**Terms of Reference**

**Sub-engineer**

**Qualifications and Experience:**

IE in civil engineering from a recognized university or Diploma in Civil Engineering from CTEVT with minimum of 2 years’ general professional experience preferably with at least one-year experience in planning/ design/construction of irrigation schemes. Experience in the use of GPS survey methodologies and knowledge in use of GIS and AutoCAD software will be an asset.

**Duties and Responsibilities:**

All the task below will be carried out are listed as but not limited to the following under the direction, guidance and supervision of the PMISC District Coordinator:

1. Coordinate with the Rural Municipality and Municipality for social mobilization, scheme identification, verification, project preparation, construction supervision, bill preparation and post-construction activities.
2. Coordinate and disseminate information with DPMISC from assigned Rural Municipality and Municipality on progress on social mobilization, scheme identification, verification, project preparation, construction supervision, bill preparation and post-construction activities.
3. Participate in public meetings at Rural Municipality and Municipality level, information dissemination and discussion with the community to enable them to come forward with proposals for improvement of water source protection and construction or improvement of irrigation systems.
4. Undertake the collection of all relevant data at selected sites for scheme verification, including discharge measurements from spring sources, flow measurements in surface water sources and location and type of the proposed infrastructure, and enter these data in the automated on-line scheme verification system.
5. Based on the scheme verification data, assist in the preparation of a list of schemes that can be taken up for scheme preparation.
6. In close collaboration with the COs, conduct focus group discussion with potential beneficiaries during the scheme verification to assure that the proposals are supported by a majority of the beneficiaries. In these focus group discussions, collect the socio-economic data of the community as directed by the Social Development Officer.
7. Identify water rights issues related to the proposed improvement of water sources and water storage. Identify any disputes related to the proposed schemes and facilitate to resolve them before selection of the scheme for detail survey and assure that the proposed measures will benefit the majority of the community.
8. In close collaboration with the subproject COs, give special attention to the inclusion of disadvantaged groups and Dalits in the proposed schemes.
9. Together with project COs, identify groups or households that will be negatively affected by the proposed measures and discuss their participation in possible mitigation measures.
10. Identify the need for land acquisition for the proposed measures and together with the subproject COs, discuss arrangements with the beneficiaries for such acquisitions.
11. Discuss and agree on beneficiary contribution and organization/responsibilities for future O&M of the infrastructure and the catchment protection area.
12. Identify the components of detailed design for the construction and/or rehabilitation of the selected irrigation schemes, in consultation with the beneficiaries.
13. Assist to prepare detailed cost estimates for the proposed measures using the programme’s online project preparation system. If required make the necessary changes in the type design included in the preparation system or add specific designs.
14. Support WUAs in the registration process.
15. Provide training and in service orientation to the WUA construction management and monitoring committees for day to day supervision of all the ongoing works and supervision and quality control of the construction of civil works for water intake, water storage, slope stabilization and erosion control.
16. After the conclusion of construction works, assist the WUA in the preparation of an operation and maintenance plan for the water intake and water storage infrastructure, provide in service training for operation and maintenance works and regularly supervise the implementation of the O&M plan.
17. Coordinate with Rural Municipality and Municipality for agriculture extension services.
18. Other tasks as directed by the District Coordinator and DIE.