Vegetable production systems intensified through agri-financing

Agricultural activities in most Asian countries are a combination of rice, livestock, poultry, vegetables, legumes and inland fishery production. These activities form a major source of livelihood throughout the world, especially for the majority of poor people living in rural areas in developing countries. In most cases, vegetables are simply grown in a small area or backyard which provides a source of income and for home consumption. In the Philippines, there is even a song that describes backyard vegetable gardening which is shared as a nursery song; the “Bahay Kubo” or “Nipa Hut” is a uniquely vegetable-related endeavor.

When vegetable production becomes a source of livelihood for rural farmers and communities, what are the necessary inputs for them to operate and continuously be productive, profitable and sustainable? These questions have been asked to rural women in Nepal and Bangladesh. The responses were common – technologies, including seeds and fertilizers, and support services, particularly provision of loans and marketing.

The Asia-Pacific Rural and Agricultural Credit Association (APRACA) based in Bangkok, Thailand is responding to this call through their network of members and partners. Nepal and Bangladesh APRACA members are committed to supporting small groups of rural villagers and providing favorable technical and financial assistance for vegetable production. Specifically, the Agricultural Development Bank Limited (ADBL) in Nepal and the Palli Karma-Sahayak Foundation (PKSF) in Bangladesh are supporting marginalized individuals and communities including rural women farmers by providing minimal funds as start-up capital. They have proven the success of this approach based on the tremendous transformation of individuals who were not initially knowledgeable about financial transactions.

Financial support is provided initially during the vegetable seedling preparation or planting to harvesting, to help develop an agricultural value chain of finance work until the produce is marketed. This is evident in ADBL and PKSF’s support which involves loan disbursal in combination with technical support such as training, extension services and facilitating adoption of improved farming technologies and practices to increase agricultural productivity and profitability for small-scale farmers.

In one case, Mr. Shrestra, a farmer from Nuwakot, Nepal availed of ADBL financial services. In February 2013, ADBL loaned NRs.1,500 (US$15) to him for the start-up operation for his 600 m² tomato production endeavor. He used the loan to purchase seeds and fertilizers, and pay farm laborers. During this cropping season, he harvested an average of 20-35 kg of fresh tomatoes weekly and sold them in the market for NRs. 25-30/kg. He harvested seven times and earned
NRs.14,500 (US$145). After subtracting all expenses, he was able to pay back his loan and saved the rest of the profit for the next cropping season.

In Bangladesh, PKSF work in coordination with partner organizations across the country is also providing the necessary technical and financial support to self-help groups (SHGs), usually made up of 15-20 members, who would like to establish a livelihood and earn a living. The PKSF assisted and coordinated SHGs that are engaged in homestead or backyard vegetable gardening, with a combination of 2-3 dairy cattle in some cases. The vegetable operation helps these women save money for their families. Through the SHGs, members are all accountable and responsible for the loan because of the group peer pressure, which ensures that the loan is paid on time.

Moreover, ADBL and PKSF always endeavor to satisfy the credit needs of the poor people in their respective localities, particularly rural women. The role of women in agricultural development, particularly in household operations is the primary concern of ADBL and PKSF. They focus on these women farmers who are willing to increase productivity, profitability and sustainability of vegetable production and marketing. As the two organizations continue to provide appropriate technologies and services and develop innovative financial practices, they prioritize vegetable production as one of their important services where women are engaged and assured with profit to improve their lives. Through these experiences, particularly with the agricultural financing practices in Nepal and Bangladesh, women are given vital support to have the responsibility to produce vegetables while addressing the nutritional requirements of their families. The ADBL and PKSF continuously provide the proper financial access to poor rural women to produce crops and other commodities for a continuous supply of food for their families. They guarantee that these women should produce enough for the market and their families so that they can venture further in agricultural value chain finance.

Source and photos:
Marlowe U. Aquino, Asia-Pacific Rural and Agricultural Credit Association, Thailand
Gardening activities secure daily vegetable supplies for typhoon-affected survivors in the Central Philippines

On 8 November 2013, Typhoon Haiyan, known as Typhoon Yolanda in the Philippines, struck the Philippines and caused catastrophic destruction in the Visayas, particularly the Leyte and eastern Samar provinces. It is the deadliest Philippine typhoon on record, killing more than 6,000 people and bringing strong winds and heavy rains that resulted in flooding, landslides, and widespread damage. About 11 million people were affected and many have been left homeless.

Six days after the devastating typhoon, the WAND (Water, Agroforestry, Nutrition and Development) Foundation sent a small motorcycle-riding team for several days from Misamis Oriental to assess the damage. WAND’s main initiatives are sanitation by installing low-cost and robust toilets and food security through vegetable gardening. “We believe that the beneficiaries can have food on their table in a very short time from vegetable gardening and can consume with the noodles and sardines that were delivered by international aid,” said Elmer Sayre, the In-House Adviser of WAND.

WAND used the donated funds from USA, German Doctors e.V. and ARD-BEH to purchase vegetable seeds in bulk from the commercial seed sector as well as from the Bureau of Plant Industry in Manila, including the seeds of okra, pechay, kangkong, bitter gourd, eggplant and winged bean. These vegetables are easy to grow, and pechay and kangkong can be harvested in 20-25 days. WAND repacked the bulk seeds into small kits with a garden manual enclosed and distributed them to the survivors. AVRDC East and Southeast Asia also sent 400 seed kits which included chili pepper, tomato, kangkong, mungbean and okra to support WAND’s gardening activities. WAND also raised vegetable seedlings in trays and provided them to the beneficiaries because some recipients liked the growing seedlings more than seeds.

Typhoon Haiyan flattened millions of coconut trees in Eastern Visayas
“Our seed and seedling distribution was done by volunteers who are typhoon survivors. We trained them and they became barefoot vegetable technicians,” said Elmer. An advantage of this approach is that they know the community very well. Vegetable gardening provided daily activities for the poor and jobless survivors and it erased their depression and hopelessness. It also provided them with daily food and they sold the surplus to their neighbors. The survivors really like this program especially because they are beginning to harvest the fruits of their efforts. So far the gardening activities have been carried out in four barrios in the Municipality of Villaba, five barrios in Ormoc City, six barrios in the Municipality of Albuera, one in Alangalang and one in Tanuaun. The total beneficiaries are 3,200 families.

The gardening activities are very successful in Leyte. The next step for WAND is to expand this initiative to Eastern Samar. “We plan to link up with additional supporters so we can grow open-pollinated vegetables and produce the seeds by ourselves for sustained distribution to farmers,” said Elmer. To this end, WAND is negotiating with several land owners to acquire the land for seed production. Vegetable supply in typhoon-affected areas presently comes from nearby areas which are not affected by the typhoon, however, the price is quite high. Therefore, they will also implement semi-commercial hydroponics gardening by using galvanized iron sheets, wood, damaged coconut trees and tarps as containers to grow vegetables and then sell the produce to the community. Vermicomposting initiatives for producing fertilizers are being introduced to the typhoon-affected areas and this will certainly help to sustain the vegetable gardening activities.

Source and photos:
Elmer Sayre, WAND (Water, Agroforestry, Nutrition and Development) Foundation, Philippines; Robert J. Holmer, East and Southeast Asia, AVRDC – The World Vegetable Center
Food Reserve Garden for Sustainable Agriculture (KRPL) program in Indonesia

An Indonesian initiative in food security has been launched through Kawasan Rumah Pangan Lestari (KRPL or Food Reserve Garden for Sustainable Agriculture) program to empower rural and urban families to build their own capacity in food self-sufficiency. The aim of the KRPL program is to improve food and nutrition security as well as increase household income.

This program initiated in 2011 by the Indonesian President states that food self-sufficiency should begin at the household level. At that time, vegetable prices had increased, especially chili prices which reached Rp. 100,000/kg (US$9). Home yard utilization would be a strategic choice to address the problem. The potential of homes as sources of food and nutrition, particularly vitamins and minerals, is tremendous. The program involves women and their families as the main actors to create food self-sufficiency by optimally utilizing their yards.

The pilot KRPL was established in March 2011 at Kayen village, Pacitan district, East Java. With support from AIAT (Assessment Institute for Agricultural Technology)-East Java, around 6,400 gardens were established across 38 districts and 100 villages through July 2013. Meanwhile, more than 200 villages involved in the KRPL program were supported by the Agricultural Extension Service. Some KRPL projects were even initiated by the communities themselves.

Utilization of yards for producing medicinal plants, food crops, livestock and fish is not only meant to meet families’ needs for food but also to increase household income. It is intended to enable households to diversify their local resource-based food crops while preserving them for the future and increasing the welfare of families and communities.

Selection of cultivated commodities is based on the food and nutrition needs of the families as well as the possibilities of region-based commercial developments. Commodities that can be cultivated in the yard include vegetables, medicinal plants and fruit crops. Each KRPL should decide on their commodities based on what can be commercially developed, and then equip the nurseries appropriately to ensure sustainability. Seed availability will determine the KRPL’s sustainability. Therefore, it is necessary to establish village nurseries in each region.
Cropping patterns, crop rotation and livestock systems should be properly formulated to meet the expected food patterns and contribute to family income. In addition, using gardening waste to make compost and independent marketing of produce by the communities are also factors contributing to the success and sustainability of KRPL.

After implementing KRPL for a year, evaluations indicated that household animal meat consumption increased but vegetable consumption decreased. In Klemunan village of Blitar district, more than 85% of harvested vegetables from food reserve gardens were sold in the markets. This indicated that the main consideration for households when determining their commodities is market demand.

Due to the vegetables produced from KRPL, the monthly household expenses (mostly from vegetables, fruits, medicinal and spice crops as well as livestock) decreased by around Rp. 88,100 (US$8). The average additional revenue per household per month was Rp. 85,500 (US$7.5), which is mainly from selling vegetables, fruits and livestock or fish. Currently, the KRPL activities are planned not only to consider the families’ interest and needs but also to develop the commodities that meet the season and market demand for commercialization.

Source: Kuntoro Boga Andri, Indonesian Agency for Agricultural Research and Development, AIAT East Java
photos: Kuntoro Boga Andri; Greg Luther, Global Technology Dissemination, AVRDC-The World Vegetable Center

Three in-country training activities will be conducted by AVRDC-The World Vegetable Center in collaboration with the Indonesia Vegetable Research Institute (IVeGRI) through SATNET Asia, a project funded by European Union to support the Indonesian government’s program on food and nutrition security.

Training 1: Improving Food and Nutrition Security through Home Gardens, 1-3 April 2014
Training 2: Postharvest Technology and Marketing Systems for Small-scale Farmers, 4-6 April 2014
Training 3: Vegetable Genebank Management and Seed Production Systems, 16-20 April 2014
Venue: IVeGRI (Balitsa) Guest house, Tangkuban Perahu, Lembang, Bandung, Indonesia