

**ALL INDIA INSTITUTE OF MEDICAL SCIENCES  
(AIIMS), ANSARI NAGAR, NEW DELHI**

**Tender for  
APPOINTMENT OF EIA CONSULTANT**

**FOR**

**Conducting EIA Study and getting EIA Clearance  
from Concerned Authorities for the work of AIIMS  
(Second Campus) at Jhajjar, Haryana**

**DATE OF ISSUE :** 17/01/2014 to 27/01/2014  
(up to 1:00 PM)

**LAST DATE & TIME OF SUBMISSION :** 27/01/2014 ( up to 2.30PM)

**January' 2014**



**HSCC (INDIA) LTD.  
(CONSULTANTS & ENGINEERS FOR MEGA HOSPITALS & LABORATORIES)  
E-6(A), Sector-1, NOIDA(U.P) 201301 (India)**

Phone : 0120-2542436-40

Fax : 0120-2542447

**Tender No. HSCC/AIIMS-Jhajjar/EIA/2013/02**

**ALL INDIA INSTITUTE OF MEDICAL SCIENCES  
ANSARI NAGAR, NEW DELHI**

**NOTICE INVITING TENDER**

**Tender No.** HSCC/AIIMS-Jhajjar/EIA/2013/02

**Date:** 15.01.2014

Bids are invited on behalf of Director, All India Institute of Medical Sciences (AIIMS), New Delhi from eligible consultants/firms for the following works:

<b>Name &amp; description of work</b>	<b>Completion period of work</b>	<b>Bid Security ( in Rs.)</b>	<b>Last Date of Submission &amp; opening</b>
Appointment of EIA CONSULTANT for Conducting EIA Study and getting EIA Clearance from Concerned Authorities for the work of AIIMS (Second Campus) at Jhajjar, Haryana	04 Month	10,000/-	27.01.14 upto 14:30 hrs & Opening at 15:00 hrs.

Date of sale of tender documents is from 17.01.2014 to 27.01.2014 upto 13:00 hrs. For more details please refer detail advertisement and tender documents made available at HSCC website [www.hsccltd.co.in](http://www.hsccltd.co.in) and AIIMS website [www.aiims.edu](http://www.aiims.edu) .

Prospective bidders are advised to regularly scan through HSCC web site as corrigendum/amendments etc., if any, will be notified on the HSCC web site and separate advertisement will not be made for this.

**GM (Projects), HSCC (I) Ltd**

**ALL INDIA INSTITUTE OF MEDICAL SCIENCES (AIIMS),  
ANSARI NAGAR, NEW DELHI**

**Tender No. HSCC/AIIMS-JHAJJAR/EIA/2013/02**

**Dated: 15.01.14**

**NOTICE INVITING TENDER – Detailed**

Bids are invited on behalf of Director, All India Institute of Medical Sciences (AIIMS), New Delhi for appointment as Consultant from individuals, firms and organizations, Universities and Public Sector Undertaking (PSUS) working in the area of Environmental Impact Assessment and accredited and registered with the NABET/QCI in Building and large construction Projects including shopping malls, multiplexes, commercial complexes, housing estates, hospitals, institutions to carry out Environmental Impact Assessment study and getting EIA clearance from concerned authorities for the work of AIIMS (Second Campus) at Jhajjar, Haryana. Details are as follows:

<b>Name &amp; description of work</b>	<b>Completion period of work</b>	<b>Estimated cost (Rs.)</b>	<b>Bid Security (in Rs.)</b>	<b>Sale of Tender</b>	<b>Date of Submission &amp; opening</b>
Appointment of EIA CONSULTANT for Conducting EIA Study and getting EIA Clearance from Concerned Authorities for the work of AIIMS (Second Campus) at Jhajjar, Haryana	04 Month	7 Lakhs.	10,000/-	17.01.14 to 27.01.14 upto 13:00 hrs.	27.01.14 upto 14:30 hrs. & Opening at 15:00 hrs.

A complete set of bid documents can be obtained from HSCC office on any working day from 17/01/2014 to 27/01/2014 up to 1.00 PM on submission of a request in writing with document fee of Rs. 1000/- in cash or in form of Demand Draft payable from a Nationalized Bank in favor of HSCC (India) Ltd. payable at Delhi/ Noida or document is down loaded from HSCC website <http://www.hsccltd.com>. & AIIMS Website <http://www.aiims.edu>. If the document is down loaded from HSCC website then the bid shall be accompanied by requisite value of Demand Draft /Pay order as described above. The last date of submission of bid is 27/01/14 up to 14.30 hrs. The bids shall be opened on the same day at 15.00 hrs.

Prospective bidders are requested to regularly scan through HSCC website to announcement / clarifications /addendum/ corrigendum if any will be notified on the company website and separate advertisement will not be made for it.

General Manager (Projects)  
HSCC (India) Ltd.

**HSCC (INDIA) LIMITED**  
**E-6A, BLOCK-E, SECTOR-1, NOIDA**

**CONTENTS**

<b>S.NO.</b>	<b>DESCRIPTION</b>	<b>Page No.</b>
1.	Tender Notice – details	2
2.	Instructions to Applicants	4
3.	Instructions for submission of Application	6
4.	Introduction	7
5.	Scope of Services	9
6.	Obligation of EIA Consultant	9
7.	Obligation of Client	10
8.	Requirement for Pre-qualification	10
9.	Submittals	11
10.	Time Schedule	11
11.	Bid Validity	12
12.	Consultancy Charges and Terms of payment	12
13.	Indemnification by EIA Consultant	13
14.	Settlement of Disputes	13
15.	Applicable Law	13
16.	Jurisdiction of courts	13
17.	Force Majeure	13
18.	Final output	14
19.	Terms of reference for EIA Study (Annexure-I)	15
20.	Annexure I to IV.	22-25

**HSCC (INDIA) LIMITED**  
**Plot No. 6(A), Block-E, Sector-1, Noida**  
Phone: - 0120 2542436-440; Fax: - 0120 2542447

**INSTRUCTIONS TO APPLICANTS**

1. Applications are invited for appointment as Consultant from individuals, firms and organizations, Universities and Public Sector Undertaking (PSUs) working in the area of Environmental Impact Assessment and accredited and registered with the NABET/QCI in Building and large construction Projects including shopping malls, multiplexes, commercial complexes, housing estates, hospitals, institutions etc to carry out EIA Study and getting clearance from all concerned authorities involved for the purpose and to meet the requirement of other local authorities to start the Building Construction Works by getting No Objection Certificate (NOC) related to Environment Aspects from Authorities like State pollution Control Board/ Centre Pollution Control Board as applicable.
2. The bids shall include formats as per Annexure I to IV duly filled up.
3. Applications containing false and /or incomplete information are liable to be rejected
4. Prospective bidders are advised to regularly scan through HSCC website as corrigendum/amendments etc. if any, will be notified on the company's website and separate advertisement will not be made for it.
5. A complete set of bid documents can be obtained from HSCC office on any working day from 17/01/2014 to 27/01/2014 up to 1.00 PM on submission of a request in writing with document fee of Rs. 1000/- in cash or in the form of Demand Draft payable from a Nationalized Bank in favour of HSCC (India) Ltd. payable at Delhi/ Noida or document is down loaded from HSCC website <http://www.hsccltd.com>. If the document is down loaded from HSCC website then the bid shall be accompanied by requisite value of Demand Draft /Pay order as described above.

The last date of submission of bid is 27.01.2014 up to 14.30hrs. The bids shall be opened on the same day at 15.00 hrs.

6. *Bid security Amount is of Rs.10,000/- (Rs. Ten Thousand only) in the form of Demand Draft / Pay Order issued from a Nationalized/ Scheduled*

Bank in favour of HSCC (India) Ltd. payable at Noida may be enclosed with the offer.

7. The EMD of all other agencies shall be refunded within one month of finalization of appointment of EIA consultant.

8. A contact person shall be assigned to respond to any query. Detail of contact person to be given as under.

i. Name of Contact Person : \_\_\_\_\_

ii. Designation : \_\_\_\_\_

iii. Address : \_\_\_\_\_

iv. Contact Tel. No. \_\_\_\_\_

v. Fax No. \_\_\_\_\_

vi. Email address \_\_\_\_\_

9. The EIA agencies shall quote their rates without any condition. The conditional offers are liable to be rejected.

10. The Lump sump Consultancy charges quoted shall remain firm throughout the validity of contract. The consultancy charges should include cost of material, labour, tools and equipments, transport charges, all taxes, royalties, octroi etc. payable on all transactions for the due performance of work under this contract.

11. Income tax shall be deducted from Agency's bill as per Government of India norms.

## **INSTRUCTION FOR SUBMISSION OF APPLICATIONS**

### **ENVELOPE-I**

Shall contain

- \* Proof of Purchase of document i.e. copy of receipt of Rs. 1000/- (Rupees one thousand only) or if down loaded from HSCC website a “Demand Draft” of Rs.1000/- only.
- \* Document duly signed and stamped.
- *Bid security Amount is of Rs.10000/- (Rs. Ten Thousand only)* in the form of Demand Draft/ Pay order.

### **ENVELOPE-II**

Shall contain

- \* All Annexures except Annexure-III (Price Bid) duly filled in, signed and stamped and credentials of agency/documentary proof in support wherever required.

### **ENVELOPE-III**

Shall contain

- \* Price bid as per format provided in Annexure-III.

These envelopes I to III should be sealed in IV<sup>th</sup> envelope and should be delivered by hand or by registered post/speed post/courier on or before the last date and time of submission to General Manager (Projects), HSCC (India) Ltd. E-6(A), Sector-I, Noida-201301, Uttar Pradesh.

The bids shall be valid for 180 days from the last date of submission.

**The last date of submission of applications is – 27/01/2014 up to 2.30 PM.**

## INTRODUCTION

**For the AIIMS (Second Campus) at Jhajjar, Haryana the Following Facility are as proposed :**

### **SUMMARY DESCRIPTION OF PROPOSED CENTRES:**

1	National Cancer Institute
2	National Cardiovascular Centre
3	General-purpose hospital
4	National Transplantation Centre
5	National Centre for Child Health
6	Digestive Diseases Centre
7	National Institute for Geriatrics
8	Comprehensive Rehabilitation Centre
9	Centre for Blood Disorders
10	Centre for Laboratory Medicine
11	National Centre for Nursing Education and Research
12.	Centre for Renal and Urological Disorders
13.	Centre for Diabetes
14.	School of Public Health
15.	National Centre for Allied Health Sciences
16.	National Centre for Health Professional Education
17.	Centre for ICT-Enabled Education
18.	Centre for Studies in Humanities for Health
19.	School of Public Health
20.	Centre for Health Policy
21.	Centre for Global Health

**The requirement of the National Cancer Institute (NCI), Jhajjar for Institutional and residential facilities is as follows:**

#### **INSTITUTIONAL ZONE CONCEPT**

The facilities proposed in the institutional zone are:

- A Hospital Block of 400 Beds.



- A Research Hospital of 200 Beds for clinical research.
- Clinical Research Block
- Animal House.
- Administration Basic Science Research Block
- OPD and Daycare Block
- An elevated Plaza
- Technical / Research / Outreach Block
- 100 capacity Research Associate Hostel
- Service Block for CSSD, Laundry, Kitchen and Store
- Block for Gas Manifold, Substation, AC Plant Rooms
- A two level Parking Basement for 1000 cars.
- The total area proposed for construction is 1,60,000 Sqm.

The Hospital consists of two distinct Ward Block of:

- 400 Beds and
- 200 Beds G+8 floor each.

## **RESIDENTIAL ZONE CONCEPT**

### 1. RESIDENTIAL

800 Residential Units are proposed. A broad segregation proposed is as follows:

Type – VI	180 Sqm	12 nos
Type – V	140 Sqm	30 nos.
Type – IV	120 Sqm	120 nos.
Type – III	100 Sqm	200 nos.
Type – II	85 Sqm	200 nos.
Type – I	70 Sqm	200 nos.

### 2. Hostels

Nurses	500 Nos
Sr. Resident	200 Nos

### 3 MISC.

These would be part of the main housing complex of AIIMS Jhajjar and would include the following

- BUDGET HOTEL AND HYPER MARKET
- DHARAMSHALA
- GUEST HOUSE
- RECREATION CENTRE

## 1. Scope of Services

### Environmental Consultant will provide the following services:

1. To conduct the Environmental Impact Assessment Study the proposed for the work of AIIMS (Second Campus) at Jhajjar, Haryana

#### Approximate - Area

Approximate area for construction site:

a) For Institutional Block	200 Acres.
b) For Residential Block	<u>100 Acres.</u>
<b>Total</b>	<b>300 Acres.</b>

(The area given above is tentative and change in area up to any extent will not have any impact on the quoted rate.)

2. Collection and Analysis of requisite site data,
3. Preparation and submission of reports and documents as required by concerned authorities.
4. Necessary follow up with concerned authorities,
5. Getting clearance from all concerned authorities involved for the purpose and to meet the requirement of other local authorities to start the Building Construction Works by getting No Objection Certificate (NOC) related to Environment Aspects from Authorities like State pollution Control Board/ Central Pollution Control Board.
6. The scope of work as envisaged for the EIA study is detailed in the terms of reference (TOR) for EIA study in Annexure-I.
7. The EIA Consultant will meet the requirements of Ministry of Environment and Forests (MOEF) within the existing scope of work.

## 2. OBLIGATIONS OF EIA CONSULTANT

EIA Consultant shall exercise all reasonable skills, care and diligence in the performance of the services under the agreement and within the agreed time schedule.

EIA Consultant shall carry out all its responsibilities in accordance with recognized professional standards and shall be responsible for the items as per scope of services in all aspects, EIA Consultant shall act as a faithful advisor to the Client in so far as any of duties, are concerned, act with fairness safeguarding legitimate interests of the Client.

### **3. OBLIGATIONS OF CLIENT**

*It is expected that the following facilities would be provided free of cost by the Client to EIA Consultant and its associate team for carrying out the required services.*

1. *All relevant records, project reports, maps, data and other technical material for study. In case maps and other technical material is required to be prepared that will be undertaken by EIA Consultant.*
2. *Necessary instruction letters and other assistance, if required shall be extended to EIA Consultant and its associates for additional data / information from other agencies /departments in connection with this work.*

### **4. INFORMATION REQUIRED FOR PREQUALIFICATION**

Bid submitted shall include the following information:

- (i). Copy of the accreditation /Registration from NABET / QCI (National Accreditation Board of Education & Training / Quality Council of India) and the Firm/Consultant/Agency must be accredited in Sector 38, covering Building & Construction Projects.
- (ii). Experience of having successfully completed similar EIA Study during last seven years ending last day of month previous to the one in which applications are invited, should be either of the following;
  - a) Three similar completed works of Environmental Impact Assessment study in India consisting not less than the amount equal to 40% of the estimated cost.
  - or
  - b) Two similar completed works of Environmental Impact Assessment study in India consisting not less than the amount equal to 50% of the estimated cost.
- (iii). Facilities for computer /Printer/Data Collecting Equipment/ Requisite Software available with the Consultant.

All tenderers should submit the proof of works executed as above .

***The estimated cost of the work of Environmental Impact Assessment Study is Rs. 7.00 (Seven) Lakhs only.***

## **5. SUBMITTALS**

- i. Plan of Approach & Methodology including scoping matrix for conducting EIA Study
- ii. List of manpower proposed to be deployed with bio-data of Key members.
- iii. Photocopy of Service Tax & PAN No. (As & When Applicable).
- iv. In case of individual/ Partnership firm, income Tax Return for the last three years. In case of company, copy of Balance Sheet for last three years with CA Certification & his membership No.

## **6. TIME SCHEDULE**

The following time schedule has been envisaged to carry out the EIA:

**Stage-1.** Draft submission of form 1, 1A (as applicable) to be completed within one month from the date of issue of order to take up the study.

**Stage-2.** All Survey Work (field work) to be completed within three months from the date of issue of order to take up the study.

**Stage-3.** Draft EIA Report & Presentation shall be furnished within three & half month from the date of order to take up the study.

**Stage-4.** Final EIA Report shall be submitted within 15 days of receipts of comments on the Draft EIA Report.

EIA Consultant will obtain Environmental clearance from State Pollution Control Board and Ministry of Environment & Forests within four months from the date of order to take up the study.

If EIA Consultant fails to complete all items of work(s) in respect of any of the sub-group and /or work as a whole as the case may be and specified in scope of work before the expiry of the period (s) of completion as stipulated in the aforesaid schedule, or any extended period (not due to the fault of EIA consultant) as may be allowed, he shall without prejudice to any other right or remedy of the Client on account of such default, pay as compensation not by way of penalty on incomplete work value of contract, 1% per fifteen days or part thereof. Provided that the total amount of compensation for delay to be paid under this condition shall not exceed 5% of contract value. The amount of compensation may be

adjusted/ set off against any sum payable to the EIA Consultant under this contract.

EIA Consultant shall exercise all reasonable skills, care and diligence in the performance of the services under the agreement and within the agreed time schedule. EIA Consultant shall carry out all its responsibilities in accordance with recognized professional standards and shall be responsible for the items as per scope of services in all aspects, EIA Consultant shall act as a faithful advisor to the Client in so far as any of duties, are concerned, act with fairness safeguarding legitimate interests of the Client.

## 7. **BID VALIDITY**

The bids shall remain valid and open for acceptance for a period of 180 days from the last date of submission of bids.

## 8. **CONSULTANCY CHARGES AND TERMS OF PAYMENT**

The EIA Consultant shall quote their consultancy charges for carrying out the EIA study as per Annexure-III. The consultancy charges shall include service tax at the applicable rates as per Government of India norms and all other levies, taxes, duties etc.

The Consultancy charges shall be payable to EIA Consultant for entire services listed under scope of services.

The **terms of payment** shall be as follows:

<b>S.N.</b>	<b>Milestones</b>	<b>%age of Consultancy charges</b>
1.	On completion of stage-1.	10
2.	On completion of stage-2.	10
3.	On completion of stage-3.	10
4.	On completion of stage-4.	10
5.	On obtaining final approval letter from Ministry of Environment & Forests, Govt. of India/state pollution control board/ competent approval authority.	60
	<b>Total</b>	<b>100</b>

## **9. INDEMINIFICATION BY EIA CONSULTANT**

EIA Consultant shall indemnify the Client against all actions, suits claims, demands brought or made against in respect of any thing done or committed the consultants and its staff in discharging its obligations and responsibilities under this contract.

## **10. SETTLEMENT OF DISPUTES**

All disputes that may arise between the parties in connection with this contract shall be attempted to be resolved amicably and through mutual considerations. That in event of the dispute /differences are not resolved amicably, all such disputes shall be referred to a sole Arbitrator to be appointed by Chairman cum Managing Director, HSCC (I) Ltd. The arbitration proceedings shall be governed by the provisions of The Arbitration and Conciliation Act 1996. The seat of arbitration shall be New Delhi. The award passed by Arbitrator shall be final and binding between the parties. The language of Arbitration shall be English.

## **11. APPLICABLE LAW**

This contract its meaning, interpretation and the relationship between the parties shall be governed by laws of India

## **12. JURISDICTION OF COURTS**

This contract is deemed to be concluded at Delhi and only court in this place shall have jurisdiction to entertain the dispute between the parties arising out of or in relation to this contract.

## **13. FORCE MAJEURE**

For the purpose of and within scope of the contract by way of indication and not of limitation, the term "Force majeure" as employed herein shall mean acts of God, lockout or other industrial disturbances, acts of public enemy war, blockades, insurrection, riot, epidemics, landslides, earthquakes, storm, lightning, floods, wash - outs, civil disturbances, explosions and any other similar events not within the control of either party and which by exercise of due care and diligence neither party is able to prevent or overcome.

Either party affected by 'force majeure' should without delay inform in writing the other party of the beginning and cessation of the said circumstances. HSCC may grant an extension of completion time for the services in the event of occurrence of force majeure – condition and reasons beyond the control of EIA Consultant.

**In the event of the occurrence of force majeure- condition, both parties have the right to terminate the contract.**

#### **14. FINAL OUTPUT**

Draft EIA Report Three Copies

Site Collection Data Three Copies

(The EIA Consultant shall submit a monthly report to HSCC)

Draft EIA Report Three Copies

Photograph of site during data Three Copies

(Adequate no. of photographs shall be taken during data collection to establish reliability of Data)

Final EIA Report Three Copies

The Consultant shall attend the meetings in HSCC/CLIENT OFFICE /approval authority/ CPCB offices/ State pollution control board office.

The EIA consultant will submit site collection data program/approval authority/ State pollution control board schedule in advance in HSCC.

Any Additional Study recommended by DPCC /MOEF to obtain NOC from them shall be considered within the scope of services to be provided by the EIA Consultant and no extra payment shall be made.

- 15.** EIA consultant is required to engage/deploy expert consultant of area/ field required. In case such experts are not engaged/the same shall be engaged by HSCC at the cost of EIA Consultant.

## **Annexure-I**

### **TERMS OF REFERENCE FOR EIA STUDY**

The proposed Terms of Reference (TOR) for EIA study are as follows:

#### **1. Introduction**

The present study shall cover the impacts on water quality, noise, air quality, flora, fauna, waste disposal etc. The study will cover collection of baseline data, prediction of impacts due to various activities and formulation of Environmental Management Plan (EMP) for amelioration of adverse impacts.

#### **2. Study Area**

The study area for the EIA shall be the area within 10 Km (Min.) radius of the proposed project site at the centre.

#### **3. Data Collection**

The description of environmental setting or baseline environmental status is an integral part of an EIA study. As a part of the study the data on various aspects shall be collected which are required to obtain EIA Clearance from Ministry of Environment & Forests.

The various parameters for which data shall be collected are classified as below:-

- Ecological aspects
- Physico-chemical parameters
- Socio-economic aspects
- Any other data required for EIA as per guidelines of Ministry of Environment & Forests.
- Traffic study of Surrounding area and impact on environment and getting the information of upcoming transport plan which includes metro etc.
- Expert input on landscape/horticulture scheme.



- Experts from all areas like Traffic/ Landscape/ Environmental etc. shall be made available for attending various EIA meetings.
- Study/ monitoring of air, noise and water quality in line using Study/ Report Conducted by pollution Control Board Authority.

### **3.1 Ecological Aspects**

#### **Forests**

An assessment of the study area shall be made and information on the following aspects will be collected:

- Major vegetative patterns
- Forest cover in the area
- Inventory of flora and fauna found in the areas.
- Presence of rare/endangered/threatened species, if any.
- Presence of economically important plant species.

#### **Wildlife**

The information on fauna of the area to be collected from various secondary sources for the following aspects.

- Inventory of major wildlife species including avi-fauna.
- List of rare and endangered species reported in the study area, if any.

#### **Fisheries**

The data on following aspects be collected from various secondary sources.

- Types of fishes, endemic/exotic, annual yield, etc.
- Pisci-culture as being practiced in area.

### **3.2 Physico-chemical parameters**

#### **Meteorology**

The data on meteorological aspects is proposed to be obtained for the nearest meteorological station of the India Meteorological Department (IMD), located within or near the study area.

The data for the following aspects shall be collected.

### **Rainfall**

- Average (monthly, annual)
- Maximum (monthly, annual)
- Minimum (monthly, annual)

### **Temperature**

- Average (monthly)
- Maximum and minimum (monthly)

### **Humidity**

- Averages(monthly)
- Maximum and minimum (monthly)

### **Ground Water**

The data on water table (bgl), ground water quality, ground water abstraction, etc. for the project area will be collected from the concerned offices of Central Ground Water Board and State Ground Water Board. The findings of the geotechnical survey being conducted at the site as a part of DPR shall also be appropriately utilized.

### **Ambient Air Quality**

As part of EIA study, Ambient Air Quality Monitoring will be carried out at four locations in the study area and the monitoring shall be done for twice a week for 12 consecutive weeks for once during the field studies. The parameters to be monitored are PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub> and NO<sub>2</sub>.

### **Water Quality**

A detailed water quality monitoring programme shall be done once during the field studies and surface water and ground water samples will be collected from various locations in the study area including project area, if available Standard

methods of sampling and testing of physical and chemical parameters (IS:1620:1961 and IS:3025:1964) shall be used. The monitoring shall be done for one season only.

The parameters to be analyzed shall be:

- Hardness
- DO
- pH
- Electrical Conductivity
- Total Dissolved Solids
- Chlorides
- Sulphates
- Fluorides
- Calcium
- Magnesium
- Sodium
- Potassium
- Chromium
- Lead
- Cadmium
- Total Coliform

### **Soil**

Soil quality at various locations within the study area of AIIMS, Masjid Moth will be monitored by collecting and analysis of soil samples. In addition, findings of the soil survey being conducted as a part of the Geotechnical investigations for the project site shall also be appropriately utilized.

### **Noise**

Hourly noise level readings shall be taken at 10 locations in the project area including study area using Noise Meter. Based on the hourly reading equivalent noise levels shall be estimated.

## **Land Use Pattern**

Land use pattern for the study area shall be derived through remotely sensed data. It is proposed to procure IRS-IC/ID LISS-III satellite data for assessing the land use pattern. Ground truth studies will be conducted for verification of various signals, based on which supervised classification shall be done to develop the land use pattern of the study area.

### **3.3 Socio-economic aspects**

The analysis of demographic profile, literacy rate, percentage of classified workers, residential houses, villages, towns etc. in the study area would be carried out with help of available secondary data.

In addition to above, the following information shall also be collected from secondary sources.

- Major industries within the study area
- Presence of sensitive places/ archaeological and historical monuments tourist sites etc. within the study area.
- Public health data related to various water borne and vector-borne diseases in the project as well as study area.

## **4. PREDICTION OF IMPACTS**

As a part of study, the impacts on various facets of environment will be assessed through mathematical modeling, visual interpretation, overlay techniques etc.

The following impacts are proposed to be covered as a part of the EIA study:

- Impacts due to project construction
- Impacts during project operation phase.

**The impacts covered during project construction phase are listed as below:**

- Water pollution due to disposal of untreated sewage from the labour camps
- Impacts due to setting of labour camps, work shop, storage of construction material
- Increased soil erosion from construction sites

- Impacts on ambient air quality due to various construction activities
- Increased noise levels

**The impacts likely to accure during project operation phase are listed as below:**

- Impacts due to generation and disposal of bio-medical waste categorized as below :

- » Category – 1 : Human Anatomical Waste
- » Category – 2 : Animal Waste
- » Category – 3 : Microbiology & Biotechnology Waste
- » Category – 4 : Waste Sharps
- » Category – 5 : Discarded Medicines and Cytotoxic drugs
- » Category – 6 : Soiled Wastes
- » Category – 7 : Solid Wastes
- » Category – 8 : Liquid Wastes
- » Category – 9 : Incineration Ash
- » Category – 10 : Chemical Waste

- Impacts on ambient air quality due to incineration, autoclaving etc.
- Impacts on ambient noise and air quality due to increased vehicular movement in project operation phase.
- Impact on vegetation, flora and fauna
- Impacts on aquatic ecology
- Impact on public health
- Impacts due to water abstraction for the project
- Impacts on socio-economic aspects.
- Impacts due to acquisition of land belonging to various ownership categories
- Increased employment potential during project operation phase

## **5. ENVIRONMENTAL MANAGEMENT PLAN**

The Environmental Management Plan (EMP) shall include recommendations as a result of impact assessment phase so as to ameliorate the anticipated adverse impacts on various facets of environment. The estimation of cost for implementation of various measures including the identification of implementing agency shall be done as a part of the EIA study. Some of the aspects for which management measures shall be suggested are given as below:

- Reclamation of areas disturbed during construction
- Measures to treat and dispose various categories of hospital waste generated during operation phase as per the norms outlined in Bio-Medical Waste (Management and Handling Rules 1998)
- Measures to control air pollution due to proposed activities/operation, especially due to incineration during project operation phases.
- Greenbelt development and identification of floral species which can be planted in and around the project.
- Measures to control noise pollution and mitigate adverse impact on workers and habitat during project construction and operation phase.
- Estimation of cost required of implementation of control measures.

NOTE :- Any study, analysis, data collection, presentation, documentation etc. required to obtain clearance from State Pollution Control Board / Ministry of Environment & Forests, Government of India will be part of TOR without any extra cost. However, no deduction shall be made for any study/ action which is not required to obtain the EIA clearance but stated above.

**UNDERTAKING**

I/ We have read and understood the instructions and the terms and conditions contained in the appointment of EIA consultant document. I/We do hereby declare that the information furnished in application and in the supplementary formats at Annexure II-IV is correct to the best of my /our knowledge and belief.

Signature of Applicant

Name (Block letter)

Complete Postal Address:  
& Contact No.

Place:

Date:

Seal of Office

I/We have read the various items and conditions and the same are acceptable to me/us.

Signature of Applicant

Name (Block letter)

Complete Postal Address:  
& Contact No.

Place:

Date:

Seal of Office

**HARDWARE AND SOFT WARE CAPABILITIES**

<b>S.No.</b>	<b>Particulars of Hardware device and authorized Software detail</b>	<b>Quantity</b>	<b>Remarks</b>

Authorized Signatory of Agency with Seal



### Annexure-III

#### PRICE BID

#### CONSULTANT FEE FOR EIA STUDY

The Consultancy charges shall be payable to EIA Consultant for entire services listed under scope of services.

S.No.	Scope of Services
1.	Collection and Analysis of requisite site data,
2.	Preparation and submission of reports and documents required to concerned authorities,
3.	Preparation of Presentation and attend various EIA meetings,
4.	Necessary follow up with concerned authorities,
5.	Getting clearance from all concerned authorities involved for the purpose and to meet the requirement of other local authorities to start the Building Construction Works by getting No Objection Certificate related to Environment Aspects from Authorities like Municipal Corporation, State pollution Control Board, UAC etc.
6.	The scope of work as envisaged for the EIA study is detailed in the terms of reference (TOR) for EIA study in Annexure-I.
7.	The EIA Consultant will meet the requirements of Ministry of Environment and Forests (MOEF) within the existing scope of work.
8.	Attending meetings in HSCC Office/ Client Office/ EIA approving Authority Office.
<b>Total Consultancy charges include services tax at the application rates as per govt. of India norms and all other levies, taxes, duties etc. (In figures) (in Rs.)</b>	
<b>Total Consultancy charges include services tax at the application rates as per govt. of India norms and all other levies, taxes, duties etc. ( In Words) (in Rs.)</b>	

Authorized Signatory of Agency with Seal

**FORMAT FOR SUBMISSION OF EXPERIENCE**

<b>SN</b>	<b>Project Name</b>	<b>Name of Client</b>	<b>Type of work</b>	<b>Detail of other works involvement if any</b>	<b>Project duration of EIA work</b>

Authorized Signatory of Agency with Seal