

Project Harvest - Guatemala

A project of the Niagara Warehouse of Hope

Report on Year One of Five Year Plan



November
2005
to
October
2006

Guatemalan families display the results of their work to improve their lives.



Introduction

Project Harvest began in year 2000. In the first three years a group of Project Harvest field workers from Canada worked with Guatemalan partners. They gave life to a food security program that has great potential to improve the lives of rural campesino (farming) families.



Malnutrition rates are high among Guatemalan children.

The original concept of the project was to initiate a transfer of technology consisting of a sweat hose irrigation system for family size vegetable gardens during the period of the dry season. It became evident based on the experience gained in dealing with the everyday problems



Two women assemble parts of a sweat hose irrigation system during the installation process.



encountered that a more integrated development model was needed to address the crisis of a lack of food as well as a shortage of water.

Therefore, a five year plan was developed integrating the four core elements that a food

security program needs to be successful in meeting the goal of enabling project participants to become self-sufficient. The plan consists of providing participants with enough knowledge and ability to independently feed and maintain the health and well being of their families.

The four core elements are: participation and empowerment; organic, diverse and ecological practices; nutrition education; and diversifying livelihoods.

The first year of the five year plan began with assembling a small team of Guatemalan workers. Oto Bravo, an agricultural specialist, coordinates the project's work plan with agricultural promoters Isaura Manzo and Olga Tumax. There are also six

Project coordinator, Oto Bravo, stands in garden of community link, Rosario Vásquez.



people or "community links" who support the project by accompanying participants on a regular basis at the community level.

Description of the Primary Area of Work

The primary areas of work are in two different regions of the country. One is situated in the western highlands departments of Totonicapán and Sololá which have temperate to cold climates. The second area is in the eastern



Cold weather produce harvested from highland area



department of Chiquimula which is arid



Adolescents tend garden in the arid area.

and has a very hot dry climate. (Not represented here is the support work provided to other partner organizations that are using our irrigation systems.)

The project works in fifteen communities. Within these communities there are eight community organized gardens and seventy four individual family size



A family size garden enclosed with a fence.

gardens. Family size gardens range from 15 to 100 square meters. Community size gardens range from 500 to 1500 square meters. Most of the gardens began with very infertile soil conditions.

Core Elements and a Summary of Results of Year One

One: Participation and Empowerment



Agricultural promoter, Olga Tumax, holds a planning meeting.

Building on the work of the previous years, fifteen local Project Harvest groups have now been established. There are approximately one hundred and sixty seven participants each representing a family that will have an average size of five members. Over ninety percent of participants are women.

There are presently eighty two either new or established gardens. This year participants have learned to install or re-install the sweat hose irrigation system.

This includes learning how to clean and keep the irrigation hose in a safe location when not in use, as well as reinstalling it at the beginning of the next dry season.



Agricultural promoter, Isaura Manzo, teaches a project participant about plant spacing.

Six "community links" ("enlaces") were selected and are being trained. They are now working to give continuous in-the-community assistance to participants.

Two: Organic, Diverse and Ecological Practices

Soil conditions in the majority of gardens at the start of the project were very poor. Given this situation, soil conservation was a major focus this year. Teaching how to integrate



Compost and manure are used to improve garden soils.

soil conservation techniques was emphasised. Participants were taught how to compost or improve their composting techniques. Soils were improved by incorporating more organic material into them. Cow and chicken manure was distributed as two key ingredients to improve the fertility of the soil.





Planting of live barriers will help prevent soil erosion.

Soil erosion is a serious problem. To counteract it participants began to learn how to introduce plants to create live barriers as preventative measures against erosion.

Plant diversity is promoted by increasing the variety of plants grown. A large selection of seeds was sown directly into the soil and seedlings were produced in mini- nurseries. A number of these plants are indigenous to the area where the people live. They



Soil improvements have led to healthier plants.

have characteristics that make them well suited to the growing conditions. Participants are encouraged to save seeds when and where possible.

Heavy rains during the rainy season cause many seeds to be washed away before they are able to grow roots deep enough to anchor them. This year emphasis was placed on the establishment of seed nurseries. Participants in



twelve communities were taught how to construct small nurseries. They are above ground covered structures enabling seedlings to grow and be protected. When the seedlings reach an appropriate size they are transplanted

safely. The nurseries produced approximately 20,000 seedlings.



Construction and use of raised nurseries increased plant production and survival.

Recycled tires are used as large vegetable planters.



Participants have learned how to make large planters from inverted rubber tires. They are placed in underused spaces around their homes.

Sufficient water for irrigation purposes during the dry season has become more problematic due to the changes in

climate. This year water needs in the communities have been assessed. Experiments in water conservation techniques were carried out.

One was the filtration of grey water as a technique for conserving water for irrigation purposes. These filters allow water used for the washing of clothes to be filtered through rock, gravel and charcoal. It achieved only limited success due to a damaging greasy residue that was deposited on the interior walls of irrigation hoses.



Stone base is prepared for tank to collect rain water.



The capture of rain water has proven to be a better solution for water self-sufficiency. Experiments with the collecting and saving of rain water from the roofs of houses have proven to be successful. Water is deposited in five to ten thousand litre storage tanks for irrigating gardens during the dry season.



Carrying water absorbs time and energy.

The project in some communities has taught participants how to construct and use an inexpensive manual water pump to haul water. This eliminates the arduous task performed by women and children of carrying buckets of water every day hundreds of meters, to fill the barrels to irrigate the gardens in the dry season.



A manual pump made of PVC is lowered into well.

Three: Nutrition Education



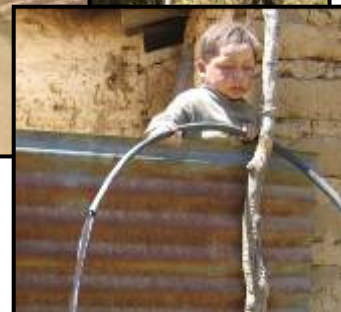
Cooking and nutrition workshops



Poor nutrition leads to poor health.

One goal of this project is not only to support participants to grow produce for their family, but also to help them understand the importance of a garden in obtaining a balanced diet. This year we have begun to teach the role of plants in maintaining good health. Using vegetables produced in the gardens, nutrition and cooking demonstrations have been given.

A pump eliminates need to carry water up hills.



Four: Diversifying Livelihoods

Families need a source of income for essential non-food items that cannot be produced in a



A woman's flowers will add to her income in Choquisis.

garden plot. This year the project began promoting the concept of producing surplus items such as vegetables and flowers to sell at market.



Carrots harvested in Puerta de la Montaña to be sold in local market.

Conclusions

Over the course of this past year all of the above mentioned work and much more not recorded here, produced significant steps toward helping the project participants to achieve a level of food security and self-sufficiency.



Participants, particularly women, are being empowered to learn and take control of an important source of their family's well being. Soil fertility is beginning to improve. The critical problem of insufficient water in the dry

season has begun to be addressed. Produce was produced for both family consumption and in a number of cases for sale in the local market.

The principle vegetables harvested in the dry season from November to April were: beets,



Woman & girl in Casa Blanca harvest beets and turnips.

radishes, onions, spinach, carrots, Swiss chard, sweet peppers, tomatoes, cucumbers, turnips, local herbs, etc.

The principle vegetables harvested in the rainy season from May to October were: cauliflower, broccoli, cabbage, cilantro, lettuce, spinach, parsley, cucumbers, celery, squashes, broad beans, cilantro, radishes, amaranth, etc.

We thank all our present donors and invite new donors to be a part of this vital work. Help us sustain and expand this project.



A harvest of coriander in the community garden of Pitahaya I