

STANDARD SECTOR INDICATOR CODE: ENV-012	Ecological Understanding: Number of students, out of the total number of students the Volunteer/partner worked with, who demonstrated a new or significantly enhanced understanding of an ecological concept. (ENV-012)	
ENVIRONMENT SECTOR	Sector Schematic Alignment <ul style="list-style-type: none"> • Project Area: Environmental Education and Awareness • Project Activity Area/Training Package: Youth Environmental Education 	
Type: Outcome	Unit of Measure: Student	Disaggregation: Sex: Male, Female Type of Student: Primary School, Secondary School
<p>Definitions:</p> <p>Examples of ecological concepts include, but are not limited to:</p> <ul style="list-style-type: none"> -- Nutrient cycles (e.g. Nitrogen, Phosphorus, Carbon) -- Energy Flow through Ecosystems -- Pollination and Seed Dispersal -- Symbiosis -- Carrying Capacity -- Predator/Prey Adaptations/Defenses/Relationships -- Food chains and webs -- Soil formation -- Plant succession -- Photosynthesis <p>Examples of valid assessment methods include, but are not limited to: Pre-/post- achievement assessment, projects and demonstrations, informal discussions with students, or improved grades from one grading period to another</p> <p>Partner/s—refers to the local counterpart who is co-facilitating activities focused on enhancing students’ understanding of an ecological concept with the Volunteer</p>		
<p>Rationale: An increase in student ecological knowledge should lead to increased understanding of the causes and consequences of, and solutions to, environmental problems.</p>		
<p>Measurement Notes:</p> <ol style="list-style-type: none"> 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 testing material, 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 a student or group of students. 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 student in question has an understanding of ecological concepts before working with the Volunteer) early in their work focused on developing new or improved understanding of ecological concepts. 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 students within the target population are in their process of change 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 students 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.

1. **Frequency of Measurement:** For reporting accurately on this outcome indicator, Volunteers must take a minimum of two measurements with students 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 student(s), 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 student has achieved the indicator, 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 student (or group of students) for the following valid reasons:

- a. Volunteers may want to measure whether or not any additional students initially reached with activities have now achieved the outcome in the indicator, 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 new students achieving the outcome in their next VRF.

4. **Definition of Change:** The minimum change to report against this indicator is that a student developed a new or significantly enhanced understanding of an ecological concept, as compared to what was measured initially at baseline. In the case of this indicator, if the student the Volunteer/partner works with already had an understanding of food chains, then the Volunteer would not be able to count him/her 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 student gained a new understanding of how energy moves throughout an ecosystem overall, that would count because the Volunteer's work influenced the understanding of a new ecological concept.
5. **General Reporting in the VRF:** The "number achieved" (or numerator), that Volunteers will report against this indicator in their VRFs is the number of students who have gained a new or significantly enhanced understanding of an ecological concept after working with the Volunteer/partner. The "total number" (or denominator) that Volunteers will report on for this indicator in their VRFs is the total number of students who participated in the activities designed to meet this indicator.
6. **Reporting on Disaggregated Data in the VRF:** This indicator is disaggregated by "Sex" and "Type of Student". When reporting in the VRF, a Volunteer should disaggregate the students based on male and female while also disaggregating depending on the school the student attends; primary school or secondary school. In the VRT, the Volunteer will see four rows for data entry labeled "Male Primary School Students", "Male Secondary School Students", "Female Primary School Students", and "Female Secondary School Students".

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. STUDENT LEARNING