



प्रदेश सरकार
भौतिक पूर्वाधार, शहरी विकास तथा यातायात व्यवस्था मन्त्रालय
गण्डकी प्रदेश, पोखरा
गण्डकी प्रदेश
पोखरा, नेपाल

मिति: २०७९/०५/२७

प.स: ०७९/०८०

च.न: २६८

विषय: सडक तथा सडकपुलको संक्षिप्त वातावरणीय अध्ययन (BES) को परामर्शसेवा खरिदको नर्मस स्वीकृती सम्बन्धमा।

श्री पूर्वाधार विकास निर्देशनालय,
गण्डकी प्रदेश, पोखरा।

श्री पूर्वाधार विकास कार्यालय,
सबै, गण्डकी प्रदेश।

प्रस्तुत विषयमा गण्डकी प्रदेश वातावरण संरक्षण ऐन, २०७६ को अधिनमा रहि स्वच्छ र स्वस्थ वातावरणमा बाँच्न पाउने प्रत्येक नागरिकको मौलिक अधिकारको संरक्षण गर्न, वातावरणीय प्रदूषण वा हासबाट हुने क्षतिबापत पीडितलाई प्रदूषकबाट क्षतिपूर्ति उपलब्ध गराउन, वातावरण र विकासबीच समुचित सन्तुलन कायम गर्न, प्रकृति, वातावरण र जैविक विविधतामा पर्ने प्रतिकूल वातावरणीय प्रभाव न्यूनिकरण गर्न तथा जलवायु परिवर्तनको चुनौतीलाई सामना गर्नको लागि वातावरण संरक्षण नियमावली, २०७७ को अनुसूची १ मा उल्लेख भएका आयोजनाहरूको कार्यान्वयन पूर्व संक्षिप्त वातावरणीय अध्ययन गर्नु पर्ने व्यवस्था रहे बमोजिम यस मन्त्रालयको मिति २०७९/०५/२७ को निर्णयानुसार (सचिव स्तरिय) सडक तथा सडकपुलको संक्षिप्त वातावरणीय अध्ययन कार्यको परामर्श सेवा खरिदको नर्मस स्वीकृत गरिएको व्यहोरा निर्देशानुसार अनुरोध छ।

राम कुमार श्रेष्ठ
सि.डि.ई

सि.डि.ई.



Provincial Government
Ministry of Physical Infrastructure, Urban Development and Transport Management
Gandaki Province
Pokhara, Nepal




Norms for Rate Analysis of Brief Environmental Study (BES) of Roads and Bridges





Bhadra, 2079


आज मिति २०७९/०५/२७ गते सोमबारको दिन भौतिक पूर्वाधार, शहरी विकास तथा यातायात व्यवस्था मन्त्रालय, गण्डकी प्रदेश, पोखराका श्रीमान् सचिव श्री गणेशराज वस्ती ज्यूको अध्यक्षतामा संक्षिप्त वातावरणीय अध्ययनको नर्मस् तयारी सम्बन्धमा निम्न व्यक्तिहरुको उपस्थितिमा देहाय बमोजिमको निर्णय गरियो।

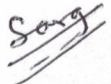
उपस्थिति:

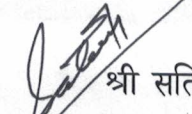
 श्री गणेशराज वस्ती सचिव, भौतिक पूर्वाधार, शहरी विकास तथा यातायात व्यवस्था मन्त्रालय, गण्डकी प्रदेश, पोखरा

 श्री राम कुमार श्रेष्ठ महाशाखा प्रमुख, भौतिक पूर्वाधार, शहरी विकास तथा यातायात व्यवस्था मन्त्रालय, गण्डकी प्रदेश, पोखरा

 श्री राम पराजुली नि.निर्देशक, पूर्वाधार विकास निर्देशनालय, गण्डकी प्रदेश, पोखरा

 श्री चन्द्रकला गौहे इन्जिनियर, भौतिक पूर्वाधार, शहरी विकास तथा यातायात व्यवस्था मन्त्रालय, गण्डकी प्रदेश, पोखरा

 श्री सरोज बराल इन्जिनियर, भौतिक पूर्वाधार, शहरी विकास तथा यातायात व्यवस्था मन्त्रालय, गण्डकी प्रदेश, पोखरा

 श्री सतिश सुवेदी इन्जिनियर, पूर्वाधार विकास निर्देशनालय, गण्डकी प्रदेश, पोखरा

निर्णय:

निर्णय नं. १

गण्डकी प्रदेश वातावरण संरक्षण ऐन, २०७६ को अधिनमा रहि स्वच्छ र स्वस्थ वातावरणमा बाँच्न पाउने प्रत्येक नागरिकको मौलिक अधिकारको संरक्षण गर्न, वातावरणीय प्रदूषण वा हासबाट हुने क्षतिबाट पीडितलाई प्रदूषकबाट क्षतिपूर्ति उपलब्ध गराउन, वातावरण र विकासबीच समुचित सन्तुलन कायम गर्न, प्रकृति, वातावरण र जैविक विविधतामा पर्ने प्रतिकूल वातावरणीय प्रभाव न्यूनीकरण गर्न तथा जलवायु परिवर्तनको चुनौतीलाई सामना गर्नको लागि वातावरण संरक्षण नियमावली, २०७७ को अनुसूची १ मा उल्लेख भएका आयोजनाहरुको कार्यान्वयन पूर्व संक्षिप्त वातावरणीय अध्ययन गर्नु पर्ने व्यवस्था रहे बमोजिम सोहि प्रकृतिको अन्य अध्ययन कार्यहरुलाई समेत आधार लिई तपशिल बमोजिमको संक्षिप्त वातावरणीय अध्ययन कार्यको परामर्श सेवा खरिद नर्मस् स्वीकृत गर्ने निर्णय गरियो।










प्रदेश सचिव


Sang





Brief Environmental Study (BES) of Bridge

Unit = Nos (for 1 (one) bridge)

1 Manpower

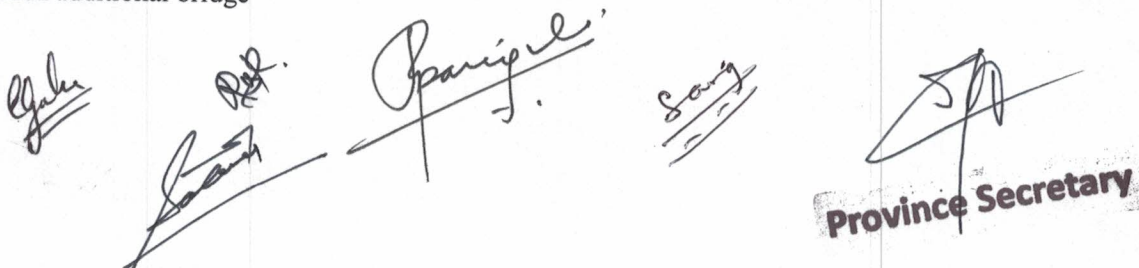
	Professional/Supporting Staff	Unit	Desk Study	Travel*	Field Work	Report Preparation	Total
A	Key Staff						
1	Team Leader (Environmental/Forestry Specialist/Ecologist)	md	1	1	2	4	8
2	Highway/Transportation Engineer/Bridge Engineer	md	1	1	2	2	6
3	Geologist/Eng.Geologist/Geo-Technical Engineer	md	1	1	2	2	6
4	Hydrologist	md	1	1	2	2	6
5	Socio-Economist	md	1	1	2	2	6
6	Legal Expert	md				2	2
B	Support Staff						
1	Technical Assistance (Physio-Chemical)	md		1	2	2	5
2	Technical Assistance (Biological)	md		1	2	2	5
3	Technical Assistance (Socio-Economic)	md		1	2	2	5
4	Account Admin Staff	md	1			2	3
5	Computer Operator	md	1			2	3
6	Surveyor	md			2	2	4
7	Support Staff/Helper	md	1	1	2	4	8

*Adjust Travel time in above table as per location of work site as: 1 day for Pokhara Valley, 2 day with in remaining area of Gandaki Province

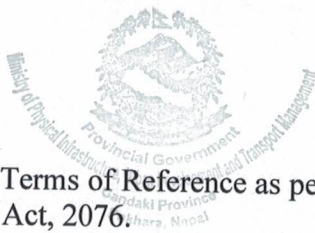
- | | | | |
|---|--|----|----------------------------------|
| 2 | Transportation of personals | LS | 10% cost of manpower required |
| 3 | Tools and equipments for data collection | LS | 5% of cost of manpower required |
| 4 | Stationary and logistic support | LS | 5% of cost of manpower required |
| 5 | Publication of notice, Public hearing etc. | LS | 10% of cost of manpower required |

Note:

- Man days for one bridge used same mandays
For more than one bridge in a package: Calculate cost of a bridge and add additional cost after
- applying bridge factors as 60% of cost within 10 Km distance and 70% of cost for outside of 10 Km distance for each additional bridge



Province Secretary



Scope of Work Include:

1. Preparation of Site/Project specific Terms of Reference as per EPA 2076, EPR 2077 and Gandaki Province Environmental Protection Act, 2076.
2. Carryout topographical map study, alignment assessment, geological assessment, necessary laboratory testing to prepare ToR and BES 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 construction, operational and maintenance stages, as per EPA 2076, EPR 2077 and Gandaki Province Environment Protection Act, 2076.
3. Data collection and examination related to:
 - Physical Parameters - walkthrough survey, inventory, literature review (including feasibility study and previous works), map study, national and provincial level databases.
 - Biological Parameters - identification of species including protected species along the alignment, sampling and estimation on influence area.
 - Socio-economic parameters - Semi-structured interview with key informants, asset survey (Project Affected Families), questionnaire, map interpretation and walkthrough survey.
 - Cultural and Religious parameters - interview, walkthrough survey.
4. Impact identification, Impact prediction, Determination of significant impacts.
5. Preparation of Environmental Management Action Plan.
6. Information on the land ownership within the Right of Way.
7. Preparation of Brief Environmental Study (BES) report as per approved Terms of Reference (ToR).

Province Secretary

Brief Environmental Study (BES) of Road

Unit = Km (for upto 10 Km of Road)

1 Manpower

	Professional/Supporting Staff	Unit	Desk Study	Travel*	Field Work	Report Preparation	Total
A	Key Staff						
1	Team Leader (Environmental/Forestry Specialist/Ecologist)	md	2	1	2	5	10
2	Highway/Transportation Engineer/Bridge Engineer	md	1	1	2	2	6
3	Geologist/Eng.Geologist/Geo-Technical Engineer	md	1	1	2	2	6
4	Hydrologist	md	1	1	2	2	6
5	Socio-Economist	md	1	1	2	2	6
6	Legal Expert	md				2	2
B	Support Staff						
1	Technical Assistance (Physio-Chemical)	md		1	2	2	5
2	Technical Assistance (Biological)	md		1	2	2	5
3	Technical Assistance (Socio-Economic)	md		1	2	2	5
4	Account Admin Staff	md	1			2	3
5	Computer Operator	md	1			2	3
6	Surveyor	md			2	2	4
7	Support Staff/Helper	md	2	1	2	5	10

*Adjust Travel time in above table as per location of work site as: 1 day for Pokhara Valley, 2 day with in remaining area of Gandaki Province

- | | | | |
|---|--|----|----------------------------------|
| 2 | Transportation of personals | LS | 10% cost of manpower required |
| 3 | Tools and equipments for data collection | LS | 5% of cost of manpower required |
| 4 | Stationary and logistic support | LS | 5% of cost of manpower required |
| 5 | Publication of notice, Public hearing etc. | LS | 10% of cost of manpower required |

Note:

- In case of Inner Terai road determine manpower requirement of field work component as 80% of above mention value
- For other than 10 Km length (L), determine per Km manpower requirement and modify as:
If $L < 10$ km, determine per Km manpower requirement and deduct @80% of md per km except travel and calculate total cost accordingly after adjustment in (a) above. [for example, in case of 6 Km road for team leader in above, find manpower for 10 Km i.e desk study = 2, field work = 2, report preparation = 5, total = 9 md, for field work $9/10$ md per km; for 6 km it will be $9-4*9/10*0.8 = 6.12$ md and travel time 1 day i.e. total in Pokhara Valley will be 7.12 md

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- If $L > 10$ km, determine per Km manpower requirement and add @80% of md per km except travel and calculate total cost accordingly after adjustment in (a) above. [for example, in case of 12 Km road for team leader in above, find manpower for 10 Km i.e desk study = 2, field work = 2, report preparation = 5, total = 9 md, for field work 9/10 md per km; for 12 km it will be $9 + 2 * 9/10 * 0.8 = 10.44$ md and travel time 1 day i.e. total in Pokhara Valley will be 11.44 md
- II.
- c) For more than one road, in a package consider longest road first and add cost after applying road factors as 70% of cost with in 10 km distance and 80% of cost for outside of 10 km distance for each additional road.



Province Secretary



Scope of Work Include:

1. Preparation of Site/Project specific Terms of Reference as per EPA 2076, EPR 2077 and Gandaki Province Environmental Protection Act, 2076.
2. Carryout topographical map study, alignment assessment, geological assessment, necessary laboratory testing to prepare ToR and BES 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 construction, operational and maintenance stages, as per EPA 2076, EPR 2077 and Gandaki Province Environment Protection Act, 2076.
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 - Physical Parameters - walkthrough survey, inventory, literature review (including feasibility study and previous works), map study, national and provincial level databases.
 - Biological Parameters - identification of species including protected species along the alignment, sampling and estimation on influence area.
 - Socio-economic parameters - Semi-structured interview with key informants, asset survey (Project Affected Families), questionnaire, map interpretation and walkthrough survey.
 - Cultural and Religious parameters - interview, walkthrough survey.
4. Impact identification, Impact prediction, Determination of significant impacts.
5. Preparation of Environmental Management Action Plan.
6. Information on the land ownership within the Right of Way.
7. Preparation of Brief Environmental Study (BES) report as per approved Terms of Reference (ToR).

Gauba

SP

Panigrahi

Soni

[Signature]



Province Secretary