TERMS OF REFERENCE

FOR

DEVELOPING TRAINER'S MANUAL AND STUDENT'S WORKBOOK

TO

SUPPORT THE DUAL-VET APPRENTICESHIP (PRE-DIPLOMA) PROGRAMME

IN

Electrical Engineering

Prepared by

Enhanced Skills for Sustainable and Rewarding Employment (ENSSURE) Project

Sanothimi, Bhaktapur

May 2024

1. Background and core parameters of the mandate

The ENSSURE project is a bilateral project of the Government of Nepal (GoN) and the Government of Switzerland. The first phase of the project, which started on 20 January 2016 is concluding on 15th July 2022. The second phase of the project is concurrently being implemented from 10 September 2021 and it will be implemented till 15 July 2025. The main goal of the first phase is to support Nepali workers to benefit from continuous employment and an improved standard of living, whereas the second phase of the project aims to support Nepalese youths, women, and men, to gain social and economic benefits from a federalized TVET system. The ENSSURE project is implemented by CTEVT at the federal level; Koshi Province, Bagmati Province, and Lumbini Province, and 33 Local Governments within those provinces. Helvetas Nepal provides Technical Assistance to all three tiers of the government and assures the quality of the program.

The Dual VET apprenticeship, Training with OJT, Career guidance, and Skill upgrading training for existing workers are the project's major components. While the earlier 3 components are implemented through the province and local governments, the skill upgrading training for existing workers is implemented through PSU in close collaboration with the industry association.

Dual VET apprenticeship is a work-based learning system in which apprentices acquire knowledge in institutes (in a stimulating environment) and gain hands-on skills in industries (in the world of work) under the supervision of an experienced craft person (in-company trainer). CTEVT introduced and successfully piloted the program during ENSSURE's first phase. Provincial governments have planned to scale up the apprenticeship program with the help of ENSSURE phase II.

Effective implementation of the apprenticeship program will depend, among other factors, on the availability of well-conceived training resources: a trainer's manual, a trainee's workbook/handbook, and additional reading materials. The design, development, and production of such material necessitate a content expert, a methodology expert, and an illustrator-artist ("the Consultants") working closely together in a team. The elaboration of these three resources will be based on the CTEVT curriculum for **Pre-diploma in Electrical Engineering (Apprenticeship Model)**.

In this context, the project is going to hire a consultant to perform the assignment as mentioned in the scope of work to the highest professional standards of the fields of the assignment (content, methodology, illustration). The consultant shall be well acquainted with the "technical and managerial aspects of Electrical Engineering and be experienced as a trainer/instructor. S/He will lead the Teaching Learning Materials Development (TLMD) team and has overall responsibility for the management of the TLMD process, including the deadlines of the assignment, the quality of the final products, and ascertaining regular meetings with the ENSSURE-PSU who will provide overall guidance and supervision through the Quality assurance Specialist of ENSSURE (PSU).

2. Objectives of the Assignment

The consultant will design, develop, layout, and produce the instructor's manual and trainee's workbook to support the Dual-VET Apprenticeship program in **Pre-diploma in Electrical Engineering**.

It is understood that the content expert will lead the process and may associate/sub-contract methodology expert and illustrator-artist as and when professionally required by the mandate.

3. Scope of work

The scope of the assignment will be as follows:

- Review the curriculum for the "**Pre-diploma in Electrical Engineering (Apprenticeship Model)**" of CTEVT for the requirements of the training (contents, standards, etc.); scout for existing learning materials in the market (with existing training providers); propose the members of his team with their detailed CVs to PSU.
- Design (conceptualize) the trainers' manual and agree with the PSU on the concepts overall, including the structures of the Manual.
- Develop the instructor's manual following the design (concept) and specifications agreed upon with the PSU and the TLMD team; and follow the session flow considering the specifications, principles, and details agreed upon.
- Share the draft student and teachers manual in the validation workshop organised by ENSSURE PSU and incorporate the valid suggestions from the participants to the final version.
- Review the draft final products with the PSU for changes and adaptations required; agree on the final versions.
- Final products are to be developed as per the structure of the curriculum, i.e.,
    - ✓ Applied Communication and Professionalism
    - ✓ Applied Mathematics
    - ✓ Bench Work
    - ✓ Engineering Drawing
    - ✓ Computer Application
    - ✓ Electro Technology
    - ✓ Basic Electronics
    - ✓ Electrical Installation
    - ✓ Repair and Maintenance of Electrical Appliances and Machine
    - ✓ Electrical Motor Installation and Control
    - ✓ Entrepreneurship Development, etc.
- The entrepreneurship development section can be avoided, as we have already developed teaching learning materials on it.

4. Working methodology

The outline of the tasks and process above contains the main elements of the working methodology. Closely-knit cooperation between content, methodology, and illustration

experts will be key to the achievement of the objectives of the mandate. The basis of the assignment is the CTEVT-approved curriculum for Pre-diploma in Electrical Engineering (Apprenticeship Model**)**, the objectives the apprentices need to achieve through workplace and institute-based instruction and practice, and the (likely) profiles of the instructors (the "client-users" of the learning materials, together with the apprentices). They are expected to receive optimal support through the learning material to be developed.

The Consultants, under the lead consultant, will work closely with the Quality Assurance Specialist and Knowledge Management Specialist of ENSSURE/PSU regularly. The Quality Assurance Specialist will be the main contact person at the project level.

5. Time Frame of the assignment

The service will be provided between 25th June 2024 and 25th October 2024. The total estimated working day for this assignment is 90 spreads over 4 calendar months.

6. Logistic arrangement

ENSSURE/PSU will be responsible for all the logistic costs of the validation of the products if needed. There is no provision for additional costs for local transportation.

7. Deliverables

The consultant will submit a draft electronic version of the instructor's manual and trainee's workbook to support the apprenticeship program of Pre-diploma in Electrical Engineering (Apprenticeship Model**)** to the ENSSURE project through the Quality Assurance Specialist.

The final electronic version (MS Word) of the instructor's manual and trainee's workbook after incorporating the comments and suggestions provided by the ENSSURE- PSU and through the validation workshop.

8. Qualification and experience of the consultant/Expert

8.1 **TVET Expert- 1(One)**: Master's degree or higher in electrical engineering or equivalent and at least 5 years of working/teaching experience in the TVET sector. **Inputs**: The tentative estimated professional input is around 75 days.

8.2 **Industry Expert- 1(One)**: Minimum bachelor's degree in electrical engineering with 3 years of working experience in the industry or at least a diploma in electrical engineering with at least 5 years of experience in the industry. **Inputs**: The tentative estimated professional input is around 25 days.

9. Selection Procedure

The consultant shall be selected through Quality and Cost Based Selection (QCBS) in accordance with Helvetas Nepal's Financial Manual. The technical proposal will have an 80% weightage, while the Financial Proposal will account for 20%.

10. Confidentiality

All information obtained during the consultancy shall be treated as confidential and used solely for the purpose of this assignment. All the documents/reports generated for this assignment will be the property of the Project.

11. Application Procedures

Interested and qualified consulting firms/training institutes should submit the following documents with the subject line "**TRAINER'S MANUAL AND STUDENT'S WORKBOOK TO DUAL-VET APPRENTICESHIP (PRE-DIPLOMA) PROGRAMME IN ELECTRICAL ENGINEERING"**

(a) Technical and Financial proposal submission Letter
(b) Legal documents of consulting firm/technical institute (Firm registration, PAN & VAT registration, and Tax clearance certificate of FY 2079/080)
(c) Methodology with understanding of the objective, work plan with Expert inputs of completion of the assignment)
(d) Specific experience of the consulting firm/ training institute
(e) Proposed Key Experts/consultants' CVs covering qualifications and experience.
(f) Financial proposal (in a separate envelope)

Application deadline: 31 May 2024

Mailing Address:

Enhanced Skills for Sustainable and Rewarding Employment (ENSSURE)

Project Support Unit (PSU)

CTEVT Complex, Room Number: 214

Sanothimi, Bhaktapur

Format for Financial Proposal Submission

A template for a Financial Proposal

SN	Cost Heading	Unit	Rate per unit (NPR)	Total Quantity (days)	Total cost (NPR)	Remark
1.0	**Remuneration Cost**					
1.1	TVET Expert	Person day				
1.2	Industry Expert	Person day				
2.0	**Logistics and Administrative cost**					
2.1	Formatting, Printing, and Binding cost	LS				
Total cost estimate (NPR)						
VAT 13%						
Total cost estimate with VAT						

Reference of curriculum with associated hours

S.N.	Particular	Total Hrs. (T+P)		
1	Applied Communication and Professionalism	75		
2	Applied Mathematics	45		
3	Bench Work	45		
4	Engineering Drawing	45		
5	Computer Application	15		
6	Electro Technology	60		
7	Basic Electronics	45		
8	Electrical Installation	90		
9	Repair and Maintenance of Electrical Appliances and Machine	105		
10	Electrical Motor Installation and Control	75		

Submitted by:

Authorized Signature:

Name of the consultant:

Phone:

Address: