

Vegetable production through simplified hydroponic micro-gardens to enhance the livelihood of displaced Gargey community on Yap



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Introduction

Simplified hydroponics is a vegetable production method that utilizes modern day hydroponics technology adapted for areas with limited resources. This technology works on minimal inputs. Micro-gardens utilizing simplified hydroponics garden technologies are receiving increased attention in the context of small-scale horticulture in emergencies. With little or no soil and limited water and nutrients, micro-gardens can rapidly improve the availability of fresh and nutritious vegetables while providing an attractive and creative occupation requiring minimal physical efforts.

This program serves about a population of about 200 ethnic outer islanders residing at Gargey settlement in Yap State, Federated States of Micronesia. This community was displaced after a category 4 Typhoon struck the main island of Yap on April 9, 2004. Having resurrected from one of the most dreaded nightmares of natural disasters, this vulnerable population is struggling hard to adapt to the new environment. Agricultural Experiment Station of the College of Micronesia-FSM began an initiative to extend a helping hand to this displaced, hapless community by providing necessary skills to grow vegetables and earn income.

Strategy

The project strategy is based on two main ideas:

1. Capacity building of each household member to engage them in self-help projects - This strategy draws from the analogy of teaching the population *how to fish, instead of giving fish*
2. To promote family grown vegetable gardens at home, using:
 - **Motivation:** The starting point of the project is to disseminate the information about the advantages of home gardening in general
 - **Intensive training** of family members on the application of home gardening technology for the production of fresh vegetables, as well as technical follow up to sustain it as a micro-enterprise

Collaborators

Council of Tamol; Yap Small Business Development Center, Division of Agriculture, Resources and Development; Yap Interagency Nutrition Education Council; Yap Women's Association; Office of Outer Islands Affairs

Community Served

Neighboring islands community residing at Gargey settlement in Yap Island, Federated States of Micronesia



Aerial view of Yap Island



Aerial view of Gargey settlement

Evaluation component

Expected results from the projects include

- **Good compliance:** A high degree of compliance with moral commitment undertaken by the population
- **Improved family diet:** The vegetable gardens will enable the intake of broad range of excellent quality vegetables
- **Improved family income:** Micro-gardens will improve family income of the households from sales proceeds

Social aspects

- **Improved family esteem:** When participants begin to see concrete results, they develop greater self-esteem. They will feel capable of doing something productive and positive to feed themselves and their family
- **Motivating effect of hydroponics:** Besides being a clean type of plant production system, home hydroponics gardening has something special: it is a technology to arouse curiosity, it encourages innovative thinking and presents a challenge for people, and it provides leadership opportunities
- **Family ties:** Some families have little in common to talk about among their members, but there will be a shared interest in the hydroponics vegetable gardens. This factor will reduce family stress levels
- **It will foster creativity and personal ingenuity:** Once people acquired a good command of the techniques, they are able to develop their own personal inventiveness in the use of different containers and growing spaces, which in turn will nurture further motivation

Some of the low-cost hydroponics systems in use



Goal and objectives

The main goal of the project is to facilitate the production of high-quality vegetables among Gargey community on a permanent basis by providing training in simplified hydroponics garden techniques. The specific objectives are to:

1. Provide necessary training and education in micro-gardens for the production of vegetables
2. Increase the availability of fresh vegetables and thus to improve the health and quality of life of displaced families in the Gargey settlement
3. Help the families organize and operate micro farming enterprises to improve their income and living standards – ensuring their food security and income generation

Supported by:



Outreach and Assistance for Socially Disadvantaged Farmers and Ranchers (OASDFR) Program
Cooperative State Research, Education and Extension Service
United States Department of Agriculture

