

STANDARD SECTOR INDICATOR CODE: ENV-005	New and Improved Environmental Lessons: Number of new or improved lessons developed with the assistance of the Volunteer/partner that focus on one or more environmental themes relevant to the country. (ENV-005)	
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: Output	Unit of Measure: Lesson	Disaggregation: None
<p>Definitions:</p> <p>Lesson – what a teacher would present to teach one particular topic in the course, e.g. how bees pollinate flowers.</p> <p>Partner/s— refers to the local counterpart who is co-facilitating lesson improvement and development activities with the Volunteer.</p> <p>Examples of environmental themes include, but are not limited to:</p> <ul style="list-style-type: none"> • Significant environmental issues • Ecological concept • Natural history concepts • Appreciation of the natural heritage of a country or community <p><i>Significant Environmental Issues include, but are not limited to:</i></p> <ul style="list-style-type: none"> -- Global climate change and its effect on the country, -- Biodiversity loss, -- Deforestation, -- Soil erosion and depletion, -- Water pollution and shortages, -- Air pollution, -- Misuse of pesticides, -- Environmentally-damaging and unsanitary management of solid waste, -- Unsustainable harvesting of plants and animals, -- Disruption of significant ecological processes and services, -- Deterioration of parks and nature reserves. <p>An environmental issue can also be considered significant if it is so identified:</p> <ul style="list-style-type: none"> -- In a country environmental management plan -- By a reputable and knowledgeable NGO -- By the Peace Corps country staff -- By the community where the Volunteer is working <p><i>Ecological Concepts include, but are not limited to:</i></p> <ul style="list-style-type: none"> -- Nutrient cycles – natural processes in which elements are continuously cycled in various forms between different compartments of the environment (e.g., air, water, soil, organisms). Examples include the carbon, nitrogen and phosphorus cycles (nutrient cycles) and the water cycle. <p>Source: http://www.greenfacts.org/glossary/def/environmental-cycles.htm</p>		

-- Symbiosis – literally means "together life". It refers to organisms affecting one another. One organism may benefit while the other one is harmed (parasitism); one organism may benefit while the other one is not affected (commensalism), and both organisms may benefit from the association (mutualism).

Source: <http://www.marietta.edu/~biol/biomes/symbiosis.htm>

-- Carrying Capacity – refers to the number of individuals who can be supported in a given area within natural resource limits, and without degrading the natural social, cultural and economic environment for present and future generations.

Source: <http://www.carryingcapacity.org/>

-- Plant succession – orderly process of one plant community gradually or rapidly replacing another.

Source: <http://www.bethelcollege.edu/users/berkebj/Marian/plant%20succession%20lecture.pdf>

-- Photosynthesis – a chemical process carried on by green plants through which plants capture light energy by constructing glucose molecules, releasing oxygen as a by-product.

Source: <http://stats.oecd.org/glossary/detail.asp?ID=2060>

-- Food Web – Complex network of many interconnected food chains and feeding relationships.

-- Food Chain – Series of organisms, each eating or decomposing the preceding one. A simple example of a food chain is one in which a red-tailed hawk eats an eastern phoebe, which has eaten a great number of insects that lived in streams, which have all eaten stream algae.

Source: http://toxics.usgs.gov/definitions/food_web.html

-- Soil formation – the development of soil through the weathering of parent material, such as rocks and minerals and the decomposition of organic matter. Factors involved in soil formation are; parent material, climate, organisms, topography, and time

Source: <http://www.agronomy.lsu.edu/courses/agro2051/chapter2.pdf>

-- Energy Flow through Ecosystems

-- Pollination – transfer of a pollen grain from the anthers (male part of flower) to the stigma (female part of flower). The sticky surface of the stigma catches the pollen grain where the pollen grain germinates and produces a tube that grows down style and unites with the female cell in the ovary. Water, wind, insects, or other animals can assist in the transfer of pollen

Source: <http://extension.missouri.edu/p/G6001>

-- Seed Dispersal – the movement of a seed away from its parent plant, so both the seed and the parent plant can grow in an area with adequate water, light, nutrients, and other basic biological requirements. Seed can be dispersed by wind, water, animals, etc.

Source: <http://calscomm.cals.cornell.edu/naturalist/Naturalist-Outreach-Seed-dispersal.pdf>

-- Predator/Prey Adaptations/Defenses/Relationships

Natural History Concepts include, but are not limited to: Identification of plant and animal species and their sign, habitat and food requirements, nesting and reproductive behavior, distribution, conservation status, and usefulness to people

Appreciation of the natural heritage of a country or community includes but is not limited to: a positive attitude or

connection with nature that likely results in an individual enjoying being in nature, having a sense of curiosity about the natural environment, and some type of respect for nature and the environment. There is no learning or action requirement for natural heritage appreciation.

Rationale: An increase in the number of new and improved lessons should lead to more effective teaching and enhanced student environmental understanding.

Measurement Notes:

- 1. Sample Tools and/or Possible Methods:** Volunteers should use data collection tools to measure progress against project indicators. For this Standard Sector Indicator, a tracking sheet that collects the number of new or improved lessons developed that focus on one or more environmental themes relevant to the country will capture the needed data.
- 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 the bullet on frequency of measurement).
- 3. Activity-Level Baseline Data Collection:** Because this is an output indicator that does not measure any change, there is no need to take a baseline measurement before reporting the results of this indicator. However, Volunteers should take baseline measurements for any outcome indicators that are related to this output indicator. Refer to the project framework to review related outcome indicators.
- 4. Frequency of measurement:** An output indicator only needs to be measured once—in this case, every time the Volunteer assists in the development of a new or improved environmentally-themed lesson, they should report on it in the next VRF.
- 5. Definition of change:** Outputs do not measure any changes. However, for a lesson to be counted for this indicator, the lesson must be environmentally-themed.
- 6. Reporting:** In the case of output indicators, Volunteers only have one box to fill in on their VRF: “total # (number).”
- 7. Reporting on Disaggregated Data in the VRT:** This indicator has no disaggregation; when reporting in the VRT, Volunteers need only record total number of new or improved lessons.

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. INSTRUCTIONAL MATERIAL