Improving Dietary and Health Data for Decision-Making in Agriculture and Nutrition Actions in Africa

Terms of Reference for a Gender Specialist

Background

The Food, Agriculture and Natural Resources Policy Analysis Network (FANRPAN) and the International Livestock Research Institute (ILRI) are jointly implementing the project *Improving Dietary and Health Data for Decision-Making in Agriculture and Nutrition Actions in Africa.* The project is being implemented in Kenya and is funded by the International Development Research Centre (IDRC). The project started in September 2018 and is due to end in August 2022.

Malnutrition has direct consequences on child health and long term cognitive and physical development. Globally, one in nine people is hungry and one in every three is overweight or obese. Many countries, including those in Sub-Saharan Africa, are experiencing the double burden of malnutrition, where undernutrition and micro-nutrient deficiencies co-exist with overweight, obesity and other diet-related conditions such as non-communicable diseases (NCDs). The number of people affected by hunger has been slowly increasing since 2014, with increases in Sub-Saharan Africa being greater than any other region. The world is not on track to achieve the Sustainable Development Goals (SDGs), especially SDG 2, by 2030.

One of the determining factors on achieving the nutrition targets is how data are collected to track changes to key nutrition indicators, especially at individual and household levels. Issues of data collection are even more critical for remote regions of sub-Saharan Africa, which are not easy to reach in regular and routine data collection exercises.

Standard sources of household and individual nutrition and health data include demographic health surveys (DHS), usually done every five years, some *ad hoc* surveys that may incorporate seasonality or annual and biannual surveys to support humanitarian interventions. All these traditional methods depend on enumerators or use of health facilities to collect data. These approaches suffer from accessibility bias, are costly and the infrequent data collection intervals under heterogeneous and fast-moving confounding factors may not track changes in nutritional status and household coping mechanisms that occur over short periods of time. The low-frequency data collection can have serious implications on how practitioners and policy makers judge the impact of interventions aimed at improving household welfare. Furthermore, such data are often of little direct use to households themselves as they do not get feedback.

Unless approaches to collection of individual women and children's and household nutrition and health data, especially for not-so-easy to reach communities, are changed, this will continue to negatively impact the efforts of governments and development practitioners to effectively

programme and monitor the performance of nutrition and health interventions, and ultimately, achievement of national and global nutrition and health targets.

Objectives of the Project

The main objective of the project is to develop and build capacity around a smartphone-based application for collecting and disseminating high-frequency, high-resolution food consumption and young child health data directly from and to households through the following specific objectives:

i) New smartphone application (e-data collection tool) developed and tested for functionality
ii) Smartphone application (e-tool) scaled-up
iii) Results of smartphone application (e-tool) disseminated and used for policy engagement.

Activities

The following activities are being implemented:

1. *Develop and test smartphone application*
   i) Secure the services of an application developer
   ii) Develop alpha version of data collection tool, database and data collection protocols and variables (household health, dietary diversity, minimum dietary diversity for women, of reproductive age, minimum acceptable diets for children 6-23 months, frequency of diets)
   iii) Procure hardware (mobile phones and anthropometric measurement equipment) for use during pilot phase
   iv) Develop and test beta-version of application during pilot phase

2. *Disseminate pilot study results*
   v) Engage with potential users of e-tool
   vi) Share results of pilot through publications and presentations

3. *Scale up smartphone application, testing tool in three new sites*

   vii) The tool is being tested in Marsabit County, Eastleigh in Nairobi, and in Kilifi County.

4. *Disseminate results and engage in policy advocacy*

Outputs

The following corresponding outputs are envisaged:

i) Smartphone application (e-tool) developed and tested
ii) Results of pilot study disseminated to potential users of application
iii) Application tested in two-three new sites
iv) Results disseminated and policy engagement conducted based on results

Progress to date

The first two years of the project focused on objectives one and two: developed the tool and, for 12 months, iterated to improve it in response to users in Samburu County, Kenya. At the same time, the users (caregivers and community health volunteers) were collecting and submitting data. This activity closed in December 2020, by which time, the participants had submitted over 60,000 surveys. Following the closing of the pilot data collection, the Mbiotisho smartphone tool was further updated to reflect lessons learned and partners for the third component, which includes implementing and collecting data in three additional locations, were identified. Because each implementing location has

different partners with different objectives and samples, we are developing customized versions of the tool for each partnership. As of the end of August 2021, one version of the tool had been developed and launched in one of the three new sites, Marsabit County, in collaboration with the Foreign, Commonwealth & Development Office (FCDO)-funded DIRISHA programme, which aims to establish a network of sentinel sites across the rangelands of the IGAD region. Versions of the tool for data collection have been developed for Kilifi County, in collaboration with the World Food Programme (WFP). The teams are in the process of developing the Mbiotisho variation for use as a messaging and tracking service in collaboration with the Child Development in Marginalized Communities (CDMC) parenting study, which is being implemented by Aga Khan University Institute for Human Development (AKU-IHD)'s and is funded by IDRC. While the data collection from each of these locations is quite different and our partners have considerably different objectives, the core objective of this project—to develop tools for individuals to measure, record, submit and track health and nutrition information on themselves and their children, remains the same in all three sites.

The results so far have demonstrated the following key messages:

i) Rural smallholder households can use smartphones to collect nutrition and health data;
ii) Households can receive feedback and benefit from submitted data; and
iii) The smartphone application can replace enumerator-collected data, enabling less costly and more frequent data on household nutrition and health situation, especially for remote and hard to reach communities.

FANRPAN and ILRI are looking for a Gender Specialist to conduct a study on the gender dynamics of the smartphone, the application and the implications of project participation at household level in two project sites, Marsabit and Kilifi Counties. The information will be used to develop guidelines on how to scale the application to different communities.

Objective of the position

To study and document the role that gender dynamics play for participants of the project and in how the project impacts the participants. Ideally, the study would result in a manuscript led by the consultant and supported by research partners and published in a peer-reviewed journal.

Scope of work

The Gender Specialist will be expected to undertake the following activities:

i) Meet with project leader and Co-Principal Investigator to discuss the scope of the assignment as part of inception;
ii) Review the existing tools, data and findings;
iii) Prepare an inception report describing in detail their understanding of the assignment, methodology, data collection instruments and analysis, work plan; and budget for field work;
iv) Design the data collection tools to be integrated into the existing tools or possibly be collected separately;
v) Customise and translate into local languages the data collection tools for assessing the gender dynamics of the smartphone and use of the application at household level by men, women and children;
vi) Hire and train field enumerators to support data collection;
vii) Work with ILRI to amend ethical clearance at ILRI to account for the additional objectives;
viii) Conduct data collection on gender dynamics of the smartphone and use of the application at household level by men, women and children;
ix) Collect information about the communities where the study will be conducted through secondary sources and key informant interviews;
x) Conduct data cleaning and analysis; and

xi) Lead in preparing a manuscript targeting a peer reviewed journal on the gender dynamics of the smartphone and use of the application at household level by men, women and children in the two project sites.

Outputs and Deliverables

The Gender Expert is expected to deliver the following outputs:

i) An inception report, including data collection instruments, to be submitted one week after signing of contract;
ii) Ethical clearance from ILRI and Government of Kenya
iii) A draft of the manuscript co-authored by project partners for review by the project leader, Co-PI and field team
iv) An updated draft of the manuscript ready for submission to a peer reviewed journal.

Reporting

The consultant will report to the Director of Policy Analysis and Research of FANRPAN, through the Principal Investigator.

Duration of Contract

The assignment is spread over the period January 2022 - June 2022. The consultant will need to keep and submit a timesheet using a provided template.

Payment Terms

FANRPAN will pay the consultant on an output basis and will cover travel, accommodation and per diem costs as required.

Qualifications

The ideal candidate should have a masters degree in development studies, including gender, and at least five years' experience of working as a gender expert in an African setting, especially in Kenya. Experience and an appreciation of gender dynamics in household nutrition would be an added advantage.

Application

Interested candidates should submit their applications, including a cover letter, a brief description of how they would approach the study (maximum 3 pages) and curriculum vitae, to the following email address: Procurement@fanrpan.org.

Applications should be received by 10 December 2021.