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# गोरखा नगरपालिका

Gorkha Municipality

नगर कार्यपालिकाको कार्यालय Office of the Municipal Executive

डुम्रीड्राँडा, गोरखा Dumidanda Gorkha कार्यपालिकाको क



गण्डकी प्रदेश, नेपाल Gandaki Province, Nepal

मितिः २०८१/११/११

## गण्डकी प्रदेश, क्रेपार्ट दररेट पेश गर्ने सम्बन्धी सुचना !!

हुमीडाँडा, जार्खा

यस नगरपालिकाको पूर्वाधार निर्माणसँग सम्बन्धी योजना सफ्टवेयर खरिद गर्नुपर्ने भएकोले उक्त कार्यको लागि लागत अनुमान निर्धारण प्रयोजनार्थ यस नगरपालिकाद्वारा स्वीकृत संलग्न ToR बमोजिम हुने गरी सूचना प्रकाशित मितिले ७ (सात) दिन (कार्यालय समय) भित्र आइपुग्ने गरी सजिलो माध्यम मार्फत (इमेल वा कार्यालयमा उपस्थित भइ) दररेट पेश गर्नुह्न अनुरोध छ ।

• संलग्न गर्नुपर्ने कागजातहरुः

१। कम्पनी दर्ताको प्रमाण-पत्र

२। स्थाई लेखा नम्बरको प्रमाण-पत्र

३। आ.व २०८०/८१ को करचुक्ता

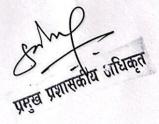




# GORKHA MUNICIPALITY OFFICE OF MUNICIPAL EXECUTIVE Gorkha Gandaki Province, Nepal

### **Terms of Reference**





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For

#### Procurement of Planning Software for Gorkha Municipality

1. Objective

The main objective of this ToR is to prepare the detailed planning about the upgrading of the planning and infrastructure department. Though we are well-equipped and capable in different aspect, we still lack some dedicated software platform for smooth and effective work.

The specific objectives of the assignment are:

- To prepare estimates and measurements of projects and other related calculations and documents, on effective way.
- To assure accuracy on rate and price of norms and works.
- To perform hassle-free verification and approval processes.
- To reduce the procedural difficulties for User Committee and Contractors.
- To reduce the time period for preparing technical and related documentations.
- To encourage respective users for easier and effective performance.
- To ensure the works will be done exactly same as per contract.
- To prepare/ generate categorized or overall periodic reports of projects.
- To evaluate the work flow and progress of categorized or overall progress of municipality.

2. Scope of Consultancy Services and Activities

The consultant shall design and develop a web-based integrated system as per ToR or install a pre-developed software as per ToR. The consultant shall also provide a detailed training for respective staffs of respective department(s).







#### Key Features of the proposed system.

- 1. Web Based: Must run from cloud.
- 2. Easy Operation: Maximum use of shortcut keys.
- 3. Dual Language: Must be operated on both Nepali or English.
- 4. Multi User:
  - Must be multi-user based.
  - b. Must have option to enable or disable users. Disabled users must have restriction to enter system. But his/ her work record must be recorded for ever.
  - c. Must include user types 'Chief', 'Super Admin', 'Admin', 'Operators', 'Accountant' and 'Ward Secretary' with different privileges.
    - i. Ward Secretary or Computer Operator:
      - a. Create user committee
      - b. Input general details of committee and committee members.
      - c. Check if any committee member is repeated on any other committee.
      - d. Generate and print different documents and letters regarding committee and project contract or payments.
      - e. Check and upload documents received from committee and prepared at ward office.
      - f. Assign respective project to committee selecting from purchase (budget) planning.
      - g. View status of projects.
      - h. View reports and progresses.
    - ii. Operators:
      - a. All the authorities of Ward Secretary or Computer Operator.
      - b. Prepare basic details of project.
      - c. Upload sketches and photos of different stages of project.
      - d. Prepare Detailed Quantity Estimate.
      - e. Check related norms and rate analysis.
      - f. Managing transportation for project items.
      - g. Check Abstract of Cost Estimate.
      - h. Forward verification request to any admin level users.
      - Select contractor and fill-up comparative chart (for contractorbased projects) and select contractor as per guidelines.
      - i. Prepare measurements as per estimate.
      - k. Check and print all the respected documents.
      - Create items and norms. But should be verified from super admin before using them. Such items and norms should be usable for all respective users.
      - m. Restriction to further level if any verification or approval request is pending.
    - iii. Admin:

- a. All the authorities of Operators.
- Receive project verification requests and forward approval request to Yojana Department of Chief.
- c. May assign or transfer projects to other users.
- iv. Super Admin (Chief of Department):
  - a. All the authorities of Admin level users.
  - b. Handle overall system.
    - Manage users. (Create, enable/ disable, upload signs, assign wards, password recovery, etc).
    - ii. Manage different rules:
      - i. Printing
      - ii. Tax and norms calculation rates
      - iii. Verifications
      - iv. Different notifications (email and/ or SMS about different stages of project and about different guarantee periods.)

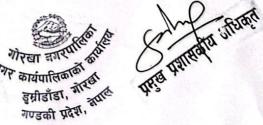
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#### v. Planning Department:

- a. All the authorities of Ward Secretary or Computer Operator.
- b. Prepare purchase (budget) planning.
- c. Manage and/ or check details of user committee or other contractors.
- d. Receive verification requests to check documentation or other non-technical documents.
- e. Reject verification requests with note or approve and forward approval request to Chief.
- f. Upload monitoring document or other related documents to project.
- g. All the technical or non-technical documents should be visible on printable format but not as data entry module.
- h. Input details of bills received from user committee to calculate taxation.

#### vi. Chief Administrative Officer:

- a. Receive approval request.
- b. Option to ask for opinion from other departments before approval.
- c. Check and reject project with note or approve.
- d. All the technical or non-technical documents should be visible on printable format but not as data entry module.
- e. This type of user must be able to ask opinions from other departments directly from the system.
- f. After approval from Chief, the respective step should be locked and untouchable.
- g. View status of projects.





- h. View reports and progresses.
- Budget planning: Must be able to upload all planned projects from excel sheet. Must have option for budget transfer from one project to another and modification.
- 6. Contractor/ user committee management:
  - a. Must have option to create two different contractor type private contractor company and community-based user committee.
  - **b.** While managing user committee, committee members should be tracked if they are assigned for another committee or not. As well, women participation in each committee should be calculated in percentage.
  - c. The contractor management section must include project assignment option. Assigning multiple projects to a single contractor should also be provided.
  - d. The contractor management page should be locked upon verification of assigned project.
  - e. Printing user committee certificate should be provided as per office format.
  - f. Printing project related documents like Sifaris, Tippani, Work Order, Contract Form, etc. must be available on this section.
  - g. Upload documents provided by committee and maintain a checklist about documents.
- 7. Item Management: Manage main items for norms or direct purchase. Items may be created one by one on the system or be upload multiple items at once using excel sheet. Updating rate each year should be done using excel sheet as well. All items must be copied to respective projects as per estimate data. For each project, there must be option to manage transportation and load-unload costing. Item names should be maintained in Nepali and English. As well they must be provided details like their type (material, machine, manpower, etc.), vatable or non-vatable, carriage type, calculation unit, their unit weight, etc.
- 8. Norms and Rate Analysis (RA) Management: Manage norms using verified items. These must be verified from Super Admin level user before using on projects. Verified norms should be locked for editing. Super Admin level user can unverify and edit these norms, if required. On the beginning of every fiscal year, these norms should be unverified automatically and Super Admin level user must approve them one by one. While inserting new norm on system, an input field should be available to maintain norm reference code and must be compulsory before saving. All RAs according to project estimates must be copied to respective project. Norms for earthwork should be managed as per soil and rock types like all types or soft or hard soil, soft or hard rock.

Rate for user committee or contractor should be distinguished as per provided methodology.



- 9. Verifications: Verification and approval process should be maintained as detailed on point no. 4 and its sub-points above.
- 10. Project Management: Manage small (direct payable) or large projects or pre-planned projects (projects for budget preparation).
  - a. Maintain details, upload and store any required documents or sketches of project. Uploading of pre project photo, mid project photo and final project photo must be provided. This section must include selection of project type, budget for the project,
  - b. Detailed Quantity Estimate (DQE): Estimate detailed project planning/ works using verified Rate Analysis. Following features should be available:
    - i. Selecting norms as many as needed should be provided. As well, chainage input for each item should be as many as required.
    - ii. Work should be categorized as per using norms, direct purchase, misc. items or PS items, earthwork, etc.
    - iii. Should be categorized as per multiple project types.
    - iv. Directly uploading DPR work should also be maintained.
    - v. Copying sample of DQE from any verified project from any year and any user should be available.
    - vi. Importing from or exporting to excel sheet should also be available.
    - vii. All the fields should be easy going from one to another.
    - viii. Input fields should accept internal calculation in itself.
    - ix. Input fields should be capable to link to other fields.
    - x. Automatic formula application to different types of shapes and their results should be applied. For example: Just giving input of 'r' and 'h', system must be capable of calculating  $2\pi rh + 2\pi r^2$  to get result of Surface Area of Cylinder.
    - xi. Submission date should be recorded automatically.
  - c. Project Rate Analysis and Items: Copying of Rate Analysis and items for each project separately must be provided. If required, managing transportation to individual item must be provided. This should affect only the relevant project and must not affect main Rate Analysis and
  - d. Abstract of Cost Estimate (AOE): Must auto generate Cost Estimates according to Quantity Estimate and Copied (or re-edited) Norms and Items. DQE and AOE must be verified and approved from respective users before proceeding to further process.
  - e. Comparative Price Chart (CPC): for contractor-based projects, selecting contractor and filling up their rates should be available. Number of contractors may not be limited. A combined or separate letter should be generated for all the contractor to submit quotation for works. These charts should be verified and approved from respective users before proceeding to further process. IRES TAILBURY OF PART

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- f. Detailed Quantity Measurement (DQM): Measurements may be done multiple times until the project completes. While creating new measurement, data from previous measurement (or from estimate for first measurement) should be copied automatically. Uploading related documents (including monitoring document) and photos must be available. Submission date should be recorded automatically and measurement date should be recorded on manual input.
- g. Abstract of Cost (AOC): Must auto Generate cost as per estimate (or submitted be selected contractor) for each measurement automatically.
- h. Work Progress Report (WPR): Must auto Generate the progress to current measurement, showing planned and completed works in total or for individual items.
- i. Bill: Must auto Generate bill according to submitted measurements and calculate amount to be paid. Must manage bills submitted by user committee and calculate taxation.
- j. Material Quantity Calculation (MQC): Must auto calculate and generate quantity of materials used on the project for each measurement. Generated calculation should separate vatable or nonvatable items and their individual pricing with amount of vat on separate column and show total amount for vatable amount, vat amount and total amount. An estimation of quantity of items should also be generated as per quantity estimate.
- k. Work Completion Certificate (WCC): After verification and approval of all the measurements, operator must be able to mark the project 'completed' and that should auto generate work completion certificate of that project. Maintain columns for Estimated Work, Completed Work and Difference in Work together. After project completion all items and data related to the project must be locked for edit and delete.
- I. Revisions: A estimate revision option must be included. The revision request and revised estimate should also be verified by responsible authority. All the originals and revisions must be saved separately.

#### 11. Printing And Documentation:

- a. Auto generate documents like Contract Paper, work order, etc.
- b. Auto generate different Ma.Le.Pa. forms like 501, 503, 504, 510 and 514.
- **c.** Auto generate letters from ward office for contract and payments.
- **d.** Upload user committee and project documents, photos during project, measurement documents, etc.
- e. All of the generated documents should be printable from a separate section without entering the project management section. All type of users may have access to print documents.

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- 12. Verification: Multiple level of verification should be available. For example: technical documents prepared by Asst. Sub-Engineers will be verified by Sub-Engineer and then by Engineer.
- **13.** Locking projects: Projects must be locked automatically, for any changes after verification and/or completion.
- 14. Handling projects and assigning contributors: Must be able to assign project to other users by self or admins. Other operators must be forbidden to use the project started by other. Admins must be able to handle and set contributors to all the projects, if required.

#### 15. Reports:

- a. Should auto generate various categorized reports and must be filtered by project type, user, date, budget, etc. with multiple level.
- b. A progress report of municipality should also be generated automatically. This must show the progress on total contracted projects, completed projects and targeted expenditure of budget, all separately in number and percentage. Different charts for these data should also be generated.
- **16. Changing Fiscal Year:** On end of every fiscal year, system must be capable of transferring projects to next year, if required.

#### 17. Technology:

- a. Server Side: PHP 7 or newer or equivalent.
- **b. Database:** MySQL 5.5 or newer or equivalent. Minimum UTF-8 Unicode support.
- c. Front End: HTML 5, CSS 3, jQuery 1.9.0 or newer or equivalents.

#### 18. Server/ Security

- a. Protected with firewall system.
- b. Daily server scan to viruses and spywares.
- c. Must protect DDoS attacks.
- d. SSL certificate must be installed on the system.
- e. Minimum RAID-10 mirrored SSD drives.
- f. Daily database backup.
- 19. Support: Full support during contract period. Must include any kind of assistance to operators and staffs.
- 20. Finance and renewal: Should mention rate for the complete installation, documentation, survey, training to staffs or any kind of service at once. No separate pricing for any subject will be accepted. Should explain if renewal of any objective is required.

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