



USAID
FROM THE AMERICAN PEOPLE

**HORTICULTURE
INNOVATION LAB**

UC DAVIS
UNIVERSITY OF CALIFORNIA



Building and Scaling Safe Vegetable Value Chains SVVC Phase III – Year 1 in Review Newsletter

BUILDING AND SCALING SAFE VEGETABLE VALUE CHAINS PHASE III

DECEMBER 31, 2017

SVVC Phase III includes farmer field sites in three Battambang Province villages including ~600 farming households

The SVVC Team negotiated with leaders in three villages to establish agreements with farmers who now participate in the SVVC project, field trials, field demonstrations, and farmer field schools to examine the adaptability and adoptability of horticulture technologies including composting, CoolBot technology and Nethouses.



SVVC Team's technical support in a farming community led the community-driven design of a collection center and packinghouse, leveraging USAID funding through partnerships.

Partnering with the Cambodian government, private sector partners and a farmer cooperative, the SVVC project co-invested in a collection center and packinghouse facility that includes a retail shop and cold room powered by the Horticulture Innovation Lab technology CoolBot.





CoolBot technology being tested on farm and in markets

To determine how cold chain can be established in the horticulture sector for the first time and sustained in Cambodia long-term, the SVVC Team is testing how the cold chain, powered by CoolBot, functions at different points in the value chain.



New farmer's association established as a way to introduce new horticulture technologies into a community-led framework

Tasey Samaki Agricultural Cooperative (TSAC), established September 1 2017, is the first of multiple cooperatives planned for Battambang Province. Tasey Samaki is a cooperation including >165 farming families.

TRAINING UNIVERSITY STUDENTS COUNTRY-WIDE



Chea Sim University of Komchay Mear, Prey Veng Province

Training for 36 students and faculty focused on increasing knowledge about vegetable farming, the definition of safe and organic practices, and the advantages of integrated pest management techniques as alternatives to chemical pesticides.



Build Bright University, Phnom Penh

Field study for Professor Ly Visoth and 24 students of Agricultural Economics trained urban students about:

- History of vegetable value chains in Cambodia
- Safe vegetable production
- Comparison of vegetables produced inside and outside nethouses
- Pest management practices
- Making compost
- Marketing
- Value of farmer's experience

Undersecretary of State Visits and Commits Government Support to SVVC Project Site

Undersecretary of State, H.E. San Vanty, visited a SVVC project site and committed:

- Funding to support a retail store at the collection center / packinghouse
- Support from Cambodian government to register Tasey Samaki Agricultural Cooperative with the Battambang Provincial Department of Agriculture Forestry and Fisheries



SUCCESS STORIES



Collaboration leads to expansion of horticulture technologies and increased training opportunities for Cambodians

SVVC Phase III in Battambang Province scaled up from SVVC Phases I and II in Kandal Province and continues to expand. In the first year of SVVC Phase III, our international team of researchers has formed multiple partnerships that continue to expand field testing of horticulture technologies to even more provinces. For example, partnership with International Volunteer Youth (IVY) and University of Svay Reing has expanded field testing and dissemination of Nethouses to southeastern Cambodia.

Collaborations have also led to additional training opportunities for Cambodians. Originally, SVVC Phase III expected to offer degree-granting training to 6 individuals in Year 1; however, in the first year that number nearly doubled and 11 individuals conducted research as part of their degree in SVVC Phase III. This was possible because project leaders worked with students to garner additional funding from outside sources to support their research within SVVC Phase III. Further collaborations have led to additional training for farmers and other value chain actors as well. Originally SVVC Phase III expected to have 3 short-term in-country trainings. However, project leaders identified multiple opportunities to collaborate with other organizations and extraordinarily offered 7 times more trainings (21 total) not only for farmers and other value chain actors but also university students from other regions of Cambodia, government officers from multiple countries, and international training for SVVC Phase III staff and interns.

The SVVC Team has also been the driving force behind newly emerging cooperative agreements among the Battambang Department of Agriculture and multiple development partners to develop a packinghouse and producer's association that will cooperate with the General Department of Agriculture's Boosting Food Production programme to supply new safe vegetable markets, thereby expanding the safe vegetable value chain in Battambang Province.

It is noteworthy to point out that SVVC Phase III leveraged USAID funds to accomplish and exceed the expected Year 1 activities with the help of multiple partners. The SVVC Team highly values these relationships and acknowledges other organizations that have funded directly transportation, accommodation, meals, instructional materials, instructors, research materials, and other costs as we work together towards common goals. Together, we are having a significant impact on the horticulture sector in Cambodia.



Leveraging USAID funds to scale up use of horticulture technologies in multiple regions of Cambodia

The SVVC Team's efforts, long-standing expertise and reputation using Nethouses in Cambodia is leveraging USAID funding and spreading the use of Nethouses to multiple regions of the country.

SVVC Phase I (more information can be found at <http://horticulture.ucdavis.edu/main/3ohare.html>) was the first to introduce Nethouses and work with Cambodian farmers to understand how they can best function in Cambodia. According to Mr. Om Pet, one of the Lead Farmers in SVVC Phase I and II from Kandal Province, "[People outside our community] tried things many times, but there was never success because they introduced [their technologies] and then left. No one asked us before to do an experiment. [SVVC Phase I and II] was a success because they worked with us to do things together. Now I really trust my investment is a good alternative to pesticide. Now I make more money and my family has a better living standard."

Building on successes similar to Mr. Om Pet, SVVC Phase II continued to promote Nethouses and support private sector and producer partners to scale Nethouse technology to Battambang Province. Notably, while the SVVC Team is no longer directly active in Kandal, the previous activities of SVVC Phases I and II have been sustained within the community itself. This has caught the attention of other organizations which are now identifying farmers in Kandal Province who are unable to cover the full start-up cost. This targeted Nethouse subsidizing program is increasing the number of farmers able to enter the safe vegetable value chain established by SVVC Phases I and II.

The interest generated by the SVVC Project in Nethouse technology continues to spread. In addition to testing Nethouses in Battambang Province, SVVC Phase III recently partnered with the General Department of Agriculture (GDA) and another NGO to garner financial support and conduct additional field trials using Nethouses in Svay Reing Province.

FARMER TRAINING



Vegetable Safety and Alternative Marketing Strategies Training for farmers in Alongrun Village

To address the overusage of chemical inputs by 193 households in this village, the SVVC Team conducted a training to introduce farmers to alternative agricultural practices that can reduce chemical usage. The SVVC Team also introduced farmers to alternative marketing strategies for safe vegetables.

The SVVC Team has conducted additional trainings for 116 farmers in Battambang Province.

FAST FACTS – YEAR 1

448

Households Benefitting

21

Short-term Trainings

6

Organizational Development Assistance Partnerships

11

Degree-granting Training

Impact throughout the Region



Dissemination to other Development Partners, the private sector and farmers in regions outside the Zone of Influence

Field study tour for Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) Officers, Provincial Department of Agriculture, Angkor Green Company and farmers from Bantay Meanchey Province about vegetable production, pest management, crop production inside nethouses, marketing, and producer association development.

Additional funding to scale dissemination of nethouses to a province outside the Zone of Influence

Partnership with International Volunteer Youth (IVY) and University of Svay Reing to expand testing and dissemination of nethouses to southeastern Cambodia.

SVVC Team Introduces Horticulture Innovation Lab Technologies to Bangladesh Ministry Leaders

The SVVC Team hosted a team from the Ministry of Agriculture and the Ministry of Planning in **Bangladesh** to share information about Horticulture Innovation Lab technologies that have been successful in Cambodia. Participants learned about and discussed the potential for CoolBot technology, Nethouses and various methods of composting to be used in Bangladesh to decrease chemical usage, improve produce quality, increase shelf-life and reduce postharvest losses.



U.S. Ambassador and Cambodian Minister of Agriculture award USAID Master's Degree scholarship to SVVC Team member, Nai Rathana

Karen LeGrand and Buntong Borarin will mentor Royal University of Agriculture Master's student to conduct her thesis research as part of the SVVC project. Her research is titled: *Development of Cold-Chain to Decrease Postharvest Loss and Enhance Quality and Safety of Vegetables in Domestic Market.*



PRINCIPAL INVESTIGATORS

UC DAVIS
Karen LeGrand, Glenn Young, Cary Trexler, G. David Miller, Jim Hill

ROYAL UNIVERSITY OF AGRICULTURE
Buntong Borarin, Kong Thong, Lor Lytour

IN PARTNERSHIP WITH UNIVERSITY OF BATTAMBANG
Nguon Samnang

PROJECT STAFF AND INTERNS

ROYAL UNIVERSITY OF AGRICULTURE
Tong Socheath, Da Gnean Nak, Chhe Chinda, Yim Sophorlkun, Pon Phut, Suy Lina, Kroy Sam Ol, Doem Phearak, Vin Pengheang, Chhom Phura

UNIVERSITY OF BATTAMBANG
Nin Davuth, Bou Bunthi, Vouer Phany, Heat Heang

FOR MORE INFORMATION

Karen LeGrand klegrand@ucdavis.edu
Buntong Borarin bborarin@rua.edu.kh

BUILDING
AND
SCALING
SAFE
VEGETABLE
VALUE
CHAINS
Phase III

Members of the Safe Vegetable Value Chains in Cambodia Project Team



Lead Partner Universities

<http://ip.ucdavis.edu/countries/cambodia>

<http://www.rua.edu.kh/>

<http://ubb.edu.kh/>

This Newsletter is made possible by the generous support of the American people through the United States Agency for International Development (USAID). The contents are the responsibility of the Horticulture Innovation Lab Building and Scaling Safe Vegetable Value Chains in Cambodia project and do not necessarily reflect the views of USAID or the United States Government.