TERM OF REFERENCE (TOR) FOR PUBLICATION OF MALARIA VECTOR BIONOMICS AND INSECTICIDE

Population Services International (PSI) is a non-profit social marketing organization with programs in over 60 countries making it easier for all people to lead healthier lives and plan the families they desire. Funded by USAID-PMI, and implemented by Population Services International, the PMI DHIBITI(CONTROL) MALARIA project supports the Government of Tanzania (GOT) to reduce the burden of malaria and move towards malaria elimination. PMI DHIBITI(CONTROL) MALARIA provides technical and implementation support for malaria case management through quality improvement initiatives and malaria surveillance. PMI DHIBITI(CONTROL) MALARIA interventions aim at contributing to four result areas: (1) Improved case management and malaria in pregnancy (MIP) services; (2) Improved ability of individuals to practice positive healthy behaviors'; (3) Enhanced enabling environment; and (4) Improved entomological monitoring.

Zanzibar Malaria Elimination Program (ZAMEP): Entomological Surveillance

Malaria vector surveillance including population dynamics, vector behavior and insecticide resistance monitoring is critical in guiding the program in timely optimization of vector control interventions for malaria elimination to be realized. ZAMEP has been collecting data on malaria vector population dynamics, densities and bionomics on monthly basis from 10 sentinel sites (6 in Unguja and 4 in Pemba) over 10 years. Coupled with this, insecticide resistance monitoring has also been ongoing in the same sentinel sites once on yearly basis. The collected mosquitoes are sent to ZAMEP central laboratory for sorting, morphological identification and subsequently individual specimens of Anopheles gambiae s.l, Anopheles funestus Group and other malaria vectors molecularly analyzed to speciation, infection rate and blood meal and occasionally analysis of the mechanism of resistance from insecticide resistance monitoring. Despite plenty of data, these data are currently disorganized, uncleaned and unformatted into analyzable format. This limits ZAMEP in making data-driven planning and decision-making in the choice and selection of appropriate vector control intervention. ZAMEP intends to put all these data together, clean them, generate time-trend analysis of vector bionomics and insecticide resistance profile, develop manuscript and submission for publication in peer-review journal to reach wide global malaria stakeholders and facilitating evidence-based decision-making process by the program.

Consultancy objective:

The consultant is expected to review any existing preliminary reports on ZAMEP vector bionomics and insecticide resistance data, access existing raw-data, clean field and laboratory data, perform advanced analysis, generate final report, and a manuscript for submission. The consultant will be expected to work closely with ZAMEP responsible staff

Scope of Work:

Consultant is expected to process both field and laboratory data from different sources, clean the data, and perform advanced analysis. Specific analysis from ten sentinel sites to establish site-specific species composition of malaria vector over time, host-seeking behavior assessment and dynamics of malaria vector abundances over time along with phenotypical resistance should be prioritized. After synthesis and analysis of data, the consultant will be expected to prepare a presentation, report, and a manuscript that can be submitted to an international peer reviewed journal. This call is open to local consultant (s) or companies with local registration in Tanzania.

The consultant will complete the following tasks:

1. Gather entomological data from different sources – laboratory and field data since the year (this is subject to assessment of the past years data) to date
2. Process and clean all the data set
3. Perform advanced data analyzed based on the cleaned dataset
4. Provide initial training to ZAMEP staff representatives on how to process, clean, and analyze entomological data
5. Generate a power point presentation, a report, and a manuscript with quality that can be submitted to an international peer reviewed journal
6. Present the work performed to ZAMEP
7. Identify any data challenges and recommend the best way to manage field and laboratory data

Consultant Deliverables:

1. Clean data set with field and laboratory data linked
2. Data analysis for both field and laboratory
3. A report
4. Develop publishable manuscript

Qualifications & Experience:

- At least masters. in data science, entomology, computation sciences, mathematical modelling, statistics, or related field
- A minimum of 5 years working with entomological data
- Experience supporting National Malaria Control Program with data management and analysis and/or similar assignment is plus
- Experience working with R programming language or any other advanced statistical software programming language
- Evidenced of publications in international peer reviewed journals as the first author

Skills and attributes;

- Ability to engage others and demonstrated interest in building the personal capacity and sills of other people
- Team player, self-starter, and enthusiastic

- Great interpersonal skills
- Creative and analytical thinker
- Excellent in Swahili and English written communication skills

Consultancy terms:

- The application could work remotely during the assignment but will be expected to have regular meetings with ZAMEP staff in Zanzibar to discuss and share the progress
- The consultant would be expected to travel to both Islands in Zanzibar, work with ZAMEP responsible staff to ensure familiarization of data and appropriate interpretation
- High quality publishable graphics in R is highly encouraged
- The final deliverables schedule (timeline) will be finalized between ZAMEP, PMI Dhibiti (control) Malaria and successful applicant.

Assignment commencement and payment schedule:

- This assignment is expected to start on 11th April 2024 and completed within 90 working days. The consultant will propose a plan that will maximized the use of allocated number of days. Payment will be for two installments-50% upon signing of the contract and 50% paid within a month after successful completion of all deliverables.

How to apply

- Interested, eligible consultants should send their consultancy proposals comprising a detailed Curriculum Vitae, and application letter to PMI Dhibiti (Control) Malaria Project of PSI through: procurement@psi.or.tzThe deadline for submission of applications in on Wednesday, 1st April, 2024, 00:00 AM.

Contracting process:

- Selection of the consultant will follow the PSI/Tanzania procurement policies and procedures. Upon submission of CVs, only shortlisted consultants will be contacted for further process.