

Malawi Community Energy Sustainability Extension

Market Assessment Training

20th – 22nd January 2016

Lilongwe



Market Research Questionnaires

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Contents

- Purpose of research
- Existing data
- Setting up a form
- Types of Questions
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Purpose of Market Research

- Implementation strategies for Renewable energy systems in rural areas
 - Charity
 - Government
 - Market driven
- Market driven approaches need to identify the customer base
 - who will be using the energy service?
 - Can they afford to pay for the energy service?

Purpose of Market Research

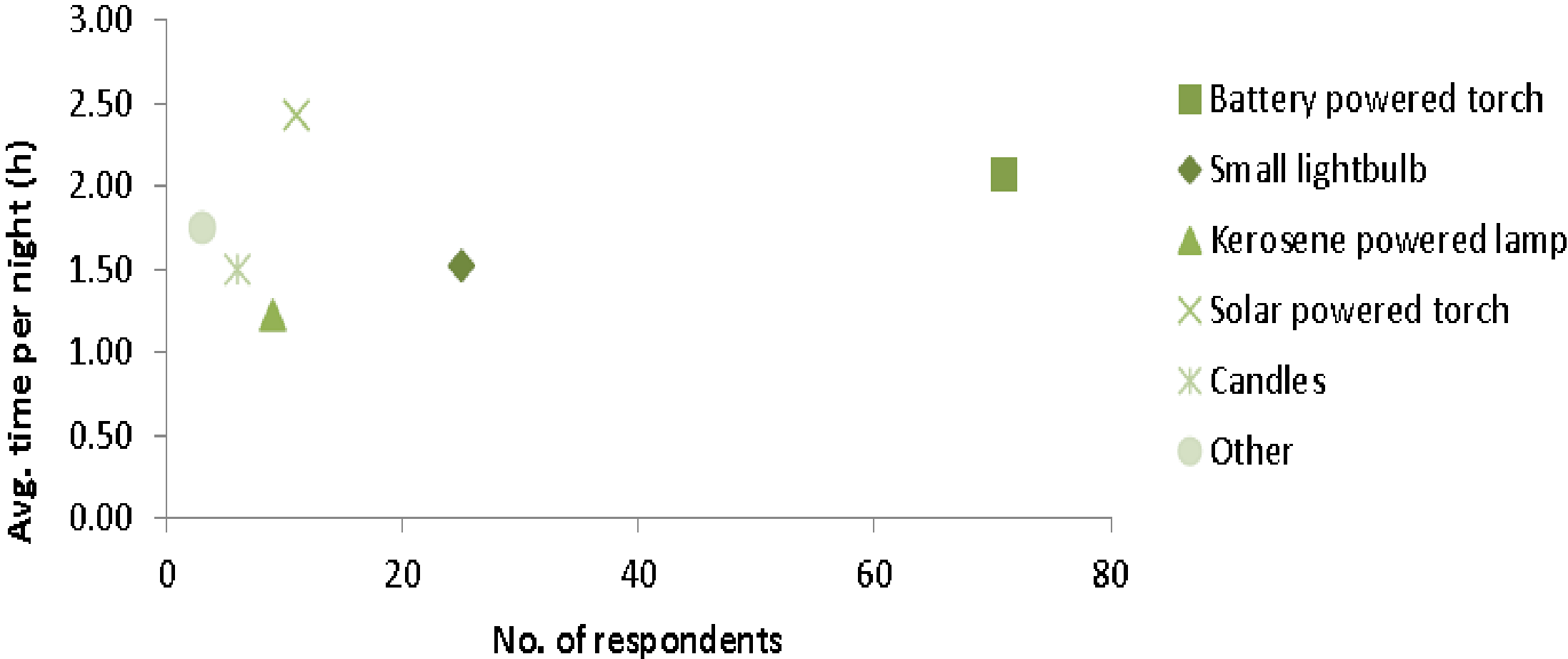
- Parameters to Determine
 - Socio-economic factors
 - Income levels
 - Number of people in household
 - Education level
 - Existing energy use and associated cost
 - Do you use kerosene? Candles? Batteries?
 - How much do you spend on each
 - Ability and Willingness to pay
 - Perception of Energy

Existing Studies from CEM CBOs

- An evaluation was carried out in 2012 by IODPARC to provide a 'snapshot' at that time of a number of issues within the country.
- As part of the preparation work prior to CEDP programme implementation, work was undertaken to understand the situation around energy use.
- A study of relevance was a school lighting survey focusing on pupils and their access to light sources



Analysis of Studying at Night Survey



Cost of Light Source

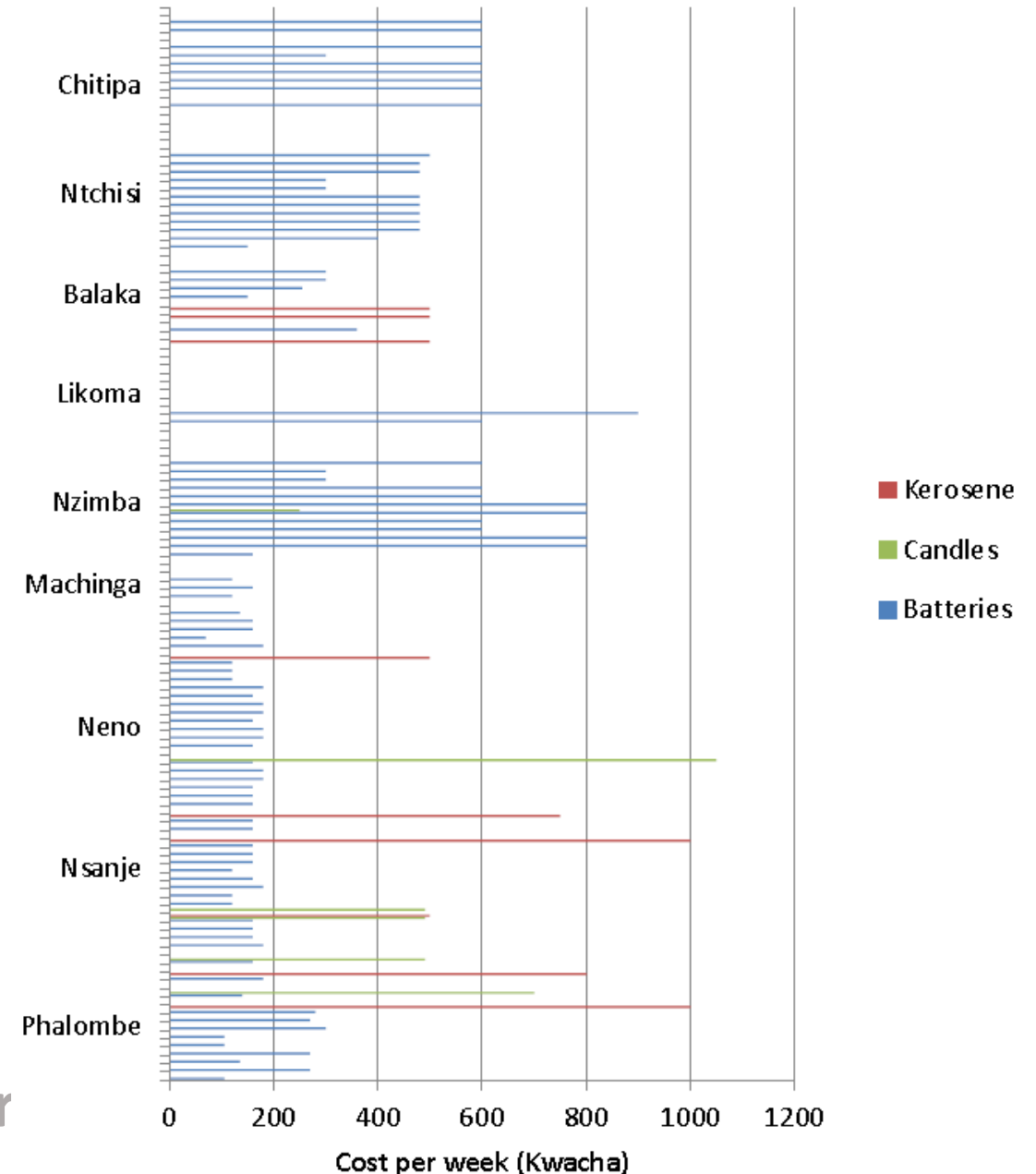
1. Costs for energy sources

The data presented for total cost per week of the energy sources; candles, kerosene and batteries.

Respondents in Phalombe, Nsanje, Neno and Machinga spend a very low amount per week on batteries, but there is an increased dependence on other sources.

Data also indicates a clear higher cost per week in Nzimba and Chitipa, this is likely to be linked to the price variation between districts (40/45K to around 100k) and increased usage.

Figure 11: Cost of light source per week



Lighting challenges

Data indicates that 94% of students identified that they faced challenges associated with access to lighting,

63% of which identified the lack of money as the critical issue.

There was also a significant proportion of answers (32%) relating to problems with the equipment itself:

torches breaking easily,

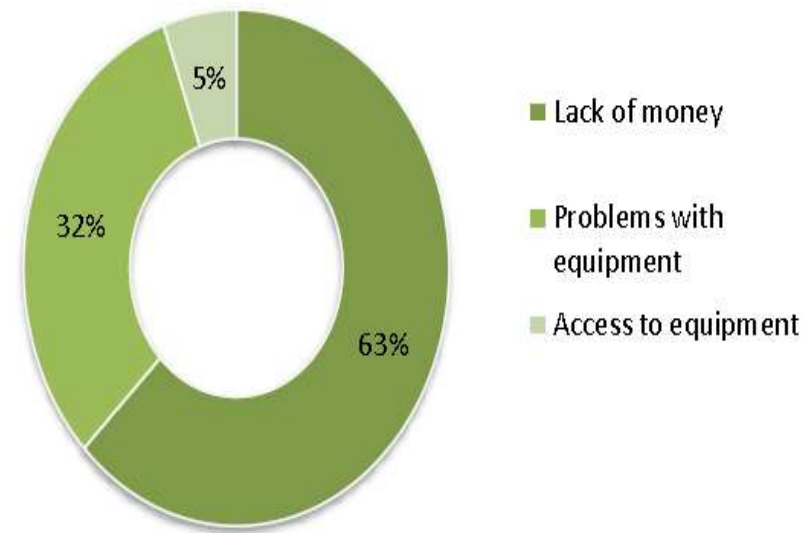
light produced is very dim or

issues with fake batteries.

Do you face any challenges in terms of access to energy (lighting power) as a student?



What challenges do you face?



Plan for data collection

- Data collected by surveys in 12 communities
 - Household questionnaire
 - Business questionnaire
- Pretesting with evaluation
 - Next Week in Dowa
- Visiting communities 22nd Feb – 4th of March
 - Deliver training,
 - conduct focus group discussions,
 - gather data



Plan for data collection

- Sample Sizes
 - Household – 20 per village
 - Business – 5 per village
 - More if possible, more = better
- Both surveys take about 30 minutes
 - 2 days at the community
 - Split up – one does training and focus groups, the other does surveys



Household Survey Sections

- Location of Interviewee
- Household Profile
- Income Questions
- Energy Use Questions (e.g. Kerosene, Candles, firewood)
- Electricity Generators (e.g. pico solar, petrol generator, SHS)
- Mobile Phones
- Appliances
- Lighting
- Productive use for household-
- Household Attitudes towards different energy systems



Business Survey Sections

- Details of the Business
- Financial Information about the business
- Availability of Finance
- Energy Use Questions (e.g. Kerosene, Candles, firewood)
- Electricity Generators (e.g. pico solar, petrol generator, SHS)
- Appliances
- Lighting
- Productive use for Business
- Willing to stock products?



Willingness to pay



- How much would you pay
 - to purchase?
 - to rent per month?
- Could you afford it this month?

Kobocollect







- Survey Tool with Mobile data collection – Free!
- <https://kf.kobotoolbox.org>
- Username: strathe4d
- Password: accesstoenergy!



Creating a Form

Form Drafts

+ Add Form

Business Questionairre 1/14/2016 Deploy form as new survey project	 
Household Questionnaire 1/14/2016 Deploy form as new survey project	 
test form 1/13/2016 Deploy form as new survey project	 

Adding Questions

The screenshot shows a web-based survey form titled "Household Questionnaire". At the top, there is a navigation bar with "Forms" and "Support" links, and a menu with options: "Form Settings", "Save and Exit Form", "Preview Form", "Hide All Responses", "Group Questions", and "Que".

The form content includes:

- A surveyor instruction: "(Surveyor Instruction) This questionnaire is administered to a household head or the mother in the household to get data required to assess the potential energy requirements for the household."
- A consent and information paragraph: "(Read the following) I am [YOUR NAME] from Community Energy Malawi. We are working with your community to develop renewable energy projects. We will be working on this project over the next three years and this involves learning more about the existing facilities. I would like to know about energy issues in this community. In order to do so, I'll be asking some questions and either myself or my colleagues will be gathering data directly. I would like to assure you that your personal opinions will be kept confidential and made anonymous. I would like to ask you to please try to be as accurate and honest as possible in your responses. This process today will take roughly 30 minutes of your time. If I have your agreement than we can begin the question. You are not obligated to answer any question if you feel uncomfortable and can skip or stop at any time. [Continue if affirmative] Nil: Proceed with interview only after getting consent from the respondent."
- A question about location: "The next questions are related to the location of the interviewee"
- Text input fields for: "Name of Village", "Group Village Headman", "Traditional Authority Contact address", and "Contact Person".

Each question and text field has a vertical toolbar on its right side with icons for adding, deleting, and editing questions.

time. If I have your agreement than we can begin the question. You are not obligated to answer any question if you feel uncomfortable and can skip or stop at any time.
{Continue if affirmative} NB: Proceed with Interview only after getting consent from the respondent



This is a new question - see the different types of question below

Select One	Select Many	abc Text	123 Number
1.0 Decimal	Date	Time	Date & time
GPS	Photo	Audio	Video
Note	Barcode	Acknowledge	1+1 Calculate
Matrix / Rating	Ranking		



The next questions are related to the location of the interviewee



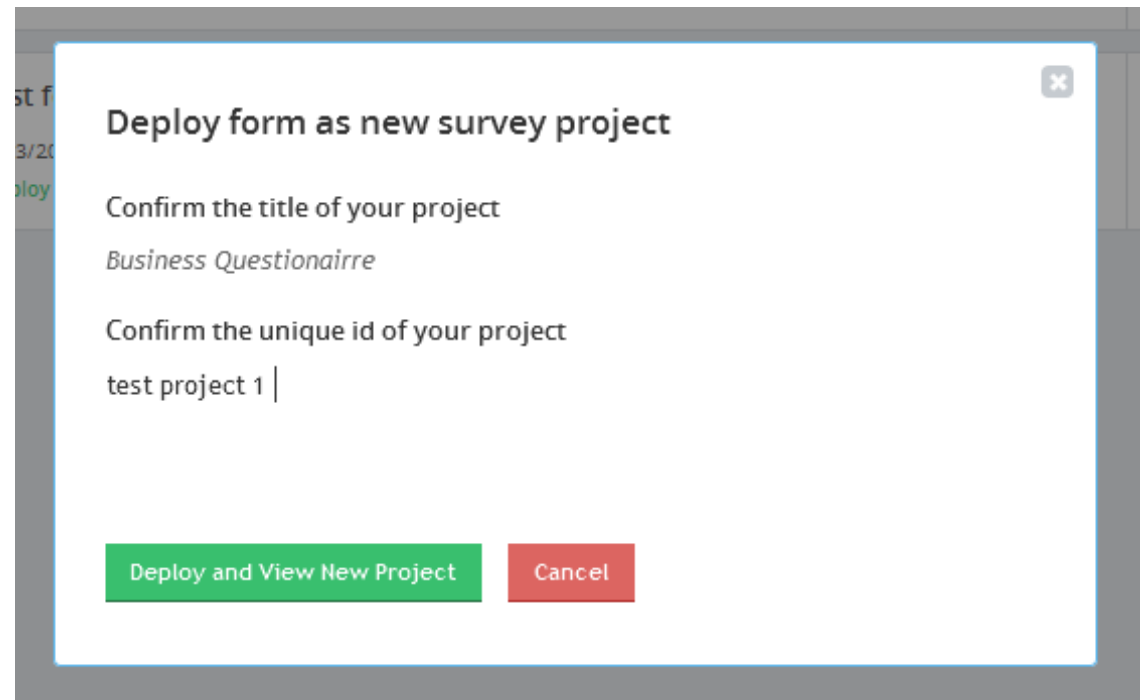
abc

Name of Village



Using Forms in a Project

- Once form is completed, “Save and Exit form”
- “deploy form as new project”






A screenshot of a web form titled "Deploy form as new survey project". The form contains two text input fields. The first field is labeled "Confirm the title of your project" and contains the text "Business Questionnaire". The second field is labeled "Confirm the unique id of your project" and contains the text "test project 1 |". At the bottom of the form, there are two buttons: a green button labeled "Deploy and View New Project" and a red button labeled "Cancel".

Projects



Business Questionnaire

🔗 Business Questionnaire



Submissions (0)

 View data in table	 Analyze data	 Download data
---------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------




Photos

 View gallery	 Download all photos
-----------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------

Add Data

 Enter data in browser	 How to collect data on mobile device?
--------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------

Form

test_project_1 		 Preview
----------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------



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Data Collection 1: Paper and Pen

HOUSEHOLD SURVEY QUESTIONNAIRE

{Surveyor Instruction}

This questionnaire is administered to a household head or the mother in the household to get data required to assess the potential energy requirements for the household.

{Read the following}

I am {YOUR NAME} from Community Energy Malawi. We are working with your community to develop renewable energy projects. We will be working on this project over the next three years and this involves learning more about the existing facilities.

I would like to know about energy issues in this community. In order to do so, I'll be asking some questions and either myself or my colleagues will be gathering data directly. I would like to assure you that your personal opinions will be kept confidential and made anonymous. I would like to ask you to please try to be as accurate and honest as possible in your responses.

This process today will take roughly 30 minutes of your time.

If I have your agreement than we can begin the question. You are not obligated to answer any question if you feel uncomfortable and can skip or stop at any time. {Continue if affirmative}

NB: Proceed with interview only after getting consent from the respondent

Survey Details

Text: Name of interviewer

Date: Date



Location of Interviewee

Text: Village:

Text: Group Village Headman

Text: Traditional Authority Contact address

Text: Phone number

Text: Contact Person

GPS: latitude _____ Longitude _____ Elevation _____

Household Profile

Text: Name of Respondent

Multiple (One) Choice Option: Sex of Respondent: a. Male b. Female

Number: Age of Respondent:

Multiple choice - Education Level of Respondent:

- [1] Never attended school 1.8
- [2] Attended primary school up to standard 5
- [3] Attended primary school up to standard 8
- [4] Attended Secondary school
- [5] Attended Vocational School
- [6] College level or above

Multiple (many) choice: Occupation of Respondent:

(Multiple responses allowed)

- [1] Worker non-formal employment (ganvu or seasonal employment)
- [2] Worker - formal employment
- [3] Farmer
- [4] Teacher
- [5] Small business (business that employs less than two workers)
- [6] Big business (business that employs two or more workers)

- Always have paper as a back-up
- Print and take paper surveys with you
- Remember clipboard and spare pens
- Data entry is time consuming

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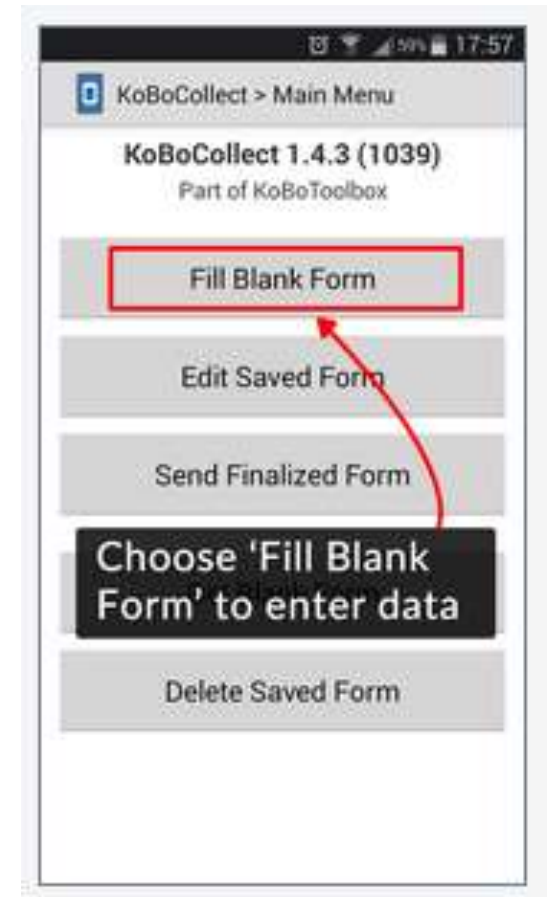
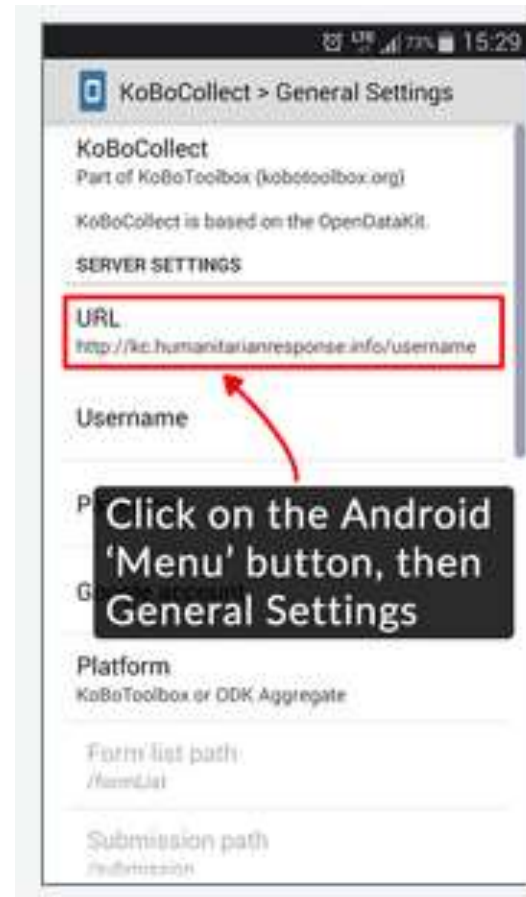
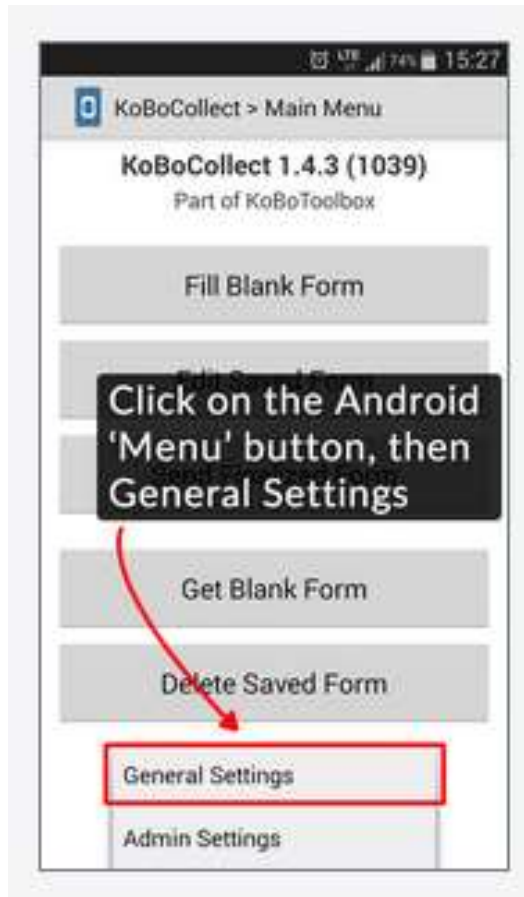
Web form data entry

The image displays two screenshots from the KoBo Toolbox interface. The left screenshot shows the 'Business Questionnaire' management page with three main sections: 'Submissions (0)', 'Photos', and 'Add Data'. The 'Add Data' section contains a red circle around a plus sign icon labeled 'Enter data in browser', with an orange arrow pointing from this icon to the right screenshot. The right screenshot is a preview of the 'Business Questionnaire' form, which includes a surveyor instruction, a detailed introduction from Community Energy Malawi, and several questions: 'Name of the business*', 'Are you the owner of the business?*' (with Yes/No radio buttons), and 'Describe the type of business*'. The KoBo Toolbox logo is visible in the top left of the preview, and a printer icon is in the top right.

Using mobile devices to collect information

- Download and install kobocollect app from google playstore
- General Settings
- Connect to server: <https://kc.kobotoolbox.org/strathe4d>
- Username: strathe4d
- Password: accesstoenergy!
- Here are some already prepared....
- Ownership of phones - UoS

Using the Kobo App



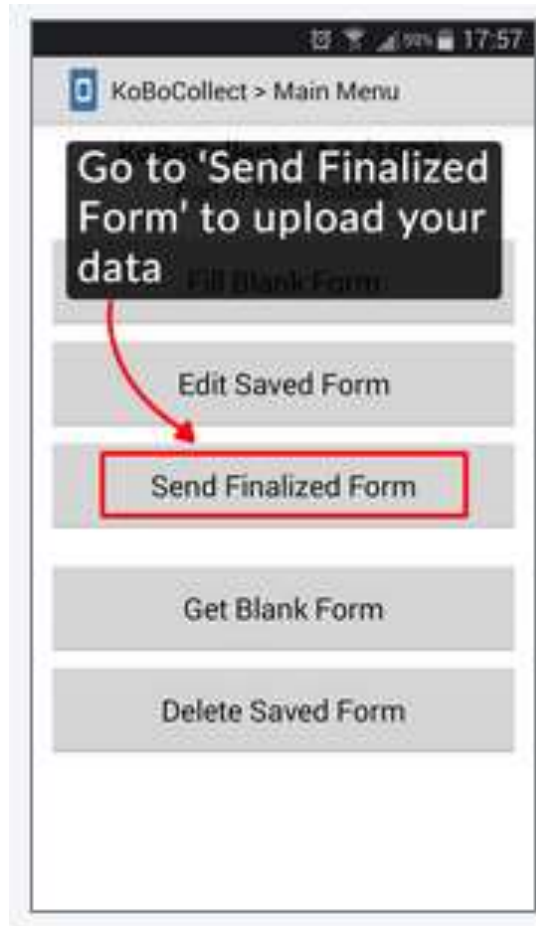
Filling in the form

- Scroll left for next question
- Scroll right to previous questions
- Sometimes there are notes or instructions
- Click “save” before leaving an unfinished survey
- Every field needs an answer – if don’t know put “999”



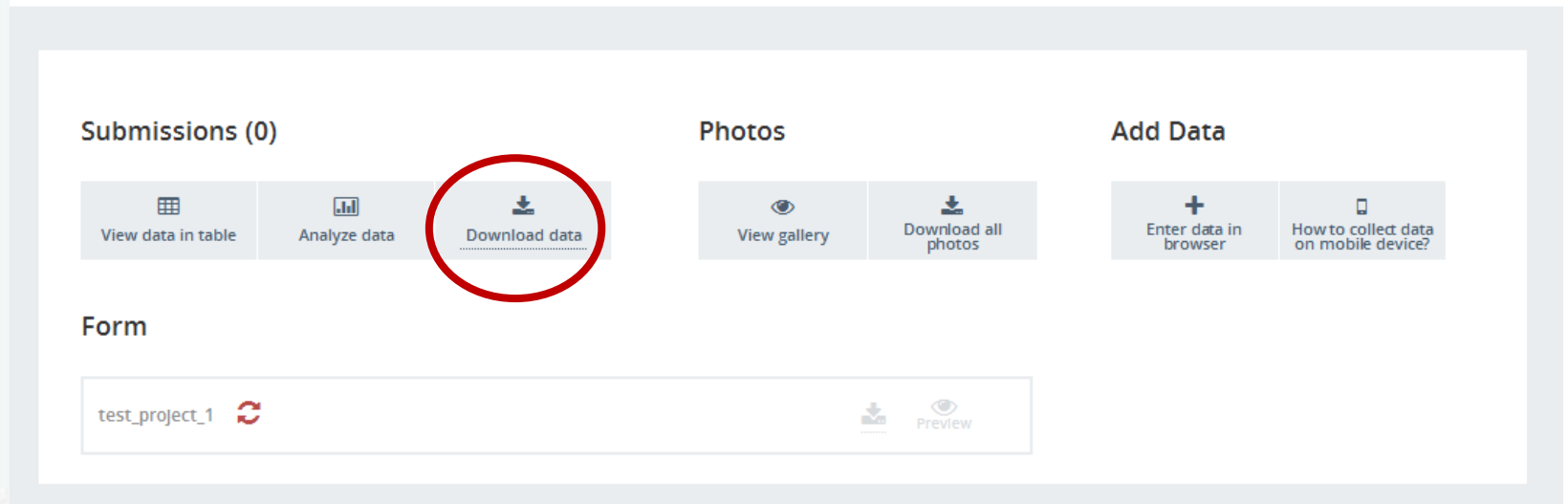
Once survey is complete:

- Surveys can be filled in Offline
- “Send Finalised Form” Once you have access to a data connection or wifi



Business Questionnaire

Business Questionnaire



Issues to consider when conducting Surveys

- Make it clear that all data is confidential
- Lost in translation!
- Language and need for native speakers
- How does the question come across
- Are the questions leading?

Survey Content

- Go through the questions – section by section
- Any problems with the questions?
- Are there any questions we need to add?
- Should any be removed?
- Should any be re-phrased?
- Think language and translation
- Please provide comments and feedback