

# Participatory Baseline Survey Methods of Implementation

Type the name of your  
organization here.



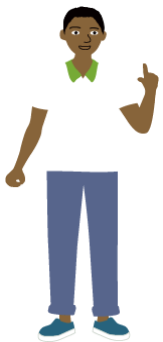
# WHERE ARE WE?: Participatory Baseline Survey in SHEP's 4 Steps

4 Steps	Activities
<b>1. Share goal with farmers.</b>	Sensitization Workshop
<b>2. Farmers' awareness is raised.</b>	<p><b>Participatory Baseline Survey</b></p> <div data-bbox="1668 635 2390 773" style="border: 1px solid black; border-radius: 10px; padding: 5px; margin-left: 200px;"> <p>Baseline Survey as a way to raise farmers' awareness.</p> </div> <p>(optional) Stakeholder Forum Market Survey</p>
<b>3 . Farmers make decisions.</b>	Target Crop Selection Crop Calendar Making
<b>4. Farmers acquire skills.</b>	In-field trainings
Follow-up and monitoring (including Participatory Endline Survey)	

# PART 1: CONCEPT

# WHY?: Objectives of Participatory Baseline Survey

- Baseline Survey has **dual purposes**.
  1. For the farmers
    - Understanding their **current situations** to identify areas for improvement
    - Understanding the **importance of record keeping**
  2. For the implementers
    - **Gathering data** on the target farmers' situations in order to assess improvements after SHEP activities (Comparison between “before” and “after”)



# WHAT?: Outline of Participatory Baseline Survey

- Ask the farmers to fill out **two kinds of survey sheets**
  - (1) Baseline Survey Part 1- **Production, Income and Cost**
  - (2) Baseline Survey Part 2- **Agricultural Techniques**
- The **farmers themselves** fill out the forms (Offer help where necessary)
- Data is collected and analyzed by the implementers
- Feedback is given to the farmers at a later day

# FORMAT: Baseline Survey Questionnaire Forms

- Baseline Survey Part 1- Production, Income and Cost

1.Crop Name and Variety	2.Area under the Crop in meter x meter (m <sup>2</sup> ) or in ha 100m <sup>2</sup> =0.01ha 1,000m <sup>2</sup> =0.1ha 10,000m <sup>2</sup> =1ha		3. Production sold at market in various unit (e.g. bags, crates, bundles, bushels, etc.)	4. Production sold at market in kg (converted into kg)	5.Production sold at market in kg per ha	6. Average Price per various unit (local currency per unit)	7. Average Price per kg (converted into kg) in local currency	8.Total Income in local currency	9.Total Cost of Production in local currency (incl. inputs, transportation, labor, etc.)	10.Net Income (profit) in local currency
1	2 a.	2 b.	3	4	(4./2 b.	6	6./unit conversion in box	(3. x 6.) or (4. x7.)	9	8. – 9.
1 <sup>st</sup> Crop:	M x M (m <sup>2</sup> )	ha	(unit: )	kg	kg	(unit: )				
2 <sup>nd</sup> Crop:	M x M (m <sup>2</sup> )	ha	(unit: )	kg	kg	(unit: )				
3 <sup>rd</sup> Crop	M x M (m <sup>2</sup> )	ha	(unit: )	kg	kg	(unit: )				
4 <sup>th</sup> Crop	M x M (m <sup>2</sup> )	ha	(unit: )	kg	kg	(unit: )				

Please indicate unit conversions in the box below. (e.g.) 1 bag of Irish Potato = 110 kg, 1 head of Cabbage = 2 kg

# FORMAT: Baseline Survey Questionnaire Forms

- Baseline Survey Part 2- **Agricultural Techniques**

Pre to Post Cultivation Stages		Items	Horticultural Techniques Advocated for Adoption	Yes	No
1	Pre-Cultivation Preparation	Q 1	Do you undertake a market survey to determine the crop(s) to cultivate each season?		
		Q 2	Do you prepare and use crop calendar(s) based on the market survey results?		
		Q 3	Do you undertake soil testing at least once in two years for vegetables/annual flowers; or before the planting for fruit trees/perennial flowers?		
		Q 4	Do you use recommended composting practices by using different organic materials to supply major nutrients: Nitrogen (N), Phosphorus (P), and Potassium (K) in preparing compost/manure?		
		Q 5	Do you use recommended quality planting material(s) with one or more of the following characteristics: disease resistance and tolerance, high yield, early maturity, better tastes, size, and longer shelf life?		
2	Land Preparation	Q 6	Do you use with one or more following recommended land preparation practices in management of pests & diseases: solarization, timely ploughing, appropriate depth of ploughing, and minimizing movement of soil to check possible spread soil borne pests & diseases?		
		Q 7	Do you incorporate crop residue at least two months before planting into the farm during		

# FORMAT: Baseline Survey Questionnaire Forms

- The two forms are just examples. Questions can be modified (deleted, added, changed, etc.) in accordance with local situations.
- When modifying, especially when adding questions, carefully consider farmers' capacity levels (their memory, literacy skills, etc.) and required time. Do not make it too demanding.



# HOW?: Key Implementation Tips

- The survey should be **more for farmers' benefit** than for implementers' benefit

## Intervention to be avoided



### Extension Staff

"The survey is necessary for us to know the effect of SHEP intervention."



### Farmers

"OK.... We are giving data for them to help them do a good job. It's for their benefit."

## Preferred intervention



### Extension Staff

"Keeping a record on what you buy and sell is important for farm management. The baseline survey can help you manage your farming business."



### Farmers

"We didn't know record-keeping was so beneficial to us. Let's practice bookkeeping from today. It's for our benefit."

**Farmer-centered**

# HOW?: Key Implementation Tips

- The target **farmers should be the main actors** of the survey, rather than the extension staff.



## Raising Motivation

We are not just providing data to the government. We are doing it for improving our business.

Support for  
Autonomy

- The extension staff **help farmers** calculate basic figures such as crop yield, cost, profit, etc. which are important for farm management.



## Raising Motivation

We are now able to calculate various figures. We have never done that before.

Support for  
Competence










## PART 2: PRACTICE

# STEP: Implementation Procedures

1. Prepare a conversion table (local units into kilograms).

Malawi's conversion table with pictures

2. Organize a meeting and instruct the farmers how to fill out the two forms.
3. Let the farmers fill out the forms by themselves. Let them take the forms home and complete them with their family members if necessary. **[Tip!] Ask literate farmers to assist illiterate farmers.**

<p>Crop: Rape Unit: bundle Conversion to G: 800g</p> 	<p>Crop: Chinese Unit: bundle Conversion to G: 600g</p> 	<p>Crop: Beans Unit: cup Conversion to G: 170g</p> 
<p>Crop: Cabbage Unit: head Conversion to KG: 1.0kg</p> 	<p>Crop: Pumpkin Unit: head Conversion to KG: 3.5kg</p> 	<p>Crop: Tomato Unit: pail Conversion to KG: 15kg</p> 
<p>Crop: Potato Unit: bag Conversion to KG: 70kg</p> 	<p>Crop: Potato Unit: pail Conversion to KG: 20kg</p> 	<p>Crop: Onion Unit: bundle Conversion to G: 450g</p> 

# STEP: Implementation Procedures

4. After completing the forms, discuss new findings.
  - ✓ *How can record keeping help us (farmers) manage our farming business?*
  - ✓ *Are we making enough profits as we have hoped?*
  - ✓ *Do we have sufficient cultivation skills? What are our weaknesses?*
5. Submit the completed forms to the designated office. (Change this to an appropriate section -e.g. Project Unit, central ministry office, etc. where analysis will be made) **[Note] Make sure to correct obvious mistakes and errors before submitting.**
6. Give feedback to the farmers when analyzed data is sent back to the extension staff.

# Completing Production, Income & Cost Sheet

<Example>

## Baseline Survey Part 1- Production, Income and Cost

Date: \_\_\_\_/\_\_\_\_/\_\_\_\_  
 Name of District: \_\_\_\_\_ Name of Sub-District: \_\_\_\_\_  
 Name of the Farmer Group: \_\_\_\_\_  
 Name of Farmer: \_\_\_\_\_ Male/Female: \_\_\_\_\_ Tel. No.: \_\_\_\_\_

**Basic information  
of the farmer**

Please indicate the information of horticultural crops (do not include other crops such as maize and sugarcane) in the last cropping season.

1. Crop Name and Variety	2. Area under the Crop in meter x meter (m <sup>2</sup> ) or in ha 100m <sup>2</sup> =0.01ha 1,000m <sup>2</sup> =0.1ha 10,000m <sup>2</sup> =1ha		3. Production sold at market in various unit (e.g. bags, crates, bundles, bushels, etc.)	4. Production sold at market in kg (converted into kg)	5. Production sold at market in kg per ha	6. Average Price per various unit (local currency per unit)	7. Average Price per kg (converted into kg) in local currency	8. Total Income in local currency	9. Total Cost of Production in local currency (incl. inputs, transportation, labor, etc.)	10. Net Income (profit) in local currency
1	2 a.	2 b.	3	4	4/2 b.	6.	6./unit conversion in box	(3. x 6.) or (4. x 7.)	9	8.-9.
1 <sup>st</sup> Crop: Tomato Cal j	M x M (M <sup>2</sup> ) 20x100= 2,000m <sup>2</sup>	0.2ha	100 (unit: crate)	2,000kg	10,000kg	\$20 (unit: crate)	\$1	\$2,000	\$700	\$1,300
2 <sup>nd</sup> Crop:	M x M (m <sup>2</sup> )	ha	(unit: )	kg	kg	(unit: )				
3 <sup>rd</sup> Crop:	M x M (m <sup>2</sup> )	ha	(unit: )	kg	kg	(unit: )				
4 <sup>th</sup> Crop:	M x M (m <sup>2</sup> )	ha	(unit: )	kg	kg	(unit: )				

**Production,  
income &  
cost**

Please indicate unit conversions in the box below. (e.g.) 1 bag of Irish Potato = 110 kg, 1 head of Cabbage = 2 kg

1 crate of tomatoes = 20kg

**Unit  
conversion**

# Completing Production, Income & Cost Sheet

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## 1 Crop Name and Variety

→ Indicate name of the horticultural crop and variety grown in the last cropping season.

## 2 (2a. & 2b.) Area under the Crop in meter X meter (m<sup>2</sup>) or ha

→ Pacing can be used to estimate area under the crop

# Completing Production, Income & Cost Sheet

Please indicate the information of horticultural crops (do not include other crops such as maize and sugarcane) in the last cropping season.

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3 Production sold at market in various unit (e.g. bags, crates, bundles, bushels, etc.)

→ Total quantity sold at markets.

4 [Automatic calculation- no need to write in this column as long as conversion is indicated] Production sold at market in kg

→ Farmers can write in kg in this column instead of writing in column 3.



# Completing Production, Income & Cost Sheet

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**5 (4/2b.) [Automatic calculation- no need to write in this column]  
Production sold at market in kg per ha**

→ Analyzing productivity. Farmers do not need to write in this column.

**6 Average Price per various unit (local currency per unit)**

→ Marketed price per unit

# Completing Production, Income & Cost Sheet

Please indicate the information of horticultural crops (do not include other crops such as maize and sugarcane) in the last cropping season.

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**7 (6/unit conversion in box)** [Automatic calculation- no need to write in this column] **Average Price per kg in local currency**

→ Farmers do not need to write in this column if they do not know the price per kg.

**8 (3X6) or (4X7)** [Automatic calculation- no need to write in this column] **Total Income in local currency**

→ This is the total income from the crop.

# Completing Production, Income & Cost Sheet

Please indicate the information of horticultural crops (do not include other crops such as maize and sugarcane) in the last cropping season.

1. Crop Name and Variety	2. Area under the Crop in meter x meter (m <sup>2</sup> ) or in ha 100m <sup>2</sup> =0.01ha 1,000m <sup>2</sup> =0.1ha 10,000m <sup>2</sup> =1ha		3. Production sold at market in various unit (e.g. bags, crates, bundles, bushels, etc.)	4. Production sold at market in kg (converted into kg)	5. Production sold at market in kg per ha	6. Average Price per various unit (local currency per unit)	7. Average Price per kg (converted into kg) in local currency	8. Total Income in local currency	9. Total Cost of Production in local currency (incl. inputs, transportation, labor, etc.)	10. Net income (profit) in local currency
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## 9 Total Cost of Production in local currency

→ Cost of seed, planting materials, fertilizers/manures, pesticides, posts/stakes, labor costs, transportation & marketing costs, etc.

## 10 (8-9) [Automatic calculation- no need to write in this column] Net income (profit) in local currency

→ This is the total profit from the crop.

# Completing Production, Income & Cost Sheet

4 <sup>th</sup> Crop	M x M (m <sup>2</sup> )	ha	(unit: )	kg	kg	(unit: )				
			(unit: )			(unit: )				

Please indicate unit conversions in the box below. (e.g.) 1 bag of Irish Potato = 110 kg, 1 head of Cabbage = 2 kg

1 crate of tomatoes = 20kg

In the box, indicate unit conversions









<example>

1 bag of Irish Potato 110kg

1 head of cabbage = 2kg

1 crate of tomatoes = 20kg

A conversion table like this will be useful.

<p>Crop: Rape Unit: bundle Conversion to G: 800g</p> 	<p>Crop: Chinese Unit: bundle Conversion to G: 600g</p> 	<p>Crop: Beans Unit: cup Conversion to G: 170g</p> 
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<p>Crop: Potato Unit: bag Conversion to KG: 70kg</p> 	<p>Crop: Potato Unit: pall Conversion to KG: 20kg</p> 	<p>Crop: Onion Unit: bundle Conversion to G: 450g</p> 

# Completing Production, Income & Cost Sheet

## Let's Exercise !

- Calculate cabbage production, income & cost for this farmer.

Last cropping season, we grew cabbages. The name of the variety was Gloria. We set aside about 40 meters x 5 meters near here and 12 meters x 10 meters over the other side for cabbage production. We harvested 160 heads. Our family ate 10 heads and sold the rest of the cabbages to a middleman. Our cabbages were fairly big and each head weighed around 1.5kg. The middleman bought the cabbages for 40 cents per head. The total cost of production was around \$20 which included costs of tomato production. The amount of tomato production was about the same as that of cabbages.

# Useful Data: Productivity Comparison (Cabbages and other brassicas – Year 2014)

Country	kg/ha
South Africa	56,808
Japan	42,651
U.S.A.	39,824
Namibia	33,282
Kenya	30,917
Niger	27,914
Madagascar	21,437
D.R. Congo	17,057
Zimbabwe	12,800
Rwanda	12,134
Ethiopia	9,900
<b>World</b>	<b>29,082</b>

Source: UN Data  
(<http://data.un.org/Data.aspx?d=FAO&f=itemCode%3A358>)

# Completing Agricultural Techniques Sheet

## Baseline Survey Part 2- Agricultural Techniques

Date: \_\_\_\_ / \_\_\_\_ / \_\_\_\_  
 Name of District: \_\_\_\_\_ Name of Sub-District: \_\_\_\_\_  
 Name of the Farmer Group: \_\_\_\_\_  
 Name of Farmer: \_\_\_\_\_ Male/Female: \_\_\_\_\_ Tel. No.: \_\_\_\_\_

Basic information  
of the farmer

\* Please tick "YES" or "NO" to the following questions. Write any additional information in the margin.

Pre to Post Cultivation Stages	Items	Horticultural Techniques Advocated for Adoption	Yes	No
1 Pre-Cultivation Preparation	Q 1	Do you undertake a <b>market survey</b> to determine the crop(s) to cultivate each season?		
	Q 2	Do you prepare and use <b>crop calendar(s)</b> based on the market survey results?		
	Q 3	Do you undertake <b>soil testing</b> at least once in two years for vegetables/annual flowers; or before the planting for fruit trees/perennial flowers?		
	Q 4	Do you use recommended <b>composting</b> practices by using different organic materials to supply major nutrients: Nitrogen (N), Phosphorus (P), and Potassium (K) in preparing compost/manure?		
	Q 5	Do you use recommended <b>quality planting material(s)</b> with one or more of the following characteristics: disease resistance and tolerance, high yield, early maturity, better tastes, size, and longer shelf life?		
2 Land Preparation	Q 6	Do you use with one or more following recommended <b>land preparation practices</b> in management of pests & diseases:		

Questions to assess farmer's agricultural techniques

# Completing Agricultural Techniques Sheet

- If the answer is “Yes”, simply check (✓) the left box marked “Yes”.
- If the answer is “No”, simply check (✓) the left box marked “No”.
- We expect that the number of “Yes” will increase after the farmers’ participation in SHEP activities.
- During In-field Training, try to emphasize the techniques which had many “No” answers.



# CHECKLIST: Points to be Confirmed after Participatory Baseline Survey

- ✓ The target farmers **understand their current production and sales situation** and identify gaps that need to be filled.
- ✓ The target farmers **understand their current technical levels** in terms of production and marketing and identify gaps that need to be filled.
- ✓ The target farmers **understand the importance of farm record keeping**, both in terms of bookkeeping and farm activity records and become willing to start keeping records.
- ✓ The **male-female ratio** of the participants is balanced.
- ✓ **Gender-disaggregated data** is collected and analyzed.
- ✓ (optional) The **members' spouses** are involved.

# Participatory Baseline Survey in Action

I thought I was making money by producing this crop. But I was actually losing money!



It will be beneficial for me to keep records so that I can keep track of what is going on at my farm. That's the first step to practice "farming as a business".

Photo: Kenya

# TROUBLESHOOTING



- ✓ What if farmers do not have written records on income & expenditure? → **Encourage farmers to make it a habit** to keep a record from now on.
- ✓ Can illiterate farmers do it? → Yes. **Assist them** or ask literate farmers or family members to help them.
- ✓ What if data is not so reliable? → Usually it is difficult to obtain data accurate enough for statistical purpose. Still, encourage farmers to **provide as accurate data as possible** (Such data will still be a powerful tool to inform policy and decision-makers).
- ✓ What if farmers do not want to disclose/submit data? → **Do not force them**. Try to find someone who is willing to do so.

**Way Forward:** Implementation Schedule,  
Reporting, add any other necessary info. here