

Guatemala, March 29th, 2017

REPORT II: Nature and its Ecosystems

Resume. The environmental educational program for teachers at the Guatemalan Caribbean as a key for conservation in rural areas, is a project sponsored by Rufford Foundation. Its main goal is to create replicators of knowledge in rural schools of Izabal, promoting access of environmental education to children and youth, so that they can change their attitudes and perceptions about the environment.

This document presents the results of the second workshops held in Puerto Barrios and Livingston the 27th and 28th of March. During these days, workshops using virtual presentations, participative activities, evaluations and round table discussion with educators were held.

The main results of this workshop were the increase of environmental knowledge of teachers, high satisfaction about the workshops, as well as the replication impact that teachers are having in their schools.



Figure 1. Educators learning about trophic webs, Puerto Barrios, Izabal (2017).

Workshop: Nature and its Ecosystems

The second environmental workshop in Puerto Barrios and Livingston was held. The name of the workshop was “Nature and its ecosystems”, which presented the origin and concepts of nature, habitat, ecosystems, trophic web, producers, consumers and decomposers. Furthermore, two participative dynamics were held: Trophic Web and Energy Flow through the trophic web.



Figure 2. Energy Flow Dynamic, Livingston, Izabal (2017).

The dynamic “Trophic Web” shows the organisms interaction in an ecosystem. This activity increases the participant’s critical thinking and changes the concept of food chain (linear energy flow) to the term trophic web (interconnected energy flow).

The dynamic “Energy Flow through the trophic web” shows how the energy is transferred to different organisms in a low scale example. During this activity, each educator represents an energy unit that moves around the different stairs of the trophic web (producers, consumers and decomposers).



Figure 3. Educators throwing a roll of wool that represents the trophic web, Livingston, Izabal (2017).



Figure 4. Educators playing the game of Energy Flow, Puerto Barrios, Izabal (2017).

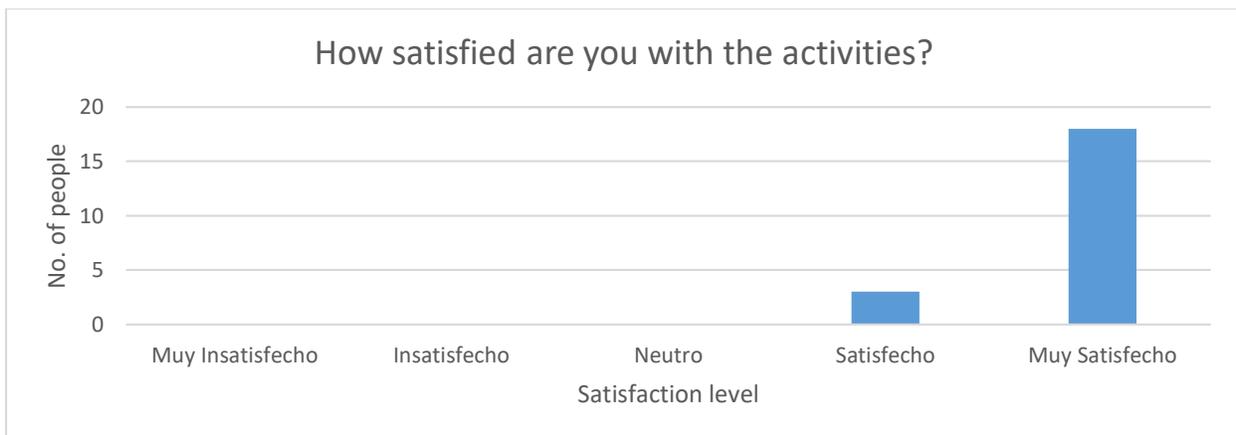
Evaluation and results.

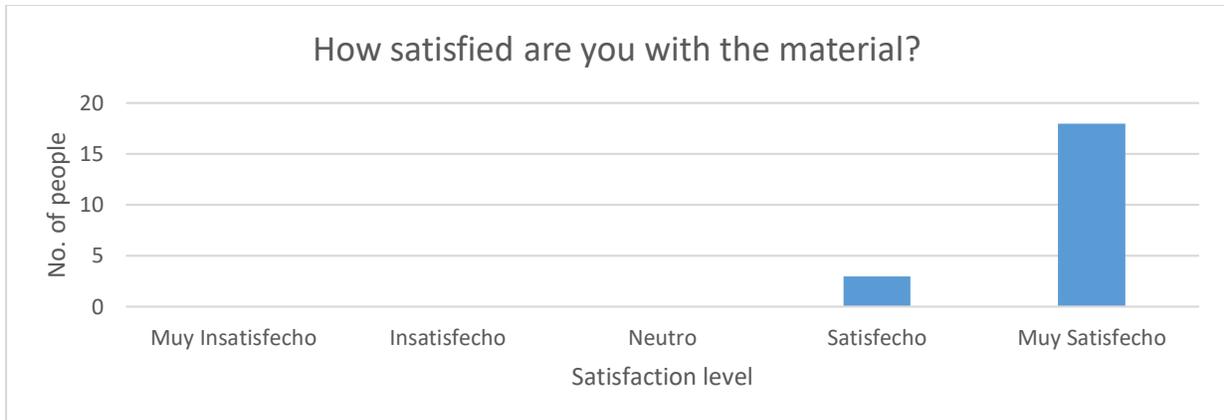
Three evaluations were conducted for this workshop: Knowledge level (pre-post), Satisfaction level and an interview of effort replication.

A total of 21 people were attended during the workshops. People from the Education Ministry (MINEDUC), the Environment Ministry (MARN), the Fisheries National Department (DIPESCA) and several educators from different schools in Puerto Barrios and Livingston participated in this workshop.

Pre-post knowledge evaluation shows an increase of environmental concepts of 71.4% (Livingston) and 69.3% (Puerto Barrios). Results are based on the number of participants with more than 80 points in their evaluations.

Satisfaction results show that participants were glad with the workshop and its activities, and they think this is a highly participative program which must be replicated in more schools and perhaps have a small education center in the region.





During the round table, replication topics were discussed. None of the teachers in Livingston have started to replicate the workshops in their schools. Nevertheless, 4 teachers in Puerto Barrios have been replicating workshops activities:

- Recycling plastic bottles. Reached audience: 83 children.
- Environmental impact activity. Reached audience: 135 young people.
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Furthermore, the Education Ministry has committed to train 95 teachers of Puerto Barrios with this workshops at the end of the program.

Teachers of Livingston assure that they will star replicating these activities next month.