometer Analysis
- Natural Moisture Contest
- Moist & Dry density

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- Atterberg's Limit Test
- Direct Shear Test
- Specific Gravity Test

During drilling, ground water table shall be measured at the start and after 24 hrs at the end of drilling. A permanent water level shall be observed if available, which can be a deciding factor for various analysis.

Soil testing

The Consultant shall conduct field and laboratory test for samples collected in the field as per the standard; relevant code of ASTM, BS or IS as specified by the client. After that it shall be analyzed to measure and appraise the engineering properties of the soil. The testing program shall be directed towards the geotechnical evaluations required to develop recommendations for the structures at the site.

Test results

The test results shall be presented as per the suggestion of the client. The results of both lab and field tests shall be analyzed against the selected type of foundation. All design parameters shall be provided along with the recommendations of foundation type, allowable bearing capacity, settlement criteria and other. In each borehole log, the consultant shall present all the information about; stratification, soil type, field test data, water table condition and other

Design parameters

Based upon the analysis of the field data and lab tests, design parameters like allowable bearing capacity of soil, type and depth of foundation shall be recommended. Allowable bearing capacity for different types of foundation for different depths shall be analyzed and recommended based on National Building code of India (1983) or Nepal Building code 2000.

Analyzing the compactness and grain size of the soil strata, design parameters for timbering and solution for other possible problems during construction of building shall also be given.

Investigation for Ground water (ERT-3Dimensional)

Geophysical investigation adopting Electrical Resistivity Tomography test to map subsurface electrical resistivity should be carried out for the determination of ground water depth and ground water capacity of the area, for supply of water to the IZ in future. The method employed in the survey is the Vertical Electrical Soundings (VES) using Schlumberger array of electrode configuration. This method is also called Electrical Drilling and considered as indirect methods. This is the most popular and effective method used for groundwater exploration work worldwide.

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B. 2 Civil engineering Structures

a. Building Structures

It consists of preparation of:

- Standard detailed engineering design of all administrative and support section building, to be constructed in IZ.
- Standard engineering specification of all buildings.
- Standard engineering drawings (architectural and structural drawings) including working drawings of all components of the building. It consists also drawings of utilities (electricity, plumbing, telecommunication, drainage & sewerage system, solar water heating system, rain water harvesting system, air condition system and other requirement as needed) required in the buildings.
- Detailed Cost estimate of the buildings with rate analysis.
- Detailed schematic and layout plans of each and every building, to be established in the IZ.
- Three Dimensional model/view of the building.

b. Road

It consists of preparation of:

- Standard detailed engineering design of all types of roads and its components (retaining wall, culvert etc), to be constructed in the IZ.
- Standard engineering specification of road and its components.
- Standard engineering drawing of road and its components etc.(Plan, Profile, Sectional Elevation etc).
- Detailed Cost estimate.
- Detailed schematic and layout plans and also 3d-model of road and its components, to be established in the IZ.

c. Water supply system

It consists of preparation of:

- Standard detailed engineering design of water supply system (source and quantity of water, distribution system, water treatment, water storage etc.) to be established in IZ.
- Electrical sounding (ERT) should be carried out for the determination of ground water depth and capacity of the area, for supply of water to the IZ in future.
- Standard engineering specification of water supply and its components.
- Standard engineering drawings of water supply system. (Plan, Profile, Sectional Elevation etc) .
- Detailed cost estimate of water supply system.
- Detailed schematic and layout plan of water supply system, to be established in the IZ.

d. Storm water and sewerage system

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It consists of preparation of:

- Standard detailed engineering design of storm water and sewerage system from building & industries etc. (based on source, type, quantity of sewerage, distribution system, discharge points, waste water treatment etc.) To be established in IZ. The consultant has deal also with the other waste materials to be discharged from different type of industries of IZ.
- Standard engineering specification of drainages for storm water, sewerage and its components.
- Standard engineering drawings of storm water and sewerage systems. (Plan, Profile, Sectional Elevation etc).
- Detailed cost estimate of storm water and sewerage system.
- Detailed schematic and layout plans of storm water and sewerage system, to be established in the IZ.

e. Other civil structure

It consists of preparation of:

- Standard detailed engineering design of other civil physical facilities to be established in IZ.
- Standard engineering specification of other civil physical facilities.
- Standard engineering drawing of other civil physical facilities.
- Detailed cost estimate of other civil structures.
- Detailed schematic and layout plans of other civil physical facilities, to be established in the IZ.

B.2 Electric & Telecommunication Engineering Structures

a. Electrical Work

- Standard detailed engineering design following works :
  1. Study of Power Demand and Load Simulation.
  2. Study of Existing NEA Substation capacity nearby site.
  3. Study whether transformer as per the projected demand load of IZ is available or not.
     - Study whether the Transmission line of 11 KV, 33 KV, 66KV,132KV inside or nearby IZ area is available or not. If not available identification of point of tapping.
     - Availability of dedicated Electrical line from NEA.
  4. Design of substation inside the IZ:
     - Capacity of substation according to the type of industries.
     - Direct tapping for HT line if available.
  5. Design of safety measures & Distribution system:
     - Protection from thunder
     - Firefighting system
     - Road Lighting and office lighting

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- Generator for office, road lighting, water supply & fire fighting
- Internal Distribution System
- Trench for underground cable system.
- Standard engineering specification of electrical facilities to be established in the IZ.
- Schematic and layout and **Standard engineering drawings of electrical facilities.**
- Detailed cost estimate of electrical works.

b. Telecommunication/Data Network Works :

- Standard detailed engineering design of Telecommunication facilities such as poles, underground cable etc. considering source and demand of the facility.
- Standard engineering specification of Telecommunication facilities to be established in the IZ.
- Standard engineering drawings of Telecommunication facilities.
- Detailed cost estimate of telecommunication works.
- Detailed schematic and layout plans of telecommunication facilities, to be established in the IZ.
- Trench for underground cable system.

B.3 Mechanical Engineering Works including Fire-fighting system

It consists of preparation of:

- Standard detailed engineering design of necessary mechanical works,
- Allocation of Space for Fire Brigade inside IZ
- Standard engineering specification of mechanical works.
- Standard mechanical drawings of mechanical works.
- Detailed cost estimate of Mechanical works.
- Detailed schematic and layout plans of mechanical works, to be established in the IZS.

A. National and International Code of Practice

All the design works must follow the requirement & standard of various civil, electrical, telecommunication & mechanical works on the current practices. National Building Code of Nepal, & Codes developed by economic government departments such as Department of roads, Department of Water Supply and Sewerage etc as well on where necessary international code of practice (Such as Nepal Road Standard (NRS), Indian Road Congress (IRC), American Association of Highway and Transportation Officials (AASHTO)) standard and guidelines shall be used.

Activity 5. Preparation of Total Cost Estimate

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Consultant has to prepare total detail cost estimate for all construction within the proposed area (e.g. cost of land and physical facilities etc.) to establish of the IZ. The costs should be based on prevalent prices and economic rules and regulations of the Government of Nepal.

Activity 6: Financial and Socio-Economic Analysis

Based on the market demand forecast and master planning, the consultants will perform a financial and economic analysis of the project to determine its feasibility in the short, medium and long term. The financial and economic analysis model should indicate financial and economic indicators as the internal rate of return (IRR), benefit cost ratio, net present value, fiscal impact analysis, payback period of the project and SWOT analysis of the project and allow for the changing of multiple, factors and costs to see the effects of those changes of the IRR.

Moreover, the consultant will study the social aspects of the project which includes the affected population, potential beneficiaries, number of household that will be affected including displacement, availability of labor etc.

Activity 7: Capacity Building

The Consultant will be required to involve IZML personnel's in all activities of the study. Presentations must be made after completion of each phase. Frequent interaction with the IZML staff is expected. The consulting team will provide regular updates to IZML so that IZML will have an opportunity to clarify and make minor adjustments to the direction of the study.

Phase III: Final Recommendations / stakeholder Consultations

Activity 8: Recommendations and Presentation of Findings

The consulting team will make a presentation of its findings and recommendations from the preparation of DPR in final presentation. Master Plan and all aspects of the study will be presented. Any major obstacles or fatal flaws to complete the project shall be discussed and a preliminary options plan for financing shall also be presented.

Output

The Study should include but not necessary be limited to the followings

A) Literature Review

- Study of Industrial Zone around the world
- Review of infrastructures development and industries districts development, lessons learnt from their implementation in Nepal and around the world
- Critical Review on government policies, available acts, norms, regulations on Industrial development field and programs

B) Data Inventory

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- General Data (Population, Education, Profession ,Housing Unit)
- Reports used for Literature review and reference
- A complete site profile with all relevant updated primary and secondary data
- Meta data of topography in GIS
- Cadastral Maps in auto-cad
- Detail land information (Details on land parcel and land owner, land fragmentations, land price and updated log sheets.
- Socio-Economic data
- Industrial Trend/Need
- Environmental ,Geological Data

Note: Consultants should provide both qualitative and quantitative data where required.

C) Critical Analysis

- Analyze available data considering Strength, Opportunities, Weakness and Threats of site. Specially, consider the existing projects and future developments such as proposed transmission lines, new highways railways etc. that can have considerable effects on the projects

D) Planning and Development

Provide possible solutions or recommendations in terms of design and development, policy, frameworks

1. Three alternatives of Master Plan,
2. Most feasible plan,
3. Carry out market demand forecast along with investment trend analysis based on facts and figures.
4. Estimate costs for the construction of infrastructure.
5. Carrying out Financial and Economic analysis of the proposed site.
6. A brief Environmental Study of IZ ,
7. All activities of this study will be carried out under the direct supervision of IZML. Comments of the IZML, stakeholders and public in general shall be incorporated in the final report.
8. Phase wise detail investment plan for 5 years, cost sharing mechanism, cost recovery plan.
9. Maps (Location Maps, Index Map, Existing land use plan ,Map showing land ownership, Proposed land use)
10. **Master Plan and other thematic maps and plans**
11. Calculations, graphics, charts, photos, minutes of meeting etc. are also part of the study documents.

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12. Data and Calculation related with detailed engineering survey work and detailed engineering design work of civil, electrical telecommunication and meteoroid works and their proper estimate and B.O.Q.
13. Document related with standard engineering specification, as per Scope of Services.
14. Detailed engineering drawing of all components such as civil, electrical, telecommunication and mechanical works included preparation of Master plan, as mentioned in scope of Services.
15. Document related with Detailed Cost estimate of all components, mentioned in Scope of Services.
16. Detailed Layout Plans of all components, mentioned in Scope of services
17. Animation video of the projects

Activity 9: Technology Transfer

1. The Consultant shall prepare and implement a comprehensive Technology Transfer Program to strengthen IZML's institutional and technical capacity. The program shall include training, hands on workshops, software demonstrations, field exercises and complete transfer of all editable digital project files. Also, the consultant need to share basic ideas related to industrial asset management, environmental monitoring, smart industrial infrastructure, procurement, operation and maintenance and digital data management. Upon completion, all source files, databases, models, calculations, GIS layers, CAD drawings, BIM models, and training materials related to this project shall be handed over to IZML in editable formats.
2. The consultant shall organize Training program and classes for GIS and project management for the Client's representative mandatorily. The scope of training shall be prepared upon mutual agreement between Client and Consultant.

Methodology

Consultant should perform the job as per the Scope of Service and should submit its own methodology taking into account at least following points:

i) Desk Study:

The consulting team should study available reports, drawings, study of topographical maps, Study of Cadastral maps, etc. Materials related to existing national industrial laws, national and international economic trends and situations should be collected and studied to understand the strength and weaknesses of the site.

ii) Meeting with relevant stake holder:

The consulting team must organize meeting with local people, concerned local government bodies, businessman, industrialist, corporate houses, economist, engineer and others. Their opinion, and suggestions

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should be reflected in the report. The consultant should carry out the analysis of market and possible industries that are to be established inside IZ based on the response of the relevant stakeholder.

iii) **Reconnaissance Survey:**

The consultant team should conduct reconnaissance survey of the site. In this visit consultant's experts should familiarize themselves with the area and collect materials related to respective fields. The work should be followed by the preparation of Base Map of the area.

iv) **Preparation of Master Plan along with the requirement of necessary infrastructure.**

v) **Conduct detailed engineering survey of the site.**

vi) **Preparation of detail engineering design, specification, drawing including schematic and layout plans.**

vii) **Preparation of cost estimate of all infrastructures.**

viii) **Preparation of procurement document of physical facilities.**

ix) **Conduct Financial and Socio-economic Analysis and Environmental studies, incorporating Master Plan data.**

x) **Final discussion**

It should be conducted with concerned local government officials, authorities and all related stakeholders (for eg: FNCCI, CNI) and IZML officials in the respective site for the discussion of the findings of the study.

Personnel Requirement

The consultant should provide and manage a competent work team comprising the following professionals to accomplish the proposed assignment as mentioned in Scope of Services. The required number of manpower, man-month and qualification with work experience should be based on the following table.

The main project components outline in Scope of services, are clearly linked and several activities will overlap and/or run concurrently. In preparing the proposal, the Consultant will be expect to show how the staff inputs will be arranged in order to cover all of the activities in the most efficient, cost –effective manner.

S.N.	Description of Personnel	No	Man month	Qualification & Work Experience
	KEY STAFF:			

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S.N.	Description of Personnel	No	Man month	Qualification & Work Experience
1.	Team Leader	1	6	Master's Degree or above in Architecture/Regional Planning/Urban Planning, Industrial Planning with more than 10 years relevant experience in IZ planning, SEZA planning, urban planning or urban development after masters degree.
2.	Economist	1	2	Master's Degree or above in Economics, Business Administration and equivalent with work Experience of more than 10 years post master experience in financial and economics management of infrastructure projects.
3.	Architect	2	3	Bachelor or above in Architecture with relevant work Experience of more than 5 years in planning or any infrastructure projects.
4.	Urban Planner	1	3	M Sc. Degree in Urban Planning or above with relevant work experience of more than 5 years after master's degree.
5.	Transportation Engineer	1	3	M Sc. Degree in Transportation of Highway Engineering with relevant work experience of more than 10 years after master's degree
6.	Senior Surveyor	2	1	Bachelor degree in Survey /Geomatics with work experience of more than 10years.
7.	Structural Engineer	2	2	Master Degree in Civil Engineering specialization in structure or above with working specific experience in structure for more than 5 years.
8.	Industrial Sector Specialist	1	2	MBA/MBS or equivalent studies with specialization in industrial development with working specific experience in industrial sector for more than 5 years.
9.	Water Supply & Sanitation Engineer	1	2	Master's Degree in Water Resource or equivalent above with working specific experience of more than 5 years in design of sewerage or water systems and treatment plants after masters.

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S.N.	Description of Personnel	No	Man month	Qualification & Work Experience
10	Geologist/Geotechnical Engineer	1	1	Master's Degree in Geology/Engineering Geology/Geotechnical Engineering or above with more than 5 years of specific work experience.
11	Hydrologist	1	1	Master's Degree in Water Resource Engineering or above with specific work experience more than 5 years.
12	Mechanical Engineer	1	1	Master's Degree in Mechanical Engineering or above with specific work experience of more than 5 years.
13	Telecommunication Engineer	1	1	Master's Degree in Electronics and communication Engineering or above with specific work experience of more than 5 years.
14	Electrical Engineer	1	5	Master's Degree in Electrical Engineering or above with specific work experience of more than 10 years.
	Non Key Staff			
1	Surveyor	2	1	Survey Training of or more than 12 months with work experience of more than 5 years
2	Auto CAD Operator	1	6	Certificate or Diploma level Degree in architecture with work experience of more than 5 years.
3	Computer Operator	1	6	Certificate Level Degree in Arts/ Commerce or Equivalent with work experience more than 5 years.
4	Assistant	1	6	Capable of working and preferably with some experience.

Experts in S.N.1,2,3,4,5,7,8,9,10and 14 will be considered for evaluation.

The consultant shall set up his own project organization to execute study and will be responsible for the provision of all technical and support staff needed. Change in the personnel already approved by IZML will be permissible only in very special circumstances and in all cases with the prior written approval of IZML. In the event of such changes being made, the Client reserves the right to apply a reduction in fee rate of up to 15%.

IZML will make available to the consultant hardcopies of those studied, report and data relevant to the consultancy.

The consultant will be responsible for the cost of necessary manpower, officials and field equipment, office operation cost, documentation, interaction program and also for providing all necessary facilities and logistical support for staff, including accommodation, transportation, office equipment, communications, utilities, office supplies and taxes. Consultant's services are expected to commence from the data of

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agreement of the work and is scheduled to be completed within six Calendar Month after the signing of the agreement. **Key Personnels of the project strictly visit the site and provide necessary photograph of proposed area at the planning stage and other stage if necessary.**

Work Schedule

The work packaged DPR should be completed within 6 months from the Date of Agreement. The consultant is thus required to prepare their work schedule and submit accordingly.

Reporting

The reporting is done in the five stages. The consultant shall provide digital presentation (for eg Powerpoint, etc) to the client in each stage.

a) Monthly Report
b) Inception Report
c) Field Report
d) Draft Report
e) Final Report

a) **Monthly Report**

The consultant is required to provide **monthly progress report** in two copies to IZML office within 7 days of the completion of the calendar month.

b) **Inception Report**

The consultant shall visit the proposed site. The team must comprise of team leader and other related experts from both the consultant and clients side. During their visit, they must conduct meetings at site including all the related stakeholders. From the results of site visit and joint meeting, the consultant shall select and propose the best suitable 150 bigha (approx..) land to be developed further as the industrial area in 1st phase considering the remaining portion of declared land of Laxmipur Industrial Area as probable further extension of industrial area. The stakeholders shall included but not limited to district level MPs, local people, concerned local government officials and all other Stakeholders including FNCCI, CNI and IZML officials.

After field visit and discussion with stakeholders, the consultant shall issue an advertisement of proposal in national newspaper for the sake of collection of data related to forecasting the demand of industries, plot size, its types, investment modality, manpower and employment opportunities, etc. to incorporate in DPR. The format of proposal need to be prepared by the consultant and approved by the client before publication.

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On the basis of findings, the consultants shall submit an Inception Report in **3 copies within 1 months of the Date of Agreement**. The consultant has to present the report in PowerPoint in the presence of IZML officials and others. The Inception Report shall include as following:

- Study report of existing conditions of the site with evidence and color photographs (size 4*6 inches along with captions and date)
- Findings of Literature Review, demographic data, maps and drawings along with color photographs etc.
- A set of questionnaire and the analysis of social survey.
- Minutes of interaction/ meetings with available local people, experts, businessmen, industrialist, economist, Stakeholders, and government officials, should be submitted with the report.
- Project Planning and its future actions,
- Work schedule, full staffing, deployment schedule of key staffs
- Team organizations, data collection format, report templates.
- Table of Content for the final report which should meet the objectives of the project.
- Problems encountered at site along with suitable recommendation for solution of the problems.
- Suggestions for preceding the work further smoothly.
- During the presentation of the inception report, as a part of technology transfer, the consultant shall prepare and share the concepts of investment and development strategy of industrial areas of at least two countries other than Nepal.

b) Field Report

Within 3 months from the date of Agreement, a Field report, in **3 (Three) copies** should be submitted containing all materials as per the Scope of Works of the TOR. It must contain all drawings, maps and report including calculation as per the Scope of Service.

- Describe the boundary of the project area along with political demarcations.
- Records of recent maps of the project area which show all the parcels of the land owners/tenants either they are private, governmental, guthi or other organizations and their analysis. It shall contain map showing the information of project boundary.
- Shall contain present scenario of the field, the topographic features of the field, the position of existing physical infrastructure such as buildings, roads, electricity transmission, telecommunication facilities, drinking water supply water pipe line, reservoir, existing sewer line, solid waste dumping site and all other details.

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- Drawings and Photographs of the existing physical infrastructures.
- Full description of the outcome of the field survey of the project area.
- Minutes of the meetings; local people, GON offices, local government offices and other stakeholders.

c) **Draft Report**

Within 4 months days of the Date of Agreement, a Draft report, in **3 (Three) copies** should be submitted containing all materials as per the Scope of Works of the TOR. It must contain all the, drawings, maps and report including calculation as per the Scope of Service.The Consultant also has to provide a projected industrial plan including master planning and estimate of remaining declared land of Laxmipur Industrial Area(549 Bigha). This report is to be presented in the IZML office in presence of officials and professional comprising experts and stakeholder for discussion, comments, suggestions and further improvements. Date, place and time of presentation shall be mutually finalized by IZML Office and the Consultant.

d) **Final Report**

The final report should be submitted in **5 (five) copies** (one original and four duplicate) within 6 months of the date of Agreement. A soft copy should also be provided. The Final Report shall incorporate all comments and suggestions on the draft report fulfilling all the requirements of articles of the ToR. The Consultant should also produce other relevant reports to the IZML office as and when necessary. The proposed format for the final report is given below:

Volume I: Executive Summary, Main Report and Annexes

Volume II: Cost Estimate, Financial and Economic Analysis

Volume III: Maps, Plans and Design Drawings

Note: There shall be presentation in all the stages after submission of report.

Note to all the consultants:

It is mandatory to present all proposed key experts during each presentations that shall be conducted during this package of works in IZML as well as concerned ministry.

Other Requirements / Office Space and Logistics

The Consultant shall bear the rent of office space and official logistic supports. The Consultant will be responsible for the cost of necessary manpower, field equipment, interaction programs, public hearing, notices publication, documentation and also for providing all necessary facilities and

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logistical support for staff, including accommodation, transportation, office equipment, communications, utilities, office supplies, office operation cost and taxes.

Consultant's services are expected to commence from the date of agreement of the work and is scheduled to be completed within 6 calendar months after the signing of the agreement.

Note:

1. Scanned copies of all the approved reports of both DPR shall be mandatorily submitted to the client.

2. Consultant should involve technical staffs of IZML office from the beginning of the proposed assignment and share all aspects of study. Frequent discussions and interactions should be held between the consultant's experts and IZML representatives.

Payment Schedule

Payments shall be made by IZML office upon the submission of Consultant's invoices according to the following mode of payment schedule:

Mode of Payment	Percentage
1.First installment after the submission and acceptance of Inception Report and digital presentation to the client.	15
2.Second installment after the submission and approval of Field Report and digital presentation to the client.	15
3.Third installment after the submission and approval of Draft DPR and digital presentation to the client.	30
4.Fourth installment after the submission and approval of Final DPR Report .	40

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