

## Integrating Gender and Nutrition within Agricultural Extension Services

# SIERRA LEONE

Report on the OpenStreetMap and Kobo Tool Training held October 27<sup>th</sup> and 28<sup>th</sup>,  
2017, at Njala University



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A sample map that was created during the training of the Njala University and Sierra Leone Agricultural Research Institute (SLARI) field plots and research areas

## Acronyms

<b>INGENAES:</b>	Integrating Gender and Nutrition within Agricultural Extension Services
<b>ICT:</b>	Information Communication Technology
<b>NU:</b>	Njala University
<b>JOSM:</b>	Java OpenStreetMap
<b>USAID:</b>	United States Agency for International Development
<b>OSM:</b>	OpenStreetMap

## Introduction

The United States Agency for International Development (USAID)-funded Integrating Gender and Nutrition within Agricultural Extension Services (INGENAES) project in Sierra Leone is led by the University of Illinois at Urbana-Champaign with Njala University (NU) and local partners, growing on an over 50-year partnership. As a central engagement, the project has launched a network of extension providers from the public, nongovernmental, and private sectors, working together to improve nutrition in the country through strengthened extension that empowers women farmers while engaging men farmers. INGENAES has also established a growing partnership with WorldFish to support the Feed the Future Scaling up Aquaculture Production Project in the Tonkolili District.

YouthMappers is a worldwide network of university chapters supported, in part, by USAID that aim to train mappers and to build good maps across the world. The Students Geographical Association-YouthMappers at Foureah Bay is a member of this network, with a common goal to map out vulnerable places in Sierra Leone and the world at large for relief and other beneficial purposes. The chapter consists of young people with common interests to comprehend and implement sustainable development projects as a team. It presently has a membership of 15 active members consisting of five women and ten men. The chapter was established in December 2016, and it is an affiliate of the Sierra Leone Red Cross Society, which is its first and key partner.

From October 27 to 28, 2017, INGENAES supported a two-day training in Sierra Leone on the use of Kobo and OpenStreetMap tools. The training brought together NU students from the departments of Agricultural Extension, Natural Resources, Geography, and Information, Communications, Technology.

The following were the predetermined objectives of the training as decided by the INGENAES and YouthMappers team:

- To use OSM and KoBo to collect data in to better analyse farming areas and locations
- Analyse the connections between farming regions and market places via road networks
- Use OSM and Kobo toolbox data to estimate the potential(s) of the farmland
- Use relevant tools for timely field agriculture data collection
- Proper monitoring and evaluation of the INGENAES project and Network in Sierra Leone
- To establish a YouthMappers chapter at Njala University

## Workshop Overview

INGENAES-Sierra Leone collaborated with the Students Geographical Association-Youth Mappers Chapter to organize a two-day training focusing on two tools and software programs: OpenStreetMap (OSM) and KoboTool, at the ICT Center of NU, Njala Campus.

There were 35 participants (8 women and 27 men), from the following units:

- 5 students from the Department of Geography and Development Studies
- 5 students from the Department of BIT/ Computer Sciences



- 4 students from the Department of Agricultural Extension and Rural Sociology
- 5 students from the Department Agricultural Communication and Media
- 1 students from the Department of Forestry
- 2 students from the Department of Agricultural General
- 2 students from Institute of Food Technology and Consumer Studies
- ICT support staff
- INGENAES NU Coordination Staff
- YouthMappers Trainer Team
- Department of Extension Outreach Team

A brief overview of INGENAES activities was first given by Augustine Amara, INGENAES Research Assistant, and a brief background of YouthMappers and the OSM and KoboTool Training was given by Tommy Charles, President and Lead Facilitator with the Fourh Bay YouthMappers.

The training intended to facilitate the following:

- To introduce the step-by-step use and application of the OpenStreetMap and Kobo toolbox to students and participants
- To explore the various methods of Exporting OpenStreetMap and Kobo data into QGIS
- To establish a Youth Mappers Chapter at Njala University

The training approaches used included group facilitation, presentations, one-on-one coaching, hands-on methods, observation etc.

## Day I Training Activities

- Registration, prayers and setup
- Introduction (team and participants)
- Overview of INGENAES, YouthMappers and OpenStreetMap and Kobo Tools

### Introduction to OpenStreetMap

This session covered the following:

- Gmail email accounts were created for participants who did not yet have one.
- The OpenStreetMap.org webpage was opened on each participant's computer.
- Participants were asked to sign up for an OpenStreetMap account, and a confirmation link was sent to their email addresses, which they used to verify their OSM account.
- Identification of features on the OpenStreetMap's webpage [participants were showed each feature and their uses. Features such as *zoom*, *show my location*, *layers*, *user diary*, etc.]
- After signing up for an account, they were asked to locate the map of Sierra Leone and click on it. Each participant was asked to locate and display the map of Njala Campus.
- Participants were taught to identify features on the map such as buildings, roads, streams, etc.

- Participants were also taught to identify features such as buildings that have not yet been mapped. (It was taught that buildings or places that showed red on the map have already been mapped)
- With the help of the YouthMappers team students mapped out new features such as buildings, roads, streams, etc.
- Participants were asked to export the mapped area to Java OpenStreetMap (JOSM), which enables users to edit maps offline.
- They were taught also on how to export data and mapped area to QGIS software.

## Day 2 Training Activities

- Registration
- Prayer
- Recap of Day One/Revision
- KoBo Tool Training

### Introduction to KoBo Toolbox

This session covered the following:

- The KoBo Toolbox application was shared and installed on participants' smart phones and tablets.
- Participants were taught how to sign up for an account on the KoBo tool application.
- Each of the participants signed up and created a KoBo tool account. This application can also be used for creating questionnaires and carrying out surveys on farms and community nutrition.
- A sample farmland profile questionnaire was given to each participant in order to study an example to create their own questionnaires.
- Participants created a questionnaire for a farm survey using the KoBo Tool application.
- Participants did a classroom exercise on how to fill the farm survey questionnaire with the help of the facilitator.
- Participants then went to the field to operationalize the farm survey questionnaire using KoBo Toolbox application on their phones and tablets.
- At the farm, participants interviewed classmates and others to test the application of the KoBo tool.
- A video tutorial on OSM (OpenStreetMap) and KoboTool kit applications were shared with participants.
- Participants were taught how to export data from Qgis to Excel or SPSS for further analysis and data storage or presentation.
- A process was officially initiated to establish the Njala University YouthMappers Chapter.

## Establishment of the Njala University YouthMappers Chapter

Six students from various departments were selected to be on the executive of Njala University YouthMappers Chapter. Mr. Tommy Charles shared a sample of the Youth Mappers Chapter constitution and bylaws for Foureah Bay College. Mr. Charles also gave directions to the students on how to fill the YouthMappers affiliation form. The establishment and strengthening processes of the Njala University Youth Mappers Chapter is still ongoing.

The Njala University YouthMappers Chapter with support from INGENAES is planning to create maps via OpenStreetMap for INGENAES Sierra Leone Network members of their operational areas and farm demonstration sites. The new Chapter is also planning to map out Njala University Campus and more importantly conduct similar trainings for other students on campus and other institutions and colleges. These maps were be part of a learning and sharing exhibit at the INGENAES Regional Symposium in January 2018.

### Reflecting on the Training: What Went Well

- New Gmail accounts were created for participants to use and access mapping resources.
- Participants were exposed to new software programs, which they found useful for their academic and field work.
- Technical support and assistance from the ICT staff at University made the sessions possible and fruitful using practical learning methods.
- Participants felt that the OSM and the KoBo Tool could be relevant for future projects and applications.
- The NU YouthMappers Chapter was established and students can now use the knowledge and the training tool kit to carry out OpenStreetMapping (e.g., of farmland, markets, agricultural value chain actors).
- Participants were issued certificates of completion at the end of the training.

### Challenges Encountered and Solutions

- Poor internet connections that were improved with help from the ICT staff.
- When electricity was turned off, a backup solar system was activated to allow continued training.
- Some computers available at the ICT Center were malfunctioning during the training session, and therefore participants were asked to bring along their personal computers.
- People with little information technology background found some of the sessions more challenging and required special attention.
- Training was intensive and needs to be followed up with more practical opportunities to use the software for the learning to be retained.

### Recommendations

- Because the training was intensive and the training packages are new to participants, in the future, such training should be offered over a suitable period such as three or four days to better promote understanding of the packages.

- Most of the participants were using desktops and slow network computers, which delayed the training processes. Over time, we hope more efficient computers and technology can be offered for Njala students.
- INGENAES should continue to support the Njala YouthMappers Chapter that to carry out mapping exercises for INGENAES Network members as valuable monitoring and learning tools and to expose students to innovative technologies.

## Upcoming Activities for INGENAES in Sierra Leone

Date(s)	Target Activities and Engagements
November 16 <sup>th</sup> 2017	INGENAES shares its accomplishments and activities at the USAID Deep Dive Marketplace in Freetown
November 23 <sup>rd</sup> to 25 <sup>th</sup> , 2017	INGENAES SL Team participates in the Scaling Up Nutrition (SUN) Countrywide Nutrition Fair in Bo
January 15 <sup>th</sup> to 19 <sup>th</sup> , 2018	<p>INGENAES Regional Symposium at Njala University</p> <p>The INGENAES Annual Regional Symposium is intended to be a highly participatory event and we want people and organizations to be able to share their experiences and the impact or progress made by their organization to influence gender and nutrition in the farmer’s household, the community of practice and agricultural extension services. The overarching theme is: <b>Promoting Gender and Nutrition Sensitive Approaches in Agricultural Extension</b>, with the following subthemes:</p> <ol style="list-style-type: none"> <li>1. Generation and Transfer of Gender and Nutrition Sensitive Agricultural Technologies</li> <li>2. Roles of ICTs in Agricultural Extension Services</li> <li>3. Youth Involvement and Agripreneurship in Agricultural Extension</li> </ol> <p>Please register via <a href="http://www.eventbrite.com/e/promoting-gender-and-nutrition-sensitive-agricultural-extension-tickets-37702286554">www.eventbrite.com/e/promoting-gender-and-nutrition-sensitive-agricultural-extension-tickets-37702286554</a> or contact Mrs. Makalay Saidiatu Sonda at +232 78 557412 or at <a href="mailto:makalaysaidiatu2017@gmail.com">makalaysaidiatu2017@gmail.com</a> to obtain the registration form.</p>



Photos from the Training







