



Dhangadhi Sub Metropolitan City

Office of the Municipal Executive

Dhangadhi, Kailali

Sudur Paschim Province, Nepal

Terms of Reference of

Initial Environment Examination (IEE) of Dhangadhi Main Road (Kailali Bridge to Campus Chowk Zero Point of Postal Road Section 2.3 KM)

1. Background

This document containing brief description the Terms of References (TOR) has been developed specifically for hiring services of an independent and professionally competent environmental consultancy firm for carrying out Initial Environment Examination (IEE) of the road in Dhangadhi Sub-Metropolitan City (DSMC) under Transport Infrastructure Directorate (TID) Ministry of Physical Infrastructure, Sudurpashchim.

An IEE of the proposal is necessary in order to assess the environmental consequences of the proposed construction of road and suggest appropriate, practical and site-specific mitigation and enhancement measures. The DSMC now wishes to undertake the IEE by hiring consulting firm to conduct the IEE study of the proposed road.

The IEE is also a legal requirement before the implementation as per the provision of schedule 2-D-1 related to Rule 3 of the Environment Protection Rule, 2077 (EPR, 2077). Thus, the IEE study of the proposal is mandatory as per the provision.

2. Proposal Area delineation

The consultant shall be responsible for collecting necessary data by conducting necessary assessment of this proposed 2.3 kilo-meter road.

3. Consultancy's Objectives

DSMC is now required to prepare Initial Environmental Examination (IEE) report before implementation of proposed project. To facilitate Proponent, the Consultant shall prepare Terms of Reference (TOR) in the format as indicated in EPR, 2077. Then they may approve the TOR as submitted or in the revised form. The Consultant is required to conduct IEE study based on approved Terms of Reference. The IEE report, thus prepared, is also required to be approved from the same authority. The report must contain the approved guidelines for the use of heavy equipment, forest issues for the construction purpose.

4. Scope of Work

To prepare TOR and report, which shall incorporate all the priority issues of work by categorizing them into physical, biological, socio-economic, and cultural aspects of both Beneficial and Adverse types, for both road construction and implementation stages, as per EPA 2076 and EPR 2077 with amendments.

To provide advice, free of cost, on any environmental issue that may arise during implementation stage of the scheme. To analyze impact identification, impact prediction and determination of significant impacts along with Environmental Management Plan. The TOR also incorporates land acquisition and land ownership along the right of way.

5. Terms of Reference

The TOR provides guidance to the consultant to prepare the IEE report. The TOR is meant for listing activities to be performed during the preparation of the IEE report with specific guidance including:

- Identification and description of the issues to be investigated;
- Systematizations of the working procedures;
- Delineation of the working procedure;

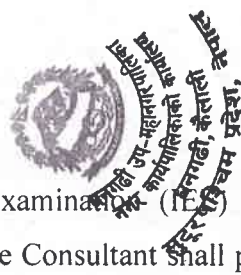
Delineation of the specific activities to be undertaken;

Fitting the IEE study within the context of existing policies, laws and administrative producers;

Setting out a time frame with the required experts for carrying out the IEE study together with the estimated budget required;

- Accomplishment of the works within the specified time;
- Special emphasis to the most significant aspects of the study

Approved





The TOR should follow SMART (specific, measurable, achievable, result oriented and the time frame) rule to the extent possible and with due consideration on the legal provisions and the Schedule-7 of the EPR 2077.

6. Data Collection

The TOR should clearly spell out the methods and techniques, which shall be employed during data collection. For example, the TOR should indicate the data sources and data collection methods, particularly the primary and the secondary data. It could also include methods, which shall be used while collecting the information. The TOR may include the following methods as appropriate, and such methods may vary from project to project:

Physical parameters – Walkover survey, inventory, literature review, map study,

Biological parameters- Identification of species including protected species along the extraction site, sampling and estimation of influence area.

Social-economic parameters, Semi-structured interview with key information of local people.

Cultural and Religious parameters – Interview, walkover survey.

7. Environmental Impacts

The TOR should clearly indicate the types of environmental issues that should be mentioned in the IEE report. The IEE report should evaluate the impacts of the road project on the environment as follows:

- Impact identification
- Impact prediction
- Determination of significant impacts

Effort should be made to include appropriate tools such as checklist, matrices, network, overlay methods, and other enhanced tools for data analysis and prediction of the impacts. The TOR should also include the types of methods that should be used to evaluate the significance of the impacts. This section should clearly indicate the requirements of impact identification, prediction and evaluation on the following aspects or as applicable to the project:

Physical Issues/Chemical Issues

- Soil erosion and slope stability issues
- Issues on saving forest
- Noise level
- Water quality

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- Issues on infrastructure
- Access Road
- Stock piling of materials
- Hazardous due to spoil disposal (cut and fill of earth)
- Water flow Disruption
- Chemical issues (bitumen, Lubricants, oil, Grease, acids etc)

Biological Issues

- Possible impacts on flora and fauna (biodiversity)

Socio-economic Issues

- Change in the land use
- Loss of agricultural land/production
- Population displacement
- Loss of property/assets
- Health, sanitation and safety of workers
- Issues of vulnerable indigenous
- Issues related on gender specific

Cultural and Religious Issues

- Impacts on other cultural, Religious and historical site

8. Mitigation measures

As mentioned above, the IEE study identifies, predicts and evaluates the impacts of the road project on the environment. The TOR should indicate to document the environmental protection measures, both benefit augmentation measures and adverse impact mitigation measures in the IEE report. The TOR should indicate that the mitigation measures should be presented with due consideration on:

- Preventive measures
- Compensatory measures
- Corrective/rehabilitative measures

The TOR should also reflect to encourage the proponent to include benefit augmentation measures and mitigation measures for both constructional and operational/maintenance stages. Each impact should be evaluated in terms of its significance. Environmental mitigation measures (for both

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beneficial and adverse impacts) should be proposed for significant impacts. Environmental protection measures should be included as a part of the Environmental Management plan (EMP) and may be presented in the matrix form.

9. Initial Environmental Examination Study

The Consultant shall conduct Initial Environmental Examination Study as per Terms of Reference approved by Ministry of Physical Infrastructure Development, Sudurpashchim Province. After conducting Initial Environmental Examination Study and preparation of draft IEE report in the format prescribed in the Schedule 11 of EPR, 2077, the Consultant should do presentations at office of Transport Infrastructure Directorate or Ministry of Physical Infrastructure Development, Sudurpashchim Province. The comment received and issues raised in the presentations shall be included and addressed in the final IEE report. Proof of the public consultation conducted at the project sites and recommendation letters of the concerned local levels and IDO should be Included in the final IEE report.

10. Changes to Work

The consultant shall make such changes and revisions in the completed work as necessary to correct errors appearing there in, when required to do so by the proponent without additional compensation thereof. Should the proponent finds it described for its own purposes to have previously satisfactorily completed work or parts thereof changed or revised, the consultant shall make such revisions as directed by the proponent.

11. Consultant's Core Team of Professionals

The core team experience is as per schedule 13 of EPR 2077 and consultant comprise the following professionals;

(A) Team leader/Environmental Expert

The Team leader will take the overall responsibility of the assignment in accordance with the TOR and also for the conduction and coordination of all professional inputs. He/ She will prepare a site specific Environmental Management Action Plan for each site. The Team leader should have minimum a M.Sc. Environmental Science with the knowledge of conducting IEE/EIA and as per schedule 13 of 2077; Environmental Audit and Compliance Monitoring; preparation of EMP; and environmental risk and hazard management planning, with minimum 5 years of experience in road construction project.

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(B) Geologist/Geotechnical Engineer

Geologist/Geotechnical Engineer will have the overall responsibility for geological assessment of the alignment and the slope stability analysis. The geologist should have a master's degree in Geology and experience as per schedule 13 of EPR 2077.

(C) Hydrologist

The responsibility of the hydrologist will be to assess and evaluate interactions of the project activities and to suggest mitigation measures for its protection. The Hydrologist should have minimum a Master Degree in Hydrology or Civil Engineering with specialization and experience as per Schedule 13 of EPR 2077.

(D) Socio-Economist

The sociologist will collect the social and economic data of the project area in order to identify the socio-economic baseline information. On the basic of these data, he/she will be responsible for preparation of issues, identify and predict the respective impacts, propose appropriate mitigation measures, and monitoring mechanism etc. The Sociologist should a Master's degree in the field. He/she should have minimum 3 years of general experience in the field and experience as per schedule 13 of EPR 2077.

(E) Highway/ Transportation Engineer

The Highway/ Transportation Engineer will collect the technical data of the project area in order to identify the right of way, possible sinking zone, landslide area. On the basic of these data, he/she will be responsible for preparation of issues, identify and predict the respective impacts, propose appropriate mitigation measures, and monitoring mechanism etc. The Highway Engineer should have Master's degree in Transportation Engineering. He/she should have minimum 5 years and experience as per schedule 13 of EPR 2077.

F) Support Staff

Support staffs (physio-chemical, socio-economic, biological, Account, Surveyor and other support staff) having at least intermediate degree in any discipline is required.

G) Time

Consultant shall commence the work from date of signing agreement and prescribed work plan for completion of TOR and IEE as well as approval of the documents. The final IEE reports must be submitted to Transport Infrastructure Directorate, Sudurpashchim Province within 1 (One) months after signing the contract.

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12. Report Format and Presentation

The report Format should strictly follow the Schedule 11 of EPR 2077. Consultant should submit at least 3 copies of the draft Report to the office after review, should submit 4 copies of Final IEE reports. The Consultant should submit draft report to Technical Committee of Transport Infrastructure Directorate, Sudurpashchim Province through DSMC and present in TID before submission of final report.

The IEE report shall be prepared as per this ToR. The IEE report, whenever applicable, shall contain maps, graphs, Photographs, Table and Matrix. The format of report will be accordance with Schedule 11 of EPR as mentioned earlier. The IEE report should include the following:

13. Documents required from the Consultant

The Consultant firm should submit the following documents at the time of bidding:

- Proof of the Firm's registration.
- Proof of the Firm's VAT registration.
- Firm's Memorandum copy and Profile.
- Tax clearance letter of fiscal year 2078/79.
- CV of Team Leader and other experts with signature.
- Other documents if any.

14. Payment

Following shall govern the payment for the assignment.

25% will be paid after approval of ToR

75% will be paid after approval of final report

15. Conclusion and Recommendations

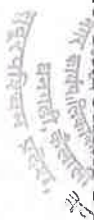
This section should clearly indicate whether IEE report is sufficient or further assessment is needed. Likewise, it should also recommend that what aspects should be covered if further environmental assessment is needed.

16. Miscellaneous

Reference materials should be mentioned if used during IEE report preparation in standard format.



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Bill Of Quantity

Name of Job:- Initial Environment Examination of Dhangadhi Main Road (Kailali Bridge to Campus Chowk Zero Point of Postal Road Section 2.3KM)

Location of Project :- Dhangadhi, Kailali

S.N.	Particulars	Road Length (km)	Rate in Figure	Rate in Words	Total Amount	Remarks
1	Initial Environment Examination of Dhangadhi Main Road (Kailali Bridge to Campus Chowk Zero Point of Postal Road Section 2.3KM)	2.3	0		0	
	Sub total amount		0		0	
	VAT @ 13%		0		0	
	Grand Total Amount		0		0	

In Words :-

Authorised Signature :-

Name :-

Designation :-

Firm's Name :-

Office Seal :-

Date :-