



Report on - Kitchen Gardening

Project Title- Emergency Nutrition Intervention for Children Under-5, Adolescents, Pregnant and Lactating Women

Prepared by

Sumaiya Hossain
Documentation Officer
SARPV, Ukhiya Office

SARPV

Introduction

SARPV (Social Assistance & Rehabilitation for the Physically Vulnerable) had started implementing “**Emergency Nutrition Intervention for Under-5 Children, Adolescent, Pregnant and Lactating Women**” (ENICAPLAW) program funded by UNICEF to extirpate widespread malnutrition of 6-59 months Rohingya Camp children from September 2017 with eight OTPs and six BFSCs. Since the beginning, SARPV is successfully executing the program in both Ukhiya and Teknaf Upazila of Cox’s Bazar district in Kutupalong and Unchiprang camps. As a vital part of program, SARPV is planning to emphasize on kitchen gardening in the second phase which has started from November, 2018. SARPV lead the expansion of kitchen gardening to help improve lives around Rohingya camps. Kitchen gardening is simple enough to be taught to camp people for using the concept in their homes. A single kitchen garden affords enough to provide a large family with a year round supply of vegetables.

Concept of Kitchen Gardening

Kitchen Garden is a garden in which vegetables, fruits, and herbs are grown for household consumption. Kitchen gardens are developed for the purpose to cultivate maximizes harvest in the hottest and driest of weather. Low cost, low maintenance and adaptability make them a required gardening option around the houses.

The necessity of Keyhole gardens are given below-

- Easy to cultivate throughout the whole year.
- Minimum space required.
- Low costing
- All types of vegetables can be planted.
- Fresh vegetables and fruits.
- Easy to take care.
- Easy to prevent from any type of natural disasters.
- Sometimes it supports for income generation
- Ensuring food security for the family. It can be the main source to fulfill the demand of micronutrients for the family members especially mother and child.



Purpose of kitchen gardening in the program

The purpose of kitchen gardening is given below:

- Encourage the beneficiaries to cultivate vegetables in the open spaces in front of their houses.
- Food security for beneficiaries, staffs and their families.
- Fulfill the demand of all vitamins and minerals for mother, child and family members.
- To keep the environment imperturbable and green around the OTP center.
- To tackle the natural disaster.

Different approaches of “Kitchen Gardening” are followed

Three approaches of kitchen gardening has been followed by SARPV in different OTPs. Those are -

- Keyhole gardening approach
- Bottle gardening approach
- Bed gardening approach

Keyhole Gardening Approach

View of the appearances “Keyhole garden” name come from the name of birds eye. A key hole garden is a 2 meter wide circular raised garden with a keyhole-shaped indentation on one side. The indentation allows gardeners to add uncooked vegetable scraps, grey water and manure into a composting basket that sits in the center of the bed. In this way, composting materials can be added to the basket throughout the growing season to provide nutrients for the plants. The upper layer of soil is hilled up against the center basket so the soil slopes gently down from the center to the sides. Most keyhole gardens rise about one meter above the ground and have walls made of stone. The stone wall not only gives the garden its form, but helps trap moisture within the bed.



This approach has been followed in most of the OTPs of SARPV in Kutupalong and Unchiprang.

Bottle Gardening Approach

A bottle garden is a container similar to a terrarium in which plants are grown. They usually consist of a plastic or glass bottle with a narrow neck and a small opening. Plants are grown inside the bottle with little or no exposure to the outside environment and can be contained indefinitely inside the bottle if properly illuminated.



In this context, plastic bottles/recycled baskets are used as pot of tree plantation. The gap between one to another basket/pot is three/four feet. Abandoned plastic water bottles are used here. These are hanged with the fence of the OTP center.

Unchiprang OTP 1 in Camp 22 has followed this process. Geographically in Unchiprang there are very little water source. So, basket and water pot is used for reducing water loss.

Raised-bed Gardening Approach

Raised-bed gardening is a form of gardening in which the soil is enclosed in three-to-four-foot-wide (1.0–1.2 m) containment units ("beds"), which are usually made of wood, rock, or concrete and which can be of any length or shape. The soil is raised above the surrounding soil and may be enriched with compost. The vegetable plants are spaced in geometric patterns, much closer together than in conventional row gardening. The spacing is such that when the vegetables are fully grown, their leaves just barely touch each other.



In the camp context, bamboo is used for preparing the raised bed. The bamboo was cut down from middle and used to set with the fence of the OTP wall. For holding the water and soil in the bed, plastic layer is prepared. After placing the soil mixed with organic fertilizers, seeds are planted in it.

In Kutuplong OTP 5 at Camp 18, this approach is being followed.

Detailed process of Kitchen Gardening

Place selection:

At first, the place for gardening is finalized. The place should have appropriate access of sunlight.

Grounding:

Grounding of gardening is to be made of clay. In this regards, flood level of the area is taken in consideration. Grounding is done minimum one foot higher than the flood level. Grounding is generally covered with something like sack cloth to protect them from being washed of rainfall.



Making compost basket:

After grounding, a circle is made which looks like a basket, made of bamboo. The diameter of this circle is to be one-third of the total diameter of the keyhole gardening.

Gardening:

Soil is essential to be prepared properly. For the purpose, one portion of soil is mixed with two portion of compost. An entrance is prepared to reach the bamboo basket to drop the compost ingredients. The entrance is prepared in such a manner so that one can easily step inside the diameter.

Making the compost:

Compost is prepared by using organic household waste, ashes, cow dung, water etc. All the ingredients are mixed simultaneously in a basket and the basket is covered with sack and leaves to protect the compost from heavy rainfall or drought.

Plantation:

After preparing the garden, plantation is done. For the plantation, nutrient rich vegetables and fruits are considered.

Establishment of Kitchen Garden in different OTPs

OTP (Kutupalong)	Camp	Establish date
Kutuplong OTP 1	3	10.03.19
Kutuplong OTP 2	4	11.03.19
Kutuplong OTP 3	8W	06.03.19
Kutuplong OTP 4	6	05.04.19
Kutuplong OTP 5	18	10.04.19
Kutuplong OTP 6	2E	07.02.19

OTP (Unchiprang)	Camp	Establish date
Unchiprang OTP 1	22	03.04.19
Unchiprang OTP 2	22	11.04.19

Some pictures of Kitchen Gardening in different OTPs



Cultivating fruits and vegetables

Different types of nutrient rich vegetables such as cauliflower, onion, potatoes, pumpkin, tomato, bitter gourd, bottle gourd, sweet potato, lady finger, varieties of chilies, bean etc. are sowed in the gardens. Around the structure of kitchen garden, some local fruit trees are also planted.

Response of beneficiaries and staffs

The OTP staffs and beneficiaries have highly positive attitude regarding kitchen gardening. The beneficiaries willingly participated to prepare the garden and helped to collect seeds, fertilizer, Bamboo etc. In some camps, there is scarcity of water. But the beneficiaries and authority helped to mitigate the issues.

A conclusion with way forward

Kitchen gardening is helping to fulfill the nutritional needs of the people who are living in homestead. Besides that, it also helps in tackling natural disaster. In coming future, we are planning to introduce upgraded technology and disseminate knowledge to develop kitchen gardening system through coordination with the upazila agriculture office.

