



REDUCING VIOLENCE AND GANG INVOLVEMENT THROUGH HYDROPONIC GARDENING

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FOOD SECURITY: How to design interventions that build upon local coping strategies to incentivize food security and promote resilience? In El Salvador, thousands of youth are targeted for recruitment by gang leaders. Particularly at risk are those who do not work or study; these young people are often poor, malnourished and otherwise vulnerable. This project examined how involvement in an innovative food security program promoting hydroponic crop production could help keep youth out of gangs.

BACKGROUND & OBJECTIVES

The Center on Conflict and Development partnered with the Conflict and Development Foundation, Food for the Poor, and the New Horizons for the Poor Foundation to reduce youth violence in El Salvador by engaging urban youth in hydroponic gardening.

The main objectives of the program were to:

- collect data on the inter-relationship between youth malnutrition, school desertion, and gang recruitment in the target communities;
- identify the main types of violence affecting youth in the target communities; and
- determine if participating in the semi-urban hydroponic gardening project and complementary social and cultural inclusion activities had an effect on reducing gang involvement.

Phase I of the program was conducted in 2016-2017 in seven communities in the Municipality of Delgado with high incidences of violence and gang presence: *San Antonio Las Vegas, El Despertar, Istmania, Línea Férrea, Dolores Medina, Montecarlo* and *Las Margaritas*. The program included the following components: Agriculture, Education, Health/Nutrition, and Culture. Several Salvadoran organizations provided support to this initiative.

The end goal of the program was to help reduce gang involvement and violence through a project that helped to strengthen social bonds in the community, since many youth seek in gangs the acceptance and trust not found in their families or communities.

LESSONS LEARNED

1. **Agricultural activities as a targeted intervention for youth at risk of joining gangs can be part of a holistic approach to violence prevention and reduction.**

Farming activities or nutritional programs by themselves might not reduce violence. However, in the target communities, alternative methods of food production—like hydroponic semi-urban gardens introduced by this project—reduced gang involvement.

2. **Gang recruitment in El Salvador is a topic in need of further research.**

Gang violence levels continue to soar, and gangs are increasingly seeking the recruitment of children and youth—especially those that do not study or work.

There is a need to collect current data on the circumstances under which children are recruited for gang membership. One approach to collect data on this topic is through the work of local organizations that are already conducting development programs in fragile communities.

PROGRAM ACTIVITIES

This program:

- studied the inter-relationships between youth malnutrition, school desertion, and gang recruitment in the target communities;
- identified the main types of youth violence; and
- determined that participation in semi-urban hydroponic gardening and complementary social and cultural inclusion reduced youth violence and gang activity.

HYDROPONIC GARDENS

This pilot program included the establishment and management of hydroponic gardens. It also entailed the transfer of technical knowledge by agronomists regarding plant nutrition, plant pathology, harvesting methods, and other aspects of organic vegetable production.

This program focused on producing a number of crops, including spinach, celery, lettuce, mulberry, basil, peppermint and cilantro as well as others. The hydroponic systems used in the project were provided by a local foundation and established by youth and community members with assistance from agricultural specialists. Over 5,000 seedlings were planted and hydroponic nutrient kits were provided. Vulnerable youth and their families were involved in all aspects of crop production, harvesting, and meal preparation using the hydroponic crops produced as part of the program.

PEACEBUILDING AND COMPLEMENTARY SOCIAL ACTIVITIES

In conjunction with the horticultural component of the project, peacebuilding activities were conducted to provide positive social interactions for youth and foster the sense of belonging they crave and might otherwise find in gangs. These included peacebuilding activities for youth from the project's target community such as:

- **Community Reflection Dialogues.** These dialogues emphasized the importance of values such as solidarity and social responsibility.
- **Youth Discussions.** Program coordinators met with youth to discuss topics such as self-motivation, self-esteem, teamwork, leadership, aptitude and attitude.

HYDROPONIC GARDENING

Hydroponic gardening is the process of growing plants in sand, gravel, or liquid, with added nutrients but without using soil. In hydroponic gardening systems, plants are placed in a growing medium and nutrients are provided directly to the roots. It is particularly suitable for semi-urban areas. It can be a method to prevent gang involvement by engaging youth from low-income, at risk neighborhoods in community-based activities to grow food, learn science, improve teamwork skills, and develop a sense of belonging.



Youth and their families participated in this hydroponic gardening project conducted as part of the Conflict and Development Center's Transformative Solutions program.

- **Interactive Workshops.** Over 1,000 youth participated in a series of hands-on leadership and teamwork workshops at a EcoVentura training park with support from the *Pablo Tesak Foundation for Experiential Education*.
- **Cultural Activities.** Youth participated in cultural activities such as art programs such as puppet shows that focused on family well-being.
- **Psychosocial and Other Support.** Youth also participated in the *Nuevo Amanecer* (New Awakening) program to receive psychological support, scholarships, food, and medical/dental care. Psychologists provided therapy and family counseling to 20 youths. Seminars about solidarity and holistic family development were offered, as well as talks about responsibility and effective

family relationships. Sports and musical events were conducted.

IMPACT & OUTCOMES

Data was collected through surveys and focus groups to measure the impact of this program.

The main outcome reported by Food for the Poor was that **at least 60 youth who were previously active gang members moved away from crime and developed teamwork and social skills through agriculture as a result of this program.**

In addition to this decrease in participation by youth in gang-related activities, other key outcomes included:

- The creation of organized volunteer groups. The active participation of leaders and community members was vital for program success. Leaders and families in each target community were identified to help promote and oversee program activities.
- The strengthening of social bonds in the community through agricultural and social activities that promoted positive relationships between youth and adults.
- Increased knowledge and participation in food security activities through hydroponic crop production.

- Increased social inclusion through participation in complementary cultural/educational activities.
- Improved food security and nutrition of children (obtained through weight and height measurements.)

CONCLUSION & NEXT STEPS

This program was successful in engaging youth at risk of joining gangs through teamwork, leadership, and agricultural activities.

As a result of this program, several organizations continue to collaborate with various youth development programs and new activities are being conducted, including an educational program for pregnant mothers and small children. Hydroponic gardens are producing nutritious vegetables and herbs that are being incorporated in traditional foods to increase their nutritional value. Organized family groups continue to work as volunteers in each community as well.

Building on the success of this pilot project, the program is being expanded in-country and will continue to serve the youth of El Salvador with the support of local and international organizations. ∞

Learn more at condev.org/gardens-over-gangs.



Youth participated in a series of workshops to develop leadership and inter-personal skills.