

Module 2: Baseline Assessment  
**SESSION 10: INTRODUCTION TO KILOCALORIE CALCULATIONS**

**FACILITATOR NOTES**

<b>Presentation</b>	<i>Introduction to Kilocalorie Calculations.ppt</i>
<b>Handouts</b>	<ul style="list-style-type: none"> <li>• <i>H2.10 Handout 1 Kcal Examples and Exercises</i></li> <li>• <i>H2.10 Handout 2 Kilocalorie Table</i></li> <li>• <i>H2.10 Handout 3 Key Points about Kilocalories</i></li> </ul>
<b>Answer sheets</b>	<ul style="list-style-type: none"> <li>• <i>H2.10 Answer Sheet 1</i></li> <li>• <i>H2.10 Answer Sheet 2</i></li> </ul>
<b>Extras</b>	Calculators Livelihoods Field Handbook
<b>Practitioners' Guide Reference</b>	<b>Chapter 3:</b> HOW TO GATHER BASELINE INFORMATION. Activity 5. Conduct Interviews with Household Representatives. <b><i>What you need to know before the interview</i></b>
<b>Time</b>	1 hour 15 minutes

**Content**

To explain what calories are and their importance in HEA, and to introduce some of the kilocalorie calculations that are used in an HEA baseline assessment.

**Objectives**

By the end of this session, participants should be able to:

- Explain why we need to understand the calorie content of different foods in HEA.
- Think in terms of foods grouped according to similar kilocalorie values, such as cereals, pulses, vegetables/fruit.
- Carry out calculations to work out the caloric value of different foods and the contribution of a certain amount of a particular food to household food needs

**When to run this session**

This is session 10 in the Baseline Assessment Training Module. It is important that these exercises come before the Meru Lowland Calculation Exercise (Session 11), because the skills learned here are needed for that session.

**Handouts**

- *H2.10 Handout 1 Kilocalorie Examples and Exercises.*  
This contains the exercises which the participants do after the presentation. They are outlined below.
- *H2.10 Handout 2 Kilocalorie Table*

This is a table showing the caloric values of different foods. However, participants should if possible use the same table which is in the Livelihoods Field Handbook so that they get accustomed to using the handbook.

- *H2.10 Answer Sheet 1*  
*H2.10 Answer Sheet 2*  
These contain the answers to the exercises and should be handed out after the participants have done the exercises.
- *H2.10 Handout 3 Key Points about Kilocalories*  
This outlines the key points made in the presentation: what a calorie is, why we are interested in them in HEA, and why we use a basic requirement of 2100 kcals per person per day.
- You will also need **calculators**: one for each participant.

### Key learning points

- Calories in nutrition are a measure of energy. The energy content of foods is usually stated in 1000-calorie units: kilo-calories.
- Some foods have far more calories than others. Calorie-dense foods include cereals, pulses, vegetable oil, ghee, butter, and sugar.
- Balanced nutrition requires more than energy intake – it requires proteins, vitamins, minerals etc. But the first measure of access to enough food for survival is in terms of energy, and that is the measure that HEA refers to.
- Most governments and agencies agree that the minimum, average daily kilo-calorie requirement for a population is: 2100 kcals per person per day (pppd). This is not the requirement for an individual, but is the average across a population and over time.
- In HEA, we assume a population that is surviving and reproducing must be meeting this requirement or close to it. So we can ask people about their sources of food and by calculating how many calories this gives them, check to see if what they tell us accords with what they must be consuming in order to survive.

### How is the session run?

Session plan summary		
Activity	Methodology	Timing
1. Introduction to calories and their role in HEA	Presentation and discussion in plenary	10 minutes
2. Doing calorie calculations in HEA	Individual exercises	1 hour
3. Wrap up	Plenary discussion	5 minutes
Total		1 hour 15 minutes

### ACTIVITY 1: INTRODUCTION TO CALORIES AND THEIR ROLE IN HEA (10 MINUTES)

Start the session with the presentation. You need to explain what a calorie is and why it is important in HEA. You then go on to describe how different foods have different energy contents.

The presentation should be followed by a short discussion with participants on the caloric value of different foods. Encourage them to find the value of x or y food from the kilocalorie table (preferably in the Livelihoods Field Handbook, and if not then in the handout *H2.10 Handout 2 Kilocalorie Table*) and then to appreciate the main differences - which tend to be water content.

**ACTIVITY 2: DOING CALORIE CALCULATIONS IN HEA**

(1 HOUR)

You can then move on to the two exercises in the handout (*H2.10 Handout 1 Kilocalorie Examples and Exercises*).

- ***Exercise 1: Calculating the quantities of different food items needed to meet calorie requirements***

In this exercise, participants learn how to calculate how much of a particular food a person or household would have to eat to meet their calorie requirements for a day or year.

Start by going through the examples on the handout, which go through the calculations step by step. Questions relate first of all to the individual and their daily food requirements (how much maize would a person have to eat per day, if they were only eating maize?) and then move on to the household and their annual food needs (how much maize would a household have to eat per year, if they were only eating maize?)

Once you have gone through these examples, participants should try to do Exercise 1 by themselves.

- ***Exercise 2: Converting food sources into percentages of annual food needs***

In the second exercise, participants learn how to calculate how much a particular food source contributes to overall household calorie requirements: for example, how much does a sack of barley contribute to a household's annual food needs?

Walk participants through the different approaches shown in the handout; this shows, step by step, the different ways in which the answer can be calculated. They should then try to do Exercise 2 by themselves.

**ACTIVITY 3: WRAP UP**

(5 MINUTES)

- Try and bring together the main points from the session, which are summarised in *H2.10 Handout 3 Key Points about Kilocalories*. These include the key learning points outlined above.