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FEDERAL DEMOCRATIC REPUBLIC OF ETHIOPIA
MINISTRY OF AGRICULTURE

JICA

Preparation & Implementation Process of Baseline Survey

Presented to Participants of Ethio-SHEP ToT

The project for Smallholder Horticulture Farmer Empowerment Through Promotion of Market Oriented Agriculture (Ethio-SHEP)

Essential 4 Steps

Essential 4 steps	Activities
1. Sharing goal with farmers.	◆ Sensitization Workshop
2. Farmers' Awareness is raised.	◆ **Participatory Baseline Survey** ◆ Market Survey
3. Farmers make decisions.	◆ Target Crop Selection ◆ (Optional) Market Linkage Forum ◆ Crop Calendar Making
4. Farmers acquire skills.	◆ In-field trainings ◆ (Optional) Exchange Visit ◆ Field Day
Follow-up and monitoring (including Participatory Endline Survey)	

Contents of the Presentation

1. Background
2. Objective
3. Preparation
4. Tools of the Baseline Survey
    1. Crop Production & Income Analysis Data (CP&IAD) Sheet
    2. General Horticultural Crop Production & Post- Harvest Handling Techniques (GHCP&PHHT) 24
5. Implementation
6. Experiences from Ethio-SHEP intervention

1. Background

- Smallholder farmers rarely keep **farm records**
- But, **Baseline Survey** is **essential** to determine changes/progress of target groups in order to evaluate achievements.

2. Objective

- To collect information about **farmers current situation**. (**level of yield & income**) to establish baseline data
- To help farmers **understand real situation** of their horticultural farming (current farm management).
- To **assess the level** of both individual farmers and farmer groups **in using basic horticultural production techniques.**

3. Preparation and Implementation

- **Prepare program** for the baseline survey by discussing with stakeholders. (farmers representative, woreda, kebele)
- Check available **venues and convenient time** for participants and fix schedule.
- Prepare **necessary items**: presentation materials, Survey Tools, (Translate to local language if necessary), stationaries, etc.

Preparation ….

- **Send invitation** to participants (Farmer group).
- **Gather target** farmers in the venue.
- **Explain to farmers** about the objectives, tools & procedures of Baseline Survey (how to fill the questionnaires)
  - **Distribute tools** (questionnaire) for farmers.
  - **Inform farmers** to fill the survey sheet **by themselves** (if they can read and write,,,)
  - **Request literate** farmers to support illiterate farmers
  - Ask experts to follow up and support.

4. Baseline Survey Tool

Baseline Survey Part 1- Crop Production and Income Analysis Data Sheet

Date:___/___/

Name of woreda:_____ Name of kebele:_____ Name of the Farmer Group:

Name of Farmer:_____ Male/Female:___ Tel. No.:

Crop Name (Variety) 1	Field size Unit (Fachasa, ha, Timad) 2	**Harvest Yield** (in local unit and KG) 3	**Sales Amount** (in local unit) 4	**Average Price (ETB per local unit)** 5	**Total Income (ETB)** 6	**Total Production Cost (ETB)** 7	**Net Income (ETB)** 8
Irrigation crop 1		1 = kg				DAP/NPS Urea Chemical Seeds	
Irrigation Crop 2		1 = kg				DAP/NPS Urea Chemical Seeds	
Rain Fed Crop 1		1 = kg				DAP/NPS Urea Chemical Seeds	
Rain fed Crop 2		1 = kg				DAP/NPS Urea Chemical Seeds	

4. Baseline Survey Tool

Example

Date: xxxx / xx / xx

Name of woreda: xxxxxxxx Name of kebele: xxxxxxxxx Name of the Farmer Group: xxxxxxx

Name of Farmer: xxxxxxxxx Male/Female: M/F Tel. No.: xxxxxxxxxxxxxx

Crop Name (Variety) 1	Field size Unit (Fachasa, ha, Timad) 2	Harvest Yield (in local unit and KG) 3	Sales Amount (in local unit) 4	Average Price (ETB per local unit) 5	Total Income (ETB) 6	Total Production Cost (ETB) 7	Net Income (ETB) 8
Irrigation crop 1 Potato	3 timad	1 (qt) = (100) kg 100 qt	90 qt	500 ETB	45,000	DAP/NPS: 1,890 ETB / 135kg Urea 1,260 ETB / 90kg Seeds 10,500 ETB/150 kg Chemical 600 ETB / 2 btl Labour 600 ETB Others 300 ETB	29,850
Irrigation Crop 2 Head Cabbage	2 timad	1 (qt) =(75) kg 210 qt	180 qt	200 ETB	36,000	DAP/NPS 1,680 ETB / 120kg Urea 700 ETB / 50kg Seeds 1,600 ETB / 200g Chemical 1,200 ETB / 3btl Labour 1,000 ETB	29,820
Rain Fed Crop 1 Wheat	2 timad	1 (qt) = (110) kg 80 qt	11 qt	800 ETB	8,800	DAP/NPS 1,600EBT / 100 kg Urea 700 ETB / 50 kg Seeds 1,100 ETB / 50 kg Chemical 1,200ETB / 2 btls Labour 300 ETB	3,900
Rain fed Crop 2		1 = kg				DAP/NPS Urea Chemical Seeds	

4.1. Contents of CP&IAD Sheet

Part 1: Background Information

- Date: (Day/Month/Year)
- Group Name: _____
- Woreda: _____
- Kebele : _____
- Farmer's Name: _____
- Male/Female: _____
- Telephone No _____

Contents of CP&IAD Sheet Cont'

Part 2: Crop Production Analysis Table

1. **Crop Name and Variety:** Indicate name of the Crop and Variety
2. **Area under the Crop:** (use any locally available units of measurement but change to ha)
3. **Total Production (Kg):** production from the area under the crop, farmers may provide production amount in locally available units, **but need to be converted to KG** (Note: unit of measurement is different in each place, so discuss with farmer group and agree on the unit conversion rate to kg)

Contents

4. **Total Marketed amount:** (in both local unit and KG). Farmers may provide information in local units but need to be changed to KG

5. **Average Price per Kg (Birr./Kg):** Where unit of sale is not in Kg, convert to KG

6. **Total Income (ETB):** **Average price per Kg** (column **5.**) multiplied by marketed **Produce** (column **4.**)

Contents

7. **Total Cost of Production** (ETB) includes:

- Cost of seed/planting materials, fertilizers/pesticides,
- Labor costs which may include ploughing, disease control (spraying), harvesting etc.
- Transportation & marketing costs

8. **Net Income (ETB)= Total Income**

(Column **6.**) minus **Total Cost of Production** (Column **7.**)

5.2. Records to support for baseline survey

Note: Inform farmers to keep record of the following information always

5.1.1. Cost of Inputs

Type of input	Date of Purchase	Quantity	Cost
Seeds	Potatoes (Gudene) July 2021	100 kg	1,800 ETB
Fertilizers			
Insecticides			

Records .....

5.2.2 Cost of Labor

Farm activity	Date of Implementation	Payment (ETB)
Land Preparation	**August 2021**	**3,000 ETB**
Nursery Establishment		
Transplanting		
Weeding		
Harvesting		
Transportation cost for marketing		

Records…

5.2.3. Production & Sales Records

Date of Harvest	Quantity Harvested (kg)	Quantity Sold (kg)	Income (ETB)
20th November, 2021	1,200 kg	900 kg	12,000 ETB

6. Tools (GHCP&PHHT)

Baseline Survey Part 2. General Horticultural Crop Production & Post-Harvest Handling Techniques (GHCP&PHHT) G-24

- This is a tool **to assess** the level of the target farmers in using **basic horticultural crops production techniques**
- Individual members of them are required to **provide information** on techniques/skills adopted or not adopted

Baseline survey Part 2

General Horticultural Crop Production & Post-Harvest Handling Techniques (GHCP & PHHT) 24

Region: _____ Zone: _____

Name of Woreda: _____

Name of Farmer Group: _____ Date: / /

Name of Farmer: _____ Male / Female: _____ Tel. No.: _____

Pre to Post Cultivation Stages		Items	Horticultural Techniques Advocated for Adoption	Yes	No
1	Pre-Cultivation Preparation	Q1	Did you undertake any market survey to correct information of your crop cultivation and selling?		
		Q2	Did you prepare and use crop planning calendar(s) based on the market survey results or other information?		
		Q3	Did you estimate your land soil fertility from yield, plant growth and soil observation?		
		Q4	Did you use recommended composting practices by using different organic materials to supply major nutrients: Nitrogen (N), Phosphorus (P), and Potassium (K) in preparing manure/compost?		
		Q5	Did you use recommended quality seed/planting material(s) with one or more of the following characteristics: disease resistance and/or tolerance, high yield, early maturity, better tastes, size, marketability and/or longer shelf life?		
2	Land Preparation	Q6	Did you use one or more of the following recommended land preparation practices in management of pests & diseases: solarization, timely ploughing, appropriate depth of ploughing, removing deseased crop residue from the field, and washing farm tools when they move from farm to farm to minimize spreading spread of soil borne pests & diseases?		
		Q7	Did you incorporate crop residues into the farm at least one month before planting?		
		Q8	Did you incorporate manure/compost or other organic fertilizers as a basal application at least 1 – 2 weeks before the planting?		
3	Crop Establishment (Planting/Transplanting)	Q9	Did you use recommended practices in raising seedlings for vegetables?		
		Q10	Did you use recommended planting/transplanting spacing?		
		Q11	Did you apply fertilizer at recommended amount during your crop cultivation?		
4	Crop Management	Q12	Did you follow the appropriate frequency of irrigation in each crop and growth stages?		
		Q13	Did you ensure timely weeding and use of appropriate weeding tools in managing of weeds?		
		Q14	Did you undertake appropriate top-dressing practices: timeliness, type and recommended rate of application, and method of application?		
		Q15	Did you use at least two of the following pests and diseases control/management practices: cultural, biological, physical, and chemical? (crop rotation, removing diseased plant, ash application, monitoring and spraying chemical if necessary)		
		Q16	Did you follow the use of safe and effective use of pesticides: appropriate doses, recommended pesticides, and Pre Harvest Interval (PHI)?		
5	Harvest	Q17	Do you know the sign of crop maturity in your cash crop? (color, size, neck bending,etc.)		
6	Post-Harvest Handling	Q18	Did you consider appropriate post-harvest handling for your cash crops? (dry/cure the crops before transporting, cut the onion stem at appropriate hight, keep harvest (tomato, potato, etc.) under shade, hung crops under roof with well-ventilated place (onion, garlic))		
		Q19	Did you perform sorting, grading and cleaning for value addition of your produce?		
7	Cost and Income Analysis	Q20	Did you keep records on cost of production and sales and undertake cost and income analysis (Did you revew crop calender you made?)		
8	Collective Action	Q21	Did you establish linkages with new business stakeholders? (buyers(wholesalers, middlemen), sellers(Agro-dealers), lenders, research institutes, cooperatives, seeds supplier)		
		Q22	Did you purchase agricultural inputs such as seed, fertilizer and chemicals as a group (group purchasing)?		
		Q23	Did you arrange transportation of the produce collectively or sell your produce collectively (group selling)?		
9	Gender	Q24	Did you discuss your farming plan (what to grow and how to sell) with your partner?		

* Please tick (✓) appropriately for "YES" or "NO". Any additional information, please write on the margin.

6.1. How to Answer the Questions

- If your answer is **“YES”**, simply check

Yes ✓

- If your answer is **“NO”**, please check (**x**)

6.2. Contents of GHCP&PHHT24

Part 1: Background Information

- Name of the Farmer Group:
- Name of Woreda / Kebele:
- Date: dd / mm /2021
- Name of Farmer:
- Male/Female
- Tel. No.

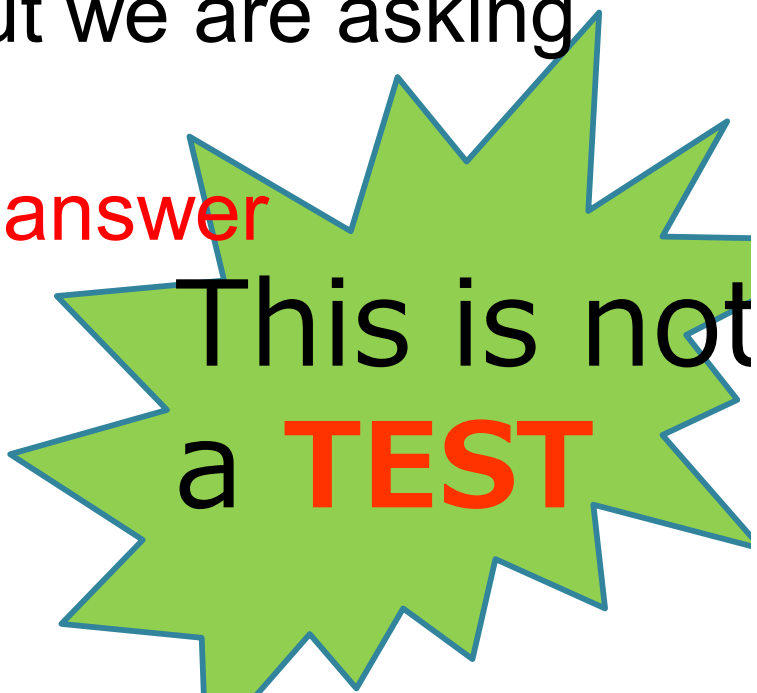
Contents

Par2: This part form has 24 questions organized under the following major categories

- Pre-Cultivation Preparation
- Land Preparation
- Crop Establishment (Planting/Transplanting)
- Crop Management
- Harvest
- Post-Harvest Handling
- Group purchase/selling
- Gender mainstreaming

7. Remarks

- Farmers are likely to **over evaluate** their skills on GHCP&PHHT24.
- We should request farmers to provide **honest information** on the adopted techniques/skills for **GHCP&PHHT24.**
- Knowing and practicing is different. Some farmer **say Yes** because they know it, but we are asking whether they practice or not.
- Sometime farmer make copy the answer from nearby farmers.
- Special care and support for illiterate farmers to fill the forms.



7. Implementation Tips

The survey should be:

i) more for farmers' benefit than for implementers' benefit

ii) Participatory where **the target farmers are the main** actor of the survey, rather than the extension staff unilaterally collecting information for them

7. Implementation Tips

- The extension staff **help farmers calculate basic figures** such as crop yield, cost, profit, etc. which are important for **farm management**.
- Unit of measurement is different in place to place. Before start collecting data, it is important to discuss with a farmer group and agree on the unit of measurement including quintal, wasera, etc. in their growing crops.

7. Awareness creation

1. When the farmers finish filling out the forms, facilitator should check their profit and yield. **Check the calculation!**
2. After collecting their Baseline survey, **compared with other group members** and **choose farmers** who sold at higher price/yield. Let them share with other members why they are better profit/yield than others.
3. Let the **farmers to understand** why they have lower income compared with those who earned better profit/yield. (This is the **most important process** for the farmers to improve their farming practice)

8. Points to be confirmed

- 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.

8. Points to be confirmed

- The target farmers understand the importance of farm record keeping, both in terms of bookkeeping and farm activity records and become willing to start record keeping.
- The male-female ratio of the participants is balanced.
- (optional) The members' spouses are involved.

9. Conclusion

1. Inform farmers on date and venue of the Baseline Survey
2. Provide Survey format to the farmers.
3. Support filling the format especially for illiterate farmers.
4. Collect survey format and double-check whether they fill out format correctly.
5. Compare survey format and choose farmers who have higher income/yield.
6. Ask those farmers **to share what is the reason for him/her to achieve higher income/yield.**

THANK YOU

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