

<p>STANDARD SECTOR INDICATOR CODE: AG-012 FTF (FTF Code: EG.3.2-18)</p>	<p>New Technologies and Practices - Area Impacted: Number of square meters under improved technologies or management practices with Peace Corps assistance. (AG-012 FTF)</p>	
<p>AGRICULTURE SECTOR</p>	<p>Sector Schematic Alignment <i>Note: This indicator belongs to the “Ag Production and Improved Cultivation Practices” Project Area and “Soil and Water Conservation and Management” Project Activities/Training Package (PA/TP) within the AG Sector but is borrowed by the following Project Activities/Training Packages within the AG and ENV Sectors.</i></p> <p><u>AG Sector (“Home” of the SSI)</u> PA/TP: Soil and Water Conservation and Management</p> <p><u>AG Sector</u> PA/TP: Staple Crops, Agroforestry, Gardens, & Small Animal Husbandry: Chickens/Beekeeping</p> <p><u>ENV Sector</u> PA/TP: Agroforestry, Gardens & Soil and Water Conservation and Management</p>	
<p>Type: Outcome</p>	<p>Unit of Measure: Square meters</p>	<p>Disaggregations:</p> <p>Sex: Male-applied, Female-applied, Joint*, Association-applied</p> <p>Technology type: Crop genetics, Cultural practices, Pest management, Disease management, Soil related fertility and conservation, Irrigation, Water management (non-irrigation based), Climate mitigation, Climate adaptation, Other, <i>Total with one or more improved technology/practice**</i></p> <p><small>**“Joint” means that decision-making about what to plant on the plot of land and how to manage it for that particular beneficiary and targeted commodity is truly done in a joint manner by male(s) and female(s) within the household. Given what we know about gender dynamics in agriculture, <u>“joint” should not be the default assumption</u> about how decisions about the management of the plot are made.</small></p> <p><small>**This is NOT the sum of the number of square meters under an improved technology or practice, but the total number of <i>distinct</i> square meters under an improved technology or practice; some square meters may have more than 1 improved technology or practice applied on them.</small></p>
<p>Definitions:</p> <p>This indicator measures the area (in square meters) of land cultivated using Peace Corps-promoted improved technology(ies) or management practice(s) during the fiscal year. Technologies to be counted here are agriculture-related land-based technologies and innovations, including those that address climate change adaptation and mitigation. Significant improvements to existing technologies should be counted. This indicator does not count application of improved technologies in aquaculture ponds.</p> <p>Beneficiary – an individual who is engaged with a project activity or comes into direct contact with a set of interventions (goods or services) provided by the project or Peace Corps Volunteer. Individuals merely contacted or involved in an activity through brief attendance (non-recurring participation) do not count as a beneficiary.</p> <p><u>Scenarios for counting a beneficiary for this indicator</u></p>		

1. If a beneficiary cultivates a plot of land more than once in the fiscal year, **the area should be counted each time it is cultivated with one or more improved technologies during the fiscal year under the appropriate category in the Technology Type disaggregation.** For example, if through Peace Corps assistance a farmer applies mulch to the same plot of land in her garden during both the rainy season and the dry season, the area of the plot should be counted twice under the Cultural Practices category for this indicator. However, **the area of land should only be counted once in the Sex disaggregation.** See Counting for Technology Type Disaggregation below for an example.

2. If a **group of beneficiaries, such as an association**, cultivates a plot of land as a group, and improved technologies are applied on that plot of land, then the area of the communal plot should be counted under this indicator and recorded under the sex disaggregate “association-applied”. In addition, the association should be counted once under **AG-036 FTF** “Number of for-profit private enterprises, producers organizations, water users associations and community-based organizations (CBOs) that applied improved organization-level technologies or management practices.”

3. If a **lead farmer cultivates a plot used for training**, such as a demonstration plot used for Farmer Field Days or Farmer Field School, the area of the demonstration plot should be counted under this indicator, and the farmer should be counted under **AG-003 FTF** “Number of farmers and others who have applied improved technologies or management practices with Peace Corps assistance.” However, if a demonstration or training plot is cultivated by **extensionists or researchers**, e.g. a demonstration plot in a research institute, the area and the extensionist/researcher **SHOULD NOT** be counted for this indicator and the extension agent/researcher **SHOULD NOT** be counted under AG-003 FTF.

****Counting for Technology Type Disaggregation**

If more than one improved technology is being applied on a plot of land, count the square meters under each technology type (i.e. double-count). In addition, count the square meters under the “total with one or more improved technology” category. Since it is very common for Feed the Future activities to promote more than one improved technology, not all of which are applied by all beneficiaries at once, this approach allows Feed the Future to accurately track and count the uptake of different technology types, and to accurately count the total number of square meters under improved technologies. See the box below for an example.

If an activity is promoting a technology for multiple benefits, the area under the technology may be reported under each relevant Technology Type category. For example, mulching could be reported under Cultural practices (weed control), Soil-related fertility and conservation (organic content) and Water management (moisture control), depending on why (for what purpose(s)/benefit(s)) the technology is being applied by the beneficiary farmer.

Example: You have worked with 2 farmers during the past fiscal year to apply different improved technologies and practices. One farmer planted an **improved variety of corn seed (crop genetics)** on **500 square meters** of land during the rainy season. He also applied **conservation agriculture (climate mitigation and climate adaptation)** on half of that same plot of land, so on **250 square meters**, during the rainy season. You worked with another farmer to apply **Integrated Pest Management (pest management)** on **300 square meters** of her garden **twice** during the fiscal year: during the rainy season and during the dry season. She also applied **mulch (cultural practices and water management)** to **100 square meters** of that same plot in her garden, **only** during the dry season. Technology Type disaggregate data entry would be as follows:

Technology type	
crop genetics	500
cultural practices	100
pest management	600
disease management	
soil-related fertility and conservation	
irrigation	
water management (non-irrigation-based)	100
climate mitigation	250
Climate adaptation	250
other	
total with one or more improved technology	1100

Examples for Technology Type disaggregation:

- Crop genetics: e.g. improved/certified seed that could be higher-yielding, higher in nutritional content (e.g. through biofortification, such as vitamin A-rich sweet potatoes or rice, or high-protein maize, or drought tolerant maize, or stress tolerant rice) and/or more resilient to climate impacts; improved germ plasm
- Cultural practices: e.g. seedling production and transplantation; cultivation practices such as planting density, moulding; mulching
- Pest management: e.g. Integrated Pest Management (IPM); improved insecticides & pesticides, improved & environmentally sustainable use of insecticides & pesticides
- Disease management: e.g. improved fungicides, appropriate application of fungicides
- Soil-related fertility and conservation: e.g. Integrated Soil Fertility Management (ISFM), soil management practices that increase biotic activity and soil organic matter levels, such as soil amendments that increase fertilizer-use efficiency (e.g. soil organic matter); improved fertilizer; improved fertilizer use practices; erosion control
- Irrigation: e.g. drip, surface, and sprinkler irrigation; irrigation schemes
- Water management (non-irrigation-based): e.g. water harvesting, sustainable water use practices, improved water quality testing practices; mulching
- Climate mitigation: technologies selected because they minimize emission intensities relative to other alternatives; examples include low- or no-till practices, efficient nitrogen fertilizer use
- Climate adaptation: technologies promoted with the explicit objective of adapting to current climate change concerns; examples include drought and flood resistant varieties, conservation agriculture
- Other: e.g. improved mechanical and physical land preparation; non-market-related information technology; improved record keeping; improved budgeting and financial management

Peace Corps assistance/training may include but is not limited to: financial aid, workshops, demonstrations, lessons, service delivery, or activities conducted by any agency or organization of the U.S. government or any contractor working

at the direction of the U.S. government. These activities typically are conducted to provide participants with knowledge and/or skills, technical assistance, learning opportunities, services or expand coverage for services, etc.

Technologies counted here are agriculture-related **land-based** technologies and innovations including those that address climate change adaptation and mitigation, and may relate to any products at any point on the supply chain. This includes innovations in productivity, efficiency, value-addition, post-harvest management, sustainable land management, forest and water management, managerial practices, and input supply delivery.

Improved technologies: in the Feed the Future context, any “newly” introduced technology is assumed to be an “improved” technology. This includes innovations in efficiency, value-addition, post-harvest management, marketing, sustainable land management, forest and water management, managerial practices, and input supply delivery.

Fiscal Year – October 1 to September 30

Rationale: This indicator tracks successful application of technologies and management practices in an effort to improve agricultural productivity, agricultural water productivity, sustainability, and resilience to climate change.

Measurement Notes:

- 1. Sample Tools and/or Possible Methods (for Peace Corps staff use):** Volunteers should use data collection tools to measure progress against project indicators. A data collection tool to measure this indicator could be based on one of the following methods—survey, secondary data review of available farm records, observation, or interview—though there may be other data collection methods that are appropriate as well. For more information on the suggested methods, please see **Appendix I in the MRE Toolkit**. Also be sure to check the intranet page as sample tools are regularly uploaded for post use. Once a tool has been developed, post staff should have a few Volunteers and their partners pilot it, and then distribute and train Volunteers on its use.
- 2. General Data Collection for Volunteer Activities:** All Volunteer activities should be conducted with the intention of achieving outcomes – knowledge change (short-term), skills demonstration (intermediate-term), and behavioral changes (intermediate to long term) as defined by the progression of indicators within the objectives of a project framework. The progression of measurement for all Volunteer activities should begin with baseline data being conducted prior to the implementation of an activity (or set of activities), followed by documenting any outputs of the activities and then later at the appropriate time, measurements of specific outcomes (see “Frequency of Measurement”).
- 3. Activity-Level Baseline Data Collection:** Activity-level baseline data should be collected by Volunteers/partners before or at the start of their activities with individuals or organizations. It provides a basis for planning and/or assessing subsequent progress or impact with these same people. Volunteers should take a baseline measurement regarding the outcome(s) defined in this indicator (i.e. determine whether or not a square meters is under improved technologies or management practices before the Volunteer works with the individual or organization responsible for the square meters) early in their work focused on application of improved technologies or management practices. The information for the baseline measurement will be the same or very similar to the information that will be collected in the follow-on measurement (see “Frequency of Measurement”) after the Volunteer has conducted his/her activities and it is usually collected using the same data collection tool to allow for easy management of the data over time.

Because Volunteers are expected to implement relevant and focused activities that will promote specific changes within a target population (see the “unit of measure” above), taking a baseline measurement helps Volunteers to

develop a more realistic snapshot of where the individuals and organization programs within the target population are in their process of change applying new technologies or management practices instead of assuming that they are starting at “0.” It also sets up Volunteers to be able to see in concrete terms what influence their work is having on the application of improved technologies and management practices they work with during their service. Please note that data collection is a sensitive process and so Volunteers will not want to take a baseline measurement until they have been able to do some relationship and trust-building with the person/people the Volunteer is working with, and developed an understanding of cultural norms and gender dynamics.

- 4. Frequency of Measurement:** For reporting accurately on this outcome indicator, Volunteers must take a minimum of two measurements with the individuals and organization of the target population reached with their activities. After taking the baseline measurement (described above), Volunteers should take at least one follow-on measurement with the same individuals or organizations typically after completing one or more activities focused on achieving the outcome in this indicator and once they have determined that the timing is appropriate to expect that the outcome has been achieved. Please note that successful documentation of a behavior change or new practice may not be immediately apparent following the completion of activities and may need to be planned for at a later time. Once Volunteers have measured that at least one square meters has been placed under improved technologies and management practices, they should report on it in their next VRF.

Volunteers may determine to take more than one baseline and one follow-on measurement with the same individual(s) or organization(s) for the following valid reasons:

- a. Volunteers may want to measure whether or not an individual or organization has placed additional square meters under improved technologies or management practices who were initially reached by the Volunteer’s activities, particularly for any activities that are on-going in nature (no clear end date);
- b. Volunteers may want to enhance their own learning and the implementation of their activities by using the data collected as an effective monitoring tool and feedback mechanism for the need to improve or increase their activities;
- c. A Peace Corps project in a particular country may choose to increase the frequency of measurement of the indicator and Volunteers assigned to that project will be required to follow in-country guidance.

In all cases, any additional data collection above the minimum expectation should be based on the time, resources, accessibility to the target population, and the value to be gained versus the burden of collecting the data. Following any additional measurements taken, Volunteers should report on any square meters under improved technologies or management practices in their next VRF.

- 5. Definition of Change:** The minimum change to report against this indicator is a square meters being placed under improved technologies or management practices, as compared to what was measured initially at baseline. In the case of this indicator, if the individual the Volunteer/partner works with already using drip irrigation on 2 square meters of his/her farm before beginning to work with the Volunteer/partner, then the Volunteer would not be able to count it for this activity because the Volunteer’s work did not actually lead to the desired change. However, if as a result of working with the Volunteer/partner, the individual expands his drip irrigation system to 3 additional square meters, that would count because the Volunteer’s work influenced the expansion of the drip irrigation system to the 3 additional square meters.
- 6. General Reporting in the VRF:** For this indicator, Volunteers will only report one number in the “total number” section of the VRF; the total number of square meters under improved technologies or management practices.

7. Reporting on Disaggregated Data in the VRF: This indicator is unique. It has two disaggregations; “Technology Type” and “Sex”. The “Technology Type” disaggregation allows for double-counting, so the “Total” for the “Technology Type” **does not** have to equal the total for the “Sex” disaggregation. The “Technology Type” disaggregate “Total w/one or more improved technologies” should be equal the total of the “Sex” disaggregations.

Due to the functionality of the VRF, the Volunteer will see a table to enter the disaggregated data for the “Technology Type” category. Then the Volunteer will see a box to enter disaggregated data for the “Sex” (male, female, joint, and association-applied). As stated above, the “Total w/one or more improved technologies” disaggregate **MUST** equal the total for the “Sex” disaggregations. **PLEASE NOTE:** Volunteers should check, before submitting their VRF to see if the totals are equal.

PLEASE NOTE: After a Volunteer submits their first VRF, the data entered into the for “Sex” (male, female, joint, and association-applied) and “Technology Type” (many options) will be editable, so a Volunteer should make sure that the sum of the “Sex” (male, female, joint, association-applied) and the “Technology Type” disaggregate “Total w/one or more improved technologies” **REMAINS** equal.

Data Quality Assessments (DQA): DQAs are needed for each indicator selected to align with the project objectives. DQAs review the validity, integrity, precision, reliability, and timeliness of each indicator. For more information, consult the Peace Corps MRE Toolkit.

Alignment with Summary Indicator: ENV. LAND MGMT (SQUARE METERS)