



Measuring Success – Handbook

Part I: Quantitative Indicators - #ms08 Agriculture

#ms08: Agriculture – Households using Sustainable and Resilient Agriculture/ Land Management Practice(s)

Indicator Statements		
Indicator (in short)	Indicator	Number [actual value] (Share [%]) of households using sustainable and resilient agriculture/land management practice(s) promoted by WHH/partners/the project
	Unit of indicator	Number [actual value] of households
Project-level indicator statements	Baseline statement	<i>Result:</i> The number of households using sustainable and resilient agriculture/land management practice(s) that WHH/partners/the project want to promote was x out of a total of N targeted households. (sampling size = n households)
	Endline statement	<i>Result:</i> During the project period, out of a total of N targeted households, the number of households using sustainable and resilient agriculture/land management practice(s) promoted by WHH/partners/the project changed from x households (baseline) to y households (endline). (sampling size = n households)

Background

Why do we use this indicator? Hunger is most prevalent in remote regions of the world where people typically draw their food and livelihoods from the natural environment. In these areas, **sustainable and resilient agriculture and improved natural resources management (NRM)** are key instruments to fight hunger and poverty and achieve nutrition security. Such measures can support smallholder farmers in cultivating higher-yield and more nutritious crops while preserving natural resources.



The #ms **Agriculture indicator** is useful to assess the effectiveness of sustainable and resilient agriculture/land management practice(s) promoted by WHH and the extent to which target households correctly use such practice(s).

What does this indicator assess? The #ms **Agriculture indicator** assesses the **number of households who started, and for at least one harvesting season** (6 - 12 months depending on the geography), **continued to follow the sustainable and resilient agriculture/land management practice(s) promoted by WHH** (or partners/the project).

Sustainable and resilient agriculture and land management practice(s) include, for example:¹

- **Improved seed** (which could be higher-yielding or higher in nutritional content and/or more resilient to climate impacts)
- **Crop rotation**
- **Improved livestock management** (e.g., improved grazing practices, improved fodder crop, cultivation of dual-purpose crops, improved feeding practices, improved disease management/vaccinations)
- **Biodiversity conservation and/or strengthening of ecosystem services**, including stream bank management or restoration or re/afforestation
- **Integrated pest and disease management** (e.g., natural predators, resistant crop varieties, etc.)
- **Water harvesting and conservation** (e.g., rainwater harvesting, drip irrigation, use of drought-tolerant crop varieties, etc.)
- **Improved post-harvest management** (e.g., proper handling and storage, processing and value addition, transportation, etc.)

(For more examples, see p. 17 of the [USAID Indicator Handbook Part II](#) and p. 69 of the [USAID Indicator Handbook Part I](#))

For which projects should this indicator be used? The indicator is suitable for **projects that aim to promote sustainable and resilient agriculture/land management practice(s)**.

Typical intervention types for which this indicator is suitable are:

- **Agricultural interventions** directed at the increase of agricultural production and the diversification of food crops
- Interventions promoting **site-specific agriculture** to support smallholder farmers in cultivating higher-yield and more nutritious crops
- Promotion of **climate-adapted cultivation and harvesting methods** with climate-resistance crops
- Agricultural interventions directed at **improved storage capacities and post-harvest management**
- **Trainings in agriculture** and resource management
- Interventions directed at improved **livestock management**

Data Collection #ms08: Agriculture

Who should be interviewed? The **research unit** of the population (N) and the sample (n) for this indicator is **households**. The population size is composed of the number of households that are supposed to benefit directly from the project intervention.



Questions should be addressed to **one member of each sampled household**, namely the person (adult) who is responsible for agriculture and land management and who received input and/or trainings from WHH/partners/the project.

¹ Please note that this is not an exhaustive list of sustainable and resilient agriculture/land management practice(s) but just a collection of examples. Project staff should determine in advance (i.e., in the planning phase of the project) which context/project-specific sustainable and resilient practice(s) they wish to promote.

When should the data be collected? The indicator requires a baseline and comparison value(s) to yield meaningful information on project outcomes. **At minimum**, data should be collected as part of both a **baseline** and an **endline** survey. Additionally, a mid-term data collection is optional.²



Please note: Baseline data must be collected, even if no agriculture/land management practices have been promoted at the project's outset. This is crucial to capture existing household practices that may align with the intended interventions of the project/program and obtain meaningful comparative values for assessing WHH's contribution to driving positive change.

The data can be collected at any time of the year, but baseline and endline data collection should always be undertaken at the **same time of the year** and in line with seasonal calendars in each context (e.g., rainy season, harvest season). When planning the timing of the baseline survey, try to consider the anticipated timing of the endline survey.

Preparing data collection



For this indicator it is crucial to have a **clear understanding of the promoted agriculture/land management practice(s)** and a **project-related definition of what it means to 'use' it/them** – *what exactly needs to be done, how, with what materials, for what purpose, for how long*. Based on this definition, assess whether the promoted agriculture/land management measure(s) is/are used 'correctly'.

Enumerators should attend an in-depth practical training session before collecting data.

Points to emphasize:

- Before starting data collection, the **definitions of the promoted agriculture/land management practice(s)** and what it means to '**correctly use**' them should be well documented and shared with the enumerators!
- In addition to **survey skills**, training should provide enumerators with a good **technical understanding of the promoted agriculture/land management practice(s)** and knowledge of sustainable and resilient agriculture/land management practice(s) in general.
- Enumerators should **verify positive responses** by asking more specific questions or making observations about the agriculture/land management practice(s) in use.
- Enumerators should **ask respondents who denied having used the promoted practice(s) why they don't use them**.

Indicator calculation

The #ms Agriculture indicator assesses the **number of households using sustainable and resilient agriculture/land management practice(s) promoted by WHH/partners/the project**.

To calculate the indicator, you should first assess whether the promoted practice is relevant to the respondent (*E.g., intercropping of maize with beans is not relevant for a farmer who did not grow any maize beforehand*). If the practice(s) is irrelevant, do not ask further questions.

² Please note: for projects longer than 3 years, mid-term data collection is mandatory and budget must be allocated to it during the design phase.

If the practice(s) is relevant, then data are only needed for the following question:

“In the past harvesting season [*between 6 - 12 months depending on geographic location*], did you/your household use [*specify sustainable and resilient agriculture/land management practice(s)*]?”

It is then sufficient to **count the number of household heads who answered the question positively** and that **use the practice(s) ‘correctly’** [*according to your context/project-specific definition of ‘correct use’*].



Please note: If you are assessing the adoption of **several practice(s)**, you should repeat the above question for each promoted practice and count the positive answers of each household. For the #ms Agriculture indicator, it is sufficient that the household used **at least one practice** to be considered as ‘using sustainable and resilient agriculture/land management practice(s)’. However, it might be of interest for you/your colleagues to identify practice(s) that are commonly adopted by farmers and what is less so.

Example

Project Y is promoting diversification of food crops as well as soil conservation measures. To calculate the indicator, you should ask the household:

- “In the past harvesting season, did you/your household use diversified food crops?”; and
- “In the past harvesting season, did you/your household used the promoted measures for soil conservation?”

If the household answers positively to both question (i.e., it adapted both promoted practices), the household is only counted once towards the #ms08 Agriculture indicator.

Similarly, if the household answers positively only to one question (i.e., it adapted only one out of the two promoted practices), the household is counted once towards the #ms08 Agriculture indicator.

In contrast, if the household answers negatively to both questions (i.e., it didn’t use any of the promoted practices), the household is then counted as zero towards the #ms08 Agriculture indicator.

Please ask respondents who have **denied** using the promoted agriculture/land management practices **why** they made that decision. Inquire about the **factors that discourage or prevent them from adopting these practices**. While this question is not factored into the calculation of this indicator, the gathered information can be very useful for your project. It can help in adjusting current project approaches and activities or in designing similar or follow-up projects.

To **extrapolate**³ the result from the survey to the (target) population:

1. Calculate the proportion of sampled households **using sustainable and resilient agriculture/land management practice(s) promoted by WHH/partners/the project** out of the total number of sampled households; and then
2. multiply the result by the total number of households within the (target) population .

Number of sampled households **using sustainable and resilient agriculture/land management practice(s)**

Total number of sampled households



Total number of households in the (target) population

³ Extrapolation is a process in which measured characteristics of a sample lead to estimates of unknown characteristics of the target population from which the sample was drawn.



Please note: While **reporting on this indicator in ProMIS is done in absolute terms** ([extrapolated] # of households using promoted agriculture/land management practice(s)), the **global analysis at HO level is done in percentages** (% of households using promoted agriculture/land management practice(s) out of all targeted households). This is done because using percentage data allows for a more standardized approach to measuring project outcomes, which can be useful for tracking changes over time and comparing results across different regions and contexts as well as between projects/programs with different target group sizes.

Below is a calculation-matrix template for the #ms Agriculture calculation, where each row has been filled in for one respondent ([Link to the corresponding Excel matrix on WHH Intranet](#)).

Calculation matrix template (Link to the corresponding Excel matrix on WHH Intranet).

Step 1: How many different sustainable and resilient agriculture/land management practices will be/were promoted?

3		
1_Intercropping of maize with beans	2_Fertilizer management	3_Vertical farming

Step 2: Assess whether the promoted practice is relevant to the respondent

1_Intercropping of maize with beans	2_Fertilizer management	3_Vertical farming
Yes	Yes	Yes
No	Yes	Yes
Yes	Yes	Yes

Step 3: Assess whether in the past harvesting season the respondent used the practice(s)

Remark: Ask only for practice(s) that are relevant to the respondent and repeat question for each relevant practice

1_Intercropping of maize with beans	2_Fertilizer management	3_Vertical farming
No	No	No
	Yes	Yes
Yes	No	Yes

Step 4: Verify whether the practice(s) is used correctly and calculate the indicator

Remark: Ask only if the practice(s) is used, i.e., if answer in step 3 is "yes"

1_Intercropping of maize with beans	2_Fertilizer management	3_Vertical farming
	Yes	Yes
Yes	Yes	Yes

Step 5: Convert answers into numbers and calculate the indicator

Remark: Count households who used the practice(s) correctly; if several practices are promoted it is sufficient that the household correctly uses at least one practice to be considered as 'using sustainable and resilient agriculture/land management practice(s)'

1_Intercropping of maize with beans	2_Fertilizer management	3_Vertical farming	Agriculture
0	0	0	0
0	1	1	1
1	1	1	1

Total	2
--------------	----------

3. Questionnaire for #ms Indicators - #ms08 Agriculture

This section contains the #ms questionnaire for all eleven indicators and is consistent with the Akvo Flow #ms template.

This section includes not only the questions and answers but also comments for enumerators (which can be used in training) and specifications for the person designing/adapting the project-level template.

Question ID	Question and Answer		Remarks for Different Users of #Measuring Success	
	Questions	Answers	Enumerators	Designer of Project-Specific Questionnaires
0.1	0.1: Before starting the interview			
0.1.1	WHH project ID	Project ID		This question is currently formatted as free text. You may change it to a multiple-choice format if necessary (e.g., when one survey covers two or more project IDs).
0.1.2	Date of interview	Date		

0.1.3	<p>Consent to interview: I would like to ask you to provide your objective responses regarding your situation. Your participation is voluntary, and your information will be kept confidential. I have informed you about what type of data will be collected, for which purposes it will be used, with whom the data may be shared, and that you have the right to access your data and to ask for correction or deletion. Do you agree to the collection and processing of your data?</p>	<ul style="list-style-type: none"> - If "yes", proceed with questions - If "no", do not proceed with any further questions 		
0.2	0.2: Interviewee information			
0.2.1	Household location	Remark: Answer categories must be project-specific:		Free text question can be replaced by a cascading question if you wish
0.2.2	Geographical coordinates	Geo-coordinates		
0.2.3	Who is head of the household?	<ul style="list-style-type: none"> - Father - Mother - Grandmother - Grandfather - Child/Youth - Other 		

0.2.4	Name & surname of interviewee	<p>Name / surname</p> <p>Or</p> <p>Interviewee is Head of Household</p>	<p>Before starting the interview, make sure that relevant persons are present, mainly:</p> <ul style="list-style-type: none"> - For #ms01 MAHFP and #ms02 FCS: the person (adult) who is responsible for food preparation in the household. - For #ms03 MDD-W: a woman aged 15-49 - For #ms04 Drinking water: the person (adult) who is responsible for handling the household's drinking water - For #ms05 Sanitation: the person (adult) who is responsible for maintaining the sanitation facility used by household members - For #ms06 Income: the head of the household or a person responsible for or aware of the care and organization of the household - For #ms07 Skills: a training graduate - For #ms08 Agriculture and #ms09 Climate Resilience: the person (adult) who is responsible for the usage of the promoted measure and who received input and/or trainings from WHH/partners/the project. - For #ms10 Women in decision-making: an adult woman - For #ms11 Participants' satisfaction: a project participant 	
-------	-------------------------------	---	---	--

0.2.5	What is the sex of the interviewee?	<ul style="list-style-type: none"> - Female - Male - Other - Don't know / No answer 		
0.2.6	Age of the interviewee?	Figure		Allow only numeric values up to 99
0.3: Choice of Indicators				
0.3.1	On which indicators will you collect data in this household?	<ul style="list-style-type: none"> - #ms01: Food Access (MAHFP) - #ms02: Food Consumption Score - #ms03: Nutrition Diversity (MDD-W) - #m04: Drinking Water - #ms05: Sanitation - #ms06: Income - #ms07: Skills - #ms08: Agriculture - #ms09: Climate Change - #ms10: Women in Decision-making - #ms11: Participants' Satisfaction 		

08	Agriculture			
08.1	How many different sustainable and resilient agriculture/land management practices will be/were promoted ?	- Numeric value		<ul style="list-style-type: none"> - Insert the number of promoted practices - Repeat the questions 08.2 – 08.5 for each practice promoted within the project/program (number in Q08.1)!
08.2.1 – 08.2.x	<i>[Enumerator assessment:]</i> Is the promoted practice [1, 2, 3, ...] relevant to the respondent?	<ul style="list-style-type: none"> - Yes - No - Don't know 	Assess whether the promoted practice is relevant to the respondent. <i>(E.g., intercropping of maize with beans is not relevant for a farmer who did not grow any maize beforehand.)</i>	-
08.3.1 – 08.3.x	In the past harvesting season, did you use [specify practice 1, 2, 3, ...] ?	<ul style="list-style-type: none"> - Yes - No - Don't know/ No answer 	- Specify the duration of the harvesting season [depending on the geography between 6 and 12 months]	<ul style="list-style-type: none"> - Ask only if answer to Q08.2 is "Yes". - Adapt question to the duration of the harvesting season the promoted sustainable and resilient agriculture/land management practice.

<p>08.4.1 – 08.4.x</p>	<p><i>VERIFY THE RESPONSE:</i> Is the promoted practice [1, 2, 3, ...] used correctly by the respondent?</p>	<ul style="list-style-type: none"> - Yes - No - Don't know/ No answer 	<ul style="list-style-type: none"> - Specify what it means to 'correctly use' the promoted practice [what exactly needs to be done, how, with what materials, for how long, for what purpose, etc.] - Based on your project team's definition of 'correct use' ask one or more probing questions to verify the response. Alternatively, ask the respondent if you can observe the used practice. 	<ul style="list-style-type: none"> - Ask only if answer to Q08.3 is "Yes".
<p>08.5.1 – 08.5.x</p>	<p>What are the 1-3 key reasons for not using the promoted practice [1, 2, 3, ...]?</p>		<p>Note each point clearly, describing it in a full sentence.</p>	<ul style="list-style-type: none"> - Ask only if answer to Q08.3 is "No" or "Don't know". - This is an optional question to support you for your project planning: You may take it out if the question is found not to be useful.